

**SURVEYOR'S STATEMENT:**

THIS MAP CORRECTLY REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECTION IN CONFORMANCE WITH THE REQUIREMENTS OF THE LAND SURVEYORS' ACT AT THE REQUEST OF THE CITY OF STOCKTON IN NOVEMBER, 2000.

DATED THIS 17<sup>th</sup> DAY OF November, 2001.

Michael R. McGee  
MICHAEL R. MCGEE, P.L.S. NO 3945  
LICENSE EXPIRATION DATE: 06/30/04

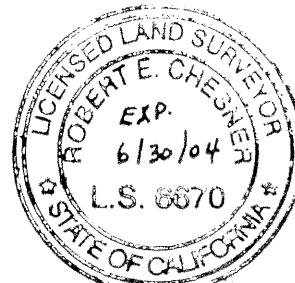


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DATED THIS 13<sup>th</sup> DAY OF NOVEMBER, 2001.

Robert E. Chesner  
ROBERT E. CHESNER, P.L.S. NO 6670  
LICENSE EXPIRATION DATE: 6/30/04

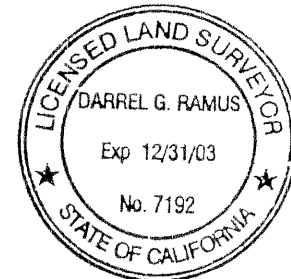


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THIS MAP CORRECTLY REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECTION IN CONFORMANCE WITH THE REQUIREMENTS OF THE LAND SURVEYORS' ACT AT THE REQUEST OF THE CITY OF STOCKTON IN NOVEMBER, 2000.

DATED THIS 9<sup>th</sup> DAY OF NOVEMBER, 2001.

Darrel G. Ramus  
DARREL G. RAMUS, P.L.S. NO 7192  
LICENSE EXPIRATION DATE: 12/31/03



**COUNTY SURVEYOR'S STATEMENT:**

THIS MAP HAS BEEN EXAMINED IN ACCORDANCE WITH SECTION 8766 OF THE LAND SURVEYORS' ACT THIS 29<sup>th</sup> DAY OF NOVEMBER, 2001.

Jeff D. Lund  
for THOMAS R. FLINN, R.C.E. 23341  
INTERIM COUNTY SURVEYOR  
REGISTRATION EXPIRATION DATE: 12-31-01



**RECORDER'S STATEMENT:**

FILED THIS 3<sup>rd</sup> DAY OF December, 2001, AT 10:22 A.M. IN BOOK 35 OF SURVEYS, AT PAGE 5, AT THE REQUEST OF THE CITY OF STOCKTON.

FEE: \$ 46.00

Gary W. Freeman BY: Jeanette A. Davis  
GARY W. FREEMAN ASSISTANT/DEPUTY RECORDER  
ASSESSOR/COUNTY RECORDER/COUNTY CLERK  
SAN JOAQUIN COUNTY, CALIFORNIA

# RECORD OF SURVEY

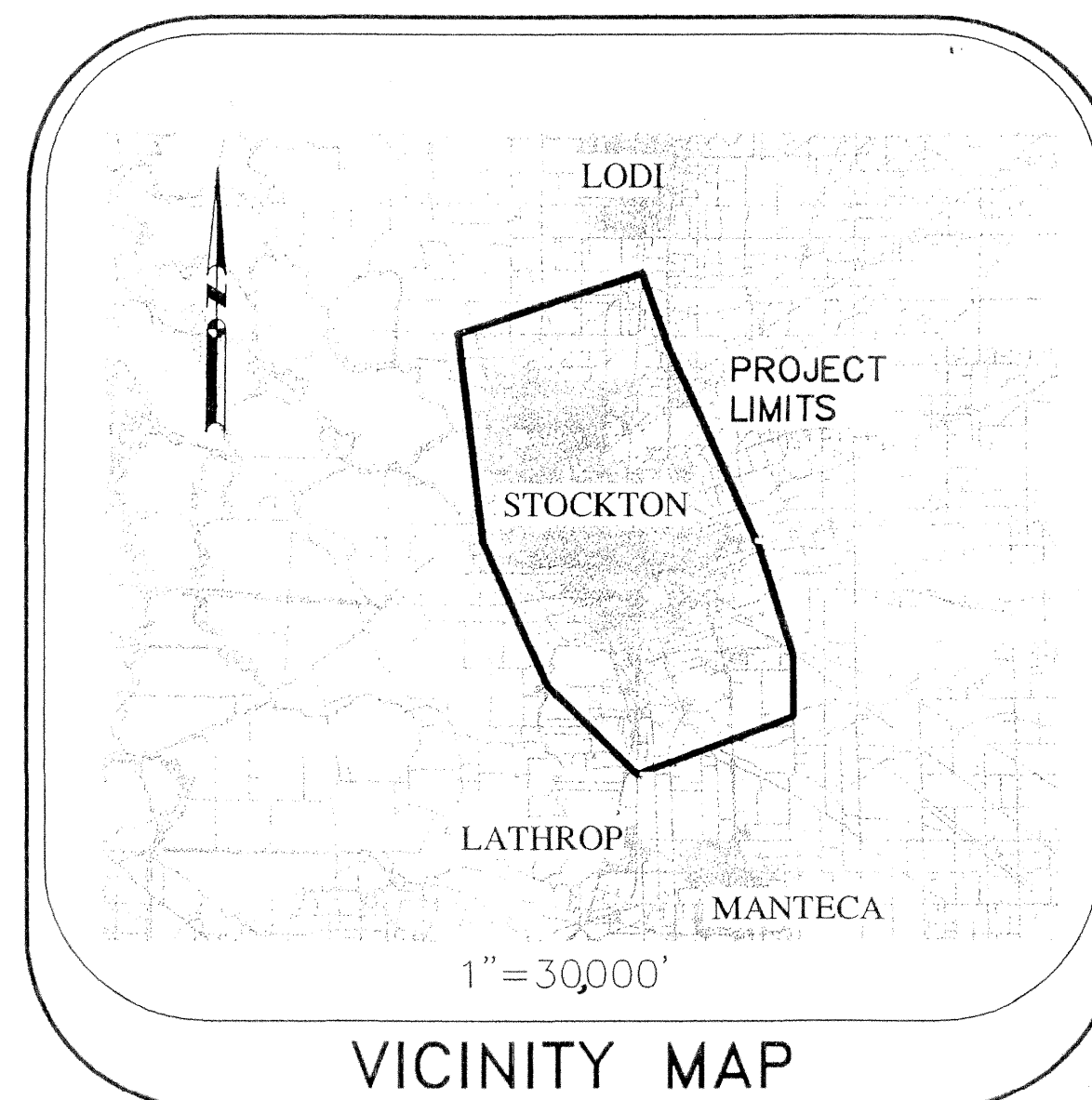
OF THE  
CITY OF STOCKTON HORIZONTAL CONTROL SYSTEM PHASE XIV  
WITHIN THE CITY OF STOCKTON AND COUNTY OF SAN JOAQUIN,  
STATE OF CALIFORNIA

LYING WITHIN THE FOLLOWING SECTIONS,  
MOUNT DIABLO BASE AND MERIDIAN AND C.M. WEBER GRANT:

TOWNSHIP	RANGE	SECTION
1 NORTH	6 EAST	4, 5, 8, 9, 15, 16, 17, 21, 22, 27, 28, 32, 33, 34
2 NORTH	5 EAST	1
2 NORTH	6 EAST	1 THRU 23, 31, 32
3 NORTH	6 EAST	31 THRU 36

C.M. WEBER GRANT:  
A THRU D, 4 THRU 14, 16 THRU 38, 40 THRU 42, 44 THRU 50, 53, 54, 56,  
58 THRU 60, 64 THRU 66, 68, 69, 75, 76, 79 & 80

PREPARED BY:  
**McGEE SURVEYING CONSULTING**  
**SANTA BARBARA, CALIFORNIA**  
**AND**  
**KJELDSSEN, SINNOCK & NEUDECK, INC.**  
**CONSULTING ENGINEERS & LAND SURVEYORS**  
**STOCKTON, CALIFORNIA**  
**MARCH, 2001**



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**GENERAL SURVEY NOTES**

**PROJECT OVERVIEW:**

THE CITY OF STOCKTON PERFORMED A FIRST ORDER CONTROL SURVEY IN DECEMBER 2000 FOR THE PURPOSE OF DENSIFYING THE 1994 CITY OF STOCKTON GPS CONTROL NETWORK (1994 COSCN). THIS SURVEY UTILIZED THE GLOBAL POSITIONING SYSTEM (GPS) FOR THE PURPOSE OF DETERMINING THE POSITIONS OF 188 POINTS BASED ON THE NORTH AMERICAN DATUM OF 1983 (NAD 83) AND THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88). THIS SURVEY EXTENDS THE 1994 COSCN TO INCLUDE NEW MONUMENTS AND EXISTING CONTROL MONUMENTS PREVIOUSLY BASED ON CONVENTIONAL SURVEY MEASUREMENTS. THE FIELD CAMPAIGN WAS PLANNED, COORDINATED AND EXECUTED BY ROBERT CHESNER, PLS 6670, CITY OF STOCKTON SURVEYOR AND DARREL RAMUS, PLS 7192, SURVEY MANAGER FOR KJELDSSEN, SINNOCK & NEUDECK, INC., IN A SHARED RESPONSIBILITY WITH MICHAEL MCGEE, PLS 3945, OF MCGEE SURVEYING CONSULTING OF SANTA BARBARA, CALIFORNIA. MICHAEL MCGEE, PLS WAS RESPONSIBLE FOR THE FINAL PROCESSING OF THE OBSERVATIONS, NETWORK ADJUSTMENTS AND GPS SURVEY REPORT ON FILE WITH THE CITY. SAID REPORT PROVIDES ADDITIONAL INFORMATION ON NAVD 88 ORTHOMETRIC HEIGHTS AND GEODAL MODELING NOT INCLUDED HEREIN.

THIS SURVEY CONFORMS TO THE INTENT OF THE FEDERAL GEODETIC CONTROL SUBCOMMITTEE (FGCS) SPECIFICATIONS FOR GPS RELATIVE POSITIONING (1988) AND THE CALIFORNIA GEODETIC CONTROL COMMITTEE (CGCC) SPECIFICATIONS FOR HIGH-PRODUCTION GPS SURVEYING TECHNIQUES (1993). BASED ON THE ABOVE ANALYSIS THE FINAL ADJUSTMENT, OVERALL, MEETS OR EXCEEDS THE REQUIREMENTS FOR A FIRST ORDER (CLASS C-1, 1:100,000) SURVEY. SEE "ACCURACY" ON PAGE 3 OF 14 FOR DETAILED DISCUSSION.

**BASIS OF BEARINGS AND COORDINATE SYSTEM:**

HORIZONTAL POSITIONS AND ELLIPSOID HEIGHTS ARE REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD 83), 1991.35 EPOCH ADJUSTMENT OF THE HIGH PRECISION GEODETIC NETWORK (HPGN) CONVERTED TO THE CALIFORNIA COORDINATE SYSTEM OF 1983, ZONE 3 (CCS83, ZONE 3) BASED ON THE 1994 COSCN AS SHOWN IN BOOK 33 OF SURVEYS AT PAGE 20, SAN JOAQUIN COUNTY RECORDS (SEE SURVEY REPORT ON FILE WITH THE CITY).

**NETWORK:**

THIS PROJECT CONSISTS OF A GENERAL NETWORK OF 188 POINTS IN AND AROUND THE CITY. A SUBSET OF 14 POINTS REFERRED TO AS THE HIGH ACCURACY PRIMARY NETWORK WAS ESTABLISHED FOR THE PURPOSE OF DETERMINING A PRECISE GEOD MODEL BASED ON GEOD 99. THIS PRIMARY NETWORK PROVIDED A FRAMEWORK THAT STRENGTHENED THE 2000 GENERAL NETWORK ADJUSTMENTS AND AIDED IN THE ANALYSIS OF THE POSITIONS OF POINTS IN THE 1994 COSCN GPS SURVEYS.



35-5A

RECORD OF SURVEY

OF THE CITY OF STOCKTON HORIZONTAL CONTROL SYSTEM PHASE XIV  
WITHIN THE CITY OF STOCKTON AND COUNTY OF SAN JOAQUIN,  
STATE OF CALIFORNIA

PREPARED BY:  
McGEE SURVEYING CONSULTING  
SANTA BARBARA, CALIFORNIA  
&  
KJELDSSEN, SINNOCK & NEUDECK, INC.  
CONSULTING ENGINEERS & LAND SURVEYORS  
STOCKTON, CALIFORNIA  
MARCH 2001

NAD\_83 POSITION (EPOCH 1997.0)  
TRANSFORMED FROM ITRF97 (EPOCH 1997.0) POSITION IN JULY 2000  
X = -2616491.161 M LATITUDE = 37 53 47.04172 N  
Y = -4307015.289 M LONGITUDE = 121 16 42.52895 W  
Z = 3896363.797 M ELLIPSOID HEIGHT = -20.151 M  
NAD\_83 VELOCITY: TRANSFORMED FROM ITRF97 VELOCITY IN JULY 2000.  
COMPUTED DIFFERENCE TO > 1998.50 > 1991.35  
VX = 0.0003 M/YR NORTHWARD = 0.0137 M/YR +0.021 -0.077  
VY = 0.0100 M/YR EASTWARD = -0.0049 M/YR -0.007 +0.028  
VZ = 0.0106 M/YR UPWARD = -0.0004 M/YR -0.001 +0.002

EPOCH	LATITUDE	LONGITUDE	ELLIPSOID HEIGHT
1998.50	37 53 47.04240	121 16 42.52927	-20.151

THE DIFFERENCE FROM THE 1998.50 POSITION LISTED ABOVE TO THE COMPUTED POSITION GENERATED IN AN ADJUSTMENT OF 51 VECTORS OVER A DIRECT DISTANCE OF 19 KILOMETERS FROM #1045 IS N 0.0, E 0.4, UP -1.4 CENTIMETERS. THIS IS EQUIVALENT TO A PRECISION RATIO OF 1:4,800,000 HORIZONTAL AND 1:1,370,000 VERTICAL.

ADJUSTMENT #98-2 FOLLOWED BY CONSTRAINING THE PRIMARY NETWORK TO #1045 = HPGN STATION "W1413" AND CNDR TO ESTABLISH GEODETIC POSITIONS, ELLIPSOID HEIGHTS AND STATE PLANE COORDINATES ON 14 POINTS ACROSS THE CITY BASED ON THE 1998.50 EPOCH AS SHOWN IN THE COORDINATE TABLES HEREIN.

THE PREMISE FOR THE ADJUSTMENTS OF THE GENERAL NETWORK ARE ADDRESSED HERE. THE CITY OF STOCKTON COMPLETED THE ORIGINAL GPS CONTROL NETWORK IN 1994 BASED ON THE NAD 83, 1991.35 EPOCH ADJUSTMENT OF THE HPGN. THE 1994 COSCN WAS PUBLISHED PRIOR TO THE TIME THE NGS PUBLISHED POSITIONS FOR HPGN DENSIFICATION STATIONS WITHIN STOCKTON. COMPARISONS LISTED PREVIOUSLY AT #1003 = "STOCKTON SW BASE" WITH THE NGS AGREE ONE CENTIMETER AT 20 KILOMETERS FROM THE ORIGINAL HPGN STATIONS AND WELL WITHIN THE ORDER OF ACCURACY FOR BOTH SURVEYS.

THE CITY IS MOVING NORTHWESTERLY ABOUT 1-2 CENTIMETERS PER YEAR RELATIVE TO THE NORTH AMERICAN PLATE. THE NGS HORIZONTAL TIME DISPLACEMENT PROGRAM (HTDP) INDICATES A DIFFERENTIAL MOVEMENT BETWEEN THE NORTH AND SOUTH END OF THE CITY (25 KILOMETERS) OF 0.7 MILLIMETERS. TAKING THE PERIOD OF TIME OF 9.5 YEARS BETWEEN THE ORIGINAL 1991.35 PUBLISHED EPOCH AND THE PRESENT SURVEY, THE ESTIMATED TOTAL DIFFERENTIAL MOVEMENT OF ABOUT 7 MILLIMETERS OR 1:4,000,000 IS NOT SIGNIFICANT.

MULTIPLE EPOCH ADJUSTMENTS OF THE NAD 83 DATUM EXIST WITHIN THE CITY AND CONSIDERATION WAS GIVEN FOR UPDATING THE EPOCH OF THE COSCN TO THE LATEST 1998.50 EPOCH. THE FOLLOWING FACTS WERE IDENTIFIED AND CONSIDERED: 1) THE CITY ESTABLISHED A FIRST ORDER CONTROL NETWORK OF OVER 100 POINTS IN 1994, 2) SURVEYS WITHIN THE CITY HAVE BEEN BASED ON THE 1994 GPS SURVEY FOR OVER 7 YEARS, 3) THE CITY'S GIS HAS BEEN POPULATED BASED ON THE 1994 NETWORK, 4) DIFFERENTIAL MOVEMENT OF THE EXISTING COSCN WITHIN THE CITY IS NOT SIGNIFICANT AS NOTED ABOVE, 5) THE 1994 SURVEY IS COMPATIBLE WITH THE NATIONAL SPATIAL REFERENCE SYSTEM AT THE ONE CENTIMETER LEVEL, 6) THE INTENT OF THIS SURVEY IS TO DENSIFY THE 1994 NETWORK AND AID IN PROVIDING LOCAL SURVEYS WITH FIRST ORDER POSITIONS ON EXISTING CONVENTIONAL CONTROL POINTS CONSISTENT WITH THE REQUIREMENTS OF THE PUBLIC RESOURCES CODE. GIVEN THE AFORESAID, THE CITY DETERMINED THE HIGHEST AND BEST USE OF THE COSCN WAS TO REMAIN ON THE 1991.35 EPOCH CONSISTENT WITH THE 1994 COSCN.

25-50

GENERAL SURVEY NOTES

BASIS OF BEARINGS AND COORDINATE SYSTEM:

HORIZONTAL POSITIONS AND ELLIPSOID HEIGHTS ARE REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD 83), 1991.35 EPOCH ADJUSTMENT OF THE HIGH PRECISION GEODETIC NETWORK (HPGN) CONVERTED TO THE CALIFORNIA COORDINATE SYSTEM OF 1983, ZONE 3 (CCS83, ZONE 3) BASED ON THE 1994 COSCN AS SHOWN IN BOOK 33 OF SURVEYS AT PAGE 20, SAN JOAQUIN COUNTY RECORDS (SEE SURVEY REPORT ON FILE WITH THE CITY). ALSO INCLUDED AS A BASIS FOR A 1998.50 EPOCH ADJUSTMENT IS THE NATIONAL GEODETIC SURVEY (NGS) HPGN STATION "W1413" = #1045 IN THIS SURVEY, AND "CNDR", A CONTINUOUSLY OPERATING REFERENCE STATION (CORS) KNOWN AS CONDOR. (SEE REPORT)

DATUM RELATIONSHIPS: GPS COORDINATES ARE THREE DIMENSIONAL CARTESIAN COORDINATES WITH THE ORIGIN 0,0,0 BEING EARTH-CENTERED AND EARTH-FIXED. THESE COORDINATES ARE CONVERTED FOR DISPLAY PURPOSES TO GEODETIC COORDINATES OF LATITUDE, LONGITUDE AND ELLIPSOID HEIGHTS. THE STATE PLANE ZONE THREE MAPPING PROJECTION WAS APPLIED TO THE GEODETIC COORDINATES DERIVED FROM THE CARTESIAN COORDINATES TO OBTAIN GRID COORDINATES.

THE FOLLOWING STATIONS ARE PUBLISHED BY THE NGS ON VARIOUS EPOCHS. THESE STATIONS ARE PUBLISHED IN THIS SURVEY BASED ON THE 1994 COSCN: POINTS 1001, 1002, 1003, 1006, 1045, 1046 AND 1047. POINT #1004 = "ELM" WAS INCLUDED IN THE 1994 COSCN BUT DESTROYED PRIOR TO THIS SURVEY. POINT #1003 KNOWN AS "STOCKTON SW BASE" IS SHOWN BELOW AS AN EXAMPLE. THIS STATION WAS ESTABLISHED BY THE NGS IN 1954 AND HAS VALID POSITIONS ON THE FOLLOWING NAD 83 EPOCHS AND NAD 27. THE POSITIONS ARE LISTED FROM THE LATEST TO THE EARLIEST WITH THE DIFFERENCES IN METERS GIVEN FORWARD IN TIME.

POINT #1003 STOCKTON SW BASE					
EPOCH	N. LATITUDE	W. LONGITUDE	EH	SOURCE	
1998.50	37 59 31.38245	121 18 39.32302	-27.13	COS 2000/GPS	
	^DIFF=	+0.018M		+0.024M	
1997.30	37 59 31.38184	121 18 39.32205	-27.14	CURRENT NGS/GPS	
	^DIFF=	+0.012M		-0.006M	
1997.30	37 59 31.38143	121 18 39.32230	-27.05	SUPERSEDED NGS/GPS	
	^DIFF=	+0.058M		+0.083M	
1991.35	37 59 31.37954	121 18 39.31888	-27.04	SUPERSEDED NGS/GPS	
	^DIFF=	-0.011M		-0.007M	
1991.35	37 59 31.37990	121 18 39.31918	-27.04	1994 COSCN/GPS	
	^DIFF=	-0.025M		+0.019M	
1991.35	37 59 31.38072	121 18 39.31839		SUPERSEDED NGS/CONVENTIONAL	
	^DIFF=	+0.29M		-0.15M	
1984.00	37 59 31.37133	121 18 39.32438		NEW NAD 83 NGS/CONVENTIONAL	
	^DIFF=	-8.5M		+92.8M	
NAD 27	37 59 31.65200	121 18 35.50700		SUPERSEDED DATUM/NGS/CONVENTIONAL	

EQUIPMENT, DATA COLLECTION & POST PROCESSING OF DATA: FOUR LEICA SYSTEM 300 AND ONE LEICA SYSTEM 9500 DUAL FREQUENCY P-CODE RECEIVERS WERE UTILIZED TO COLLECT, PROCESS AND STORE SATELLITE SIGNAL DATA. THE RECEIVERS WERE OPERATED BY CITY AND KJELDSSEN, SINNOCK & NEUDECK, INC. STAFF. TWO METER FIXED HEIGHT POLES WERE USED FOR THE FIELD OBSERVATIONS OF THE PRIMARY NETWORK AND THE GENERAL NETWORK. A CALIBRATION SURVEY WAS PERFORMED AND PROCESSED TO VALIDATE THE EQUIPMENT, PROCEDURES AND PERSONNEL.

THE NAVSTAR GPS CONSTELLATION CONSISTED OF 27 BLOCK II SATELLITES. THE P-CODE WAS ENCRYPTED AND SA WAS OFF. PHASE AND CODE ON THE L1 & L2 FREQUENCIES (C/A CODE, P-CODE ON L1 & P-CODE ON L2) WERE COLLECTED EVERY 10 SECONDS FROM 5-8 SATELLITES ABOVE 13° WITH GDOP (GEOMETRIC DILUTION OF PRECISION) GENERALLY 2-8. THE LENGTH OF THE OBSERVATION TIMES WERE 10-15 MINUTES AND 15-30 MINUTES ON THE PRIMARY NETWORK POINTS.

A TOTAL OF 188 POINTS WERE CONNECTED WITH 623 MEASURED VECTORS IN THIS SURVEY. DATA WAS PROCESSED USING THE LEICA "SKI" POST PROCESSING SOFTWARE VERSION 2.3. THE PN BASELINES WERE PROCESSED WITH A PRECISE EPHEMERIS AT A CUTOFF VERTICAL ANGLE OF 17° ABOVE THE HORIZON; BASELINES GREATER THAN FIVE KILOMETERS WERE GENERALLY COMPUTED USING AN IONOSPHERIC FREE FIXED SOLUTION. THE GENERAL NETWORK BASELINES WERE PROCESSED WITH A BROADCAST EPHEMERIS AT A CUTOFF VERTICAL ANGLE OF 15°. ANALYSIS OF PROCESSING STATISTICS AND ADJUSTMENT RESIDUALS LED TO THE REJECTION OF 24 VECTORS. THE WGS 84 VECTORS WERE CONVERTED TO NAD 83 GEODETIC COORDINATES AND ELLIPSOID HEIGHTS WITH "STARNET-PRO" VERSION 6.0 NETWORK ADJUSTMENT SOFTWARE.

A SEPARATE ADJUSTMENT OF THE PRIMARY NETWORK WAS REFERENCED TO THE 1998.50 EPOCH ADJUSTMENT OF THE HIGH PRECISION GEODETIC NETWORK (HPGN). STATIONS IN THE NSRS USED TO REFERENCE THIS SURVEY TO NAD 83, 1998.50 FOLLOW: #1045 = HPGN "W1413" LOCATED 14 KILOMETERS NORTH OF CITY CENTER AND CNDR = "CONDOR", A CONTINUOUSLY OPERATED REFERENCE STATION (CORS) LOCATED 7 KILOMETERS SOUTH OF CITY CENTER. THE POSITION OF CNDR IS PUBLISHED ON THE 1997.0 EPOCH AND WAS MOVED TO THE 1998.5 EPOCH BY APPLYING PUBLISHED VELOCITIES TO THE X, Y, Z CARTESIAN COORDINATES.

FIELD SURVEYS: OBSERVATIONS WERE TAKEN ON NOVEMBER 28-30 AND DECEMBER 3-12, 2000 BETWEEN 0700-1700 PDST (+8 HRS FOR UCT). INCLUDED IN THE SURVEY FOR PROJECT CONTROL WERE THE 57 OF THE 1994 COSCN POINTS.

THE PRIMARY NETWORK (PN) WAS HELD TO A HIGHER STANDARD WITH THE INTENT OF OBTAINING RELATIVE ELLIPSOID HEIGHT ACCURACIES OF LESS THAN 3 CENTIMETERS. PN POINTS WERE OCCUPIED 3-4 TIMES FOR 20+ MINUTES ON AVERAGE WHERE THE GENERAL NETWORK WAS OCCUPIED TWICE FOR 12+ MINUTES ON AVERAGE. THE PRIMARY NETWORK OF 14 POINTS WAS OCCUPIED WHEN THE IONOSPHERE WAS FAIRLY INACTIVE AS INDICATED BY THE PLANETARY K FACTOR. A BASE RECEIVER WAS SET ON #160 WHILE THREE ROVING RECEIVERS OCCUPIED #1003 AND ALL POINTS NORTH. THE BASE WAS MOVED TO #1008 WHILE #26 AND ALL POINTS SOUTH WERE OCCUPIED. THE BASE WAS THEN MOVED TO #199 WHILE #26 AND ALL POINTS SOUTH WERE OCCUPIED. FINALLY, THE BASE WAS MOVED TO #436 WHILE #1003 AND ALL POINTS NORTH WERE OCCUPIED. A TANDEM OPERATION OF FOUR RECEIVERS WAS RUN FROM #1045 ON THE NORTH TO #1043 ON THE SOUTH IN THREE SESSIONS ON A SEPARATE DAY. ADDITIONAL OCCUPATIONS WERE MADE OVER THE COURSE OF THE SURVEY WHERE UNACCEPTABLE RESIDUALS WERE EXPERIENCED. ALL POINTS IN THE PRIMARY NETWORK WERE OCCUPIED THREE TO FOUR OR MORE TIMES AT DIFFERENT HOURS OF THE DAY ON DIFFERENT DAYS OVER A WEEK'S PERIOD.

THE GENERAL NETWORK WAS SURVEYED IN TWO PHASES. A BASE RECEIVER WAS SET UP ON DIFFERENT DAYS AT #10, #436, #1006 AND #340 WHILE FOUR TO FIVE ROVING RECEIVERS OCCUPIED POINTS WITHIN 6 KILOMETERS COMPLETING A SINGLE OCCUPATION OF ALL POINTS. IN THE SECOND PHASE, A TANDEM OPERATION OF FOUR TO FIVE RECEIVERS WAS RUN IN SESSIONS CONNECTING THE NEAREST POINTS TO 1994 COSCN POINTS. ALL POINTS WERE OCCUPIED AT LEAST TWICE AT DIFFERENT HOURS OF THE DAY ON A DIFFERENT DAY. ADJUSTMENTS: TWELVE ADJUSTMENTS ARE DISCUSSED IN THE GPS SURVEY REPORT ON FILE WITH THE CITY. THOSE ADJUSTMENTS PERTINENT TO THE DEVELOPMENT OF COORDINATES PUBLISHED ON THIS RECORD OF SURVEY ARE DISCUSSED BELOW:

THE PRIMARY NETWORK (PN) WAS ANALYZED AND CONSTRAINED IN SEVERAL SUPPLEMENTARY ADJUSTMENTS FOR THE PURPOSE OF DEVELOPING A PRECISE GEOID MODEL AND DEVELOPING NAD 83, 1998.5 EPOCH POSITIONS. A MINIMALLY CONSTRAINED ADJUSTMENT #11 OF THE (PN) FIXED POINT #26 AT ITS ORIGINAL 1994 COSCN POSITION. VECTOR CONNECTIONS TO CORS STATION CNDR WERE REMOVED TO ANALYZE AND VALIDATE THE INTEGRITY OF THE MEASUREMENTS OBTAINED WITH LIKE ANTENNAS IN THIS SURVEY. A MINIMALLY CONSTRAINED ADJUSTMENT #12 OF THE PN WAS PROCESSED AFTER SETTING FREE SEVEN VECTORS WITH VERTICAL RESIDUALS GREATER THAN THREE CENTIMETERS IDENTIFIED IN ADJUSTMENT #11. AS A RESULT, THE RESIDUALS AVERAGE 0.6 CENTIMETERS 2D HORIZONTAL AND 0.1 CENTIMETERS IN HEIGHT WITH A MAXIMUM OF 3.2 CENTIMETERS AND 2.9 CENTIMETERS, RESPECTIVELY. THE VECTORS VARY FROM 1237 TO 13,279 METERS IN LENGTH AND AVERAGE 5939 METERS. DIFFERENCE FROM THE RECORD TO CALCULATED POSITIONS FOR 8 OF THE 14 PN POINTS THAT WERE PART OF THE 1994 COSCN ARE LISTED AS FOLLOWS:

COORDINATE CHANGES FROM RECORD 1994 TO COMPUTED (METERS)

STATION	DN	DE	DZ(EH)
10	-0.003	0.003	-0.016
26	0.000	0.000	0.000 FIXED
160	-0.003	0.015	0.000
291	-0.032	0.002	-0.045
340	0.000	0.007	-0.000
341	0.010	0.013	-0.051
1003	-0.000	0.009	-0.014
1008	0.008	-0.004	-0.015

PARTS OF THE CITY OF STOCKTON ARE KNOWN TO BE IN SUBSIDENCE ACCORDING TO THE CITY SURVEYOR. POINT #26 LIES IN AN AREA THAT WAS CONSIDERED LEAST LIKELY TO HAVE EXPERIENCED SUBSIDENCE AND THEREFORE HELD FIXED IN THESE ADJUSTMENTS. THE CHANGES IN THE ELLIPSOID HEIGHTS BETWEEN THE 1994 AND 2000 SURVEYS ARE 0 TO 5 CENTIMETERS LOWER, AVERAGING 2 CENTIMETERS.

IN ADJUSTMENT #98-1 THE NETWORK WAS MINIMALLY CONSTRAINED TO #1045 = HPGN STATION "W1413" (NORTH OF THE CITY) ON NAD 83, 1998.50 EPOCH TO VERIFY THE POSITION OF CNDR = CORS STATION CONDOR (SOUTH OF THE CITY). THE POSITION OF CNDR IS PUBLISHED BY THE NGS ON THE 1997.00 EPOCH LISTED BELOW. THE PUBLISHED NAD 83 VELOCITIES, COMPUTED IN JULY 2000, WERE APPLIED AS SHOWN TO DETERMINE CNDR'S EQUIVALENT POSITION AT THE 1998.50 EPOCH AND THE 1991.35 EPOCH.

WHEREVER THE 1994 POINTS WERE ACCEPTABLE THOSE POSITIONS WOULD BE HELD IN THE FOLLOWING ADJUSTMENTS OF THE GENERAL NETWORK; HOWEVER, IN THAT MUCH OF THE CITY IS CONSIDERED TO BE IN SUBSIDENCE IT WAS DECIDED TO FIX POINT #26 AT THE RECORD 1994 COSCN ELLIPSOID HEIGHT AND PERFORM A FREE VERTICAL ADJUSTMENT.

A MINIMALLY CONSTRAINED ADJUSTMENT #A11 (ALL VECTORS) OF THE GENERAL NETWORK FIXED POINT #26 AT THE ORIGINAL 1994 COSCN POSITION TO VALIDATE THE INTEGRITY OF THE MEASUREMENTS. A MINIMALLY CONSTRAINED ADJUSTMENT #A12 WAS PROCESSED AFTER SETTING FREE VECTORS WITH UNACCEPTABLY LARGE RESIDUALS IDENTIFIED IN ADJUSTMENT #A11. SEE THE APPENDIX FOR A FULL LIST OF THE VECTORS. AS A RESULT THE RESIDUALS AVERAGE 0.5 CENTIMETERS 2D HORIZONTAL AND 0.0 CENTIMETERS IN HEIGHT WITH A STANDARD DEVIATION OF 0.4 CENTIMETERS 2D HORIZONTAL AND 0.9 CENTIMETERS IN HEIGHT AND A MAXIMUM OF 3.3 CENTIMETERS IN 2D HORIZONTAL AND 3.5 CENTIMETERS IN HEIGHT. VECTORS AVERAGE 2578 METERS WITH A MAXIMUM LENGTH OF 13,279 METERS. (SEE #A12 FOR A TABLE LISTING OF THE N, E AND UP RESIDUALS)

INCLUDED IN THIS SURVEY ARE 57 POINTS FROM THE 1994 COSCN SURVEY. AFTER REMOVAL OF DISTURBED, RESET OR SINGLE OCCUPIED POINTS THE AVERAGE DIFFERENCE FROM THE 1994 COSCN RECORD TO CALCULATED POSITIONS IN METERS ARE LISTED AS FOLLOWS.

AVERAGE	0.002	0.005	-0.021
STD DEVIATION	0.008	0.008	0.024
MINIMUM	-0.014	-0.016	-0.065
MAXIMUM	0.015	0.020	0.027

ADJUSTMENT #A21 FOLLOWED BY CONSTRAINING THE GENERAL NETWORK TO 44 OF THE 1994 COSCN POINTS TO ESTABLISH GEODETIC POSITIONS, ELLIPSOID HEIGHTS AND STATE PLANE COORDINATES BASED ON THE 1991.35 EPOCH AS SHOWN ON THE ATTACHED COORDINATE LISTS. THE FOLLOWING TABLE LISTS THE DIFFERENCES FROM RECORD 1994 COSCN TO THE FINAL READJUSTED POSITIONS FOR DISTURBED OR MOVED 1994 POINTS.

POINT	DN	DE	DZ (EH)
193	-0.006	0.022	0.176
258	-0.000	0.006	-0.136
290	-0.016	0.001	-0.045
291	-0.035	-0.007	-0.060
300	-0.011	-0.016	-0.060
301	-0.015	-0.016	-0.072
316	0.000	-0.019	0.229
317	-0.015	-0.007	0.243
326	0.021	0.006	-0.019
1002	-0.018	0.010	-0.020

ACCURACY: A SURVEYS CLASSIFICATION IS DEFINED IN THE FEDERAL GEODETIC CONTROL SUBCOMMITTEE (FGCS) SPECIFICATIONS FOR GPS RELATIVE POSITIONING DATED 5/11/1988. TO BE CLASSIFIED AS MEETING A CERTAIN ORDER OF SURVEY, THE CONNECTING LINES BETWEEN STATIONS IN THE SURVEY MUST NOT EXCEED AN EXPECTED ERROR AT THE 95% LEVEL OF CONFIDENCE OF NOT GREATER THAN A COMBINATION OF A BASE ERROR (E) PLUS THE PRECISION RATIO MULTIPLIED TIMES THE LINES LENGTH (D). THE EQUIVALENT LINEAR ONE-STANDARD DEVIATION IS GIVEN AS  $S = \sqrt{E^2 + D^2} / 1.96$ . FOR "FIRST-ORDER" (1:100,000) THE BASE ERROR IS 1 CENTIMETER.

THE STANDARD DEVIATIONS (68% LEVEL OF CONFIDENCE) OF THE HORIZONTAL COORDINATES DERIVED FROM MEASUREMENTS IN THE GENERAL ADJUSTMENT RESULTING FROM ADJUSTMENT #A21 AVERAGE 0.3 CENTIMETERS IN LATITUDE, 0.3 CENTIMETERS IN LONGITUDE AND 0.9 CENTIMETERS IN HEIGHT WITH A MAXIMUM OF 1.4 CENTIMETERS IN LATITUDE, 0.8 CENTIMETERS IN LONGITUDE AND 2.9 CENTIMETERS IN HEIGHT. BASELINE (VECTOR) PRECISIONS AT THE 95% LEVEL OF CONFIDENCE (2 SIGMA) VARY FROM LESS THAN 1 PPM TO 460 PPM FOR A SHORT 15 METER LINE AND AVERAGE 5.9 PPM FOR THE 576 VECTORS IN THIS SURVEY AVERAGING 2600 METERS IN LENGTH. THE RELATIVE DISTANCE ERRORS AT THE 95% LEVEL OF CONFIDENCE IN THIS NETWORK AVERAGE 0.7 CENTIMETERS WITH A MAXIMUM OF 2.7 CENTIMETERS FOR MEASURED VECTORS. A FIRST ORDER (C-1) SURVEY PER THE FGCS REQUIREMENTS WOULD ALLOW ONE CENTIMETER+10 PPM OF A LINE'S LENGTH AT THE 95% LEVEL OF CONFIDENCE. THIS IS EQUIVALENT TO 1.4 CENTIMETERS FOR A 1000 METER LINE. SEE ADJUSTMENTS FOR STATION STANDARD DEVIATIONS, STATION ERROR ELLIPSES AND THE RELATIVE DISTANCE ERROR ESTIMATES FOR VECTORS AT THE 95% LEVEL OF CONFIDENCE.

IN THE PRIMARY NETWORK THE STANDARD DEVIATIONS (68% LEVEL OF CONFIDENCE) OF THE HORIZONTAL COORDINATES DERIVED FROM ADJUSTMENT #98-2 AVERAGE 0.3 CENTIMETERS IN LATITUDE, 0.2 CENTIMETERS IN LONGITUDE AND 0.5 CENTIMETERS IN HEIGHT WITH A MAXIMUM OF 0.4 CENTIMETERS IN LATITUDE, 0.3 CENTIMETERS IN LONGITUDE AND 0.7 CENTIMETERS IN HEIGHT. BASELINE (VECTOR) PRECISIONS AT THE 95% LEVEL OF CONFIDENCE (2 SIGMA) VARY FROM LESS THAN 0.5 PPM TO 5.1 PPM AND AVERAGE 1.3 PPM FOR 40 MEASURED CONNECTIONS VARYING BETWEEN 1237 AND 13,279 METERS AND AVERAGING 5940 METERS IN LENGTH. THE RELATIVE DISTANCE ERRORS AT THE 95% LEVEL OF CONFIDENCE IN THIS NETWORK AVERAGE 0.6 CENTIMETERS WITH A MAXIMUM OF 0.9 CENTIMETERS. A FIRST ORDER (C-1) SURVEY PER THE FGCS REQUIREMENTS WOULD ALLOW 1.6 CENTIMETERS FOR THE MINIMUM LENGTH LINE IN THE PN AT THE 95% LEVEL OF CONFIDENCE.

THE RESIDUALS AND CLOSURES BETWEEN KNOWN CONTROL POINTS DISCUSSED IN THE ABOVE ADJUSTMENTS ARE GOOD INDICATIONS OF THE ACCURACIES OBTAINED BY THIS SURVEY AT UNOBSTRUCTED SITES. THE ACTUAL RESIDUALS LISTED IN THE RESIDUAL SUMMARIES ARE INDICATIVE OF INDIVIDUAL POINT ACCURACIES. LOOP CLOSURES WERE COMPUTED FOR THE PRIMARY NETWORK OF 14 POINTS WHICH EXCEEDED 1:1,000,000 ON THE AVERAGE AND NOT LESS THAN 1:800,000.

NOTE:  
FOR DETAILED MONUMENT LOCATIONS, DESCRIPTIONS, AND SWING TIES FOR MONUMENTS ESTABLISHED FOR PHASES I-XIII AND SHOWN ON THIS SURVEY, REFER TO THE CITY OF STOCKTON BENCHMARK BOOK AND THE FOLLOWING FILED MAPS:

PHASE	RECORD OF SURVEY BOOK AND PAGE, SAN JOAQUIN COUNTY RECORDS
I	28-58
II	28-119
III	28-138
IV	28-180
V	29-8
VI	29-34
VII	29-61
VIII	29-168
IX	30-17
X	32-49
XI	32-96
XII	33-20
XIII	33-20

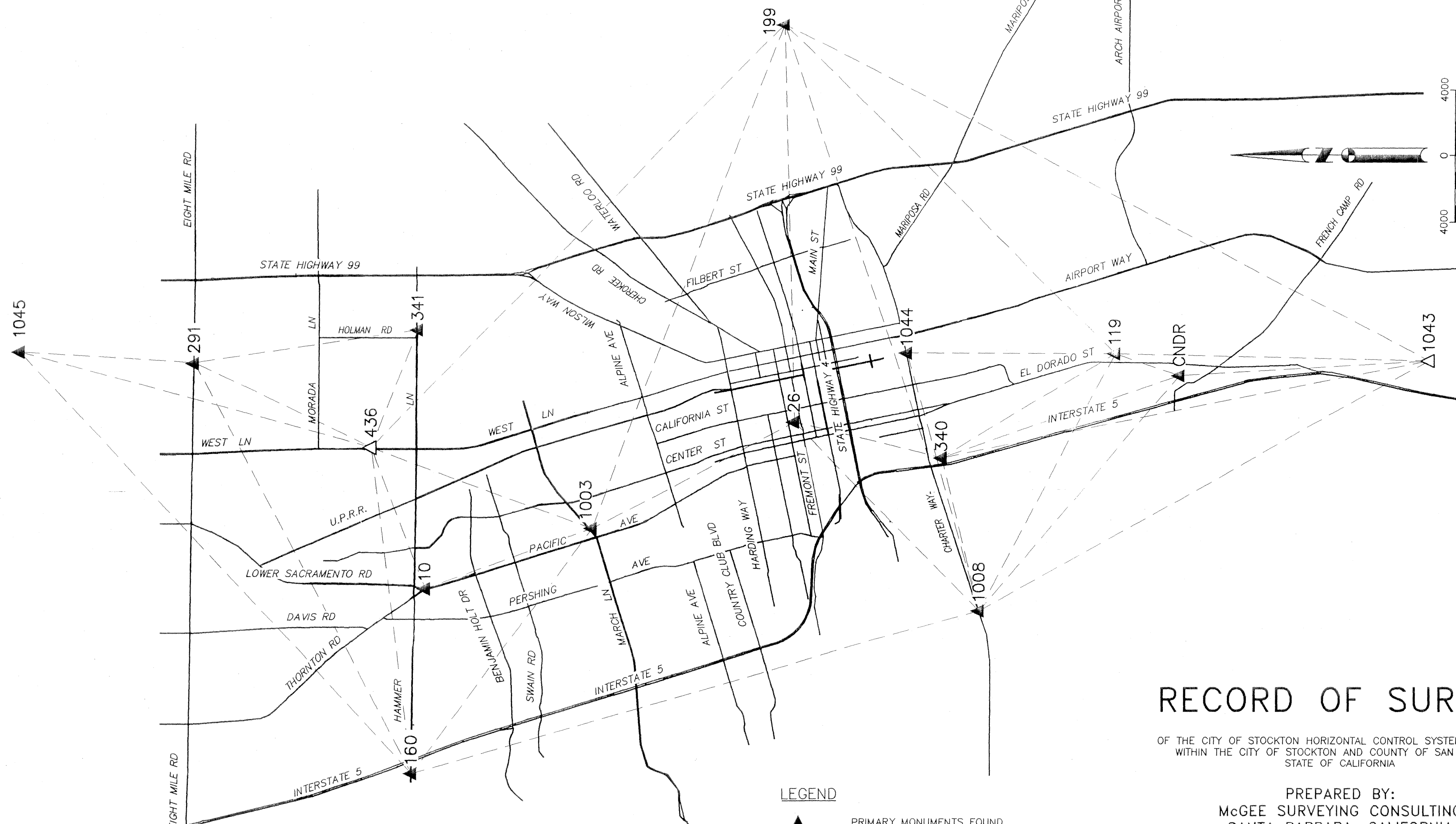
# RECORD OF SURVEY

OF THE CITY OF STOCKTON HORIZONTAL CONTROL SYSTEM PHASE XIV  
WITHIN THE CITY OF STOCKTON AND COUNTY OF SAN JOAQUIN,  
STATE OF CALIFORNIA

PREPARED BY:  
McGEE SURVEYING CONSULTING  
SANTA BARBARA, CALIFORNIA  
&  
KJELDSSEN, SINNOCK & NEUDECK, INC.  
CONSULTING ENGINEERS & LAND SURVEYORS  
STOCKTON, CALIFORNIA  
MARCH 2001



35-5c



1" = 4000'  
PRIMARY CONTROL NETWORK

# RECORD OF SURVEY

OF THE CITY OF STOCKTON HORIZONTAL CONTROL SYSTEM PHASE XIV  
WITHIN THE CITY OF STOCKTON AND COUNTY OF SAN JOAQUIN,  
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STOCKTON, CALIFORNIA  
MARCH 2001

## LEGEND

- ▲ PRIMARY MONUMENTS FOUND
- △ PRIMARY MONUMENTS - SET AS NOTED
- SECONDARY MONUMENTS FOUND
- SECONDARY MONUMENTS - SET 2-1/2 INCH BRASS CAP STAMPED "CITY OF STOCKTON SURVEY MONUMENT LS 6670" IN CONCRETE PILLAR IN CAST IRON MONUMENT BOX UNLESS NOTED OTHERWISE.
- GPS MEASURED PRIMARY BASELINES
- GPS MEASURED SECONDARY BASELINES

35-5c

35-5D

# RECORD OF SURVEY

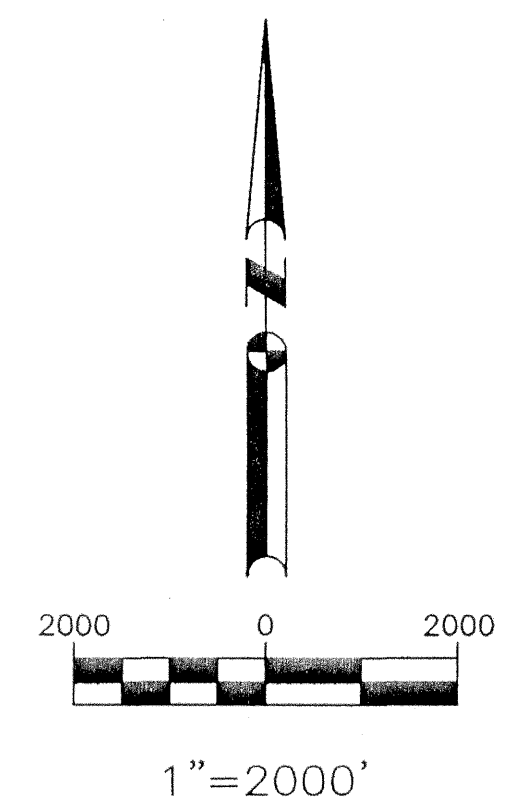
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WITHIN THE CITY OF STOCKTON AND COUNTY OF SAN JOAQUIN,  
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STOCKTON, CALIFORNIA  
MARCH 2001

## LEGEND

- ▲ PRIMARY MONUMENTS FOUND
- △ PRIMARY MONUMENTS - SET AS NOTED
- SECONDARY MONUMENTS FOUND
- SECONDARY MONUMENTS - SET 2-1/2 INCH BRASS CAP STAMPED "CITY OF STOCKTON SURVEY MONUMENT LS 6670" IN CONCRETE PILLAR IN CAST IRON MONUMENT BOX UNLESS NOTED OTHERWISE.
- GPS MEASURED PRIMARY BASELINES
- - - GPS MEASURED SECONDARY BASELINES

SECONDARY CONTROL NETWORK  
NORTH STOCKTON REGION



35-5D

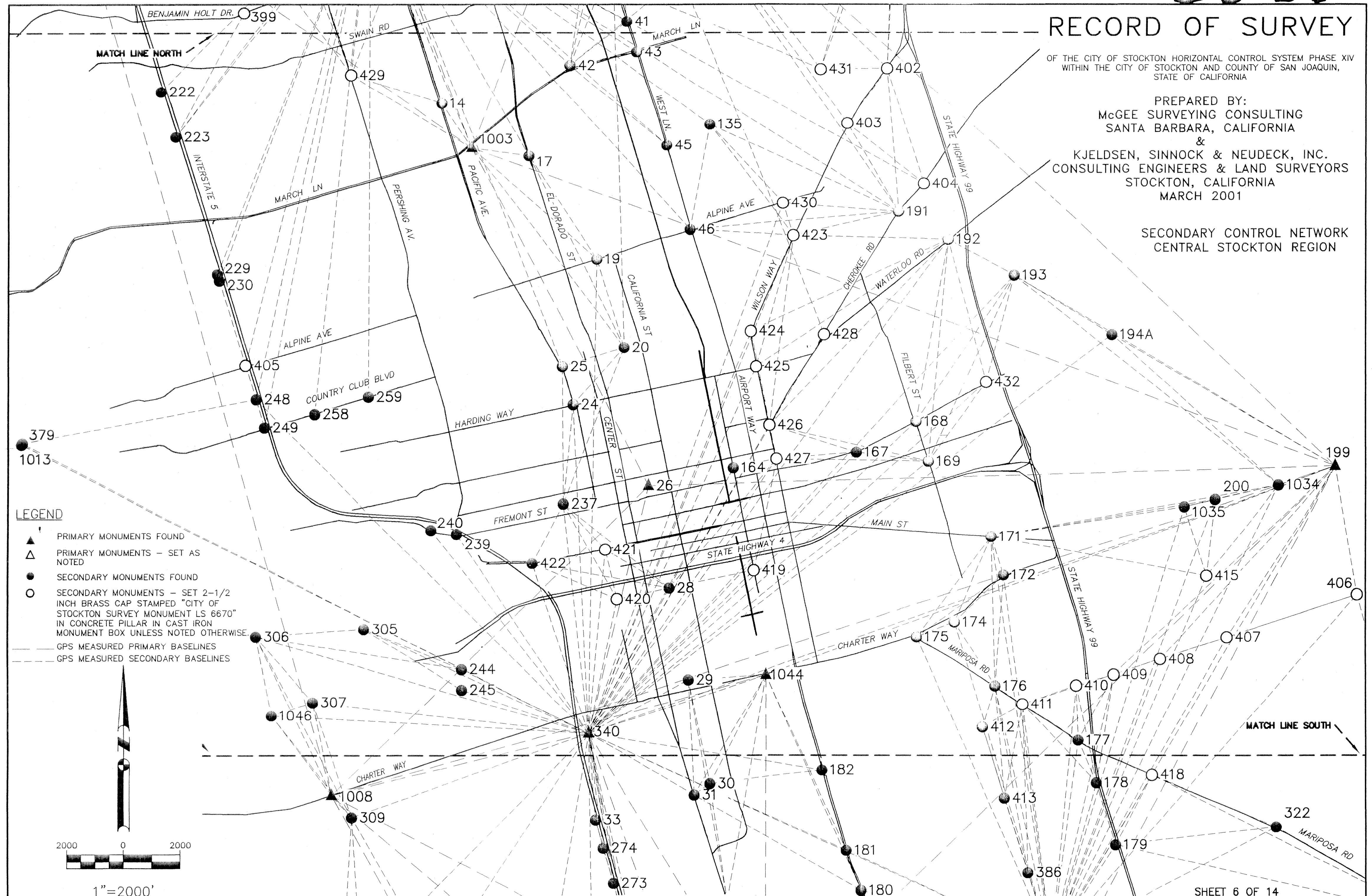
35-5E

# RECORD OF SURVEY

OF THE CITY OF STOCKTON HORIZONTAL CONTROL SYSTEM PHASE XIV  
WITHIN THE CITY OF STOCKTON AND COUNTY OF SAN JOAQUIN,  
STATE OF CALIFORNIA

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MARCH 2001

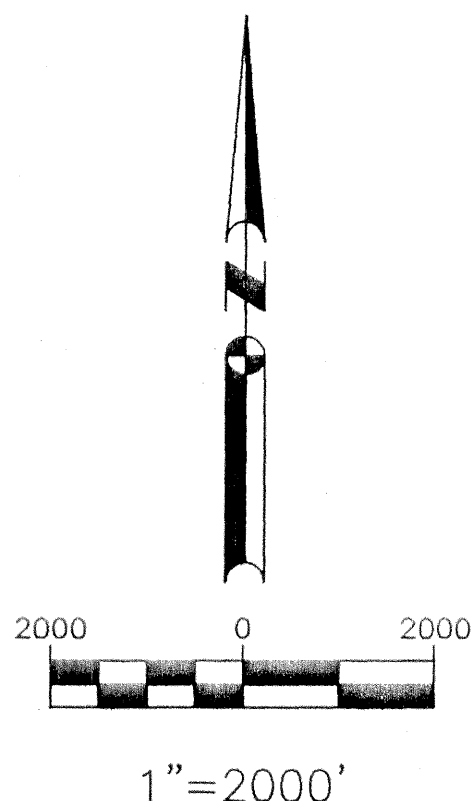
SECONDARY CONTROL NETWORK  
CENTRAL STOCKTON REGION



35-5E



35-5E



35-56

CITY OF STOCKTON 2001 GPS CONTROL SURVEYS  
GEODETIC POSITIONS & STATE PLN COORDINATES  
NAD 83, 1991.35 EPOCH

RECORD OF SURVEY

OF  
THE CITY OF STOCKTON HORIZONTAL CONTROL SYSTEM PHASE XIV  
WITHIN THE CITY OF STOCKTON AND COUNTY OF SAN JOAQUIN, STATE  
OF CALIFORNIA

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STOCKTON, CALIFORNIA MARCH 2001

POINT NUMBER	NORTHING (Y) Sft.	EASTING (X) Sft.	DESCRIPTION	NORTH LATITUDE	WEST LONGITUDE	ELLIPSOID Ht. METRIC.	NORTHING (Y) METRIC	EASTING (X) METRIC	CONVERGENCE ANGLE	GRID SCALE	ELEVATION SCALE	COMBINED SCALE
4	2208611.87	6321717.37	SAN JOAQUIN COUNTY BRASS DISK IN MONUMENT BOX MARKING THE NE CORNER OF SECTION 5, TOWNSHIP 2 NORTH, RANGE 6 EAST COS MONUMENT NO. 1N-10, 8-MILE AND DAVIS RDS. ERM 277.	38-03-27.19062	121-20-00.21811	-25.45	673186.243	1926863.308	-0-30-36.83	0.99994344	1.00000399	0.99994744
5	2205854.97	6321912.06	SAN JOAQUIN COUNTY BRASS DISK IN MONUMENT BOX MARKING THE EAST ONE-QUARTER (1/4) CORNER OF SECTION 5, TOWNSHIP 2 NORTH, RANGE 6 EAST, COS MONUMENT NO. 1N-9, DAVIS RD.	38-02-59.95361	121-19-57.47722	-25.96	672345.940	1926922.650	-0-30-35.15	0.99994275	1.00000407	0.99994682
7	2200586.22	6322095.41	SAN JOAQUIN COUNTY BRASS DISK IN MONUMENT BOX MARKING THE EAST 1/4 CORNER OF SECTION 8, TOWNSHIP 2 NORTH, RANGE 6 EAST, COS MONUMENT NO. 1N-7, DAVIS AND WAGNER HEIGHTS RDS. ERM 275.	38-02-07.88362	121-19-54.59955	-26.64	670740.021	1926978.536	-0-30-33.39	0.99994147	1.00000418	0.99994565
8	2197948.98	6322088.42	SAN JOAQUIN COUNTY BRASS DISK IN MONUMENT BOX MARKING THE EAST ONE-QUARTER (1/4) CORNER OF SECTION 8, TOWNSHIP 2 NORTH, RANGE 6 EAST, COS MONUMENT NO. 1N-6, THORNTON AND DAVIS RDS.	38-01-41.81158	121-19-54.39400	-26.46	669936.188	1926976.404	-0-30-33.26	0.99994085	1.00000415	0.99994500
10	2194646.82	6324400.86	BRASS DISK MARKING COS MONUMENT STAMPED "1N-5" IN MONUMENT BOX IN TRAFFIC ISLAND AT THE INTERSECTION OF THORNTON RD AND RIVARA RD.	38-01-09.36894	121-19-25.12995	-26.97	668929.688	1927681.238	-0-30-15.35	0.99994010	1.00000423	0.99994433
12	2191662.23	6325288.23	BRASS DISK MARKING COS MONUMENT STAMPED "1N-4" IN MONUMENT BOX ON THE EAST SIDE OF PACIFIC AVE AT THE APPROX CENTERLINE OF BENJAMIN HOLT DR.	38-00-39.94057	121-19-13.71399	-27.53	668019.983	1927951.709	-0-30-08.36	0.99993945	1.00000432	0.99994377
14	2186374.16	6326924.76	BRASS DISK MARKING COS MONUMENT STAMPED "1N-2" IN MONUMENT BOX ON THE EAST SIDE OF PACIFIC AVE AT THE APPROX CENTERLINE OF YOKUTS RD.	37-59-47.80427	121-18-52.69029	-27.76	666408.176	1928450.523	-0-29-55.49	0.99993833	1.00000436	0.99994269
17	2184411.16	6330010.80	BRASS DISK MARKING COS MONUMENT STAMPED "1S-2" IN THE CENTER ISLAND OF EL DORADO ST BRIDGE OVER THE CALAVERAS RIVER.	37-59-28.66190	121-18-13.92677	-21.84	665809.853	1929391.152	-0-29-31.75	0.99993794	1.00000343	0.99994137
19	2180657.17	6332405.29	BRASS DISK MARKING COS MONUMENT STAMPED "1S-4" IN MONUMENT BOX AT THE INTERSECTION OF THE APPROX CENTERLINE OF ALPINE AVE AND SUTTER ST NORTH.	37-58-51.75221	121-17-43.61683	-27.51	664665.636	1930120.994	-0-29-13.20	0.99993721	1.00000432	0.99994152
20	2177518.39	6333381.43	BRASS DISK MARKING COS MONUMENT STAMPED "1S-5" IN MONUMENT BOX ON THE EAST SIDE OF SUTTER ST AND THE NORTH SIDE OF WYANDOTTE ST.	37-58-20.80391	121-17-31.09311	-26.99	663708.933	1930418.521	-0-29-05.53	0.99993662	1.00000424	0.99994085
24	2175495.67	6331584.32	BRASS DISK MARKING COS MONUMENT STAMPED "2S-2" IN MONUMENT BOX IN THE TRAFFIC ISLAND AT THE NW CORNER OF PACIFIC AVE AND HARDING WAY.	37-58-00.65620	121-17-53.32097	-27.98	663092.406	1929870.761	-0-29-19.14	0.99993625	1.00000439	0.99994064
25	2176834.72	6331201.24	BRASS DISK MARKING COS MONUMENT STAMPED "2S-1" IN MONUMENT BOX IN THE CROSSWALK ON THE EAST SIDE OF PACIFIC AVE AT THE APPROX CENTERLINE OF WYANDOTTE ST.	37-58-13.86180	121-17-58.24757	-28.02	663500.549	1929753.998	-0-29-22.16	0.99993649	1.00000440	0.99994089
26	2172665.18	6334252.32	BRASS DISK MARKING COS MONUMENT STAMPED "1S-9" IN MONUMENT BOX AT THE INTERSECTION OF THE APPROX CENTERLINES OF SAN JOAQUIN AND OAK STREETS. (*RESET 1984)	37-57-32.89742	121-17-19.70604	-27.92	662229.672	1930683.969	-0-28-58.56	0.99993575	1.00000438	0.99994013
28	2169051.25	6334999.03	BRASS DISK MARKING COS MONUMENT STAMPED "1S-10" IN MONUMENT BOX AT THE INTERSECTION OF THE APPROX CENTERLINES OF SAN JOAQUIN AND SONORA STREETS. (*RESET 1985)	37-56-57.23182	121-17-10.00332	-27.25	661128.143	1930911.566	-0-28-52.62	0.99993514	1.00000428	0.99993942
29	2165796.16	6335671.83	BRASS DISK MARKING COS MONUMENT STAMPED "1S-11" IN MONUMENT BOX AT THE INTERSECTION OF THE APPROX CENTERLINES OF SAN JOAQUIN AND CLAY STREETS. (*RESET 1985)	37-56-25.10740	121-17-01.26327	-27.30	660135.990	1931116.637	-0-28-47.27	0.99993461	1.00000428	0.99993890
30	2162122.64	6336431.97	BRASS DISK MARKING COS MONUMENT STAMPED "1S-12" IN MONUMENT BOX ON THE WEST SIDE OF SAN JOAQUIN ST, +/- 100 FT. SOUTH OF SEVENTH ST.	37-55-48.85328	121-16-51.39174	-27.31	659016.300	1931348.326	-0-28-41.22	0.99993405	1.00000429	0.99993834
31	2161739.49	6335875.73	BRASS DISK MARKING COS MONUMENT STAMPED "1S-13" IN MONUMENT BOX +/- 100 FT NORTH OF THE INTERSECTION OF REALIGNED EIGHTH AND EL DORADO STREETS.	37-55-45.01935	121-16-58.29439	-27.77	658899.513	1931178.784	-0-28-45.45	0.99993399	1.00000436	0.99993835
33	2160857.30	6332378.82	BRASS DISK MARKING COS MONUMENT STAMPED "1S-14" IN MONUMENT BOX ON THE SOUTH SIDE OF EIGHTH ST AND THE WEST SIDE OF THE I-5 OVER-CROSSING, APPROXIMATELY 90' WEST OF THE TRAFFIC ISLAND CENTER.	37-55-36.00652	121-17-41.84678	-27.46	658630.623	1930112.924	-0-29-12.11	0.99993386	1.00000431	0.99993817
35	2195287.44	6324601.64	BRASS DISK MARKING COS MONUMENT STAMPED "2N-1" IN MONUMENT BOX APPROXIMATELY 10 FT EAST OF THE WEST END OF THE TRAFFIC ISLAND IN THE CENTERLINE OF HAMMER LN, EAST OF LOWER SACRAMENTO RD.	38-01-15.71953	121-19-22.69128	-27.16	669124.949	1927742.436	-0-30-13.85	0.99994025	1.00000426	0.99994451
36	2195270.81	6326891.63	BRASS DISK MARKING COS MONUMENT STAMPED "2N-2" IN MONUMENT BOX AT THE NE CORNER OF HAMMER LN AND EL DORADO ST.	38-01-15.75324	121-18-54.07214	-26.92	669119.880	1928440.425	-0-29-56.33	0.99994025	1.00000422	0.99994447
38	2195211.31	6332657.21	BRASS DISK MARKING COS MONUMENT STAMPED "2N-4" IN MONUMENT BOX AT THE NW CORNER OF HAMMER AND WEST LNS.	38-01-15.65540	121-17-42.01465	-24.98	669101.747	1930197.778	-0-29-12.22	0.99994024	1.00000392	0.99994416
39	2193589.69	6332659.67	BRASS DISK MARKING COS MONUMENT STAMPED "2N-5" IN MONUMENT BOX AT THE INTERSECTION OF THE CENTERLINE OF HAMMERTOWN DR WITH THE WEST EDGE OF TRAVELED WAY OF WEST LN.	38-00-59.62438	121-17-41.81177	-25.20	668607.476	1930198.528	-0-29-12.09	0.99993988	1.00000395	0.99994384
40	2191503.47	6332829.71	BRASS DISK MARKING COS MONUMENT STAMPED "2N-6" IN MONUMENT BOX AT THE INTERSECTION OF THE CENTERLINE OF SWAIN RD WITH THE TRAVELED WAY OF WEST LN.	38-00-39.01431	121-17-39.46565	-25.31	667971.593	1930250.357	-0-29-10.66	0.99993942	1.00000397	0.99994340
41	2189412.48	6333455.25	BRASS DISK MARKING COS MONUMENT STAMPED "2N-7" IN MONUMENT BOX ON THE SOUTH SIDE OF THE E.B.M.U.D. RIGHT-OF-WAY ALONG THE WEST EDGE OF PAVEMENT OF WEST LN.	38-00-18.39532	121-17-31.42847	-25.37	667334.260	1930441.020	-0-29-05.74	0.99993898	1.00000398	0.99994296
42	2187754.93	6331458.24	E.B.M.U.D. BRASS DISK ON TOP OF THEIR MANHOLE STRUCTURE AT STATION P1692+20.58, NORTH OF MARCH LN COS MONUMENT NO. 2N-8.	38-00-01.84091	121-17-56.20241	-25.79	666829.035	1929832.331	-0-29-20.90	0.99993863	1.00000405	0.99994267
43	2188246.24	6333812.50	BRASS DISK MARKING COS MONUMENT STAMPED "2N-9" AT THE SW CORNER OF WEST AND MARCH LNS.	38-00-06.89573	121-17-26.84182	-25.45	666978.789	1930549.910	-0-29-02.93	0.99993873	1.00000399	0.99994273
45	2184807.01	6334886.17	BRASS DISK MARKING COS MONUMENT STAMPED "2N-11" IN MONUMENT BOX IN THE TRAFFIC ISLAND IN THE CENTER OF WEST LN AT THE SE CORNER OF THE SOUTHBOUND BRIDGE OVER THE CALAVERAS RIVER.	37-59-32.98490	121-17-13.06648	-22.19	665930.507	1930877.167	-0-28-54.49	0.99993803	1.00000348	0.99994151
46	2181720.97	6335714.09	BRASS DISK MARKING COS TRAVERSE CONTROL MONUMENT STAMPED "2N-12" IN MONUMENT BOX AT THE NW CORNER OF WEST LN AND ALPINE AVE.	37-59-02.54502	121-17-02.40113	-25.51	664989.883	1931129.518	-0-28-47.96	0.99993742	1.00000400	0.99994142
117	2157978.73	6337037.23	BRASS DISK MARKING COS MONUMENT STAMPED "3S-1" IN MONUMENT BOX AT THE APPROX INTERSECTION OF THE CENTERLINES OF IVY AVE AND EL DORADO ST.	37-55-07.93566	121-16-43.40673	-27.00	657753.232	1931532.811	-0-28-36.34	0.99993345	1.00000424	0.99993769
119	2153625.66	6338384.68	BRASS DISK MARKING COS MONUMENT STAMPED "3S-2" IN MONUMENT BOX ON WEST SIDE OF MCKINLEY AVE AT APPROX CENTERLINE OF INDUSTRIAL DR, EAST OF THE UNION PACIFIC R.R. R/W, EXTENDED WESTERLY.	37-54-25.01085	121-16-26.14196	-25.56	656426.415	1931943.513	-0-28-25.77	0.99993287	1.00000401	0.99993688

\* = 1994 COS CONTROL NETWORK POINT  
RE-PUBLISHED IN 2001 BECAUSE IT WAS  
RESET OR DISTURBED

35-56



35-5 H

CITY OF STOCKTON 2001 GPS CONTROL SURVEYS  
GEODETIC POSITIONS & STATE PLN COORDINATES  
NAD 83, 1991.35 EPOCH

RECORD OF SURVEY  
OF  
THE CITY OF STOCKTON HORIZONTAL CONTROL SYSTEM PHASE XIV  
WITHIN THE CITY OF STOCKTON AND COUNTY OF SAN JOAQUIN, STATE  
OF CALIFORNIA

PREPARED BY:  
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CONSULTING ENGINEERS & LAND SURVEYORS  
STOCKTON, CALIFORNIA MARCH 2001

POINT NUMBER	NORTHING (Y) Sft.	EASTING (X) Sft.	DESCRIPTION	NORTH LATITUDE	WEST LONGITUDE	ELLIPSOID Ht. METRIC.	NORTHING (Y) METRIC	EASTING (X) METRIC	CONVERGENCE ANGLE	GRID SCALE	ELEVATION SCALE	COMBINED SCALE
128	2152609.35	6345654.59	BRASS DISK MARKING COS MONUMENT STAMPED "3S-6" IN MONUMENT BOX IN THE CENTERLINE OF ARCH-AIRPORT RD AT THE END OF CURVE.	37-54-15.54800	121-14-55.32952	-24.70	656116.641	1934159.386	-0-27-30.17	0.99993274	1.00000388	0.99993662
130	2153600.01	6348830.47	BRASS DISK MARKING COS MONUMENT STAMPED "3S-7" IN MONUMENT BOX IN THE CENTERLINE OF ARCH-AIRPORT RD AT THE BEGINNING OF A 1809.34' RADIUS CURVE.	37-54-25.59132	121-14-15.80097	-23.45	656418.597	1935127.397	-0-27-05.97	0.99993287	1.00000368	0.99993655
134	2155816.54	6352041.39	BRASS DISK MARKING COS MONUMENT STAMPED "3S-9" IN MONUMENT BOX ON THE WEST SIDE OF SOUTH 99 FRONTAGE RD AT NORTH LITTLE JOHN CREEK.	37-54-47.75287	121-13-35.95102	-21.98	657094.197	1936106.088	-0-26-41.57	0.99993317	1.00000345	0.99993662
135	2185581.17	6336409.56	BRASS DISK MARKING COS MONUMENT STAMPED "4N-1" IN MONUMENT BOX ON THE SOUTH SIDE OF MCALLEN RD 15' WEST OF THE U.P.R.R. TRACKS.	37-59-40.76453	121-16-54.11717	-21.65	666166.473	1931341.496	-0-28-42.89	0.99993819	1.00000340	0.99994158
142	2200960.34	6332655.79	BRASS DISK MARKING COS MONUMENT STAMPED "4N-7" IN MONUMENT BOX ON THE WEST SIDE OF WEST LN AT THE APPROX SOUTH LINE OF MORADA LN. ERM 241.	38-02-12.48969	121-17-42.64288	-24.38	670854.054	1930197.345	-0-29-12.60	0.99994158	1.00000383	0.99994540
145	2200950.20	6337242.53	BRASS DISK MARKING COS MONUMENT STAMPED "4N-5" IN MONUMENT BOX ON SOUTH SIDE OF MORADA LN APPROXIMATELY 200' WEST OF THE U.P.R.R. TRACKS. ERM 239.	38-02-12.77087	121-16-45.31014	-21.66	670850.963	1931595.386	-0-28-37.50	0.99994158	1.00000340	0.99994498
147	2203604.05	6332611.61	BRASS DISK MARKING COS MONUMENT STAMPED "4N-8" IN MONUMENT BOX ON THE WEST SIDE OF THE WEST LN BRIDGE OVER BEAR CREEK AT THE SOUTH END OF THE BRIDGE.	38-02-38.62143	121-17-43.47603	-22.09	671659.859	1930183.878	-0-29-13.11	0.99994222	1.00000347	0.99994568
150	2203119.97	6326333.57	BRASS DISK MARKING COS MONUMENT STAMPED "4N-10" IN MONUMENT BOX ON THE CENTER OF WAKEFIELD RD (PRIVATE) AT THE WEST R/W LINE OF THE U.P.R.R.	38-02-33.30111	121-19-01.90258	-23.35	671512.310	1928270.329	-0-30-01.13	0.99994208	1.00000366	0.99994575
152	2203151.61	6324725.82	BRASS DISK MARKING COS MONUMENT STAMPED "4N-11" IN TOP CONCRETE CYLINDER IN APPROX CENTER SOUTH BEAR CREEK LEVEE ON 1/4 SECTION LINE. (*RESET 2/00)	38-02-33.47462	121-19-22.00353	-23.39	671521.954	1927780.286	-0-30-13.43	0.99994209	1.00000367	0.99994576
156	2203287.30	6317531.08	BRASS DISK MARKING COS MONUMENT STAMPED "4N-12" IN MONUMENT BOX ON THE EAST SIDE OF THORNTON RD AT THE SE CORNER OF THE THORNTON RD BRIDGE OVER BEAR CREEK. (*RESET 4/94)	38-02-34.18123	121-20-51.95571	-26.21	671563.313	1925587.323	-0-31-08.51	0.99994211	1.00000411	0.99994622
158	2199408.49	6312636.83	BRASS DISK MARKING COS MONUMENT STAMPED "4N-14" IN MONUMENT BOX AT THE APPROX CENTERLINE OF MARINERS DRIVE +/- 150' SOUTH OF MOSHER SLOUGH.	38-01-55.39326	121-21-52.68757	-27.66	670381.049	1924095.555	-0-31-45.69	0.99994117	1.00000434	0.99994551
159	2196595.99	6313668.01	BRASS DISK MARKING COS MONUMENT STAMPED "4N-15" IN SIDEWALK ON THE EAST SIDE OF MARINERS DRIVE +/- 1,150' NORTH OF HAMMER LN. (*RESET 7/93)	38-01-27.68327	121-21-39.47599	-29.12	669523.798	1924409.857	-0-31-37.60	0.99994052	1.00000457	0.99994509
160	2195462.90	6313494.49	BRASS DISK MARKING COS MONUMENT STAMPED "4N-16" IN MONUMENT BOX AT A POINT +/- 40' SOUTH OF THE INTERSECTION OF THE CENTERLINES OF MARINERS DR AND HAMMER LN.	38-01-16.46591	121-21-41.51415	-30.32	669178.431	1924356.968	-0-31-38.85	0.99994026	1.00000476	0.99994502
162	2195390.92	6318131.97	BRASS DISK MARKING COS MONUMENT STAMPED "4N-17" IN MONUMENT BOX AT THE APPROX INTERSECTION OF THE CENTER OF MEADOW AVE WITH THE SOUTH LINE OF HAMMER LN.	38-01-16.17243	121-20-43.55261	-29.37	669156.491	1925770.475	-0-31-03.36	0.99994026	1.00000461	0.99994486
163	2195347.07	6320776.10	BRASS DISK MARKING COS MONUMENT STAMPED "4N-18" IN MONUMENT BOX ON THE SOUTH SIDE OF HAMMER LN IN THE WEST CROSSWALK AT ALEXANDRIA PL.	38-01-15.97377	121-20-10.50476	-28.43	669143.125	1926576.407	-0-30-43.13	0.99994025	1.00000446	0.99994471
164	2173286.00	6337255.52	BRASS DISK MARKING COS MONUMENT STAMPED "5S-1" IN MONUMENT BOX AT THE INTERSECTION OF THE APPROX CENTERLINES OF OAK AND UNION STREETS. (*RESET 12/89)	37-57-39.28352	121-16-42.27148	-26.72	662418.898	1931599.347	-0-28-35.64	0.99993586	1.00000419	0.99994006
167	2173833.31	6341602.85	BRASS DISK MARKING COS MONUMENT STAMPED "5S-4" IN MONUMENT BOX ON THE SOUTH SIDE OF FREMONT ST AT THE APPROX CENTERLINE OF GRATTEN ST. (*RESET 9/92)	37-57-45.04831	121-15-48.04367	-25.25	662585.719	1932924.414	-0-28-02.44	0.99993597	1.00000396	0.99993993
168	2174916.33	6343710.29	BRASS DISK MARKING COS MONUMENT STAMPED "5S-5" IN MONUMENT BOX AT THE INTERSECTION OF APPROX CENTERLINE OF FREMONT ST WITH THE EASTERLY RIGHT-OF-WAY LINE OF FILBERT ST. (*RESET 7/93)	37-57-55.92430	121-15-21.83741	-24.48	662915.824	1933566.764	-0-27-46.40	0.99993616	1.00000384	0.99994000
169	2173513.54	6344145.12	BRASS DISK MARKING COS MONUMENT STAMPED "5S-6" IN MONUMENT BOX ON THE WEST SIDE OF FILBERT ST 5 FT SOUTH OF THE SOUTH RAIL OF THE UNION PACIFIC RAILROAD TRACK.	37-57-42.09079	121-15-16.26628	-24.42	662488.251	1933699.300	-0-27-42.99	0.99993591	1.00000383	0.99993975
171	2170907.92	6346365.38	BRASS DISK MARKING COS MONUMENT STAMPED "5S-8" IN MONUMENT BOX AT THE INTERSECTION APPROX CENTERLINES OF MAIN ST AND DAVID AVE.	37-57-16.50738	121-14-48.28263	-23.53	661694.057	1934376.038	-0-27-25.85	0.99993547	1.00000369	0.99993916
172	2169512.63	6346803.70	BRASS DISK MARKING COS MONUMENT STAMPED "5S-9" IN MONUMENT BOX ON THE APPROX CENTERLINE OF DAVID AVE APPROXIMATELY 41 FT NORTH OF THE CENTER DIVIDING LINE OF CHARTER WAY.	37-57-02.74793	121-14-42.67122	-23.54	661268.773	1934509.638	-0-27-22.42	0.99993523	1.00000369	0.99993893
174	2167850.11	6345075.86	BRASS DISK MARKING COS MONUMENT STAMPED "5S-11" IN MONUMENT BOX ON THE SOUTH SIDE OF CHARTER WAY APPROXIMATELY 20 FT NORTH OF THE SOUTH RIGHT-OF-WAY FENCE.	37-56-46.17538	121-15-04.07667	-25.10	660762.034	1933982.991	-0-27-35.52	0.99993496	1.00000394	0.99993889
175	2167317.50	6343741.87	BRASS DISK MARKING COS MONUMENT STAMPED "5S-12" IN MONUMENT BOX IN TRAFFIC CONTROL ISLAND AT THE SOUTH SIDE OF CHARTER WAY AT MARIPOSA RD.	37-56-40.80373	121-15-20.67672	-24.10	660599.694	1933576.390	-0-27-45.69	0.99993487	1.00000378	0.99993865
176	2165589.56	6346504.58	BRASS DISK MARKING COS MONUMENT STAMPED "5S-13" IN MONUMENT BOX ON THE NORTH SIDE OF MARIPOSA RD AT THE APPROX CENTERLINE OF SILVA ST.	37-56-23.94021	121-14-46.01526	-23.55	660073.017	1934418.465	-0-27-24.46	0.99993460	1.00000370	0.99993829
177	2163648.76	6349425.02	BRASS DISK MARKING COS MONUMENT STAMPED "5S-14" IN MONUMENT BOX ON THE NORTH SIDE OF MARIPOSA RD APPROXIMATELY 300 FT EAST OF THE FRONTAGE RD ENTRANCE.	37-56-04.98172	121-14-09.36843	-22.88	659481.460	1935308.616	-0-27-02.03	0.99993430	1.00000359	0.99993789
178	2162153.45	6350073.95	BRASS DISK MARKING COS MONUMENT STAMPED "5S-15" IN MONUMENT BOX ON THE WEST SIDE OF SOUTH 99 FRONTAGE RD AT DUCK CREEK.	37-55-50.24923	121-14-01.12194	-22.67	659025.691	1935506.412	-0-26-56.98	0.99993407	1.00000356	0.99993763
179	2159968.65	6350752.32	BRASS DISK MARKING COS MONUMENT STAMPED "5S-16" IN MONUMENT BOX ON THE WEST SIDE OF SOUTH 99 FRONTAGE RD ON THE EXTENSION OF CARPENTER RD CENTERLINE.	37-55-28.70227	121-13-52.44168	-23.06	658359.760	1935713.180	-0-26-51.67	0.99993375	1.00000362	0.99993737
180	2158351.92	6341764.18	BRASS DISK MARKING COS MONUMENT STAMPED "5S-17" IN MONUMENT BOX ON THE WEST SIDE OF AIRPORT WAY AT THE EXTENSION OF RALPH AVE CENTERLINE.	37-55-12.00982	121-15-44.45432	-25.92	657866.980	1932973.588	-0-28-00.24	0.99993351	1.00000407	0.99993758
181	2159772.24	6341245.39	BRASS DISK MARKING COS MONUMENT STAMPED "5S-18" IN MONUMENT BOX AT THE BEGINNING OF CURVE IN THE CENTER DIVIDER OF AIRPORT WAY APPROXIMATELY 180 FT NORTH OF DUCK CREEK.	37-55-26.00963	121-15-51.07349	-25.00	658299.896	1932815.460	-0-28-04.30	0.99993371	1.00000392	0.99993763

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35-5 H



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CITY OF STOCKTON 2001 GPS CONTROL SURVEYS  
GEODETIC POSITIONS & STATE PLN COORDINATES  
NAD 83, 1991.35 EPOCH

RECORD OF SURVEY

OF  
THE CITY OF STOCKTON HORIZONTAL CONTROL SYSTEM PHASE XIV  
WITHIN THE CITY OF STOCKTON AND COUNTY OF SAN JOAQUIN, STATE  
OF CALIFORNIA

PREPARED BY:  
McGEE SURVEYING CONSULTING  
SANTA BARBARA, CALIFORNIA  
&  
KJELDSSEN, SINNOCK & NEUDECK, INC.  
CONSULTING ENGINEERS & LAND SURVEYORS  
STOCKTON, CALIFORNIA MARCH 2001

POINT NUMBER	NORTHING (Y) Sft.	EASTING (X) Sft.	DESCRIPTION	NORTH LATITUDE	WEST LONGITUDE	ELLIPSOID Ht. METRIC	NORTHING (Y) METRIC	EASTING (X) METRIC	CONVERGENCE ANGLE	GRID SCALE	ELEVATION SCALE	COMBINED SCALE
182	2162594.40	6340393.55	BRASS DISK MARKING COS MONUMENT STAMPED "6S-19" IN MONUMENT BOX ON THE WEST SIDE OF AIRPORT WAY ON THE EXTENSION OF EIGHTH ST CENTERLINE.	37-55-53.84102	121-16-01.99358	-26.18	659160.090	1932555.818	-0-28-10.98	0.99993413	1.00000411	0.99993824
191	2182353.78	6343091.64	BRASS DISK MARKING COS MONUMENT STAMPED "6S-3" IN MONUMENT BOX ON THE CENTERLINE OF THE PAVED DRIVEWAY FOR THE NORTH LEVEE RD OF THE DIVERTING CANAL ON THE EASTERLY SIDE OF CHEROKEE ROAD.	37-59-09.40199	121-15-30.31548	-21.76	665182.762	1933378.198	-0-27-51.59	0.99993755	1.00000341	0.99994097
192	2181368.88	6344840.04	BRASS DISK MARKING COS MONUMENT STAMPED "6S-4" IN MONUMENT BOX +/- 3' NORTHEASTERLY OF THE NORTHEASTERLY CORNER OF THE WATERLOO RD BRIDGE OVER THE DIVERTING CANAL.	37-58-59.80474	121-15-08.37742	-20.80	664682.564	1933911.113	-0-27-38.16	0.99993737	1.00000326	0.99994063
193 *	2180078.74	6347173.49	BRASS DISK MARKING COS MONUMENT STAMPED "6S-5" IN CONCRETE PILLAR 4.0' NE OF THE SE HEADWALL OF THE S.T.& E. RAILROAD BRIDGE OVER THE DIVERTING CANAL. (*RESET 2/00)	37-58-47.23474	121-14-39.10350	-19.20	664489.328	1934622.349	-0-27-20.23	0.99993712	1.00000301	0.99994013
194A	2177963.37	6350621.39	BRASS DISK MARKING COS MONUMENT STAMPED "6S-6A" IN NORTH CONCRETE SIDEWALK 20 FT. EAST OF WEST END OF THE FREMONT ST (HWY. 26) BRIDGE OVER THE DIVERTING CANAL. (*RELOCATED 7/93)	37-58-26.59092	121-13-55.83288	-18.40	663844.563	1935673.272	-0-26-53.74	0.99993673	1.00000289	0.99993961
199	2173337.02	6358512.46	BRASS DISK MARKING COS MONUMENT STAMPED "6S-11" IN CONCRETE BRIDGE DECK 2' WEST OF THE EASTERLY END OF BRIDGE DECK AT THE SOUTHEASTERLY CORNER OF THE MAIN ST BRIDGE OVER THE DIVERTING CANAL.	37-57-41.45314	121-12-16.84682	-16.92	662434.450	1938078.473	-0-25-53.14	0.99993590	1.00000265	0.99993856
200	2172203.61	6354273.84	BRASS DISK MARKING COS MONUMENT STAMPED "6S-12" IN MONUMENT BOX AT THE INTERSECTION OF CENTERLINES OF CARDINAL AND MAIN STREETS.	37-57-29.92922	121-13-09.66484	-20.64	662088.985	1936786.540	-0-26-25.48	0.99993570	1.00000324	0.99993894
204	2148317.74	6344924.65	BRASS DISK MARKING COS MONUMENT STAMPED "6S-14" IN MONUMENT BOX NEAR THE INTERSECTION OF CENTERLINE OF AIRPORT WAY AND C.E. DIXON DR.	37-53-33.06219	121-15-04.00725	-24.43	654808.556	1933936.902	-0-27-35.48	0.99993222	1.00000383	0.99993605
205	2145753.53	6345658.03	BRASS DISK MARKING COS MONUMENT STAMPED "6S-15" IN CONCRETE PILLAR 100' SOUTH OF THE NORTH END AND IN THE CENTER OF THE A.C. PAVED TRAFFIC ISLAND IN CENTER OF AIRPORT WAY, SOUTH OF STIMSON ST.	37-53-07.76982	121-14-54.60239	-23.88	654026.984	1934160.436	-0-27-29.72	0.99993192	1.00000375	0.99993567
206	2144261.25	6345563.87	BRASS DISK MARKING COS MONUMENT STAMPED "6S-16" IN CONCRETE BRIDGE DECK 2' SOUTH OF NORTH END OF CONCRETE BRIDGE DECK AT NE CORNER OF AIRPORT WAY BRIDGE OVER SOUTH FORK OF LITTLE JOHN CREEK.	37-52-53.00924	121-14-55.62798	-23.44	653572.136	1934131.736	-0-27-30.35	0.99993176	1.00000368	0.99993543
208	2142837.20	6342563.99	BRASS DISK MARKING COS MONUMENT STAMPED "6S-18" IN MONUMENT BOX +/- 6' NORTH OF THE FOG LINE ON THE NORTH SIDE OF FRENCH CAMP RD AT THE CENTERLINE OF THE DRIVEWAY AT 835 E. FRENCH CAMP RD.	37-52-38.69179	121-15-32.90224	-25.27	653138.086	1933217.371	-0-27-53.17	0.99993160	1.00000397	0.99993557
209	2144092.20	6340562.50	BRASS DISK MARKING COS MONUMENT STAMPED "6S-19" IN MONUMENT BOX +/- 30' EASTERLY OF THE U.P.R.R. CO. TRACKS BETWEEN THE A.C. BERM AND FOG LINE ON THE SOUTHERLY SIDE OF FRENCH CAMP RD.	37-52-50.93779	121-15-57.99425	-24.59	653520.610	1932607.314	-0-28-08.53	0.99993173	1.00000386	0.99993559
210	2144806.22	6339691.18	BRASS DISK MARKING COS MONUMENT STAMPED "6S-20" IN MONUMENT BOX AT THE INTERSECTION OF CENTERLINE OF PONDEROSA ST WITH THE SOUTHERLY TRAVELED WAY OF FRENCH CAMP RD.	37-52-57.92614	121-16-08.93554	-26.11	653738.244	1932341.735	-0-28-15.23	0.99993181	1.00000410	0.99993591
222	2186812.88	6317002.27	BRASS DISK MARKING COS MONUMENT STAMPED "7N-9" IN MONUMENT BOX ON THE SOUTH BANK OF 14-MILE SLOUGH ON TOP OF LEVEE 40 FT WEST OF THE WEST RIGHT-OF-WAY FENCE OF I-5.	37-59-51.26951	121-20-56.69755	-27.53	666541.899	1925426.142	-0-31-11.41	0.99993840	1.00000432	0.99994272
223	2185131.13	6317517.87	BRASS DISK MARKING COS MONUMENT STAMPED "7N-10" IN MONUMENT BOX 853 FT NORTH OF THE END OF IMPROVEMENTS OF FEATHER RIVER DR, 10.7 FT WEST OF THE WEST RIGHT-OF-WAY FENCE OF INTERSTATE 5.	37-59-34.69002	121-20-50.06603	-31.12	666029.301	1925583.299	-0-31-07.35	0.99993806	1.00000488	0.99994295
229	2180113.17	6318995.15	BRASS DISK MARKING COS FORCE MAIN WITH WITNESS POST STAMPED FORCE MAIN 5, 2 FT WEST, ON TOP OF LEVEE ON NORTH BANK OF CALAVERAS RIVER, 103 FT WEST OF THE I-5 BRIDGE COS "7N-16".	37-58-45.21436	121-20-31.04793	-26.67	664499.823	1926033.574	-0-30-55.70	0.99993708	1.00000419	0.99994127
230	2179891.19	6319064.66	BRASS DISK MARKING CITY OF STOCKTON TRAVERSE CONTROL MONUMENT STAMPED "7N-17" ON TOP OF THE LEVEE ON THE SOUTH BANK OF THE CALAVERAS RIVER 99 FT WEST OF I-5 BRIDGE.	37-58-43.02608	121-20-30.15487	-26.23	664432.164	1926054.760	-0-30-55.16	0.99993704	1.00000412	0.99994116
237	2172046.71	6331241.43	BRASS DISK MARKING COS MONUMENT STAMPED "7S-1" IN MONUMENT BOX AT INTERSECTION OF OAK ST AND LINCOLN ST. (*RESET 7/93)	37-57-26.53056	121-17-57.23501	-28.40	662041.160	1929766.248	-0-29-21.54	0.99993564	1.00000446	0.99994010
239	2170984.62	6327459.70	BRASS DISK MARKING CALTRANS REFERENCE MONUMENT STAMPED 1 IN CENTER DIVIDER AT THE INTERSECTION OF FREMONT ST AND PERSHING AVE. (*RESET 7/93)	37-57-15.70882	121-18-44.33869	-27.79	661717.437	1928613.573	-0-29-50.37	0.99993545	1.00000436	0.99993981
240	2171123.26	6326557.26	BRASS DISK MARKING CALTRANS REFERENCE MONUMENT STAMPED 23 AT NORTH END OF TRAFFIC CHANNELIZATION ISLAND AT EXIT OF I-5 AND FREMONT ST.	37-57-17.00183	121-18-55.62112	-28.74	661759.694	1928338.510	-0-29-57.28	0.99993547	1.00000451	0.99993998
244	2166158.19	6327646.87	BRASS DISK MARKING COS MONUMENT STAMPED "7S-6" IN MONUMENT BOX AT INTERSECTION OF SCOTTS ST AND FRESNO AVE.	37-56-28.01028	121-18-41.47922	-30.91	660246.337	1928670.622	-0-29-48.62	0.99993466	1.00000485	0.99993951
245	2165440.44	6327652.01	BRASS DISK MARKING COS MONUMENT STAMPED "7S-7" IN MONUMENT BOX ON EAST SIDE OF FRESNO AVE 636 FT NORTH OF CENTERLINE OF NAVY DR.	37-56-20.91495	121-18-41.33729	-29.85	660027.566	1928672.191	-0-29-48.54	0.99993455	1.00000468	0.99993923
248	2175666.08	6320377.10	BRASS DISK MARKING CALTRANS REFERENCE MONUMENT STAMPED 1627L AT SE CORNER OF MICHIGAN AVE AND RYDE AVE COS "8S-3".	37-58-01.37295	121-20-13.29103	-31.15	663144.348	1926454.794	-0-30-44.83	0.99993626	1.00000489	0.99994115
249	2174692.50	6320671.38	BRASS DISK MARKING CALTRANS REFERENCE MONUMENT STAMPED 1618L AT NE CORNER OF COUNTRY CLUB BLVD. AND RYDE AVE COS "8S-4".	37-57-51.77411	121-20-09.50763	-30.97	662847.600	1926544.489	-0-30-42.52	0.99993609	1.00000486	0.99994095
258 *	2175160.95	6322447.50	FOUND PER RECORD OF SURVEY 29-168, SET 2.5" BRASS CAP APPROX. 20 FT SOUTH OF CENTERLINE OF COUNTRY CLUB BLVD, BETWEEN THE BODY SHOP AND CAR WASH COS "8S-13".	37-57-56.56152	121-19-47.38073	-29.79	662990.384	1927085.853	-0-30-28.97	0.99993617	1.00000467	0.99994085
259	2175756.93	6324339.51	BRASS DISK MARKING COS MONUMENT STAMPED "8S-14" IN MONUMENT BOX, APPROX. CENTERLINES OF COUNTRY CLUB BLVD. AND MISSION RD.	37-58-02.61862	121-19-23.81991	-29.96	663172.040	1927662.539	-0-30-14.55	0.99993628	1.00000470	0.99994098
266	2148653.51	6336686.41	BRASS DISK MARKING COS MONUMENT STAMPED "8S-21" IN MONUMENT BOX ON SOUTH SIDE OF FRENCH CAMP RD AT APPROX. B.C. OF FRENCH CAMP RD TO THE WEST.	37-53-35.71566	121-16-46.81530	-25.07	654910.901	1931425.880	-0-28-38.42	0.99993225	1.00000393	0.99993618
268	2150064.70	6335207.25	BRASS DISK MARKING CALTRANS REFERENCE MONUMENT STAMPED 17FCTR ON WEST SIDE OF I-5 AND FRENCH CAMP RD COS "8S-23".	37-53-49.54470	121-17-05.41579	-26.73	655341.030	1930975.032	-0-28-49.81	0.99993241	1.00000419	0.99993661
269	2151320.80	6334956.58	BRASS DISK MARKING COS MONUMENT STAMPED "8S-24" IN MONUMENT BOX ON APPROX. CENTERLINE OF MANTHEY RD NORTH OF WOLFE RD.	37-54-01.94200	121-17-08.67476	-25.24	655723.890	1930898.626	-0-28-51.81	0.99993257	1.00000396	0.99993653
270	2152584.39	6334318.41	BRASS DISK MARKING COS MONUMENT STAMPED "8S-25" IN MONUMENT BOX 15 FT WEST OF APPROX. CENTERLINE OF MANTHEY RD AND 75 FT NORTH OF RD TO EAST CROSSING DRAINAGE DITCH.	37-54-14.38113	121-17-16.76958	-25.76	656109.034	1930704.113	-0-28-56.76	0.99993273	1.00000404	0.99993677

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NAD 83, 1991.35 EPOCH

RECORD OF SURVEY

OF  
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WITHIN THE CITY OF STOCKTON AND COUNTY OF SAN JOAQUIN, STATE  
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PREPARED BY:  
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SANTA BARBARA, CALIFORNIA  
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CONSULTING ENGINEERS & LAND SURVEYORS  
STOCKTON, CALIFORNIA MARCH 2001

POINT NUMBER	NORTHING (Y) Sft.	EASTING (X) Sft.	DESCRIPTION	NORTH LATITUDE	WEST LONGITUDE	ELLIPSOID HT. METRIC	NORTHING (Y) METRIC	EASTING (X) METRIC	CONVERGENCE ANGLE	GRID SCALE	ELEVATION SCALE	COMBINED SCALE
271	2155841.84	6333516.13	BRASS DISK MARKING COS MONUMENT STAMPED "8S-28" IN MONUMENT BOX AT APPROX. INTERSECTION OF DOWNING AVE AND MANTHEY RD. (*RESET 8/96)	37-54-46.51800	121-17-27.12316	-25.15	657101.906	1930459.577	-0-29-03.10	0.99993315	1.00000395	0.99993710
272	2156962.15	6333450.69	BRASS DISK MARKING COS MONUMENT STAMPED "8S-29" IN MONUMENT BOX AT APPROX. CENTERLINE OF MANTHEY RD SOUTH OF WALKER SLOUGH.	37-54-57.58817	121-17-28.05794	-25.51	657443.379	1930439.630	-0-29-03.67	0.99993331	1.00000400	0.99993731
273	2158599.30	6333011.40	BRASS DISK MARKING COS MONUMENT STAMPED "8S-30" IN MONUMENT BOX AT APPROX. INTERSECTION OF HOUSTON AVE AND MANTHEY RD.	37-55-13.73659	121-17-33.71287	-27.78	657942.383	1930305.736	-0-29-07.13	0.99993353	1.00000436	0.99993789
274	2159856.36	6332647.73	BRASS DISK MARKING COS MONUMENT STAMPED "8S-31" IN MONUMENT BOX AT APPROX. INTERSECTION OF CHICAGO AVE PROJECTED TO EAST AND MANTHEY RD.	37-55-26.13359	121-17-38.38447	-28.69	658325.535	1930194.890	-0-29-09.99	0.99993371	1.00000450	0.99993821
276	2207064.87	6310684.38	BRASS DISK MARKING COS MONUMENT STAMPED "9N-2" IN MONUMENT BOX ON CENTERLINE OF WEST FRONTAGE RD OF I-5 APPROX. 1,830 FT SOUTH OF 8-MILE RD. (*RESET 5/91)	38-03-10.90376	121-22-17.98173	-29.33	672714.719	1923500.445	-0-32-01.17	0.99994303	1.00000460	0.99994763
277	2208840.50	6310242.39	BRASS DISK MARKING COS MONUMENT STAMPED "9N-3" IN MONUMENT BOX AT INTERSECTION OF 8-MILE RD AND ON-OFF RAMP ON WEST SIDE OF I-5. (*RESET 2/00)	38-03-28.41646	121-22-23.71469	-29.48	673255.931	1923365.726	-0-32-04.68	0.99994348	1.00000463	0.99994810
280	2205950.87	6316604.29	SAN JOAQUIN COUNTY BOLT AND WASHER MARKING THE COS MONUMENT NUMBER 9N-6 ON CENTERLINE OF THORNTON RD APPROX. 2,775 FT SOUTH OF 8-MILE RD.	38-03-00.42960	121-21-03.84369	-27.11	672375.170	1925304.838	-0-31-15.78	0.99994276	1.00000425	0.99994701
282	2208595.20	6327076.20	BRASS DISK MARKING COS MONUMENT STAMPED "9N-8," 3 FT SOUTH OF SAN JOAQUIN COUNTY BENCHMARK NUMBER VW-17 IN NW CORNER OF THE BRIDGE OVER PIXLEY SLOUGH ON 8-MILE RD.	38-03-27.49240	121-18-53.21525	-23.52	673181.164	1928496.684	-0-29-55.81	0.99994345	1.00000369	0.99994714
284	2206036.20	6327164.20	BRASS DISK MARKING COS MONUMENT STAMPED "9N-10" IN MONUMENT BOX ON EASTERLY EDGE OF PAVEMENT OF LOWER SACRAMENTO RD APPROX. 2,770 FT SOUTHWESTERLY OF 8-MILE RD.	38-03-02.20217	121-18-51.83658	-24.01	672401.180	1928523.506	-0-29-54.96	0.99994281	1.00000377	0.99994657
290 *	2208470.35	6335026.77	TOP OR IRON PIN AND WASHER IN SAN JOAQUIN COUNTY MONUMENT BOX MARKING THE CITY OF STOCKTON TRAVERSE CONTROL MONUMENT NUMBER 9N-13 AT INTERSECTION OF 8-MILE RD AND HAM LN.	38-03-26.93088	121-17-13.79658	-21.65	673143.110	1930920.021	-0-28-54.94	0.99994344	1.00000340	0.99994683
291 *	2208403.08	6337900.73	BRASS DISK MARKING CITY OF STOCKTON TRAVERSE CONTROL MONUMENT STAMPED "9N-14" IN MONUMENT BOX ON SOUTH SIDE OF 8-MILE RD, 1 FT NORTH OF A.C. BERM, 26 FT WEST OF WEST RAIL OF UPRR. ERM 282.	38-03-26.50332	121-16-37.85666	-19.38	673122.606	1931796.005	-0-28-32.94	0.99994343	1.00000304	0.99994647
295	2206903.38	6342976.01	CHISELED "+" MARKING THE COS MONUMENT NUMBER 9N-18, ON TOP OF THE EAST CURB OF NORTH 99 FRONTAGE ROAD WEST OF HWY 99 APPROX. 1,530 FT SOUTH OF 8-MILE RD.	38-03-12.08939	121-15-34.24848	-19.22	672665.495	1933342.955	-0-27-53.99	0.99994306	1.00000302	0.99994607
296	2205121.41	6343062.06	BRASS DISK MARKING COS MONUMENT STAMPED "9N-19" IN MONUMENT BOX, TWO FT WEST OF EAST CURB OF NORTH 99 FRONTAGE ROAD WEST OF HWY 99 AT THE APPROX. CENTERLINE OF WALLER RD.	38-02-54.47991	121-15-32.99199	-20.04	672122.349	1933369.182	-0-27-53.23	0.99994261	1.00000315	0.99994576
300	2200148.02	6343111.46	A CHISELED "+" MARKING COS MONUMENT NUMBER 9N-23, ON TOP OF EAST CURB OF OF NORTH 99 FRONTAGE ROAD WEST OF HWY 99, APPROX. 875 FT SOUTH OF MORADA LN.	38-02-05.31736	121-15-31.87017	-20.36	670606.457	1933384.241	-0-27-52.54	0.99994140	1.00000319	0.99994460
301 *	2197869.58	6343086.43	BRASS DISK MARKING COS MONUMENT STAMPED "9N-24" IN MONUMENT BOX, 4 FT EAST OF WEST EDGE OF PAVEMENT OF NORTH 99 FRONTAGE ROAD WEST OF HWY 99 AT APPROX. NORTH LINE OF EBMUD R-O-W.	38-01-42.79086	121-15-31.95210	-21.01	669911.988	1933376.611	-0-27-52.59	0.99994087	1.00000330	0.99994417
303 *	2195208.94	6342893.43	BRASS DISK MARKING COS MONUMENT STAMPED "9N-26" ON NORTH SIDE OF HAMMER LN, 2 FT SOUTH OF A.C. BERM, APPROX. 70 FT EAST OF CENTERLINE OF NORTH 99 FRONTAGE ROAD WEST OF HWY. 99.	38-01-16.47236	121-15-34.09439	-20.19	669101.022	1933317.784	-0-27-53.90	0.99994026	1.00000317	0.99994343
305	2167588.44	6324194.12	BRASS DISK IN MONUMENT BOX MARKING COS MONUMENT STAMPED "10S-1" ON NORTH SIDE OF WASHINGTON ST NEAR ENTRANCE TO PORT OF STOCKTON MAIN OFFICES.	37-56-41.85172	121-19-24.73789	-30.36	660682.279	1927618.222	-0-30-15.11	0.99993489	1.00000476	0.99993965
306	2167315.38	6320382.07	BRASS DISK IN MONUMENT BOX MARKING COS MONUMENT STAMPED "10S-2" ON WEST SIDE OF TRAFFIC ISLAND AT NAVY DR. AND WASHINGTON ST.	37-56-38.81785	121-20-12.29664	-29.33	660599.048	1926456.307	-0-30-44.22	0.99993484	1.00000460	0.99993944
307	2165001.50	6322391.60	BRASS DISK MARKING COS MONUMENT STAMPED "10S-3" +/- 15' SOUTH OF CENTERLINE OF B.N.S.F. RR TRACK AT WEST END OF THE NAVY DR. UNDERPASS.	37-56-16.11950	121-19-46.95406	-26.18	659893.776	1927068.813	-0-30-28.71	0.99993447	1.00000411	0.99993858
309	2160936.30	6323760.65	BRASS DISK MARKING COS MONUMENT STAMPED "10S-5" AT WEST END OF 8TH ST EXTENDED TO THE EAST LEVEE OF SAN JOAQUIN RIVER.	37-55-36.05011	121-19-29.41733	-26.35	658654.701	1927486.100	-0-30-17.97	0.99993386	1.00000413	0.99993799
312	2155770.37	6324079.00	BRASS DISK MARKING COS MONUMENT STAMPED "10S-8" ON THE EAST LEVEE OF SAN JOAQUIN RIVER, 3,100 FT SOUTH OF INTERSECTION OF FRENCH CAMP SLOUGH.	37-54-45.00667	121-19-24.87666	-25.27	657080.122	1927583.133	-0-30-15.19	0.99993313	1.00000397	0.99993710
314	2150174.26	6323108.60	BRASS DISK MARKING COS MONUMENT STAMPED "10S-10" ON EAST SIDE OF THE EAST LEVEE OF SAN JOAQUIN RIVER ON WESTERLY EXTENSION OF WOLFE RD.	37-53-49.59794	121-19-36.36871	-25.11	655374.424	1927287.357	-0-30-22.23	0.99993242	1.00000394	0.99993635
316 *	2150130.11	6329875.69	BRASS DISK IN MONUMENT BOX MARKING COS MONUMENT STAMPED "10S-12" AT INTERSECTION OF CENTERLINE OF WOLFE RD EAST AND SOUTH. (*RESET 2000)	37-53-49.74415	121-18-11.93872	-28.45	655360.968	1929349.968	-0-29-30.54	0.99993242	1.00000446	0.99993688
317 *	2150101.33	6332329.52	BRASS DISK IN MONUMENT BOX MARKING COS MONUMENT STAMPED "10S-13" AT INTERSECTION OF CENTERLINE OF WOLFE RD NORTH AND WEST. (*RESET 1995)	37-53-49.66674	121-17-41.32190	-27.65	655352.195	1930097.898	-0-29-11.79	0.99993242	1.00000434	0.99993675
322	2160599.02	6356429.62	BRASS DISK MARKING COS MONUMENT STAMPED "11S-2" IN MONUMENT BOX ON NORTH SIDE OF MARIPOSA RD IN PG&E TRANSMISSION LINE RIGHT-OF-WAY CROSSING MARIPOSA RD +/- 1,600' SE OF CARPENTER RD.	37-55-35.36694	121-12-41.64541	-20.51	658551.898	1937443.623	-0-26-08.32	0.99993385	1.00000322	0.99993707
324	2157378.01	6361995.03	BRASS DISK MARKING COS MONUMENT STAMPED "11S-3" IN MONUMENT BOX ON NORTHERLY SIDE OF MARIPOSA RD APPROX. 3,067 FT NW OF AUSTIN RD.	37-55-03.93586	121-11-31.88656	-18.21	657570.132	1939139.963	-0-25-25.61	0.99993340	1.00000286	0.99993625
326 *	2155502.15	6364362.85	BRASS DISK MARKING COS STAMPED "11S-4" ON SOUTH LINE OF MARIPOSA RD AND EAST LINE OF AUSTIN RD AT SECTION CORNER.	37-54-45.56271	121-11-02.16637	-16.52	656998.369	1939861.675	-0-25-07.42	0.99993314	1.00000259	0.99993573
329	2152852.61	6359067.90	BRASS DISK MARKING COS MONUMENT STAMPED "11S-6" IN MONUMENT BOX AT CENTERLINE OF INTERSECTION OF ARCH RD AND NEWCASTLE RD ONE-FOURTH (1/4) CORNER.	37-54-18.98091	121-12-07.99180	-19.93	656190.787	1938247.772	-0-25-47.72	0.99993279	1.00000313	0.99993591
334	2148117.53	6353716.55	BRASS DISK MARKING COS MONUMENT STAMPED "11S-12" IN MONUMENT BOX ON THE WEST SIDE OF STATE HWY RT. 99 SOUTH FRONTAGE RD OPPOSITE THE ENTRANCE TO SAN JOAQUIN COUNTY SPORTS COMPLEX.	37-53-31.76635	121-13-14.30734	-21.90	654747.532	1936616.679	-0-26-28.32	0.99993220	1.00000344	0.99993564

\* = 1994 COS CONTROL NETWORK POINT  
RE-PUBLISHED IN 2001 BECAUSE IT WAS  
RESET OR DISTURBED

35-5J



35-5K

CITY OF STOCKTON 2001 GPS CONTROL SURVEYS  
GEODETIC POSITIONS & STATE PLN COORDINATES  
NAD 83, 1991.35 EPOCH

RECORD OF SURVEY

OF  
THE CITY OF STOCKTON HORIZONTAL CONTROL SYSTEM PHASE XIV  
WITHIN THE CITY OF STOCKTON AND COUNTY OF SAN JOAQUIN, STATE  
OF CALIFORNIA

PREPARED BY:  
McGEE SURVEYING CONSULTING  
SANTA BARBARA, CALIFORNIA  
&  
KJELDSSEN, SINNOCK & NEUDECK, INC.  
CONSULTING ENGINEERS & LAND SURVEYORS  
STOCKTON, CALIFORNIA MARCH 2001

POINT NUMBER	NORTHING (Y) Sft.	EASTING (X) Sft.	DESCRIPTION	NORTH LATITUDE	WEST LONGITUDE	ELLIPSOID HT. METRIC.	NORTHING (Y) METRIC	EASTING (X) METRIC	CONVERGENCE ANGLE	GRID SCALE	ELEVATION SCALE	COMBINED SCALE
335	2145030.41	6353714.22	BRASS DISK MARKING COS MONUMENT STAMPED "11S-11" IN MONUMENT BOX ON WEST SIDE OF STATE HWY RT. 99 SOUTH FRONTAGE RD AT SE CORNER OF THE STOCKTON METROPOLITAN AIRPORT.	37-53-01.24596	121-13-14.03994	-22.11	653806.576	1936615.967	-0-26-28.15	0.99993185	1.00000347	0.99993532
336	2144911.24	6359065.03	BRASS BOLT AND WASHER IN MONUMENT BOX MARKING THE CORNER COMMON TO SECTIONS 3 AND 4, OF TOWNSHIP 1 SOUTH, RANGE 7 EAST, AND SECTIONS 33 AND 34, TOWNSHIP 1 NORTH, RANGE 7 EAST, MOUNT DIABLO BASE AND MERIDIAN, AT THE SOUTH END OF NEWCASTLE RD.	37-53-00.46991	121-12-07.28419	-21.16	653770.254	1938246.899	-0-25-47.28	0.99993184	1.00000332	0.99993516
337	2144912.95	6364365.00	BRASS DISK MARKING CITY OF STOCKTON TRAVERSE CONTROL MONUMENT STAMPED "11S-9" IN MONUMENT BOX IN THE CENTERLINE OF AUSTIN RD AT A POINT MARKING THE SE CORNER OF SECTION 34, TOWNSHIP 1 NORTH, RANGE 7 EAST, MOUNT DIABLO BASE AND MERIDIAN.	37-53-00.87472	121-11-01.17415	-18.40	653770.774	1939862.332	-0-25-06.81	0.99993184	1.00000289	0.99993473
339	2150207.08	6364380.24	BRASS DISK MARKING COS MONUMENT STAMPED "11S-8" IN MONUMENT BOX IN CENTERLINE OF AUSTIN RD AT THE NE CORNER OF SECTION 34, TOWNSHIP 1 NORTH, RANGE 7 EAST, MOUNT DIABLO BASE AND MERIDIAN.	37-53-53.21531	121-11-01.46657	-18.29	655384.428	1939866.976	-0-25-06.99	0.99993246	1.00000287	0.99993533
340	2163889.61	6332136.19	5/8" ALUMINUM ROD DRIVEN TO REFUSAL WITH 2-1/2" DIAMETER ALUMINUM CAP STAMPED "CORP"; "L.S. 4334," IN AN ALUMINUM MONUMENT BOX WITH SCREW LOCKING COVER IN THE COS CORPORATION YARD, 1465 S. LINCOLN ST. THE POINT IS LOCATED 30 FEET SOUTH OF APPROX. CENTER OF THE TRUCK WASH STRUCTURE. CONTACT THE CITY OF STOCKTON SURVEYS SECTION FOR ACCESS.	37-56-05.96393	121-17-45.19684	-23.92	659554.871	1930038.971	-0-29-14.17	0.99993431	1.00000454	0.99993885
341	2195107.80	6339874.48	5/8" ALUMINUM ROD WITH 2-1/2" DIAMETER ALUMINUM CAP STAMPED "WELL 26"; "L.S. 4334," IN A MONUMENT BOX WITH SCREW LOCKING COVER; BENCHMARK IS LOCATED WITHIN THE LOCKED CITY OF STOCKTON WELL SITE NO. 26, ON SOUTH SIDE OF HAMMER LN, ON WEST SIDE OF THE EBMUD RIGHT-OF-WAY. THE POINT LIES IN CENTER OF PAVED AREA EAST OF WELL BUILDING. CONTACT CITY OF STOCKTON SURVEYS SECTION FOR ACCESS.	38-01-15.22866	121-16-11.81128	-22.67	669070.196	1932397.607	-0-28-16.99	0.99994023	1.00000356	0.99994379
379	2174137.13	6312114.09	AT STOCKTON ON ROUGH AND READY ISLAND, AT THE U.S. NAVAL SUPPLY ANNEX, 1.6 MILES NORTHWEST OF THE MAIN ENTRANCE, NEAR THE JUNCTION OF 9TH STREET AND EMBARCADERO, APPROXIMATELY 40 FEET SOUTHEASTERLY FROM BM G 478 AT THE NORTHWEST END OF THE BOAT WHARF, AT THE NORTHWEST END OF BERTH K, SET IN THE CONCRETE WHARF, 77 FEET NORTH OF THE NORTH CORNER OF BUILDING NO. 803, 50 FEET SOUTHWEST OF THE NORTH CORNER OF THE WHARF. THE MONUMENT IS STAMPED "READY".	37-57-45.51455	121-21-56.29937	-20.88	662078.322	1923936.224	-0-31-47.90	0.99993597	1.00000422	0.99994019
386	2158972.80	6347661.01	FOUND SAN JOAQUIN COUNTY BOLT AND WASHER. SET STANDARD BRASS CAP STAMPED 14S-27 MARKING COS IN CAST IRON MONUMENT BOX AT INTERSECTION OF CARPENTER RD AND POCK LN.	37-55-18.61654	121-14-30.92452	-24.01	658056.225	1934770.946	-0-27-15.23	0.99993360	1.00000377	0.99993737
396	2195305.92	6337004.93	BRASS DISC MARKING COS MONUMENT IN MONUMENT WELL STAMPED 14N-6 LS 6670 LOCATED AT HAMMER AND LORRAINE APPROXIMATELY 50' WEST OF RAILROAD TRACKS AND 50' EAST OF A PUMP STATION.	38-01-16.95235	121-16-47.69198	-24.03	669130.583	1931522.967	-0-28-38.96	0.99994027	1.00000377	0.99994404
397	2195258.65	6329172.74	BRASS DISC MARKING COS STAMPED 14N-5 IN MONUMENT WELL, IN SIDEWALK LOCATED NORTH OF HAMMER LN WEST OF GRADE SEPARATION AT UNION PACIFIC RAILROAD.	38-01-15.82855	121-18-25.56432	-26.35	669116.176	1929135.709	-0-29-38.88	0.99994025	1.00000413	0.99994438
398	2204136.96	6316812.10	DISC IN MONUMENT WELL STAMPED 14N-4 COS LOCATED ON WEST SIDE OF THORNTON RD SOUTH OF SPANOS.	38-02-42.51633	121-21-01.03964	-27.26	671822.290	1925368.180	-0-31-14.07	0.99994231	1.00000428	0.99994659
399	2189733.31	6319930.23	BRASS DISC STAMPED COS 14N-7 LS 6670 LOCATED AT NORTH SIDE OF BENJAMIN HOLT APPROXIMATELY 100 FEET WEST OF ALEXANDRIA PLACE.	38-00-20.40182	121-20-20.44632	-30.20	667432.049	1926318.587	-0-30-49.21	0.99993902	1.00000474	0.99994376
400	2190273.21	6321377.48	DISC IN MONUMENT WELL STAMPED COS 14N-8 LOCATED AT CENTERLINE OF BENJAMIN HOLT AND HARRISBURG.	38-00-25.86707	121-20-02.42435	-29.29	667596.610	1926759.709	-0-30-38.18	0.99993914	1.00000460	0.99994373
401	2190763.43	6322691.60	DISC IN MONUMENT WELL STAMPED COS 14N-9 LOCATED AT NW CORNER OF PERSHING AND BENJAMIN HOLT.	38-00-30.82877	121-19-46.05953	-28.71	667746.028	1927160.253	-0-30-28.16	0.99993925	1.00000451	0.99994375
402	2187639.54	6342678.14	DISC STAMPED COS 14S-2, LS 6670 LOCATED AT THE NE CORNER OF MCALLEN RD AND WILSON WAY.	38-00-01.62403	121-15-36.01663	-22.18	666793.864	1933252.164	-0-27-55.08	0.99993862	1.00000348	0.99994210
403	2185613.55	6341271.81	BRASS DISC IN MONUMENT WELL STAMPED 14S-3, LS 6670 LOCATED AT WILSON WAY AND THE DEPARTMENT OF FISH AND GAME OFFICE.	37-59-41.48184	121-15-53.37951	-22.61	666176.343	1932823.513	-0-28-05.71	0.99993820	1.00000355	0.99994175
404	2183380.99	6343977.59	BRASS DISC IN MONUMENT WELL STAMPED 14S-4 LOCATED 70' WEST OF THE NEWTON AND CHEROKEE INTERSECTION ON THE SOUTH SIDE OF CHEROKEE.	37-59-19.62794	121-15-19.35266	-22.81	665495.858	1933648.238	-0-27-44.87	0.99993776	1.00000358	0.99994134
405	2176873.06	6319999.82	BRASS DISC STAMPED 14S-17 LOCATED AT WEST ALPINE AVE AND RYDE, WEST OF I-5.	37-58-13.27177	121-20-18.13735	-31.65	663512.235	1926339.799	-0-30-47.80	0.99993648	1.00000497	0.99994144
406	2168815.75	6359291.75	BRASS DISC IN MONUMENT BOX STAMPED 14S-19 LOCATED AT FARMINGTON RD AND GILLIS RD.	37-56-56.81292	121-12-06.69256	-19.03	661056.362	1938316.001	-0-25-46.92	0.99993513	1.00000299	0.99993812
407	2167302.31	6354694.49	BRASS DISC MARKING COS MONUMENT STAMPED 14S-20, LS6670 LOCATED AT PROJECTED CENTERLINE OF WALKER RD AT FARMINGTON RD.	37-56-41.50601	121-13-03.94317	-21.16	660595.064	1936914.753	-0-26-21.97	0.99993488	1.00000332	0.99993820
408	2166522.76	6352340.89	BRASS DISC IN MONUMENT WELL MARKING COS MONUMENT STAMPED 14S-21, LOCATED AT FARMINGTON RD AND SINCLAIR.	37-56-33.61977	121-13-33.24993	-22.04	660357.457	1936197.376	-0-26-39.92	0.99993475	1.00000346	0.99993821
409	2165982.79	6350691.60	BRASS DISC IN MONUMENT WELL STAMPED 14S-22 LOCATED ON FARMINGTON RD EAST OF STAGECOACH. PUNCH MARK IS OFF CENTER OF DISC.	37-56-28.15464	121-13-53.78638	-21.06	660192.876	1935694.671	-0-26-52.49	0.99993466	1.00000330	0.99993797
410	2165599.37	6349364.89	BRASS DISC MARKING COS MONUMENT STAMPED 14S-23, LS 6670 LOCATED ON NORTH EDGE OF HIGHWAY 4 AT SOUTH HIGHWAY 99 OFFRAMP AT THE PROJECTED CL OF LADD TRACT RD EAST OF NETHERTON AV.	37-56-24.26116	121-14-10.31054	-22.26	660076.008	1935290.289	-0-27-02.61	0.99993460	1.00000349	0.99993809
411	2164949.16	6347476.07	DISC IN MONUMENT WELL STAMPED 14S-24 LOCATED AT INTERSECTION OF MARIPOSA RD AND EIGHTH ST.	37-56-17.68556	121-14-33.82450	-23.35	659877.825	1934714.577	-0-27-17.00	0.99993450	1.00000366	0.99993816
412	2164110.74	6346059.24	FOUND IRON PIPE WITH CAP IN MONUMENT BOX PER MAP. SET BRASS DISC IN MONUMENT WELL MARKING COS MONUMENT STAMPED 4S-25, LOCATED AT EIGHTH STREET AND POCK. PUNCH MARK IS OFF CENTER OF DISC.	37-56-09.28519	121-14-51.42699	-24.04	659622.272	1934282.726	-0-27-27.78	0.99993436	1.00000377	0.99993814
413	2161628.97	6346832.55	FOUND PIPE IN MONUMENT BOX PER MAP. SET A BRASS DISC IN MONUMENT WELL MARKING COS MONUMENT STAMPED 14S-26, LS6670. LOCATED AT THE CENTERLINE OF POCK LN AT LOOMIS RD.	37-55-44.81091	121-14-41.52763	-23.98	658865.827	1934518.431	-0-27-21.72	0.99993399	1.00000376	0.99993775
415	2169478.29	6353975.99	BRASS DISC IN MONUMENT WELL STAMPED 14S-18 LOCATED AT WALKER LN AND SECTION AVENUE.	37-57-02.96362	121-13-13.12201	-21.22	661258.306	1936695.754	-0-26-27.59	0.99993524	1.00000333	0.99993857
416	2144855.10	6330050.25	BRASS DISC IN MONUMENT WELL MARKING COS STAMPED 14S-29 LOCATED AT MATHEWS AND WOLFE RD.	37-52-57.60899	121-18-09.19649	-28.22	653753.142	1929403.175	-0-29-28.86	0.99993181	1.00000443	0.99993624
417	2144605.47	6336644.26	BRASS DISC IN MONUMENT WELL MARKING COS STAMPED 14S-30 LOCATED AT CENTERLINE MATHEWS RD AND NORTHBOUND ON-RAMP TO INTERSTATE FIVE.	37-52-55.69219	121-16-46.92041	-26.66	653677.055	1931413.032	-0-28-38.49	0.99993179	1.00000418	0.99993597
418	2162436.67	6352055.60	BRASS DISC IN MONUMENT WELL MARKING COS STAMPED 14S-28 LOCATED AT THE NORTH SIDE OF MARIPOSA RD +/- 500' EAST OF STAGECOACH RD.	37-55-53.20205	121-13-36.41526	-22.36	659112.016	1936110.419	-0-26-41.85	0.99993412	1.00000351	0.99993763
419	2169668.86	6337997.42	BRASS DISC IN MONUMENT WELL STAMPED 14S-13 LOCATED AT WEST SIDE OF UNION STREET AND THE CENTERLINE OF SONORA.	37-57-03.58494	121-16-32.63337	-26.51	661316.391	1931825.476	-0-28-29.74	0.99993525	1.00000416	0.99993941

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CITY OF STOCKTON 2001 GPS CONTROL SURVEYS  
+ GEODETIC POSITIONS & STATE PLN COORDINATES  
NAD 83, 1991.35 EPOCH

RECORD OF SURVEY

OF  
THE CITY OF STOCKTON HORIZONTAL CONTROL SYSTEM PHASE XIV  
WITHIN THE CITY OF STOCKTON AND COUNTY OF SAN JOAQUIN, STATE  
OF CALIFORNIA

PREPARED BY:  
McGEE SURVEYING CONSULTING  
SANTA BARBARA, CALIFORNIA  
&  
KJELDSSEN, SINNOCK & NEUDECK, INC.  
CONSULTING ENGINEERS & LAND SURVEYORS  
STOCKTON, CALIFORNIA MARCH 2001

POINT NUMBER	NORTHING (Y) Sft.	EASTING (X) Sft.	DESCRIPTION	NORTH LATITUDE	WEST LONGITUDE	ELLIPSOID HT. METRIC.	NORTHING (Y) METRIC	EASTING (X) METRIC	CONVERGENCE ANGLE	GRID SCALE	ELEVATION SCALE	COMBINED SCALE
420	2168657.50	6333144.28	BRASS DISC IN MONUMENT WELL, STAMPED 14S-14, LS 6670 LOCATED AT THE SOUTHEAST CORNER OF SONORA AND MADISON.	37-56-53.18454	121-17-33.11758	-28.14	661008.129	1930346.238	-0-29-06.77	0.99993507	1.00000442	0.99993949
421	2170429.64	6332729.27	DISC MARKING COS MONUMENT STAMPED 14S-15, LS 6670 LOCATED AT SW CORNER WEBER AND MADISON.	37-57-10.66932	121-17-38.48647	-28.12	661548.278	1930219.743	-0-29-10.06	0.99993537	1.00000441	0.99993978
422	2169920.44	6330152.32	BRASS DISC STAMPED SJ 238 10R LOCATED IN TOP OF A CONCRETE WALK ON THE SOUTHEAST CORNER OF BRIDGE ON SOUTH SIDE OF WEBER AVENUE.	37-57-05.41790	121-18-10.60595	-27.90	661393.072	1929434.285	-0-29-29.72	0.99993528	1.00000438	0.99993966
423	2181505.89	6339376.34	BRASS DISC IN MONUMENT WELL STAMPED 14S-6, LOCATED AT NE CORNER OF SANGUINETTI AND WILSON WAY.	37-59-00.71949	121-16-16.63546	-25.26	664924.324	1932245.774	-0-28-19.95	0.99993738	1.00000396	0.99994135
424	2178093.61	6337878.15	BRASS DISC MARKING COS MONUMENT STAMPED 14S-7, LS 6670, 5 FEET EAST OF THE WEST CURB ON WILSON WAY APPROXIMATELY 100 FEET NORTH OF BRADFORD STREET.	37-58-26.86305	121-16-34.99503	-25.91	663884.260	1931789.123	-0-28-31.19	0.99993673	1.00000407	0.99994080
425	2176834.21	6338068.10	DISC STAMPED 14S-8, LS 6670 LOCATED AT NW CORNER OF HARDING WAY AND WILSON WAY INTERSECTION.	37-58-14.42812	121-16-32.49235	-26.55	663500.395	1931847.021	-0-28-29.65	0.99993650	1.00000417	0.99994067
426	2174789.76	6338545.37	BRASS DISC STAMPED 14S-9 AT THE INTERSECTION OF WATERLOO RD AND WILSON WAY.	37-57-54.25562	121-16-26.32096	-25.77	662877.246	1931992.492	-0-28-25.87	0.99993613	1.00000404	0.99994017
427	2173598.71	6338791.77	BRASS DISC IN MONUMENT WELL STAMPED 14S-10 LOCATED AT WILSON WAY AND OAK STREET.	37-57-42.50092	121-16-23.12119	-26.46	662514.213	1932067.595	-0-28-23.92	0.99993592	1.00000415	0.99994007
428	2177980.12	6340462.62	BRASS DISC IN MONUMENT WELL STAMPED 14S-11 LOCATED AT CHEROKEE RD. AND SANGUINETTI LN.	37-58-25.95185	121-16-02.70620	-25.39	663849.669	1932576.873	-0-28-11.42	0.99993672	1.00000398	0.99994070
429	2187420.27	6323725.86	BRASS DISC IN MONUMENT WELL STAMPED 14N-10 LOCATED AT PERSHING AVENUE NORTH OF ROBINHOOD DR.	37-59-57.86897	121-19-32.76816	-28.74	666727.033	1927475.498	-0-30-20.02	0.99993854	1.00000451	0.99994305
430	2182669.23	6339012.24	BRASS DISC MARKING COS MONUMENT STAMPED 14S-5, LS 6670 15 FEET WEST OF THE EAST CURB ON SANGUINETTI APPROXIMATELY 40 FEET SOUTH OF THE CENTERLINE OF ALPINE.	37-59-12.19064	121-16-21.30326	-25.02	665278.911	1932134.795	-0-28-22.80	0.99993761	1.00000393	0.99994153
431	2187611.87	6340334.80	BRASS DISC IN MONUMENT BOX STAMPED 14S-1, LS 6670 LOCATED AT MCALLEN RD. E. OF CALAVERAS RIVER.	38-00-01.16142	121-16-05.28987	-21.50	666785.433	1932537.913	-0-28-13.00	0.99993861	1.00000337	0.99994199
432	2176283.10	6346184.96	BRASS DISC STAMPED 14S-12 LOCATED AT THE NORTH SIDE OF FREMONT EAST OF BROADWAY.	37-58-09.63290	121-14-51.07147	-22.44	663332.417	1934321.043	-0-27-27.56	0.99993641	1.00000352	0.99993993
433	2208637.96	6323981.45	BRASS DISC IN MONUMENT WELL STAMPED 14N-2 LOCATED ON THE NORTH SIDE OF EIGHT MILE RD +/- 250 FEET WEST OF THE UNION PACIFIC RAILROAD CROSSING.	38-03-27.64697	121-19-31.91346	-23.14	673194.196	1927553.400	-0-30-19.50	0.99994346	1.00000363	0.99994709
434	2208836.72	6307657.85	BRASS DISC MARKING COS IN MONUMENT WELL STAMPED 14N-1 LS 6670 LOCATED AT NORTH SIDE OF EIGHT MILE RD +/- 4000 FEET WEST OF I-5 AND 1.5' SOUTH OF A.C. CURB.	38-03-28.13949	121-22-56.02842	-23.10	673254.780	1922577.957	-0-32-24.47	0.99994347	1.00000441	0.99994788
435	2208507.80	6332304.05	BRASS DISC STAMPED 14N-3, LS 6670, +/- 300 WEST OF THE INTERSECTION OF EIGHT MILE RD AND WEST LN ON THE NORTH SIDE OF EIGHT MILE RD.	38-03-27.07335	121-17-47.84252	-22.40	673154.525	1930090.134	-0-29-15.79	0.99994344	1.00000352	0.99994696
436	2197850.01	6332771.82	ALUMINUM DISC STAMPED WEST IN MONUMENT WELL LOCATED AT ABANDONED FENCED IN PUMP STATION ON EAST SIDE OF WEST LN AT NORTH BANK OF MOSHER SLOUGH.	38-01-41.75095	121-17-40.86243	-24.24	669906.022	1930232.711	-0-29-11.51	0.99994085	1.00000380	0.99994465
1001	2208772.00	6315487.93	LOCATED ON THE NORTH SIDE OF 8-MILE RD, 0.15 MILE WEST OF ITS JUNCTION WITH THORNTON RD. THE UNDERGROUND AND SURFACE STATION MARKS ARE NGS HORIZONTAL CONTROL DISKS STAMPED "HARTE 1959 1974". THE UNDERGROUND MARK IS SET IN THE TOP OF A BLOCK OF CONCRETE IN HARDPAN 3.3 FEET BELOW THE SURFACE OF THE GROUND. THE SURFACE MARK IS SET IN THE TOP OF A 12 INCH CONCRETE CYLINDER FLUSH WITH THE GROUND AND IS 39.7 FEET NORTH OF THE CENTERLINE OF THE RD, 17.0 FEET WEST OF A TELEPHONE POLE, 6 FEET SOUTH OF THE SOUTH EDGE OF A SMALL DITCH, 2 FEET NORTH OF A METAL WITNESS POST, AND ABOUT 1/2 FOOT LOWER THAN THE RD. NOTE CITY OF STOCKTON BM "O".	38-03-28.21814	121-21-18.12227	-27.88	673235.052	1924964.570	-0-31-24.53	0.99994347	1.00000438	0.99994785
1002	2208656.45	6316485.35	LOCATED IN THE NW CORNER OF A CULTIVATED FIELD, IN SE QUADRANT OF THE INTERSECTION OF 8-MILE RD AND THORNTON RD THE UNDERGROUND AND SURFACE STATION MARKS ARE NGS HORIZONTAL CONTROL DISKS STAMPED "BENNETT 2 1974". THE UNDERGROUND MARK IS SET IN THE TOP OF A BLOCK OF CONCRETE 4.2 FEET BELOW THE SURFACE OF THE GROUND. THE SURFACE MARK IS SET IN THE TOP OF A 12-INCH CONCRETE CYLINDER, 69.5 FEET EAST OF CENTERLINE OF THORNTON RD, 63.8 FEET SOUTH OF CENTERLINE OF 8-MILE RD, 50 FEET NE OF A GUYED TELEPHONE-POWER POLE, 13 FEET SOUTHEAST OF THE SOUTHEAST EDGE OF A DRAINAGE DITCH, AND ABOUT 4.5 FEET LOWER THAN THORNTON RD. NOTE CITY OF STOCKTON BM "A".	38-03-27.16570	121-21-05.63849	-28.27	673199.831	1925268.584	-0-31-16.88	0.99994344	1.00000444	0.99994788
1003	2184703.61	6327980.60	SET IN TOP OF A CONCRETE CYLINDER 8" BELOW THE SURFACE, 30 FEET SOUTHEAST OF CENTERLINE OF TRACK RD ALONG THE E.B.M.U.D. AQUEDUCT. TO REACH THE STATION FROM THE INTERSECTION OF PACIFIC AVE AND ALPINE AV. GO NORTH ON PACIFIC AVE FOR 0.5 MILE TO THE BRIDGE OVER THE CALAVERAS RIVER, CONTINUE NORTH ON PACIFIC AVE FOR 0.4 MILE TO A TRACK RD ON THE RIGHT, TURN RIGHT AND GO 0.15 MILE TO THE STATION ON THE RIGHT, STAMPED "STOCKTON S.W. BASE 1954".	37-59-31.37990	121-18-39.31918	-27.04	665898.992	1928772.345	-0-29-47.30	0.99993800	1.00000424	0.99994224
1006	2156434.07	6348474.30	SURFACE MARK RESET 08/31/93 USING A CITY OF STOCKTON BRASS DISK STAMPED POX RESET 1993, SET ON A CONCRETE PILLAR IN A CAST METAL BOX LOCATED 6.9 FT. WEST OF THE EAST FACE OF CURB FOR POCK LN. THE CAST METAL BOX IS SET AT THE SURFACE OF THE ASPHALT PAVEMENT WITH A LID STAMPED MONUMENT. THE STATION IS LOCATED APPROXIMATELY 1.1 MILES NORTHWEST OF THE INTERSECTION OF HWY. 99 AND ARCH-AIRPORT RD, AND +/-200 FEET NORTH OF A BRIDGE.	37-54-53.58172	121-14-20.52443	-23.32	657282.419	1935018.836	-0-27-08.86	0.99993325	1.00000366	0.99993691
1008	2161713.52	6323061.86	2.0 MILES WEST ALONG STATE HIGHWAY 4 FROM UNION PACIFIC RAILROAD OVERPASS AT STOCKTON, AT GARWOOD BRIDGE OVER THE SAN JOAQUIN RIVER, IN TOP OF THE EAST END OF SOUTH CONCRETE CURB, 15' SOUTH OF THE CENTERLINE OF HIGHWAY, 2' NORTH OF THE NORTH FACE OF SOUTH CONCRETE GUARDRAIL, AND ABOUT 1/2' HIGHER THAN THE HIGHWAY, STAMPED USCE SJI41. NOTE: CITY OF STOCKTON BM "P".	37-55-43.67285	121-19-38.22459	-23.80	658891.599	1927273.108	-0-30-23.36	0.99993397	1.00000373	0.99993771
1013	2174096.94	6312085.07	PK NAIL AND BRASS TAG SET BY CA. DEPT. OF WATER RESOURCES(ID4633), 24.9 FT SE OF USCGS BM G478, 2.0 FT. SW OF CONCRETE EDGE OF WHARF, ON ROUGH & READY IS., NAVAL COMM. STATION, NEAR JUNCTION OF 9TH ST AND EMBARCADERO ST.	37-57-45.11466	121-21-56.65714	-27.09	662666.074	1923927.377	-0-31-48.12	0.99993597	1.00000425	0.99994022
1019	2203218.43	6322094.20	COS BRASS DISK STAMPED "1N-8"; "RCE 8189" IN MONUMENT BOX ON THE EAST SIDE OF DAVIS RD, NEAR THE SOUTH END OF A BRIDGE OVER BEAR CREEK. ERM 276.	38-02-33.90518	121-19-54.90723	-25.07	671542.320	1926978.165	-0-30-33.58	0.99994210	1.00000393	0.99994603
1034	2172691.87	6356506.17	COS BRASS DISK STAMPED "6S-TP1" IN MONUMENT BOX ON SOUTH SIDE OF MAIN ST, +/- 2285' EAST OF THE CENTERLINE OF CARDINAL AVE.	37-57-34.92496	121-12-41.83770	-19.99	662237.807	1937466.956	-0-26-08.44	0.99993579	1.00000314	0.99993892
1035	2171951.12	6353185.80	COS BRASS DISK STAMPED "6S-TP2" IN MONUMENT BOX AT NORTH SIDE OF MAIN ST AT WALKER RD (SOUTH).	37-57-27.35011	121-13-23.22598	-21.49	662012.024	1936454.906	-0-26-33.78	0.99993565	1.00000337	0.99993903

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RECORD OF SURVEY

OF  
THE CITY OF STOCKTON HORIZONTAL CONTROL SYSTEM PHASE XIV  
WITHIN THE CITY OF STOCKTON AND COUNTY OF SAN JOAQUIN, STATE  
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PREPARED BY:  
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STOCKTON, CALIFORNIA MARCH 2001

POINT NUMBER	NORTHING (Y) Sft.	EASTING (X) Sft.	DESCRIPTION	NORTH LATITUDE	WEST LONGITUDE	ELLIPSOID Ht. METRIC	NORTHING (Y) METRIC	EASTING (X) METRIC	CONVERGENCE ANGLE	GRID SCALE	ELEVATION SCALE	COMBINED SCALE
1043	2134942.93	6337928.00	SET A PK NAIL AND BRASS TAG STAMPED LS6670. STATION IS +/- 70 FEET WEST OF THE RAILROAD TRACKS ON THE NORTH SHOULDER OF ROTH RD THE POINT IS AN OFFSET TO Q934 PID HS0125.	37-51-20.27091	121-16-29.90966	-23.71	650731.908	1931804.319	-0-28-28.07	0.99993084	1.00000372	0.99993456
1044	2165966.21	6338426.58	AT STOCKTON , 1.1 MILES SOUTH ALONG THE UNION PACIFIC COMPANY RAILROAD FROM THE STATION, AT A BRIDGE OVER CHARTER WAY, IN THE TOP OF THE CONCRETE BASE OF THE EAST BANISTER, 36.1 FEET EAST OF THE EAST RAIL OF THE NORTHBOUND TRACK, 5.7 FEET NORTH OF THE SOUTH END OF THE BANISTER, 20.9 FEET SOUTH OF A JOG IN THE BANISTER LINE, AND ABOUT MIDWAY BETWEEN THE BANISTER AND THE WEST EDGE OF THE BASE STAMPED USCGS D745. NOTE: CITY OF STOCKTON MB "H".	37-56-27.01516	121-16-26.89285	-24.70	660187.820	1931956.285	-0-28-26.23	0.99993465	1.00000389	0.99993853
1045	2218791.78	6338563.71	A STAINLESS STEEL ROD, FLUSH WITH THE SURFACE STAMPED "W1413 1987". FROM THE JUNCTION OF WEST LN AND KETTLEMAN LN IN LODI GO SOUTH ALONG WEST LN FOR 2 MILES, THEN 0.2 MILE EAST ALONG ARMSTRONG RD, AT 2ND TELEPHONE POLE SOUTH OF CROSSING OF UNION PACIFIC R/ ROAD, AT RAILROAD MILEPOLE 100, 24.9' EAST OF CENTERLINE OF PEARSON RD, 42.7' WEST OF THE WEST R L, 18.7' WEST OF THE CENTER OF A TRACK RD, 2.4' SOUTH OF MILEPOLE 100. NOTE: ACCESS TO POINT IS THROUGH A 5-IN LOGO CAP. THE MARK IS 1' SOUTH FROM A WITNESS POST AND 6' BELOW THE RAILROAD.	38-05-09.25848	121-16-30.64328	-18.95	676289.086	1931998.084	-0-28-28.52	0.99994621	1.00000297	0.99994918
1046	2164520.60	6320931.51	A MARK STAMPED "4867 A 1978", LOCATED ON THE NE CORNER OF ROBERTS ISLAND ON THE WEST BANK OF THE SAN JOAQUIN RIVER SOUTH OF BASCULE RAILROAD DRAWBRIDGE, IN THE NE CORNER OF THE CITY OF STOCKTON TERTIARY PLANT. ACCESS TO THE STATION IS RESTRICTED. CONTACT THE SENIOR CIVIL ENGINEER FOR THE CITY OF STOCKTON MUNICIPAL UTILITIES DEPARTMENT AT 209-937-8781. TO REACH THE STATION FROM THE INTERSECTION OF I-5 AND STATE HWY 4 IN STOCKTON, DRIVE WEST ON HWY 4 FOR 2.6 MILES TO THE INTERSECTION OF JOHN TURK RD, A GATED SIDE RD ON THE RIGHT, TURN RIGHT AND GO NORTH ON JOHN TURK RD PAST THE GATE TO THE FIRST PERIMETER RD TO THE RIGHT, TURN RIGHT AND GO EAST TO AN ACCESS RD TO THE WEST LEVEE RD ALONG THE WEST BANK OF THE SAN JOAQUIN RIVER, NORTH OF THE HWY 4 BRIDGE. TURN LEFT AND GO NORTH ALONG THE LEVEE RD ABOUT 0.38 MILE TO THE STATION. THE STATION IS SET INSIDE A 6-IN DIAMETER PVC PIPE SET IN CONCRETE FLUSH WITH THE SURFACE OF THE LEVEE BANK, 218.8' SOUTH OF THE SOUTH RAIL OF THE RAILROAD TRACKS, 78.3' SOUTH OF THE EAST GATEPOST OF THE FIRST GATE TO THE NORTH, ABOUT 10' EAST OF THE CENTERLINE AND ABOUT 2' EAST OF THE EAST EDGE OF THE LEVEE RD, 1' SOUTH OF A WITNESS POST.	37-56-11.23697	121-20-05.12634	-25.70	659747.199	1926623.777	-0-30-39.83	0.99993440	1.00000403	0.99993843
1047	2144757.63	6333795.40	THE STATION IS LOCATED ABOUT 1/4 MILE SOUTHWEST OF THE SAN JOAQUIN COUNTY HOSPITAL, 1 MILE WEST OF FRENCH CAMP, AND JUST NORTH OF MATHEWS RD. THE STATION MARK IS A STANDARD BRONZE DISK STAMPED "MATTHEW 1959", SET IN THE TOP OF A 10-IN SQUARE CONCRETE MONUMENT, WHICH IS FLUSH WITH THE GROUND. THE MARK IS 3 FEET SOUTH OF A FENCE LINE, 24 FEET NORTH OF THE APPROXIMATE CENTERLINE OF MATHEWS RD, 25.6 FEET WEST OF A TELEPHONE POLE AND 2.1 FEET NORTH OF A METAL WITNESS POST.	37-52-56.96028	121-17-22.47123	-26.80	653723.432	1930544.700	-0-29-00.25	0.99993180	1.00000420	0.99993600
1048	2192406.61	6336873.26	A DISK STAMPED "L 833 1947" LOCATED 0.5 MILE SOUTH OF THE CROSSING OF HAMMER AND THE UNION PACIFIC RAILROAD 3.9 MILES NORTH ALONG THE RAILROAD 4 RAILS NORTH OF MILE POLE NUMBER 95, AT BRIDGE NO. 95.01 OVER THE EBMUD PIPELINE, IN TOP OF SW END OF SOUTH ABUTMENT, 6.7' WEST OF WEST RAIL OF WEST TRACK AND 1.5' LOWER THAN THE TOP OF THE RAIL. NOTE: COS BM "N".	38-00-48.27899	121-16-49.03532	-23.05	668246.870	1931482.834	-0-28-39.78	0.99993963	1.00000362	0.99994325
CNDR	2149796.02	6337039.80	A CORS STATION PID AH8914, THE STATION IS THE ANTENNA REFERENCE POINT OF THE GPS ANTENNA. FOR ADDITIONAL INFORMATION CONTACT NGS VIA THE WORLD WIDE WEB AT HTTP://WWW.NGS.NOAA.GOV.	37-53-47.03982	121-16-42.52517	-20.06	655259.137	1931533.595	-0-28-35.80	0.99993238	1.00000315	0.99993553

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