

County of Orange - OC Survey

Sample Channel - Control Summary Sheet - July 2018

Surveyor Narrative: The purpose of this survey is to establish a control network in preparation for R/W survey. Static GPS positions were derived from CGPS Station constraints- CCCS & BLSA, and was the first phase of this network. After static observations were made, a conventional traverse was then performed connecting all GPS points and setting control and at the same time locating boundary points. All positions from the traverse were constrained to the Static GPS values. Due to this being a flood corridor survey, more static GPS points were needed to account for the geometric weakness of the traverse. This R/W survey does not require elevations derived from differential leveling, there fore Orthometric Heights are suffice. All monuments were doubled determined and values derived from a StarNet adjustment approved by Jesom Moreno.

Field Crew: E. Medina & Party		Starnet Adjustment: E. Medina & R. Macias		Review: J. Moreno					
CGPS STATIONS (Basis of Bearing)									
Control Station Checks				{ } Indicates Fixed Value		"Italics" Indicates Adjusted Value			
Station	Ellip Ht (ft)	North (ft)	East (ft)	Ortho Ht (ft)	Δ N (ft)	Δ E (ft)	Δ Z (ft)		
CCCS	293.34	{2147750.808}	{6131652.603}	406.38	xxx	xxx	-0.027		
BLSA	{873.173}	{2191881.312}	{6137735.654}	984.45	xxx	xxx	xxx		
SNHS	5015.47	2206066.99	6166205.34	5124.55	-0.017	0.067	0.090		
Static GPS Observed Monuments									
Station	North (ft)	East (ft)	Orth Ht ¹ (ft)	Ellip Ht (ft)	Comb Factor	N σ ²	E σ ²		
301	2268379.21	6053495.69	195.00	79.94	0.99999583	-0.0468	0.0129		
304	2267519.80	6053905.67	192.48	77.41	0.99999556	-0.0475	0.0176		
306	2266984.95	6054189.14	183.69	68.62	0.99999574	-0.0549	0.0121		
309	2265667.21	6053405.84	174.16	59.02	0.99999956	-0.0455	0.0319		
313	2265754.80	6050810.17	157.82	42.58	0.99999641	-0.0406	0.0091		
314	2266133.95	6048144.39	142.27	26.93	0.99999731	-0.0503	0.0093		
315	2266432.76	6045424.23	129.52	14.08	0.99999804	-0.0577	0.0084		
316	2266756.96	6043279.81	126.64	11.12	0.99999831	-0.0396	0.0051		
317	2267232.90	6040352.18	113.18	-2.44	0.99999915	-0.0516	0.0101		
318	2267462.14	6037433.49	99.99	-15.74	0.99999987	-0.056	0.0173		
319	2267260.13	6032388.87	79.64	-36.29	1.00000073	-0.0449	0.0179		
320	2267547.52	6027551.85	67.89	-48.22	1.00000139	-0.0562	0.0099		
321	2265854.70	6037647.39	94.21	-21.55	0.99999942	-0.0312	-0.0083		
322	2268345.81	6054835.33	249.85	134.83	0.9999932	-0.0346	0.0074		
326	2265716.62	6054801.38	173.89	58.81	0.99999564				
1051	2267733.10	6048102.70	208.71	93.41	0.99999485				
Note 1: Orthometric heights are GPS derived using CGPS stations and Geoid 12b; Note 2: Standard Deviation (σ) at one sigma									

Horizontal Datum = CCS NAD83, Zone VI, OCS 2007.00 Epoch Adjustment

Vertical Datum = NAVD88, 1995 OCS Adjustment (GPS derived using CGPS stations and Geoid 12b)

Project Average CF: 0.9999120077

County of Orange - OC Survey
Sample Channel - Control Summary Sheet - July 2018

Conventionally Traversed Monuments									
<u>Station</u>	<u>North (ft)</u>	<u>East (ft)</u>	<u>Orth Ht ¹ (ft)</u>		<u>Comb Factor</u>	<u>N σ ²</u>	<u>E σ ²</u>		
XXX	XXX	XXX	XXX		XXX	XXX	XXX		
<u>Station</u>	<u>Monument Descriptions</u>								
100	FND OCS WELL MON 2"IP W/BRASS DISK OCS RANCHO TRABUCO NO. 12 RESET 2-94, GPS 0439								
101	FND 1 1/2" IP W/BRASS CAP T6S R7W CC TRABUCO RE 2839 RE 4231, UP 0.3'								
102	FND AXLE W/PUNCH / GPS 0785								
104	FND 2" IP W/TAG LS 4965, DN 0.3'								
105	FND 1 1/2" IP W/BRASS DISK T6S R7W 9, 10 R.O. TRABUCO RE 2839 RE 4231								
106	FND 1 1/2" IP W/BRASS DISK T6S R7W 9,10,16,15 RE 4231 RE 2839 , GPS 0157								
109	FND 2" IP W/TAG LS 4965 FLUSH								
110	FND 2" IP W/TAG LS 4965 DN 1.0' UNDER 8" PVC PIPE								
123	FND 2" IP W/TAG LS 4965 DN 0.5' NEAR FENCE POST								
128	FND 1 1/2" IP NO TAG UP 1.0'								
131	FND 2" IP W/TAG DN 1.2' ILLEGIBLE								
136	FND 2" IP W/TAG DN 0.2' "RCE 14749"								
137	FND 2" IP W/TAG "RCE 23956" DN 0.6', GPS 4307								
201	Set 2" IP w/OCS Disk, flush in dirt								

Horizontal Datum = CCS NAD83, Zone VI, OCS 2007.00 Epoch Adjustment

Vertical Datum = NAVD88, 1995 OCS Adjustment (GPS derived using CGPS stations and Geoid 12b)

Project Average CF: 0.9999120077