CHECKPOINT SURVEY REPORT

SM580170040 – LiDAR QAQC FOR COASTAL TEXAS

INTRODUCTION

Gorrondona & Associates, Inc. was tasked by AECOM Technical Services (AECOM) to perform a control survey in support of LiDAR data collection of two separate areas along the Texas coast: East Area of Interest (AOI) and the West Area of Interest (AOI). The Global Positioning System used was the Western Data System Virtual Reference Station (VRS) Network. The map in Figure 1 shows the location of the two surveys. Each site was processed independently of the others.

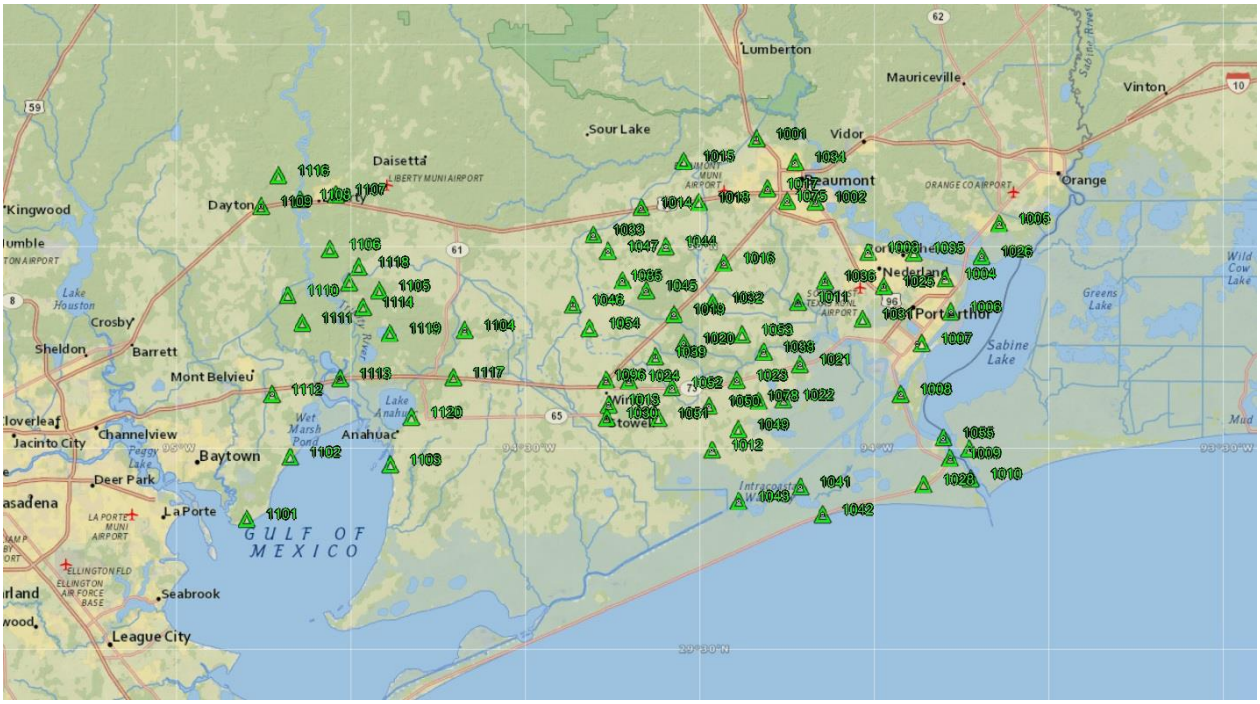

Figure 1: The above map indicates the two survey areas being the East AOI one hundred (100) points (1000-1100) and the West AOI twenty-five (25) points (1101-1125).

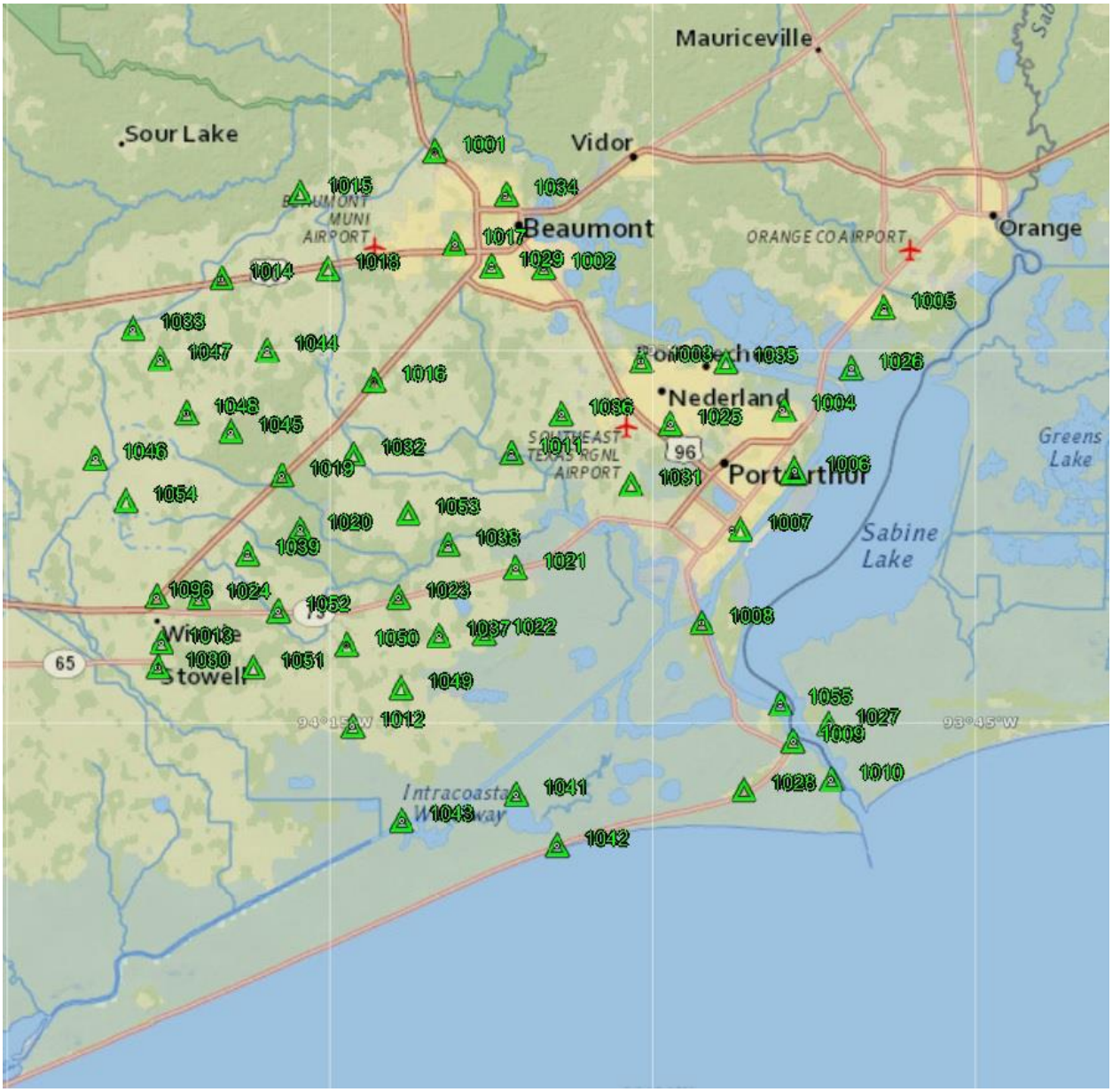

Figure 2: The above map indicates the East AOI one hundred (100) points (1000-1100).

Figure 3: The above map indicates the West AOI twenty-five (25) points (1101-1125).

CONTROL

The Western Data System VRS Network was used to provide control for the survey. The Virtual Reference Station (VRS) base stations used for the East AOI one hundred (100) points are listed in the table below:

SITE	VRS NETWORK NAME	STATION ID	STATION CODE	LATITUDE	LONGITUDE	ELLIPSOIDAL HGT
ANAHUAC	HCCS_g05	HCCS_g1012	HCCS	29°46'26.26978"N	94°39'40.69112"W	-14.154
BEAUMONT	HLAM_g09	HLAM_g0913	HLAM	30°02'40.52760"N	94°04'28.33626"W	-11.426
ORANGE	PRS425532995293	HBLS_g0715	HBLS	30°07'04.03266"N	93°48'20.95208"W	-18.901
PORT ARTHUR	PRS378167403	HAPA_g0313	HAPA	29°56'34.79533"N	93°59'19.58450"W	-5.213

The Western Data System VRS Network was used to provide control for the survey. The Virtual Reference Station (VRS) base stations used for the West AOI twenty-five (25) points are listed in the table below:

SITE	VRS NETWORK NAME	STATION ID	STATION CODE	LATITUDE	LONGITUDE	ELLIPSOIDAL HGT
LIBERTY	PRS381689931097	HLBT_g0915	HLBT	30°03'35.83967"N	94°47'52.52639"W	-13.396
BAYTOWN	PRS756210592794	HBUH_g1012	HBUH	29°44'19.88087"N	94°58'49.88459"W	-16.988
ANAHUAC	HCCS_g05	HCCS_g1012	HCCS	29°46'26.26978"N	94°39'40.69112"W	-14.154

The Horizontal Datum was the North American Datum of 1983 (NAD83) (2011). The vertical datum was the North American Datum of 1988 (NAVD88). The geoid model “GEOID12B” was used to obtain the NAVD88 orthometric heights from the GRS 1980 ellipsoidal heights.

EAST AOI STATIONS

The one hundred (100) newly surveyed control points were a combination of non-vegetated and vegetated shots all in open terrain. The below table summarizes the new stations:

Station	GPS ID	USGS Quad	Description
1	1001	VOTH	Concrete, northwest intersection of SH105 and SH287
2	1002	BEAUMONT EAST	Gravel, 16' north of E. Chapin Ave and 150' west of SH380
3	1003	PORT ACRES	Gravel, center of access road to Mid-County RC Club 350' northeast of railroad tracks
4	1004	PORT ARTHUR NORTH	Asphalt, Holly St and Beech Ave intersection
5	1005	ORANGEFIELD	Gravel, 488' southwest of Stewart St and Nevils St intersection
6	1006	PORT ARTHUR NORTH	Asphalt, intersection of Procter St and access road to Gulf Copper Central Yard
7	1007	PORT ARTHUR NORTH	Concrete, north intersection of Charleston Ave and W Rev Dr
8	1008	PORT ARTHUR SOUTH	Gravel, center of driveway at 2420 S Gulfway Dr
9	1009	SABINE PASS	Asphalt, intersection of Broadway St and 3rd Ave
10	1010	TEXAS POINT	Gravel, center of drive entrance 65' west of S 1st St, 0.8 miles south of Quinn St and S 1st St intersection
11	1011	PORT ACRES	Asphalt, southern intersection of Hillebrandt Rd and Lombardo Rd
12	1012	STAR LAKE	Asphalt, intersection of Big Hill Road and Wilber Road
13	1013	STOWELL	Concrete, center of pad 525' west of School Rd and T Jones Rd intersection
14	1014	CHINA	Gravel, center of Doguet Turf Farm access road, 20' east of E Railroad St
15	1015	CHINA	Concrete, center of cul-de-sac at McMoore Ln
16	1016	FANNETT EAST	Gravel, center of east entrance of parking lot, 0.6 miles southwest of IH10 and Smith Rd intersection
17	1017	BEAUMONT WEST	Asphalt, center of Chamberlin Dr, 40' north of Chamberlin Dr and Maitland Dr intersection
18	1018	CHINA	Concrete, center of driveway to APAC Texas Inc storage yard
19	1019	FANNETT WEST	Gravel, center of driveway at address 17457 I10
20	1020	FANNETT WEST	Gravel, center of access road, 20' north of Craigen Road
21	1021	BIG HILL BAYOU	Gravel, center of most westerly access road to Veolia Plant and 100' south of SH73
22	1022	ALLIGATOR HOLE MARSH	Gravel, intersection of two unnamed gravel roads, 2.9 miles southeast of SH73 and Labelle Rd intersection
23	1023	ALLIGATOR HOLE MARSH	Gravel, center of driveway at address 7636 TX-73, 30' south of SH73
24	1024	HAMSHIRE	Gravel, center of drive at address 17868 Brush Island Rd
25	1025	PORT ARTHUR NORTH	Concrete, center of cul-de-sac at Santa Fe Ct
26	1026	WEST OF GREENS BAYOU	Gravel, center of drive 38' north of Old Ferry Rd, 0.5 miles from end of Old Ferry Rd
27	1027	TEXAS POINT	Gravel, center of drive on east side of Sabine Pass LNG gas plant
28	1028	SABINE PASS	Gravel, center of drive at address 9043 TX-87
29	1029	BEAUMONT EAST	Concrete, in driveway 340' north of S 8th St and Washington Blvd intersection
30	1030	STOWELL	Gravel, center of drive at SH124 and Ave B intersection

31	1031	PORT ACRES	Gravel, center of drive 11' north of 65th street and 500' west of W Port Arthur Rd
32	1032	FANNETT EAST	Asphalt, center of cul-de-sac at Lowrance Dr
33	1033	NOME	Gravel, center of gravel access road to Hilcorp Energy Company, 55' south of Paggi Rd
34	1034	BEAUMONT EAST	Asphalt, in parking lot at northwest intersection of Gulf Ave and Wiess Street
35	1035	PORT ARTHUR NORTH	Gravel, center of drive south of Ave A, 335' west of Ave A and Hwy 136 intersection
36	1036	PORT ACRES	Gravel, center of driveway 800' south of the intersection of Knauth Road and Herbert Road
37	1037	ALLIGATOR HOLE MARSH	Gravel, center of driveway 35' south of Labelle Road, 2.3 miles south of Labelle Rd and SH73 intersection
38	1038	ALLIGATOR HOLE MARSH	Gravel, center of driveway 20' east of Labelle Road at address 15844 Labelle Rd
39	1039	HAMSHIRE	Gravel, center of gravel drive at address 15519 Alamo St
40	1040	STOWELL	Concrete, intersection of IH10 frontage road and FM1663
41	1041	CLAM LAKE	Gravel, center of drive at address 10521 Clam Lake Rd
42	1042	CLAM LAKE	Asphalt, at intersection of Clam Lake Rd and SH87
43	1043	STAR LAKE	Gravel, center of road at end of Big Hill Rd
44	1044	CHINA	Asphalt, at intersection of Green Pond Gully Rd and Lawhon Rd
45	1045	FANNETT WEST	Asphalt, south edge of FM365 at address 25367 FM365 Rd
46	1046	WINNIE NW	Gravel, center of gravel drive at address 19941 Willis Rd
47	1047	WINNIE NW	Gravel, center of gravel drive at address 17136 Mason Rd
48	1048	FANNETT WEST	Asphalt, at intersection of FM365 and Johnson Rd
49	1049	ALLIGATOR HOLE MARSH	Gravel, center of drive at address 23876 Need More Rd
50	1050	ALLIGATOR HOLE MARSH	Gravel, center of drive at address 19500 Big Hill Rd
51	1051	HAMSHIRE	Gravel, center of drive at address 11802 Todd Rd
52	1052	HAMSHIRE	Asphalt, center of drive at address 21399 TX-73 E
53	1053	FANNETT EAST	Gravel, center of drive at address 13312 Griffith Rd
54	1054	WINNIE NW	Gravel, center of drive at address 18197 Bauer Rd
55	1055	PORT ARTHUR SOUTH	Gravel, center of gravel area just south of the west end of the Sabine Lake Causeway Bridge
56	1056	PORT ARTHUR NORTH	Grass, northeast intersection of Procter St and access road to Gulf Copper Central Yard
57	1057	PORT ARTHUR NORTH	Grass, east intersection of Atlanta Ave and Thomas Blvd
58	1058	PORT ARTHUR SOUTH	Grass, north of driveway at 2420 S Gulfway Dr
59	1059	SABINE PASS	Grass, intersection of Greenwich St and 3rd Ave
60	1060	TEXAS POINT	Grass, 100' west of S 1st St, 0.8 miles south of Quinn St and S 1st St intersection
61	1061	PORT ACRES	Grass, southern intersection of Hillebrandt Rd and Lombardo Rd
62	1062	STAR LAKE	Grass, 50' east of intersection of Big Hill Road and Wilber Road
63	1063	STOWELL	Grass, 545' west of School Rd and T Jones Rd intersection
64	1064	CHINA	Grass, 325' northwest of E Railroad St and SH90 intersection
65	1065	FANNETT EAST	Grass, area between Industrial Rd and IH10, 0.6 miles southwest of IH10 and Smith Rd intersection

66	1066	BEAUMONT WEST	Grass, 70' southeast of Chamberlin Dr and Maitland Dr intersection
67	1067	FANNETT WEST	Grass, 45' north of intersection of driveway and road at address 17457 I10
68	1068	FANNETT WEST	Grass, 1120' northeast of Wilber Rd and Craigen Rd intersection
69	1069	BIG HILL BAYOU	Grass, 70' east of most westerly access road to Veolia Plant and 50' south of SH73
70	1070	ALLIGATOR HOLE MARSH	Grass, 15' west of intersection of two unnamed gravel roads, 2.9 miles southeast of SH73 and Labelle Rd intersection
71	1071	HAMSHIRE	Grass, 45' west of Brush Island Rd at address 17868 Brush Island Rd
72	1072	PORT ARTHUR NORTH	Grass, 60' south of center of cul-de-sac at Santa Fe Ct
73	1073	WEST OF GREENS BAYOU	Grass, 230' north of Old Ferry Rd, 0.5 miles from end of Old Ferry Rd
74	1074	TEXAS POINT	Grass, area on east side of Sabine Pass LNG gas plant
75	1075	BEAUMONT EAST	Grass, 300' north of S 8th St and Washington Blvd intersection
76	1076	STOWELL	Grass, 160' southeast of SH124 and Ave B intersection
77	1077	PORT ACRES	Grass, 20' west of Herbert Road and 800' south of Knauth Road
78	1078	ALLIGATOR HOLE MARSH	Grass, 15' north of Labelle Road, 2.3 miles south of Labelle Rd and SH73 intersection
79	1079	ALLIGATOR HOLE MARSH	Grass, north of driveway at address 15844 Labelle Rd
80	1080	HAMSHIRE	Grass, 250' west of Alamo St at address 15519 Alamo St
81	1081	CLAM LAKE	Grass, at intersection of Clam Lake Rd and SH87
82	1082	STAR LAKE	Grass, at end of Big Hill Rd
83	1083	CHINA	Grass, at intersection of Green Pond Gully Rd and Lawhon Rd
84	1084	WINNIE NW	Grass, 90' north of Mason Rd at address 17136 Mason Rd
85	1085	FANNETT WEST	Grass, at intersection of FM365 and Johnson Rd
86	1086	HAMSHIRE	Grass, 35' west of drive at address 21399 TX-73 E
87	1087	PORT ARTHUR SOUTH	Grass, area just south of the west end of the Sabine Lake Causeway Bridge
88	1088	VOTH	Grass, northwest intersection of SH105 and SH287
89	1089	BEAUMONT EAST	Grass, 90' north of E. Chapin Ave and 150' west of SH380
90	1090	PORT ACRES	Grass, 80' northwest of access road to Mid-County RC Club 350' northeast of railroad
91	1091	PORT ARTHUR NORTH	Grass, 440' west of Holly St and Beech Ave intersection
92	1092	ORANGEFIELD	Grass, 395' southwest of Stewart St and Nevils St intersection
93	1093	ALLIGATOR HOLE MARSH	Grass, 30' west of driveway at adress 7636 TX-73, 20' south of SH73
94	1094	NOME	Grass, 55' west of gravel access road to Hilcorp Energy Company, 110' south of Paggi Rd
95	1095	BEAUMONT EAST	Grass, southwest intersection of Gulf Ave and Wiess Street
96	1096	STOWELL	Grass, intersection of IH10 frontage road and FM1663
97	1097	CLAM LAKE	Grass, 60' north of center of drive at address 10521 Clam Lake Rd
98	1098	FANNETT WEST	Grass, south of FM365 at address 25367 FM365 Rd
99	1099	WINNIE NW	Grass, north of Willis Rd at address 19941 Willis Rd

100	1100	ALLIGATOR HOLE MARSH	Grass, 75' west of Big Hill Rd at address 19500 Big Hill Rd

WEST AOI STATIONS

The twenty-five (25) newly surveyed control points were a combination of non-vegetated and vegetated shots all in open terrain. The below table summarizes the new stations:

Station	GPS ID	USGS Quad	Description
101	1101	MORGANS POINT	Gravel, center of drive at Shady Pl and Tri City Beach Rd intersection
102	1102	UMBRELLA POINT	Concrete, at Kai Dr and Point Barrow Rd intersection
103	1103	OAK ISLAND	Concrete, center of cul-de-sac at Bay Oak Dr
104	1104	WHITES BAYOU	Gravel, at intersection of Hedge Row Rd and Krahl Rd
105	1105	SHILOH	Gravel, center of drive at Pvt Rd 1154 and Hwy 563 intersection
106	1106	MOSS BLUFF	Gravel, at intersection of Pvt Rd 1494 and County Road 149
107	1107	LIBERTY	Concrete, back of curb at intersection of SH146 S and Woodsprings Dr
108	1108	LIBERTY	Asphalt, intersection of Jordan Rd and SH146 S
109	1109	DAYTON	Asphalt, center of drive at address 800 US-90 E
110	1110	MOSS BLUFF	Concrete, center of drive at address 9160 FM1409
111	1111	MOSS BLUFF	Gravel, center of drive at address 11253 FM1409
112	1112	COVE	Concrete, west edge of Hwy 99, 0.5 miles south of IH10
113	1113	COVE	Gravel, in parking area of boat ramp, 150' south of IH10
114	1114	SHILOH	Gravel, center of Hwy 1331, 1100' south of Pvt Rd 1330
115	1115	MOSS BLUFF	Gravel, at intersection of Hwy 1341 E and Moss Bluff Rd
116	1116	LIBERTY	Asphalt, center of cul-de-sac at PR 6353
117	1117	MONROE CITY	Gravel, center of drive at address 32832 IH10 E
118	1118	SHILOH	Gravel, center of drive at address 279 CR 133
119	1119	SHILOH	Gravel, center of drive at address 619 CR 125
120	1120	ANAHUAC	Gravel, center of drive at address 1626 FM563
121	1121	DAYTON	Grass, 30' east of drive at address 800 US-90 E
122	1122	COVE	Grass, in median of Hwy 99, 0.5 miles south of IH10
123	1123	LIBERTY	Grass, 1330' northwest of Beaumont Ave and SH146 S intersection
124	1124	WHITES BAYOU	Grass, at intersection of Hedge Row Rd and Krahl Rd
125	1125	COVE	Grass, west of parking area of boat ramp, 150' south of IH10

GPS DATA PROCESSING

The data was downloaded to a PC and processed using Trimble Business Center, version 3.80. All of the lines between the VRS base stations and the newly surveyed stations were processed using the single baseline method with precise ephemeris. All of the baselines were integer bias fixed solutions. The table below shows the result of the baseline processing:

From Point ID	To Point ID	H. Precision (95%)	V. Precision (95%)	Satellites	Epochs	Vector Length
HLAM_g09	1001	0.020	0.025	16	30	13384.691
HLAM_g09	1002	0.013	0.016	16	30	1525.947
HCCS_g05	1003	0.033	0.044	13	60	67577.016
PRS378167403	1004	0.019	0.025	14	31	8987.216
PRS425532995293	1005	0.019	0.023	14	31	9969.755
PRS378167403	1006	0.022	0.031	13	31	9866.679
PRS378167403	1007	0.016	0.023	14	31	8892.015
PRS378167403	1008	0.014	0.023	15	31	14168.863
PRS378167403	1009	0.025	0.031	13	31	24612.482
PRS378167403	1010	0.024	0.037	14	31	28403.806
HCCS_g05	1011	0.036	0.044	14	30	56155.227
HCCS_g05	1012	0.029	0.038	16	30	41617.885
HCCS_g05	1013	0.026	0.031	15	30	27381.723
HLAM_g09	1014	0.024	0.030	18	30	24963.615
HLAM_g09	1015	0.020	0.031	15	30	20293.581
HLAM_g09	1016	0.030	0.038	15	30	15367.431
HLAM_g09	1017	0.025	0.030	13	30	8137.904
HLAM_g09	1018	0.020	0.030	17	30	17093.568
HLAM_g09	1019	0.026	0.034	16	30	24935.239
HCCS_g05	1020	0.037	0.048	15	30	39353.886
HCCS_g05	1021	0.037	0.046	16	30	54408.511
HCCS_g05	1022	0.032	0.045	15	30	51533.682
HLAM_g09	1023	0.020	0.032	15	30	26107.21
HCCS_g05	1024	0.020	0.032	16	30	30687.838
PRS378167403	1025	0.019	0.021	14	31	921.518
PRS378167403	1026	0.023	0.030	15	31	14673.784
PRS378167403	1027	0.019	0.034	16	31	24645.608
PRS378167403	1028	0.027	0.032	14	31	26980.147
HLAM_g09	1029	0.018	0.020	12	30	5003.581
HCCS_g05	1030	0.023	0.028	14	30	26968.109
HCCS_g05	1031	0.038	0.048	15	30	64125.333
HCCS_g05	1032	0.029	0.042	15	68	45023.821
HLAM_g09	1033	0.025	0.032	15	30	31780.74
HLAM_g09	1034	0.017	0.027	15	30	7640.992
PRS378167403	1035	0.020	0.027	13	31	7026.616
HCCS_g05	1036	0.033	0.046	13	30	60609.87
HLAM_g09	1037	0.023	0.033	15	30	27568.983
HCCS_g05	1038	0.043	0.057	16	30	49772.457
HCCS_g05	1039	0.023	0.038	15	30	35063.053
HCCS_g05	1040	0.029	0.040	16	30	27661.014
PRS378167403	1041	0.026	0.043	15	31	28988.741
PRS378167403	1042	0.028	0.037	14	31	31597.691
HCCS_g05	1043	0.033	0.039	13	30	46276.163
HLAM_g09	1044	0.022	0.027	14	30	22154.525

HLAM_g09	1045	0.025	0.033	15	30	26663.974
HLAM_g09	1046	0.024	0.030	14	30	36802.414
HLAM_g09	1047	0.028	0.035	14	30	30112.109
HLAM_g09	1048	0.021	0.032	15	30	29226.159
HCCS_g05	1049	0.034	0.041	12	30	45109.097
HCCS_g05	1050	0.036	0.044	14	30	41189.211
HCCS_g05	1051	0.022	0.034	16	30	34088.225
HCCS_g05	1052	0.024	0.034	16	30	36375.057
HCCS_g05	1053	0.032	0.043	14	30	47432.624
HLAM_g09	1054	0.025	0.030	16	30	35993.065
PRS378167403	1055	0.020	0.028	16	31	21683.324
PRS378167403	1056	0.023	0.032	13	31	9897.324
PRS378167403	1057	0.017	0.025	15	31	8546.258
PRS378167403	1058	0.014	0.021	14	31	14148.011
PRS378167403	1059	0.023	0.030	12	31	24659.51
PRS378167403	1060	0.022	0.037	14	31	28377.674
HCCS_g05	1061	0.029	0.044	13	30	56143.192
HCCS_g05	1062	0.027	0.038	16	30	41578.564
HCCS_g05	1063	0.044	0.040	11	30	27368.292
HLAM_g09	1064	0.023	0.031	16	30	25053.102
HLAM_g09	1065	0.030	0.039	14	30	15392.378
HLAM_g09	1066	0.025	0.031	13	30	8118.884
HLAM_g09	1067	0.025	0.034	16	30	24928.832
HCCS_g05	1068	0.027	0.041	14	30	39376.98
HCCS_g05	1069	0.049	0.062	16	30	54429.203
HCCS_g05	1070	0.034	0.047	15	30	51522.128
HCCS_g05	1071	0.024	0.039	16	30	30667.703
PRS378167403	1072	0.019	0.022	14	31	912.964
PRS378167403	1073	0.024	0.031	15	31	14716.663
PRS378167403	1074	0.020	0.034	16	31	24702.499
HLAM_g09	1075	0.018	0.021	13	30	5003.189
HCCS_g05	1076	0.022	0.029	16	30	26961.867
HCCS_g05	1077	0.031	0.044	13	30	60595.531
HLAM_g09	1078	0.024	0.033	15	30	27525.766
HCCS_g05	1079	0.039	0.052	16	30	49778.072
HCCS_g05	1080	0.022	0.037	15	30	35053.324
PRS378167403	1081	0.028	0.036	14	31	31586.914
HCCS_g05	1082	0.031	0.037	13	30	46308.832
HLAM_g09	1083	0.025	0.029	15	30	22134.36
HLAM_g09	1084	0.028	0.035	14	30	30092.816
HLAM_g09	1085	0.021	0.031	15	30	29239.043
HCCS_g05	1086	0.023	0.033	15	30	36363.317
PRS378167403	1087	0.019	0.025	17	31	21719.688
HLAM_g09	1088	0.020	0.026	16	30	13412.916
HLAM_g09	1089	0.014	0.018	15	30	1550.645
HCCS_g05	1090	0.051	0.064	14	30	67556.163
PRS378167403	1091	0.025	0.032	13	31	8856.371
PRS425532995293	1092	0.022	0.027	13	31	9962.281
HLAM_g09	1093	0.020	0.031	15	30	26109.372
HLAM_g09	1094	0.025	0.032	15	30	31794.624
HLAM_g09	1095	0.017	0.027	15	30	7617.958
HCCS_g05	1096	0.031	0.039	16	30	27619.386

PRS378167403	1097	0.019	0.031	15	31	28987.995
HLAM_g09	1098	0.025	0.034	15	30	26693.638
HLAM_g09	1099	0.024	0.030	14	30	36760.288
HCCS_g05	1100	0.040	0.050	14	30	41172.046
PRS756210592794	1101	0.014	0.018	15	31	11601.948
PRS756210592794	1102	0.016	0.019	16	31	13920.384
PRS951937662589	1103	0.018	0.023	13	31	5794.5
PRS951937662589	1104	0.022	0.029	13	31	15361.812
PRS381689931097	1105	0.019	0.026	15	31	15301.426
PRS381689931097	1106	0.031	0.031	13	31	7211.563
PRS381689931097	1107	0.014	0.022	14	31	2605.942
PRS381689931097	1108	0.013	0.023	15	31	2364.495
PRS381689931097	1109	0.019	0.026	13	31	7841.235
PRS381689931097	1110	0.015	0.023	14	31	13932.152
PRS381689931097	1111	0.016	0.022	15	31	17232.3
PRS756210592794	1112	0.019	0.024	15	31	14305.393
PRS951937662589	1113	0.015	0.022	14	31	12203.879
PRS381689931097	1114	0.015	0.025	14	31	16225.87
PRS381689931097	1115	0.024	0.027	14	30	12380.46
PRS381689931097	1116	0.013	0.020	15	31	6207.411
PRS951937662589	1117	0.019	0.023	13	31	9067.225
PRS381689931097	1118	0.019	0.018	14	31	11037.752
PRS951937662589	1119	0.017	0.025	15	31	13538.657
PRS951937662589	1120	0.015	0.019	13	31	1629.338
PRS381689931097	1121	0.013	0.017	15	31	7832.747
PRS756210592794	1122	0.021	0.025	14	31	14367.383
PRS381689931097	1123	0.016	0.028	12	31	2165.47
PRS951937662589	1124	0.020	0.025	13	31	15396.036
PRS951937662589	1125	0.015	0.022	14	31	12284.675

SUMMARY

The East AOI and West AOI locations were both located in the same zone, UTM 15. The tables below show the final coordinates of each station.

EAST AOI

NAD83 (2011) / NAVD88

UTM Zone 15

NAVD88 orthometric height – ellipsoidal height + GEOID12B

Station	GPSID	Latitude	Longitude	UTM 15 N m	UTM 15 E m	Ellip H m
1	1001	30°08'00.77498" N	94°10'06.30937" W	3334159.907	387455.962	-16.758
2	1002	30°03'20.05871" N	94°05'02.68584" W	3325438.372	395498.225	-20.741
3	1003	29°59'34.85438" N	94°00'30.43670" W	3318439.327	402727.542	-22.023
4	1004	29°57'37.44346" N	93°53'52.23656" W	3314736.467	413368.924	-25.315
5	1005	30°01'43.65239" N	93°49'14.68785" W	3322259.448	420862.387	-24.124
6	1006	29°55'09.36128" N	93°53'25.01943" W	3310172.571	414063.081	-25.667
7	1007	29°52'47.92551" N	93°55'54.49793" W	3305850.740	410019.607	-26.594
8	1008	29°49'02.58303" N	93°57'41.92299" W	3298938.078	407079.975	-26.155
9	1009	29°44'16.52121" N	93°53'28.14447" W	3290078.071	413823.808	-26.226
10	1010	29°42'43.93854" N	93°51'39.96268" W	3287206.284	416708.63	-25.931
11	1011	29°55'53.22899" N	94°06'32.22028" W	3311706.639	392967.522	-25.085
12	1012	29°44'52.12598" N	94°13'55.34183" W	3291477.098	380868.662	-24.429
13	1013	29°48'14.37917" N	94°22'48.76229" W	3297865.270	366614.378	-20.82
14	1014	30°02'54.88573" N	94°20'00.04594" W	3324917.373	371458.708	-15.705
15	1015	30°06'21.61893" N	94°16'22.17279" W	3331215.028	377364.532	-14.74
16	1016	29°58'47.41208" N	94°12'55.37906" W	3317172.562	382750.991	-20.9
17	1017	30°04'18.49370" N	94°09'10.50327" W	3327302.094	388880.145	-22.164
18	1018	30°03'17.85448" N	94°15'04.99064" W	3325535.178	379368.433	-17.624
19	1019	29°54'58.86406" N	94°17'12.54847" W	3310212.219	375780.042	-22.836
20	1020	29°52'49.10512" N	94°16'22.19206" W	3306202.751	377086.203	-23.698
21	1021	29°51'15.05417" N	94°06'21.65360" W	3303141.008	393168.445	-25.88
22	1022	29°48'36.47866" N	94°07'47.71089" W	3298282.123	390811.402	-26.027
23	1023	29°50'04.14376" N	94°11'48.17935" W	3301045.850	384384.134	-25.547
24	1024	29°50'02.18815" N	94°21'05.07547" W	3301151.024	369437.032	-22.001
25	1025	29°57'03.65475" N	93°59'10.51959" W	3313766.435	404828.889	-25.822
26	1026	29°59'17.14264" N	93°50'45.01849" W	3317767.231	418409.608	-26.685
27	1027	29°44'57.56489" N	93°51'48.68022" W	3291321.125	416505.138	-23.943
28	1028	29°42'18.87772" N	93°55'44.50610" W	3286485.774	410131.629	-25.112
29	1029	30°03'24.33194" N	94°07'28.20495" W	3325607.536	391602.722	-23.236
30	1030	29°47'15.98422" N	94°22'58.29972" W	3296070.730	366336.759	-20.982

31	1031	29°54'37.57744" N	94°00'59.28953" W	3309295.304	401873.369	-26.556
32	1032	29°55'50.22030" N	94°13'53.05895" W	3311734.490	381146.653	-20.48
33	1033	30°00'53.23762" N	94°24'08.03886" W	3321251.868	364771.133	-16.903
34	1034	30°06'17.61542" N	94°06'46.53865" W	3330930.864	392770.416	-18.647
35	1035	29°59'32.60977" N	93°56'35.32348" W	3318316.593	409026.799	-21.982
36	1036	29°57'27.12688" N	94°04'13.37896" W	3314561.720	396717.074	-22.96
37	1037	29°48'31.65427" N	94°09'55.14333" W	3298167.684	387389.025	-25.152
38	1038	29°52'11.15653" N	94°09'29.61012" W	3304917.597	388142.436	-22.975
39	1039	29°51'49.22968" N	94°18'48.43801" W	3304403.694	373141.875	-22.328
40	1040	29°50'05.80185" N	94°23'01.87460" W	3301299.500	366303.549	-18.672
41	1041	29°42'07.54214" N	94°06'19.72129" W	3286287.041	393058.778	-26.851
42	1042	29°40'03.89774" N	94°04'25.50759" W	3282452.176	396092.736	-25.262
43	1043	29°41'04.18217" N	94°11'38.73470" W	3284421.947	384465.648	-24.827
44	1044	30°00'01.05859" N	94°17'54.56803" W	3319527.604	374758.505	-19.7
45	1045	29°56'44.59023" N	94°19'35.22433" W	3313510.406	371991.506	-20.172
46	1046	29°55'40.20556" N	94°25'53.58417" W	3311650.243	361823.143	-14.842
47	1047	29°59'40.06022" N	94°22'52.77229" W	3318974.627	366760.437	-17.807
48	1048	29°57'29.22295" N	94°21'38.49014" W	3314923.078	368703.128	-19.458
49	1049	29°46'24.46714" N	94°11'41.41565" W	3294281.764	384495.559	-25.186
50	1050	29°48'09.08493" N	94°14'11.65646" W	3297544.699	380495.414	-24.422
51	1051	29°47'14.56875" N	94°18'32.81138" W	3295943.945	373465.057	-24.71
52	1052	29°49'31.37381" N	94°17'22.94049" W	3300134.087	375388.321	-24.133
53	1053	29°53'27.20297" N	94°11'21.12680" W	3307289.050	385174.788	-23.098
54	1054	29°53'56.81837" N	94°24'28.61139" W	3308439.363	364062.639	-17.074
55	1055	29°45'47.10629" N	93°54'02.51470" W	3292873.515	412922.279	-23.247
56	1056	29°55'10.38517" N	93°53'23.51154" W	3310203.775	414103.758	-26.447
57	1057	29°52'47.12643" N	93°56'17.36738" W	3305831.131	409405.933	-26.75
58	1058	29°49'03.26482" N	93°57'41.96752" W	3298959.075	407078.954	-26.587
59	1059	29°44'15.67656" N	93°53'25.91307" W	3290051.610	413883.549	-26.229
60	1060	29°42'43.92861" N	93°51'42.23133" W	3287206.432	416647.67	-26.037
61	1061	29°55'52.99493" N	94°06'32.60480" W	3311699.534	392957.142	-25.449
62	1062	29°44'52.62375" N	94°13'56.76814" W	3291492.829	380830.513	-24.883
63	1063	29°48'14.76144" N	94°22'49.31938" W	3297877.216	366599.562	-20.69
64	1064	30°02'52.95055" N	94°20'03.42095" W	3324858.854	371367.625	-14.889
65	1065	29°58'47.39416" N	94°12'56.42081" W	3317172.306	382723.066	-21.894
66	1066	30°04'17.35131" N	94°09'10.26016" W	3327266.862	388886.299	-22.388
67	1067	29°54'59.47578" N	94°17'12.74550" W	3310231.109	375774.969	-23.112
68	1068	29°52'50.22470" N	94°16'21.69183" W	3306237.067	377100.004	-23.996
69	1069	29°51'15.78506" N	94°06'21.00937" W	3303163.341	393185.948	-26.219
70	1070	29°48'36.86349" N	94°07'48.17580" W	3298294.091	390799.038	-26.275

71	1071	29°50'02.21943" N	94°21'05.85145" W	3301152.231	369416.216	-22.091
72	1072	29°57'03.23813" N	93°59'10.00084" W	3313753.491	404842.684	-25.488
73	1073	29°59'18.79872" N	93°50'44.00742" W	3317818.009	418437.076	-26.947
74	1074	29°44'56.44735" N	93°51'46.64052" W	3291286.317	416559.666	-24.623
75	1075	30°03'23.94740" N	94°07'28.31282" W	3325595.727	391599.717	-23.028
76	1076	29°47'15.05825" N	94°22'58.47393" W	3296042.281	366331.739	-21.262
77	1077	29°57'27.12949" N	94°04'13.94720" W	3314561.943	396701.843	-23.138
78	1078	29°48'32.86502" N	94°09'54.22054" W	3298204.704	387414.174	-25.054
79	1079	29°52'11.74051" N	94°09'29.54092" W	3304935.555	388144.474	-23.163
80	1080	29°51'49.65661" N	94°18'48.96008" W	3304416.997	373128.018	-22.604
81	1081	29°40'04.36863" N	94°04'25.96887" W	3282466.786	396080.47	-25.169
82	1082	29°41'04.31888" N	94°11'37.45538" W	3284425.801	384500.077	-25.878
83	1083	30°00'01.64617" N	94°17'53.95025" W	3319545.505	374775.263	-19.511
84	1084	29°59'40.96312" N	94°22'52.23558" W	3319002.249	366775.154	-17.982
85	1085	29°57'29.39259" N	94°21'39.06685" W	3314928.484	368687.731	-19.551
86	1086	29°49'31.48502" N	94°17'23.40314" W	3300137.649	375375.941	-24.258
87	1087	29°45'45.74257" N	93°54'02.73051" W	3292831.584	412916.155	-23.263
88	1088	30°08'01.17834" N	94°10'07.36273" W	3334172.612	387427.904	-16.741
89	1089	30°03'20.60835" N	94°05'03.37860" W	3325455.467	395479.834	-20.773
90	1090	29°59'35.21586" N	94°00'31.42825" W	3318450.688	402701.072	-21.446
91	1091	29°57'37.79332" N	93°53'57.32419" W	3314748.304	413232.643	-25.426
92	1092	30°01'43.67187" N	93°49'12.87836" W	3322259.700	420910.858	-24.987
93	1093	29°50'04.24755" N	94°11'48.59291" W	3301049.161	384373.068	-25.625
94	1094	30°00'52.77828" N	94°24'08.50390" W	3321237.880	364758.501	-17.486
95	1095	30°06'15.04860" N	94°06'50.02008" W	3330852.757	392676.464	-18.291
96	1096	29°50'05.71064" N	94°23'03.44700" W	3301297.199	366261.313	-18.903
97	1097	29°42'07.78475" N	94°06'20.30820" W	3286294.659	393043.078	-27.087
98	1098	29°56'44.36224" N	94°19'36.32005" W	3313503.727	371962.05	-21.089
99	1099	29°55'41.46078" N	94°25'52.44902" W	3311688.505	361854.063	-15.278
100	1100	29°48'09.23190" N	94°14'12.31012" W	3297549.411	380477.914	-24.578

EAST AOI

State Plane Coordinates (Zone TSC 4204) – NAD83 (2011) / NAVD88

Station	GPSID	SPC N m	SPC E m	NAVD88 m	SPC N ft	SPC E ft	NAVD88 ft
1	1001	4,264,547.517	1,065,404.830	10.557	13,991,269.645	3,495,415.680	34.635
2	1002	4,256,250.095	1,073,887.392	6.503	13,964,047.188	3,523,245.552	21.336
3	1003	4,249,631.051	1,081,468.976	5.176	13,942,331.207	3,548,119.466	16.983

4	1004	4,246,479.825	1,092,289.151	1.853	13,931,992.559	3,583,618.657	6.081
5	1005	4,254,380.180	1,099,387.518	3.089	13,957,912.308	3,606,907.215	10.134
6	1006	4,241,956.638	1,093,217.297	1.463	13,917,152.736	3,586,663.748	4.798
7	1007	4,237,431.639	1,089,400.565	0.504	13,902,306.971	3,574,141.685	1.652
8	1008	4,230,375.579	1,086,819.684	0.892	13,879,157.212	3,565,674.247	2.928
9	1009	4,221,872.195	1,094,011.320	0.678	13,851,259.027	3,589,268.806	2.224
10	1010	4,219,151.861	1,097,040.461	0.891	13,842,334.064	3,599,206.914	2.924
11	1011	4,242,403.655	1,072,066.506	2.091	13,918,619.323	3,517,271.527	6.859
12	1012	4,221,575.544	1,061,022.633	2.635	13,850,285.764	3,481,038.423	8.646
13	1013	4,227,222.630	1,046,457.243	6.331	13,868,812.913	3,433,251.805	20.772
14	1014	4,254,491.177	1,049,902.471	11.59	13,958,276.470	3,444,555.023	38.025
15	1015	4,261,085.842	1,055,476.727	12.573	13,979,912.466	3,462,843.228	41.251
16	1016	4,247,337.278	1,061,580.424	6.322	13,934,805.720	3,482,868.442	20.743
17	1017	4,257,770.836	1,067,180.772	5.101	13,969,036.484	3,501,242.249	16.736
18	1018	4,255,515.881	1,057,771.033	9.65	13,961,638.353	3,470,370.466	31.66
19	1019	4,240,026.239	1,054,976.146	4.362	13,910,819.419	3,461,200.907	14.31
20	1020	4,236,088.834	1,056,487.142	3.475	13,897,901.448	3,466,158.232	11.402
21	1021	4,233,858.254	1,072,707.934	1.24	13,890,583.288	3,519,375.947	4.07
22	1022	4,228,883.798	1,070,603.568	1.063	13,874,262.927	3,512,471.872	3.487
23	1023	4,231,313.647	1,064,041.721	1.581	13,882,234.857	3,490,943.545	5.187
24	1024	4,230,649.566	1,049,107.302	5.165	13,880,056.118	3,441,946.208	16.947
25	1025	4,245,071.500	1,083,808.452	1.344	13,927,372.080	3,555,794.896	4.409
26	1026	4,249,766.598	1,097,168.458	0.499	13,942,775.912	3,599,626.848	1.635
27	1027	4,223,251.640	1,096,625.768	2.963	13,855,784.757	3,597,846.374	9.723
28	1028	4,218,094.238	1,090,507.904	1.746	13,838,864.180	3,577,774.681	5.727
29	1029	4,256,218.440	1,069,987.557	4.015	13,963,943.331	3,510,450.844	13.174
30	1030	4,225,416.047	1,046,272.309	6.159	13,862,885.814	3,432,645.067	20.205
31	1031	4,240,453.326	1,081,086.288	0.58	13,912,220.621	3,546,863.928	1.902
32	1032	4,241,822.996	1,060,257.984	6.714	13,916,714.279	3,478,529.734	22.028
33	1033	4,250,485.410	1,043,411.888	10.395	13,945,134.217	3,423,260.504	34.103
34	1034	4,261,595.941	1,070,879.719	8.635	13,981,586.018	3,513,377.879	28.331

35	1035	4,249,832.629	1,087,767.588	5.218	13,942,992.551	3,568,784.162	17.119
36	1036	4,245,448.453	1,075,664.834	4.222	13,928,608.801	3,529,077.044	13.853
37	1037	4,228,593.468	1,067,191.107	1.945	13,873,310.404	3,501,276.157	6.382
38	1038	4,235,374.193	1,067,596.385	4.167	13,895,556.831	3,502,605.805	13.672
39	1039	4,234,088.932	1,052,640.192	4.85	13,891,340.105	3,453,537.029	15.913
40	1040	4,230,636.584	1,045,970.062	8.502	13,880,013.528	3,431,653.446	27.894
41	1041	4,217,018.370	1,073,465.018	0.093	13,835,334.435	3,521,859.812	0.304
42	1042	4,213,343.933	1,076,692.481	1.592	13,823,279.220	3,532,448.583	5.223
43	1043	4,214,713.831	1,064,977.988	2.133	13,827,773.627	3,494,015.282	6.997
44	1044	4,249,277.867	1,053,476.068	7.553	13,941,172.467	3,456,279.401	24.779
45	1045	4,243,125.360	1,051,022.339	7.058	13,920,987.118	3,448,229.125	23.155
46	1046	4,240,743.735	1,040,962.270	12.414	13,913,173.402	3,415,223.716	40.727
47	1047	4,248,313.465	1,045,516.124	9.473	13,938,008.427	3,430,164.150	31.08
48	1048	4,244,366.941	1,047,665.188	7.793	13,925,060.538	3,437,214.872	25.568
49	1049	4,224,563.353	1,064,500.940	1.89	13,860,088.268	3,492,450.169	6.202
50	1050	4,227,616.629	1,060,337.766	2.696	13,870,105.557	3,478,791.487	8.845
51	1051	4,225,656.158	1,053,398.300	2.419	13,863,673.578	3,456,024.257	7.936
52	1052	4,229,940.132	1,055,103.632	3.018	13,877,728.585	3,461,619.167	9.903
53	1053	4,237,590.147	1,064,510.189	4.064	13,902,827.007	3,492,480.512	13.332
54	1054	4,237,652.196	1,043,364.354	10.153	13,903,030.579	3,423,104.551	33.311
55	1055	4,224,618.167	1,092,967.146	3.709	13,860,268.102	3,585,843.045	12.169
56	1056	4,241,989.899	1,093,256.324	0.682	13,917,261.862	3,586,791.791	2.238
57	1057	4,237,380.493	1,088,788.583	0.348	13,902,139.167	3,572,133.877	1.14
58	1058	4,230,396.499	1,086,817.586	0.461	13,879,225.848	3,565,667.362	1.511
59	1059	4,221,848.834	1,094,072.354	0.675	13,851,182.382	3,589,469.047	2.213
60	1060	4,219,148.877	1,096,979.562	0.786	13,842,324.275	3,599,007.114	2.579
61	1061	4,242,396.023	1,072,056.504	1.727	13,918,594.286	3,517,238.713	5.666
62	1062	4,221,589.295	1,060,983.721	2.182	13,850,330.878	3,480,910.757	7.159
63	1063	4,227,233.800	1,046,441.831	6.461	13,868,849.559	3,433,201.241	21.199
64	1064	4,254,428.033	1,049,814.513	12.406	13,958,069.304	3,444,266.448	40.700
65	1065	4,247,335.585	1,061,552.546	5.329	13,934,800.164	3,482,776.977	17.484

66	1066	4,257,735.960	1,067,188.734	4.877	13,968,922.064	3,501,268.373	16.001
67	1067	4,240,044.845	1,054,970.107	4.086	13,910,880.463	3,461,181.093	13.407
68	1068	4,236,123.819	1,056,499.160	3.178	13,898,016.228	3,466,197.661	10.426
69	1069	4,233,881.461	1,072,724.268	0.901	13,890,659.426	3,519,429.534	2.957
70	1070	4,228,895.116	1,070,590.602	0.815	13,874,300.060	3,512,429.335	2.673
71	1071	4,230,649.701	1,049,086.450	5.076	13,880,056.559	3,441,877.796	16.652
72	1072	4,245,059.281	1,083,822.898	1.678	13,927,331.990	3,555,842.292	5.504
73	1073	4,249,818.733	1,097,193.284	0.237	13,942,946.960	3,599,708.300	0.779
74	1074	4,223,219.673	1,096,682.024	2.283	13,855,679.878	3,598,030.942	7.49
75	1075	4,256,206.490	1,069,985.164	4.222	13,963,904.125	3,510,442.992	13.853
76	1076	4,225,387.376	1,046,268.759	5.879	13,862,791.748	3,432,633.421	19.287
77	1077	4,245,447.892	1,075,649.609	4.045	13,928,606.959	3,529,027.093	13.27
78	1078	4,228,631.737	1,067,214.322	2.043	13,873,435.959	3,501,352.323	6.704
79	1079	4,235,392.234	1,067,597.496	3.979	13,895,616.022	3,502,609.450	13.055
80	1080	4,234,101.505	1,052,625.666	4.575	13,891,381.354	3,453,489.373	15.008
81	1081	4,213,357.895	1,076,679.479	1.685	13,823,325.027	3,532,405.925	5.529
82	1082	4,214,719.449	1,065,012.178	1.082	13,827,792.060	3,494,127.453	3.548
83	1083	4,249,296.609	1,053,491.884	7.742	13,941,233.958	3,456,331.291	25.399
84	1084	4,248,341.812	1,045,529.400	9.298	13,938,101.428	3,430,207.705	30.507
85	1085	4,244,371.547	1,047,649.531	7.7	13,925,075.650	3,437,163.504	25.263
86	1086	4,229,943.054	1,055,091.084	2.893	13,877,738.168	3,461,577.998	9.492
87	1087	4,224,575.968	1,092,963.185	3.693	13,860,129.656	3,585,830.048	12.116
88	1088	4,264,558.762	1,065,376.149	10.574	13,991,306.538	3,495,321.581	34.69
89	1089	4,256,266.225	1,073,868.141	6.472	13,964,100.105	3,523,182.394	21.232
90	1090	4,249,641.037	1,081,441.950	5.753	13,942,363.969	3,548,030.799	18.875
91	1091	4,246,484.639	1,092,152.410	1.742	13,932,008.353	3,583,170.033	5.715
92	1092	4,254,382.926	1,099,435.924	2.226	13,957,921.316	3,607,066.028	7.304
93	1093	4,231,316.384	1,064,030.497	1.503	13,882,243.838	3,490,906.723	4.931
94	1094	4,250,470.788	1,043,399.993	9.811	13,945,086.245	3,423,221.476	32.189
95	1095	4,261,513.081	1,070,789.896	8.99	13,981,314.167	3,513,083.183	29.494
96	1096	4,230,632.113	1,045,927.997	8.272	13,879,998.858	3,431,515.438	27.139

97	1097	4,217,025.173	1,073,448.944	-0.143	13,835,356.754	3,521,807.077	-0.469
98	1098	4,243,117.172	1,050,993.262	6.14	13,920,960.254	3,448,133.727	20.145
99	1099	4,240,783.541	1,040,991.181	11.978	13,913,304.002	3,415,318.567	39.298
100	1100	4,227,620.436	1,060,320.044	2.54	13,870,118.046	3,478,733.345	8.334

WEST AOI

NAD83 (2011) / NAVD88

UTM Zone 15

NAVD88 orthometric height – ellipsoidal height + GEOID12B

Station	GPSID	Latitude	Longitude	UTM 15 N m	UTM 15 E m	Ellip H m
101	1101	29°39'43.88793" N	94°53'56.05646" W	3282861.832	316220.656	-19.018
102	1102	29°44'21.40336" N	94°50'11.85224" W	3291308.336	322384.945	-19.876
103	1103	29°43'46.93755" N	94°41'35.46230" W	3290035.219	336243.393	-21.972
104	1104	29°53'47.12214" N	94°35'12.82180" W	3308366.022	346779.036	-16.904
105	1105	29°56'44.08495" N	94°42'32.90256" W	3313983.393	335055.211	-17.524
106	1106	29°59'48.57356" N	94°46'47.52192" W	3319767.106	328316.553	-20.84
107	1107	30°03'52.67381" N	94°46'17.17931" W	3327269.757	329246.007	-13.67
108	1108	30°03'29.85748" N	94°49'20.53216" W	3326644.458	324324.575	-18.677
109	1109	30°02'59.62515" N	94°52'42.27747" W	3325801.081	318906.071	-18.821
110	1110	29°56'23.10159" N	94°50'24.31183" W	3313532.844	322405.364	-12.989
111	1111	29°54'20.27974" N	94°49'09.93671" W	3309719.666	324339.748	-15.323
112	1112	29°49'00.73875" N	94°51'45.64783" W	3299948.688	320003.754	-17.86
113	1113	29°50'11.88929" N	94°45'54.32456" W	3301990.653	329469.279	-25.539
114	1114	29°55'30.40558" N	94°43'57.01588" W	3311748.86	332765.748	-18.646
115	1115	29°57'19.74109" N	94°45'09.20514" W	3315144.356	330881.224	-21.958
116	1116	30°05'16.86040" N	94°51'13.10012" W	3329987.371	321363.178	-4.403
117	1117	29°50'16.77334" N	94°36'10.57367" W	3301911.823	345139.653	-19.032
118	1118	29°58'28.93968" N	94°44'19.69745" W	3317254.576	332240.792	-21.895
119	1119	29°53'33.79318" N	94°41'38.47268" W	3308103.342	336428.144	-15.272
120	1120	29°47'18.88181" N	94°39'47.12157" W	3296517.741	339248.457	-20.297
121	1121	30°02'59.55105" N	94°52'41.94502" W	3325798.654	318914.938	-19.543
122	1122	29°49'03.38175" N	94°51'45.05331" W	3300029.801	320021.031	-18.632
123	1123	30°03'35.29077" N	94°46'31.68426" W	3326740.598	328849.253	-15.748
124	1124	29°53'47.94443" N	94°35'11.87880" W	3308390.987	346804.681	-17.253
125	1125	29°50'11.37341" N	94°45'58.38308" W	3301976.441	329360.099	-25.648

WEST AOI

State Plane Coordinates (Zone TSC 4204) – NAD83 (2011) / NAVD88

Station	GPSID	SPC N m	SPC E m	NAVD88 m	SPC N ft	SPC E ft	NAVD88 ft
101	1101	4,209,646.486	996,903.540	8.129	13,811,148.512	3,270,674.365	26.67
102	1102	4,218,398.005	1,002,624.268	7.336	13,839,860.789	3,289,443.118	24.069
103	1103	4,217,839.930	1,016,528.871	5.192	13,838,029.837	3,335,061.803	17.035
104	1104	4,236,688.688	1,026,106.553	10.376	13,899,869.469	3,366,484.581	34.041
105	1105	4,241,694.367	1,014,108.754	9.814	13,916,292.268	3,327,121.805	32.198
106	1106	4,247,122.679	1,007,080.928	6.525	13,934,101.656	3,304,064.676	21.406
107	1107	4,254,663.113	1,007,621.907	13.711	13,958,840.565	3,305,839.540	44.983
108	1108	4,253,784.579	1,002,739.454	8.700	13,955,958.238	3,289,821.024	28.544
109	1109	4,252,662.589	997,372.000	8.542	13,952,277.176	3,272,211.304	28.026
110	1110	4,240,592.111	1,001,499.514	14.357	13,912,675.952	3,285,752.988	47.102
111	1111	4,236,884.020	1,003,627.820	12.007	13,900,510.321	3,292,735.606	39.393
112	1112	4,226,903.391	999,801.525	9.415	13,867,765.543	3,280,182.169	30.89
113	1113	4,229,430.118	1,009,148.535	1.752	13,876,055.311	3,310,848.152	5.747
114	1114	4,239,344.818	1,011,937.592	8.69	13,908,583.790	3,319,998.584	28.511
115	1115	4,242,638.526	1,009,880.554	5.392	13,919,389.897	3,313,249.784	17.689
116	1116	4,256,969.961	999,609.496	22.968	13,966,408.948	3,279,552.155	75.353
117	1117	4,230,158.526	1,024,801.772	8.204	13,878,445.097	3,362,203.815	26.917
118	1118	4,244,816.000	1,011,129.443	5.458	13,926,533.826	3,317,347.181	17.907
119	1119	4,235,893.007	1,015,782.933	12.038	13,897,258.974	3,332,614.507	39.496
120	1120	4,224,468.311	1,019,196.188	6.917	13,859,776.449	3,343,812.825	22.694
121	1121	4,252,660.622	997,380.980	7.821	13,952,270.725	3,272,240.766	25.659
122	1122	4,226,985.279	999,814.598	8.643	13,868,034.201	3,280,225.061	28.357
123	1123	4,254,114.187	1,007,253.006	11.632	13,957,039.627	3,304,629.238	38.162
124	1124	4,236,714.941	1,026,130.877	10.027	13,899,955.603	3,366,564.387	32.897
125	1125	4,229,410.302	1,009,040.239	1.643	13,875,990.298	3,310,492.850	5.391