

Check Point Survey Report

Florida Peninsular

LiDAR Project

USGS CONTRACT NUMBER: G16PC00020
TASK ORDER NUMBER: 140G0218F0443

PREPARED FOR:
USGS



Prepared By:
Dewberry Engineers, Inc.
131 W. Kaley Street
Orlando, Florida, 32806
Phone (407) 843-5120

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

TABLE OF CONTENTS

1.	Introduction	
1.1.	Project Summary	3
1.2.	Point of Contact	3
1.3.	Project Area	4
2.	Project Details	
2.1.	Survey Equipment	5
2.2.	Survey Point Details	5
2.3.	Network Design	5
2.4.	Field Survey Procedures and Analysis	6-8
2.5.	Adjustment	9
2.6.	Data processing Procedures	9
3.	Final Coordinates	10-31
4.	GPS Observation & Re-Observation Schedule	32-52
5.	Point Comparison Report	53-63
6.	Survey Notes	64
7.	Glossary/Legend	64
8.	Surveyor's Certification	65
9.	Deliverables	Sent via Electronic Transfer
9.1.	Including:	
	a) Point Documentation Report & Photos of Survey Points	
	b) Final Coordinate List in Excel Format	
	c) NGS Data Sheets for Project Control	

1. INTRODUCTION

1.1 Project Summary

Dewberry Consultants LLC is under contract with the United States Geological Survey (USGS) to collect and process LiDAR for peninsular Florida. This survey will be used to evaluate the vertical accuracy of the bare-earth terrain derived from LiDAR. The project area consists of approximately 34,873 square miles. In support of this project Dewberry surveyed 720 check points that will be used for LiDAR verification. The field work was conducted from January 2019 – January 2020.

Existing National Geodetic Survey (NGS) control points were located and surveyed to check the accuracy of the RTK/GPS survey equipment with the results shown in Section 2.4 of this Report.

As an internal QA/QC procedure and to verify that the ground control points meet the 95% confidence level approximately 50% of the points were re-observed and their corresponding coordinate differences are shown in Section 5 of this report.

Final horizontal coordinates are referenced to the Florida State Plane Coordinate System, East Zone, North Zone and West Zone, NAD 83 (2011 Adjustment) in U.S. Survey feet. Final vertical elevations are referenced to NAVD88 in U.S. Survey feet using Geoid model 2012B (Geoid12B).

1.2 Point of Contact

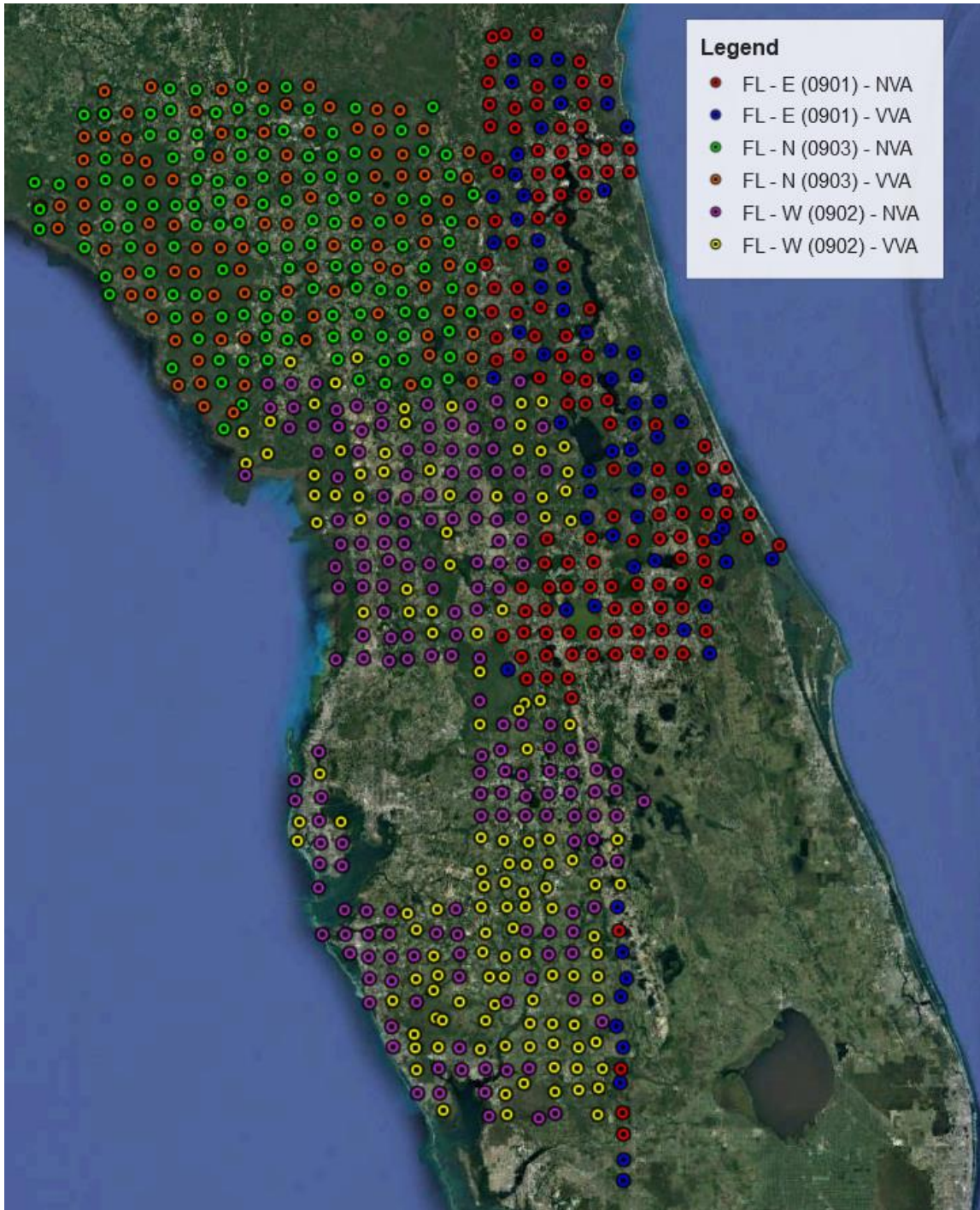
Questions regarding the technical aspects of this report should be addressed to:

Dewberry Engineers, Inc.

William D. Donley, PSM
Associate Vice President
131 West Kaley Street
Orlando, Florida 32806
(321) 354-9834

1.3 Project Area

Project Limits and Ground Control Point Locations



COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

2. PROJECT DETAILS

2.1 Survey Equipment

A Spectra Precision SP80 GPS was used to perform the survey observations. A two meter fixed height pole and bi-pod legs were used to mount and stabilize the receiver. A Spectra Precision Ranger 3 Data Collector was used to collect and store the data. The GPS unit is a geodetic-quality dual-frequency GPS receiver.

2.2 Survey Point Details

The 720 LiDAR checkpoints were distributed throughout the state by the overlaying of a grid across the project area and targeting areas that would provide an accurate portrayal of the surrounding topography within a buffer centered on intersecting grid lines. A sketch was made for each ground control point location and a nail & disk or an iron rod & cap were set at the point. The ground control point locations are detailed on the “Check Point Documentation Report” sheets attached to this report.

2.3 Network Design

Two real-time kinematic (RTK) networks were used to establish and verify the accuracy of the observations. The Trimble VRS Now Network and the Florida Permanent Reference Network (FPRN) were used for the observations. The GPS units connected to the networks using a cellular connection and a virtual reference station. The RTK networks provide instant access to RTK corrections utilizing a network of permanent (fixed) continuously operating reference stations. The published accuracy for the networks are less than 2 centimeters. All recorded observations were within 5 centimeters of each other.

2.4 Field Survey Procedures and Analysis

All locations were occupied once with approximately 50% of the locations being re-observed. All re-observations matched the initially derived station positions within the allowable tolerance of ± 5 centimeters or within the 95% confidence level. Each occupation was approximately 1.5 minutes in duration and measured to 90 epochs. The second observation occurred at least four hours after the first observation.

Seventy two (72) existing National Geodetic Survey (NGS) control points with published coordinates were located as an additional QA/QC method to check the accuracy of the networks. A NGS control point was located at the beginning and end of each day to ensure measurement quality. The checks all individually conformed to the required accuracy and the average coordinates for the surveyed NGS control points are shown below and compared to the published coordinates.

NGS PT. ID	Designation	FL State Plane Coordinate Zone	As Surveyed (ft)			Published (ft)			Differences (ft)		
			Northing	Easting	Elevation	Northing	Easting	Elevation	ΔN	ΔE	$\Delta Elevation$
AA1805	LC05	EAST (0901)	1608228.85	371720.62	82.86	1608228.89	371720.64	82.97	-0.04	-0.02	-0.11
AA1807	L CO 7	EAST (0901)	1596768.90	441110.60	76.59	1596768.93	441110.58	76.71	-0.03	0.02	-0.12
AA5115	WF04	WEST (0902)	1517270.58	605601.71	74.16	1517270.59	605601.77	74.26	-0.02	-0.06	-0.10
AA8146	PC 14	EAST (0901)	1938747.62	447423.04	19.45	1938747.58	447423.02	19.52	0.04	0.02	-0.07
AB4002	72 94 GPS 1	EAST (0901)	2171331.46	345992.06	81.89	2171331.47	345992.12	81.98	-0.02	-0.06	-0.09
AB5163	C 427	WEST (0902)	1769331.95	620515.36	104.07	1769331.93	620515.36	104.11	0.02	0.00	-0.05
AC5920	LEVY 22	WEST (0902)	1842594.37	459963.97	78.21	1842594.35	459963.99	78.30	0.02	-0.02	-0.09
AC5933	LEVY 35	WEST (0902)	1812095.68	413390.69	26.01	1812095.61	413390.74	26.08	0.07	-0.05	-0.07
AD7896	FLGPS 58	WEST (0902)	949398.56	782144.65	56.38	949398.56	782144.65	56.44	0.00	0.00	-0.06
AE2705	HERNFAIR	WEST (0902)	1527210.33	524137.94	76.22	1527210.35	524137.92	76.35	-0.02	0.02	-0.13
AE7577	BAKER 24	NORTH (0903)	468144.45	2672620.18	151.30	468144.51	2672620.06	151.30	-0.06	0.12	0.00
AF0486	GARFIELD RESET	WEST (0902)	1289441.38	733273.38	181.96	1289441.44	733273.36	182.09	-0.06	0.02	-0.13
AF6059	X 65	WEST (0902)	1167935.77	715750.93	115.98	1167935.74	715750.99	115.99	0.03	-0.06	-0.01
AF7021	PO 9	WEST (0902)	1321816.11	849728.66	63.92	1321816.17	849728.75	64.01	-0.06	-0.09	-0.09
AF7570	K016	WEST (0902)	1299660.77	664610.74	124.88	1299660.77	664610.73	125.04	0.00	0.01	-0.16
AF7572	K018	WEST (0902)	1204103.83	701875.03	91.27	1204103.81	701875.03	91.30	0.02	0.00	-0.03
AG0485	DESOTO A	WEST (0902)	1201752.58	417580.78	3.80	1201752.42	417580.88	3.96	0.16	-0.10	-0.16
AG0488	DESOTO B AZ MK 1	WEST (0902)	1201245.27	429639.38	6.45	1201245.14	429639.47	6.55	0.13	-0.09	-0.10
AG1924	MURDOCK 2 AZ MK	WEST (0902)	969832.07	598179.52	8.23	969831.96	598179.41	8.26	0.11	0.11	-0.03
AG8531	GILLETTE RM 4	WEST (0902)	1185836.49	485418.13	36.09	1185836.34	485418.24	35.98	0.15	-0.11	0.11
AG9505	068	WEST (0902)	987249.44	548944.27	7.80	987249.42	548944.27	7.83	0.02	0.00	-0.03
AI7287	CITRUS 13	WEST (0902)	1643796.22	513851.33	95.24	1643796.21	513851.32	95.30	0.01	0.01	-0.06
AI7313	HERNCO 10	WEST (0902)	1548795.63	579954.56	52.20	1548795.60	579954.55	52.31	0.03	0.01	-0.11
AI7320	HERNCO 17	WEST (0902)	1523000.59	574760.90	107.34	1523000.54	574760.90	107.45	0.05	0.00	-0.11
AI7321	HERNCO 18	WEST (0902)	1522994.28	576341.01	118.29	1522994.28	576341.01	118.45	-0.01	0.00	-0.16
AI7323	HERNCO 20	WEST (0902)	1519141.43	601876.08	72.79	1519141.44	601876.01	72.95	-0.01	0.07	-0.16
AI7345	SUMTER 14	WEST (0902)	1623294.68	638904.76	65.54	1623294.67	638904.83	65.64	0.01	-0.07	-0.10
AI7368	SUMTER 37	WEST (0902)	1551619.13	638584.38	87.97	1551619.04	638584.32	87.89	0.09	0.06	0.08

2.4 Field Survey Procedures and Analysis (continued)

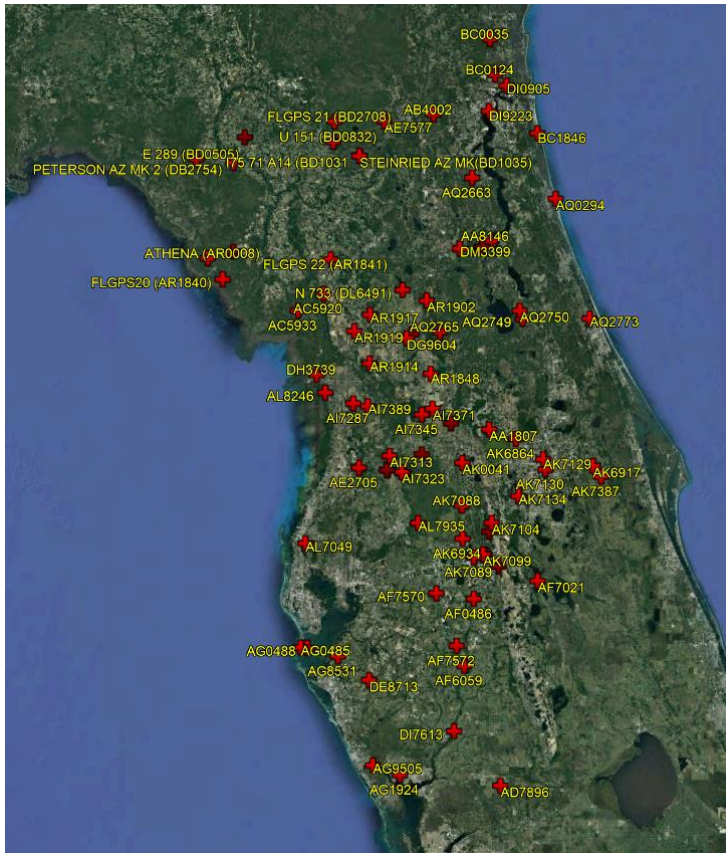
NGS PT. ID	Designation	FL State Plane Coordinate Zone	As Surveyed (ft)			Published (ft)			Differences (ft)		
			Northing	Easting	Elevation	Northing	Easting	Elevation	Δ N	Δ E	Δ Elevation
AI7371	SUMTER 40	WEST (0902)	1633830.11	658190.70	69.21	1633830.12	658190.70	69.36	-0.01	0.00	-0.15
AI7389	CITRUS 43	WEST (0902)	1638788.79	540461.21	89.40	1638788.79	540461.17	89.48	0.00	0.04	-0.08
AK0041	F 55 RESET	EAST (0901)	1536854.50	391218.22	116.07	1536854.44	391218.23	116.19	0.06	-0.01	-0.12
AK1618	I4 72 A40A	WEST (0902)	1411018.83	761344.14	131.74	1411018.71	761344.00	131.78	0.12	0.14	-0.04
AK1732	Y 63	WEST (0902)	1348710.48	778418.74	145.59	1348710.52	778418.71	145.68	-0.04	0.03	-0.09
AK5387	S 531	WEST (0902)	1370402.16	752970.10	134.91	1370402.19	752970.05	134.92	-0.03	0.05	-0.01
AK6864	APOPKA	EAST (0901)	1579383.16	489722.72	154.22	1579383.24	489722.67	154.30	-0.08	0.05	-0.08
AK6917	FLGPS 36	EAST (0901)	1528717.72	629520.50	70.32	1528717.65	629520.54	70.35	0.07	-0.04	-0.03
AK6934	FLGPS 45	WEST (0902)	1398581.79	712621.06	165.19	1398581.75	712620.96	165.13	0.04	0.10	0.06
AK7088	K028	WEST (0902)	1458386.76	711875.14	117.11	1458386.70	711875.10	117.19	0.06	0.04	-0.08
AK7089	K039	WEST (0902)	1364779.80	733145.43	144.53	1364779.77	733145.37	144.43	0.02	0.06	0.10
AK7099	K059	WEST (0902)	1369793.75	750195.54	134.63	1369793.72	750195.51	134.66	0.03	0.03	-0.03
AK7104	K063	WEST (0902)	1427154.73	765812.43	194.06	1427154.62	765812.48	194.04	0.11	-0.05	0.02
AK7129	GIS 0131 KAREN MCKEE	EAST (0901)	1541920.20	539147.50	79.25	1541920.19	539147.47	79.26	0.01	0.03	-0.01
AK7130	GIS 0132 RH HAM JONES	EAST (0901)	1523378.53	543185.36	98.61	1523378.55	543185.33	98.63	-0.03	0.03	-0.02
AK7134	GIS 146 RESET	EAST (0901)	1475306.49	493427.04	106.00	1475306.41	493426.98	105.95	0.08	0.06	0.05
AK7387	F 418	EAST (0901)	1509425.68	644814.73	60.45	1509425.71	644814.68	60.48	-0.03	0.05	-0.03
AL7049	CLARK L	WEST (0902)	1390202.35	426520.01	36.98	1390202.24	426519.91	37.04	0.11	0.10	-0.06
AL7935	14 91 GPS1	WEST (0902)	1427011.99	631658.62	90.94	1427011.91	631658.54	91.03	0.08	0.08	-0.09
AL8246	CR 52	WEST (0902)	1663238.54	462852.23	7.32	1663238.50	462852.19	7.37	0.04	0.04	-0.05
AQ0077	FRANCIS RM 2	EAST (0901)	N/A	N/A	73.38	N/A	N/A	73.39	N/A	N/A	-0.01
AQ0078	FRANCIS RM 1	EAST (0901)	N/A	N/A	70.81	N/A	N/A	70.85	N/A	N/A	-0.04
AQ0294	J 322	EAST (0901)	N/A	N/A	10.21	N/A	N/A	10.14	N/A	N/A	0.07
AQ2663	FLGPS 31 AZ MK	EAST (0901)	2054530.51	415082.71	78.78	2054530.41	415082.68	78.94	0.10	0.03	-0.16
AQ2749	V033	EAST (0901)	1797030.69	504493.09	32.56	1797030.65	504493.02	32.60	0.04	0.07	-0.04
AQ2750	V034	EAST (0901)	1811938.79	499198.74	52.09	1811938.95	499198.70	52.17	-0.16	0.04	-0.08
AQ2765	V059	WEST (0902)	1773217.48	672136.96	66.26	1773217.50	672136.98	66.33	-0.02	-0.02	-0.07
AQ2773	79 90 GPS 5	EAST (0901)	1796518.12	626825.97	17.39	1796518.10	626825.94	17.44	0.02	0.03	-0.05
AR1617	DIX 2	NORTH (0903)	224508.29	2402096.02	34.57	224508.29	2402096.05	34.71	0.00	-0.03	-0.14
AR1848	FLGPS 43	WEST (0902)	1697425.89	655252.31	96.51	1697425.80	655252.30	96.55	0.09	0.01	-0.04
AR1902	V069	WEST (0902)	1830167.25	647940.36	69.08	1830167.25	647940.40	69.18	0.00	-0.04	-0.10
AR1914	V085	WEST (0902)	1715945.78	543854.27	63.46	1715945.80	543854.25	63.50	-0.02	0.02	-0.04
AR1917	V088	WEST (0902)	1804358.26	544722.60	83.65	1804358.26	544722.67	83.70	0.00	-0.08	-0.05
AR1919	V092	WEST (0902)	1774642.02	515856.52	69.39	1774641.93	515856.60	69.29	0.09	-0.08	0.10
BC0035	G 143	EAST (0901)	2309333.42	451410.48	21.67	2309333.35	451410.48	21.53	0.07	0.00	0.14
BC0124	C 143	EAST (0901)	2243601.71	459937.71	35.29	2243601.75	459937.73	35.37	-0.04	-0.02	-0.08

2.4 Field Survey Procedures and Analysis (continued)

NGS PT ID.	DESIGNATION	FL State Plane Coordinate Zone	As Surveyed (ft)			Published (ft)			Differences (ft)		
			Northing	Easting	Elevation	Northing	Easting	Elevation	ΔN	ΔE	ΔElevation
BC1486	PALM	EAST (0901)	2135598.78	535911.47	11.21	2135598.72	535911.33	11.24	0.06	0.14	-0.04
DE8713	J 559	WEST (0902)	1142192.39	542202.76	65.38	1142192.42	542202.75	65.39	-0.03	0.01	-0.01
DG9604	R 563	WEST (0902)	1716551.15	611233.29	112.56	1761551.19	611233.33	112.66	-0.04	-0.04	-0.10
DH3739	U 592	WEST (0902)	1696012.98	447196.06	15.86	1696012.97	447196.10	15.91	0.01	-0.04	-0.05
DI0905	V 611	EAST (0901)	N/A	N/A	24.01	N/A	N/A	23.97	N/A	N/A	0.04
DI7613	A 624	WEST (0902)	1049242.60	697323.02	33.57	1049242.63	697322.98	33.64	-0.03	0.04	-0.07
DI9223	872 0226 E	EAST (0901)	2176643.50	447373.91	3.67	2176643.48	447373.90	3.75	0.02	0.01	-0.08
DM3399	N 690	EAST (0901)	N/A	N/A	78.52	N/A	N/A	78.52	N/A	N/A	0.00
AR1840	FLGPS20	NORTH	287381.99	2339669.95	25.08	287381.93	2339669.91	25.02	-0.06	-0.04	-0.06
BD1029	I75 71 A14	NORTH	426015.69	2541506.20	165.41	426015.65	2541506.11	165.40	-0.04	-0.09	-0.01
BD2754	PETERSON AZ MK2	NORTH	401205.16	2368161.89	55.00	401205.26	2368161.86	55.00	0.10	-0.03	0.00
BD0832	U 151	NORTH	468148.58	2460262.47	107.38	468148.60	2460262.42	107.40	0.02	-0.05	0.02
BD0738	FAMLOUTH RESET	NORTH	480098.47	2400412.75	106.37	480098.47	2400412.75	106.51	0.00	0.00	0.14
BD0505	E 289	NORTH	409910.39	2253577.79	41.50	409910.25	2253577.81	41.60	-0.14	0.02	0.11
DL6491	N 733	NORTH	262633.24	2674399.24	151.29	262633.19	2674399.16	151.23	-0.05	-0.07	-0.06
AE7577	BAKER 24	NORTH	468144.46	2672620.02	151.27	468144.51	2672620.06	151.30	0.05	0.04	0.04
BD2708	FLGPS21	NORTH	530400.89	2462241.66	178.06	530400.99	2462241.59	177.90	0.10	-0.07	-0.16
AR1841	FLGPS22	NORTH	351689.17	2454453.29	44.58	351689.16	2454453.20	44.72	-0.01	-0.08	0.14

The above results indicate that the VRS network is providing positional values within the ±5cm parameters for this survey.

NGS Control Points



Legend:

- + Horizontal + Vertical NGS Benchmark
- Vertical NGS Benchmark

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

2.5 Adjustment

Adjustment is not necessary for the survey data collected using the RTK GPS Trimble VRS Now Network and the Florida Permanent Reference Network. Both networks are designed to provide final processed coordinates, enabling high-accuracy positioning in real time across a geographic region. Both networks use real-time data streams from the system users and generate correction models for high-accuracy RTK GPS corrections throughout the networks. These corrections are applied to the points as they are being collected, negating the need for a post-process adjustment.

2.6 Data Processing Procedures

After the field data is collected the information is downloaded from the data collectors. Downloaded data is processed in the office to obtain the following reports: points list, point derivations and a vector spreadsheet. The reports are reviewed for point accuracy and precision.

After review of the point data an “ASCII” or “txt” file is created. Point files are loaded into AutoCAD Civil 3D to make a visual check of the point data (Point #, Coordinates, Elevation, and Description). The point data is reviewed and point comparisons are compared the point data. The layout of the collected survey coordinates are compared to the original survey layout as well. The data is then organized using spreadsheets and imported into the report.

3. FINAL COORDINATES

Florida State Plane Coordinate System, East Zone, NAD 83 (2011) / NAVD88

Point ID	Northing (SPC FL E)	Easting (SPC FL E)	Elevation (Feet)
NVA 35	2181099.80	337842.24	76.97
NVA 36	2342806.86	348782.17	49.94
NVA 37	2346187.72	365758.64	49.92
NVA 38	2345737.10	408293.73	16.55
NVA 39	2309659.61	346731.56	81.37
NVA 40	2307592.62	464681.88	24.39
NVA 41	2281167.29	499489.87	8.11
NVA 42	2280306.77	468000.60	35.12
NVA 43	2250897.96	406739.03	23.14
NVA 44	2252025.78	343024.61	83.32
NVA 45	2281864.33	342211.61	74.82
NVA 46	2275183.52	408059.63	13.61
NVA 47	2246317.73	377134.99	88.90
NVA 48	2222837.48	343674.49	81.00
NVA 49	2219474.36	376638.49	56.21
NVA 50	2219881.97	437687.56	20.04
NVA 51	2250629.88	469991.20	18.86
NVA 52	2220236.81	465054.11	14.66
NVA 53	2189394.22	529687.11	6.65
NVA 54	2190511.59	497779.28	41.83
NVA 55	2189245.71	468255.64	45.46
NVA 56	2186781.22	438369.62	24.22
NVA 57	2189343.40	406874.34	40.91
NVA 58	2158649.35	528702.28	8.57
NVA 60	2159269.15	498994.80	34.53
NVA 61	2158867.07	468683.90	21.18
NVA 62	2158611.84	406921.09	81.50
NVA 63	2161883.35	352806.97	86.09
NVA 82	2127905.91	406467.24	36.13
NVA 83	2129742.08	435884.21	21.55
NVA 84	2128455.43	468467.39	25.97
NVA 85	2098851.05	405523.88	17.60
NVA 86	2067422.74	370922.35	97.14
NVA 104	2096092.07	348147.86	96.13
NVA 105	2097664.97	434978.09	15.85

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

3. FINAL COORDINATES (continued)

Florida State Plane Coordinate System, East Zone, NAD 83 (2011) / NAVD88

Point ID	Northing (SPC FL E)	Easting (SPC FL E)	Elevation (Feet)
NVA 120	2038917.95	334595.34	240.87
NVA 121	2034751.45	438748.89	64.54
NVA 123	2006362.48	376498.26	103.65
NVA 124	2006621.82	345587.42	196.13
NVA 136	1977120.80	472395.44	14.33
NVA 137	1980142.37	406427.73	87.46
NVA 138	1972635.87	374402.24	76.48
NVA 147	1975061.34	341385.26	129.37
NVA 157	1940517.28	347195.99	133.96
NVA 158	1942125.56	398306.19	92.94
NVA 159	1941360.41	439903.85	13.32
NVA 160	1914901.16	467739.24	26.08
NVA 161	1914914.15	432612.41	30.20
NVA 162	1916415.38	376917.82	82.60
NVA 163	1910543.59	346787.73	98.57
NVA 181	1886581.14	403371.46	27.92
NVA 182	1886023.27	441469.47	57.13
NVA 183	1881878.08	465309.90	67.04
NVA 193	1851711.42	440340.86	12.05
NVA 194	1850897.11	464249.25	54.17
NVA 195	1855356.30	493891.74	49.88
NVA 196	1821256.75	557134.15	16.13
NVA 197	1824040.23	496335.01	60.21
NVA 227	1792289.59	621864.27	26.22
NVA 228	1762936.60	618398.03	29.11
NVA 229	1762661.42	559490.52	51.10
NVA 230	1763684.72	500267.15	42.34
NVA 244	1730278.05	559520.71	69.51
NVA 245	1734230.04	589381.93	42.09
NVA 246	1731788.14	650954.53	21.61
NVA 247	1701655.24	680952.84	4.57
NVA 248	1702727.34	649248.95	26.29
NVA 249	1702951.15	623284.16	47.21

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

3. FINAL COORDINATES (continued)

Florida State Plane Coordinate System, East Zone, NAD 83 (2011) / NAVD88

Point ID	Northing (SPC FL E)	Easting (SPC FL E)	Elevation (Feet)
NVA 250	1703880.48	590391.43	43.47
NVA 251	1702578.86	559622.61	39.33
NVA 252	1701462.74	498495.78	54.06
NVA 266	1670949.01	375965.49	105.68
NVA 267	1672856.76	409956.90	82.69
NVA 269	1673051.22	468272.72	65.32
NVA 270	1668561.21	524730.13	33.80
NVA 271	1670602.72	559761.86	53.27
NVA 272	1672695.73	587641.12	30.99
NVA 273	1666678.52	617770.51	30.58
NVA 274	1670442.23	676750.32	22.27
NVA 275	1659309.45	719075.46	17.14
NVA 276	1640295.78	618275.54	23.13
NVA 277	1644288.37	587708.60	18.69
NVA 278	1641238.60	471525.34	68.32
NVA 279	1640816.40	437410.88	111.05
NVA 280	1640513.35	406075.63	75.24
NVA 281	1639740.55	378034.16	67.70
NVA 295	1609384.46	374823.93	102.03
NVA 296	1608104.60	411570.77	77.09
NVA 297	1608940.98	435453.65	70.10
NVA 298	1608833.66	466023.30	101.40
NVA 299	1608452.49	494448.41	62.53
NVA 300	1610817.99	529031.65	25.36
NVA 302	1609513.40	558380.78	49.55
NVA 303	1609827.52	587508.08	14.03
NVA 304	1613004.63	620888.45	27.61
NVA 305	1579099.97	587940.64	65.96
NVA 306	1579265.43	559548.10	61.96
NVA 307	1579414.36	528425.89	55.77
NVA 308	1578557.23	498572.73	89.32
NVA 309	1579603.32	406651.74	85.01
NVA 310	1577688.40	379138.82	90.65
NVA 318	1545112.15	348124.16	97.26
NVA 319	1549700.94	376964.63	100.76

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

3. FINAL COORDINATES (continued)

Florida State Plane Coordinate System, East Zone, NAD 83 (2011) / NAVD88

Point ID	Northing (SPC FL E)	Easting (SPC FL E)	Elevation (Feet)
NVA 320	1548366.28	406670.84	114.59
NVA 321	1548603.56	437043.71	166.84
NVA 322	1547412.54	470984.18	106.25
NVA 323	1549476.48	498385.33	105.07
NVA 324	1548721.69	529414.03	93.67
NVA 325	1550149.33	560865.04	85.51
NVA 326	1547571.07	619419.21	70.68
NVA 327	1518106.51	588218.52	81.15
NVA 328	1519604.04	558548.84	98.18
NVA 329	1520321.80	527958.89	105.58
NVA 330	1518419.85	498316.93	155.87
NVA 331	1518252.84	467962.23	116.98
NVA 332	1519326.82	441076.18	143.10
NVA 333	1518847.12	406458.96	112.06
NVA 334	1517384.36	373293.02	112.03
NVA 342	1763221.97	649136.15	6.50
NVA 344	2159993.74	434665.46	17.23
NVA 354	1488159.53	379761.51	109.76
NVA 355	1489079.34	406553.00	115.24
NVA 356	1488248.25	434819.37	108.15
NVA 357	1461957.16	439199.34	127.34
NVA 410	1151952.49	497440.44	137.63
NVA 434	967728.19	497195.44	70.90
NVA 440	908976.61	498469.33	51.37
NVA 441	880117.05	499406.73	19.50
Key Biscayne NVA 1	493683.35	933465.09	2.42
Key Biscayne NVA 2	493956.97	929434.33	2.41

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

3. FINAL COORDINATES (CONTINUED)

Florida State Plane Coordinate System, West Zone, NAD 83 (2011) / NAVD88

Point ID	Northing (SPC FL W)	Easting (SPC FL W)	Elevation (Feet)
NVA 19	906177.00	646255.42	7.80
NVA 59	1026818.66	517479.39	15.23
NVA 168	1912427.12	360012.50	28.18
NVA 173	1880827.37	359833.72	29.90
NVA 174	1880511.42	390892.12	46.99
NVA 175	1880757.10	423929.29	55.21
NVA 180	1880827.53	695398.34	93.54
NVA 185	1848860.07	362563.67	29.02
NVA 186	1848841.25	393962.00	35.74
NVA 187	1845364.91	451022.95	57.15
NVA 188	1850170.25	478203.03	90.29
NVA 189	1848745.57	511223.96	73.80
NVA 190	1851697.96	571954.25	192.38
NVA 191	1849461.02	630146.40	71.86
NVA 192	1855536.98	664641.61	57.51
NVA 198	1820540.80	725218.51	84.56
NVA 199	1824852.61	667914.67	72.57
NVA 200	1819718.36	633429.09	63.16
NVA 201	1824544.53	604897.97	89.61
NVA 202	1821840.67	574107.13	197.64
NVA 203	1826013.40	510993.40	63.47
NVA 204	1817406.31	484418.13	97.87
NVA 205	1823095.24	453283.23	56.66
NVA 206	1824999.59	420977.23	29.19
NVA 207	1822050.79	388130.69	29.13
NVA 209	1789279.44	425335.10	14.84
NVA 210	1789344.51	480506.19	96.92
NVA 211	1120926.41	548152.78	68.10
NVA 212	1244253.15	819868.69	82.58
NVA 213	1362237.79	760771.88	161.16
NVA 214	1362343.46	820020.10	87.31
NVA 215	1364862.02	731196.08	160.02
NVA 216	1335676.67	758118.93	137.27
NVA 217	1334449.19	728629.87	145.45
NVA 218	1336637.95	667366.87	169.35
NVA 219	1359980.48	694382.06	113.13

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

3. FINAL COORDINATES (CONTINUED)

Florida State Plane Coordinate System, West Zone, NAD 83 (2011) / NAVD88

Point ID	Northing (SPC FL W)	Easting (SPC FL W)	Elevation (Feet)
NVA 221	1791187.14	545189.63	62.26
NVA 222	1793539.79	574299.56	77.71
NVA 223	1790945.86	603709.91	113.79
NVA 224	1789993.61	633002.86	69.72
NVA 225	1791425.88	658737.15	70.42
NVA 231	1763078.76	728886.40	152.56
NVA 232	1761496.56	693402.06	73.90
NVA 233	1762054.87	663595.07	78.37
NVA 234	1761065.28	634876.93	82.27
NVA 235	1760807.20	604004.24	70.41
NVA 236	1757721.70	543929.83	111.97
NVA 237	1755851.43	452172.76	37.71
NVA 238	1760107.28	328815.00	6.42
NVA 239	1729912.85	512882.61	104.50
NVA 240	1727407.83	543695.04	71.08
NVA 241	1731353.64	573718.14	69.14
NVA 242	1729703.77	634719.30	56.11
NVA 243	1727362.93	693759.16	75.41
NVA 253	1700503.25	696355.03	78.33
NVA 254	1697690.85	663366.82	69.26
NVA 255	1700113.15	634847.13	63.05
NVA 256	1699482.80	604519.69	76.05
NVA 257	1698231.79	575281.31	50.46
NVA 258	1696002.23	539747.50	39.13
NVA 259	1699085.37	513343.87	94.45
NVA 260	1698941.31	452664.71	22.52
NVA 261	1667346.17	455332.70	3.20
NVA 262	1668283.92	482943.11	22.64
NVA 263	1668495.98	513445.15	45.38
NVA 264	1667644.25	539886.54	45.87
NVA 265	1669515.00	665624.70	61.43
NVA 282	1640742.98	666075.99	70.85
NVA 283	1641698.58	636727.69	57.79

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

3. FINAL COORDINATES (CONTINUED)

Florida State Plane Coordinate System, West Zone, NAD 83 (2011) / NAVD88

Point ID	Northing (SPC FL W)	Easting (SPC FL W)	Elevation (Feet)
NVA 284	1639861.42	573372.59	43.08
NVA 285	1638241.97	544135.42	54.47
NVA 286	1645086.49	518754.83	124.11
NVA 287	1637235.40	447879.95	3.64
NVA 288	1637362.82	486385.24	48.14
NVA 289	1610427.23	452194.71	4.72
NVA 290	1610902.50	483973.52	20.51
NVA 291	1610848.93	511293.04	80.65
NVA 293	1607389.12	577867.81	54.88
NVA 294	1607775.47	636988.07	69.20
NVA 301	1607396.87	665786.67	89.01
NVA 311	1579716.37	635961.82	83.81
NVA 312	1575875.97	606458.80	60.80
NVA 313	1577610.36	512332.06	93.94
NVA 314	1546713.62	484021.95	33.31
NVA 315	1543077.61	521127.75	146.44
NVA 316	1545036.64	543658.05	74.54
NVA 317	1546304.90	608186.36	72.94
NVA 318	1543879.95	669075.16	97.26
NVA 335	1518978.13	601768.78	72.49
NVA 336	1518917.75	574833.97	148.02
NVA 337	1514790.67	543003.08	246.39
NVA 338	1512460.27	518597.98	77.40
NVA 339	1516066.79	484450.55	49.05
NVA 340	1514886.66	447828.55	4.58
NVA 343	1515038.81	638823.02	87.24
NVA 358	1304552.76	819390.63	103.17
NVA 359	1305485.00	789645.21	201.49
NVA 360	1305103.65	763070.15	127.33
NVA 361	1306395.36	725988.09	106.10
NVA 362	1306024.81	698066.11	140.02
NVA 363	1306742.70	667542.17	141.71
NVA 364	1306238.18	639220.02	96.77
NVA 365	1458458.01	638333.22	99.27
NVA 366	1426810.79	669487.31	111.18

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

3. FINAL COORDINATES (CONTINUED)

Florida State Plane Coordinate System, West Zone, NAD 83 (2011) / NAVD88

Point ID	Northing (SPC FL W)	Easting (SPC FL W)	Elevation (Feet)
NVA 367	1427430.48	694530.99	120.75
NVA 368	1426185.51	732322.05	131.59
NVA 369	1398110.12	787318.25	108.41
NVA 370	1393895.03	758658.12	145.00
NVA 371	1396185.03	731548.36	143.88
NVA 372	1393313.99	665954.84	128.85
NVA 373	1385847.25	640516.26	115.17
NVA 374	1363763.40	638103.13	114.32
NVA 375	1365611.23	671428.34	139.17
NVA 376	1366414.53	793599.62	119.80
NVA 377	1323691.03	855791.58	61.96
NVA 378	1339217.81	818745.50	116.76
NVA 379	1337207.51	790820.41	147.98
NVA 380	1331519.97	699223.34	105.95
NVA 381	1335453.59	638608.72	137.09
NVA 382	1392807.64	423998.03	7.54
NVA 383	1355404.21	392509.30	3.74
NVA 384	1328875.83	391731.26	6.35
NVA 385	1332401.12	426697.56	35.39
NVA 386	1301507.40	423641.49	15.16
NVA 387	1271775.04	425299.02	15.67
NVA 388	1271212.73	454361.46	4.55
NVA 389	1241409.47	453780.79	4.85
NVA 390	1244217.57	423644.96	15.26
NVA 391	1212411.48	421702.38	6.01
NVA 392	1271289.69	762993.80	154.77
NVA 393	1273679.71	788159.86	142.87
NVA 394	1244243.85	793723.15	133.15
NVA 395	1183480.15	789006.95	102.54
NVA 396	1177262.84	760276.02	118.71
NVA 397	1182714.46	604577.50	116.83
NVA 398	1181142.16	518389.65	41.20
NVA 399	1181197.22	485538.64	18.87
NVA 400	1182512.05	456210.01	4.20
NVA 401	1150405.98	426480.74	6.24

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

3. FINAL COORDINATES (CONTINUED)

Florida State Plane Coordinate System, West Zone, NAD 83 (2011) / NAVD88

Point ID	Northing (SPC FL W)	Easting (SPC FL W)	Elevation (Feet)
NVA 402	1150127.95	456955.02	22.83
NVA 403	1150492.13	487661.95	6.39
NVA 404	1150554.39	515585.97	17.61
NVA 405	1151026.85	578297.44	97.93
NVA 406	1148996.99	606292.19	93.63
NVA 407	1153303.23	697888.40	107.06
NVA 408	1151124.46	728622.52	85.35
NVA 409	1151289.21	760455.50	74.60
NVA 411	1122930.73	759203.66	82.62
NVA 412	1121456.80	727602.43	78.37
NVA 413	1123091.91	609532.53	56.57
NVA 414	1119424.23	517385.99	22.76
NVA 415	1119944.03	487633.48	17.55
NVA 416	1124930.90	462882.99	7.66
NVA 417	1091162.79	488619.56	28.21
NVA 418	1087968.71	518193.42	26.70
NVA 419	1092839.92	608215.69	46.72
NVA 420	1089590.78	703804.45	46.91
NVA 421	1061435.45	760914.75	83.41
NVA 422	1059418.96	671351.06	60.45
NVA 423	1059487.37	550829.86	27.55
NVA 424	1058907.12	488206.57	7.82
NVA 426	1031201.03	798282.95	76.16
NVA 427	997917.32	607720.37	26.92
NVA 428	999933.30	519207.70	13.37
NVA 429	970672.63	579553.19	4.54
NVA 430	968505.78	610472.91	9.70
NVA 431	969874.44	642196.79	19.68
NVA 432	967099.89	670765.51	13.34
NVA 433	970000.74	700370.16	31.95
NVA 435	938303.58	641188.94	6.83
NVA 436	937550.13	580707.60	7.06
NVA 437	937745.97	551208.90	10.48
NVA 438	902892.92	712920.25	29.42
NVA 439	908977.73	734431.54	30.81

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

3. FINAL COORDINATES (CONTINUED)

Florida State Plane Coordinate System, North Zone, NAD 83 (2011) / NAVD88

Point ID	Northing (SPC FL N)	Easting (SPC FL N)	Elevation (Feet)
NVA 1	579529.33	2329365.75	145.40
NVA 2	583121.53	2485488.48	136.83
NVA 3	543497.34	2214821.00	90.62
NVA 4	545037.26	2242379.51	90.34
NVA 5	583373.21	2425982.73	114.38
NVA 6	545037.26	2242379.51	170.28
NVA 7	578544.93	2364493.20	111.20
NVA 9	545805.26	2303906.78	123.24
NVA 10	550554.18	2330781.54	120.02
NVA 11	553659.06	2421302.28	89.00
NVA 12	552106.26	2455903.76	123.82
NVA 13	554301.68	2516557.88	131.59
NVA 14	555888.00	2578668.88	125.79
NVA 15	558581.76	2681866.04	114.46
NVA 16	484865.06	2244760.74	92.70
NVA 17	486808.93	2335262.34	97.52
NVA 18	517455.36	2336039.31	95.82
NVA 20	524413.09	2482879.11	140.89
NVA 21	492694.56	2456973.78	111.67
NVA 22	547720.67	2392017.75	67.54
NVA 23	517180.40	2303865.18	146.09
NVA 24	519963.14	2426266.97	87.53
NVA 25	522433.79	2548661.64	122.65
NVA 26	526768.49	2640292.60	129.61
NVA 27	519016.16	2367883.29	78.14
NVA 28	490933.35	2370579.59	63.66
NVA 29	490604.44	2427049.30	97.59
NVA 30	490208.27	2517107.62	108.83
NVA 31	491134.59	2548818.04	119.88
NVA 32	496525.25	2578833.00	117.86
NVA 33	499458.26	2670658.37	132.40
NVA 34	495047.46	2700661.06	109.34
NVA 64	467278.63	2706401.57	116.89
NVA 65	462950.68	2576473.67	143.71
NVA 66	464057.40	2546875.81	125.35

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

3. FINAL COORDINATES (CONTINUED)

Florida State Plane Coordinate System, North Zone, NAD 83 (2011) / NAVD88

Point ID	Northing (SPC FL N)	Easting (SPC FL N)	Elevation (Feet)
NVA 67	462174.75	2519093.71	150.30
NVA 68	462259.30	2456479.34	100.24
NVA 69	456277.68	2427138.42	95.59
NVA 70	455797.26	2396422.77	92.74
NVA 71	457874.93	2367644.60	61.03
NVA 72	455181.20	2275904.43	91.37
NVA 73	456679.29	2245384.47	83.90
NVA 74	449965.76	2183658.91	36.21
NVA 75	452542.45	2150265.94	25.64
NVA 76	416442.81	2157857.85	14.61
NVA 77	422238.54	2246473.26	43.11
NVA 78	429321.03	2398520.35	75.04
NVA 79	426266.37	2456898.01	110.67
NVA 80	433723.40	2550854.05	175.39
NVA 81	437143.03	2579410.54	197.86
NVA 87	394372.66	2250216.50	35.34
NVA 88	389678.39	2158066.31	6.85
NVA 89	393367.80	2276622.91	57.86
NVA 90	422975.18	2310093.25	90.89
NVA 91	422995.27	2340366.64	86.76
NVA 92	423508.40	2365135.64	60.11
NVA 93	422352.54	2280702.37	87.10
NVA 94	431223.17	2487945.67	125.13
NVA 95	434445.55	2643822.09	137.44
NVA 96	442162.65	2737460.36	171.50
NVA 97	397036.20	2368222.84	67.90
NVA 98	397905.59	2399546.12	51.31
NVA 99	400685.08	2425613.67	47.99
NVA 100	405423.13	2523762.95	103.60
NVA 101	402495.11	2552931.65	100.47
NVA 102	404028.97	2613283.83	129.33
NVA 103	405948.08	2708378.14	138.68
NVA 106	378389.92	2705999.03	134.49
NVA 107	372706.94	2644362.33	124.88
NVA 108	373095.38	2582557.74	91.03

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

3. FINAL COORDINATES (CONTINUED)

Florida State Plane Coordinate System, North Zone, NAD 83 (2011) / NAVD88

Point ID	Northing (SPC FL N)	Easting (SPC FL N)	Elevation (Feet)
NVA 109	372941.04	2521938.89	63.61
NVA 110	370230.93	2490690.43	66.45
NVA 111	368013.08	2458116.94	35.74
NVA 112	368233.06	2338961.46	81.34
NVA 113	365551.00	2219216.60	17.01
NVA 114	327079.84	2248089.38	21.95
NVA 115	333451.83	2307039.54	48.38
NVA 116	337890.08	2404783.86	65.57
NVA 117	344187.91	2555879.41	116.23
NVA 118	342373.57	2583063.67	41.33
NVA 119	345307.86	2735601.60	171.87
NVA 122	303472.65	2253763.09	3.24
NVA 125	316553.15	2710928.72	142.48
NVA 126	343776.53	2674273.01	157.92
NVA 127	341125.26	2493221.92	46.51
NVA 128	311840.35	2644194.92	136.39
NVA 129	316201.08	2583655.39	56.30
NVA 130	313454.10	2615757.09	165.37
NVA 131	304003.71	2338886.73	30.93
NVA 132	304141.75	2369226.54	45.68
NVA 133	304403.73	2462180.79	32.32
NVA 134	314168.79	2525772.61	37.53
NVA 135	273740.28	2342603.10	24.48
NVA 139	278457.80	2433745.76	69.24
NVA 140	275018.39	2464408.56	13.96
NVA 141	277442.75	2491227.77	68.74
NVA 142	278637.12	2552678.63	79.71
NVA 143	281094.30	2589479.94	87.36
NVA 144	284809.83	2648848.73	166.27
NVA 145	282557.93	2673373.46	167.47
NVA 146	285300.47	2736304.97	144.02
NVA 148	275081.42	2404629.68	56.63
NVA 149	245634.42	2373704.57	40.53
NVA 150	249509.56	2463854.70	21.59
NVA 151	245612.00	2492730.75	54.19

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

3. FINAL COORDINATES (CONTINUED)

Florida State Plane Coordinate System, North Zone, NAD 83 (2011) / NAVD88

Point ID	Northing (SPC FL N)	Easting (SPC FL N)	Elevation (Feet)
NVA 152	249997.66	2553846.72	87.92
NVA 153	252772.77	2585429.47	88.07
NVA 154	252150.88	2618290.03	163.05
NVA 155	252901.37	2647900.70	161.55
NVA 156	259690.98	2707680.74	117.46
NVA 164	225480.29	2709420.82	98.44
NVA 165	221401.67	2647655.36	82.61
NVA 166	218918.84	2621993.92	82.54
NVA 167	220427.61	2559803.91	83.22
NVA 168	218403.52	2466931.31	28.18
NVA 169	216876.20	2434958.05	28.46
NVA 170	217411.77	2401981.72	28.45
NVA 171	206319.91	2339226.66	11.36
NVA 172	187781.65	2405749.87	14.18
NVA 176	193403.49	2589336.55	94.00
NVA 177	189455.36	2623795.88	75.29
NVA 178	191018.55	2678305.90	104.94
NVA 179	196613.01	2707580.34	74.66
NVA 184	158478.45	2434010.08	11.91
NVA 208	126332.20	2409663.49	3.23
NVA 292	367007.80	2280786.68	54.92
NVA 341	433483.34	2673536.35	132.71

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

3. FINAL COORDINATES (CONTINUED)

Florida State Plane Coordinate System, East Zone, NAD 83 (2011) / NAVD88

Point ID	Northing (SPC FL E)	Easting (SPC FL E)	Elevation (Feet)
VVA 29	2310561.11	376612.57	41.80
VVA 30	2311421.32	435807.73	22.30
VVA 31	2280756.05	437300.53	12.15
VVA 32	2282006.49	373925.71	65.89
VVA 33	2310360.26	406165.03	19.48
VVA 34	2219596.93	411776.48	21.06
VVA 35	2251914.70	438312.50	18.39
VVA 36	2250881.49	501074.32	5.88
VVA 38	2218970.88	526461.25	9.12
VVA 39	2184459.43	379256.82	78.21
VVA 40	2160122.15	435018.39	15.88
VVA 41	2156989.22	376186.92	85.90
VVA 60	2134870.85	494345.36	40.12
VVA 68	2128345.05	345840.09	89.86
VVA 69	2097795.23	377579.57	52.21
VVA 70	2069196.87	404778.39	101.18
VVA 71	2066896.21	345782.07	119.22
VVA 91	2036596.11	407965.63	95.73
VVA 100	2006859.40	407305.94	100.02
VVA 101	2005175.63	437549.69	102.32
VVA 103	1975685.43	436393.03	42.28
VVA 114	1947305.22	377665.17	84.15
VVA 115	1945483.09	467438.93	17.74
VVA 116	1921405.63	499081.12	21.82
VVA 117	1917391.43	409643.56	25.92
VVA 129	1887092.17	342350.18	90.92
VVA 130	1883390.15	499205.08	15.06
VVA 138	1850809.40	530071.28	20.03
VVA 139	1852639.97	562815.53	11.41
VVA 140	1825198.47	591441.88	24.50
VVA 141	1823934.25	528712.12	10.66
VVA 155	1787525.23	498489.26	20.67
VVA 156	1789388.20	523223.61	56.37
VVA 157	1805544.13	558895.52	28.31
VVA 158	1763415.15	592268.77	37.02

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

3. FINAL COORDINATES (CONTINUED)

Florida State Plane Coordinate System, East Zone, NAD 83 (2011) / NAVD88

Point ID	Northing (SPC FL E)	Easting (SPC FL E)	Elevation (Feet)
VVA 159	1763568.95	528349.10	17.53
VVA 160	1761824.34	467244.92	19.19
VVA 173	1735022.39	468547.34	40.98
VVA 174	1735271.76	532218.59	2.51
VVA 175	1734054.49	634344.16	22.31
VVA 176	1699826.22	530811.02	15.50
VVA 177	1699927.97	463346.69	92.31
VVA 185	1675652.64	497382.05	54.16
VVA 186	1682865.35	644382.61	23.58
VVA 187	1641676.61	709205.32	10.17
VVA 188	1638428.97	648011.26	19.82
VVA 189	1641603.33	553088.03	16.42
VVA 191	1633935.54	524650.57	26.37
VVA 192	1579630.03	619617.31	13.45
VVA 193	1582931.03	471699.83	68.28
VVA 194	1578400.71	434028.11	64.80
VVA 201	1549158.34	590107.30	81.02
VVA 202	1517846.24	623778.35	71.31
VVA 204	2129296.17	386951.55	84.70
VVA 205	1917338.23	529415.90	24.40
VVA 206	1887449.02	532340.72	22.26
VVA 211	1500698.90	354859.45	103.23
VVA 239	1183648.27	495548.08	142.24
VVA250	1123463.37	501121.34	94.87
VVA 264	1088153.71	506380.75	124.51
VVA 265	1064105.54	498685.50	85.94
VVA 281	1024939.58	491839.79	75.50
VVA 282	996553.33	500365.21	78.07
VVA 295	949360.35	496023.04	60.44
VVA 306	845755.33	499402.88	24.91
VVA 307	817995.99	498394.43	30.78
Key Biscayne VVA 1	489771.09	934250.25	5.34

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

3. FINAL COORDINATES (CONTINUED)

Florida State Plane Coordinate System, West Zone, NAD 83 (2011) / NAVD88

Point ID	Northing (SPC FL W)	Easting (SPC FL W)	Elevation (Feet)
VVA 79	1606933.81	542775.70	69.82
VVA 122	1909592.66	389893.89	49.69
VVA 127	1881243.38	449846.49	64.52
VVA 133	1853697.72	421731.68	38.50
VVA 134	1846635.62	541588.34	145.57
VVA 135	1848843.62	604436.25	60.57
VVA 136	1852037.13	697016.39	110.95
VVA 137	1854060.08	725127.64	40.38
VVA 142	1825782.29	749307.45	11.20
VVA 143	1823309.63	696055.36	123.72
VVA 144	1827189.98	542439.00	101.36
VVA 145	1830772.56	362571.71	26.36
VVA 146	1816823.73	326846.76	5.98
VVA 147	1775582.03	330001.85	4.47
VVA 148	1788093.97	358534.33	14.15
VVA 150	1791074.51	455891.53	45.22
VVA 151	1787567.18	515316.35	70.92
VVA 152	1790551.10	692351.58	41.05
VVA 153	1788496.36	722560.51	131.90
VVA 154	1794315.15	753665.19	25.38
VVA 161	1760287.17	758224.74	32.56
VVA 162	1764534.07	574560.22	75.01
VVA 163	1762839.60	513585.30	56.09
VVA 164	1759832.31	482270.62	92.40
VVA 165	1759272.34	420903.39	3.60
VVA 166	1732692.92	421118.17	3.83
VVA 167	1732210.87	448651.03	21.23
VVA 168	1730223.28	479760.98	73.98
VVA 169	1731080.22	600914.07	86.34
VVA 170	1729093.83	663578.10	64.76
VVA 171	1727191.97	723800.01	104.87
VVA 172	1735469.65	755251.36	57.97
VVA 178	1695885.21	761554.92	58.21
VVA 179	1700271.46	481717.08	68.64

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

3. FINAL COORDINATES (CONTINUED)

Florida State Plane Coordinate System, West Zone, NAD 83 (2011) / NAVD88

Point ID	Northing (SPC FL W)	Easting (SPC FL W)	Elevation (Feet)
VVA 180	1696155.08	423682.70	4.43
VVA 181	1701079.14	727471.54	89.67
VVA 183	1681843.74	596584.84	74.84
VVA 184	1669822.19	634523.14	60.97
VVA 190	1638819.57	600354.07	47.41
VVA 195	1578898.86	669507.57	91.94
VVA 196	1577770.39	576367.74	55.25
VVA 197	1576840.65	545357.06	100.66
VVA 198	1576816.33	484759.74	43.40
VVA 199	1548908.71	576514.71	58.46
VVA 200	1548244.29	636016.29	84.23
VVA 207	1427436.89	638374.44	90.08
VVA 208	1426145.81	758075.97	125.52
VVA 209	1394272.00	701030.57	134.29
VVA 210	1497042.05	638897.50	90.01
VVA 212	1458455.96	718964.67	117.99
VVA 213	1454981.48	698110.01	106.89
VVA 214	1445726.06	690508.79	110.08
VVA 217	1363644.31	424923.26	28.00
VVA 218	1299775.43	452598.04	5.02
VVA 219	1299988.99	397310.95	43.64
VVA 220	1274847.85	394361.68	20.24
VVA 221	1277386.03	638669.75	133.85
VVA 222	1273181.07	668663.80	144.47
VVA 223	1271141.76	702015.59	155.26
VVA 224	1274676.03	729336.76	146.01
VVA 225	1273323.23	820357.86	89.54
VVA 227	1246609.39	760152.82	141.50
VVA 228	1242015.61	728083.92	83.28
VVA 229	1241028.00	698509.81	155.03
VVA 230	1242468.13	675777.82	148.09
VVA 231	1234000.82	638861.14	110.39
VVA 232	1213195.53	642309.24	136.45
VVA 233	1217695.70	670433.33	137.24

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

3. FINAL COORDINATES (CONTINUED)

Florida State Plane Coordinate System, West Zone, NAD 83 (2011) / NAVD88

Point ID	Northing (SPC FL W)	Easting (SPC FL W)	Elevation (Feet)
VVA 234	1203862.48	695174.50	103.42
VVA 235	1210686.81	724477.61	106.25
VVA 237	1213830.73	790282.46	115.64
VVA 238	1213804.15	823870.50	111.83
VVA 240	1182883.95	732467.92	91.60
VVA 241	1185335.80	696824.77	110.79
VVA 242	1185006.15	672508.23	117.23
VVA 243	1185420.33	638243.16	126.98
VVA 244	1182788.71	579669.82	117.60
VVA 245	1177561.69	539822.91	26.79
VVA 246	1155777.58	551701.29	71.01
VVA 247	1150942.73	643904.68	104.35
VVA 248	1157037.67	680423.66	99.62
VVA 249	1145034.08	788358.79	88.10
VVA 251	1122060.22	792267.75	95.06
VVA 252	1123566.10	696538.36	60.29
VVA 253	1118762.52	669875.63	87.16
VVA 254	1125354.61	639725.29	77.32
VVA 255	1120583.80	574465.07	83.14
VVA 257	1090270.31	550571.48	37.43
VVA 258	1094836.50	579915.11	34.40
VVA 259	1092126.58	648444.65	79.39
VVA 260	1091921.94	668544.32	76.02
VVA 261	1093984.64	732504.98	80.61
VVA 262	1092882.68	760616.12	93.05
VVA 263	1091651.21	792494.48	83.57
VVA 266	1061319.18	792736.37	91.13
VVA 268	1060929.27	705951.27	58.77
VVA 269	1055219.45	655303.43	48.32
VVA 270	1059260.48	608346.26	42.44
VVA 271	1074791.49	573921.63	19.62
VVA 272	1061553.16	519243.77	26.02
VVA 274	1016336.61	547478.46	12.26
VVA 275	1038076.24	576863.60	30.54

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

3. FINAL COORDINATES (CONTINUED)

Florida State Plane Coordinate System, West Zone, NAD 83 (2011) / NAVD88

Point ID	Northing (SPC FL W)	Easting (SPC FL W)	Elevation (Feet)
VVA 276	1034835.82	585365.37	29.76
VVA 277	1034094.66	642793.71	39.53
VVA 278	1029758.56	701969.68	24.46
VVA 279	1029055.10	732053.15	62.49
VVA 280	1027322.08	760982.85	67.15
VVA 283	1004083.45	789860.86	72.25
VVA 284	997008.63	766427.21	65.25
VVA 285	1002227.67	732890.68	50.24
VVA 286	998761.62	701403.32	40.41
VVA 287	1000111.16	668763.61	30.76
VVA 288	995761.72	635622.69	25.82
VVA 289	999039.90	579379.51	18.40
VVA 290	998368.03	548836.28	4.47
VVA 291	968816.34	550203.27	10.87
VVA 292	970793.66	733783.04	36.11
VVA 293	969245.53	764449.00	55.62
VVA 294	968414.24	798161.68	55.96
VVA 295	949360.35	496023.04	60.44
VVA 296	942687.63	793006.95	57.66
VVA 297	940241.40	766296.55	58.82
VVA 298	938179.79	734639.97	37.44
VVA 299	949697.79	693227.75	28.62
VVA 300	935373.55	668780.84	23.12
VVA 301	914381.64	585397.43	4.73
VVA 303	908206.03	670550.24	24.26
VVA 305	906773.56	791426.13	35.12

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

3. FINAL COORDINATES (CONTINUED)

Florida State Plane Coordinate System, North Zone, NAD 83 (2011) / NAVD88

Point ID	Northing (SPC FL N)	Easting (SPC FL N)	Elevation (Feet)
VVA 1	575468.07	2241754.48	90.48
VVA 2	579295.96	2399075.44	154.73
VVA 3	582572.06	2454843.20	136.15
VVA 4	582047.55	2304156.55	180.41
VVA 5	584526.45	2516230.32	132.00
VVA 6	546927.25	2273908.01	102.05
VVA 7	549976.45	2364857.78	67.49
VVA 8	559452.58	2485852.59	130.35
VVA 9	557166.89	2544033.01	120.56
VVA 10	554365.00	2607374.08	123.56
VVA 11	513951.21	2215701.20	75.57
VVA 12	514794.46	2243262.66	90.81
VVA 13	512525.18	2272443.02	110.02
VVA 14	523170.74	2517779.28	149.60
VVA 15	528117.60	2669856.55	113.38
VVA 16	520317.07	2400025.49	57.23
VVA 17	529046.74	2581979.44	126.08
VVA 18	526643.61	2610949.58	134.21
VVA 19	553569.67	2637916.87	125.79
VVA 20	522102.84	2456762.98	147.32
VVA 21	483175.47	2215445.83	72.98
VVA 22	484965.33	2275065.56	95.82
VVA 23	481138.52	2298905.68	96.91
VVA 24	489305.79	2396546.10	80.67
VVA 25	492191.76	2487810.30	100.35
VVA 26	495113.72	2606837.01	134.01
VVA 27	494539.62	2642578.31	134.55
VVA 28	499418.80	2731578.71	114.93
VVA 42	464557.24	2729256.06	142.99
VVA 43	467516.45	2672221.20	152.69
VVA 44	466198.69	2641725.84	157.74
VVA 45	465015.48	2606222.98	152.45
VVA 46	461076.44	2487667.44	135.26
VVA 47	457565.88	2335964.05	92.31

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

3. FINAL COORDINATES (CONTINUED)

Florida State Plane Coordinate System, North Zone, NAD 83 (2011) / NAVD88

Point ID	Northing (SPC FL N)	Easting (SPC FL N)	Elevation (Feet)
VVA 48	455850.34	2305231.27	100.76
VVA 49	452560.53	2214860.88	43.16
VVA 50	429630.43	2428975.31	89.13
VVA 51	421325.26	2185284.47	21.30
VVA 52	419626.70	2157751.71	13.51
VVA 53	391298.20	2182834.29	11.89
VVA 54	390939.75	2219251.48	15.72
VVA 55	398976.50	2305269.69	82.93
VVA 56	423164.41	2217821.29	34.80
VVA 57	435907.55	2520803.82	112.23
VVA 58	434298.99	2612471.74	149.57
VVA 59	433810.89	2703480.33	133.56
VVA 61	396534.55	2338640.78	86.08
VVA 62	399860.14	2459958.18	84.26
VVA 63	399469.30	2490397.96	78.71
VVA 64	403485.46	2582689.36	144.37
VVA 65	407753.49	2640416.88	151.25
VVA 66	407560.77	2676294.48	140.48
VVA 67	405488.76	2737525.54	153.55
VVA 72	377360.00	2674047.34	121.01
VVA 73	372112.42	2610398.89	143.72
VVA 74	372086.77	2552506.81	88.56
VVA 75	367325.65	2431380.67	55.46
VVA 76	366796.75	2401208.62	78.64
VVA 77	366636.33	2369355.58	74.45
VVA 78	364892.73	2307844.29	62.99
VVA 80	363445.05	2246878.55	33.55
VVA 81	332843.68	2279533.87	43.41
VVA 82	335197.48	2340697.52	41.18
VVA 83	333805.42	2367204.65	54.89
VVA 85	344393.61	2613854.60	66.05
VVA 87	302774.74	2283124.34	31.89
VVA 88	315220.59	2737765.48	160.49
VVA 89	340314.36	2637299.75	83.77
VVA 90	347628.20	2706946.72	134.59

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

3. FINAL COORDINATES (CONTINUED)

Florida State Plane Coordinate System, North Zone, NAD 83 (2011) / NAVD88

Point ID	Northing (SPC FL N)	Easting (SPC FL N)	Elevation (Feet)
VVA 92	338079.91	2428555.53	63.32
VVA 93	342360.43	2523387.13	52.47
VVA 94	318759.84	2674882.18	151.85
VVA 95	311513.90	2554675.57	55.93
VVA 96	304899.42	2309367.92	30.00
VVA 97	303867.21	2393492.03	55.52
VVA 98	307115.35	2434514.57	63.21
VVA 99	310616.12	2491475.27	60.61
VVA 102	272939.89	2311465.93	27.58
VVA 104	273889.58	2371799.77	38.67
VVA 105	277614.20	2526700.93	65.19
VVA 106	281841.46	2613006.75	173.63
VVA 107	286162.69	2707741.68	132.54
VVA 108	242959.08	2342994.99	16.69
VVA 109	244907.88	2404072.54	46.08
VVA 110	246700.46	2436753.51	31.12
VVA 111	245663.37	2517275.20	82.89
VVA 112	253401.72	2679568.30	113.59
VVA 113	257547.93	2740315.02	144.02
VVA 118	225205.69	2738864.79	144.21
VVA 119	228120.85	2681959.87	78.33
VVA 120	222969.92	2586226.73	87.54
VVA 123	216673.94	2374075.56	26.78
VVA 124	183699.66	2347762.17	4.75
VVA 125	186794.57	2378120.03	11.71
VVA 126	184697.60	2436351.59	24.31
VVA 128	192575.32	2739491.05	88.06
VVA 131	155905.74	2382485.51	5.78
VVA 132	148121.59	2422134.51	13.61
VVA 120	1914390.27	479380.17	87.54
VVA 203	188079.23	2657688.18	103.13

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

4. GPS OBSERVATION & RE-OBSERVATION SCHEDULE

Point ID	Observation Date	Julian Date	Time of Day	Re-observation Date	Re-observation Julian Date	Re-observation Time of Day
NVA 1	11/12/2019	316	12:15	12/16/2019	350	10:57
NVA 2	11/13/2019	317	15:41	N/A	N/A	N/A
NVA 3	11/12/2019	316	16:00	12/16/2019	350	12:16
NVA 4	11/11/2019	315	16:30	11/12/2019	316	14:47
NVA 5	11/11/2019	315	11:45	12/16/2019	350	9:55
NVA 6	11/11/2019	315	12:15	N/A	N/A	N/A
NVA 7	11/12/2019	316	11:45	N/A	N/A	N/A
NVA 9	11/11/2019	315	15:00	11/12/2019	316	13:25
NVA 10	11/11/2019	315	14:30	N/A	N/A	N/A
NVA 11	11/11/2019	315	12:19	11/12/2019	316	8:50
NVA 12	11/11/2019	315	15:45	11/13/2019	317	12:41
NVA 13	11/19/2019	323	11:08	N/A	N/A	N/A
NVA 14	12/09/2019	343	10:39	N/A	N/A	N/A
NVA 15	12/09/2019	343	12:30	N/A	N/A	N/A
NVA 16	11/13/2019	317	9:40	N/A	N/A	N/A
NVA 17	11/18/2019	322	13:30	11/19/2019	323	16:35
NVA 18	11/18/2019	322	12:05	N/A	N/A	N/A
NVA 19	02/15/2019	46	11:28	N/A	N/A	N/A
NVA 20	11/13/2019	317	12:15	N/A	N/A	N/A
NVA 21	11/11/2019	315	14:08	N/A	N/A	N/A
NVA 22	11/11/2019	315	12:50	12/16/2019	350	10:15
NVA 23	11/20/2019	324	8:45	12/16/2019	350	12:58
NVA 24	11/18/2019	322	9:15	N/A	N/A	N/A
NVA 25	12/19/2019	346	10:02	N/A	N/A	N/A
NVA 26	12/09/2019	343	14:00	N/A	N/A	N/A
NVA 27	11/18/2019	322	12:49	12/16/2019	350	8:40
NVA 28	11/18/2019	322	11:25	12/03/2019	337	9:54
NVA 29	11/18/2019	322	8:50	12/03/2019	337	9:15
NVA 30	11/19/2019	323	13:17	N/A	N/A	N/A
NVA 31	11/19/2019	323	15:15	N/A	N/A	N/A
NVA 32	11/21/2019	325	10:36	N/A	N/A	N/A
NVA 33	12/10/2019	344	10:00	N/A	N/A	N/A
NVA 34	12/10/2019	344	10:36	N/A	N/A	N/A
NVA 35	03/08/2019	67	9:08	N/A	N/A	N/A
NVA 36	03/06/2019	65	16:17	03/07/2019	66	14:21

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

4. GPS OBSERVATION & RE-OBSERVATION SCHEDULE

Point ID	Observation Date	Julian Date	Time of Day	Re-observation Date	Re-observation Julian Date	Re-observation Time of Day
NVA 37	03/06/2019	65	16:33	N/A	N/A	N/A
NVA 38	03/06/2019	65	15:01	03/07/2019	66	13:18
NVA 39	03/06/2019	65	12:25	N/A	N/A	N/A
NVA 40	03/07/2019	66	12:31	06/11/2019	162	10:08
NVA 41	03/04/2019	63	12:09	03/07/2019	66	11:28
NVA 42	03/04/2019	63	10:50	N/A	N/A	N/A
NVA 43	03/05/2019	64	10:15	N/A	N/A	N/A
NVA 44	03/05/2019	64	11:09	03/07/2019	66	15:45
NVA 45	03/06/2019	65	11:10	03/07/2019	66	15:26
NVA 46	03/06/2019	65	9:28	03/07/2019	66	16:22
NVA 47	03/05/2019	64	10:37	N/A	N/A	N/A
NVA 48	03/05/2019	64	13:06	N/A	N/A	N/A
NVA 49	03/05/2019	64	14:10	03/08/2019	67	8:28
NVA 50	03/05/2019	64	15:33	N/A	N/A	N/A
NVA 51	03/04/2019	63	10:19	03/07/2019	66	8:07
NVA 52	03/04/2019	63	14:18	03/07/2019	66	10:29
NVA 53	03/04/2019	63	16:16	03/13/2019	72	9:50
NVA 54	03/04/2019	63	15:36	03/08/2019	67	11:13
NVA 55	03/04/2019	63	14:54	03/13/2019	72	7:35
NVA 56	03/05/2019	64	16:18	03/08/2019	67	10:34
NVA 57	03/05/2019	64	16:46	03/08/2019	67	10:10
NVA 58	03/13/2019	72	10:30	N/A	N/A	N/A
NVA 59	02/28/2019	59	16:50	03/07/2019	66	8:24
NVA 60	03/13/2019	72	8:45	05/28/2019	148	14:07
NVA 61	03/13/2019	72	8:15	05/28/2019	148	13:18
NVA 62	03/07/2019	66	15:50	05/30/2019	150	11:45
NVA 63	03/07/2019	66	11:30	05/30/2019	150	8:55
NVA 64	12/10/2019	344	15:00	12/12/2019	346	15:08
NVA 65	11/21/2019	325	10:00	N/A	N/A	N/A
NVA 66	11/19/2019	323	15:51	N/A	N/A	N/A
NVA 67	11/19/2019	323	8:39	11/19/2019	323	16:12
NVA 68	11/11/2019	312	13:04	N/A	N/A	N/A
NVA 69	11/19/2019	323	8:50	11/19/2019	323	17:00
NVA 70	11/19/2019	323	9:15	N/A	N/A	N/A
NVA 71	11/18/2019	322	15:00	12/03/2019	337	10:20

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

4. GPS OBSERVATION & RE-OBSERVATION SCHEDULE

Point ID	Observation Date	Julian Date	Time of Day	Re-observation Date	Re-observation Julian Date	Re-observation Time of Day
NVA 72	11/20/2019	324	11:15	N/A	N/A	N/A
NVA 73	11/13/2019	317	10:20	11/14/2019	318	8:21
NVA 74	11/13/2019	317	14:29	N/A	N/A	N/A
NVA 75	11/14/2019	318	14:00	N/A	N/A	N/A
NVA 76	11/13/2019	317	16:21	11/14/2019	318	12:02
NVA 77	11/13/2019	317	11:00	12/03/2019	337	14:52
NVA 78	11/18/2019	322	17:00	11/19/2019	323	9:45
NVA 79	11/08/2019	312	11:56	N/A	N/A	N/A
NVA 80	11/20/2019	324	8:14	11/20/2019	324	16:40
NVA 81	11/21/2019	325	9:40	11/22/2019	326	9:59
NVA 82	03/07/2019	66	9:40	06/12/2019	163	11:58
NVA 83	03/07/2019	66	9:10	05/28/2019	148	10:10
NVA 84	03/13/2019	72	11:55	06/12/2019	163	13:09
NVA 85	03/07/2019	66	14:50	N/A	N/A	N/A
NVA 86	03/12/2019	71	8:30	05/29/2019	149	9:15
NVA 87	11/14/2019	318	9:45	12/18/2019	352	9:08
NVA 88	12/18/2019	352	13:30	N/A	N/A	N/A
NVA 89	11/14/2019	318	16:20	12/17/2019	351	10:36
NVA 90	11/09/2019	313	15:25	N/A	N/A	N/A
NVA 91	11/18/2019	322	15:10	11/19/2019	323	16:10
NVA 92	11/18/2019	322	15:30	N/A	N/A	N/A
NVA 93	12/16/2019	350	16:20	12/17/2019	351	13:00
NVA 94	11/13/2019	317	9:37	N/A	N/A	N/A
NVA 95	12/11/2019	324	10:50	12/12/2019	346	14:00
NVA 96	12/16/2019	350	10:42	12/17/2019	351	13:30
NVA 97	11/18/2019	322	16:20	12/17/2019	351	13:02
NVA 98	11/18/2019	322	16:40	11/19/2019	323	11:00
NVA 99	11/19/2019	323	10:30	N/A	N/A	N/A
NVA 100	11/14/2019	318	8:29	11/18/2019	322	14:00
NVA 101	11/20/2019	324	8:44	11/20/2019	324	16:18
NVA 102	12/16/2019	350	14:13	12/17/2019	351	11:00
NVA 103	12/16/2019	350	12:10	12/17/2019	351	12:15
NVA 104	03/07/2019	66	13:10	06/05/2019	156	12:00
NVA 105	03/07/2019	66	15:15	06/05/2019	156	12:45
NVA 106	12/18/2019	352	12:03	N/A	N/A	N/A

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

4. GPS OBSERVATION & RE-OBSERVATION SCHEDULE

Point ID	Observation Date	Julian Date	Time of Day	Re-observation Date	Re-observation Julian Date	Re-observation Time of Day
NVA 107	12/16/2019	350	15:00	12/17/2019	351	10:14
NVA 108	11/21/2019	325	8:46	11/22/2019	326	10:32
NVA 109	11/14/2019	318	9:09	11/18/2019	322	14:14
NVA 110	11/13/2019	317	8:32	11/18/2019	322	12:45
NVA 111	11/12/2019	316	10:47	11/18/2019	322	13:00
NVA 112	12/04/2019	338	9:50	N/A	N/A	N/A
NVA 113	12/02/2019	336	11:30	12/03/2019	337	13:09
NVA 114	12/02/2019	336	15:00	12/03/2019	337	14:04
NVA 115	11/20/2019	324	15:30	N/A	N/A	N/A
NVA 116	12/04/2019	338	11:50	N/A	N/A	N/A
NVA 117	11/20/2019	324	10:18	11/20/2019	324	15:48
NVA 118	11/20/2019	324	15:30	N/A	N/A	N/A
NVA 119	12/18/2019	352	12:38	N/A	N/A	N/A
NVA 120	03/12/2019	71	10:10	06/05/2019	156	11:20
NVA 121	03/11/2019	70	8:20	05/29/2019	149	11:35
NVA 122	12/02/2019	336	14:30	12/03/2019	337	14:18
NVA 123	03/12/2019	73	11:50	N/A	N/A	N/A
NVA 124	03/12/2019	71	12:40	3/14/2019	73	10:30
NVA 125	12/12/2019	346	16:18	N/A	N/A	N/A
NVA 126	12/18/2019	352	14:17	N/A	N/A	N/A
NVA 127	11/12/2019	316	16:26	11/14/2019	318	14:37
NVA 128	12/19/2019	353	10:50	N/A	N/A	N/A
NVA 129	11/20/2019	324	14:30	N/A	N/A	N/A
NVA 130	12/19/2019	353	9:15	N/A	N/A	N/A
NVA 131	11/20/2019	324	15:55	N/A	N/A	N/A
NVA 132	12/04/2019	338	13:40	12/06/2019	340	11:41
NVA 133	11/12/2019	316	11:47	11/18/2019	322	12:09
NVA 134	11/14/2019	318	10:24	11/18/2019	322	15:01
NVA 135	11/21/2019	325	15:05	N/A	N/A	N/A
NVA 136	03/11/2019	70	11:55	05/29/2019	149	14:40
NVA 137	03/14/2019	73	14:00	06/05/2019	156	10:20
NVA 138	03/12/2019	71	14:30	05/29/2019	149	13:40
NVA 139	12/04/2019	338	17:30	12/09/2019	343	13:18
NVA 140	11/12/2019	316	12:05	11/18/2019	322	11:29
NVA 141	11/12/2019	316	14:57	11/14/2019	318	12:45

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

4. GPS OBSERVATION & RE-OBSERVATION SCHEDULE

Point ID	Observation Date	Julian Date	Time of Day	Re-observation Date	Re-observation Julian Date	Re-observation Time of Day
NVA 142	11/20/2019	324	12:25	N/A	N/A	N/A
NVA 143	11/20/2019	324	14:00	N/A	N/A	N/A
NVA 144	12/10/2019	344	12:50	N/A	N/A	N/A
NVA 145	12/10/2019	344	13:30	12/11/2019	345	13:20
NVA 146	12/12/2019	346	15:25	N/A	N/A	N/A
NVA 147	03/12/2019	71	13:30	05/29/2019	149	13:10
NVA 148	12/04/2019	338	15:45	N/A	N/A	N/A
NVA 149	11/21/2019	325	14:30	12/04/2019	338	5:43
NVA 150	11/12/2019	316	13:06	11/18/2019	322	11:06
NVA 151	11/12/2019	316	14:27	N/A	N/A	N/A
NVA 152	12/11/19 RD	345	10:00	N/A	N/A	N/A
NVA 153	11/20/2019	324	13:23	N/A	N/A	N/A
NVA 154	12/10/2019	344	9:45	N/A	N/A	N/A
NVA 155	12/10/2019	344	12:15	12/11/2019	345	12:36
NVA 156	12/12/2019	346	13:35	N/A	N/A	N/A
NVA 157	03/06/2019	65	11:24	03/07/2019	66	12:56
NVA 158	03/07/2019	66	11:59	N/A	N/A	N/A
NVA 159	03/11/2019	70	13:00	05/31/2019	66	10:25
NVA 160	03/19/2019	78	10:50	05/31/2019	151	10:50
NVA 161	03/19/2019	78	10:00	05/31/2019	151	13:50
NVA 162	03/05/2019	64	13:22	03/06/2019	65	13:18
NVA 163	03/05/2019	64	12:11	03/06/2019	67	13:27
NVA 164	12/11/2019	345	15:10	12/12/2019	346	14:18
NVA 165	12/10/2019	344	11:15	N/A	N/A	N/A
NVA 166	12/10/2019	344	10:20	12/11/2019	345	11:45
NVA 167	06/21/2019	172	9:29	07/23/2019	204	10:12
NVA 168	06/21/2019	172	11:38	07/23/2019	204	8:00
NVA 169	11/21/2019	325	14:16	N/A	N/A	N/A
NVA 170	11/21/2019	325	14:45	N/A	N/A	N/A
NVA 171	12/18/2019	352	15:25	N/A	N/A	N/A
NVA 172	12/05/2019	339	9:45	12/09/2019	343	14:06
NVA 173	06/21/2019	172	12:03	N/A	N/A	N/A
NVA 174	06/21/2019	172	10:55	07/22/2019	203	7:10
NVA 175	06/21/2019	172	10:35	N/A	N/A	N/A
NVA 176	06/20/2019	171	17:26	N/A	N/A	N/A

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

GPS OBSERVATION & RE-OBSERVATION SCHEDULE

Point ID	Observation Date	Julian Date	Time of Day	Re-observation Date	Re-observation Julian Date	Re-observation Time of Day
NVA 177	06/20/2019	171	15:08	N/A	N/A	N/A
NVA 178	06/20/2019	171	16:33	07/22/2019	203	17:02
NVA 179	12/11/2019	345	14:40	12/12/2019	346	13:51
NVA 180	03/04/2019	63	13:43	06/29/2019	180	13:20
NVA 181	03/07/2019	66	10:24	N/A	N/A	N/A
NVA 182	03/19/2019	78	11:15	06/04/2019	155	9:18
NVA 183	03/19/2019	78	12:00	06/04/2019	155	9:37
NVA 184	06/21/2019	172	14:21	N/A	N/A	N/A
NVA 185	06/20/2019	171	11:30	07/22/2019	203	15:32
NVA 186	06/20/2019	171	11:48	07/22/2019	203	15:43
NVA 187	06/20/2019	171	13:53	07/22/2019	203	16:07
NVA 188	06/20/2019	171	14:18	N/A	N/A	N/A
NVA 189	07/22/2019	203	16:30	07/23/2019	204	10:50
NVA 190	03/05/2019	64	9:16	N/A	N/A	N/A
NVA 191	03/05/2019	64	10:58	03/07/2019	66	9:15
NVA 192	03/04/2019	63	14:35	03/06/2019	65	13:44
NVA 193	03/19/2019	78	9:10	N/A	N/A	N/A
NVA 194	08/16/2019	231	9:19	N/A	N/A	N/A
NVA 195	08/16/2019	231	9:46	N/A	N/A	N/A
NVA 196	02/12/2019	43	10:04	06/04/2019	155	14:15
NVA 197	02/12/2019	43	11:11	02/26/2019	57	10:46
NVA 198	02/12/2019	43	13:13	N/A	N/A	N/A
NVA 199	03/04/2019	63	12:10	03/06/2019	65	14:04
NVA 200	03/04/2019	63	11:42	N/A	N/A	N/A
NVA 201	03/04/2019	63	11:15	03/07/2019	66	8:55
NVA 202	03/04/2019	63	10:44	N/A	N/A	N/A
NVA 203	06/19/2019	170	15:28	07/22/2019	203	12:59
NVA 204	06/19/2019	170	16:02	N/A	N/A	N/A
NVA 205	07/22/2019	203	13:22	07/23/2019	204	11:26
NVA 206	07/22/2019	203	13:45	07/23/2019	204	11:51
NVA 207	06/19/2019	170	17:47	N/A	N/A	N/A
NVA 208	06/21/2019	172	13:47	N/A	N/A	N/A
NVA 209	06/19/2019	170	13:35	07/22/2019	203	12:08
NVA 210	07/22/2019	203	14:23	07/23/2019	204	12:24
NVA 211	03/06/2019	65	13:55	N/A	N/A	N/A

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

4. GPS OBSERVATION & RE-OBSERVATION SCHEDULE

Point ID	Observation Date	Julian Date	Time of Day	Re-observation Date	Re-observation Julian Date	Re-observation Time of Day
NVA 212	04/22/2019	112	10:28	04/23/2019	113	13:26
NVA 213	01/30/2019	30	8:45	05/31/2019	151	7:54
NVA 214	01/30/2019	30	9:37	N/A	N/A	N/A
NVA 215	01/29/2019	29	15:46	N/A	N/A	N/A
NVA 216	01/29/2019	29	11:50	N/A	N/A	N/A
NVA 217	01/29/2019	29	12:37	05/30/2019	150	11:20
NVA 218	01/29/2019	29	13:40	05/30/2019	150	10:54
NVA 219	01/29/2019	29	15:16	05/31/2019	151	8:30
NVA 221	03/04/2019	63	9:19	N/A	N/A	N/A
NVA 222	03/01/2019	60	12:24	N/A	N/A	N/A
NVA 223	03/01/2019	60	11:52	03/07/2019	66	8:37
NVA 224	03/01/2019	60	11:28	06/29/2019	180	11:59
NVA 225	03/01/2019	60	10:56	N/A	N/A	N/A
NVA 227	02/11/2019	42	13:29	02/26/2019	57	9:36
NVA 228	02/11/2019	42	13:54	02/25/2019	56	14:30
NVA 229	02/07/2019	38	12:43	02/25/2019	56	1:08
NVA 230	02/07/2019	38	10:51	02/25/2019	56	12:30
NVA 231	02/07/2019	38	10:11	02/25/2019	56	11:58
NVA 232	02/28/2019	59	13:12	N/A	N/A	N/A
NVA 233	02/28/2019	59	12:47	N/A	N/A	N/A
NVA 234	02/28/2019	59	11:33	N/A	N/A	N/A
NVA 235	02/28/2019	59	11:00	N/A	N/A	14:34
NVA 236	02/28/2019	59	8:43	N/A	N/A	N/A
NVA 237	06/19/2019	180	12:06	07/22/2019	203	11:19
NVA 238	06/20/2019	171	9:19	07/22/2019	203	14:59
NVA 239	02/27/2019	58	14:21	N/A	N/A	N/A
NVA 240	02/28/2019	59	8:18	03/08/2019	67	11:33
NVA 241	02/28/2019	59	9:38	03/08/2019	67	10:31
NVA 242	02/28/2019	59	12:07	03/08/2019	67	9:26
NVA 243	02/27/2019	58	10:10	03/08/2019	67	8:32
NVA 244	03/01/2019	60	11:28	02/25/2019	56	13:44
NVA 245	02/06/2019	37	13:11	06/29/2019	180	16:10
NVA 246	02/06/2019	37	14:46	06/10/2019	161	11:30
NVA 247	01/25/2019	25	10:51	02/15/2019	46	9:32
NVA 248	01/25/2019	25	11:26	N/A	N/A	N/A

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

4. GPS OBSERVATION & RE-OBSERVATION SCHEDULE

Point ID	Observation Date	Julian Date	Time of Day	Re-observation Date	Re-observation Julian Date	Re-observation Time of Day
NVA 249	01/25/2019	25	12:18	02/15/2019	46	10:02
NVA 250	01/25/2019	25	12:45	02/26/2019	57	13:00
NVA 251	02/05/2019	36	9:19	02/15/2019	46	10:33
NVA 252	02/05/2019	36	10:40	02/15/2019	46	11:05
NVA 253	02/27/2019	58	9:43	N/A	N/A	N/A
NVA 254	02/27/2019	58	11:11	03/08/2019	67	9:03
NVA 255	02/27/2019	58	11:52	N/A	N/A	N/A
NVA 256	02/27/2019	58	12:26	03/08/2019	67	9:59
NVA 257	02/27/2019	58	13:03	02/25/2019	56	11:05
NVA 258	02/27/2019	58	13:41	03/08/2019	67	11:06
NVA 259	03/20/2019	79	10:50	N/A	N/A	N/A
NVA 260	03/20/2019	79	11:45	N/A	N/A	N/A
NVA 261	03/19/2019	78	13:00	N/A	N/A	N/A
NVA 262	03/20/2019	79	1:01	N/A	N/A	N/A
NVA 263	03/21/2019	80	11:53	N/A	N/A	N/A
NVA 264	03/20/2019	79	10:29	N/A	N/A	N/A
NVA 265	03/21/2019	80	13:38	N/A	N/A	N/A
NVA 266	08/16/2019	231	14:28	N/A	N/A	N/A
NVA 267	04/26/2019	116	9:24	N/A	N/A	N/A
NVA 269	01/24/2019	24	6:26	02/14/2019	45	12:32
NVA 270	01/24/2019	24	11:54	02/14/2019	N/A	N/A
NVA 271	01/24/2019	24	12:55	02/14/2019	45	13:49
NVA 272	01/24/2019	24	13:31	N/A	45	13:15
NVA 273	01/24/2019	24	14:07	02/14/2019	45	14:37
NVA 274	01/25/2019	25	10:11	06/10/2019	161	12:02
NVA 275	02/15/2019	46	8:48	N/A	N/A	N/A
NVA 276	01/23/2019	23	13:57	N/A	N/A	N/A
NVA 277	01/23/2019	23	14:23	02/14/2019	45	11:16
NVA 278	01/24/2019	24	9:54	N/A	N/A	N/A
NVA 279	04/26/2019	116	11:40	N/A	N/A	N/A
NVA 280	04/26/2019	116	8:42	N/A	N/A	N/A
NVA 281	08/16/2019	231	14:56	N/A	N/A	N/A
NVA 282	08/16/2019	231	13:54	N/A	N/A	N/A
NVA 283	08/16/2019	231	12:56	N/A	N/A	N/A
NVA 284	03/20/2019	79	9:48	03/22/2019	81	11:57

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

4. GPS OBSERVATION & RE-OBSERVATION SCHEDULE

Point ID	Observation Date	Julian Date	Time of Day	Re-observation Date	Re-observation Julian Date	Re-observation Time of Day
NVA 285	03/19/2019	78	9:03	03/22/2019	81	8:49
NVA 286	03/21/2019	80	10:44	N/A	N/A	N/A
NVA 287	03/19/2019	78	12:13	N/A	N/A	N/A
NVA 288	03/21/2019	80	11:18	03/22/2019	81	9:21
NVA 289	03/19/2019	78	11:29	03/22/2019	81	9:50
NVA 290	03/19/2019	78	10:59	03/22/2019	81	10:24
NVA 291	03/19/2019	78	10:24	N/A	N/A	N/A
NVA 292	11/20/2019	324	15:00	N/A	N/A	N/A
NVA 293	03/20/2019	79	9:13	N/A	N/A	N/A
NVA 294	03/21/2019	80	9:21	05/29/2019	149	10:10
NVA 295	04/26/2019	116	7:25	05/29/2019	149	13:02
NVA 296	01/28/2019	28	13:36	N/A	N/A	N/A
NVA 297	01/28/2019	28	14:12	05/29/2019	149	13:58
NVA 298	01/22/2019	22	13:24	N/A	N/A	N/A
NVA 299	01/23/2019	23	9:34	02/04/2019	35	8:27
NVA 300	01/23/2019	23	10:38	N/A	N/A	N/A
NVA 301	03/21/2019	80	8:55	N/A	N/A	N/A
NVA 302	01/23/2019	23	11:11	02/14/2019	45	9:32
NVA 303	01/23/2019	23	11:46	N/A	N/A	N/A
NVA 304	01/23/2019	23	12:21	N/A	N/A	N/A
NVA 305	01/22/2019	22	10:19	02/04/2019	35	1:58
NVA 306	01/22/2019	22	11:05	N/A	N/A	N/A
NVA 307	01/22/2019	22	11:37	02/04/2019	35	14:36
NVA 308	01/22/2019	22	12:14	N/A	N/A	N/A
NVA 309	01/28/2019	28	12:49	05/29/2019	149	14:22
NVA 310	02/01/2019	32	8:19	04/26/2016	116	11:49
NVA 311	02/01/2019	32	9:21	N/A	N/A	N/A
NVA 312	02/01/2019	32	9:43	05/29/2019	150	11:00
NVA 313	02/01/2019	32	11:07	N/A	N/A	N/A
NVA 314	02/01/2019	32	12:02	03/18/2019	77	11:46
NVA 315	02/01/2019	32	12:28	N/A	N/A	N/A
NVA 316	02/01/2019	32	12:50	N/A	N/A	N/A
NVA 317	01/31/2019	31	10:55	N/A	N/A	N/A
NVA 318	01/31/2019	31	9:55	04/26/2019	116	12:39
NVA 319	01/31/2019	31	8:42	N/A	N/A	N/A
NVA 320	01/28/2019	28	11:44	04/26/2019	116	13:20

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

4. GPS OBSERVATION & RE-OBSERVATION SCHEDULE

Point ID	Observation Date	Julian Date	Time of Day	Re-observation Date	Re-observation Julian Date	Re-observation Time of Day
NVA 321	01/28/2019	28	10:57	05/29/2019	149	15:00
NVA 322	01/21/2019	21	13:53	04/26/2019	116	13:55
NVA 323	01/21/2019	21	14:27	02/04/2019	35	11:52
NVA 324	01/21/2019	21	15:05	04/26/2019	116	14:23
NVA 325	01/22/2019	22	7:58	02/04/2019	35	12:38
NVA 326	01/22/2019	22	9:12	06/12/2019	163	13:03
NVA 327	01/21/2019	21	9:35	N/A	N/A	N/A
NVA 328	01/21/2019	21	10:37	02/04/2019	35	10:09
NVA 329	01/21/2019	21	10:55	N/A	N/A	N/A
NVA 330	01/21/2019	21	11:24	02/04/2019	35	10:43
NVA 331	01/21/2019	21	12:39	N/A	N/A	N/A
NVA 332	01/21/2019	21	13:09	02/04/2019	35	11:19
NVA 333	01/31/2019	31	8:10	N/A	N/A	N/A
NVA 334	01/31/2019	31	9:13	N/A	N/A	N/A
NVA 335	01/31/2019	31	11:20	05/29/2019	149	11:27
NVA 336	03/18/2019	77	9:04	N/A	N/A	N/A
NVA 337	03/18/2019	77	9:44	N/A	N/A	N/A
NVA 338	03/18/2019	77	10:13	N/A	N/A	N/A
NVA 339	03/18/2019	77	11:06	N/A	N/A	N/A
NVA 340	03/18/2019	77	12:04	N/A	N/A	N/A
NVA 341	12/11/2019	345	15:00	12/12/2019	346	14:30
NVA 342	02/11/2019	42	14:30	02/26/2019	57	8:42
NVA 343	01/31/2019	31	12:01	N/A	N/A	N/A
NVA 344	03/07/2019	66	8:15	06/04/2019	155	6:29
NVA 354	01/31/2019	31	13:58	05/31/2019	151	13:45
NVA 355	01/30/2019	30	16:14	05/31/2019	151	13:07
NVA 356	01/30/2019	30	15:35	N/A	N/A	N/A
NVA 357	01/30/2019	30	14:58	06/10/2019	161	14:12
NVA 358	02/25/2019	56	11:52	N/A	N/A	N/A
NVA 359	02/25/2019	56	11:25	N/A	N/A	N/A
NVA 360	02/25/2019	56	10:45	N/A	N/A	N/A
NVA 361	04/12/2019	102	8:50	05/30/2019	150	9:38
NVA 362	04/12/2019	102	9:25	04/23/2019	113	8:37
NVA 363	04/12/2019	102	9:56	05/30/2019	150	10:24
NVA 364	04/12/2019	102	10:32	04/23/2019	113	7:47
NVA 365	01/31/2019	31	12:48	N/A	N/A	N/A

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

4. GPS OBSERVATION & RE-OBSERVATION SCHEDULE

Point ID	Observation Date	Julian Date	Time of Day	Re-observation Date	Re-observation Julian Date	Re-observation Time of Day
NVA 366	04/25/2019	115	11:07	05/31/2019	151	11:02
NVA 367	01/24/2019	24	13:23	N/A	N/A	N/A
NVA 368	01/24/2019	24	13:46	05/31/2019	151	10:37
NVA 369	01/30/2019	30	11:57	N/A	N/A	N/A
NVA 370	01/30/2019	30	12:26	05/30/2019	150	13:00
NVA 371	01/30/2019	30	12:46	05/31/2019	151	10:16
NVA 372	01/25/2019	25	10:13	05/31/2019	151	9:31
NVA 373	01/25/2019	25	10:58	N/A	N/A	N/A
NVA 374	01/29/2019	29	14:23	05/31/2019	151	9:03
NVA 375	01/29/2019	29	14:50	N/A	N/A	N/A
NVA 376	01/30/2019	30	9:10	05/30/2019	150	12:33
NVA 377	01/30/2019	30	10:47	05/30/2019	150	8:30
NVA 378	01/30/2019	30	10:03	N/A	N/A	N/A
NVA 379	01/30/2019	30	11:26	05/30/2019	150	12:00
NVA 380	01/29/2019	29	13:08	N/A	N/A	N/A
NVA 381	01/29/2019	29	14:03	N/A	N/A	N/A
NVA 382	04/29/2019	119	16:27	04/25/2019	115	7:33
NVA 383	04/24/2019	114	14:19	N/A	N/A	N/A
NVA 384	04/24/2019	114	13:39	04/25/2019	115	9:05
NVA 385	04/24/2019	114	14:58	N/A	N/A	N/A
NVA 386	03/13/2019	72	12:25	N/A	N/A	N/A
NVA 387	03/13/2019	72	10:33	04/25/2019	115	12:02
NVA 388	03/13/2019	72	10:00	04/25/2019	115	11:35
NVA 389	03/13/2019	72	9:27	04/25/2019	115	11:04
NVA 390	03/13/2019	72	9:00	04/25/2019	115	10:39
NVA 391	03/13/2019	72	8:20	04/25/2019	115	10:05
NVA 392	02/25/2019	56	14:33	N/A	N/A	N/A
NVA 393	02/25/2019	56	14:07	N/A	N/A	N/A
NVA 394	04/22/2019	112	10:43	N/A	N/A	N/A
NVA 395	02/03/2019	34	9:30	N/A	N/A	N/A
NVA 396	02/03/2019	34	10:02	N/A	N/A	N/A
NVA 397	02/26/2019	57	9:11	02/26/2019	57	13:12
NVA 398	02/26/2019	57	10:03	02/26/2019	57	14:08
NVA 399	02/08/2019	39	14:58	02/10/2019	41	7:40
NVA 400	02/08/2019	39	15:24	02/10/2019	41	7:55

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

4. GPS OBSERVATION & RE-OBSERVATION SCHEDULE

Point ID	Observation Date	Julian Date	Time of Day	Re-observation Date	Re-observation Julian Date	Re-observation Time of Day
NVA 401	02/08/2019	39	13:58	N/A	N/A	N/A
NVA 402	02/08/2019	39	12:20	02/10/2019	41	7:19
NVA 403	02/08/2019	39	11:45	02/10/2019	41	6:55
NVA 404	03/06/2019	65	13:22	N/A	N/A	N/A
NVA 405	02/03/2019	34	12:41	02/26/2019	57	7:01
NVA 406	02/03/2019	34	12:05	02/26/2019	57	7:19
NVA 407	02/03/2019	34	11:20	N/A	N/A	N/A
NVA 408	02/03/2019	34	10:46	N/A	N/A	N/A
NVA 409	02/03/2019	34	10:25	N/A	N/A	N/A
NVA 410	02/03/2019	34	9:06	N/A	N/A	N/A
NVA 411	04/17/2019	107	14:28	04/19/2019	109	11:56
NVA 412	04/17/2019	107	14:26	N/A	N/A	N/A
NVA 413	03/06/2019	65	14:59	N/A	N/A	N/A
NVA 414	03/07/2019	66	12:58	N/A	N/A	N/A
NVA 415	02/08/2019	39	11:20	N/A	N/A	N/A
NVA 416	02/08/2019	39	13:16	N/A	N/A	N/A
NVA 417	02/08/2019	39	11:00	N/A	N/A	N/A
NVA 418	03/06/2019	66	16:45	03/07/2019	66	13:38
NVA 419	03/07/2019	67	10:01	N/A	N/A	N/A
NVA 420	04/17/2019	107	8:49	N/A	N/A	N/A
NVA 421	04/16/2019	106	17:07	04/18/2019	108	12:43
NVA 422	04/16/2019	106	18:04	04/18/2019	108	18:01
NVA 423	02/28/2019	59	17:20	03/07/2019	66	15:26
NVA 424	02/08/2019	39	10:26	N/A	N/A	N/A
NVA 426	04/26/2019	116	13:00	N/A	N/A	N/A
NVA 427	02/27/2019	58	9:58	03/07/2019	66	16:56
NVA 428	02/28/2019	59	16:15	N/A	N/A	N/A
NVA 429	02/15/2019	46	13:28	02/27/2019	58	8:35
NVA 430	02/15/2019	46	13:00	02/27/2019	58	8:53
NVA 431	02/15/2019	46	12:30	02/27/2019	58	9:15
NVA 432	02/04/2019	35	14:58	N/A	N/A	N/A
NVA 433	01/17/2019	17	15:04	N/A	N/A	N/A
NVA 434	04/18/2019	108	8:00	04/18/2019	108	14:59
NVA 435	02/15/2019	46	12:00	N/A	N/A	N/A
NVA 436	02/28/2019	59	14:36	N/A	N/A	N/A

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

4. GPS OBSERVATION & RE-OBSERVATION SCHEDULE

Point ID	Observation Date	Julian Date	Time of Day	Re-observation Date	Re-observation Julian Date	Re-observation Time of Day
NVA 437	02/28/2019	59	15:30	N/A	N/A	N/A
NVA 438	02/04/2019	35	12:25	N/A	N/A	N/A
NVA 439	02/04/2019	35	10:30	N/A	N/A	N/A
NVA 440	01/17/2019	17	11:43	N/A	N/A	N/A
NVA 441	01/17/2019	17	11:07	N/A	N/A	N/A
VVA 1	11/12/2019	316	16:00	N/A	N/A	N/A
VVA 2	11/12/2019	316	11:00	12/16/2019	350	10:35
VVA 3	11/11/2019	315	16:15	N/A	N/A	N/A
VVA 4	11/12/2019	316	13:10	12/20/2019	354	8:30
VVA 5	11/13/2019	317	15:02	11/19/2019	323	13:21
VVA 6	11/11/2019	315	15:40	N/A	N/A	N/A
VVA 7	11/11/2019	315	13:38	11/12/2019	316	9:20
VVA 8	11/13/2019	317	13:53	12/09/2019	343	11:39
VVA 9	11/19/2019	323	13:46	12/09/2019	343	11:20
VVA 10	12/09/2019	343	15:40	N/A	N/A	N/A
VVA 11	11/13/2019	317	14:00	N/A	N/A	N/A
VVA 12	11/13/2019	317	9:00	11/14/2019	318	7:37
VVA 13	11/20/2019	324	9:20	N/A	N/A	N/A
VVA 14	11/19/2019	323	9:47	12/09/2019	343	16:26
VVA 15	12/09/2019	343	12:46	N/A	N/A	N/A
VVA 16	11/19/2019	322	9:45	12/20/2019	354	9:30
VVA 17	12/09/2019	343	9:30	N/A	N/A	N/A
VVA 18	12/09/2019	343	16:13	N/A	N/A	N/A
VVA 19	12/09/2019	343	14:30	N/A	N/A	N/A
VVA 20	11/11/2019	315	15:00	12/09/2019	343	12:07
VVA 21	11/13/2019	317	13:12	12/03/2019	337	15:33
VVA 22	11/20/2019	324	9:20	N/A	N/A	N/A
VVA 23	12/16/2019	350	15:10	N/A	N/A	N/A
VVA 24	11/18/2019	322	10:45	12/20/2019	354	10:00
VVA 25	11/13/2019	317	11:24	12/09/2019	343	13:47
VVA 26	12/09/2019	343	16:45	N/A	N/A	N/A
VVA 27	12/10/2019	344	9:44	N/A	N/A	N/A
VVA 28	12/10/2019	344	11:06	12/20/2019	354	12:20

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

4. GPS OBSERVATION & RE-OBSERVATION SCHEDULE

Point ID	Observation Date	Julian Date	Time of Day	Re-observation Date	Re-observation Julian Date	Re-observation Time of Day
VVA 29	03/06/2019	65	13:00	03/07/2019	66	14:43
VVA 30	03/06/2019	65	14:40	N/A	N/A	N/A
VVA 31	03/06/2019	65	8:30	N/A	N/A	N/A
VVA 32	03/06/2019	65	10:30	N/A	N/A	N/A
VVA 33	03/06/2019	65	13:50	N/A	N/A	N/A
VVA 34	03/05/2019	64	15:02	03/08/2019	67	8:10
VVA 35	03/05/2019	64	9:29	03/07/2019	66	17:02
VVA 36	03/04/2019	63	13:37	03/07/2019	66	8:50
VVA 38	03/04/2019	63	17:30	03/07/2019	66	9:50
VVA 39	03/05/2019	64	17:10	03/08/2019	67	9:42
VVA 40	12/10/2019	344	12:14	N/A	N/A	N/A
VVA 41	03/07/2019	66	11:00	05/30/2019	150	8:30
VVA 42	12/10/2019	344	11:54	12/12/2019	346	9:42
VVA 43	12/11/2019	345	10:34	12/12/2019	346	9:42
VVA 44	12/11/2019	345	12:16	N/A	N/A	N/A
VVA 45	12/09/2019	343	17:13	N/A	N/A	N/A
VVA 46	11/13/2019	317	10:33	12/09/2019	343	14:14
VVA 47	11/18/2019	322	14:15	N/A	N/A	N/A
VVA 48	11/20/2019	324	12:00	N/A	N/A	N/A
VVA 49	11/13/2019	317	12:00	N/A	N/A	N/A
VVA 50	11/19/2019	323	10:00	12/09/2019	343	17:30
VVA 51	11/13/2019	317	15:14	11/14/2019	318	11:17
VVA 52	11/13/2019	317	16:37	11/14/2019	318	12:15
VVA 53	11/13/2019	317	15:49	11/14/2019	318	16:25
VVA 54	11/14/2019	318	11:30	N/A	N/A	N/A
VVA 55	11/19/2019	323	14:30	N/A	N/A	N/A
VVA 56	11/14/2019	318	10:45	N/A	N/A	N/A
VVA 57	11/19/2019	323	8:00	11/19/2019	323	16:33
VVA 58	12/11/2019	345	12:55	12/20/2019	354	13:05
VVA 59	12/11/2019	345	15:30	12/12/2019	346	15:00
VVA 60	03/13/2019	72	11:20	05/30/2019	150	13:05
VVA 61	11/19/2019	323	11:50	N/A	N/A	N/A
VVA 62	11/08/2019	312	11:27	11/08/2019	312	13:14
VVA 63	11/13/2019	317	9:07	11/18/2019	322	1:38

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

4. GPS OBSERVATION & RE-OBSERVATION SCHEDULE

Point ID	Observation Date	Julian Date	Time of Day	Re-observation Date	Re-observation Julian Date	Re-observation Time of Day
VVA 64	11/21/2019	325	9:12	11/22/2019	326	10:16
VVA 65	12/16/2019	350	13:45	12/17/2019	351	11:21
VVA 66	12/16/2019	350	12:50	12/17/2019	351	11:53
VVA 67	12/17/2019	351	11:11	12/17/2019	351	12:40
VVA 68	03/07/2019	66	12:30	05/30/2019	150	9:14
VVA 69	03/07/2019	66	14:00	06/12/2019	163	8:35
VVA 70	03/08/2019	67	9:30	03/14/2019	73	8:30
VVA 71	03/12/2019	71	9:15	03/14/2019	73	9:40
VVA 72	12/18/2019	352	11:36	N/A	N/A	N/A
VVA 73	12/16/2019	350	15:02	12/17/2019	351	10:00
VVA 74	11/20/2019	324	9:08	11/20/2019	324	4:00
VVA 75	11/21/2019	324	9:10	12/09/2019	343	5:09
VVA 76	12/04/2019	338	11:15	N/A	N/A	N/A
VVA 77	12/04/2019	338	10:25	N/A	N/A	N/A
VVA 78	12/04/2019	338	9:20	N/A	N/A	N/A
VVA 79	03/19/2019	78	9:47	03/22/2019	81	11:26
VVA 80	12/02/2019	336	12:56	N/A	N/A	N/A
VVA 81	12/02/2019	336	14:00	N/A	N/A	N/A
VVA 82	12/09/2019	343	10:45	N/A	N/A	N/A
VVA 83	12/09/2019	343	11:15	N/A	N/A	N/A
VVA 85	12/19/2019	353	9:45	N/A	N/A	N/A
VVA 87	12/02/2019	336	15:45	N/A	N/A	N/A
VVA 88	12/12/2019	346	15:55	N/A	N/A	N/A
VVA 89	12/18/2019	352	14:51	12/20/2019	354	9:11
VVA 90	12/18/2019	352	13:30	12/20/2019	354	10:30
VVA 91	03/08/2019	67	11:20	05/29/2019	149	10:05
VVA 92	11/20/2019	324	10:00	N/A	N/A	N/A
VVA 93	11/14/2019	318	9:51	11/18/2019	322	14:38
VVA 94	12/18/2019	352	15:30	12/19/2019	353	10:49
VVA 95	11/20/2019	324	10:50	N/A	N/A	N/A
VVA 96	11/20/2019	324	16:35	N/A	N/A	N/A
VVA 97	12/19/2019	353	17:45	12/20/2019	354	11:15

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

4. GPS OBSERVATION & RE-OBSERVATION SCHEDULE

Point ID	Observation Date	Julian Date	Time of Day	Re-observation Date	Re-observation Julian Date	Re-observation Time of Day
VVA 98	11/20/2019	324	13:25	12/09/2019	343	16:40
VVA 99	11/12/2019	316	16:00	11/14/2019	318	14:15
VVA 100	03/08/2019	67	13:00	03/14/2019	73	13:15
VVA 101	03/11/2019	70	9:20	N/A	N/A	N/A
VVA 102	12/02/2019	336	16:35	12/03/2019	337	14:54
VVA 103	03/11/2019	70	10:50	N/A	N/A	N/A
VVA 104	12/04/2019	338	14:10	12/09/2019	N/A	12:03
VVA 105	11/14/2019	318	10:53	11/18/2019	322	15:22
VVA 106	12/10/2019	344	9:00	12/11/2019	345	13:55
VVA 107	12/12/2019	346	14:30	12/19/2019	353	N/A
VVA 108	12/03/2019	337	15:30	N/A	N/A	N/A
VVA 109	12/04/2019	338	16:45	N/A	N/A	N/A
VVA 110	12/04/2019	338	17:50	N/A	N/A	N/A
VVA 111	11/14/2019	318	12:37	N/A	N/A	N/A
VVA 112	12/10/2019	344	14:30	12/19/2019	353	9:28
VVA 113	03/06/2019	65	10:54	N/A	N/A	N/A
VVA 114	03/19/2019	78	14:40	05/31/2019	151	14:50
VVA 115	03/11/2019	70	13:50	05/31/2019	151	16:20
VVA 116	08/16/2019	231	8:26	N/A	N/A	N/A
VVA 117	03/07/2019	66	11:18	N/A	N/A	N/A
VVA 118	03/05/2019	64	12:43	03/07/2019	66	13:31
VVA 119	12/10/2019	344	15:15	12/11/2019	345	13:50
VVA 120	06/21/2019	172	9:03	07/22/2019	203	18:20
VVA 122	06/21/2019	172	11:14	N/A	N/A	N/A
VVA 123	12/05/2019	339	14:30	N/A	N/A	N/A
VVA 124	12/05/2019	339	12:15	12/09/2019	343	15:07
VVA 125	12/05/2019	339	11:15	N/A	N/A	N/A
VVA 126	06/21/2019	172	13:56	N/A	N/A	N/A
VVA 127	06/21/2019	172	10:04	N/A	N/A	N/A
VVA 128	03/06/2019	65	10:13	N/A	N/A	N/A
VVA 129	03/05/2019	64	11:39	03/07/2019	66	9:46
VVA 130	03/19/2019	78	12:50	06/05/2019	156	8:50
VVA 131	12/05/2019	339	10:45	12/09/2019	343	14:31
VVA 132	12/18/2019	352	16:39	12/09/2019	343	16:30

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

4. GPS OBSERVATION & RE-OBSERVATION SCHEDULE

Point ID	Observation Date	Julian Date	Time of Day	Re-observation Date	Re-observation Julian Date	Re-observation Time of Day
VVA 133	06/20/2019	171	12:50	N/A	N/A	N/A
VVA 134	03/05/2019	64	9:46	N/A	N/A	N/A
VVA 135	03/05/2019	64	10:28	N/A	N/A	N/A
VVA 136	03/04/2019	63	13:10	N/A	N/A	N/A
VVA 137	03/19/2019	78	8:30	06/04/2019	155	10:55
VVA 138	03/18/2019	77	12:10	06/04/2019	155	13:40
VVA 139	03/19/2019	78	11:40	06/04/2019	155	14:40
VVA 140	03/18/2019	77	10:45	N/A	N/A	N/A
VVA 141	02/12/2019	43	10:35	N/A	N/A	N/A
VVA 142	02/12/2019	43	12:43	01/10/2020	10	14:45
VVA 143	03/04/2019	63	12:40	N/A	N/A	N/A
VVA 144	03/04/2019	63	10:10	N/A	N/A	N/A
VVA 145	06/20/2019	171	8:15	07/22/2019	203	14:20
VVA 146	06/20/2019	171	10:58	N/A	N/A	N/A
VVA 147	06/20/2019	171	10:27	N/A	N/A	N/A
VVA 148	06/20/2019	171	8:52	N/A	N/A	N/A
VVA 150	06/19/2019	170	14:04	N/A	N/A	N/A
VVA 151	06/19/2019	170	15:04	N/A	N/A	N/A
VVA 152	02/28/2019	59	13:48	01/10/2020	10	12:15
VVA 153	03/01/2019	60	9:18	01/10/2020	10	12:41
VVA 154	02/11/2019	42	9:37	N/A	N/A	N/A
VVA 155	02/11/2019	42	10:51	N/A	N/A	N/A
VVA 156	02/11/2019	42	11:21	02/26/2019	57	12:00
VVA 157	02/11/2019	42	12:31	01/10/2019	10	10:38
VVA 158	02/07/2019	38	13:51	N/A	N/A	N/A
VVA 159	02/07/2019	38	12:05	01/10/2020	10	11:13
VVA 160	02/07/2019	38	10:51	01/10/2020	10	7:52
VVA 161	02/07/2019	38	9:48	N/A	N/A	N/A
VVA 162	02/28/2019	59	9:07	N/A	N/A	N/A
VVA 163	02/27/2019	58	14:55	N/A	N/A	N/A
VVA 164	06/19/2019	170	15:33	N/A	N/A	N/A
VVA 165	06/19/2019	170	12:54	N/A	N/A	N/A
VVA 166	06/19/2019	170	9:43	07/22/2019	203	10:50
VVA 167	06/19/2019	170	10:21	N/A	N/A	N/A
VVA 168	06/19/2019	170	10:52	07/02/2019	183	11:40

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

4. GPS OBSERVATION & RE-OBSERVATION SCHEDULE

Point ID	Observation Date	Julian Date	Time of Day	Re-observation Date	Re-observation Julian Date	Re-observation Time of Day
VVA 169	02/28/2019	59	10:20	N/A	N/A	N/A
VVA 170	02/27/2019	58	10:43	01/10/2020	10	11:36
VVA 171	02/05/2019	36	14:51	01/10/2020	10	10:57
VVA 172	02/06/2019	37	9:25	02/15/2019	46	12:37
VVA 173	02/06/2019	37	10:44	02/25/2019	56	11:15
VVA 174	02/06/2019	37	12:07	N/A	N/A	N/A
VVA 175	02/06/2019	37	14:08	N/A	N/A	N/A
VVA 176	02/05/2019	36	10:06	01/10/2020	10	12:41
VVA 177	02/05/2019	36	11:37	N/A	N/A	N/A
VVA 178	02/05/2019	36	12:19	01/10/2020	10	9:30
VVA 179	03/20/2019	79	11:22	N/A	N/A	N/A
VVA 180	03/20/2019	79	12:11	N/A	N/A	N/A
VVA 181	02/05/2019	36	13:11	01/10/2020	10	10:22
VVA 183	04/11/2019	101	13:57	N/A	N/A	N/A
VVA 184	08/16/2019	231	13:24	N/A	N/A	N/A
VVA 185	01/24/2019	24	11:09	01/10/2020	10	13:21
VVA 186	01/24/2019	24	15:08	01/10/2020	10	15:42
VVA 187	01/29/2019	29	9:35	N/A	N/A	N/A
VVA 188	01/23/2019	23	13:34	02/14/2019	45	10:45
VVA 189	01/23/2019	23	15:07	N/A	N/A	N/A
VVA 190	03/21/2019	80	9:57	05/29/2019	149	8:47
VVA 191	01/24/2019	24	9:10	02/14/2019	45	11:47
VVA 192	01/22/2019	22	9:46	N/A	N/A	N/A
VVA 193	01/22/2019	22	12:50	02/04/2019	35	15:16
VVA 194	01/28/2019	28	15:20	N/A	N/A	N/A
VVA 195	02/01/2019	32	8:56	N/A	N/A	N/A
VVA 196	02/01/2019	32	10:15	N/A	N/A	N/A
VVA 197	02/01/2019	32	10:45	N/A	N/A	N/A
VVA 198	02/01/2019	32	11:42	N/A	N/A	N/A
VVA 199	02/01/2019	32	13:12	N/A	N/A	N/A
VVA 200	01/31/2019	31	10:27	N/A	N/A	N/A
VVA 201	01/22/2019	22	8:24	N/A	N/A	N/A
VVA 202	01/21/2019	21	8:05	02/04/2019	35	9:27
VVA 203	03/20/2019	79	16:04	N/A	N/A	N/A
VVA 204	03/19/2019	78	16:50	N/A	N/A	N/A

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

4. GPS OBSERVATION & RE-OBSERVATION SCHEDULE

Point ID	Observation Date	Julian Date	Time of Day	Re-observation Date	Re-observation Julian Date	Re-observation Time of Day
VVA 205	03/18/2019	77	15:55	N/A	N/A	N/A
VVA 206	03/18/2019	77	13:35	N/A	N/A	N/A
VVA 207	01/25/2019	25	12:13	05/31/2019	151	14:18
VVA 208	01/24/2019	24	14:01	N/A	N/A	N/A
VVA 209	01/30/2019	30	13:25	N/A	N/A	N/A
VVA 210	01/31/2019	31	12:22	05/31/2019	151	14:40
VVA 211	04/25/2019	115	14:09	N/A	N/A	N/A
VVA 212	01/31/2019	31	14:25	N/A	N/A	N/A
VVA 213	01/31/2019	31	14:59	05/31/2019	151	11:35
VVA 214	04/25/2019	115	11:35	N/A	N/A	N/A
VVA 217	04/24/2019	114	15:50	04/25/2019	115	8:06
VVA 218	03/13/2019	72	13:52	N/A	N/A	N/A
VVA 219	03/13/2019	72	11:36	N/A	N/A	N/A
VVA 220	03/13/2019	72	11:06	04/24/2019	114	12:27
VVA 221	04/12/2019	102	11:01	01/06/2020	6	13:48
VVA 222	04/12/2019	102	11:29	04/23/2019	113	9:49
VVA 223	04/12/2019	102	11:57	01/06/2020	6	16:02
VVA 224	04/23/2019	113	9:18	04/23/2019	113	15:52
VVA 225	02/25/2019	56	13:30	N/A	N/A	N/A
VVA 227	04/22/2019	112	11:15	04/23/2019	113	11:23
VVA 228	04/12/2019	102	13:43	01/06/2020	6	15:36
VVA 229	04/12/2019	102	10:45	04/23/2019	113	15:23
VVA 230	04/22/2019	112	13:03	N/A	N/A	N/A
VVA 231	04/22/2019	112	13:42	04/23/2019	113	10:12
VVA 232	04/22/2019	112	14:09	01/06/2020	6	N/A
VVA 233	04/22/2019	112	12:43	04/23/2019	113	15:00
VVA 234	04/22/2019	112	12:08	N/A	N/A	N/A
VVA 235	04/22/2019	112	11:48	04/23/2019	113	14:26
VVA 237	04/22/2019	112	9:25	N/A	N/A	N/A
VVA 238	04/22/2019	112	9:55	04/23/2019	113	13:48
VVA 239	04/22/2019	112	8:45	N/A	N/A	N/A
VVA 240	04/17/2019	107	17:50	N/A	N/A	N/A
VVA 241	04/17/2019	107	17:20	04/19/2019	109	13:49
VVA 242	04/16/2019	106	17:04	01/06/2020	6	15:00
VVA 243	02/26/2019	57	8:10	02/26/2019	57	12:20

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

4. GPS OBSERVATION & RE-OBSERVATION SCHEDULE

Point ID	Observation Date	Julian Date	Time of Day	Re-observation Date	Re-observation Julian Date	Re-observation Time of Day
VVA 244	02/26/2019	57	9:36	02/26/2019	57	13:38
VVA 245	02/26/2019	57	10:35	02/26/2019	57	14:37
VVA 246	02/26/2019	57	11:02	N/A	N/A	N/A
VVA 247	02/26/2019	57	7:42	02/26/2019	57	11:46
VVA 248	04/17/2019	107	16:32	04/19/2019	109	13:30
VVA 249	04/17/2019	107	14:02	04/19/2019	109	11:29
VVA 250	01/10/2020	10	16:50	N/A	N/A	N/A
VVA 251	04/17/2019	107	13:13	01/10/2020	10	17:10
VVA 252	04/17/2019	107	15:20	04/19/2019	109	13:09
VVA 253	04/17/2019	107	16:02	N/A	N/A	N/A
VVA 254	02/27/2019	58	10:52	N/A	N/A	N/A
VVA 255	03/06/2019	65	14:18	03/07/2019	66	11:48
VVA 257	02/28/2019	59	18:03	03/07/2019	66	14:03
VVA 258	02/27/2019	58	15:53	03/07/2019	66	14:42
VVA 259	04/17/2019	107	7:15	04/19/2019	109	8:17
VVA 260	01/10/2020	10	19:27	N/A	N/A	N/A
VVA 261	04/17/2019	107	10:55	04/19/2019	109	9:09
VVA 262	04/17/2019	107	11:44	N/A	N/A	N/A
VVA 263	04/16/2019	106	12:07	N/A	N/A	N/A
VVA 264	04/17/2019	107	12:42	04/19/2019	109	11:03
VVA 265	04/16/2019	106	16:11	01/10/2020	10	15:40
VVA 266	01/10/2020	10	14:20	N/A	N/A	N/A
VVA 268	04/16/2019	106	17:37	01/10/2020	10	13:10
VVA 269	04/16/2019	106	18:18	01/10/2020	10	12:40
VVA 270	02/27/2019	58	14:41	01/10/2020	10	12:05
VVA 271	02/27/2019	58	15:15	03/07/2019	66	9:32
VVA 272	03/07/2019	66	8:52	01/10/2020	10	7:50
VVA 274	02/27/2019	58	11:55	01/10/2020	10	8:36
VVA 275	02/27/2019	58	13:53	01/10/2020	10	10:14
VVA 276	02/27/2019	58	13:16	01/10/2020	10	10:38
VVA 277	04/16/2019	106	9:49	N/A	N/A	N/A
VVA 278	04/16/2019	106	10:32	04/18/2019	108	10:36
VVA 279	04/16/2019	106	11:16	N/A	N/A	N/A
VVA 280	04/16/2019	106	9:33	04/18/2019	108	11:17
VVA 281	04/16/2019	106	15:11	04/18/2019	108	12:05
VVA 282	04/15/2019	105	12:42	N/A	N/A	N/A

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

4. GPS OBSERVATION & RE-OBSERVATION SCHEDULE

Point ID	Observation Date	Julian Date	Time of Day	Re-observation Date	Re-observation Julian Date	Re-observation Time of Day
VVA 283	04/15/2019	105	13:52	04/18/2019	108	8:45
VVA 284	04/15/2019	105	17:20	N/A	N/A	N/A
VVA 285	04/15/2019	105	18:06	04/18/2019	108	9:43
VVA 286	04/16/2019	106	8:06	N/A	N/A	N/A
VVA 287	04/06/2019	96	8:58	04/18/2019	108	10:10
VVA 288	02/27/2019	58	9:36	03/07/2019	66	16:31
VVA 289	02/27/2019	58	10:30	03/07/2019	66	17:25
VVA 290	02/27/2019	58	11:14	03/07/2019	66	8:00
VVA 291	02/27/2019	58	7:45	03/07/2019	66	18:08
VVA 292	02/04/2019	35	15:50	N/A	N/A	N/A
VVA 293	04/18/2019	108	7:23	04/18/2019	108	14:25
VVA 294	04/15/2019	105	11:35	N/A	N/A	N/A
VVA 295	01/17/2019	17	13:04	N/A	N/A	N/A
VVA 296	01/17/2019	17	13:30	N/A	N/A	N/A
VVA 297	01/17/2019	17	13:55	N/A	N/A	N/A
VVA 298	01/17/2019	17	14:25	01/17/2019	17	14:25
VVA 299	02/04/2019	35	14:30	N/A	N/A	N/A
VVA 300	02/04/2019	35	13:45	N/A	N/A	N/A
VVA 301	02/01/2029	32	14:12	N/A	N/A	N/A
VVA 303	02/04/2019	35	13:09	N/A	N/A	N/A
VVA 305	01/17/2019	17	12:08	N/A	N/A	N/A
VVA 306	01/17/2019	17	10:15	N/A	N/A	N/A
VVA 307	01/17/2019	17	9:15	N/A	N/A	N/A

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

5. POINT COMPARISON REPORT

Point comparisons are shown in their respective Florida State Plane Coordinate System Zone, as defined in Section 3 (pages 10-25) of this report/ NAVD88 (U.S. Survey Feet)

Point ID	Check Point ID	Δ North	Δ East	Δ Vertical
NVA 1	CHK_NVA 1	-0.12	-0.01	-0.06
NVA 3	CHK_NVA 3	0.07	0.06	0.10
NVA 4	CHK_NVA 4	0.02	0.05	0.03
NVA 5	CHK_NVA 5	0.03	0.03	0.07
NVA 9	CHK_NVA 9	0.00	0.06	-0.09
NVA 11	CHK_NVA 11	0.02	0.07	0.10
NVA 12	CHK_NVA 12	-0.08	0.04	0.16
NVA 22	CHK_NVA 22	0.04	0.02	0.12
NVA 23	CHK_NVA 23	0.06	-0.01	0.02
NVA 27	CHK_NVA 27	-0.04	-0.02	0.03
NVA 28	CHK_NVA 28	0.03	0.08	0.05
NVA 29	CHK_NVA 29	-0.02	-0.01	-0.06
NVA 36	CHK_NVA36	0.00	0.02	-0.08
NVA 38	CHK_NVA38	0.07	-0.01	-0.04
NVA 40	CHK_NVA40	0.04	0.04	0.01
NVA 41	CHK_NVA41	0.03	0.00	-0.10
NVA 44	CHK_NVA44	0.05	-0.07	-0.03
NVA 45	CHK_NVA45	0.02	-0.13	-0.09
NVA 46	CHK_NVA46	0.01	0.01	-0.01
NVA 49	CHK_NVA49	0.07	-0.06	0.09
NVA 51	CHK_NVA51	-0.04	0.01	-0.01
NVA 52	CHK_NVA52	-0.06	0.00	0.11
NVA 53	CHK_NVA53	0.02	-0.02	0.05
NVA 54	CHK_NVA54	-0.01	0.01	-0.14
NVA 55	CHK_NVA55	0.04	-0.01	0.14
NVA 56	CHK_NVA56	0.09	0.02	0.01
NVA 57	CHK_NVA57	0.05	0.05	0.00
NVA 59	CHK_NVA59	0.00	-0.01	-0.03
NVA 60	CHK_NVA60	0.02	0.09	0.06
NVA 61	CHK_NVA61	0.03	-0.02	-0.03
NVA 62	CHK_NVA62	-0.04	0.01	-0.14
NVA 63	CHK_NVA63	0.05	0.08	0.04
NVA 64	CHK_NVA 64	0.02	0.05	-0.04
NVA 67	CHK_NVA 67	0.02	0.00	-0.09
NVA 69	CHK_NVA 69	-0.03	0.07	0.00

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

5. POINT COMPARISON REPORT

Point comparisons are shown in their respective Florida State Plane Coordinate System Zone,
as defined in Section 3 (pages 10-22) of this report/ NAVD88 (U.S. Survey Feet)

Point ID	Check Point ID	Δ North	Δ East	Δ Vertical
NVA 71	CHK_NVA 71	-0.02	-0.02	-0.03
NVA 76	CHK_NVA 76	-0.06	0.04	-0.15
NVA 77	CHK_NVA 77	0.01	0.01	0.01
NVA 78	CHK_NVA 78	-0.03	0.00	0.04
NVA 80	CHK_NVA 80	0.03	-0.05	-0.06
NVA 81	CHK_NVA 81	-0.02	0.03	0.04
NVA 82	CHK_NVA82	-0.05	0.06	0.14
NVA 83	CHK_NVA83	-0.06	0.05	-0.08
NVA 84	CHK_NVA84	0.15	-0.04	-0.05
NVA 86	CHK_NVA86	0.02	0.03	0.00
NVA 87	CHK_NVA 87	-0.09	0.04	-0.01
NVA 89	CHK_NVA 89	-0.04	0.01	-0.04
NVA 91	CHK_NVA 91	0.10	0.04	-0.03
NVA 93	CHK_NVA 93	-0.03	-0.05	-0.14
NVA 95	CHK_NVA 95	0.04	-0.02	-0.09
NVA 96	CHK_NVA 96	-0.02	0.01	0.14
NVA 97	CHK_NVA 97	0.00	0.06	0.02
NVA 98	CHK_NVA 98	0.03	0.05	0.09
NVA 100	CHK_NVA 100	0.07	-0.07	0.03
NVA 101	CHK_NVA 101	-0.02	0.04	0.01
NVA 102	CHK_NVA 102	-0.07	0.05	0.00
NVA 103	CHK_NVA 103	0.03	-0.02	-0.11
NVA 107	CHK_NVA 107	-0.05	0.02	-0.13
NVA 108	CHK_NVA 108	-0.04	0.08	0.11
NVA 109	CHK_NVA 109	0.00	0.07	-0.10
NVA 110	CHK_NVA 110	0.00	-0.03	-0.10
NVA 111	CHK_NVA 111	0.00	0.04	-0.10
NVA 113	CHK_NVA 113	0.04	0.00	-0.06
NVA 114	CHK_NVA 114	0.00	0.04	-0.07
NVA 117	CHK_NVA 117	0.05	-0.08	-0.01
NVA 121	CHK_NVA121	-0.07	0.09	-0.12
NVA 122	CHK_NVA 122	-0.07	-0.05	-0.12
NVA 124	CHK_NVA124	0.05	-0.03	-0.09
NVA 127	CHK_NVA 127	-0.03	0.00	-0.04
NVA 132	CHK_NVA 132	0.01	0.06	0.03

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

5. POINT COMPARISON REPORT

Point comparisons are shown in their respective Florida State Plane Coordinate System Zone,
as defined in Section 3 (pages 10-22) of this report/ NAVD88 (U.S. Survey Feet)

Point ID	Check Point ID	Δ North	Δ East	Δ Vertical
NVA 133	CHK_NVA 133	-0.03	-0.04	0.06
NVA 134	CHK_NVA 134	-0.04	-0.01	-0.02
NVA 136	CHK_NVA136	-0.03	0.05	0.07
NVA 138	CHK_NVA138	0.00	0.04	0.01
NVA 139	CHK_NVA 139	0.04	0.00	0.03
NVA 140	CHK_NVA 140	0.06	-0.06	-0.07
NVA 141	CHK_NVA 141	-0.02	-0.04	0.16
NVA 145	CHK_NVA 145	0.02	0.00	-0.03
NVA 147	CHK_NVA147	-0.07	0.12	-0.04
NVA 149	CHK_NVA 149	0.02	0.03	0.00
NVA 150	CHK_NVA 150	0.06	0.01	0.07
NVA 155	CHK_NVA 155	-0.03	-0.01	0.08
NVA 157	CHK_NVA157	0.01	0.03	-0.12
NVA 159	CHK_NVA159	0.00	0.02	-0.05
NVA 160	CHK_NVA160	0.03	0.10	0.01
NVA 161	CHK_NVA161	-0.08	0.07	-0.16
NVA 162	CHK_NVA162	0.04	0.04	-0.02
NVA 163	CHK_NVA163	0.07	0.00	-0.08
NVA 164	CHK_NVA164	0.01	-0.01	-0.06
NVA 166	CHK_NVA166	0.00	0.02	0.04
NVA 167	CHK_NVA167	0.02	-0.03	-0.10
NVA 168	CHK_NVA168	-0.02	-0.05	-0.09
NVA 172	CHK_NVA172	0.08	-0.06	0.13
NVA 174	CHK_NVA174	-0.11	0.05	0.11
NVA 178	CHK_NVA178	0.06	0.06	-0.10
NVA 179	CHK_NVA179	0.04	0.01	-0.11
NVA 182	CHK_NVA182	0.02	0.01	-0.05
NVA 183	CHK_NVA183	-0.09	-0.04	-0.01
NVA 185	CHK_NVA185	0.04	0.02	0.09
NVA 186	CHK_NVA186	0.05	-0.06	0.13
NVA 187	CHK_NVA187	0.05	-0.09	-0.05
NVA 189	CHK_NVA189	0.13	0.04	-0.05
NVA 192	CHK_NVA192	-0.06	-0.10	0.16
NVA 196	CHK_NVA196	-0.13	-0.03	0.05
NVA 197	CHK_NVA197	0.01	-0.08	0.01

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

5. POINT COMPARISON REPORT

Point comparisons are shown in their respective Florida State Plane Coordinate System Zone,
as defined in Section 3 (pages 10-22) of this report/ NAVD88 (U.S. Survey Feet)

Point ID	Check Point ID	Δ North	Δ East	Δ Vertical
NVA 199	CHK_NVA199	0.07	0.04	-0.11
NVA 201	CHK_NVA201	-0.03	-0.06	0.13
NVA 203	CHK_NVA203	0.07	0.02	0.12
NVA 205	CHK_NVA205	0.05	-0.10	0.15
NVA 206	CHK_NVA206	-0.04	0.05	0.08
NVA 209	CHK_NVA209	-0.03	0.04	0.08
NVA 210	CHK_NVA210	-0.06	0.01	0.05
NVA 212	CHK_NVA212	0.01	-0.01	-0.11
NVA 213	CHK_NVA213	0.09	0.02	0.04
NVA 217	CHK_NVA217	0.03	-0.02	0.10
NVA 218	CHK_NVA218	-0.01	0.01	0.01
NVA 219	CHK_NVA219	0.03	-0.10	0.06
NVA 220	CHK_NVA220	0.00	0.00	0.00
NVA 223	CHK_NVA223	0.01	0.03	0.01
NVA 226	CHK_NVA226	0.00	0.00	0.00
NVA 227	CHK_NVA227	-0.04	0.04	0.10
NVA 228	CHK_NVA228	0.06	0.01	-0.09
NVA 229	CHK_NVA229	-0.04	-0.01	-0.04
NVA 230	CHK_NVA230	-0.05	-0.03	0.09
NVA 231	CHK_NVA231	-0.01	-0.02	0.01
NVA 237	CHK_NVA237	-0.11	0.16	0.09
NVA 238	CHK_NVA238	0.13	-0.01	-0.02
NVA 240	CHK_NVA240	-0.03	0.03	0.01
NVA 241	CHK_NVA241	-0.02	-0.03	-0.01
NVA 242	CHK_NVA242	0.02	-0.05	-0.15
NVA 243	CHK_NVA243	-0.01	0.09	-0.02
NVA 244	CHK_NVA244	0.07	-0.03	0.01
NVA 245	CHK_NVA245	-0.01	-0.04	-0.02
NVA 246	CHK_NVA246	0.13	-0.01	-0.02
NVA 247	CHK_NVA247	-0.12	-0.04	-0.03
NVA 249	CHK_NVA249	0.06	0.05	0.01
NVA 250	CHK_NVA250	-0.05	0.01	-0.08
NVA 251	CHK_NVA251	-0.01	0.01	0.01
NVA 252	CHK_NVA252	0.03	0.01	-0.02
NVA 254	CHK_NVA254	0.01	0.04	0.02

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

5. POINT COMPARISON REPORT

Point comparisons are shown in their respective Florida State Plane Coordinate System Zone,
as defined in Section 3 (pages 10-22) of this report/ NAVD88 (U.S. Survey Feet)

Point ID	Check Point ID	Δ North	Δ East	Δ Vertical
NVA 256	CHK_NVA256	0.02	-0.03	-0.02
NVA 258	CHK_NVA258	0.03	-0.01	-0.03
NVA 269	CHK_NVA269	0.03	-0.03	-0.15
NVA 270	CHK_NVA270	0.12	0.06	0.14
NVA 271	CHK_NVA271	0.00	-0.02	0.08
NVA 273	CHK_NVA273	0.12	-0.08	0.02
NVA 274	CHK_NVA274	0.09	0.00	0.07
NVA 277	CHK_NVA277	-0.06	-0.03	-0.10
NVA 284	CHK_NVA284	0.02	0.03	-0.02
NVA 285	CHK_NVA285	0.05	0.01	0.03
NVA 288	CHK_NVA288	0.01	0.05	-0.06
NVA 289	CHK_NVA289	0.02	-0.04	-0.15
NVA 290	CHK_NVA290	-0.07	0.03	-0.10
NVA 294	CHK_NVA294	0.01	-0.02	-0.01
NVA 295	CHK_NVA295	0.03	-0.15	-0.04
NVA 297	CHK_NVA297	0.03	0.04	0.15
NVA 299	CHK_NVA299	0.05	0.02	-0.13
NVA 302	CHK_NVA302	0.04	0.04	-0.03
NVA 305	CHK_NVA305	0.04	-0.01	0.00
NVA 307	CHK_NVA307	-0.03	0.06	0.03
NVA 309	CHK_NVA309	0.09	0.00	0.09
NVA 310	CHK_NVA310	-0.02	-0.04	0.06
NVA 312	CHK_NVA312	0.07	0.06	0.06
NVA 314	CHK_NVA314	0.02	0.00	0.01
NVA 318	CHK_NVA318	0.00	0.02	0.10
NVA 320	CHK_NVA320	0.02	0.00	0.16
NVA 321	CHK_NVA321	0.08	-0.11	0.14
NVA 322	CHK_NVA322	-0.07	0.01	0.11
NVA 323	CHK_NVA323	-0.01	-0.01	-0.05
NVA 324	CHK_NVA324	-0.03	-0.01	0.03
NVA 325	CHK_NVA325	-0.04	-0.05	0.13
NVA 326	CHK_NVA326	0.07	0.03	-0.04
NVA 328	CHK_NVA328	-0.03	0.04	0.12
NVA 330	CHK_NVA330	-0.06	0.01	0.02
NVA 332	CHK_NVA332	-0.02	0.02	0.00

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

5. POINT COMPARISON REPORT

Point comparisons are shown in their respective Florida State Plane Coordinate System Zone, as defined in Section 3 (pages 10-22) of this report/ NAVD88 (U.S. Survey Feet)

Point ID	Check Point ID	Δ North	Δ East	Δ Vertical
NVA 335	CHK_NVA335	-0.01	-0.05	0.13
NVA 341	CHK_NVA341	-0.02	-0.04	0.00
NVA 342	CHK_NVA342	-0.02	-0.02	0.04
NVA 344	CHK_NVA344	-0.04	0.05	-0.03
NVA 345	CHK_NVA345	0.00	0.00	0.00
NVA 346	CHK_NVA346	0.00	0.00	0.00
NVA 347	CHK_NVA347	0.00	0.00	0.00
NVA 348	CHK_NVA348	0.00	0.00	0.00
NVA 349	CHK_NVA349	0.00	0.00	0.00
NVA 350	CHK_NVA350	0.00	0.00	0.00
NVA 351	CHK_NVA351	0.00	0.00	0.00
NVA 352	CHK_NVA352	0.00	0.00	0.00
NVA 353	CHK_NVA353	0.00	0.00	0.00
NVA 354	CHK_NVA354	0.00	-0.04	-0.14
NVA 355	CHK_NVA355	-0.04	0.05	0.16
NVA 357	CHK_NVA357	0.01	0.04	0.16
NVA 361	CHK_NVA361	0.01	0.03	0.06
NVA 362	CHK_NVA362	-0.05	-0.05	0.07
NVA 363	CHK_NVA363	0.02	0.04	-0.14
NVA 364	CHK_NVA364	0.04	0.00	-0.01
NVA 366	CHK_NVA366	0.05	-0.05	0.15
NVA 368	CHK_NVA368	0.09	0.03	0.09
NVA 370	CHK_NVA370	0.02	0.02	0.01
NVA 371	CHK_NVA371	-0.03	-0.06	0.02
NVA 372	CHK_NVA372	0.03	-0.01	0.10
NVA 374	CHK_NVA374	0.05	-0.04	-0.06
NVA 376	CHK_NVA376	-0.03	-0.08	0.02
NVA 377	CHK_NVA377	0.02	0.02	0.02
NVA 379	CHK_NVA379	-0.03	-0.10	0.15
NVA 382	CHK_NVA382	0.02	-0.05	0.01
NVA 384	CHK_NVA384	0.02	0.05	-0.11
NVA 387	CHK_NVA387	0.04	-0.02	-0.01
NVA 388	CHK_NVA388	0.03	0.00	-0.13
NVA 389	CHK_NVA389	-0.01	-0.02	0.05
NVA 390	CHK_NVA390	-0.06	-0.01	-0.01

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

5. POINT COMPARISON REPORT

Point comparisons are shown in their respective Florida State Plane Coordinate System Zone,
as defined in Section 3 (pages 10-22) of this report/ NAVD88 (U.S. Survey Feet)

Point ID	Check Point ID	Δ North	Δ East	Δ Vertical
NVA 391	CHK_NVA391	-0.04	0.00	0.01
NVA 397	CHK_NVA397	0.03	0.04	0.10
NVA 398	CHK_NVA398	-0.03	0.00	-0.06
NVA 399	CHK_NVA399	0.00	-0.03	0.15
NVA 400	CHK_NVA400	0.03	0.01	0.05
NVA 402	CHK_NVA402	-0.02	-0.01	-0.01
NVA 403	CHK_NVA403	-0.03	0.05	-0.06
NVA 405	CHK_NVA405	-0.01	-0.02	0.01
NVA 406	CHK_NVA406	-0.09	0.02	-0.07
NVA 411	CHK_NVA411	0.07	0.01	-0.14
NVA 418	CHK_NVA418	0.00	0.04	-0.10
NVA 421	CHK_NVA421	0.00	0.05	0.01
NVA 422	CHK_NVA422	0.01	-0.08	0.09
NVA 423	CHK_NVA423	0.09	-0.04	0.01
NVA 427	CHK_NVA427	0.00	0.02	0.00
NVA 429	CHK_NVA429	-0.02	-0.04	0.03
NVA 430	CHK_NVA430	0.06	-0.05	-0.12
NVA 431	CHK_NVA431	0.03	-0.02	0.00
NVA 434	CHK_NVA434	-0.06	0.15	0.14
VVA 2	CHK_VVA 2	-0.08	-0.03	-0.05
VVA 4	CHK_VVA 4	-0.05	0.06	0.07
VVA 5	CHK_VVA 5	0.03	0.03	0.07
VVA 7	CHK_VVA 7	-0.03	0.03	-0.09
VVA 8	CHK_VVA 8	0.08	0.00	-0.08
VVA 9	CHK_VVA 9	0.02	0.08	-0.09
VVA 12	CHK_VVA 12	0.07	0.02	0.00
VVA 14	CHK_VVA 14	-0.02	-0.03	-0.07
VVA 16	CHK_VVA 16	0.07	0.15	0.09
VVA 20	CHK_VVA 20	-0.04	-0.05	0.09
VVA 21	CHK_VVA 21	-0.01	-0.01	-0.07
VVA 24	CHK_VVA 24	-0.04	0.02	-0.02
VVA 25	CHK_VVA 25	0.00	0.07	0.01
VVA 28	CHK_VVA 28	0.05	0.00	-0.06
VVA 29	CHK_VVA 29	0.09	0.02	0.05
VVA 34	CHK_VVA 34	0.15	-0.09	0.04

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

5. POINT COMPARISON REPORT

Point comparisons are shown in their respective Florida State Plane Coordinate System Zone,
as defined in Section 3 (pages 10-22) of this report/ NAVD88 (U.S. Survey Feet)

Point ID	Check Point ID	Δ North	Δ East	Δ Vertical
VVA 35	CHK_VVA 35	-0.06	0.00	-0.07
VVA 36	CHK_VVA 36	0.06	0.04	-0.10
VVA 38	CHK_VVA 38	0.01	0.03	-0.01
VVA 39	CHK_VVA 39	0.01	-0.04	0.09
VVA 41	CHK_VVA 41	-0.05	0.01	-0.02
VVA 42	CHK_VVA 42	-0.04	-0.05	0.04
VVA 43	CHK_VVA 43	0.00	0.00	0.01
VVA 46	CHK_VVA 46	0.04	0.00	0.01
VVA 50	CHK_VVA 50	-0.01	0.05	-0.03
VVA 51	CHK_VVA 51	-0.03	0.04	0.05
VVA 52	CHK_VVA 52	-0.01	0.01	-0.12
VVA 53	CHK_VVA 53	0.07	0.00	-0.01
VVA 57	CHK_VVA 57	-0.02	-0.01	-0.05
VVA 58	CHK_VVA 58	-0.08	0.02	0.06
VVA 59	CHK_VVA 59	0.01	-0.02	-0.05
VVA 60	CHK_VVA 60	0.08	0.02	0.11
VVA 62	CHK_VVA 62	-0.09	0.08	0.18
VVA 63	CHK_VVA 63	0.02	0.02	-0.04
VVA 64	CHK_VVA 64	0.02	-0.04	0.06
VVA 65	CHK_VVA 65	-0.06	0.04	-0.05
VVA 66	CHK_VVA 66	0.09	0.01	-0.02
VVA 67	CHK_VVA 67	0.07	0.00	-0.02
VVA 68	CHK_VVA 68	-0.07	0.07	0.12
VVA 69	CHK_VVA 69	-0.02	0.00	-0.12
VVA 70	CHK_VVA 70	0.02	0.05	0.07
VVA 71	CHK_VVA 71	0.02	-0.01	0.09
VVA 73	CHK_VVA 73	0.01	0.03	-0.11
VVA 74	CHK_VVA 74	0.02	0.06	0.08
VVA 75	CHK_VVA 75	0.00	-0.02	0.02
VVA 79	CHK_VVA 79	-0.01	-0.02	0.09
VVA 88	CHK_VVA 88	0.03	0.07	0.06
VVA 89	CHK_VVA 89	-0.01	0.05	-0.12
VVA 90	CHK_VVA 90	0.06	-0.06	-0.06
VVA 91	CHK_VVA 91	-0.03	0.04	0.16
VVA 93	CHK_VVA 93	-0.05	0.00	0.03

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

5. POINT COMPARISON REPORT

Point comparisons are shown in their respective Florida State Plane Coordinate System Zone,
as defined in Section 3 (pages 10-22) of this report/ NAVD88 (U.S. Survey Feet)

Point ID	Check Point ID	Δ North	Δ East	Δ Vertical
VVA 94	CHK_VVA 94	0.02	0.07	-0.14
VVA 97	CHK_VVA 97	0.04	0.07	0.08
VVA 98	CHK_VVA 98	0.03	-0.03	0.13
VVA 99	CHK_VVA 99	-0.01	-0.01	0.00
VVA 100	CHK_VVA 100	0.01	0.03	-0.01
VVA 102	CHK_VVA 102	0.02	0.04	0.07
VVA 104	CHK_VVA 104	0.07	0.01	-0.06
VVA 107	CHK_VVA 107	0.04	-0.02	0.08
VVA 112	CHK_VVA 112	0.08	-0.07	0.03
VVA 114	CHK_VVA114	0.04	-0.09	0.00
VVA 115	CHK_VVA115	0.08	0.04	-0.09
VVA 118	CHK_VVA118	-0.02	-0.02	0.00
VVA 119	CHK_VVA119	0.01	0.04	0.00
VVA 120	CHK_VVA120	0.04	-0.15	0.09
VVA 124	CHK_VVA124	-0.01	0.01	-0.07
VVA 127	CHK_VVA127	-0.04	0.05	-0.02
VVA 129	CHK_VVA129	-0.13	0.04	0.07
VVA 131	CHK_VVA131	-0.05	-0.04	0.09
VVA 132	CHK_VVA132	0.02	-0.01	-0.06
VVA 137	CHK_VVA137	-0.02	-0.03	-0.05
VVA 138	CHK_VVA138	-0.07	-0.16	-0.04
VVA 139	CHK_VVA139	0.06	-0.02	0.04
VVA 141	CHK_VVA141	0.06	0.06	-0.03
VVA 142	CHK_VVA142	0.08	0.11	-0.11
VVA 145	CHK_VVA145	-0.01	0.04	0.09
VVA 152	CHK_VVA152	0.04	-0.03	-0.16
VVA 153	CHK_VVA153	-0.05	-0.01	0.01
VVA 156	CHK_VVA156	0.05	0.02	-0.06
VVA 157	CHK_VVA157	-0.12	0.01	-0.10
VVA 159	CHK_VVA159	-0.07	-0.05	-0.10
VVA 160	CHK_VVA160	-0.01	0.04	-0.04
VVA 166	CHK_VVA166	0.08	-0.05	-0.05
VVA 168	CHK_VVA168	-0.06	0.08	0.11
VVA 170	CHK_VVA170	-0.01	0.02	-0.13
VVA 171	CHK_VVA171	-0.01	-0.02	0.07

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

5. POINT COMPARISON REPORT

Point comparisons are shown in their respective Florida State Plane Coordinate System Zone,
as defined in Section 3 (pages 10-22) of this report/ NAVD88 (U.S. Survey Feet)

Point ID	Check Point ID	Δ North	Δ East	Δ Vertical
VVA 172	CHK_VVA172	-0.03	0.05	-0.10
VVA 173	CHK_VVA173	0.02	0.06	0.15
VVA 176	CHK_VVA176	-0.01	0.08	-0.12
VVA 178	CHK_VVA178	0.01	0.04	0.10
VVA 181	CHK_VVA181	0.01	0.03	0.07
VVA 185	CHK_VVA185	-0.02	-0.01	-0.02
VVA 186	CHK_VVA186	-0.01	-0.02	-0.05
VVA 188	CHK_VVA188	0.02	0.04	0.03
VVA 189	CHK_VVA189	0.01	0.03	-0.05
VVA 190	CHK_VVA190	-0.05	0.04	0.03
VVA 191	CHK_VVA191	-0.04	0.12	0.15
VVA 193	CHK_VVA193	0.00	-0.04	-0.01
VVA 202	CHK_VVA202	-0.02	0.06	0.01
VVA 207	CHK_VVA207	-0.01	-0.04	0.16
VVA 210	CHK_VVA210	-0.05	0.02	0.02
VVA 213	CHK_VVA213	-0.06	-0.01	0.10
VVA 217	CHK_VVA217	0.02	-0.05	-0.05
VVA 220	CHK_VVA220	-0.02	-0.04	-0.03
VVA 221	CHK_VVA221	0.04	0.08	-0.14
VVA 222	CHK_VVA222	0.00	0.01	0.07
VVA 223	CHK_VVA223	-0.03	-0.05	0.14
VVA 224	CHK_VVA224	-0.03	-0.01	-0.06
VVA 227	CHK_VVA227	0.03	0.02	0.00
VVA 228	CHK_VVA228	-0.08	-0.09	0.14
VVA 229	CHK_VVA229	0.04	0.02	-0.03
VVA 231	CHK_VVA231	-0.04	0.02	-0.05
VVA 232	CHK_VVA232	0.01	-0.01	-0.06
VVA 233	CHK_VVA233	-0.02	0.00	0.10
VVA 235	CHK_VVA235	-0.01	-0.01	0.08
VVA 238	CHK_VVA238	0.02	-0.03	-0.04
VVA 241	CHK_VVA241	0.00	0.05	0.05
VVA 242	CHK_VVA242	-0.01	0.09	0.06
VVA 243	CHK_VVA243	0.01	0.08	0.07
VVA 244	CHK_VVA244	0.04	0.00	0.11
VVA 245	CHK_VVA245	0.02	0.01	-0.08

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

5. POINT COMPARISON REPORT

Point comparisons are shown in their respective Florida State Plane Coordinate System Zone,
as defined in Section 3 (pages 10-22) of this report/ NAVD88 (U.S. Survey Feet)

Point ID	Check Point ID	Δ North	Δ East	Δ Vertical
VVA 247	CHK_VVA247	0.01	0.00	0.13
VVA 248	CHK_VVA248	0.09	-0.08	-0.04
VVA 249	CHK_VVA249	0.07	-0.03	-0.08
VVA 251	CHK_VVA251	0.03	0.01	0.02
VVA 252	CHK_VVA252	-0.09	0.02	-0.16
VVA 255	CHK_VVA255	0.02	0.08	-0.11
VVA 257	CHK_VVA257	-0.11	-0.03	-0.16
VVA 258	CHK_VVA258	0.08	-0.05	0.12
VVA 259	CHK_VVA259	0.02	0.02	-0.03
VVA 261	CHK_VVA261	-0.01	-0.03	-0.09
VVA 262	CHK_VVA262	0.01	-0.03	0.04
VVA 264	CHK_VVA264	-0.04	-0.02	0.08
VVA 265	CHK_VVA265	-0.02	-0.05	0.05
VVA 268	CHK_VVA268	0.02	0.04	0.05
VVA 269	CHK_VVA269	0.01	0.01	-0.05
VVA 270	CHK_VVA270	0.07	-0.15	-0.11
VVA 271	CHK_VVA271	0.05	-0.10	0.11
VVA 272	CHK_VVA272	0.03	0.01	-0.06
VVA 274	CHK_VVA274	0.03	-0.01	0.05
VVA 275	CHK_VVA275	0.01	-0.07	-0.04
VVA 276	CHK_VVA276	0.11	0.04	-0.02
VVA 278	CHK_VVA278	0.02	0.02	0.00
VVA 280	CHK_VVA280	0.02	0.02	0.03
VVA 281	CHK_VVA281	0.00	0.02	-0.13
VVA 283	CHK_VVA283	-0.04	0.03	0.14
VVA 285	CHK_VVA285	-0.01	-0.01	-0.01
VVA 287	CHK_VVA287	-0.04	-0.02	0.11
VVA 288	CHK_VVA288	-0.01	0.03	0.09
VVA 289	CHK_VVA289	0.08	0.01	-0.06
VVA 290	CHK_VVA290	-0.07	-0.07	0.02
VVA 291	CHK_VVA291	0.00	0.00	-0.05
VVA 293	CHK_VVA293	-0.03	0.07	0.15

COMPANY CONFIDENTIAL AND PROPRIETARY: Use or disclosure of data contained on this sheet is subject to restriction on the title page of this proposal.

6. SURVEY NOTES

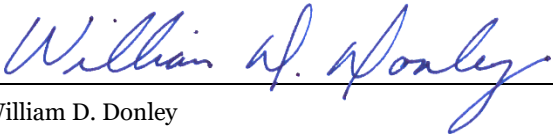
- 1) Coordinates shown hereon are based on the Florida State Plane Coordinate System, East Zone, North Zone and West Zone, North American Datum of 1983 (2011 Adjustment) in U.S. Survey feet.
- 2) Elevations shown hereon are based on the North American Vertical Datum of 1988, in U.S. Survey feet.
- 3) The purpose of this survey was to establish ground control points across the peninsular Florida to be used for LiDAR calibration.

7. GLOSSARY/LEGEND

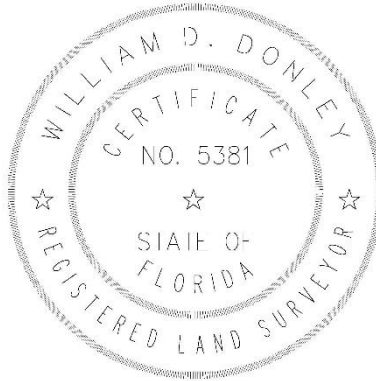
CHK	Check
ELEV	Elevation
FPRN	Florida Permanent Reference Network
ft	feet
GCP	Ground Control Point
GPS	Global Positioning System
ID	Identification
LiDAR	Light Detection and Ranging
LS	Land Surveyor
m	Meter
NAD	North American Datum
NAVD	North American Vertical Datum
NGS	National Geodetic Survey
QA/QC	Quality Assurance/Quality Control
RTK	Real Time Kinematic
RTN	Real-Time Network
SPC	State Plane Coordinate
USGS	United States Geological Survey
VRS	Virtual Reference System

8. SURVEYOR'S CERTIFICATION

I hereby certify this survey report meets the applicable "Standards of Practice" as set forth by the Florida Board of Professional Surveyors and Mappers in rule 5J17.050-.052, Florida Administrative Code.



William D. Donley
Florida Licensed Surveyor & Mapper No. LS 5381



01-17-2020

Date

This Survey is not valid without the signature and original raised seal of a Florida Licensed Surveyor and Mapper.

Certificate of Authorization No. LB8011