

# GPS Calibration Report

*Project : U3321Z*

<b>TIP Number</b>	U-3321	<b>Date &amp; Time</b>	10:20:03 AM 4/27/2010
<b>User name</b>	tbovender	<b>Zone</b>	North Carolina 3200
<b>Coordinate System</b>	US State Plane 1983(at ground)	<b>Geoid Model</b>	G09NC
<b>Horizontal Datum</b>	NAD 1983 (Conus)		
<b>Vertical Datum</b>	NAVD 88		
<b>Coordinate Units</b>	US survey feet		
<b>Distance Units</b>	US survey feet		
<b>Height Units</b>	US survey feet		

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## LOCAL SITE INFORMATION

Localized around	NCGS MON. "GASPORT"
Latitude	35°12'02.70976"N
Longitude	81°09'05.07440"W
Site Scale Factor	1.0001601306
Height	693.334sft

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The North Carolina Department of Transportation uses a **Localized Coordinate System** which is very similar to North Carolina Zone 3200 from which it is derived.

**Please take care in utilizing these coordinates to eliminate confusion of the two systems.**

This file is to aid in the use of Real Time Kinematic (RTK) GPS during construction layout.

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## Datum Transformation Parameters

Datum Transformation computation not requested

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## Updated Default Projection (Transverse Mercator) Definition

Updated default projection not requested

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## Horizontal Adjustment Parameters

Northing coordinate of rotation center	536140.162sft
Easting coordinate of rotation center	1369406.916sft
Rotation about the center point	0°00'00"
Translation north	0.008sft
Translation east	-0.005sft
Scale factor	1.00000004

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## Vertical Adjustment Parameters

Northing coordinate of origin point	564488.866sft
Easting coordinate of origin point	1338053.824sft
Vertical separation at origin	-0.022sft
Slope north	-1.011ppm
Slope east	0.691ppm

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# Geoid Model Definition

G09NC

## Residual Differences Between GPS (WGS84) And Local Coordinates

Summary			
	Maximum error	Root Mean Square error	Point
Horizontal	0.026sft	0.003	U3321-33_GPS
Vertical	0.026sft	0.002	U3321-33_GPS
Three-dimensional	0.037sft	0.004	U3321-33_GPS

### Point Residuals

WGS84 Coordinates		Calculated point FOR DISPLAY ONLY		Local Coordinates	
<b>Point</b>	U3321-1_GPS	<b>Northing</b>	564488.866sft	<b>Point</b> U3321-1	
<b>Latitude</b>	35°16'50.53019"N	<b>Easting</b>	1338053.824sft	<b>Northing</b>	564488.860sft
<b>Longitude</b>	81°13'05.58605"W	<b>Elevation</b>	783.358sft	<b>Easting</b>	1338053.830sft
<b>Height</b>	680.319sft	<b>Horz error</b>	0.009sft	<b>Elevation</b>	783.357sft
		<b>Vert error</b>	0.000sft	<b>Utilized</b>	Horz and Vert
		<b>3D error</b>	0.009sft	<b>Quality</b>	Adjusted quality
<b>Point</b>	U3321-2_GPS	<b>Northing</b>	564086.977sft	<b>Point</b> U3321-2	
<b>Latitude</b>	35°16'46.32067"N	<b>Easting</b>	1336987.300sft	<b>Northing</b>	564086.971sft
<b>Longitude</b>	81°13'18.33761"W	<b>Elevation</b>	794.248sft	<b>Easting</b>	1336987.308sft
<b>Height</b>	691.199sft	<b>Horz error</b>	0.010sft	<b>Elevation</b>	794.247sft
		<b>Vert error</b>	0.000sft	<b>Utilized</b>	Horz and Vert
		<b>3D error</b>	0.010sft	<b>Quality</b>	Adjusted quality
<b>Point</b>	U3321-3_GPS	<b>Northing</b>	561823.299sft	<b>Point</b> U3321-3	
<b>Latitude</b>	35°16'22.68688"N	<b>Easting</b>	1331355.143sft	<b>Northing</b>	561823.291sft
<b>Longitude</b>	81°14'25.63221"W	<b>Elevation</b>	802.700sft	<b>Easting</b>	1331355.152sft
<b>Height</b>	699.606sft	<b>Horz error</b>	0.012sft	<b>Elevation</b>	802.701sft
		<b>Vert error</b>	0.000sft	<b>Utilized</b>	Horz and Vert
		<b>3D error</b>	0.012sft	<b>Quality</b>	Adjusted quality
<b>Point</b>	U3321-4_GPS	<b>Northing</b>	561449.045sft	<b>Point</b> U3321-4	
<b>Latitude</b>	35°16'18.79830"N	<b>Easting</b>	1330512.628sft	<b>Northing</b>	561449.036sft
<b>Longitude</b>	81°14'35.68817"W	<b>Elevation</b>	791.081sft	<b>Easting</b>	1330512.639sft
<b>Height</b>	687.981sft	<b>Horz error</b>	0.013sft	<b>Elevation</b>	791.081sft
		<b>Vert error</b>	0.000sft	<b>Utilized</b>	Horz and Vert
		<b>3D error</b>	0.013sft	<b>Quality</b>	Adjusted quality
<b>Point</b>	U3321-55_GPS	<b>Northing</b>	559334.287sft	<b>Point</b> U3321-55	
<b>Latitude</b>	35°15'56.83368"N	<b>Easting</b>	1325807.345sft	<b>Northing</b>	559334.280sft
<b>Longitude</b>	81°15'31.83713"W	<b>Elevation</b>	800.251sft	<b>Easting</b>	1325807.354sft
<b>Height</b>	697.118sft	<b>Horz error</b>	0.012sft	<b>Elevation</b>	800.251sft
		<b>Vert error</b>	0.000sft	<b>Utilized</b>	Horz and Vert
		<b>3D error</b>	0.012sft	<b>Quality</b>	Adjusted quality
<b>Point</b>	U3321-56_GPS	<b>Northing</b>	558787.297sft	<b>Point</b> U3321-56	
<b>Latitude</b>	35°15'51.15345"N	<b>Easting</b>	1324599.974sft	<b>Northing</b>	558787.290sft

<b>Longitude</b>	81°15'46.24234"W
<b>Height</b>	682.897sft

<b>Elevation</b>	786.037sft
<b>Horz error</b>	0.011sft
<b>Vert error</b>	0.001sft
<b>3D error</b>	0.011sft

<b>Easting</b>	1324599.983sft
<b>Elevation</b>	786.037sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-5_GPS
<b>Latitude</b>	35°15'25.17004"N
<b>Longitude</b>	81°14'20.31264"W
<b>Height</b>	647.518sft

<b>Northing</b>	555999.149sft
<b>Easting</b>	1331664.973sft
<b>Elevation</b>	750.532sft
<b>Horz error</b>	0.009sft
<b>Vert error</b>	0.001sft
<b>3D error</b>	0.009sft

<b>Point</b>	U3321-5
<b>Northing</b>	555999.143sft
<b>Easting</b>	1331664.979sft
<b>Elevation</b>	750.533sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-6_GPS
<b>Latitude</b>	35°15'23.39684"N
<b>Longitude</b>	81°14'30.59377"W
<b>Height</b>	595.255sft

<b>Northing</b>	555839.144sft
<b>Easting</b>	1330808.460sft
<b>Elevation</b>	698.279sft
<b>Horz error</b>	0.010sft
<b>Vert error</b>	0.001sft
<b>3D error</b>	0.010sft

<b>Point</b>	U3321-6
<b>Northing</b>	555839.138sft
<b>Easting</b>	1330808.468sft
<b>Elevation</b>	698.280sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-7_GPS
<b>Latitude</b>	35°14'09.79936"N
<b>Longitude</b>	81°13'48.49520"W
<b>Height</b>	586.237sft

<b>Northing</b>	548320.774sft
<b>Easting</b>	1334131.942sft
<b>Elevation</b>	689.109sft
<b>Horz error</b>	0.009sft
<b>Vert error</b>	0.001sft
<b>3D error</b>	0.009sft

<b>Point</b>	U3321-7
<b>Northing</b>	548320.768sft
<b>Easting</b>	1334131.948sft
<b>Elevation</b>	689.107sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-8_GPS
<b>Latitude</b>	35°14'01.92096"N
<b>Longitude</b>	81°13'58.05787"W
<b>Height</b>	575.831sft

<b>Northing</b>	547542.205sft
<b>Easting</b>	1333320.928sft
<b>Elevation</b>	678.703sft
<b>Horz error</b>	0.010sft
<b>Vert error</b>	0.000sft
<b>3D error</b>	0.010sft

<b>Point</b>	U3321-8
<b>Northing</b>	547542.198sft
<b>Easting</b>	1333320.935sft
<b>Elevation</b>	678.703sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-9_GPS
<b>Latitude</b>	35°13'44.60536"N
<b>Longitude</b>	81°13'22.42292"W
<b>Height</b>	620.540sft

<b>Northing</b>	545725.489sft
<b>Easting</b>	1336237.261sft
<b>Elevation</b>	723.340sft
<b>Horz error</b>	0.001sft
<b>Vert error</b>	0.000sft
<b>3D error</b>	0.001sft

<b>Point</b>	U3321-9
<b>Northing</b>	545725.487sft
<b>Easting</b>	1336237.261sft
<b>Elevation</b>	723.340sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-10_GPS
<b>Latitude</b>	35°13'38.82799"N
<b>Longitude</b>	81°13'31.80624"W
<b>Height</b>	587.969sft

<b>Northing</b>	545158.915sft
<b>Easting</b>	1335445.874sft
<b>Elevation</b>	690.773sft
<b>Horz error</b>	0.002sft
<b>Vert error</b>	0.000sft
<b>3D error</b>	0.002sft

<b>Point</b>	U3321-10
<b>Northing</b>	545158.913sft
<b>Easting</b>	1335445.876sft
<b>Elevation</b>	690.773sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-52_GPS
<b>Latitude</b>	35°14'11.98704"N
<b>Longitude</b>	81°13'18.82015"W
<b>Height</b>	661.656sft

<b>Northing</b>	548486.723sft
<b>Easting</b>	1336598.053sft
<b>Elevation</b>	764.492sft
<b>Horz error</b>	0.005sft
<b>Vert error</b>	0.000sft
<b>3D error</b>	0.005sft

<b>Point</b>	U3321-52
<b>Northing</b>	548486.719sft
<b>Easting</b>	1336598.057sft
<b>Elevation</b>	764.491sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-51_GPS
<b>Latitude</b>	35°14'02.96706"N

<b>Northing</b>	547562.430sft
<b>Easting</b>	1337135.898sft

<b>Point</b>	U3321-51
<b>Northing</b>	547562.427sft

<b>Longitude</b>	81°13'12.08923"W
<b>Height</b>	661.314sft

<b>Elevation</b>	764.127sft
<b>Horz error</b>	0.003sft
<b>Vert error</b>	0.001sft
<b>3D error</b>	0.003sft

<b>Easting</b>	1337135.900sft
<b>Elevation</b>	764.127sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-11_GPS
<b>Latitude</b>	35°12'07.52722"N
<b>Longitude</b>	81°13'08.84805"W
<b>Height</b>	599.770sft

<b>Northing</b>	535886.999sft
<b>Easting</b>	1337143.812sft
<b>Elevation</b>	702.406sft
<b>Horz error</b>	0.003sft
<b>Vert error</b>	0.001sft
<b>3D error</b>	0.003sft

<b>Point</b>	U3321-11
<b>Northing</b>	535887.000sft
<b>Easting</b>	1337143.808sft
<b>Elevation</b>	702.407sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-12_GPS
<b>Latitude</b>	35°12'04.24568"N
<b>Longitude</b>	81°13'18.43744"W
<b>Height</b>	552.992sft

<b>Northing</b>	535573.081sft
<b>Easting</b>	1336340.738sft
<b>Elevation</b>	655.637sft
<b>Horz error</b>	0.004sft
<b>Vert error</b>	0.000sft
<b>3D error</b>	0.004sft

<b>Point</b>	U3321-12
<b>Northing</b>	535573.082sft
<b>Easting</b>	1336340.735sft
<b>Elevation</b>	655.638sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-13_GPS
<b>Latitude</b>	35°12'00.25731"N
<b>Longitude</b>	81°12'35.56928"W
<b>Height</b>	656.016sft

<b>Northing</b>	535090.502sft
<b>Easting</b>	1339888.651sft
<b>Elevation</b>	758.591sft
<b>Horz error</b>	0.005sft
<b>Vert error</b>	0.000sft
<b>3D error</b>	0.005sft

<b>Point</b>	U3321-13
<b>Northing</b>	535090.504sft
<b>Easting</b>	1339888.646sft
<b>Elevation</b>	758.592sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-14_GPS
<b>Latitude</b>	35°11'49.14287"N
<b>Longitude</b>	81°12'33.35700"W
<b>Height</b>	647.981sft

<b>Northing</b>	533962.896sft
<b>Easting</b>	1340047.203sft
<b>Elevation</b>	750.538sft
<b>Horz error</b>	0.005sft
<b>Vert error</b>	0.000sft
<b>3D error</b>	0.005sft

<b>Point</b>	U3321-14
<b>Northing</b>	533962.898sft
<b>Easting</b>	1340047.198sft
<b>Elevation</b>	750.538sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-15_GPS
<b>Latitude</b>	35°11'28.02841"N
<b>Longitude</b>	81°11'23.31921"W
<b>Height</b>	661.981sft

<b>Northing</b>	531699.713sft
<b>Easting</b>	1345811.661sft
<b>Elevation</b>	764.387sft
<b>Horz error</b>	0.007sft
<b>Vert error</b>	0.001sft
<b>3D error</b>	0.007sft

<b>Point</b>	U3321-15
<b>Northing</b>	531699.716sft
<b>Easting</b>	1345811.654sft
<b>Elevation</b>	764.388sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-16_GPS
<b>Latitude</b>	35°11'20.97823"N
<b>Longitude</b>	81°11'28.83494"W
<b>Height</b>	649.760sft

<b>Northing</b>	530997.135sft
<b>Easting</b>	1345338.212sft
<b>Elevation</b>	752.167sft
<b>Horz error</b>	0.007sft
<b>Vert error</b>	0.001sft
<b>3D error</b>	0.007sft

<b>Point</b>	U3321-16
<b>Northing</b>	530997.137sft
<b>Easting</b>	1345338.205sft
<b>Elevation</b>	752.168sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-17_GPS
<b>Latitude</b>	35°11'19.74332"N
<b>Longitude</b>	81°10'26.79622"W
<b>Height</b>	677.411sft

<b>Northing</b>	530759.084sft
<b>Easting</b>	1350483.797sft
<b>Elevation</b>	779.690sft
<b>Horz error</b>	0.009sft
<b>Vert error</b>	0.002sft
<b>3D error</b>	0.009sft

<b>Point</b>	U3321-17
<b>Northing</b>	530759.087sft
<b>Easting</b>	1350483.789sft
<b>Elevation</b>	779.691sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-18_GPS
<b>Latitude</b>	35°11'09.84314"N

<b>Northing</b>	529763.338sft
<b>Easting</b>	1350232.077sft

<b>Point</b>	U3321-18
<b>Northing</b>	529763.341sft

<b>Longitude</b>	81°10'29.56525"W
<b>Height</b>	668.416sft

<b>Elevation</b>	770.688sft
<b>Horz error</b>	0.010sft
<b>Vert error</b>	0.002sft
<b>3D error</b>	0.010sft

<b>Easting</b>	1350232.068sft
<b>Elevation</b>	770.689sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-19_GPS
<b>Latitude</b>	35°10'49.93566"N
<b>Longitude</b>	81°09'15.36957"W
<b>Height</b>	666.469sft

<b>Northing</b>	527616.656sft
<b>Easting</b>	1356345.829sft
<b>Elevation</b>	768.539sft
<b>Horz error</b>	0.011sft
<b>Vert error</b>	0.001sft
<b>3D error</b>	0.011sft

<b>Point</b>	U3321-19
<b>Northing</b>	527616.660sft
<b>Easting</b>	1356345.819sft
<b>Elevation</b>	768.541sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-20_GPS
<b>Latitude</b>	35°10'41.86855"N
<b>Longitude</b>	81°09'18.02333"W
<b>Height</b>	667.427sft

<b>Northing</b>	526805.955sft
<b>Easting</b>	1356107.875sft
<b>Elevation</b>	769.494sft
<b>Horz error</b>	0.011sft
<b>Vert error</b>	0.001sft
<b>3D error</b>	0.011sft

<b>Point</b>	U3321-20
<b>Northing</b>	526805.959sft
<b>Easting</b>	1356107.865sft
<b>Elevation</b>	769.495sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-49_GPS
<b>Latitude</b>	35°11'13.67739"N
<b>Longitude</b>	81°08'59.55273"W
<b>Height</b>	685.490sft

<b>Northing</b>	529988.188sft
<b>Easting</b>	1357710.531sft
<b>Elevation</b>	787.550sft
<b>Horz error</b>	0.010sft
<b>Vert error</b>	0.002sft
<b>3D error</b>	0.010sft

<b>Point</b>	U3321-49
<b>Northing</b>	529988.191sft
<b>Easting</b>	1357710.522sft
<b>Elevation</b>	787.552sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-50_GPS
<b>Latitude</b>	35°11'09.94725"N
<b>Longitude</b>	81°09'04.02496"W
<b>Height</b>	690.336sft

<b>Northing</b>	529619.159sft
<b>Easting</b>	1357331.217sft
<b>Elevation</b>	792.403sft
<b>Horz error</b>	0.010sft
<b>Vert error</b>	0.002sft
<b>3D error</b>	0.010sft

<b>Point</b>	U3321-50
<b>Northing</b>	529619.162sft
<b>Easting</b>	1357331.208sft
<b>Elevation</b>	792.405sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-21_GPS
<b>Latitude</b>	35°10'08.90842"N
<b>Longitude</b>	81°07'11.96419"W
<b>Height</b>	635.899sft

<b>Northing</b>	523248.760sft
<b>Easting</b>	1366499.300sft
<b>Elevation</b>	737.582sft
<b>Horz error</b>	0.014sft
<b>Vert error</b>	0.001sft
<b>3D error</b>	0.014sft

<b>Point</b>	U3321-21
<b>Northing</b>	523248.765sft
<b>Easting</b>	1366499.287sft
<b>Elevation</b>	737.581sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-47_GPS
<b>Latitude</b>	35°10'24.37674"N
<b>Longitude</b>	81°06'43.64786"W
<b>Height</b>	637.228sft

<b>Northing</b>	524762.315sft
<b>Easting</b>	1368883.033sft
<b>Elevation</b>	738.854sft
<b>Horz error</b>	0.008sft
<b>Vert error</b>	0.001sft
<b>3D error</b>	0.008sft

<b>Point</b>	U3321-47
<b>Northing</b>	524762.314sft
<b>Easting</b>	1368883.025sft
<b>Elevation</b>	738.855sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-48_GPS
<b>Latitude</b>	35°10'16.82599"N
<b>Longitude</b>	81°06'35.74642"W
<b>Height</b>	637.912sft

<b>Northing</b>	523985.074sft
<b>Easting</b>	1369522.650sft
<b>Elevation</b>	739.507sft
<b>Horz error</b>	0.011sft
<b>Vert error</b>	0.001sft
<b>3D error</b>	0.011sft

<b>Point</b>	U3321-48
<b>Northing</b>	523985.076sft
<b>Easting</b>	1369522.639sft
<b>Elevation</b>	739.506sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-23_GPS
<b>Latitude</b>	35°10'41.86507"N

<b>Northing</b>	526383.197sft
<b>Easting</b>	1375866.099sft

<b>Point</b>	U3321-23
<b>Northing</b>	526383.201sft



<b>Longitude</b>	81°05'19.96590"W
<b>Height</b>	525.132sft

<b>Elevation</b>	626.556sft
<b>Horz error</b>	0.010sft
<b>Vert error</b>	0.001sft
<b>3D error</b>	0.010sft

<b>Easting</b>	1375866.089sft
<b>Elevation</b>	626.555sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-24_GPS
<b>Latitude</b>	35°10'31.14763"N
<b>Longitude</b>	81°05'18.33515"W
<b>Height</b>	500.243sft

<b>Northing</b>	525296.935sft
<b>Easting</b>	1375978.653sft
<b>Elevation</b>	601.650sft
<b>Horz error</b>	0.011sft
<b>Vert error</b>	0.001sft
<b>3D error</b>	0.011sft

<b>Point</b>	U3321-24
<b>Northing</b>	525296.939sft
<b>Easting</b>	1375978.643sft
<b>Elevation</b>	601.648sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-25_GPS
<b>Latitude</b>	35°11'14.94059"N
<b>Longitude</b>	81°03'39.65265"W
<b>Height</b>	592.611sft

<b>Northing</b>	529552.733sft
<b>Easting</b>	1384261.385sft
<b>Elevation</b>	693.808sft
<b>Horz error</b>	0.009sft
<b>Vert error</b>	0.002sft
<b>3D error</b>	0.009sft

<b>Point</b>	U3321-25
<b>Northing</b>	529552.737sft
<b>Easting</b>	1384261.378sft
<b>Elevation</b>	693.806sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-26_GPS
<b>Latitude</b>	35°11'07.64850"N
<b>Longitude</b>	81°03'31.56163"W
<b>Height</b>	593.329sft

<b>Northing</b>	528801.644sft
<b>Easting</b>	1384917.565sft
<b>Elevation</b>	694.494sft
<b>Horz error</b>	0.008sft
<b>Vert error</b>	0.002sft
<b>3D error</b>	0.009sft

<b>Point</b>	U3321-26
<b>Northing</b>	528801.647sft
<b>Easting</b>	1384917.557sft
<b>Elevation</b>	694.492sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-45_GPS
<b>Latitude</b>	35°11'43.24352"N
<b>Longitude</b>	81°03'56.54538"W
<b>Height</b>	585.543sft

<b>Northing</b>	532443.006sft
<b>Easting</b>	1382919.013sft
<b>Elevation</b>	686.824sft
<b>Horz error</b>	0.008sft
<b>Vert error</b>	0.001sft
<b>3D error</b>	0.008sft

<b>Point</b>	U3321-45
<b>Northing</b>	532443.010sft
<b>Easting</b>	1382919.005sft
<b>Elevation</b>	686.823sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-46_GPS
<b>Latitude</b>	35°11'34.19534"N
<b>Longitude</b>	81°03'55.44062"W
<b>Height</b>	594.635sft

<b>Northing</b>	531526.422sft
<b>Easting</b>	1382991.654sft
<b>Elevation</b>	695.902sft
<b>Horz error</b>	0.009sft
<b>Vert error</b>	0.001sft
<b>3D error</b>	0.009sft

<b>Point</b>	U3321-46
<b>Northing</b>	531526.426sft
<b>Easting</b>	1382991.646sft
<b>Elevation</b>	695.900sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-27_GPS
<b>Latitude</b>	35°11'45.87855"N
<b>Longitude</b>	81°02'40.35025"W
<b>Height</b>	494.437sft

<b>Northing</b>	532578.467sft
<b>Easting</b>	1389247.291sft
<b>Elevation</b>	595.520sft
<b>Horz error</b>	0.006sft
<b>Vert error</b>	0.002sft
<b>3D error</b>	0.006sft

<b>Point</b>	U3321-27
<b>Northing</b>	532578.470sft
<b>Easting</b>	1389247.286sft
<b>Elevation</b>	595.518sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-28_GPS
<b>Latitude</b>	35°11'40.70687"N
<b>Longitude</b>	81°02'38.15366"W
<b>Height</b>	477.638sft

<b>Northing</b>	532051.908sft
<b>Easting</b>	1389418.801sft
<b>Elevation</b>	578.708sft
<b>Horz error</b>	0.006sft
<b>Vert error</b>	0.003sft
<b>3D error</b>	0.007sft

<b>Point</b>	U3321-28
<b>Northing</b>	532051.911sft
<b>Easting</b>	1389418.795sft
<b>Elevation</b>	578.704sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-29_GPS
<b>Latitude</b>	35°11'52.16157"N

<b>Northing</b>	533082.366sft
<b>Easting</b>	1395665.872sft

<b>Point</b>	U3321-29
<b>Northing</b>	533082.368sft

<b>Longitude</b>	81°01'23.15643"W
<b>Height</b>	589.421sft

<b>Elevation</b>	690.308sft
<b>Horz error</b>	0.002sft
<b>Vert error</b>	0.004sft
<b>3D error</b>	0.005sft

<b>Easting</b>	1395665.873sft
<b>Elevation</b>	690.304sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-30_GPS
<b>Latitude</b>	35°11'41.12193"N
<b>Longitude</b>	81°01'20.46072"W
<b>Height</b>	576.083sft

<b>Northing</b>	531961.804sft
<b>Easting</b>	1395866.822sft
<b>Elevation</b>	676.947sft
<b>Horz error</b>	0.005sft
<b>Vert error</b>	0.007sft
<b>3D error</b>	0.009sft

<b>Point</b>	U3321-30
<b>Northing</b>	531961.807sft
<b>Easting</b>	1395866.819sft
<b>Elevation</b>	676.940sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-43_GPS
<b>Latitude</b>	35°12'19.39613"N
<b>Longitude</b>	81°01'37.61475"W
<b>Height</b>	608.290sft

<b>Northing</b>	535859.999sft
<b>Easting</b>	1394522.355sft
<b>Elevation</b>	709.253sft
<b>Horz error</b>	0.002sft
<b>Vert error</b>	0.001sft
<b>3D error</b>	0.002sft

<b>Point</b>	U3321-43
<b>Northing</b>	535860.000sft
<b>Easting</b>	1394522.356sft
<b>Elevation</b>	709.255sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-44_GPS
<b>Latitude</b>	35°12'07.13528"N
<b>Longitude</b>	81°01'26.13438"W
<b>Height</b>	586.139sft

<b>Northing</b>	534601.104sft
<b>Easting</b>	1395449.629sft
<b>Elevation</b>	687.055sft
<b>Horz error</b>	0.005sft
<b>Vert error</b>	0.001sft
<b>3D error</b>	0.005sft

<b>Point</b>	U3321-44
<b>Northing</b>	534601.104sft
<b>Easting</b>	1395449.634sft
<b>Elevation</b>	687.054sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-53_GPS
<b>Latitude</b>	35°11'48.30775"N
<b>Longitude</b>	81°00'27.90047"W
<b>Height</b>	466.669sft

<b>Northing</b>	532599.678sft
<b>Easting</b>	1400243.116sft
<b>Elevation</b>	567.409sft
<b>Horz error</b>	0.007sft
<b>Vert error</b>	0.011sft
<b>3D error</b>	0.013sft

<b>Point</b>	U3321-53
<b>Northing</b>	532599.683sft
<b>Easting</b>	1400243.112sft
<b>Elevation</b>	567.398sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-54_GPS
<b>Latitude</b>	35°11'35.41765"N
<b>Longitude</b>	81°00'08.99564"W
<b>Height</b>	520.544sft

<b>Northing</b>	531264.914sft
<b>Easting</b>	1401785.568sft
<b>Elevation</b>	621.217sft
<b>Horz error</b>	0.007sft
<b>Vert error</b>	0.011sft
<b>3D error</b>	0.013sft

<b>Point</b>	U3321-54
<b>Northing</b>	531264.921sft
<b>Easting</b>	1401785.565sft
<b>Elevation</b>	621.206sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-31_GPS
<b>Latitude</b>	35°11'37.14009"N
<b>Longitude</b>	80°59'00.33518"W
<b>Height</b>	610.957sft

<b>Northing</b>	531324.634sft
<b>Easting</b>	1407486.825sft
<b>Elevation</b>	711.466sft
<b>Horz error</b>	0.010sft
<b>Vert error</b>	0.014sft
<b>3D error</b>	0.017sft

<b>Point</b>	U3321-31
<b>Northing</b>	531324.629sft
<b>Easting</b>	1407486.834sft
<b>Elevation</b>	711.480sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-32_GPS
<b>Latitude</b>	35°11'28.17859"N
<b>Longitude</b>	80°59'04.65033"W
<b>Height</b>	591.988sft

<b>Northing</b>	530425.862sft
<b>Easting</b>	1407110.621sft
<b>Elevation</b>	692.493sft
<b>Horz error</b>	0.018sft
<b>Vert error</b>	0.019sft
<b>3D error</b>	0.026sft

<b>Point</b>	U3321-32
<b>Northing</b>	530425.853sft
<b>Easting</b>	1407110.637sft
<b>Elevation</b>	692.512sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-33_GPS
<b>Latitude</b>	35°10'58.55492"N

<b>Northing</b>	527469.584sft
<b>Easting</b>	1405132.729sft

<b>Point</b>	U3321-33
<b>Northing</b>	527469.570sft

<b>Longitude</b>	80°59'27.76021"W
<b>Height</b>	590.426sft

<b>Elevation</b>	690.938sft
<b>Horz error</b>	<b>0.026sft</b>
<b>Vert error</b>	<b>0.026sft</b>
<b>3D error</b>	<b>0.037sft</b>

<b>Easting</b>	1405132.752sft
<b>Elevation</b>	690.964sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-34_GPS
<b>Latitude</b>	35°10'48.33772"N
<b>Longitude</b>	80°59'29.72195"W
<b>Height</b>	583.943sft

<b>Northing</b>	526439.983sft
<b>Easting</b>	1404949.190sft
<b>Elevation</b>	684.442sft
<b>Horz error</b>	0.025sft
<b>Vert error</b>	0.020sft
<b>3D error</b>	0.031sft

<b>Point</b>	U3321-34
<b>Northing</b>	526440.001sft
<b>Easting</b>	1404949.173sft
<b>Elevation</b>	684.423sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-35_GPS
<b>Latitude</b>	35°12'11.40195"N
<b>Longitude</b>	80°58'07.21025"W
<b>Height</b>	605.885sft

<b>Northing</b>	534700.455sft
<b>Easting</b>	1411964.075sft
<b>Elevation</b>	706.327sft
<b>Horz error</b>	0.010sft
<b>Vert error</b>	0.003sft
<b>3D error</b>	0.010sft

<b>Point</b>	U3321-35
<b>Northing</b>	534700.450sft
<b>Easting</b>	1411964.084sft
<b>Elevation</b>	706.330sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-36_GPS
<b>Latitude</b>	35°12'01.18614"N
<b>Longitude</b>	80°58'07.54591"W
<b>Height</b>	611.144sft

<b>Northing</b>	533668.273sft
<b>Easting</b>	1411915.740sft
<b>Elevation</b>	711.570sft
<b>Horz error</b>	0.012sft
<b>Vert error</b>	0.002sft
<b>3D error</b>	0.012sft

<b>Point</b>	U3321-36
<b>Northing</b>	533668.269sft
<b>Easting</b>	1411915.751sft
<b>Elevation</b>	711.572sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-37_GPS
<b>Latitude</b>	35°11'26.23795"N
<b>Longitude</b>	80°58'08.86361"W
<b>Height</b>	585.288sft

<b>Northing</b>	530137.474sft
<b>Easting</b>	1411736.310sft
<b>Elevation</b>	685.663sft
<b>Horz error</b>	0.014sft
<b>Vert error</b>	0.001sft
<b>3D error</b>	0.014sft

<b>Point</b>	U3321-37
<b>Northing</b>	530137.471sft
<b>Easting</b>	1411736.323sft
<b>Elevation</b>	685.664sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-38_GPS
<b>Latitude</b>	35°11'15.16485"N
<b>Longitude</b>	80°58'09.26303"W
<b>Height</b>	572.643sft

<b>Northing</b>	529018.734sft
<b>Easting</b>	1411680.954sft
<b>Elevation</b>	673.002sft
<b>Horz error</b>	0.016sft
<b>Vert error</b>	0.000sft
<b>3D error</b>	0.016sft

<b>Point</b>	U3321-38
<b>Northing</b>	529018.732sft
<b>Easting</b>	1411680.970sft
<b>Elevation</b>	673.002sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-39_GPS
<b>Latitude</b>	35°10'18.25552"N
<b>Longitude</b>	80°58'09.54350"W
<b>Height</b>	605.500sft

<b>Northing</b>	523266.154sft
<b>Easting</b>	1411543.534sft
<b>Elevation</b>	705.760sft
<b>Horz error</b>	0.007sft
<b>Vert error</b>	0.002sft
<b>3D error</b>	0.007sft

<b>Point</b>	U3321-39
<b>Northing</b>	523266.157sft
<b>Easting</b>	1411543.540sft
<b>Elevation</b>	705.758sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-40_GPS
<b>Latitude</b>	35°10'07.93419"N
<b>Longitude</b>	80°58'04.27040"W
<b>Height</b>	600.298sft

<b>Northing</b>	522214.078sft
<b>Easting</b>	1411960.553sft
<b>Elevation</b>	700.530sft
<b>Horz error</b>	0.006sft
<b>Vert error</b>	0.003sft
<b>3D error</b>	0.007sft

<b>Point</b>	U3321-40
<b>Northing</b>	522214.084sft
<b>Easting</b>	1411960.555sft
<b>Elevation</b>	700.528sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-41_GPS
<b>Latitude</b>	35°11'27.70360"N

<b>Northing</b>	530184.268sft
<b>Easting</b>	1416871.377sft

<b>Point</b>	U3321-41
<b>Northing</b>	530184.268sft



<b>Longitude</b>	80°57'07.02149"W
<b>Height</b>	616.831sft

<b>Elevation</b>	717.084sft
<b>Horz error</b>	0.013sft
<b>Vert error</b>	0.001sft
<b>3D error</b>	0.013sft

<b>Easting</b>	1416871.390sft
<b>Elevation</b>	717.082sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-42_GPS
<b>Latitude</b>	35°11'31.40283"N
<b>Longitude</b>	80°56'53.89241"W
<b>Height</b>	597.597sft

<b>Northing</b>	530536.824sft
<b>Easting</b>	1417968.270sft
<b>Elevation</b>	697.829sft
<b>Horz error</b>	0.011sft
<b>Vert error</b>	0.002sft
<b>3D error</b>	0.011sft

<b>Point</b>	U3321-42
<b>Northing</b>	530536.826sft
<b>Easting</b>	1417968.280sft
<b>Elevation</b>	697.826sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality

<b>Point</b>	U3321-22_GPS
<b>Latitude</b>	35°09'57.60889"N
<b>Longitude</b>	81°07'05.79748"W
<b>Height</b>	626.971sft

<b>Northing</b>	522095.583sft
<b>Easting</b>	1366986.803sft
<b>Elevation</b>	728.623sft
<b>Horz error</b>	0.015sft
<b>Vert error</b>	0.001sft
<b>3D error</b>	0.015sft

<b>Point</b>	U3321-22
<b>Northing</b>	522095.589sft
<b>Easting</b>	1366986.789sft
<b>Elevation</b>	728.623sft
<b>Utilized</b>	Horz and Vert
<b>Quality</b>	Adjusted quality