

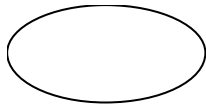
GPS Calibration Report

Project : R2536B_Calibration

TIP Number	R2536B	Date & Time	4:43:34 PM 3/17/2011
User name	scranford	Zone	North Carolina 3200
Coordinate System	US State Plane 1983(at ground)	Geoid Model	G03NC
Horizontal Datum	NAD 1983 (Conus)		
Vertical Datum	NAVD88		
Coordinate Units	US survey feet		
Distance Units	US survey feet		
Height Units	US survey feet		

LOCAL SITE INFORMATION

Localized around	I4407-3
Latitude	35°40'15.21187"N
Longitude	79°49'59.00138"W
Site Scale Factor	1.0001248700
Height	714.513sft



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.

Datum Transformation Parameters

Datum Transformation computation not requested

Updated Default Projection (Transverse Mercator) Definition

Updated default projection not requested

Horizontal Adjustment Parameters

Northing coordinate of rotation center	695323.420sft
Easting coordinate of rotation center	1759459.234sft
Rotation about the center point	0°00'00"
Translation north	-0.006sft
Translation east	-0.005sft
Scale factor	0.99999994

Vertical Adjustment Parameters

Northing coordinate of origin point	696020.775sft
Easting coordinate of origin point	1747811.217sft
Vertical separation at origin	-0.042sft
Slope north	-1.107ppm
Slope east	-0.752ppm

Geoid Model Definition

G03NC

Residual Differences Between GPS (WGS84) And Local Coordinates

Summary

	Maximum error	Root Mean Square error	Point
Horizontal	0.016sft	0.003	I4407-8_WGS84
Vertical	0.032sft	0.005	I4407-7_WGS84
Three-dimensional	0.035sft	0.005	I4407-7_WGS84

Point Residuals

WGS84 Coordinates		Calculated point FOR DISPLAY ONLY		Local Coordinates	
Point	R2536-7 WGS84	Northing	696020.775sft	Point	R2536-7
Latitude	35°39'34.06787"N	Easting	1747811.217sft	Northing	696020.768sft
Longitude	79°50'56.36774"W	Elevation	810.746sft	Easting	1747811.221sft
Height	711.491sft	Horz error	0.008sft	Elevation	810.737sft
		Vert error	0.009sft	Utilized	Horz and Vert
		3D error	0.012sft	Quality	Survey quality
Point	R2536-8 WGS84	Northing	697262.670sft	Point	R2536-8
Latitude	35°39'46.37265"N	Easting	1748090.705sft	Northing	697262.672sft
Longitude	79°50'53.10968"W	Elevation	778.466sft	Easting	1748090.711sft
Height	679.218sft	Horz error	0.007sft	Elevation	778.450sft
		Vert error	0.016sft	Utilized	Horz and Vert
		3D error	0.017sft	Quality	Survey quality
Point	I4407-7 WGS84	Northing	692976.205sft	Point	I4407-7
Latitude	35°39'04.34322"N	Easting	1752384.848sft	Northing	692976.201sft
Longitude	79°50'00.63787"W	Elevation	836.925sft	Easting	1752384.834sft
Height	737.613sft	Horz error	0.014sft	Elevation	836.957sft
		Vert error	0.032sft	Utilized	Horz and Vert
		3D error	0.035sft	Quality	Survey quality
Point	I4407-8 WGS84	Northing	694733.184sft	Point	I4407-8
Latitude	35°39'21.67983"N	Easting	1751924.140sft	Northing	694733.195sft
Longitude	79°50'06.39894"W	Elevation	803.697sft	Easting	1751924.151sft
Height	704.405sft	Horz error	0.016sft	Elevation	803.710sft
		Vert error	0.013sft	Utilized	Horz and Vert
		3D error	0.021sft	Quality	Survey quality
Point	R2536-9 WGS84	Northing	690002.734sft	Point	R2536-9
Latitude	35°38'35.37535"N	Easting	1757706.146sft	Northing	690002.732sft
Longitude	79°48'55.86855"W	Elevation	849.367sft	Easting	1757706.141sft
Height	749.972sft	Horz error	0.006sft	Elevation	849.356sft
		Vert error	0.011sft	Utilized	Horz and Vert
		3D error	0.012sft	Quality	Survey quality
Point	R2536-10 WGS84	Northing	690973.722sft	Point	R2536-10
Latitude	35°38'44.97597"N	Easting	1757686.364sft	Northing	690973.721sft

Longitude	79°48'56.20487"W	Elevation	869.802sft	Easting	1757686.362sft
Height	770.418sft	Horz error	0.002sft	Elevation	869.795sft
		Vert error	0.007sft	Utilized	Horz and Vert
		3D error	0.008sft	Quality	Survey quality

Point	R2536-11 WGS84	Northing	692574.612sft	Point	R2536-11
Latitude	35°39'01.46597"N	Easting	1765931.492sft	Northing	692574.606sft
Longitude	79°47'16.46653"W	Elevation	662.811sft	Easting	1765931.492sft
Height	563.345sft	Horz error	0.006sft	Elevation	662.980sft
		Vert error	?	Utilized	Horizontal
		3D error	0.006sft	Quality	Survey quality

Point	R2536-12 WGS84	Northing	694345.533sft	Point	R2536-12
Latitude	35°39'18.94898"N	Easting	1765551.689sft	Northing	694345.532sft
Longitude	79°47'21.23882"W	Elevation	639.559sft	Easting	1765551.688sft
Height	540.120sft	Horz error	0.001sft	Elevation	639.553sft
		Vert error	0.006sft	Utilized	Horz and Vert
		3D error	0.006sft	Quality	Survey quality

Point	R2536-13 WGS84	Northing	702443.540sft	Point	R2536-13
Latitude	35°40'39.62524"N	Easting	1773234.960sft	Northing	702443.545sft
Longitude	79°45'48.89740"W	Elevation	696.380sft	Easting	1773234.958sft
Height	596.967sft	Horz error	0.005sft	Elevation	696.210sft
		Vert error	?	Utilized	Horizontal
		3D error	0.005sft	Quality	Survey quality

Point	R2536-14 WGS84	Northing	701901.163sft	Point	R2536-14
Latitude	35°40'34.34025"N	Easting	1774270.733sft	Northing	701901.166sft
Longitude	79°45'36.29338"W	Elevation	690.448sft	Easting	1774270.735sft
Height	591.019sft	Horz error	0.003sft	Elevation	690.452sft
		Vert error	0.004sft	Utilized	Horz and Vert
		3D error	0.005sft	Quality	Survey quality