

GPS Calibration Report

Project : U2579ABZ

TIP Number			
User name	tbovender	Date & Time	1:54:57 PM 7/21/2005
Coordinate System	US State Plane 1983(at ground)	Zone	North Carolina 3200
Horizontal Datum	NAD 1983 (Conus)		
Vertical Datum		Geoid Model	Geoid03 (Conus) NC Sub Grid
Coordinate Units	US survey feet		
Distance Units	US survey feet		
Height Units	US survey feet		

LOCAL SITE INFORMATION

Localized around	
Latitude	36°09'08.35543"N
Longitude	80°10'48.39359"W
Site Scale Factor	1.0000454720
Height	869.428sft

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	847440.024sft
Easting coordinate of rotation center	1665328.092sft
Rotation about the center point	0°00'00"
Translation north	0.002sft
Translation east	-0.014sft
Scale factor	1.00000018

Vertical Adjustment Parameters

Northing coordinate of origin point	854771.472sft
Easting coordinate of origin point	1664474.193sft
Vertical separation at origin	0.018sft
Slope north	0.163ppm
Slope east	1.825ppm

Geoid Model Definition

Geoid03 (Conus) NC Sub Grid

Residual Differences Between GPS (WGS84) And Local Coordinates

Summary			
	Maximum error	Root Mean Square error	Point
Horizontal	0.001sft	0.000	U2579AB-1_GPS
Vertical	0.000sft	0.000	U2579AB-1_GPS
Three-dimensional	0.001sft	0.000	U2579AB-1_GPS

Point Residuals

WGS84 Coordinates		Calculated point FOR DISPLAY ONLY		Local Coordinates	
Point	U2579AB-1_GPS	Northing	854771.472sft	Point U2579AB-1	
Latitude	36°05'35.79046"N	Easting	1664474.193sft	Northing	854771.471sft
Longitude	80°08'08.30836"W	Elevation	938.942sft	Easting	1664474.194sft
Height	832.837sft	Horz error	0.001sft	Elevation	938.942sft
		Vert error	0.000sft	Utilized	Horz and Vert
		3D error	0.001sft	Quality	Adjusted quality
Point	U2579AB-2_GPS	Northing	854170.131sft	Point U2579AB-2	
Latitude	36°05'29.70204"N	Easting	1663218.163sft	Northing	854170.131sft
Longitude	80°08'23.52662"W	Elevation	968.111sft	Easting	1663218.162sft
Height	861.986sft	Horz error	0.001sft	Elevation	968.111sft
		Vert error	0.000sft	Utilized	Horz and Vert
		3D error	0.001sft	Quality	Adjusted quality
Point	U4909-3_GPS	Northing	852077.619sft	Point U4909-3	
Latitude	36°05'10.30007"N	Easting	1674768.155sft	Northing	852077.619sft
Longitude	80°06'02.53117"W	Elevation	973.427sft	Easting	1674768.155sft
Height	867.804sft	Horz error	0.000sft	Elevation	973.427sft
		Vert error	0.000sft	Utilized	Horz and Vert
		3D error	0.000sft	Quality	Adjusted quality
Point	U4909-4_GPS	Northing	851399.608sft	Point U4909-4	
Latitude	36°05'03.72568"N	Easting	1675954.657sft	Northing	851399.607sft
Longitude	80°05'47.98580"W	Elevation	941.439sft	Easting	1675954.657sft
Height	835.888sft	Horz error	0.000sft	Elevation	941.439sft
		Vert error	0.000sft	Utilized	Horz and Vert
		3D error	0.000sft	Quality	Adjusted quality
Point	U2579AB-3_GPS	Northing	848078.084sft	Point U2579AB-3	
Latitude	36°04'30.34609"N	Easting	1671084.478sft	Northing	848078.084sft
Longitude	80°06'46.85979"W	Elevation	933.367sft	Easting	1671084.478sft
Height	827.770sft	Horz error	0.000sft	Elevation	933.367sft
		Vert error	0.000sft	Utilized	Horz and Vert
		3D error	0.000sft	Quality	Adjusted quality
Point	U2579AB-4_GPS	Northing	848094.232sft	Point U2579AB-4	
Latitude	36°04'30.37288"N	Easting	1669888.026sft	Northing	848094.232sft

Longitude	80°07'01.43529"W
Height	808.430sft

Elevation	914.072sft
Horz error	0.000sft
Vert error	0.000sft
3D error	0.000sft

Easting	1669888.026sft
Elevation	914.072sft
Utilized	Horz and Vert
Quality	Adjusted quality

Point	U2579AB-5_GPS
Latitude	36°04'30.70735"N
Longitude	80°08'08.87119"W
Height	791.234sft

Northing	848190.871sft
Easting	1664352.701sft
Elevation	897.081sft
Horz error	0.000sft
Vert error	0.000sft
3D error	0.000sft

Point	U2579AB-5
Northing	848190.871sft
Easting	1664352.700sft
Elevation	897.081sft
Utilized	Horz and Vert
Quality	Adjusted quality

Point	U2579AB-6_GPS
Latitude	36°04'30.48337"N
Longitude	80°08'24.05755"W
Height	766.159sft

Northing	848182.513sft
Easting	1663105.819sft
Elevation	872.049sft
Horz error	0.000sft
Vert error	0.000sft
3D error	0.000sft

Point	U2579AB-6
Northing	848182.513sft
Easting	1663105.818sft
Elevation	872.049sft
Utilized	Horz and Vert
Quality	Adjusted quality

Point	U2579AB-7_GPS
Latitude	36°04'03.91402"N
Longitude	80°09'52.61220"W
Height	731.050sft

Northing	845580.258sft
Easting	1655805.004sft
Elevation	837.085sft
Horz error	0.001sft
Vert error	0.000sft
3D error	0.001sft

Point	U2579AB-7
Northing	845580.258sft
Easting	1655805.004sft
Elevation	837.085sft
Utilized	Horz and Vert
Quality	Adjusted quality

Point	U2579AB-8_GPS
Latitude	36°04'00.78790"N
Longitude	80°10'08.79340"W
Height	746.685sft

Northing	845279.767sft
Easting	1654472.876sft
Elevation	852.752sft
Horz error	0.001sft
Vert error	0.000sft
3D error	0.001sft

Point	U2579AB-8
Northing	845279.768sft
Easting	1654472.875sft
Elevation	852.752sft
Utilized	Horz and Vert
Quality	Adjusted quality

Point	U2579AB-9_GPS
Latitude	36°04'05.28463"N
Longitude	80°08'19.15622"W
Height	816.398sft

Northing	845629.841sft
Easting	1663478.932sft
Elevation	922.173sft
Horz error	0.001sft
Vert error	0.000sft
3D error	0.001sft

Point	U2579AB-9
Northing	845629.842sft
Easting	1663478.933sft
Elevation	922.173sft
Utilized	Horz and Vert
Quality	Adjusted quality

Point	U2579AB-10_GPS
Latitude	36°04'00.00953"N
Longitude	80°08'37.28849"W
Height	819.537sft

Northing	845113.546sft
Easting	1661984.210sft
Elevation	925.343sft
Horz error	0.000sft
Vert error	0.000sft
3D error	0.000sft

Point	U2579AB-10
Northing	845113.546sft
Easting	1661984.210sft
Elevation	925.343sft
Utilized	Horz and Vert
Quality	Adjusted quality

Point	U4909-1_GPS
Latitude	36°03'01.78743"N
Longitude	80°07'52.74351"W
Height	810.850sft

Northing	839184.347sft
Easting	1665574.121sft
Elevation	916.287sft
Horz error	0.001sft
Vert error	0.000sft
3D error	0.001sft

Point	U4909-1
Northing	839184.347sft
Easting	1665574.122sft
Elevation	916.287sft
Utilized	Horz and Vert
Quality	Adjusted quality

Point	U4909-2_GPS
Latitude	36°02'54.20799"N

Northing	838408.072sft
Easting	1666431.753sft

Point	U4909-2
Northing	838408.073sft

Longitude	80°07'42.19295"W
Height	825.799sft

Elevation	931.173sft
Horz error	0.000sft
Vert error	0.000sft
3D error	0.001sft

Easting	1666431.753sft
Elevation	931.173sft
Utilized	Horz and Vert
Quality	Adjusted quality