

## Town of Plymouth Data Sheet

<b>Station:</b>	Point 161	<b>Pine Hills Rod</b>		<b>NGS PID#</b>		<b>ID#</b>																																																		
<b>Town:</b>	Plymouth		<b>Quad: Plym</b>																																																					
<b>NAD83</b>	<b>Northerly</b>	<b>Easterly</b>	<b>NAD 27</b>	<b>Northerly</b>	<b>Easterly</b>																																																			
<b>(Survey Ft)</b>	2795947.762	903283.106	<b>(Survey Ft)</b>	335278.352	846981.300																																																			
<b>(meters)</b>	852206.582	275321.241	<b>(meters)</b>	102193.046	258160.416																																																			
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<b>Elevation</b>	<b>Vert. Datum f/m</b>	<b>Order</b>	<b>Stamping:</b>																																																					
<b>NAVD88</b>	338.438/103.156		<b>Sketch</b>																																																					
<b>NAVD29</b>	339.264/103.408		<b>Recov. Date:</b>	November 4, 2009																																																				
<b>Marked by:</b>	Iron Rod																																																							
<b>Description:</b>	3' Iron Rod set																																																							
<b>Reference Marks:</b>																																																								
<b>Azimuth Data:</b>																																																								
<b>Geodetic:</b>	<p>FILE: 50373080.09o 000005890  2005 NOTE: The IGS precise and IGS rapid orbits were not available  2005 at processing time. The IGS ultra-rapid orbit was/will be used to  2005 process the data.  2005</p> <p style="text-align: center;">NGS OPUS SOLUTION REPORT  =====</p> <p>All computed coordinate accuracies are listed as peak-to-peak values.  For additional information: <a href="http://www.ngs.noaa.gov/OPUS/about.html#accuracy">http://www.ngs.noaa.gov/OPUS/about.html#accuracy</a></p> <p>USER: rfirth@townhall.plymouth.ma.us                      DATE: November 04, 2009  RINEX FILE: 5037308n.09o                                              TIME: 19:48:00 UTC  SOFTWARE: page5 0909.08 master23.pl 081023                      START: 2009/11/04 13:55:00  EPHEMERIS: igu15563.eph [ultra-rapid]                              STOP: 2009/11/04 18:59:30  NAV FILE: brdc3080.09n                                              OBS USED: 10053 / 10264 : 98%  ANT NAME: TRM33429.00+GP NONE                                      # FIXED AMB: 41 / 41 : 100%  ARP HEIGHT: 1.545336                                              OVERALL RMS: 0.011(m)</p> <p>REF FRAME: NAD_83(CORS96)(EPOCH:2002.0000)                      ITRF00 (EPOCH:2009.8430)</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 15%;">X:</td> <td style="width: 35%;">1579468.265(m)</td> <td style="width: 15%;">0.014(m)</td> <td style="width: 15%;">1579467.508(m)</td> <td style="width: 20%;">0.014(m)</td> </tr> <tr> <td>Y:</td> <td>-4483151.901(m)</td> <td>0.036(m)</td> <td>-4483150.460(m)</td> <td>0.036(m)</td> </tr> <tr> <td>Z:</td> <td>4238765.032(m)</td> <td>0.015(m)</td> <td>4238764.963(m)</td> <td>0.015(m)</td> </tr> <tr> <td><b>LAT:</b></td> <td><b>41 54 59.74700</b></td> <td>0.019(m)</td> <td>41 54 59.78022</td> <td>0.019(m)</td> </tr> <tr> <td>E LON:</td> <td>289 24 28.70308</td> <td>0.025(m)</td> <td>289 24 28.69288</td> <td>0.025(m)</td> </tr> <tr> <td><b>W LON:</b></td> <td><b>70 35 31.29692</b></td> <td>0.025(m)</td> <td>70 35 31.30712</td> <td>0.025(m)</td> </tr> <tr> <td>EL HGT:</td> <td>74.970(m)</td> <td>0.027(m)</td> <td>73.726(m)</td> <td>0.027(m)</td> </tr> <tr> <td><b>ORTHO HGT:</b></td> <td><b>103.156(m)</b></td> <td><b>0.049(m)</b></td> <td><b>[NAVD88 (Computed using GEOID09)]</b></td> <td></td> </tr> </table> <p style="text-align: center;">UTM COORDINATES                      STATE PLANE COORDINATES</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 40%;"></td> <td style="width: 30%;">UTM (Zone 19)</td> <td style="width: 30%;">SPC (2001 MA M)</td> </tr> <tr> <td>Northing (Y) [meters]</td> <td>4641741.577</td> <td>852206.582</td> </tr> <tr> <td>Easting (X) [meters]</td> <td>367978.229</td> <td>275321.241</td> </tr> </table>							X:	1579468.265(m)	0.014(m)	1579467.508(m)	0.014(m)	Y:	-4483151.901(m)	0.036(m)	-4483150.460(m)	0.036(m)	Z:	4238765.032(m)	0.015(m)	4238764.963(m)	0.015(m)	<b>LAT:</b>	<b>41 54 59.74700</b>	0.019(m)	41 54 59.78022	0.019(m)	E LON:	289 24 28.70308	0.025(m)	289 24 28.69288	0.025(m)	<b>W LON:</b>	<b>70 35 31.29692</b>	0.025(m)	70 35 31.30712	0.025(m)	EL HGT:	74.970(m)	0.027(m)	73.726(m)	0.027(m)	<b>ORTHO HGT:</b>	<b>103.156(m)</b>	<b>0.049(m)</b>	<b>[NAVD88 (Computed using GEOID09)]</b>			UTM (Zone 19)	SPC (2001 MA M)	Northing (Y) [meters]	4641741.577	852206.582	Easting (X) [meters]	367978.229	275321.241
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To convert meters to US survey feet  
Multiply by 3.2808333333

Convergence [degrees]	-1.06370388	0.60991155
Point Scale	0.99981448	0.99997677
Combined Factor	0.99980272	0.99996501
US NATIONAL GRID DESIGNATOR: 19TCG6797841741(NAD 83)		
BASE STATIONS USED		
PID	DESIGNATION	LATITUDE LONGITUDE DISTANCE(m)
DI0966	XMTS MTS FOX COOP CORS ARP	N420350.018 W0711501.669 56960.9
DI0876	ACU5 ACUSHNET 5 CORS ARP	N414436.796 W0705313.027 31139.1
DI0884	ACU6 ACUSHNET 6 CORS ARP	N414435.676 W0705311.720 31136.8
NEAREST NGS PUBLISHED CONTROL POINT		
LW5750	10355	N415457.361 W0703524.652 169.8
This position and the above vector components were computed without any knowledge by the National Geodetic Survey regarding the equipment or field operating procedures used.		
<b>Grid Azimuth:</b>		



To convert meters to US survey feet  
Multiply by 3.2808333333