

## Town of Plymouth Data Sheet

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|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|---------------------|-------------------|-----------------|--------------|--|
| <b>Station:</b>         | Point 197                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Cherry St 1     |                     | NGS PID#          |                 | ID#          |  |
| <b>Town:</b>            | Plymouth                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                 | <b>Quad:</b> Plym   |                   |                 |              |  |
| <b>NAD83</b>            | <b>Northerly</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>Easterly</b> | <b>NAD 27</b>       | <b>Northerly</b>  | <b>Easterly</b> |              |  |
| <b>(Survey Ft)</b>      | 2813285.935                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 873798.299      | <b>(Survey Ft)</b>  | 352616.818        | 817496.845      |              |  |
| <b>(meters)</b>         | 857491.268                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 266334.254      | <b>(meters)</b>     | 107477.821        | 249173.537      |              |  |
|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                 |                     |                   |                 | <b>Order</b> |  |
| <b>Elevation</b>        | <b>Vert. Datum f/m</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>Order</b>    | <b>Stamping:</b>    |                   |                 |              |  |
| <b>NAVD88</b>           | 103.163/31.444                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                 | <b>Sketch</b>       |                   |                 |              |  |
| <b>NAVD29</b>           | 103.983/31.694                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                 | <b>Recov. Date:</b> | September 13,2011 |                 |              |  |
| <b>Marked by:</b>       | SB/Dh                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                     |                   |                 |              |  |
| <b>Description:</b>     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                 |                     |                   |                 |              |  |
| <b>Reference Marks:</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                 |                     |                   |                 |              |  |
| <b>Azimuth Data:</b>    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                 |                     |                   |                 |              |  |
| <b>Geodetic:</b>        | <p>FILE: 50372561.110 000319445<br/> 2005 NOTE: The IGS precise and IGS rapid orbits were not available<br/> 2005 at processing time. The IGS ultra-rapid orbit was/will be used to<br/> 2005 process the data.<br/> 2005</p> <p style="text-align: center;">NGS OPUS SOLUTION REPORT<br/> =====</p> <p>All computed coordinate accuracies are listed as peak-to-peak values.<br/> For additional information: <a href="http://www.ngs.noaa.gov/OPUS/about.html#accuracy">http://www.ngs.noaa.gov/OPUS/about.html#accuracy</a><br/> USER: rfirth@townhall.plymouth.ma.us DATE: September 14, 2011<br/> RINEX FILE: 5037256r.11o TIME: 11:08:48 UTC<br/> SOFTWARE: page5 1108.09 master28.pl 060711 START: 2011/09/13 17:00:00<br/> EPHEMERIS: igu16532.eph [ultra-rapid] STOP: 2011/09/13 20:57:00<br/> NAV FILE: brdc2560.11n OBS USED: 8258 / 8420 : 98%<br/> ANT NAME: TRM33429.00+GP NONE # FIXED AMB: 31 / 31 : 100%<br/> ARP HEIGHT: 1.584960 OVERALL RMS: 0.012(m)<br/> REF FRAME: NAD_83(CORS96)(EPOCH:2002.0000) ITRF00 (EPOCH:2011.7008)<br/> X: 1569831.069(m) 0.008(m) 1569830.284(m) 0.008(m)<br/> Y: -4482673.078(m) 0.024(m) -4482671.641(m) 0.024(m)<br/> Z: 4242714.838(m) 0.008(m) 4242714.775(m) 0.008(m)<br/> LAT: 41 57 53.94342 0.017(m) 41 57 53.97692 0.017(m)<br/> E LON: 289 18 0.87232 0.005(m) 289 18 0.86077 0.005(m)<br/> W LON: 70 41 59.12768 0.005(m) 70 41 59.13923 0.005(m)<br/> EL HGT: 3.154(m) 0.017(m) 1.911(m) 0.017(m)<br/> ORTHO HGT: 31.444(m) 0.032(m) [NAVD88 (Computed using GEOID09)]</p> <p style="text-align: center;">UTM COORDINATES STATE PLANE COORDINATES<br/> UTM (Zone 19) SPC (2001 MA M)<br/> Northing (Y) [meters] 4647285.726 857491.268<br/> Easting (X) [meters] 359150.739 266334.254<br/> Convergence [degrees] -1.13677414 0.53754571</p> |                 |                     |                   |                 |              |  |

To convert meters to US survey feet  
Multiply by 3.2808333333

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|                      | Point Scale                    0.99984412                    0.99997297<br>Combined Factor                0.99984362                    0.99997247<br>US NATIONAL GRID DESIGNATOR: 19TCG5915047285(NAD 83)<br>BASE STATIONS USED<br>PID            DESIGNATION                    LATITUDE            LONGITUDE    DISTANCE(m)<br>DI0876 ACU5 ACUSHNET 5 CORS ARP                    N414436.796 W0705313.027    29094.8<br>DE6262 URIL U OF RI COOP CORS ARP                    N412920.158 W0713139.778    86840.3<br>AF9520 WES2 WESTFORD CORS ARP                    N423647.975 W0712935.968    97313.0<br>NEAREST NGS PUBLISHED CONTROL POINT<br>LW4615            N PLYMOUTH RAD STA WPLM S MAST N415803.918 W0704201.590    313.6<br>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> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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To convert meters to US survey feet  
Multiply by 3.280833333