**FILE: 51011190.21o OP1620219107647**

**POINT 5002**

NGS OPUS-RS SOLUTION REPORT

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All computed coordinate accuracies are listed as 1-sigma RMS values.

For additional information: <https://www.ngs.noaa.gov/OPUS/about.jsp#accuracy>

USER: [rick@lighthouselandsurveying.com](mailto:rick@lighthouselandsurveying.com) DATE: May 05, 2021

RINEX FILE: 5101119r.21o TIME: 12:55:03 UTC

SOFTWARE: rsgps 1.38 RS74.prl 1.99.3 START: 2021/04/29 17:38:00

EPHEMERIS: igr21554.eph [rapid] STOP: 2021/04/29 18:22:00

NAV FILE: brdc1190.21n OBS USED: 4932 / 5760 : 86%

ANT NAME: LEIGS14 NONE QUALITY IND. 20.69/ 8.23

ARP HEIGHT: 2.000 NORMALIZED RMS: 0.308

REF FRAME: NAD\_83(2011)(EPOCH:2010.0000) ITRF2014 (EPOCH:2021.32534)

X: 1510455.929(m) 0.007(m) 1510454.974(m) 0.007(m)

Y: -4448805.776(m) 0.018(m) -4448804.359(m) 0.018(m)

Z: 4299223.826(m) 0.009(m) 4299223.835(m) 0.009(m)

LAT: 42 39 9.09320 0.008(m) 42 39 9.12960 0.008(m)

E LON: 288 45 12.05035 0.005(m) 288 45 12.03066 0.005(m)

W LON: 71 14 47.94965 0.005(m) 71 14 47.96934 0.005(m)

EL HGT: 47.916(m) 0.018(m) 46.709(m) 0.018(m)

ORTHO HGT: 75.446(m) 0.026(m) [NAVD88 (Computed using GEOID18)]

**247.526 usft**

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 19) SPC (2001 MA M)

Northing (Y) [meters] 4724676.491 933580.460 **3062921.893 usft**

Easting (X) [meters] 315846.607 220774.090 **724322.9936 usft**

Convergence [degrees] -1.52264722 0.17018056

Point Scale 1.00001724 0.99999561

Combined Factor 1.00000973 0.99998810

US NATIONAL GRID DESIGNATOR: 19TCH1584624676(NAD 83)

BASE STATIONS USED

PID DESIGNATION LATITUDE LONGITUDE DISTANCE(m)

DI1075 NHUN U NEW HAMPSHIRE CORS ARP N430833.179 W0705706.862 59522.6

DO9471 MAPL PLYMOUTH CORS ARP N415619.314 W0703918.243 93096.5

DP1961 MAWM WESTMINSTER CORS ARP N423340.621 W0715559.207 57236.7

DL9078 NHCO NHDOT CONCORD CORS ARP N431246.195 W0713111.475 66120.1

DO5451 MEGO GORHAM CORS ARP N434052.067 W0702703.724 131315.9

DO9467 MADA DARTMOUTH CORS ARP N413822.848 W0710141.393 113942.2

DR6402 MAWR MAWR WRENTHAM CORS ARP N420230.133 W0711815.039 68015.6

DP1320 MABN BERNARDSTON CORS ARP N424011.991 W0723228.643 106160.7

DO2056 MESP SOUTH PARIS CORS ARP N441306.196 W0703047.107 183821.3

NEAREST NGS PUBLISHED CONTROL POINT

MY5772 TEWKSBURY BAPTIST CHURCH SPIRE N423835.580 W0711445.234 1036.0

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.