

Sec. 10.06 Deliverables

All *GNSS “subject data” for VDOT contracted surveys (either primary control or photogrammetric control) *whether they are performed by VDOT staff or Consultants, shall be delivered to, or at least copied to VDOT’s Geodetic Surveys Engineer for a quality control check and evaluation. This information will be delivered to the Geodetic Surveys Engineer **before** the entire VDOT survey is due.

The subject data that is to be delivered to the Geodetic Surveys Engineer shall include, at a minimum, every item on the list depicted below.

- a. A sketch, on 8 ½” X 11” sheet of paper, containing the known network control points (NGS, USGS, etc.) and the project control, with ID’s.
- b. A copy of data sheets published for each known network control point used in the adjustment. This data sheet shall include station name, Geographic Coordinates, ellipsoidal heights, orthometric heights, published state plane coordinates, “how to reach” descriptions and point description. A copy of an NGS data sheet is acceptable for the known control points. The same format is acceptable for the project control points. Photogrammetric control points shall be identified on the project control sketch **only**. Descriptions or measured swing-ties for photo control **shall not** be included or delivered to VDOT’s Geodetic Surveys Engineer.
- c. A constrained three-dimensional adjustment report showing the latitude and longitude of all horizontal points, all benchmarks, and all ellipsoidal heights held fixed shall be delivered to VDOT’s Geodetic Surveys Engineer. The report should depict how the adjustment affects each point and the residuals of each baseline vector.
- d. A listing of final adjusted geographic coordinates, ellipsoidal heights, and geoid separations for each station, including stations held fixed. The final adjusted geographic coordinates shall be listed with their respective positional error.
- e. A listing of *the final adjusted state plane coordinates with orthometric heights *in U.S. Survey feet, including stations held fixed.
- f. All copies of site log forms, either VDOT’s **OR** a similar form, as prepared by field surveyors.
- g. All copies of any obstruction diagrams ([Figure 10-C](#)), if not included with site logs.
- h. A copy of the mission plan. This mission plan will include session times, occupation duration and types of receivers used with manufacturer’s standard antenna phase-center offset included.
- i. A one-page summary of the *GNSS mission. The report should include:

* Rev. 7/15