

**Year 2019**

1. (16) Project Localization Monuments, (224) panel points and (219) validation points.

2. **Project Localization Monuments (PLM)**

- a. **Horizontal  $\pm 0.07'$  (GNSS Static)**

Static GNSS network adjustment including:

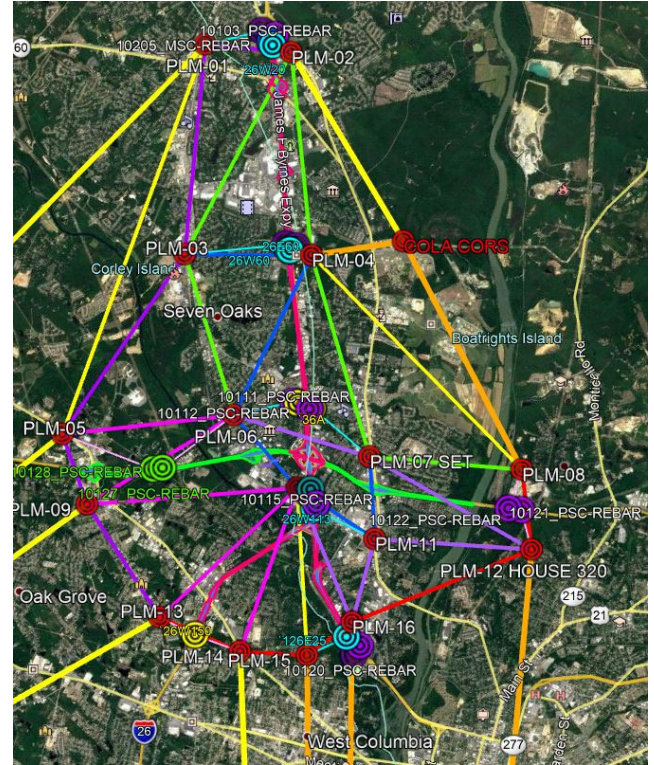
- (16) PLM
- (3) CORS
- (9) year2009 control points
- (15) year2018 control points

Minimal constraint network holding:

- (1) year2009 control point "126E25".

Full constraint network holding:

- (9) year2009 control points
- (7) year2018 control points
- (1) CORS



3. **Panel points (GCP) and Validation points (VP)**

- a. **Horizontal  $\pm 0.07'$  (GNSS RTK SC VRN)**

- b. Site Calibration using:

- (16) Project Localization Monuments (PLM)
- (6) year2009 control points

4. **Project Localization Monuments (PLM), Panel points (GCP) and Validation points (VP)**

- a. **Vertical: (PLM) $\pm 0.07'$  \_ (GCP) & (VP)  $\pm 0.025'$  (Trimble DiNi Series 0.3mm per KM)**

- i. Double-Run closed digital level loops including:

- (61) year2009 control points
- (24) year2018 control points
- (3) NGS monuments

**SCDOT Carolina Crossroads**  
Project Survey Control Summary  
February 13, 2020

Wiggly ( $\Delta 0.05'$ )  
Zoo ( $\Delta -0.06'$ )  
Holt ( $\Delta 0.11'$ )  
Cindy ( $\Delta 0.05'$ )  
Front AZ MK ( $\Delta 0.13'$ )  
Hospital AZ MK ( $\Delta 0.04'$ )

- ii. Balanced level runs were used to establish a best-fit scenario for all control points holding:

(24) year 2009 control points

(5) year 2018 control points

Adjusted elevations resulted in deviations on remaining control points of: 0.01' to 0.13' (majority within 0.07') with few outliers.

