

SURVEY REPORT of

Aerial Ground Targets and Primary Survey Control

For

South Carolina Department of Transportation

I-85, I-26, & SC Highway 85 Aerial Mapping

From

I-85 Mile Marker 69 to Mile Marker 80

I-26 Mile Marker 17.4 to Mile Marker 18.8

SC Highway 85 Mile Marker 0.2 to Mile Marker 3.2

SC Highway Mile Marker 4.6 to Mile Marker 8.0

In Spartanburg County, Near Spartanburg, SC

By

CDM Smith

1441 Main Street, Suite 1000

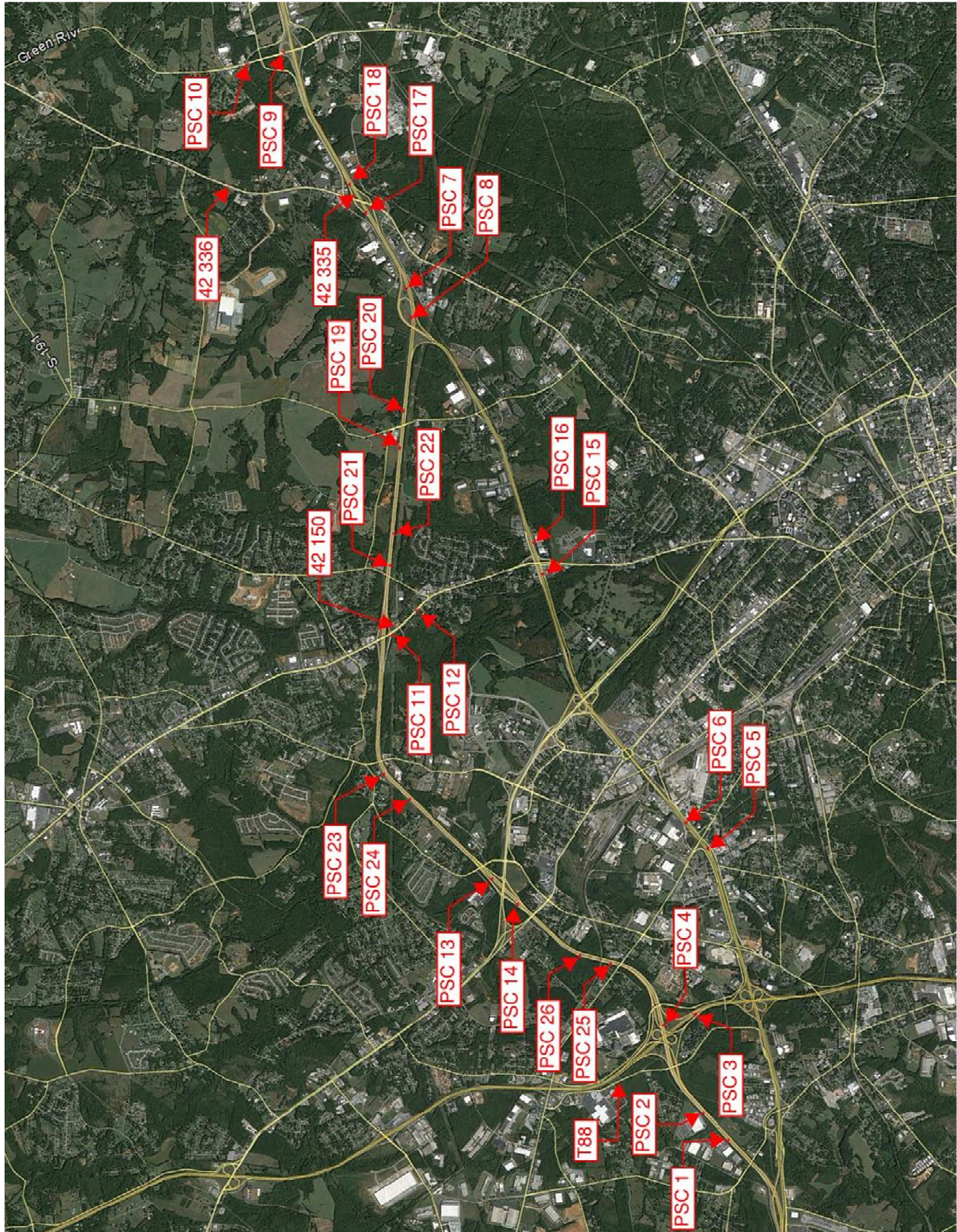
Columbia, SC 29201

John L. Hudson, PLS # 6957

Dated 4/12/2016

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Project Introduction

CDM Smith Inc. entered into a contract with Independent Mapping Consultants, Inc. as a Professional Subcontractor to provide aerial mapping ground target control and set Primary Survey Control Monumentation for their South Carolina Department of Transportation Project # 2015108.

The Project Areas are Interstate Highway 85 from mile marker (MM) 69 to (MM) 80, Interstate Highway 26 from (MM) 17.4 to (MM) 18.8, and SC Highway 85 (I-85 Business) from (MM) 0.2 to (MM) 3.2 and from (MM) 3.2 to (MM) 4.6.

Coordinates for the project are on NAD83 (2011) South Carolina state plane datum. Elevations for the project are on NAVD88 vertical datum.

The aerial chevron panels are V shaped, having legs approximately 1.5 feet long and 4 inches wide with an interior angle of approximately 60 degrees set along the edges of the paved roadway surfaces. A PK nail is set at the tip of the painted target panels.

The Primary Survey Control (PSC) points consist of a 2.5 inch diameter aluminum disk on a 30" # 5 rebar recessed just below ground surface.

Elevations for the chevron panels and the primary survey control points were obtained by differential level runs using digital Leica DNA 03 Levels. The level runs met or exceeded the SCDOT requirements for Project Benchmarks (PBM) which is 0.05 foot multiplied by the square root of the length of the level run in miles.

Coordinates for the aerial chevron panels were obtained using Trimble R-8 receivers for three minute observations with differential corrections from the South Carolina VRS Network.

Coordinates for the Primary Survey Control Points were obtained using Trimble R-7 receivers with Trimble Zephyr Geodetic Antenna on two meter fixed height tripods. A minimum of two separate ten minute observations were taken on different days for each Primary Survey Control Point using the South Carolina VRS Network for differential corrections. The RTN (VRS) GNSS GPS observations had a maximum PDOP of 3 and a minimum of 7 satellites. The relative horizontal accuracy of the PSC Control Network meets or exceeds the accuracy standards described in the SCDOT Preconstruction Survey Manual with revision date of October, 2012.

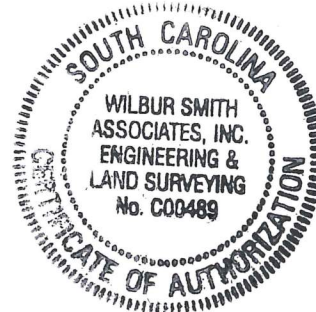
A Synopsis of the Surveys and Procedures

1. Aerial mapping panels were painted along the said mapping corridor at locations provided by the mapper.
2. Trimble R-8 receivers were used to perform 3 minute observations using the South Carolina VRS Network to obtain horizontal positions of the mapping panels.
3. Existing NGS, First Order, Class II vertical monuments were recovered and used to control the vertical datum for the project. Their designations are: "42 335", "42 150", and T83. The posted elevation for NGS monument "42 335" was found to be in error during a previous adjacent SCDOT project. Its elevation was adjusted for that project per a level loop from "42 335" to NGS monument "42 336". Additional level runs from the monument "42 335" were run easterly thru the other NGS monuments for the earlier project and confirmed the correction of NGS monument "42 335". The adjusted elevation of 824.92 feet was held to for this project.
4. A level run using a Digital Leica DNA 03 level was started on NGS monument "T88" and run easterly to NGS monument "42 150". The level run was 5.2 miles one way having a miss closure of 0.04 feet from the monument "42 150" posted elevation. The posted elevation for monument "42 150" was held to and the 0.04 feet was adjusted proportionally by distance for the points between the two NGS monuments.
5. A level run was then run from NGS monument "42 150" to NGS monument "42 335" with a miss closure of 0.02 feet from its corrected project elevation. The corrected elevation for monument "42 335" was held to and the 0.02 feet was adjusted proportionally by distance for the points between these two NGS monuments.
6. Level loops were then run thru NGS monuments "42 124", "42 126", "42 128", "42 129", "42 130" and "42 131". We found the posted elevations for these monuments to run from 0.03 feet to 0.06 feet higher than our elevations. For the project elevations, we held to the posted elevations of monuments "T 88", "42 150" and the corrected elevation of monument "42_335" and the adjustments of the elevations stated in above lines 4 and 5.

| PRIMARY SURVEY CONTROL | | | | |
|------------------------|------------|------------|----------------------|------|
| Point # | North | East | Leveled Elevation | Code |
| PSC-1 | 1142911.46 | 1692626.03 | 872.19 | PSC |
| PSC-2 | 1144031.37 | 1693712.78 | 854.28 | PSC |
| PSC-3 | 1144528.50 | 1697844.15 | 830.78 | PSC |
| PSC-4 | 1145788.66 | 1697309.92 | 872.21 | PSC |
| PSC-5 | 1144284.42 | 1704802.81 | 873.84 | PSC |
| PSC-6 | 1145234.11 | 1705830.52 | 858.23 | PSC |
| PSC-7 | 1157849.73 | 1727798.57 | 860.39 | PSC |
| PSC-8 | 1157597.35 | 1726604.13 | 831.73 | PSC |
| PSC-9 | 1163429.01 | 1737599.96 | 831.19 | PSC |
| PSC-10 | 1164936.82 | 1737044.67 | 849.27 | PSC |
| PSC-11 | 1157834.56 | 1713178.75 | 844.04 | PSC |
| PSC-12 | 1156837.26 | 1714258.12 | 845.01 | PSC |
| PSC-13 | 1153227.66 | 1703097.58 | 858.97 | PSC |
| PSC-14 | 1152105.10 | 1702105.51 | 865.86 | PSC |
| PSC-15 | 1151632.87 | 1716026.30 | 790.26 | PSC |
| PSC-16 | 1152057.34 | 1717325.42 | 774.90 | PSC |
| PSC-17 | 1159673.86 | 1730946.01 | 818.73 | PSC |
| PSC-18 | 1160399.12 | 1732098.00 | 822.26 | PSC |
| PSC-19 | 1157869.57 | 1721082.39 | 843.99 | PSC |
| PSC-20 | 1157779.28 | 1722652.27 | 819.17 | PSC |
| PSC-21 | 1158006.66 | 1716097.03 | 807.59 | PSC |
| PSC-22 | 1157927.65 | 1717460.31 | 823.54 | PSC |
| PSC-23 | 1157941.65 | 1707307.23 | 822.82 | PSC |
| PSC-24 | 1156829.89 | 1706292.53 | 810.04 | PSC |
| PSC-25 | 1148110.02 | 1699781.24 | 873.52 | PSC |
| PSC-26 | 1149405.93 | 1700054.40 | 880.97 | PSC |



John L. Hudson
 John L. Hudson, PLS #6957



Date: 4/12/2016

| Aerial Mapping Panel Points | | | |
|-----------------------------|------------|------------|-----------|
| Panel # | Northing | Easting | Elevation |
| P1 | 1140431.88 | 1688400.27 | 853.90 |
| P2 | 1140461.94 | 1689795.16 | 891.29 |
| P3 | 1140628.10 | 1691195.62 | 871.74 |
| P4 | 1140600.07 | 1692198.03 | 846.00 |
| P5 | 1140728.49 | 1693510.54 | 877.47 |
| P6 | 1140291.92 | 1694260.80 | 876.19 |
| P7 | 1140962.99 | 1695367.77 | 851.41 |
| P8 | 1141370.68 | 1696642.62 | 827.32 |
| P9 | 1141800.98 | 1697763.43 | 822.50 |
| P10 | 1140921.19 | 1698640.32 | 803.21 |
| P11 | 1140973.15 | 1698749.68 | 804.78 |
| P12 | 1142068.87 | 1699107.96 | 828.62 |
| P13 | 1141975.59 | 1700424.25 | 843.25 |
| P14 | 1142955.53 | 1701487.37 | 841.41 |
| P15 | 1143368.05 | 1702758.39 | 815.26 |
| P16 | 1143895.47 | 1704227.38 | 873.18 |
| P17 | 1144242.72 | 1705522.81 | 862.02 |
| P18 | 1144948.26 | 1704594.19 | 880.58 |
| P19 | 1144092.71 | 1704098.67 | 868.58 |
| P20 | 1143606.97 | 1702705.25 | 815.41 |
| P21 | 1143168.03 | 1701425.86 | 851.12 |
| P22 | 1143491.89 | 1700804.02 | 865.67 |
| P23 | 1142709.75 | 1699925.82 | 831.98 |
| P24 | 1142917.98 | 1698741.40 | 857.01 |
| P25 | 1144257.04 | 1698276.61 | 838.48 |
| P25B | 1144165.41 | 1698192.11 | 835.87 |
| P26 | 1142935.97 | 1698393.54 | 844.13 |
| P27 | 1142085.09 | 1697870.19 | 824.10 |
| P28 | 1141658.99 | 1696562.52 | 822.36 |
| P29 | 1141151.72 | 1695293.37 | 855.34 |
| P30 | 1141045.14 | 1694121.95 | 886.62 |
| P31 | 1140933.26 | 1692080.74 | 846.37 |
| P32 | 1141028.37 | 1690926.13 | 910.98 |
| P33 | 1141742.63 | 1691686.43 | 906.25 |
| P34 | 1142766.33 | 1692685.48 | 874.27 |
| P35 | 1143748.08 | 1693654.77 | 851.20 |
| P36 | 1144649.92 | 1694558.75 | 860.47 |

| Aerial Mapping Panel Points | | | |
|-----------------------------|------------|------------|-----------|
| Panel # | Northing | Easting | Elevation |
| P37 | 1145088.11 | 1695673.21 | 885.23 |
| P38 | 1145077.43 | 1696943.62 | 873.51 |
| P39 | 1144100.44 | 1698081.81 | 828.48 |
| P40 | 1145593.91 | 1698199.84 | 893.87 |
| P41 | 1146434.04 | 1699027.07 | 874.18 |
| P42 | 1147548.11 | 1699808.23 | 877.86 |
| P43 | 1148880.98 | 1700091.13 | 872.97 |
| P44 | 1150044.03 | 1700509.32 | 873.07 |
| P45 | 1151058.22 | 1701375.81 | 866.89 |
| P46 | 1152206.91 | 1702476.23 | 863.71 |
| P47 | 1152764.81 | 1703404.83 | 879.47 |
| P48 | 1153888.72 | 1703900.96 | 858.47 |
| P49 | 1154930.13 | 1704806.54 | 857.74 |
| P50 | 1155975.98 | 1705733.45 | 830.07 |
| P51 | 1157013.36 | 1706652.01 | 806.36 |
| P52 | 1157927.50 | 1707607.79 | 814.80 |
| P53 | 1158183.98 | 1708950.24 | 787.79 |
| P54 | 1158162.55 | 1710304.80 | 769.63 |
| P55 | 1158120.39 | 1711598.94 | 796.27 |
| P56 | 1157927.48 | 1712800.71 | 832.62 |
| P57 | 1157676.44 | 1713410.44 | 836.42 |
| P58 | 1158078.51 | 1714692.45 | 802.10 |
| P59 | 1158021.47 | 1716018.62 | 806.97 |
| P60 | 1157939.15 | 1717415.06 | 823.42 |
| P61 | 1157860.59 | 1718750.38 | 838.11 |
| P62 | 1157785.26 | 1720039.34 | 845.32 |
| P63 | 1157707.07 | 1721366.00 | 840.59 |
| P64 | 1157625.25 | 1722753.38 | 818.04 |
| P65 | 1157545.61 | 1724102.97 | 818.63 |
| P66 | 1157331.66 | 1725408.93 | 826.98 |
| P67 | 1156154.97 | 1725284.53 | 817.45 |
| P68 | 1155360.07 | 1724159.26 | 785.34 |
| P69 | 1154818.06 | 1722599.23 | 831.30 |
| P70 | 1153873.91 | 1721684.58 | 809.34 |
| P71 | 1153351.68 | 1720426.34 | 782.86 |
| P72 | 1152934.04 | 1719384.92 | 750.34 |
| P73 | 1152519.96 | 1718094.40 | 759.54 |
| P74 | 1152151.58 | 1716838.20 | 779.31 |
| P75 | 1152922.74 | 1716177.48 | 763.21 |

| Aerial Mapping Panel Points | | | |
|-----------------------------|------------|------------|-----------|
| Panel # | Northing | Easting | Elevation |
| P76 | 1151685.58 | 1715608.31 | 791.55 |
| P77 | 1151177.98 | 1714322.75 | 806.90 |
| P78 | 1150770.49 | 1713138.00 | 842.44 |
| P79 | 1150854.99 | 1712618.68 | 864.52 |
| P80 | 1150363.22 | 1711950.34 | 870.36 |
| P81 | 1150201.49 | 1710857.86 | 881.81 |
| P82 | 1150565.88 | 1710057.42 | 891.46 |
| P83 | 1150395.44 | 1709859.77 | 879.00 |
| P84 | 1149875.05 | 1710174.71 | 877.09 |
| P85 | 1149148.29 | 1710896.13 | 860.81 |
| P86 | 1149048.72 | 1711399.28 | 861.86 |
| P87 | 1149182.22 | 1711536.11 | 861.87 |
| P88 | 1149796.33 | 1711067.04 | 873.36 |
| P89 | 1150300.96 | 1711972.84 | 870.42 |
| P90 | 1150429.42 | 1712781.92 | 875.93 |
| P91 | 1150698.83 | 1713210.51 | 841.43 |
| P92 | 1151058.97 | 1714250.96 | 809.36 |
| P93 | 1151553.89 | 1715696.60 | 793.07 |
| P94 | 1151304.93 | 1716469.36 | 799.20 |
| P95 | 1151910.98 | 1716875.37 | 779.52 |
| P96 | 1152406.78 | 1718153.33 | 758.52 |
| P97 | 1152853.41 | 1719435.12 | 750.56 |
| P98 | 1153214.95 | 1720491.13 | 776.44 |
| P99 | 1153797.42 | 1721854.75 | 808.43 |
| P100 | 1154260.69 | 1722871.12 | 831.66 |
| P101 | 1155261.19 | 1724174.81 | 786.30 |
| P102 | 1156086.11 | 1725363.61 | 822.32 |
| P103 | 1157176.27 | 1726199.15 | 840.56 |
| P104 | 1157564.40 | 1727483.97 | 858.98 |
| P105 | 1158114.16 | 1728737.27 | 867.22 |
| P106 | 1158810.70 | 1729837.43 | 842.05 |
| P107 | 1159094.14 | 1731157.27 | 826.09 |
| P108 | 1160152.37 | 1731985.38 | 817.13 |
| P109 | 1160893.86 | 1733130.50 | 850.25 |
| P110 | 1161603.66 | 1734253.19 | 864.89 |
| P111 | 1162197.22 | 1735266.33 | 845.75 |

| Aerial Mapping Panel Points | | | |
|-----------------------------|------------|------------|-----------|
| Panel # | Northing | Easting | Elevation |
| P112 | 1162603.36 | 1736499.73 | 825.10 |
| P113 | 1162410.76 | 1737900.62 | 804.57 |
| P114 | 1163021.75 | 1738375.78 | 805.08 |
| P115 | 1163410.56 | 1738252.24 | 811.38 |
| P116 | 1163688.55 | 1737468.55 | 834.80 |
| P117 | 1162815.93 | 1736428.87 | 825.67 |
| P118 | 1162365.65 | 1735171.39 | 844.36 |
| P119 | 1161767.63 | 1734142.38 | 863.65 |
| P120 | 1161029.80 | 1732978.69 | 843.51 |
| P121 | 1160702.59 | 1732176.45 | 822.43 |
| P122 | 1160667.94 | 1731579.20 | 827.51 |
| P123 | 1159710.43 | 1730626.14 | 821.98 |
| P124 | 1158981.65 | 1729714.83 | 840.08 |
| P125 | 1158289.75 | 1728587.28 | 859.73 |
| P126 | 1158179.23 | 1727320.71 | 852.24 |
| P127 | 1157665.32 | 1726217.91 | 856.31 |
| P128 | 1157672.11 | 1724315.16 | 819.65 |
| P129 | 1157760.40 | 1722762.76 | 818.27 |
| P130 | 1157843.66 | 1721366.89 | 840.51 |
| P131 | 1157919.25 | 1720073.29 | 845.55 |
| P132 | 1157996.39 | 1718790.27 | 838.22 |
| P133 | 1158076.06 | 1717457.88 | 823.70 |
| P134 | 1158159.22 | 1716039.29 | 806.95 |
| P135 | 1158237.72 | 1714687.96 | 804.43 |
| P136 | 1158548.51 | 1712868.49 | 841.52 |
| P137 | 1158275.38 | 1711611.53 | 797.05 |
| P138 | 1158298.59 | 1710311.14 | 769.66 |
| P139 | 1158317.49 | 1708964.95 | 787.60 |
| P140 | 1158066.56 | 1707571.88 | 823.84 |
| P141 | 1157138.67 | 1706577.81 | 806.49 |
| P142 | 1156034.14 | 1705598.18 | 831.20 |
| P143 | 1155028.29 | 1704706.25 | 857.79 |
| P144 | 1154005.30 | 1703794.70 | 858.80 |
| P145 | 1152801.35 | 1702190.47 | 878.77 |
| P146 | 1151642.58 | 1701430.55 | 892.61 |
| P147 | 1150528.34 | 1700722.04 | 873.40 |
| P148 | 1149398.74 | 1700060.18 | 880.84 |
| P149 | 1148114.44 | 1699787.80 | 874.10 |

| Aerial Mapping Panel Points | | | |
|-----------------------------|------------|------------|-----------|
| Panel # | Northing | Easting | Elevation |
| P150 | 1146846.40 | 1699194.79 | 861.89 |
| P151 | 1146312.18 | 1698096.03 | 868.67 |
| P152 | 1146485.17 | 1696771.72 | 861.74 |
| P153 | 1147365.76 | 1695638.64 | 887.98 |
| P154 | 1147206.09 | 1695462.42 | 883.89 |
| P155 | 1146155.15 | 1696096.08 | 857.70 |
| P156 | 1145456.73 | 1695442.77 | 874.23 |
| P156B | 1145506.66 | 1695503.90 | 898.16 |
| P157 | 1144786.65 | 1694461.03 | 868.58 |
| P158 | 1142865.86 | 1692590.27 | 874.05 |
| P159 | 1141849.81 | 1691604.19 | 906.09 |
| P160 | 1141152.54 | 1690698.98 | 895.22 |
| P161 | 1140963.33 | 1689655.66 | 878.76 |
| P162 | 1140640.57 | 1688408.32 | 852.70 |
| P163 | 1143856.21 | 1693551.98 | 851.50 |
| P164 | 1145888.78 | 1696697.90 | 849.18 |
| P165 | 1142010.90 | 1698421.09 | 825.59 |

The NGS Data Sheet

See file [dsdata.txt](#) for more information about the datasheet.

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PROGRAM = datasheet95, VERSION = 8.8
1      National Geodetic Survey, Retrieval Date = NOVEMBER 9, 2015
ED0148 *****
ED0148 DESIGNATION - T 88
ED0148 PID - ED0148
ED0148 STATE/COUNTY- SC/SPARTANBURG
ED0148 COUNTRY - US
ED0148 USGS QUAD - WELLFORD (1983)
ED0148
ED0148 *CURRENT SURVEY CONTROL
ED0148
ED0148* NAD 83(1986) POSITION- 34 58 55. (N) 082 01 04. (W) SCALED
ED0148* NAVD 88 ORTHO HEIGHT - 273.273 (meters) 896.56 (feet) ADJUSTED
ED0148
ED0148 GEOID HEIGHT - -31.537 (meters) GEOID12B
ED0148 DYNAMIC HEIGHT - 273.001 (meters) 895.67 (feet) COMP
ED0148 MODELED GRAVITY - 979,633.8 (mgal) NAVD 88
ED0148
ED0148 VERT ORDER - FIRST CLASS II
ED0148
ED0148.The horizontal coordinates were scaled from a topographic map and have
ED0148.an estimated accuracy of +/- 6 seconds.
ED0148.
ED0148.The orthometric height was determined by differential leveling and
ED0148.adjusted by the NATIONAL GEODETIC SURVEY
ED0148.in June 1991.
ED0148
ED0148.Significant digits in the geoid height do not necessarily reflect accuracy.
ED0148.GEOID12B height accuracy estimate available here.
ED0148
ED0148.The dynamic height is computed by dividing the NAVD 88
ED0148.geopotential number by the normal gravity value computed on the
ED0148.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
ED0148.degrees latitude (g = 980.6199 gals.).
ED0148
ED0148.The modeled gravity was interpolated from observed gravity values.
ED0148
ED0148; North East Units Estimated Accuracy
ED0148;SPC SC - 349,650. 516,670. MT (+/- 180 meters Scaled)
ED0148
ED0148 SUPERSEDED SURVEY CONTROL
ED0148
ED0148 NGVD 29 (??/??/??) 273.376 (m) 896.90 (f) ADJUSTED 1 2
ED0148
ED0148.Superseded values are not recommended for survey control.
ED0148
ED0148.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
ED0148.See file dsdata.txt to determine how the superseded data were derived.
ED0148
ED0148_U.S. NATIONAL GRID SPATIAL ADDRESS: 17SMU071715(NAD 83)
ED0148
```

ED0148_MARKER: DB = BENCH MARK DISK
ED0148_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
ED0148_STAMPING: T 88 1957
ED0148_MARK LOGO: CGS
ED0148_PROJECTION: PROJECTING 20 CENTIMETERS
ED0148_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
ED0148+STABILITY: SURFACE MOTION

ED0148

| HISTORY | - Date | Condition | Report By |
|---------|--------|----------------|-----------|
| HISTORY | - 1957 | MONUMENTED | CGS |
| HISTORY | - 1980 | GOOD | NGS |
| HISTORY | - 1982 | MARK NOT FOUND | SCGS |
| HISTORY | - 1982 | GOOD | SCGS |

ED0148

ED0148 STATION DESCRIPTION

ED0148

ED0148'DESCRIBED BY COAST AND GEODETIC SURVEY 1957
ED0148'1.8 MI N FROM FAIRFOREST.
ED0148'ABOUT 0.1 MILE NORTHEAST ALONG PAVED ROAD FROM THE RAILROAD
ED0148'STATION AT FAIRFOREST, THENCE NORTHERLY ALONG PAVED ROAD FOR
ED0148'1.75 MILES, IN A FARM YARD, 33 FEET NORTHEAST OF CENTER OF ROAD,
ED0148'79 FEET WEST OF NORTHWEST CORNER OF HOUSE, 3.0 FEET NORTH OF
ED0148'POWERLINE POLE, AND 1.0 FOOT SOUTH OF A METAL WITNESS POST. A
ED0148'STANDARD DISK, STAMPED, T 88 1957 AND SET IN TOP OF A CONCRETE POST.

ED0148

ED0148 STATION RECOVERY (1980)

ED0148

ED0148'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1980
ED0148'TO REACH FROM THE JUNCTION OF INTERSTATE HIGHWAY 85 AND INTERSTATE
ED0148'HIGHWAY 26 WHICH IS 9.1 KILOMETERS (6.0 MILES) AIRLINE WEST OF
ED0148'SPARTANBURG, GO NORTH ON HIGHWAY 26 FOR 2.7 KILOMETERS (1.7 MILES)
ED0148'TO THE EXIT OF NEWCUT ROAD (EXIT 17) TAKE THE EXIT AND THEN TURN LEFT
ED0148'ONTO NEWCUT ROAD FOR 0.2 KILOMETER (0.1 MILE) TO FRONTAGE ROAD,
ED0148'TURN LEFT AND FOLLOW FRONTAGE ROAD SOUTHERLY FOR 1.05 KILOMETERS
ED0148'(0.65 MILE) TO MARK ON LEFT, 23.7 METERS (78.0 FEET) NORTHEAST
ED0148'OF POWERPOLE NO. A 19, 10.0 METERS (33.4 FEET) NORTHEAST OF
ED0148'CENTERLINE OF BLACKTOP ROAD, 3.0 METERS (10.3 FEET) SOUTHEAST OF
ED0148'SOUTH END OF A METAL 14-INCH CULVERT UNDER DIRT ROAD LEADING
ED0148'EAST-SOUTHEAST TO A JUNKPILE, 0.9 METER (3.0 FEET) NORTH OF A
ED0148'1.0-METER LONG CREOSOTE POWERPOLE THAT HAS BEEN CUT OFF.
ED0148'THE MARK IS .5 METERS S FROM CEMENT FILLED METAL POST

ED0148

ED0148 STATION RECOVERY (1982)

ED0148

ED0148'RECOVERY NOTE BY SOUTH CAROLINA GEODETIC SURVEY 1982
ED0148'NOT RECOVERED, A THOROUGH SEARCH WAS CONDUCTED WITH NO RESULTS.

ED0148

ED0148 STATION RECOVERY (1982)

ED0148

ED0148'RECOVERY NOTE BY SOUTH CAROLINA GEODETIC SURVEY 1982
ED0148'RECOVERED IN GOOD CONDITION.

*** retrieval complete.

Elapsed Time = 00:00:01

The NGS Data Sheet

See file [dsdata.txt](#) for more information about the datasheet.

```

PROGRAM = datasheet95, VERSION = 8.7.1
1      National Geodetic Survey,  Retrieval Date = AUGUST 18, 2015
FA1418 *****
FA1418 DESIGNATION - 42 150
FA1418 PID - FA1418
FA1418 STATE/COUNTY- SC/SPARTANBURG
FA1418 COUNTRY - US
FA1418 USGS QUAD - VALLEY FALLS (1983)
FA1418
FA1418 *CURRENT SURVEY CONTROL
FA1418
FA1418* NAD 83(1986) POSITION- 35 00 42. (N) 081 57 24. (W) SCALED
FA1418* NAVD 88 ORTHO HEIGHT - 253.298 (meters) 831.03 (feet) ADJUSTED
FA1418
FA1418 GEOID HEIGHT - -31.62 (meters) GEOID12B
FA1418 DYNAMIC HEIGHT - 253.046 (meters) 830.20 (feet) COMP
FA1418 MODELED GRAVITY - 979,632.0 (mgal) NAVD 88
FA1418
FA1418 VERT ORDER - FIRST CLASS II
FA1418
FA1418.The horizontal coordinates were scaled from a topographic map and have
FA1418.an estimated accuracy of +/- 6 seconds.
FA1418.
FA1418.The orthometric height was determined by differential leveling and
FA1418.adjusted by the NATIONAL GEODETIC SURVEY
FA1418.in June 1991.
FA1418
FA1418.The dynamic height is computed by dividing the NAVD 88
FA1418.geopotential number by the normal gravity value computed on the
FA1418.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
FA1418.degrees latitude (g = 980.6199 gals.).
FA1418
FA1418.The modeled gravity was interpolated from observed gravity values.
FA1418
FA1418; North East Units Estimated Accuracy
FA1418;SPC SC - 352,900. 522,280. MT (+/- 180 meters Scaled)
FA1418
FA1418 SUPERSEDED SURVEY CONTROL
FA1418
FA1418 NGVD 29 (??/??/??) 253.400 (m) 831.36 (f) ADJUSTED 1 2
FA1418
FA1418.Superseded values are not recommended for survey control.
FA1418
FA1418.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
FA1418.See file dsdata.txt to determine how the superseded data were derived.
FA1418
FA1418_U.S. NATIONAL GRID SPATIAL ADDRESS: 17SMU127747(NAD 83)
FA1418
FA1418_MARKER: DD = SURVEY DISK
FA1418_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
FA1418_SP_SET: CONCRETE POST

```

FA1418_STAMPING: VERT 42 150 1982

FA1418_MARK LOGO: SCGS

FA1418_PROJECTION: FLUSH

FA1418_MAGNETIC: N = NO MAGNETIC MATERIAL

FA1418_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

FA1418+STABILITY: SURFACE MOTION

FA1418_SATELLITE: THE SITE LOCATION WAS REPORTED AS NOT SUITABLE FOR

FA1418+SATELLITE: SATELLITE OBSERVATIONS - July 06, 1989

FA1418

| FA1418 | HISTORY | - Date | Condition | Report By |
|--------|---------|------------|------------|-----------|
| FA1418 | HISTORY | - 1982 | MONUMENTED | SCGS |
| FA1418 | HISTORY | - 19890706 | GOOD | SCGS |

FA1418

FA1418 STATION DESCRIPTION

FA1418

FA1418'DESCRIBED BY SOUTH CAROLINA GEODETIC SURVEY 1982

FA1418'4.6 KM (2.85 MI) SOUTH FROM BOILING SPRINGS.

FA1418'4.6 KILOMETERS (2.85 MILES) SOUTH ALONG STATE HIGHWAY 9 FROM

FA1418'THE JUNCTION OF COUNTY ROAD S-42-56 IN BOILING SPRINGS, SET

FA1418'UNDER THE FIRST HIGH TENSION TOWER, NORTHEAST OF THE HIGHWAY,

FA1418'40.1 METERS (131.7 FEET) NORTHEAST OF THE CENTER LINE OF HIGHWAY

FA1418'9, 4.8 METERS (15.6 FEET) SOUTHEAST OF THE NORTHWEST LEG OF THE

FA1418'TOWER, 44.8 METERS (147.0 FEET) SOUTH SOUTHEAST OF THE SOUTHWEST

FA1418'CORNER OF A BROWN BRICK HOUSE, 5.20 METERS (17.0 FEET) NORTHEAST

FA1418'OF THE SOUTHWEST LEG OF THE TOWER.

FA1418'THE MARK IS 4.50 METERS SE FROM A WITNESS POST.

FA1418'THE MARK IS 0.30 M BELOW DRIVEWAY.

FA1418

FA1418 STATION RECOVERY (1989)

FA1418

FA1418'RECOVERY NOTE BY SOUTH CAROLINA GEODETIC SURVEY 1989 (DDW)

FA1418'STATION IS LOCATED 2.8 MILES (4.5 KM) SOUTHEAST OF BOILING SPRINGS.

FA1418'OWNERSHIP--DUKE POWER, 349 EAST MAIN STREET, SPARTANBURG, SC 29304,

FA1418'PHONE 803-585-7791. TO REACH THE STATION FROM THE JUNCTION OVERPASS

FA1418'OF STATE HIGHWAY 9 AND INTERSTATE 85, 3.3 MILES (5.3 KM) NORTH

FA1418'NORTHWEST OF SPARTANBURG, GO NORTHWEST ON HIGHWAY 9 FOR 0.9 MILE (1.4

FA1418'KM) TO THE JUNCTION OF STATE ROAD 43 (PARRIS BRIDGE ROAD) , CONTINUE

FA1418'ON HIGHWAY 9 FOR 0.35 MILE (0.56 KM) TO A HIGH TENSION POWER LINE

FA1418'CROSSING AND THE STATION ON THE RIGHT UNDER A STEEL HIGH TENSION

FA1418'TOWER. STATION IS A CONCRETE POST FLUSH WITH THE GROUND AND LEVEL

FA1418'WITH THE HIGHWAY, 108.2 FEET (33.0 M) NORTHEAST OF THE CENTER OF THE

FA1418'NORTHBOUND LANES OF THE HIGHWAY, 37.0 FEET (11.3 M) EAST OF THE CENTER

FA1418'OF A PAVED DRIVE, 15.3 FEET (4.7 M) SOUTHEAST OF THE NORTHWEST LEG OF

FA1418'THE TOWER, 21.0 FEET (6.4 M) SOUTHWEST OF THE NORTHEAST LEG OF THE

FA1418'TOWER.

*** retrieval complete.

Elapsed Time = 00:00:01

Original hereon posted elevation was corrected by
level loop run from NGS monument "42 336" to
be corrected Project Elev. 824.92

The NGS Data Sheet

See file [dsdata.txt](#) for more information about the datasheet.

```

PROGRAM = datasheet95, VERSION = 8.5
1      National Geodetic Survey,  Retrieval Date = SEPTEMBER 22, 2014
FA1544 *****
FA1544 DESIGNATION - 42 335
FA1544 PID - FA1544
FA1544 STATE/COUNTY- SC/SPARTANBURG
FA1544 COUNTRY - US
FA1544 USGS QUAD - VALLEY FALLS (1983)
FA1544
FA1544 *CURRENT SURVEY CONTROL
FA1544
FA1544* NAD 83(2011) POSITION- 35 01 07.69266(N) 081 53 46.09197(W) ADJUSTED
FA1544* NAD 83(2011) ELLIP HT- 219.800 (meters) (06/27/12) ADJUSTED
FA1544* NAD 83(2011) EPOCH - 2010.00
FA1544* NAVD 88 ORTHO HEIGHT - 251.467 (meters) 825.02 (feet) ADJUSTED
FA1544 Project Elev 824.92
FA1544
FA1544 NAD 83(2011) X - 737,179.407 (meters) COMP
FA1544 NAD 83(2011) Y - -5,177,189.965 (meters) COMP
FA1544 NAD 83(2011) Z - 3,639,701.658 (meters) COMP
FA1544 LAPLACE CORR - -0.39 (seconds) DEFLEC12A
FA1544 GEOID HEIGHT - -31.64 (meters) GEOID12A
FA1544 DYNAMIC HEIGHT - 251.217 (meters) 824.20 (feet) COMP
FA1544 MODELED GRAVITY - 979,634.5 (mgal) NAVD 88
FA1544
FA1544 VERT ORDER - FIRST CLASS II
FA1544
FA1544 FGDC Geospatial Positioning Accuracy Standards (95% confidence, cm)
FA1544 Type Horiz Ellip Dist(km)
FA1544 -----
FA1544 NETWORK 1.09 1.49
FA1544 -----
FA1544 MEDIAN LOCAL ACCURACY AND DIST (005 points) 0.85 1.18 2.17
FA1544 -----
FA1544 NOTE: Click here for information on individual local accuracy
FA1544 values and other accuracy information.
FA1544
FA1544
FA1544.The horizontal coordinates were established by GPS observations
FA1544.and adjusted by the National Geodetic Survey in June 2012.
FA1544
FA1544.NAD 83(2011) refers to NAD 83 coordinates where the reference
FA1544.frame has been affixed to the stable North American tectonic plate. See
FA1544.NA2011 for more information.
FA1544
FA1544.The horizontal coordinates are valid at the epoch date displayed above
FA1544.which is a decimal equivalence of Year/Month/Day.
FA1544
FA1544.The orthometric height was determined by differential leveling and
FA1544.adjusted by the NATIONAL GEODETIC SURVEY
FA1544.in June 1991.
FA1544
FA1544.Photographs are available for this station.

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FA1544_PROJECTION: RECESSED 5 CENTIMETERS
FA1544_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET
FA1544_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
FA1544_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
FA1544+SATELLITE: SATELLITE OBSERVATIONS - August 22, 2010

FA1544

| FA1544 | HISTORY | - Date | Condition | Report By |
|--------|---------|------------|----------------|-----------|
| FA1544 | HISTORY | - 1988 | MONUMENTED | SCGS |
| FA1544 | HISTORY | - 19891215 | GOOD | SCGS |
| FA1544 | HISTORY | - 19900425 | GOOD | |
| FA1544 | HISTORY | - 20050730 | MARK NOT FOUND | NEWBY |
| FA1544 | HISTORY | - 20100822 | GOOD | SCGS |

FA1544

FA1544 STATION DESCRIPTION

FA1544

FA1544'DESCRIBED BY SOUTH CAROLINA GEODETIC SURVEY 1988
FA1544'STATION IS LOCATED 5.4 MI EAST SOUTHEAST OF BOILING SPRINGS,
FA1544'5.15 MI NORTH NORTHEAST OF SPARTANBURG. OWNERSHIP--MR. GEORGE
FA1544'WEATHERS, DHPT PRECONSTRUCTION ENGINEER, P.O. BOX 191, COLUMBIA, SC
FA1544'29202.
FA1544'AT THE JUNCTION OF INTERSTATE 85 AND U.S. HIGHWAY 221 (5.4 MI EAST
FA1544'SOUTHEAST OF BOILING SPRINGS), NEAR THE NORTH CORNER OF THE OVERPASS.
FA1544'STATION IS A CONCRETE POST RECESSED 1-INCH, 130.2 FT NORTH NORTHWEST
FA1544'OF THE CENTER OF THE SOUTHBOUND LANES OF THE INTERSTATE, 190.0 FT
FA1544'NORTHEAST OF THE NORTHEAST CORNER OF THE OVERPASS, 119.4 FT EAST
FA1544'SOUTHEAST OF THE CENTER OF THE NORTHBOUND LANES OF HIGHWAY 221,
FA1544'43.0 FT SOUTH SOUTHEAST OF THE CENTER OF THE OFF-RAMP.

FA1544

FA1544 STATION RECOVERY (1989)

FA1544

FA1544'RECOVERY NOTE BY SOUTH CAROLINA GEODETIC SURVEY 1989
FA1544'RECOVERED IN GOOD CONDITION.

FA1544

FA1544 STATION RECOVERY (1990)

FA1544

FA1544'RECOVERED 1990
FA1544'RECOVERED IN GOOD CONDITION.

FA1544

FA1544 STATION RECOVERY (2005)

FA1544

FA1544'RECOVERY NOTE BY NEWBY-PROCTOR AND ASSOCIATES 2005 (RDP)
FA1544'MARK NOT FOUND.

FA1544

FA1544 STATION RECOVERY (2010)

FA1544

FA1544'RECOVERY NOTE BY SOUTH CAROLINA GEODETIC SURVEY 2010 (DDW)
FA1544'STATION IS LOCATED IN THE NORTHEAST ANGLE OF THE JUNCTION OVERPASS OF
FA1544'INTERSTATE 85 (EXIT 78) AND U.S. HIGHWAY 221, 9.1 MI (14.6 KM)
FA1544'SOUTH-SOUTHWEST OF CHESNEE, 5.2 MI (8.4 KM) NORTH-NORTHEAST OF
FA1544'SPARTANBURG, 5.2 MI (8.4 KM) WEST OF COWPENS. OWNERSHIP--SCDOT,
FA1544'DIRECTOR OF PRECONSTRUCTION, P.O. BOX 191, COLUMBIA, SC 29202, PHONE
FA1544'803-737-1350. STATION IS A CONCRETE POST RECESSED 0.2 FT (6 CM) AND
FA1544'3.0 FT (0.9 M) BELOW HIGHWAY 221, 43.0 FT (13.1 M) SOUTH OF THE CENTER
FA1544'OF THE EXIT RAMP, 70.4 FT (21.5 M) NORTHEAST OF A POWER POLE WITH
FA1544'METER, 120.0 FT (36.6 M) EAST-SOUTHEAST OF THE CENTER OF THE NORTH
FA1544'BOUND LANES OF HIGHWAY 221, 100.7 FT (30.7 M) EAST OF A TRAFFIC LIGHT
FA1544'POLE, 70.6 FT (21.5 M) NORTHEAST OF A WITNESS POST. RECOVERED BY
FA1544'R.P. MCKEOWN.

The NGS Data Sheet

See file [dsdata.txt](#) for more information about the datasheet.

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PROGRAM = datasheet95, VERSION = 8.5
1      National Geodetic Survey,  Retrieval Date = SEPTEMBER 22, 2014
FA1546 *****
FA1546 DESIGNATION - 42 336
FA1546 PID - FA1546
FA1546 STATE/COUNTY- SC/SPARTANBURG
FA1546 COUNTRY - US
FA1546 USGS QUAD - VALLEY FALLS (1983)
FA1546
FA1546 *CURRENT SURVEY CONTROL
FA1546
FA1546* NAD 83(2011) POSITION- 35 02 00.14911(N) 081 53 44.62345(W) ADJUSTED
FA1546* NAD 83(2011) ELLIP HT- 228.812 (meters) (06/27/12) ADJUSTED
FA1546* NAD 83(2011) EPOCH - 2010.00
FA1546* NAVD 88 ORTHO HEIGHT - 260.482 (meters) 854.60 (feet) ADJUSTED
FA1546
FA1546 NAD 83(2011) X - 737,086.503 (meters) COMP
FA1546 NAD 83(2011) Y - -5,176,273.439 (meters) COMP
FA1546 NAD 83(2011) Z - 3,641,030.653 (meters) COMP
FA1546 LAPLACE CORR - -0.34 (seconds) DEFLEC12A
FA1546 GEOID HEIGHT - -31.67 (meters) GEOID12A
FA1546 DYNAMIC HEIGHT - 260.223 (meters) 853.75 (feet) COMP
FA1546 MODELED GRAVITY - 979,633.7 (mgal) NAVD 88
FA1546
FA1546 VERT ORDER - FIRST CLASS II
FA1546
FA1546 FGDC Geospatial Positioning Accuracy Standards (95% confidence, cm)
FA1546 Type Horiz Ellip Dist(km)
FA1546 -----
FA1546 NETWORK 1.11 1.53
FA1546 -----
FA1546 MEDIAN LOCAL ACCURACY AND DIST (008 points) 1.15 2.75 3.20
FA1546 -----
FA1546 NOTE: Click here for information on individual local accuracy
FA1546 values and other accuracy information.
FA1546
FA1546
FA1546.The horizontal coordinates were established by GPS observations
FA1546.and adjusted by the National Geodetic Survey in June 2012.
FA1546
FA1546.NAD 83(2011) refers to NAD 83 coordinates where the reference
FA1546.frame has been affixed to the stable North American tectonic plate. See
FA1546.NA2011 for more information.
FA1546
FA1546.The horizontal coordinates are valid at the epoch date displayed above
FA1546.which is a decimal equivalence of Year/Month/Day.
FA1546
FA1546.The orthometric height was determined by differential leveling and
FA1546.adjusted by the NATIONAL GEODETIC SURVEY
FA1546.in June 1991.
FA1546
FA1546.Photographs are available for this station.

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FA1546_PROJECTION: RECESSED 5 CENTIMETERS
FA1546_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET
FA1546_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
FA1546_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
FA1546+SATELLITE: SATELLITE OBSERVATIONS - September 23, 2010

FA1546

| FA1546 | HISTORY | - Date | Condition | Report By |
|--------|---------|------------|----------------|-----------|
| FA1546 | HISTORY | - 1988 | MONUMENTED | SCGS |
| FA1546 | HISTORY | - 19891215 | GOOD | SCGS |
| FA1546 | HISTORY | - 19900425 | GOOD | |
| FA1546 | HISTORY | - 20050730 | MARK NOT FOUND | NEWBY |
| FA1546 | HISTORY | - 20100923 | GOOD | SCGS |

FA1546

FA1546 STATION DESCRIPTION

FA1546

FA1546'DESCRIBED BY SOUTH CAROLINA GEODETIC SURVEY 1988
FA1546'STATION IS LOCATED 5.1 MI EAST OF BOILING SPRINGS, 6.2 MI NORTH
FA1546'NORTHEAST OF SPARTANBURG. OWNERSHIP--MR. GEORGE WEATHERS, DHPT
FA1546'PRECONSTRUCTION ENGINEER, P. O. BOX 191, COLUMBIA, SC 29202.
FA1546'TO REACH THE STATION FROM THE JUNCTION OVERPASS OF U.S. HIGHWAY 221
FA1546'AND INTERSTATE 85, (5.4 MI EAST SOUTHEAST OF BOILING SPRINGS), GO
FA1546'NORTH NORTHEAST ON HIGHWAY 221 FOR 1.1 MI TO THE MARK ON THE LEFT,
FA1546'JUST PAST A FRESH PRODUCE STAND (GILBERTS PEACHES), 0.7 MI SOUTH
FA1546'SOUTHWEST OF THE CHEROKEE SPRINGS BAPTIST CHURCH.
FA1546'STATION IS A CONCRETE POST FLUSH WITH THE GROUND AND 1.0 FT ABOVE
FA1546'THE HIGHWAY, 17.0 FT WEST NORTHWEST OF THE CENTER OF THE SOUTHBOUND
FA1546'LANES OF THE HIGHWAY, 165.0 FT SOUTH SOUTHWEST OF A POWER POLE WITH
FA1546'A TRANSFORMER THAT HAS WIRES CROSSING THE HIGHWAY, 180.5 FT
FA1546'NORTHEAST OF THE EAST CORNER OF A WOOD BUILDING (GILBERTS PEACHES),
FA1546'28.0 FT EAST SOUTHEAST OF A WIRE FENCE LINE, 1.5 FT SOUTH
FA1546'SOUTHWEST OF A WITNESS POST.

FA1546

FA1546 STATION RECOVERY (1989)

FA1546

FA1546'RECOVERY NOTE BY SOUTH CAROLINA GEODETIC SURVEY 1989
FA1546'RECOVERED IN GOOD CONDITION.

FA1546

FA1546 STATION RECOVERY (1990)

FA1546

FA1546'RECOVERED 1990
FA1546'RECOVERED IN GOOD CONDITION.

FA1546

FA1546 STATION RECOVERY (2005)

FA1546

FA1546'RECOVERY NOTE BY NEWBY-PROCTOR AND ASSOCIATES 2005 (RDP)
FA1546'MARK NOT FOUND.

FA1546

FA1546 STATION RECOVERY (2010)

FA1546

FA1546'RECOVERY NOTE BY SOUTH CAROLINA GEODETIC SURVEY 2010 (DDW)
FA1546'STATION IS LOCATED 8.2 MI (13.2 KM) SOUTH-SOUTHWEST OF CHESNEE, 6.2 MI
FA1546'(10.0 KM) NORTH-NORTHEAST OF SPARTANBURG, 5.3 MI (8.5 KM)
FA1546'WEST-NORTHWEST OF COWPENS. OWNERSHIP--SCDOT, DIRECTOR OF
FA1546'PRECONSTRUCTION, P.O. BOX 191, COLUMBIA, SC 29202, PHONE 803-737-1350.
FA1546'TO REACH THE STATION FROM THE JUNCTION OVERPASS OF INTERSTATE 85 (EXIT
FA1546'78) AND U.S. HIGHWAY 221, 5.2 MI (8.4 KM) EAST-SOUTHEAST OF BOILING
FA1546'SPRINGS, GO NORTH ON HIGHWAY 221 FOR 1.1 MI (1.8 KM) TO THE STATION ON
FA1546'THE LEFT BETWEEN THE HIGHWAY AND AN ASPHALT ACCESS ROAD. STATION IS A
FA1546'CONCRETE POST RECESSED 0.2 FT (6 CM) AND 0.5 FT (15 CM) HIGHER THAN
FA1546'THE HIGHWAY, 3.5 FT (1.1 M) WEST-NORTHWEST OF THE WEST EDGE OF THE

FA1546'HIGHWAY CURB, 28.8 FT (8.8 M) EAST OF A WOODEN FENCE POST WITH A SCGS
FA1546'REFERENCE WASHER ATTACHED, 73.3 FT (22.3 M) SOUTH-SOUTHWEST OF THE
FA1546'SOUTH END OF A 1.2-FT CONCRETE PIPE CULVERT BENEATH THE ASPHALT
FA1546'DRIVEWAY FOR BRICK HOUSE NUMBER 2565, 12.2 FT (3.7 M) EAST-SOUTHEAST
FA1546'OF THE CENTER OF THE ACCESS ROAD, 101.0 FT (30.8 M) NORTH-NORTHEAST OF
FA1546'A POWER POLE WITH TRANSFORMER, 0.9 FT (27 CM) EAST-SOUTHEAST OF A
FA1546'WITNESS POST. RECOVERED BY R.P. MCKEOWN.

*** retrieval complete.
Elapsed Time = 00:00:04

SCDOT Primary Survey Control Project: I-85

Station Designation: **PSC-1**

By: CDM Smith

Date Monumented: November 2015

CDM Smith Project # 111434

Horizontal values obtained via the mean of two 10 min RTN (VRS) GNSS observation.

Vertical values obtained via Digital leveling

Horizontal and Vertical Accuracy: (Meet or exceed the accuracy specifications stated in SCDOT Pre-Construction Survey Manual, Section 3.05.01 dated October, 2012.)

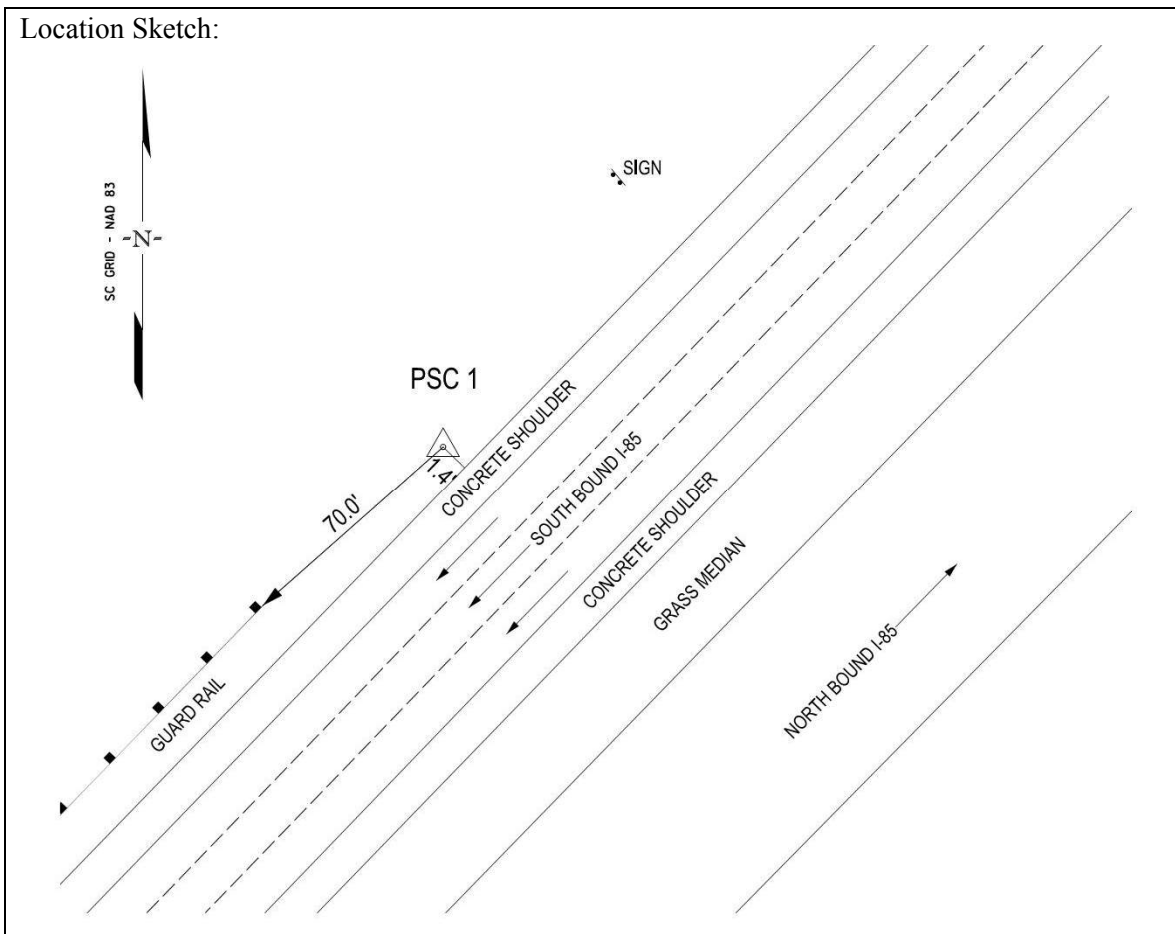
| | | | |
|-----------------------------------|----------------------------------|----------------------------------|------------------------------|
| Grid Northing (iFT) 1142911.46 | Grid Easting (iFT) 1692626.03 | Lat. (WGS 84) N/A | Long. (WGS 84) N/A |
| H. Datum; NAD 83 (2011) | V. Datum NAVD 88 | Project Elevation (Ft) 872.19 | Combined S.F.: 1.00001484 |

Station Location/Description:

To reach station from intersection of I-26 and I-85, go westerly along I-85 for 0.99 miles to the station located on the right just off the concrete shoulder of I-85.

Point is a 2.5" aluminum cap on a 30" long # 5 rebar stamped SURVEY CONTROL – SCDOT – PSC # 1.

Location Sketch:



SCDOT Primary Survey Control Project: I-85

Station Designation: **PSC-2**

By: CDM Smith

Date Monumented: November 2016

CDM Smith Project # 111434

Horizontal values obtained via the mean of two 10 min RTN (VRS) GNSS observation.

Vertical values obtained via Digital leveling

Horizontal and Vertical Accuracy: (Meet or exceed the accuracy specifications stated in SCDOT Pre-Construction Survey Manual, Section 3.05.01 dated October, 2012.)

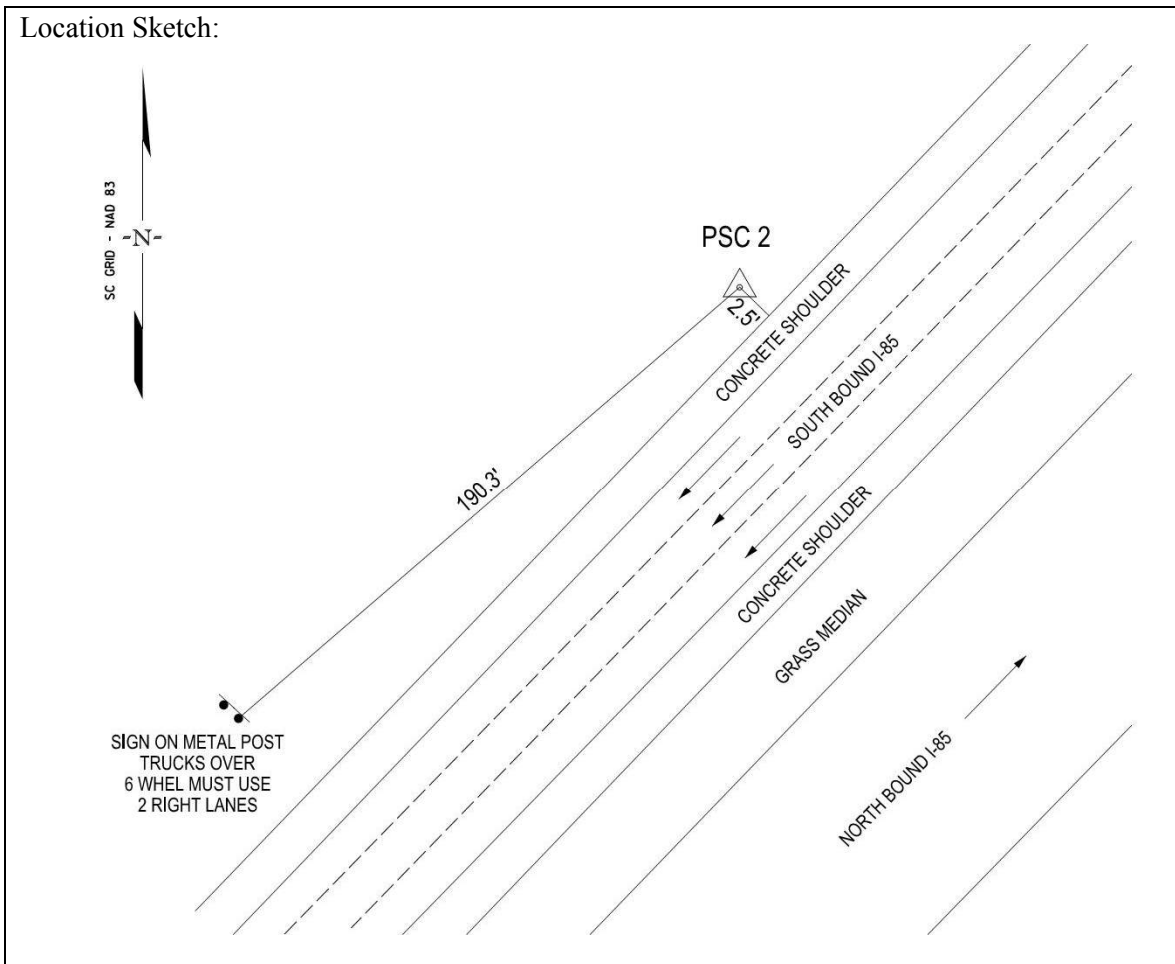
| | | | |
|-----------------------------------|----------------------------------|----------------------------------|------------------------------|
| Grid Northing (iFT) 1144031.37 | Grid Easting (iFT) 1693712.78 | Lat. (WGS 84) N/A | Long. (WGS 84) N/A |
| H. Datum; NAD 83 (2011) | V. Datum NAVD 88 | Project Elevation (Ft) 854.28 | Combined S.F.: 1.00001693 |

Station Location/Description:

To reach station from intersection of I-26 and I-85, go westerly along I-85 for 0.69 miles to the station located on the right just off the concrete shoulder of I-85.

Point is a 2.5" aluminum cap on a 30" long # 5 rebar stamped SURVEY CONTROL – SCDOT – PSC # 2.

Location Sketch:



SCDOT Primary Survey Control Project: I-85

Station Designation: **PSC-3**

By: CDM Smith

Date Monumented: November 2016

CDM Smith Project # 111434

Horizontal values obtained via the mean of two 10 min RTN (VRS) GNSS observation.

Vertical values obtained via Digital leveling

Horizontal and Vertical Accuracy: (Meet or exceed the accuracy specifications stated in SCDOT Pre-Construction Survey Manual, Section 3.05.01 dated October, 2012.)

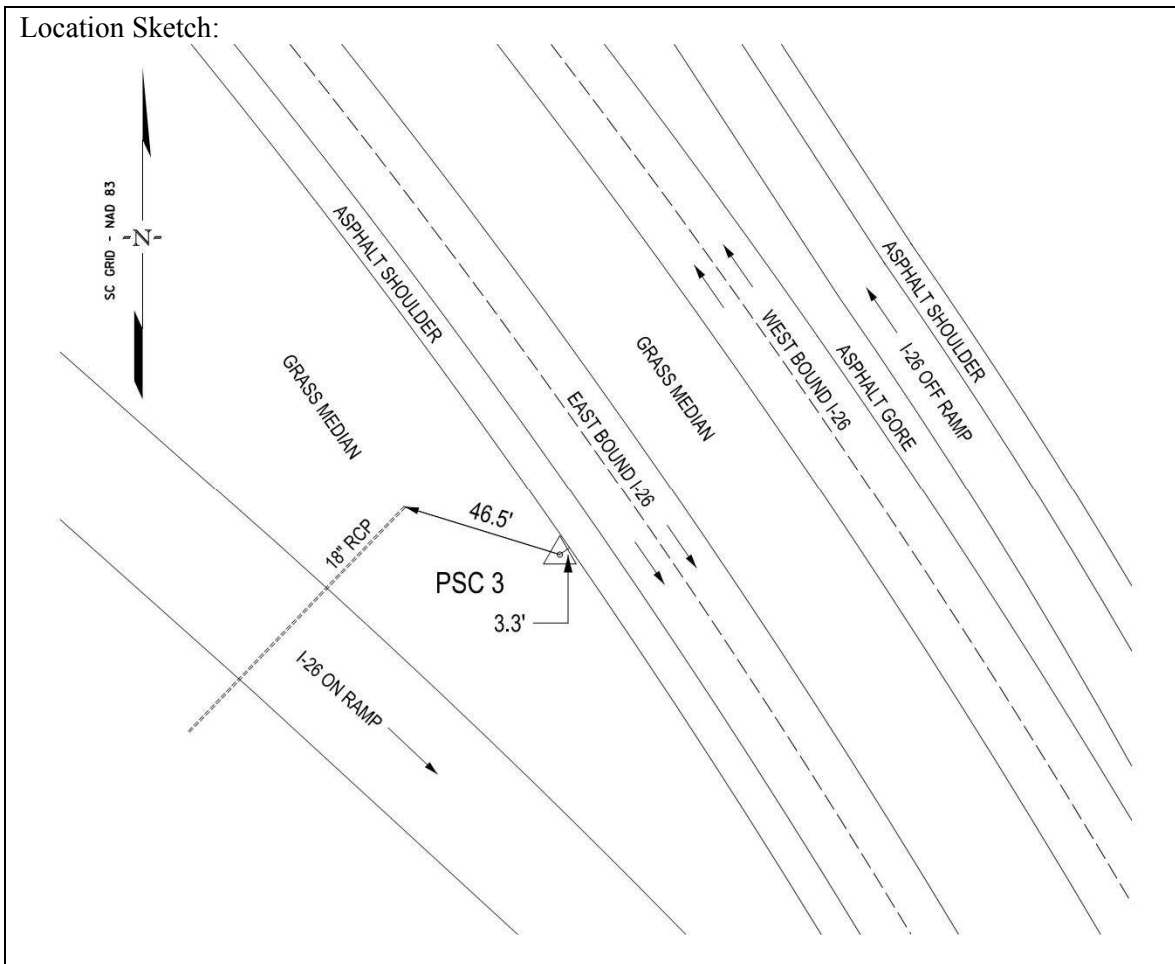
| | | | |
|-----------------------------------|----------------------------------|----------------------------------|------------------------------|
| Grid Northing (iFT) 1144528.50 | Grid Easting (iFT) 1697844.15 | Lat. (WGS 84) N/A | Long. (WGS 84) N/A |
| H. Datum; NAD 83 (2011) | V. Datum NAVD 88 | Project Elevation (Ft) 830.78 | Combined S.F.: 1.00001865 |

Station Location/Description:

To reach the station from the intersection of I-25 & I-85 go westerly along I-26 for 0.30 miles to the station located on the right just off shoulder of I-26.

Point is a 2.5" aluminum cap on a 30" long # 5 rebar stamped SURVEY CONTROL – SCDOT – PSC # 3.

Location Sketch:



SCDOT Primary Survey Control Project: I-85

Station Designation: **PSC-4**

By: CDM Smith

Date Monumented: November 2016

CDM Smith Project # 111434

Horizontal values obtained via the mean of two 10 min RTN (VRS) GNSS observation.

Vertical values obtained via Digital leveling

Horizontal and Vertical Accuracy: (Meet or exceed the accuracy specifications stated in SCDOT Pre-Construction Survey Manual, Section 3.05.01 dated October, 2012.)

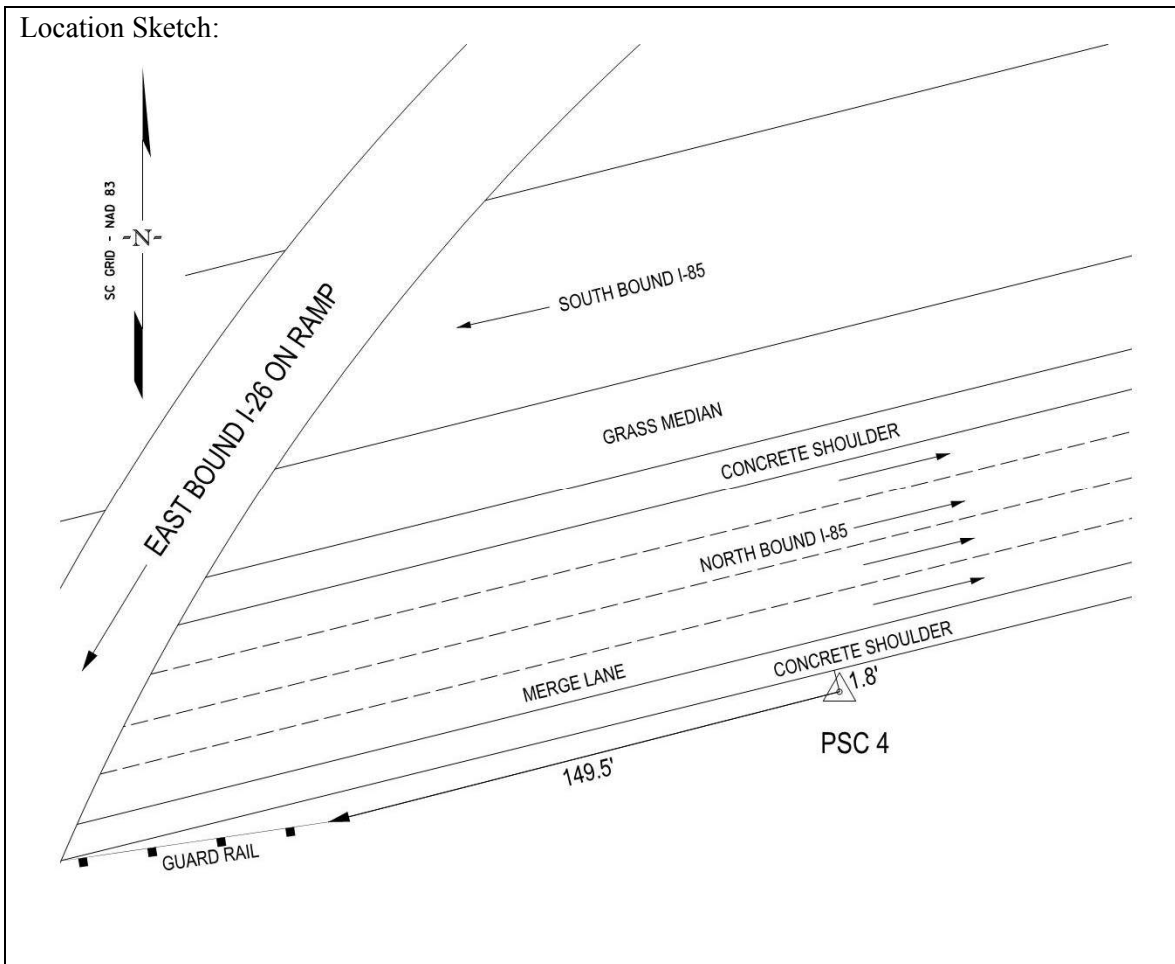
| | | | |
|-----------------------------------|----------------------------------|----------------------------------|------------------------------|
| Grid Northing (iFT) 1145788.66 | Grid Easting (iFT) 1697309.92 | Lat. (WGS 84) N/A | Long. (WGS 84) N/A |
| H. Datum; NAD 83 (2011) | V. Datum NAVD 88 | Project Elevation (Ft) 872.21 | Combined S.F.: 1.00001805 |

Station Location/Description:

To reach the station from the intersection of I-85 & I-26 go northerly along I-85 for 435 feet to the station on the right just off shoulder of I-85.

Point is a 2.5" aluminum cap on a 30" long # 5 rebar stamped SURVEY CONTROL – SCDOT – PSC # 4.

Location Sketch:



SCDOT Primary Survey Control Project: I-85

Station Designation: **PSC-5**

By: CDM Smith

Date Monumented: November 2016

CDM Smith Project # 111434

Horizontal values obtained via the mean of two 10 min RTN (VRS) GNSS observation.

Vertical values obtained via Digital leveling

Horizontal and Vertical Accuracy: (Meet or exceed the accuracy specifications stated in SCDOT Pre-Construction Survey Manual, Section 3.05.01 dated October, 2012.)

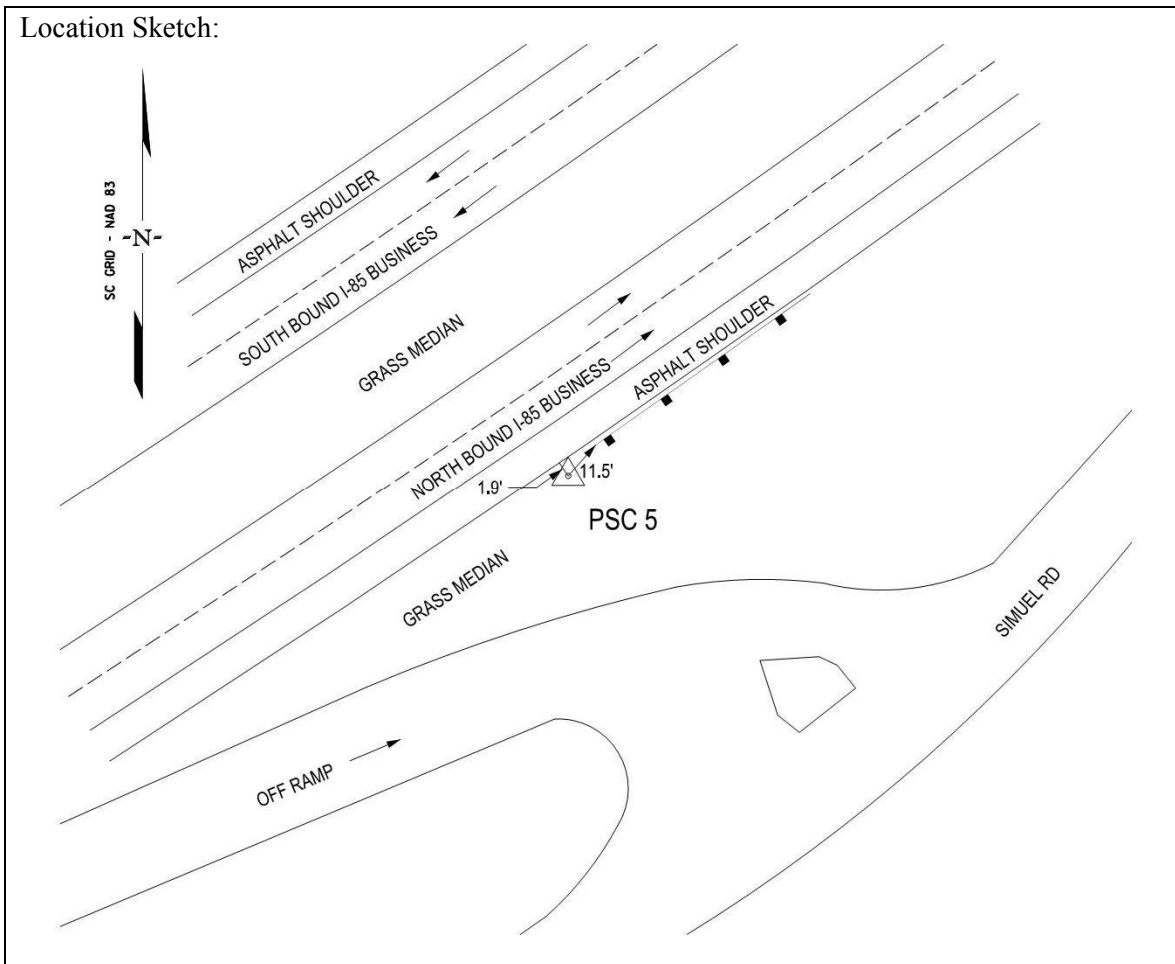
| | | | |
|-----------------------------------|----------------------------------|----------------------------------|------------------------------|
| Grid Northing (iFT) 1144284.42 | Grid Easting (iFT) 1704802.81 | Lat. (WGS 84) N/A | Long. (WGS 84) N/A |
| H. Datum; NAD 83 (2011) | V. Datum NAVD 88 | Project Elevation (Ft) 873.84 | Combined S.F.: 1.00001639 |

Station Location/Description:

To reach the station from the intersection of I-26 and SC Hwy 85, go northerly along SC Hwy 85 for 1.26 miles to the station on the right just off the shoulder of SC Hwy 85.

Point is a 2.5" aluminum cap on a 30" long # 5 rebar stamped SURVEY CONTROL – SCDOT – PSC # 5.

Location Sketch:



SCDOT Primary Survey Control Project: I-85

Station Designation: **PSC-6**

By: CDM Smith

Date Monumented: November 2016

CDM Smith Project # 111434

Horizontal values obtained via the mean of two 10 min RTN (VRS) GNSS observation.

Vertical values obtained via Digital leveling

Horizontal and Vertical Accuracy: (Meet or exceed the accuracy specifications stated in SCDOT Pre-Construction Survey Manual, Section 3.05.01 dated October, 2012.)

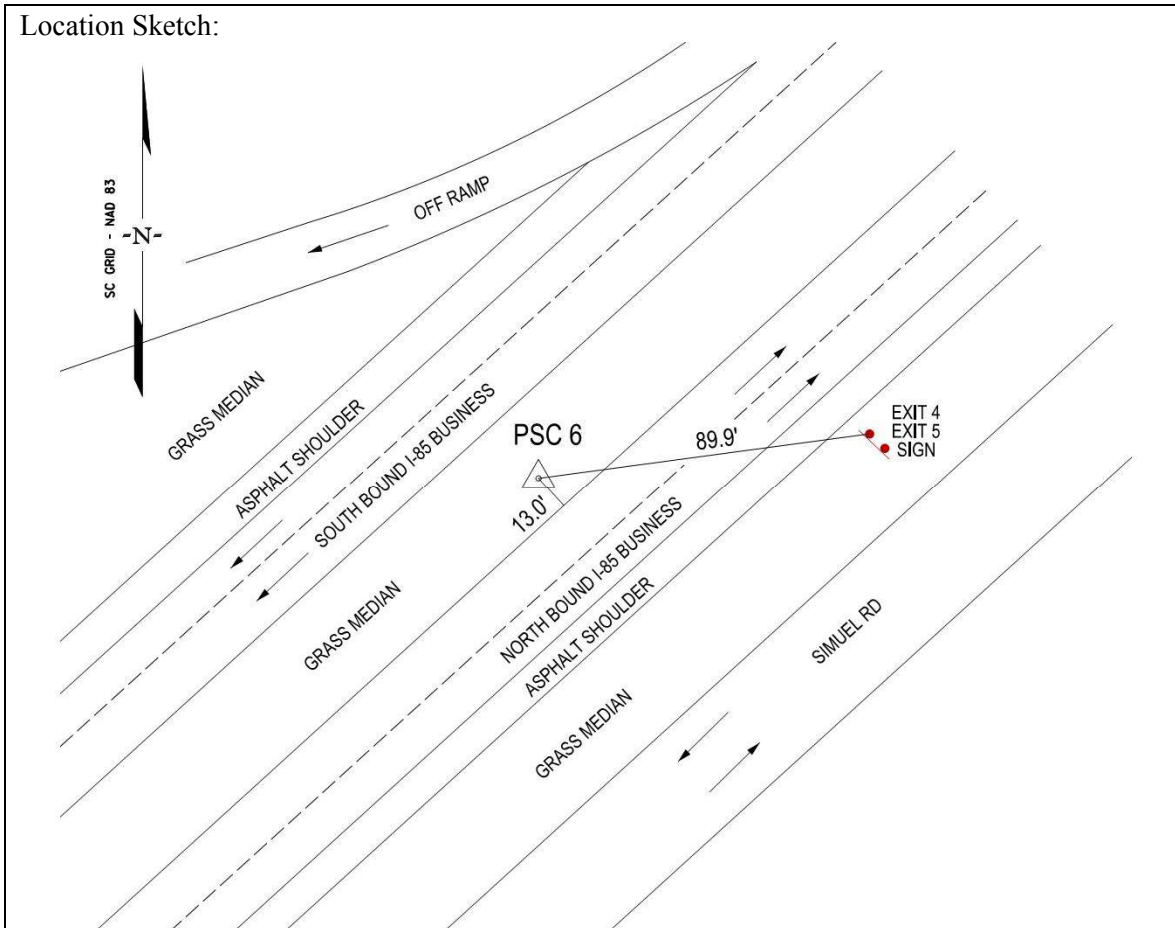
| | | | |
|-----------------------------------|----------------------------------|----------------------------------|------------------------------|
| Grid Northing (iFT) 1145234.11 | Grid Easting (iFT) 1705830.52 | Lat. (WGS 84) N/A | Long. (WGS 84) N/A |
| H. Datum; NAD 83 (2011) | V. Datum NAVD 88 | Project Elevation (Ft) 858.23 | Combined S.F.: 1.00001819 |

Station Location/Description:

To reach the station from the intersection of I-26 and SC Hwy 85, go northerly along SC Hwy 85 for 1.52 miles to the station on the left just off the shoulder of SC Hwy 85 and in the roadway median.

Point is a 2.5" aluminum cap on a 30" long # 5 rebar stamped SURVEY CONTROL – SCDOT – PSC # 6.

Location Sketch:



SCDOT Primary Survey Control Project: I-85

Station Designation: **PSC-7**

By: CDM Smith

Date Monumented: November 2016

CDM Smith Project # 111434

Horizontal values obtained via the mean of two 10 min RTN (VRS) GNSS observation.

Vertical values obtained via Digital leveling

Horizontal and Vertical Accuracy: (Meet or exceed the accuracy specifications stated in SCDOT Pre-Construction Survey Manual, Section 3.05.01 dated October, 2012.)

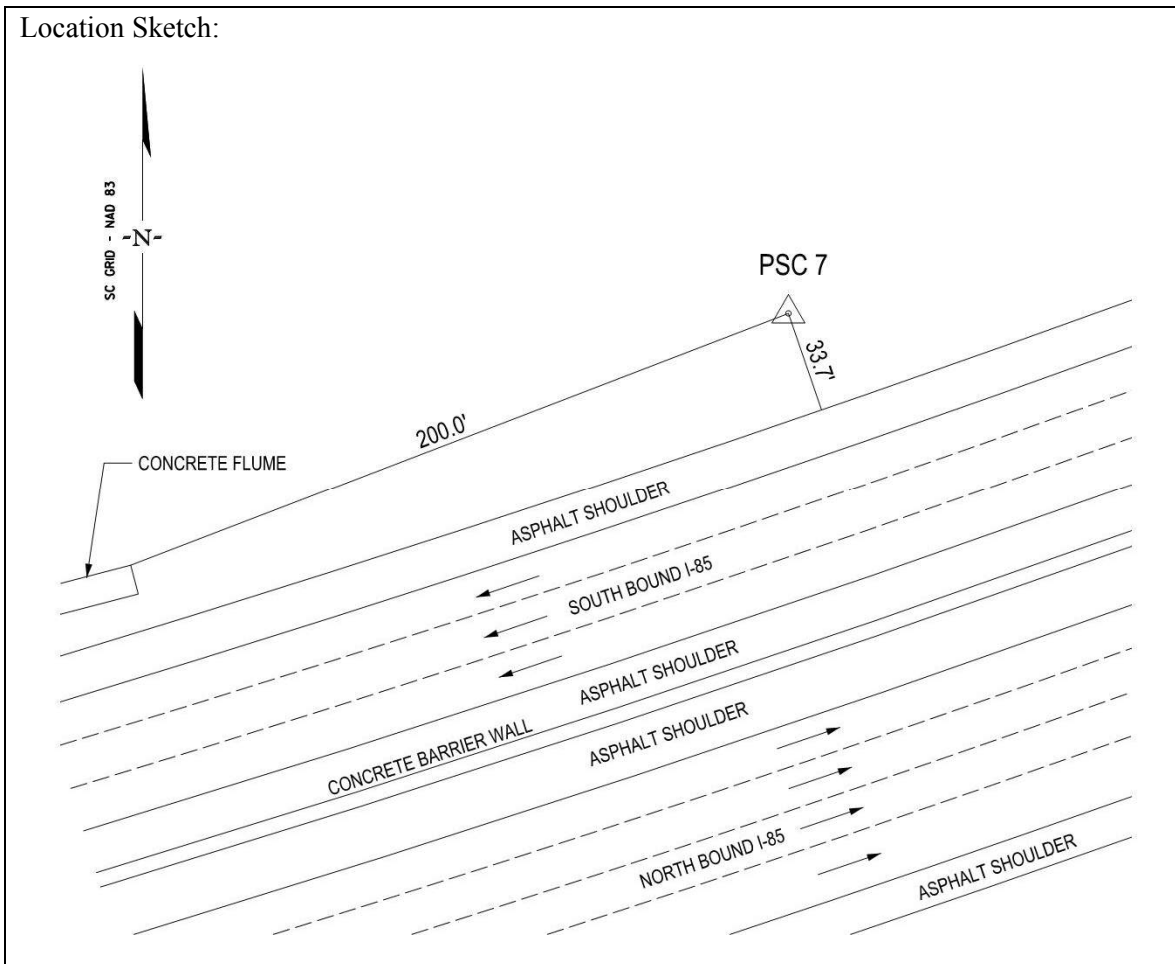
| | | | |
|-----------------------------------|----------------------------------|----------------------------------|------------------------------|
| Grid Northing (iFT) 1157849.73 | Grid Easting (iFT) 1727798.57 | Lat. (WGS 84) N/A | Long. (WGS 84) N/A |
| H. Datum; NAD 83 (2011) | V. Datum NAVD 88 | Project Elevation (Ft) 860.39 | Combined S.F.: 1.00003237 |

Station Location/Description:

To reach the station from the intersection of I-85 & SC Hwy 21 overpass, go southerly along I-85 for 0.79 miles to the station on the right just off the shoulder of I-85.

Point is a 2.5" aluminum cap on a 30" long # 5 rebar stamped SURVEY CONTROL – SCDOT – PSC # 7.

Location Sketch:



SCDOT Primary Survey Control Project: I-85

Station Designation: **PSC-8**

By: CDM Smith

Date Monumented: November 2016

CDM Smith Project # 111434

Horizontal values obtained via the mean of two 10 min RTN (VRS) GNSS observation.

Vertical values obtained via Digital leveling

Horizontal and Vertical Accuracy: (Meet or exceed the accuracy specifications stated in SCDOT Pre-Construction Survey Manual, Section 3.05.01 dated October, 2012.)

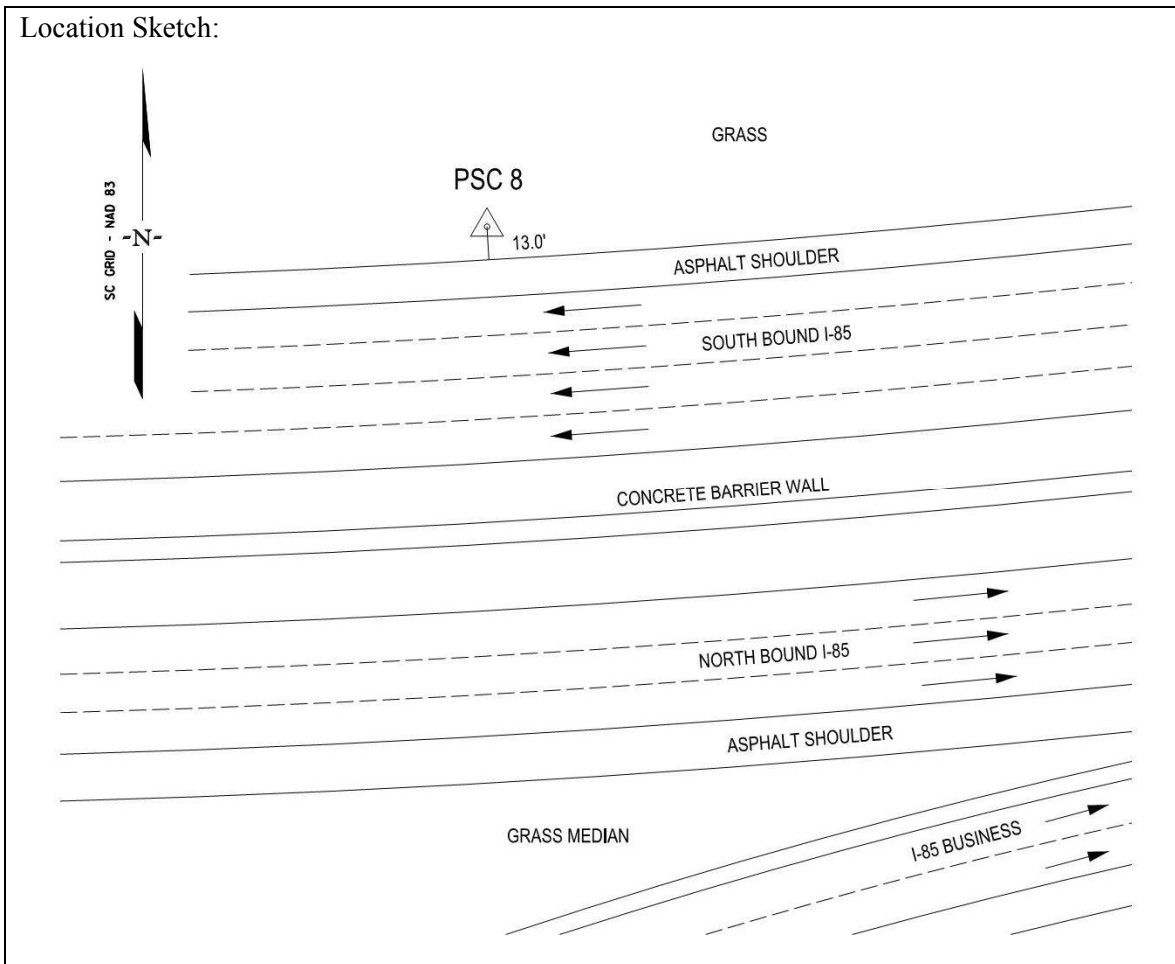
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|-----------------------------------|----------------------------------|----------------------------------|------------------------------|
| Grid Northing (iFT) 1157597.35 | Grid Easting (iFT) 1726604.13 | Lat. (WGS 84) N/A | Long. (WGS 84) N/A |
| H. Datum; NAD 83 (2011) | V. Datum NAVD 88 | Project Elevation (Ft) 831.73 | Combined S.F.: 1.00003343 |

Station Location/Description:

To reach the station from the intersection of I-85 & SC Hwy 21 overpass, go southerly along I-85 for 1.02 miles to the station on the right just off the shoulder of I-85.

Point is a 2.5" aluminum cap on a 30" long # 5 rebar stamped SURVEY CONTROL – SCDOT – PSC # 8.

Location Sketch:



SCDOT Primary Survey Control Project: I-85

Station Designation: **PSC-9**

By: CDM Smith

Date Monumented: November 2016

CDM Smith Project # 111434

Horizontal values obtained via the mean of two 10 min RTN (VRS) GNSS observation.

Vertical values obtained via Digital leveling

Horizontal and Vertical Accuracy: (Meet or exceed the accuracy specifications stated in SCDOT Pre-Construction Survey Manual, Section 3.05.01 dated October, 2012.)

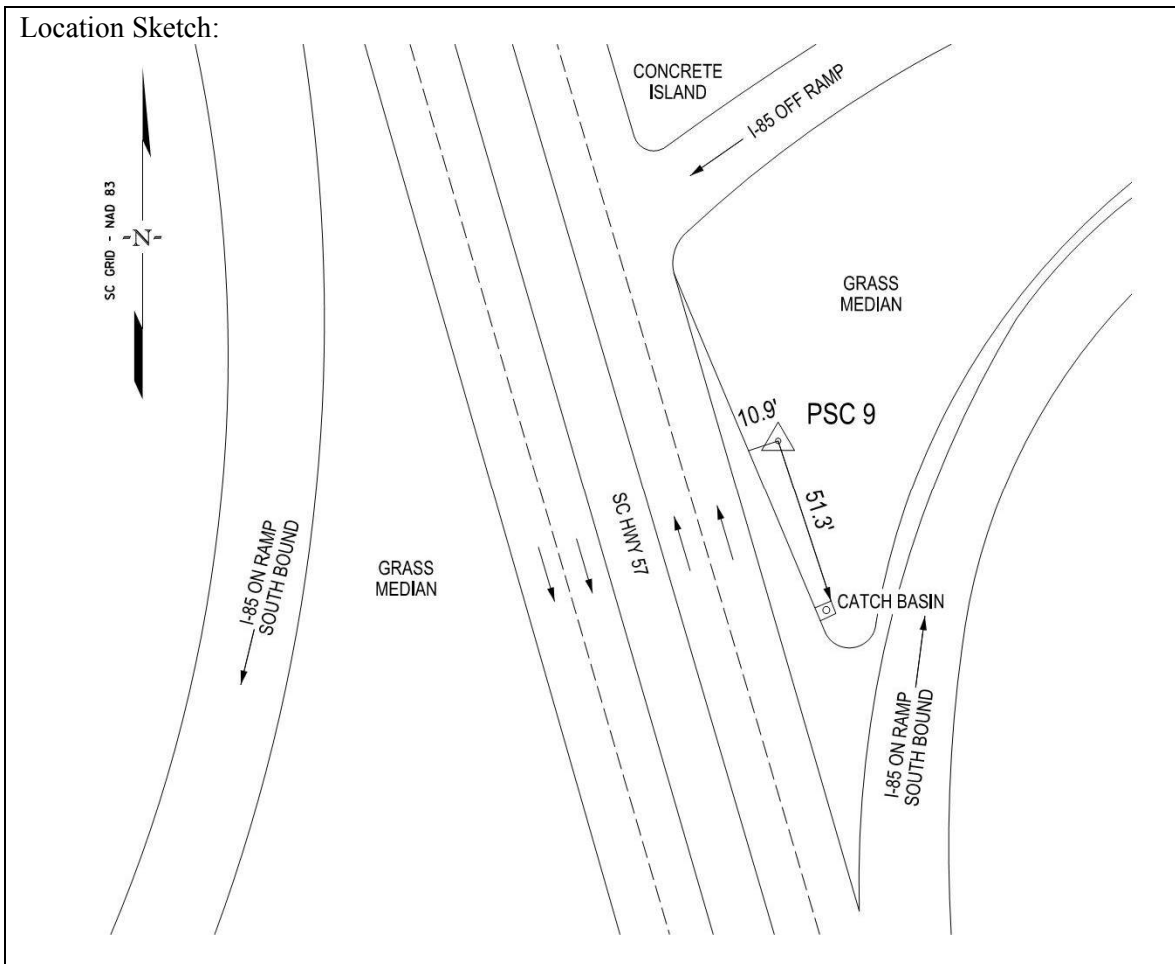
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|-----------------------------------|----------------------------------|----------------------------------|------------------------------|
| Grid Northing (iFT) 1163429.01 | Grid Easting (iFT) 1737599.96 | Lat. (WGS 84) N/A | Long. (WGS 84) N/A |
| H. Datum; NAD 83 (2011) | V. Datum NAVD 88 | Project Elevation (Ft) 831.19 | Combined S.F.: 1.00004020 |

Station Location/Description:

To reach the station from the intersection of I-85 and Road S-57, go 475 feet northerly along Road S-57 to the station on the right just off the shoulder of Road S-57.

Point is a 2.5" aluminum cap on a 30" long # 5 rebar stamped SURVEY CONTROL – SCDOT – PSC # 9.

Location Sketch:



SCDOT Primary Survey Control Project: I-85

Station Designation: **PSC-10**

By: CDM Smith

Date Monumented: November 2016

CDM Smith Project # 111434

Horizontal values obtained via the mean of two 10 min RTN (VRS) GNSS observation.

Vertical values obtained via Digital leveling

Horizontal and Vertical Accuracy: (Meet or exceed the accuracy specifications stated in SCDOT Pre-Construction Survey Manual, Section 3.05.01 dated October, 2012.)

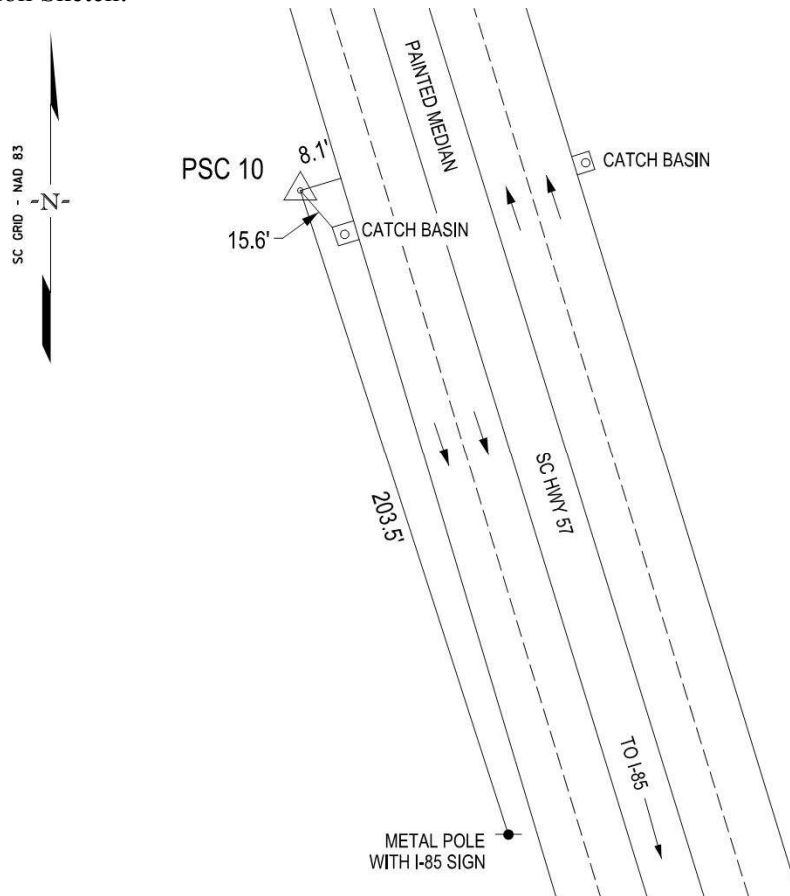
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|-----------------------------------|----------------------------------|----------------------------------|------------------------------|
| Grid Northing (iFT) 1164936.82 | Grid Easting (iFT) 1737044.67 | Lat. (WGS 84) N/A | Long. (WGS 84) N/A |
| H. Datum; NAD 83 (2011) | V. Datum NAVD 88 | Project Elevation (Ft) 849.27 | Combined S.F.: 1.00004105 |

Station Location/Description:

To reach the station from the intersection of I-85 and Road S-57, go northerly along Road S-57 for 0.38 miles to the station on the left just off the shoulder of Road S-57.

Point is a 2.5" aluminum cap on a 30" long # 5 rebar stamped SURVEY CONTROL – SCDOT – PSC # 10.

Location Sketch:



SCDOT Primary Survey Control Project: I-85

Station Designation: **PSC-11**

By: CDM Smith

Date Monumented: November 2016

CDM Smith Project # 111434

Horizontal values obtained via the mean of two 10 min RTN (VRS) GNSS observation.

Vertical values obtained via Digital leveling

Horizontal and Vertical Accuracy: (Meet or exceed the accuracy specifications stated in SCDOT Pre-Construction Survey Manual, Section 3.05.01 dated October, 2012.)

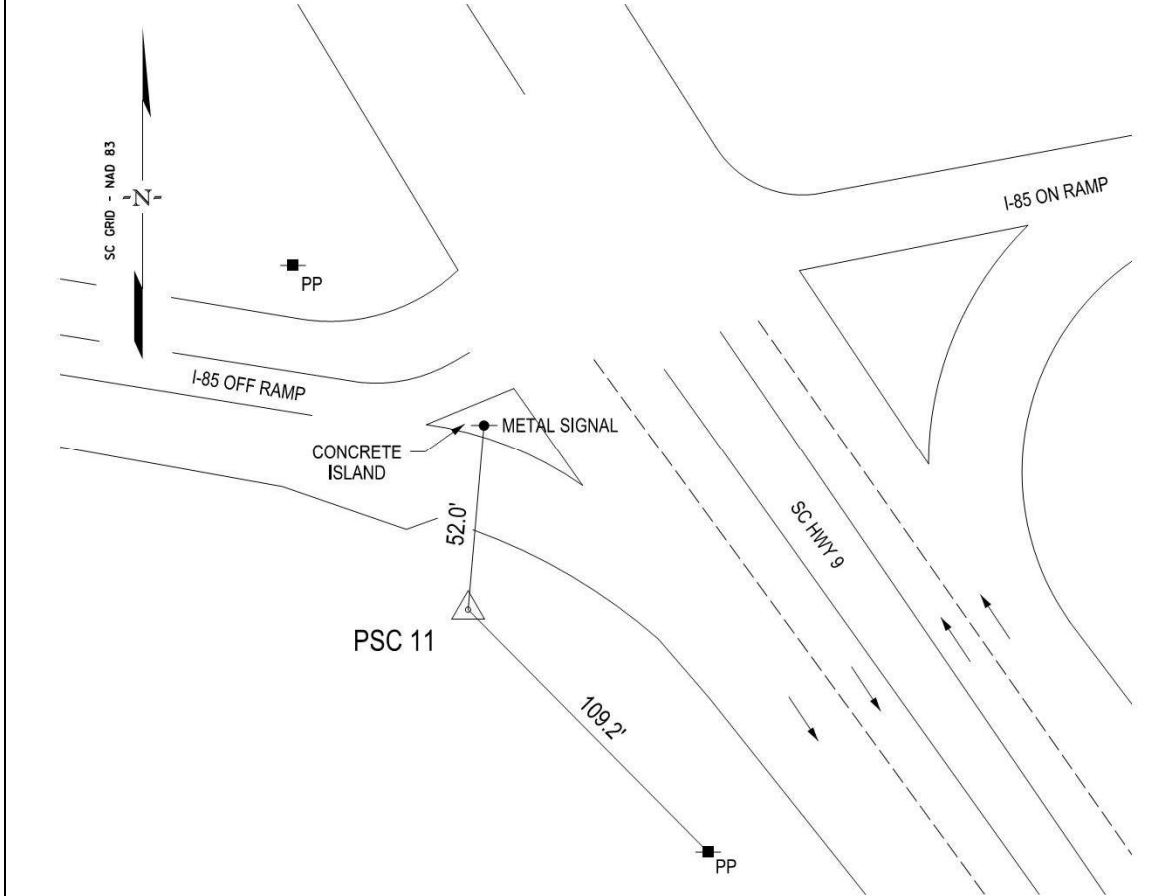
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|-----------------------------------|----------------------------------|----------------------------------|------------------------------|
| Grid Northing (iFT) 1157834.56 | Grid Easting (iFT) 1713178.75 | Lat. (WGS 84) N/A | Long. (WGS 84) N/A |
| H. Datum; NAD 83 (2011) | V. Datum NAVD 88 | Project Elevation (Ft) 844.04 | Combined S.F.: 1.00003299 |

Station Location/Description:

To reach the station from the intersection of I-85 and Road S-42-9 (Boiling Springs Rd) go Southerly along Road S-42-9 for 360 feet to the station on the right off the right shoulder of Road S-42-9 near an I-85 off-ramp intersection.

Point is a 2.5" aluminum cap on a 30" long # 5 rebar stamped SURVEY CONTROL – SCDOT – PSC # 11.

Location Sketch:



SCDOT Primary Survey Control Project: I-85

Station Designation: **PSC-12**

By: CDM Smith

Date Monumented: November 2016

CDM Smith Project # 111434

Horizontal values obtained via the mean of two 10 min RTN (VRS) GNSS observation.

Vertical values obtained via Digital leveling

Horizontal and Vertical Accuracy: (Meet or exceed the accuracy specifications stated in SCDOT Pre-Construction Survey Manual, Section 3.05.01 dated October, 2012.)

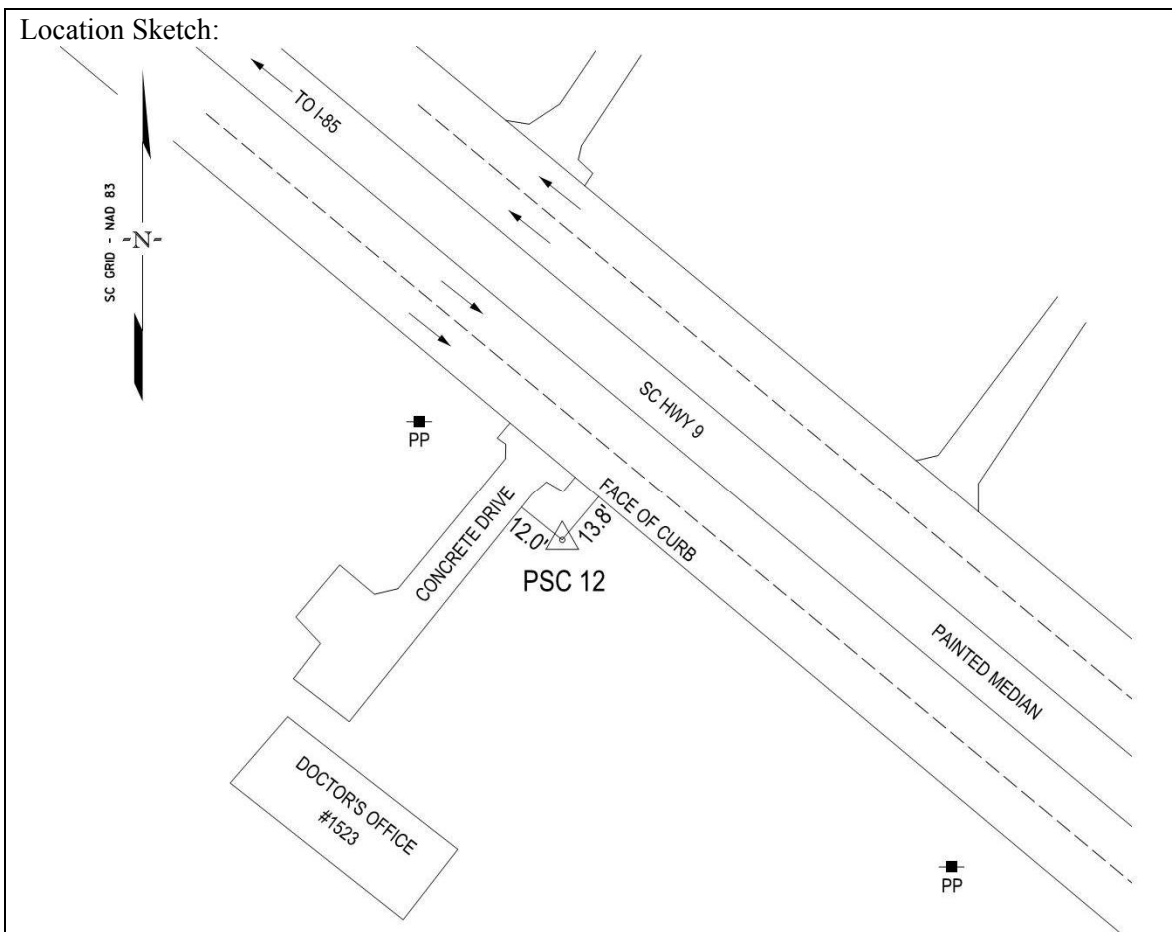
| | | | |
|-----------------------------------|----------------------------------|----------------------------------|------------------------------|
| Grid Northing (iFT) 1156837.26 | Grid Easting (iFT) 1714258.12 | Lat. (WGS 84) N/A | Long. (WGS 84) N/A |
| H. Datum; NAD 83 (2011) | V. Datum NAVD 88 | Project Elevation (Ft) 845.01 | Combined S.F.: 1.00003182 |

Station Location/Description:

To reach the station from the intersection of I-85 and Road S-42-9 (Boiling Springs Rd) go southerly for 0.34 miles along Road S-42-9 to the station on the right off the shoulder of Road S-42-9.

Point is a 2.5" aluminum cap on a 30" long # 5 rebar stamped SURVEY CONTROL – SCDOT – PSC # 12.

Location Sketch:



SCDOT Primary Survey Control Project: I-85

Station Designation: **PSC-13**

By: CDM Smith

Date Monumented: November 2016

CDM Smith Project # 111434

Horizontal values obtained via the mean of two 10 min RTN (VRS) GNSS observation.

Vertical values obtained via Digital leveling

Horizontal and Vertical Accuracy: (Meet or exceed the accuracy specifications stated in SCDOT Pre-Construction Survey Manual, Section 3.05.01 dated October, 2012.)

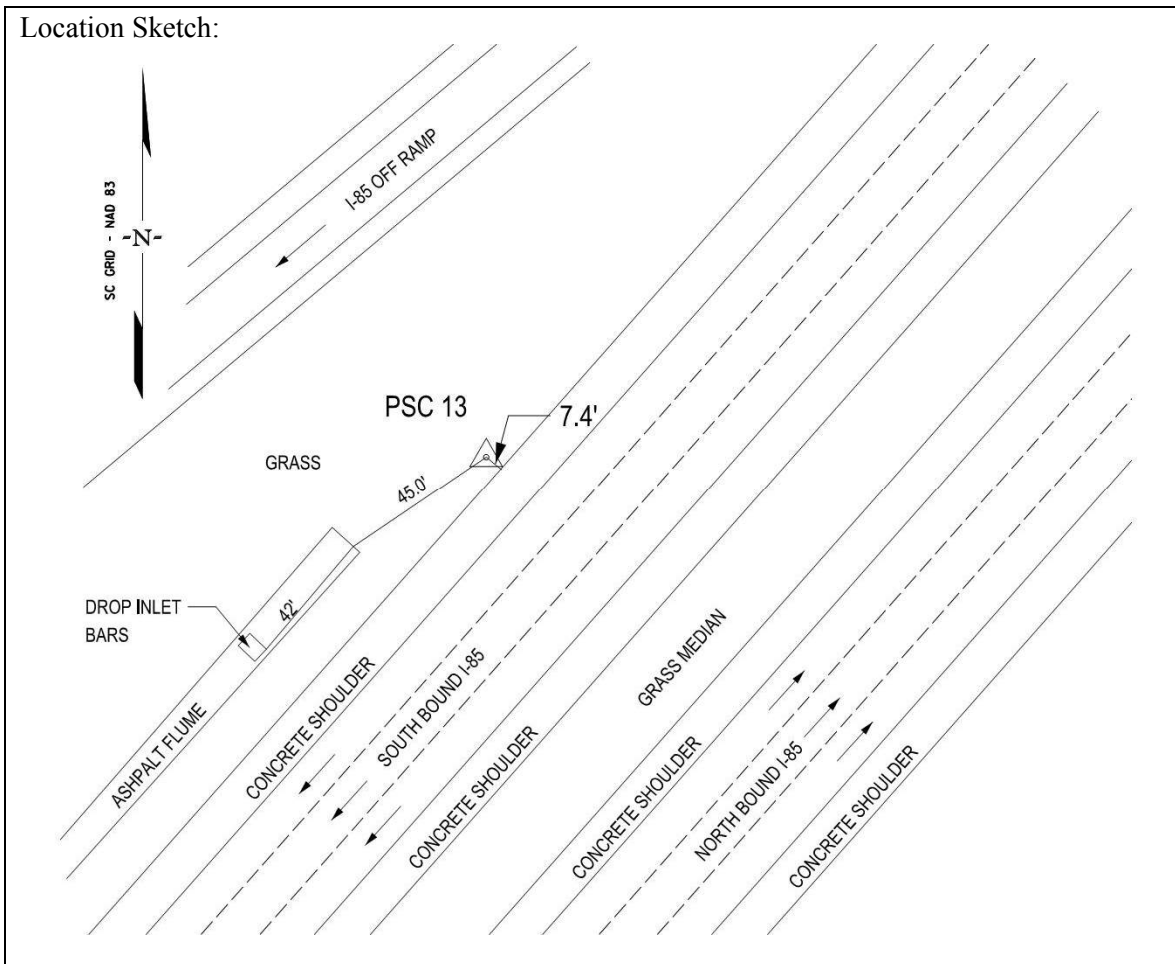
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|-----------------------------------|----------------------------------|----------------------------------|------------------------------|
| Grid Northing (iFT) 1153227.66 | Grid Easting (iFT) 1703097.58 | Lat. (WGS 84) N/A | Long. (WGS 84) N/A |
| H. Datum; NAD 83 (2011) | V. Datum NAVD 88 | Project Elevation (Ft) 858.97 | Combined S.F.: 1.00002699 |

Station Location/Description:

To reach the station from the intersection of I-85 & US Hwy 176, go northerly for 590 feet along I-85 to the station on the left just off the shoulder of the south bound lane of I-85.

Point is a 2.5" aluminum cap on a 30" long # 5 rebar stamped SURVEY CONTROL – SCDOT – PSC # 13.

Location Sketch:



SCDOT Primary Survey Control Project: I-85

Station Designation: **PSC-14**

By: CDM Smith

Date Monumented: November 2016

CDM Smith Project # 111434

Horizontal values obtained via the mean of two 10 min RTN (VRS) GNSS observation.

Vertical values obtained via Digital leveling

Horizontal and Vertical Accuracy: (Meet or exceed the accuracy specifications stated in SCDOT Pre-Construction Survey Manual, Section 3.05.01 dated October, 2012.)

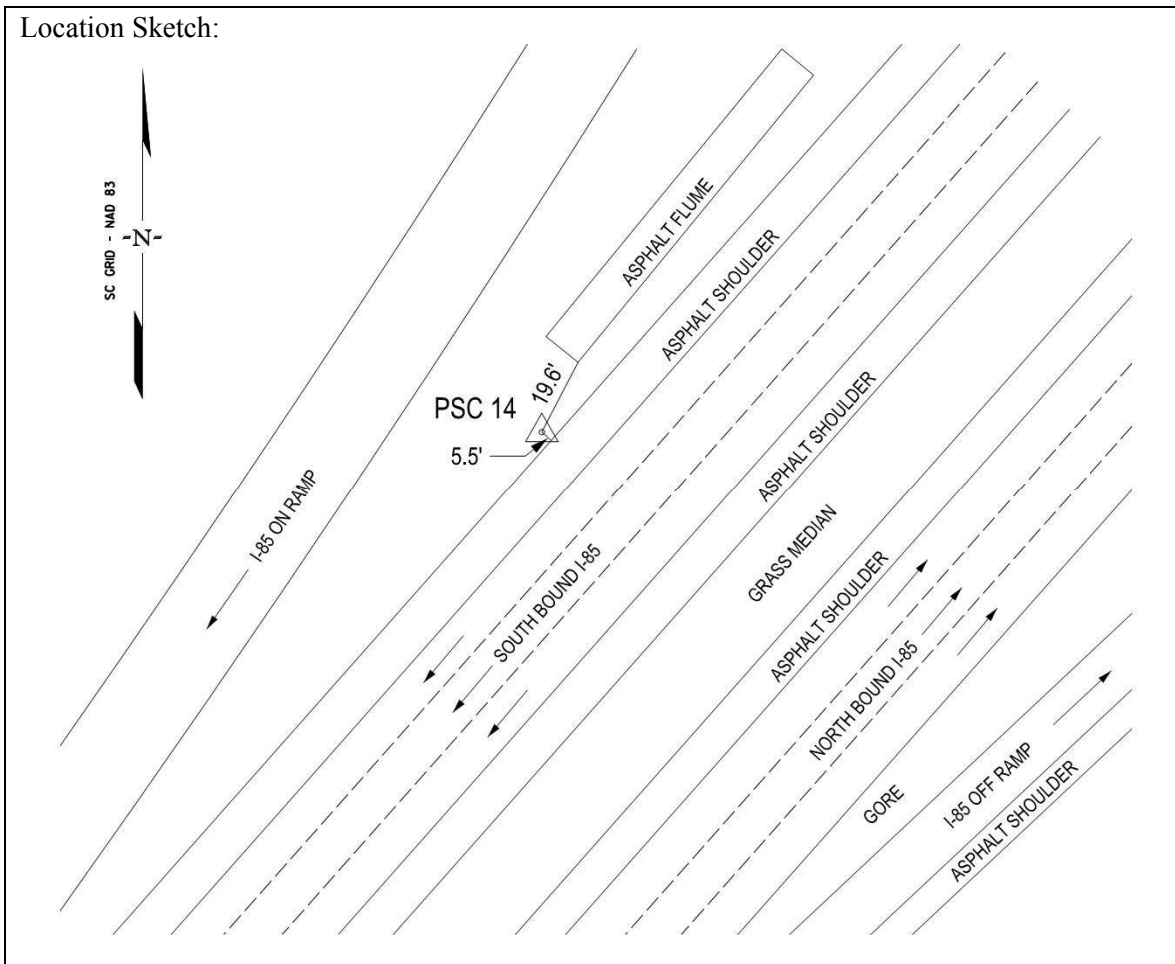
| | | | |
|-----------------------------------|----------------------------------|----------------------------------|------------------------------|
| Grid Northing (iFT) 1152105.10 | Grid Easting (iFT) 1702105.51 | Lat. (WGS 84) N/A | Long. (WGS 84) N/A |
| H. Datum; NAD 83 (2011) | V. Datum NAVD 88 | Project Elevation (Ft) 865.86 | Combined S.F.: 1.00002539 |

Station Location/Description:

To reach the station from the intersection of I-85 & US Hwy 176, go southerly for 870 feet along I-85 to the station on the right just off the shoulder of the south bound lane of I-85.

Point is a 2.5" aluminum cap on a 30" long # 5 rebar stamped SURVEY CONTROL – SCDOT – PSC # 14.

Location Sketch:



SCDOT Primary Survey Control Project: I-85

Station Designation: **PSC-15**

By: CDM Smith

Date Monumented: November 2016

CDM Smith Project # 111434

Horizontal values obtained via the mean of two 10 min RTN (VRS) GNSS observation.

Vertical values obtained via Digital leveling

Horizontal and Vertical Accuracy: (Meet or exceed the accuracy specifications stated in SCDOT Pre-Construction Survey Manual, Section 3.05.01 dated October, 2012.)

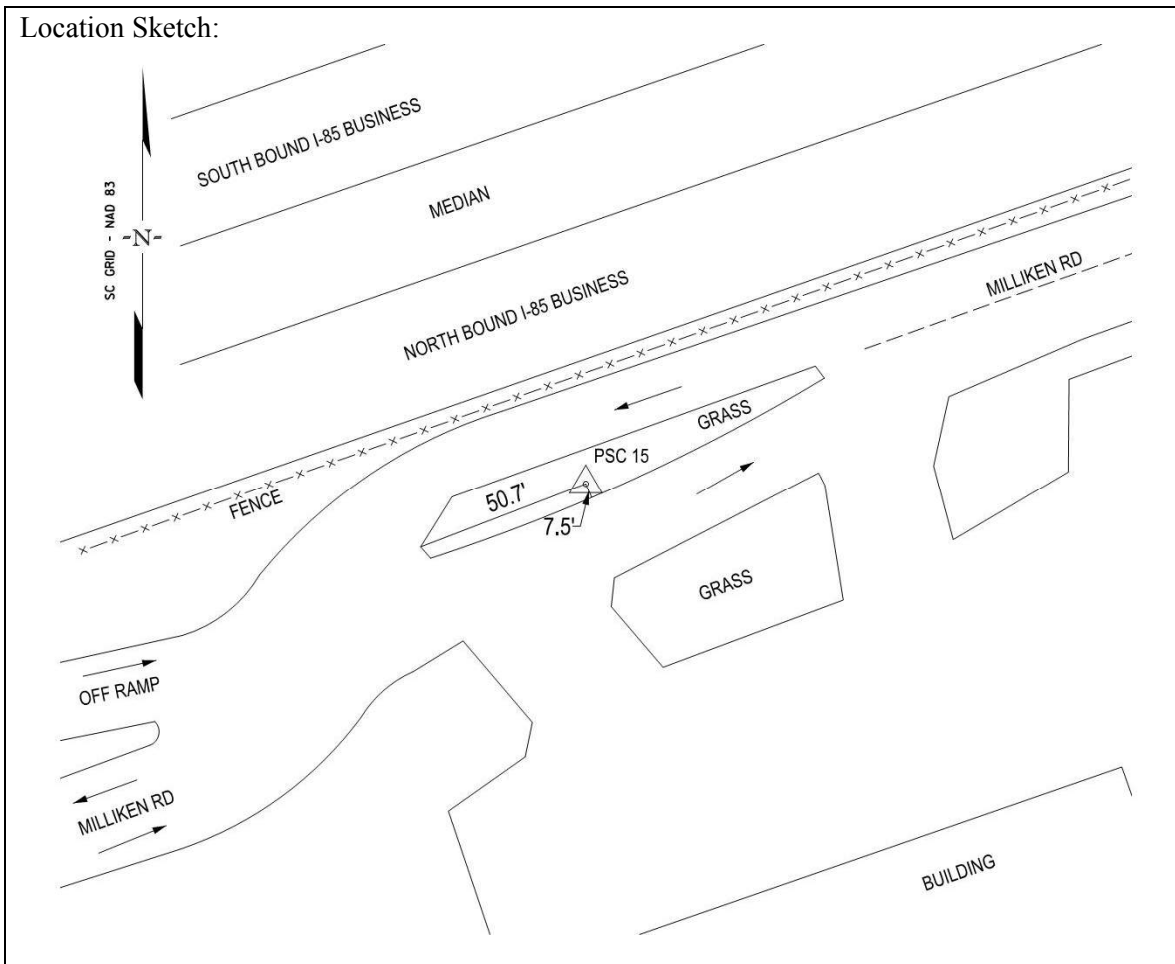
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|-----------------------------------|----------------------------------|----------------------------------|------------------------------|
| Grid Northing (iFT) 1151632.87 | Grid Easting (iFT) 1716026.30 | Lat. (WGS 84) N/A | Long. (WGS 84) N/A |
| H. Datum; NAD 83 (2011) | V. Datum NAVD 88 | Project Elevation (Ft) 790.26 | Combined S.F.: 1.00002863 |

Station Location/Description:

To reach the station from the intersection of SC Hwy 9 & Milliken Rd., go westerly on Milliken Rd for 512 feet to the station on the left in a grass island.

Point is a 2.5" aluminum cap on a 30" long # 5 rebar stamped SURVEY CONTROL – SCDOT – PSC # 15.

Location Sketch:



SCDOT Primary Survey Control Project: I-85

Station Designation: **PSC-16**

By: CDM Smith

Date Monumented: November 2016

CDM Smith Project # 111434

Horizontal values obtained via the mean of two 10 min RTN (VRS) GNSS observation.

Vertical values obtained via Digital leveling

Horizontal and Vertical Accuracy: (Meet or exceed the accuracy specifications stated in SCDOT Pre-Construction Survey Manual, Section 3.05.01 dated October, 2012.)

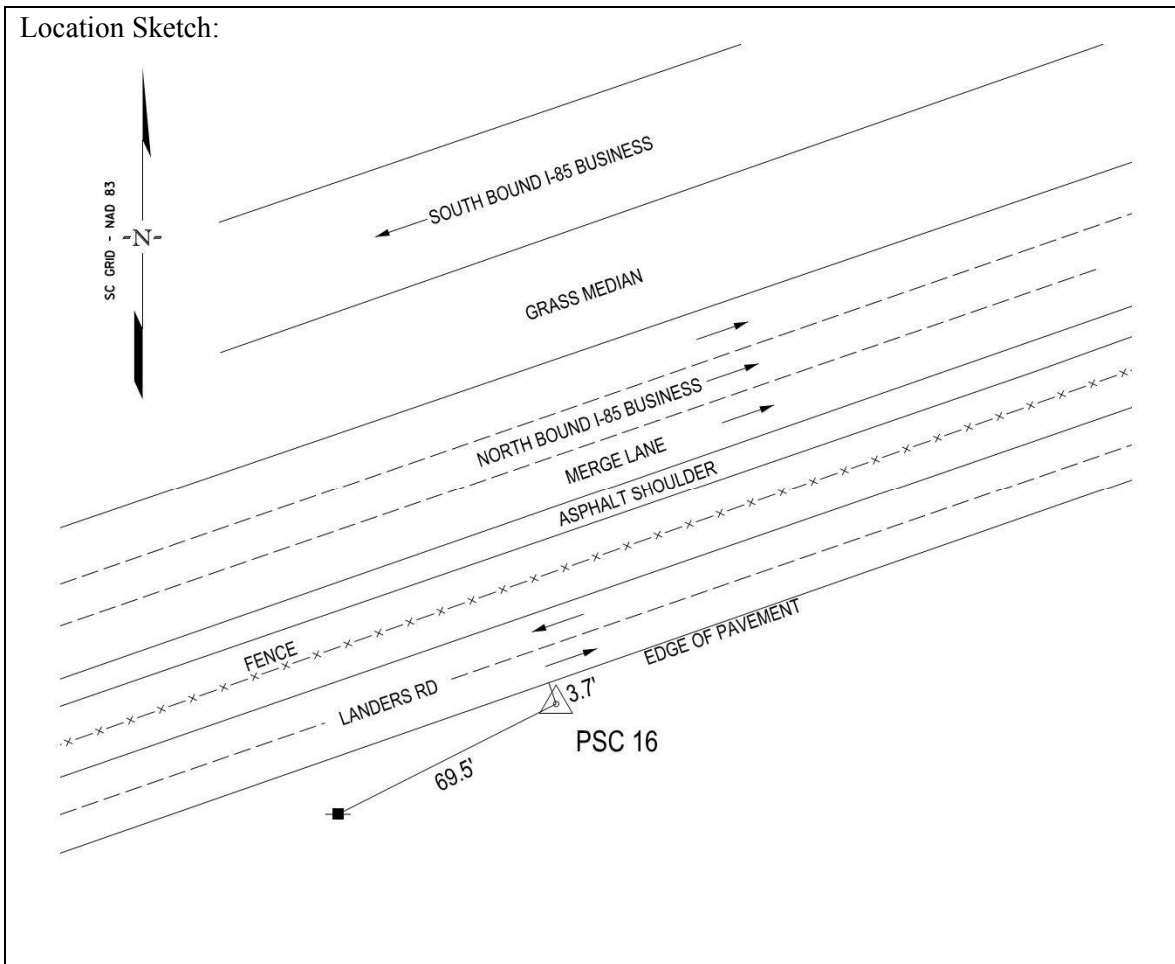
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|-----------------------------------|----------------------------------|----------------------------------|------------------------------|
| Grid Northing (iFT) 1152057.34 | Grid Easting (iFT) 1717325.42 | Lat. (WGS 84) N/A | Long. (WGS 84) N/A |
| H. Datum; NAD 83 (2011) | V. Datum NAVD 88 | Project Elevation (Ft) 774.90 | Combined S.F.: 1.00002984 |

Station Location/Description:

To reach the station from the intersection of SC Hwy 9 and Landers Rd., go easterly on Landers Rd. for 858 feet to the station on the right just off the edge of pavement.

Point is a 2.5" aluminum cap on a 30" long # 5 rebar stamped SURVEY CONTROL – SCDOT – PSC # 16.

Location Sketch:



SCDOT Primary Survey Control Project: I-85

Station Designation: **PSC-17**

By: CDM Smith

Date Monumented: November 2016

CDM Smith Project # 111434

Horizontal values obtained via the mean of two 10 min RTN (VRS) GNSS observation.

Vertical values obtained via Digital leveling

Horizontal and Vertical Accuracy: (Meet or exceed the accuracy specifications stated in SCDOT Pre-Construction Survey Manual, Section 3.05.01 dated October, 2012.)

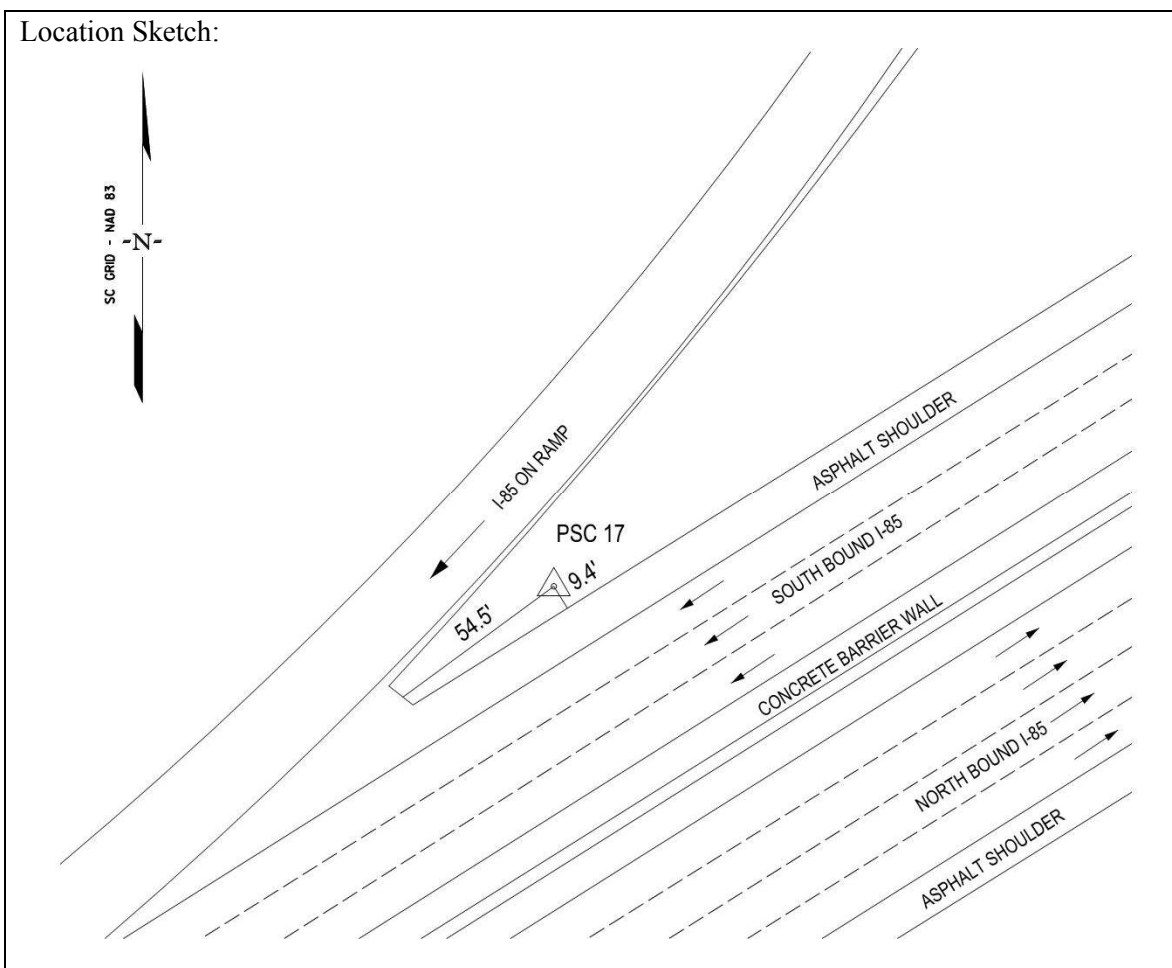
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|-----------------------------------|----------------------------------|----------------------------------|------------------------------|
| Grid Northing (iFT) 1159673.86 | Grid Easting (iFT) 1730946.01 | Lat. (WGS 84) N/A | Long. (WGS 84) N/A |
| H. Datum; NAD 83 (2011) | V. Datum NAVD 88 | Project Elevation (Ft) 818.73 | Combined S.F.: 1.00003645 |

Station Location/Description:

To reach the station from the intersection of I-85 and the overpass US Hwy 221, go westerly along I-85 for 520 feet to the station on the right just off the paved shoulder.

Point is a 2.5" aluminum cap on a 30" long # 5 rebar stamped SURVEY CONTROL – SCDOT – PSC # 17.

Location Sketch:



SCDOT Primary Survey Control Project: I-85

Station Designation: **PSC-18**

By: CDM Smith

Date Monumented: November 2016

CDM Smith Project # 111434

Horizontal values obtained via the mean of two 10 min RTN (VRS) GNSS observation.

Vertical values obtained via Digital leveling

Horizontal and Vertical Accuracy: (Meet or exceed the accuracy specifications stated in SCDOT Pre-Construction Survey Manual, Section 3.05.01 dated October, 2012.)

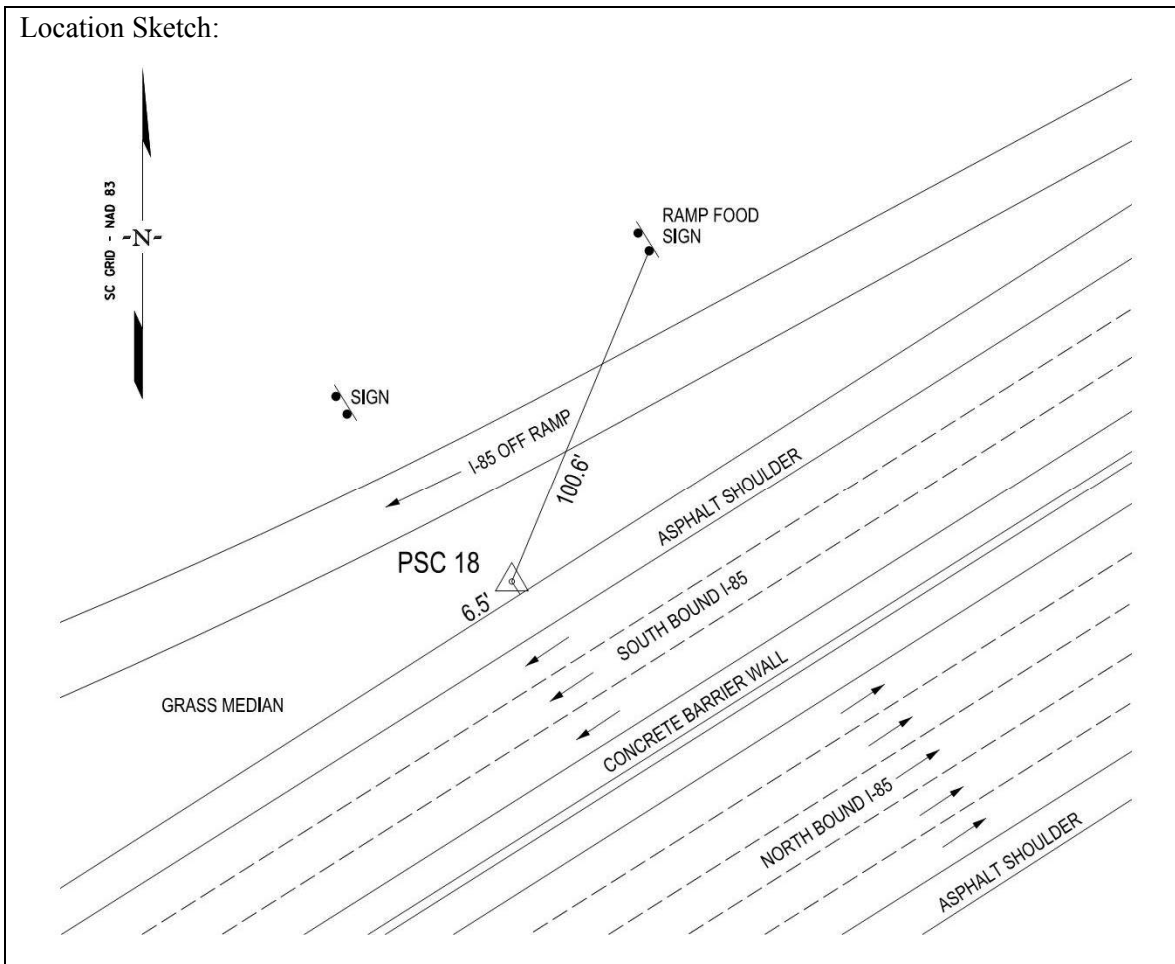
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|-----------------------------------|----------------------------------|----------------------------------|------------------------------|
| Grid Northing (iFT) 1160399.12 | Grid Easting (iFT) 1732098.00 | Lat. (WGS 84) N/A | Long. (WGS 84) N/A |
| H. Datum; NAD 83 (2011) | V. Datum NAVD 88 | Project Elevation (Ft) 822.26 | Combined S.F.: 1.00003712 |

Station Location/Description:

To reach the station from the intersection of US Hwy 221 & I-85 go easterly along I-85 for 835 feet to the station on the left off the shoulder of the I-85 south bound lanes.

Point is a 2.5" aluminum cap on a 30" long # 5 rebar stamped SURVEY CONTROL – SCDOT – PSC # 18.

Location Sketch:



SCDOT Primary Survey Control Project: I-85

Station Designation: **PSC-19**

By: CDM Smith

Date Monumented: November 2016

CDM Smith Project # 111434

Horizontal values obtained via the mean of two 10 min RTN (VRS) GNSS observation.

Vertical values obtained via Digital leveling

Horizontal and Vertical Accuracy: (Meet or exceed the accuracy specifications stated in SCDOT Pre-Construction Survey Manual, Section 3.05.01 dated October, 2012.)

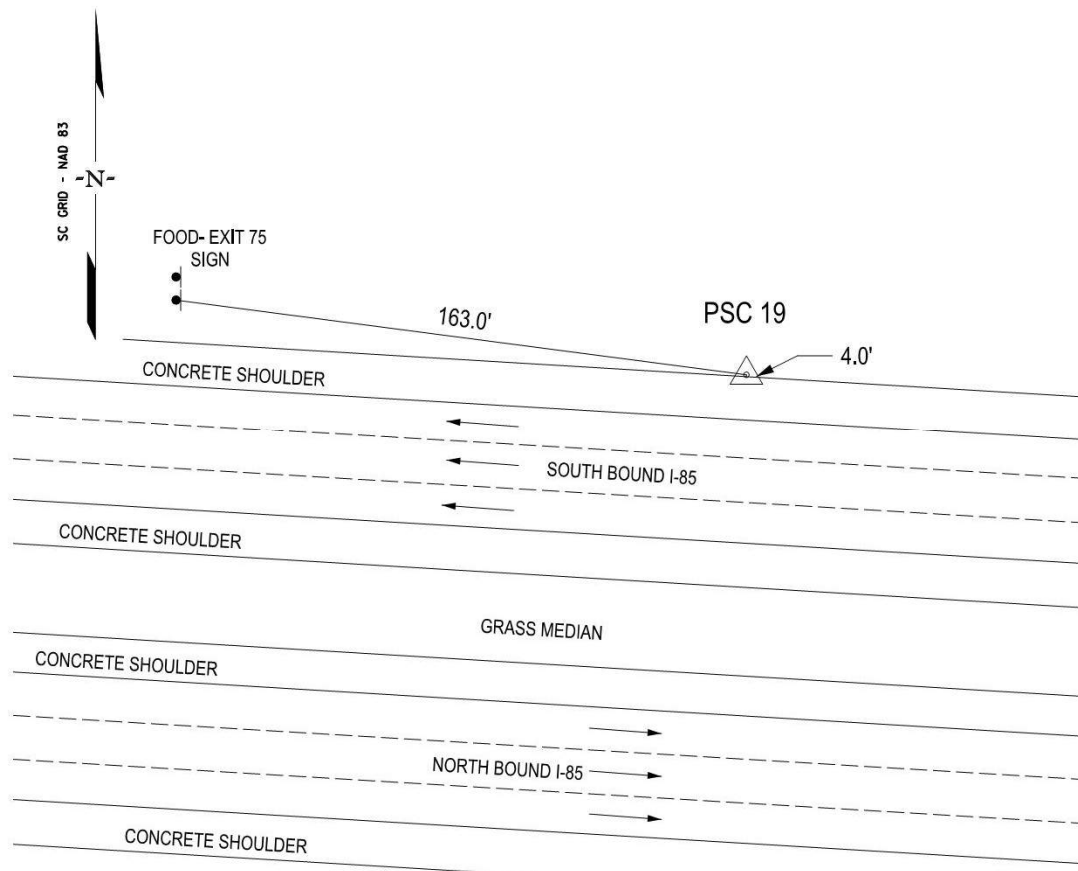
| | | | |
|-----------------------------------|----------------------------------|----------------------------------|------------------------------|
| Grid Northing (iFT) 1157869.57 | Grid Easting (iFT) 1721082.39 | Lat. (WGS 84) N/A | Long. (WGS 84) N/A |
| H. Datum; NAD 83 (2011) | V. Datum NAVD 88 | Project Elevation (Ft) 843.99 | Combined S.F.: 1.00003310 |

Station Location/Description:

To reach the station from the intersection of I-85 & the overpass Bryant Rd. go westerly along I-85 for 946 feet to the station on the right just off the road shoulder pavement.

Point is a 2.5" aluminum cap on a 30" long # 5 rebar stamped SURVEY CONTROL – SCDOT – PSC # 9.

Location Sketch:



SCDOT Primary Survey Control Project: I-85

Station Designation: **PSC-20**

By: CDM Smith

Date Monumented: November 2016

CDM Smith Project # 111434

Horizontal values obtained via the mean of two 10 min RTN (VRS) GNSS observation.

Vertical values obtained via Digital leveling

Horizontal and Vertical Accuracy: (Meet or exceed the accuracy specifications stated in SCDOT Pre-Construction Survey Manual, Section 3.05.01 dated October, 2012.)

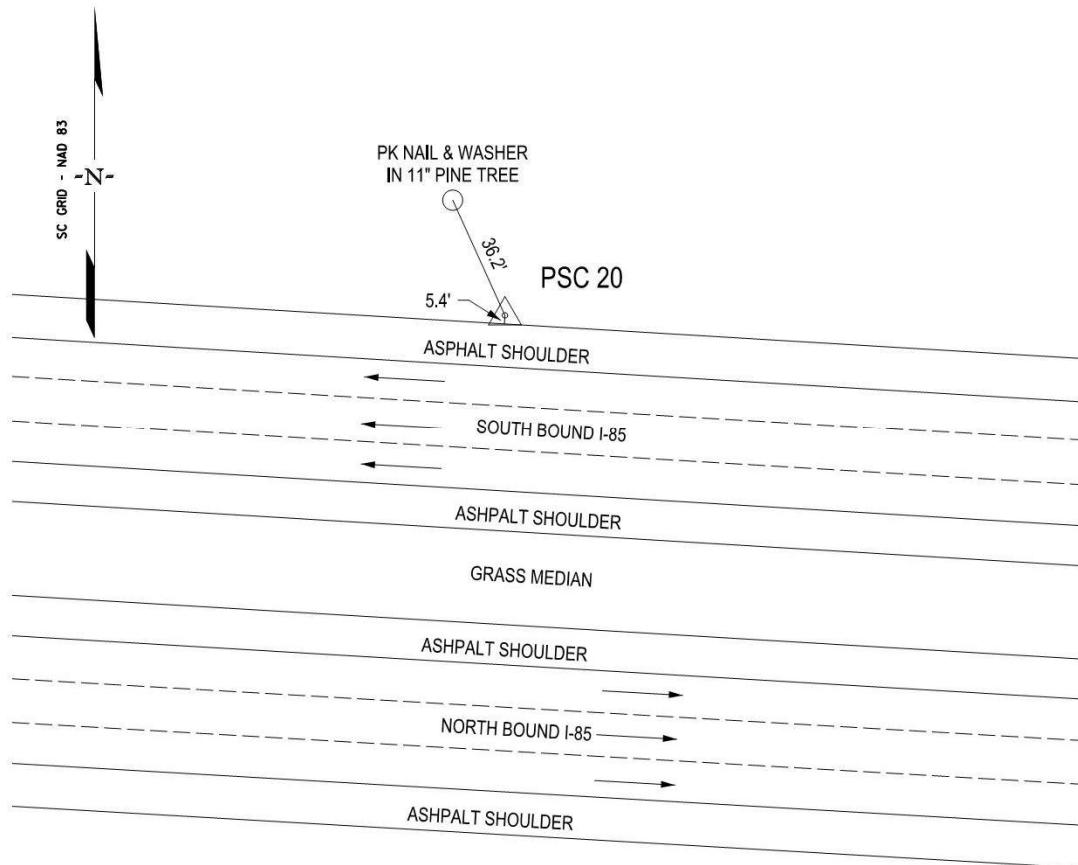
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|-----------------------------------|----------------------------------|----------------------------------|------------------------------|
| Grid Northing (iFT) 1157779.28 | Grid Easting (iFT) 1722652.27 | Lat. (WGS 84) N/A | Long. (WGS 84) N/A |
| H. Datum; NAD 83 (2011) | V. Datum NAVD 88 | Project Elevation (Ft) 819.17 | Combined S.F.: 1.00003420 |

Station Location/Description:

To reach the station from the intersection of I-85 & the overpass Bryant Rd. go easterly along I-85 for 629 feet to the station on the left, just off the I-85 south bound lane shoulder pavement.

Point is a 2.5" aluminum cap on a 30" long # 5 rebar stamped SURVEY CONTROL – SCDOT – PSC # 20.

Location Sketch:



SCDOT Primary Survey Control Project: I-85

Station Designation: **PSC-21**

By: CDM Smith

Date Monumented: November 2016

CDM Smith Project # 111434

Horizontal values obtained via the mean of two 10 min RTN (VRS) GNSS observation.

Vertical values obtained via Digital leveling

Horizontal and Vertical Accuracy: (Meet or exceed the accuracy specifications stated in SCDOT Pre-Construction Survey Manual, Section 3.05.01 dated October, 2012.)

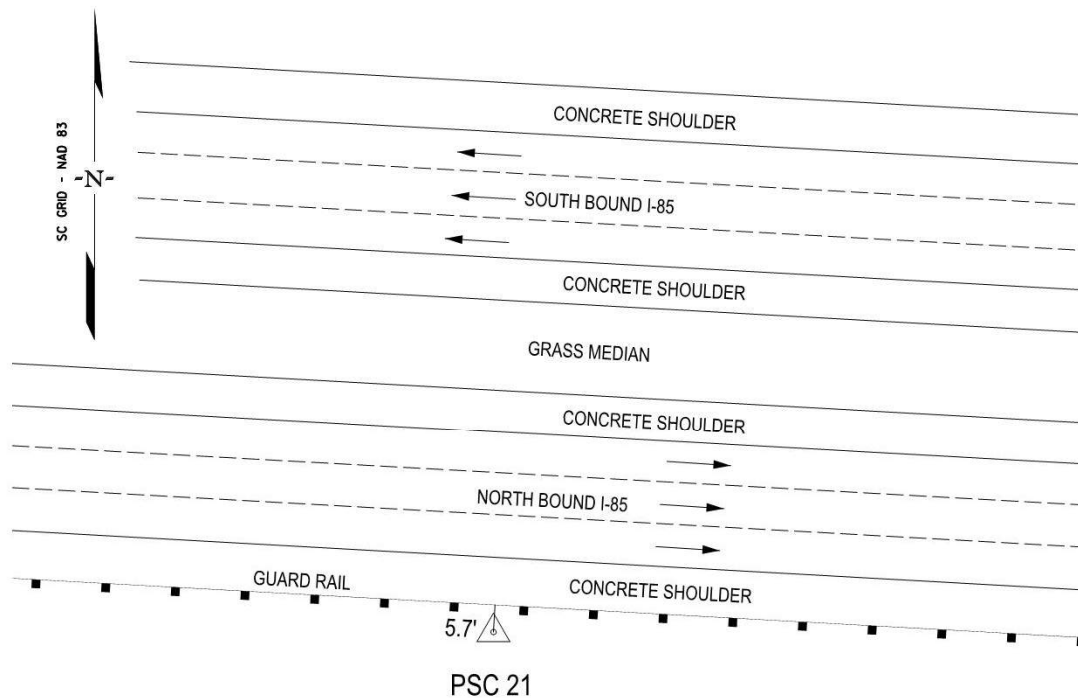
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|-----------------------------------|----------------------------------|----------------------------------|------------------------------|
| Grid Northing (iFT) 1158006.66 | Grid Easting (iFT) 1716097.03 | Lat. (WGS 84) N/A | Long. (WGS 84) N/A |
| H. Datum; NAD 83 (2011) | V. Datum NAVD 88 | Project Elevation (Ft) 807.59 | Combined S.F.: 1.00003495 |

Station Location/Description:

To reach the station from the intersection of I-85 & SC Hwy 9, go easterly along I-85 for 0.57 miles to the station on the right just off the concrete shoulder of the road.

Point is a 2.5" aluminum cap on a 30" long # 5 rebar stamped SURVEY CONTROL – SCDOT – PSC # 21.

Location Sketch:



SCDOT Primary Survey Control Project: I-85

Station Designation: **PSC-22**

By: CDM Smith

Date Monumented: November 2016

CDM Smith Project # 111434

Horizontal values obtained via the mean of two 10 min RTN (VRS) GNSS observation.

Vertical values obtained via Digital leveling

Horizontal and Vertical Accuracy: (Meet or exceed the accuracy specifications stated in SCDOT Pre-Construction Survey Manual, Section 3.05.01 dated October, 2012.)

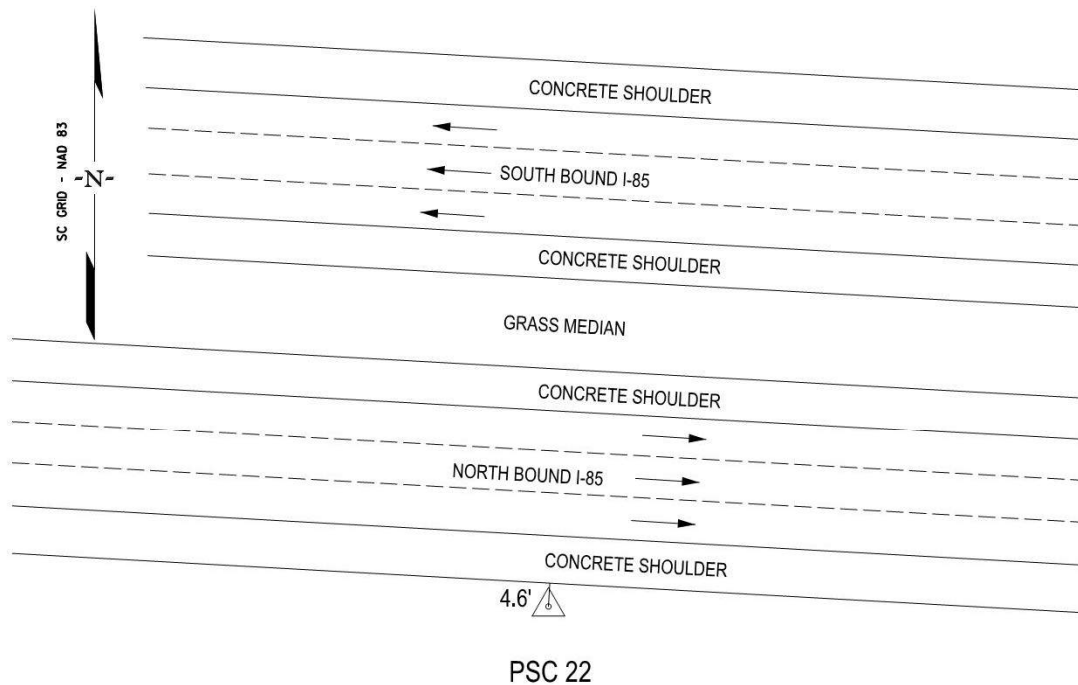
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|-----------------------------------|----------------------------------|----------------------------------|------------------------------|
| Grid Northing (iFT) 1157927.65 | Grid Easting (iFT) 1717460.31 | Lat. (WGS 84) N/A | Long. (WGS 84) N/A |
| H. Datum; NAD 83 (2011) | V. Datum NAVD 88 | Project Elevation (Ft) 823.54 | Combined S.F.: 1.00003411 |

Station Location/Description:

To reach the station from the intersection of I-85 & SC Hwy 9, go easterly along I-85 for 0.83 miles to the station on the right just off the concrete shoulder of the road.

Point is a 2.5" aluminum cap on a 30" long # 5 rebar stamped SURVEY CONTROL – SCDOT – PSC # 22.

Location Sketch:



SCDOT Primary Survey Control Project: I-85

Station Designation: **PSC-23**

By: CDM Smith

Date Monumented: November 2016

CDM Smith Project # 111434

Horizontal values obtained via the mean of two 10 min RTN (VRS) GNSS observation.

Vertical values obtained via Digital leveling

Horizontal and Vertical Accuracy: (Meet or exceed the accuracy specifications stated in SCDOT Pre-Construction Survey Manual, Section 3.05.01 dated October, 2012.)

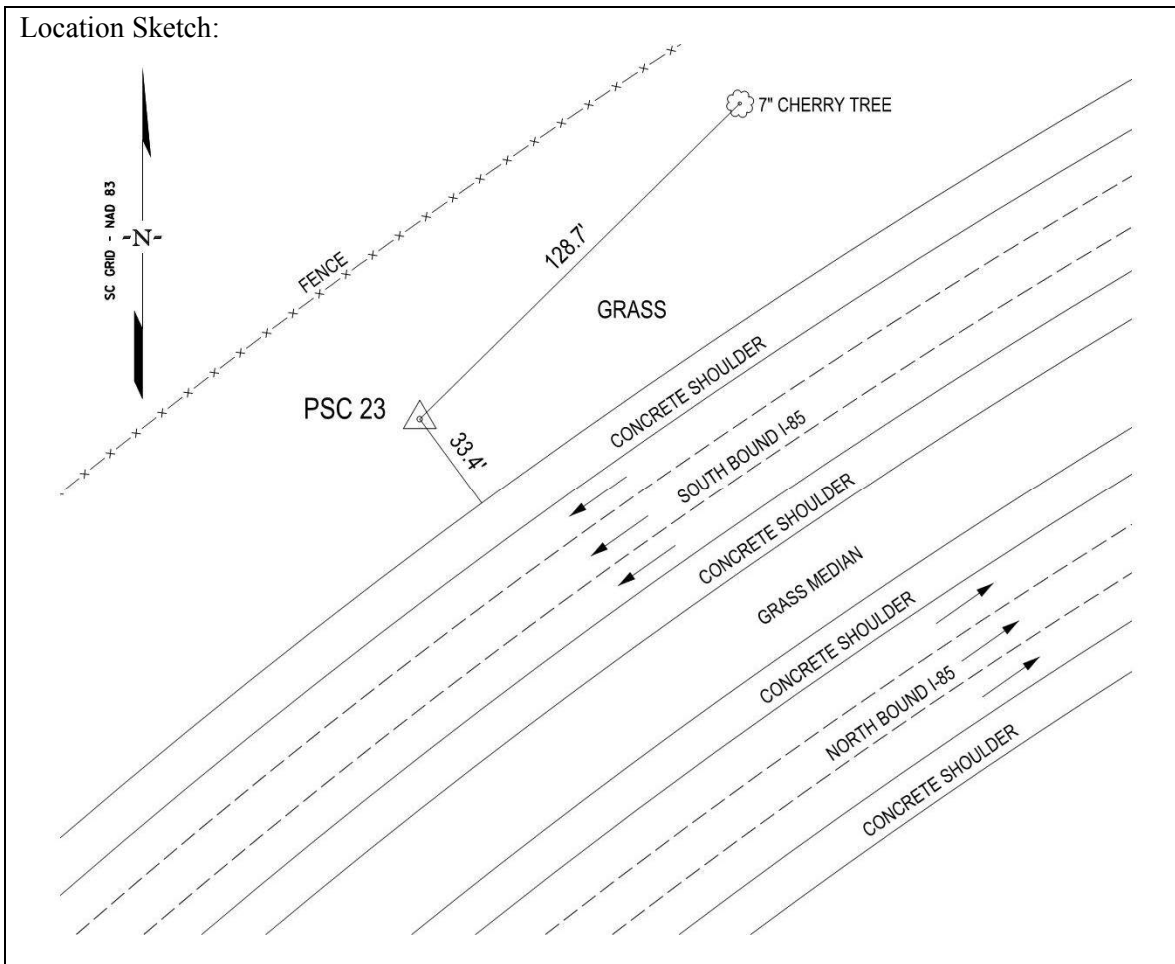
| | | | |
|-----------------------------------|----------------------------------|----------------------------------|------------------------------|
| Grid Northing (iFT) 1157941.65 | Grid Easting (iFT) 1707307.23 | Lat. (WGS 84) N/A | Long. (WGS 84) N/A |
| H. Datum; NAD 83 (2011) | V. Datum NAVD 88 | Project Elevation (Ft) 822.82 | Combined S.F.: 1.00003405 |

Station Location/Description:

To reach the station from the intersection of I-85 & SC Hwy 9, go westerly along I-85 for 1.10 miles to the station on the right just off the concrete shoulder of the road.

Point is a 2.5" aluminum cap on a 30" long # 5 rebar stamped SURVEY CONTROL – SCDOT – PSC # 23.

Location Sketch:



SCDOT Primary Survey Control Project: I-85

Station Designation: **PSC-24**

By: CDM Smith

Date Monumented: November 2016

CDM Smith Project # 111434

Horizontal values obtained via the mean of two 10 min RTN (VRS) GNSS observation.

Vertical values obtained via Digital leveling

Horizontal and Vertical Accuracy: (Meet or exceed the accuracy specifications stated in SCDOT Pre-Construction Survey Manual, Section 3.05.01 dated October, 2012.)

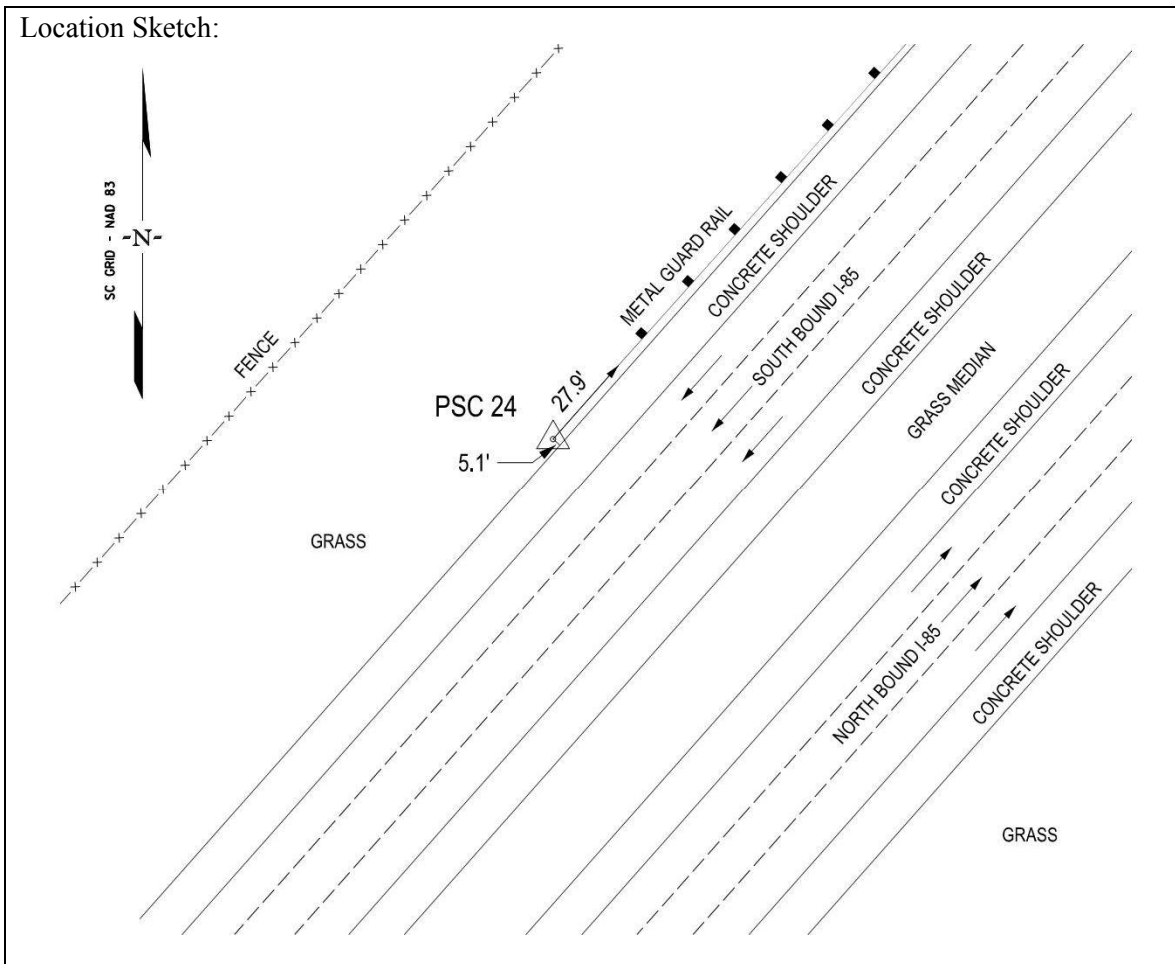
| | | | |
|-----------------------------------|----------------------------------|----------------------------------|------------------------------|
| Grid Northing (iFT) 1156829.89 | Grid Easting (iFT) 1706292.53 | Lat. (WGS 84) N/A | Long. (WGS 84) N/A |
| H. Datum; NAD 83 (2011) | V. Datum NAVD 88 | Project Elevation (Ft) 810.04 | Combined S.F.: 1.00003340 |

Station Location/Description:

To reach the station from the intersection of I-85 & SC Hwy 9, go westerly along I-85 for 1.38 miles to the station on the right just off the concrete shoulder of the road.

Point is a 2.5" aluminum cap on a 30" long # 5 rebar stamped SURVEY CONTROL – SCDOT – PSC # 24.

Location Sketch:



SCDOT Primary Survey Control Project: I-85

Station Designation: **PSC-25**

By: CDM Smith

Date Monumented: November 2016

CDM Smith Project # 111434

Horizontal values obtained via the mean of two 10 min RTN (VRS) GNSS observation.

Vertical values obtained via Digital leveling

Horizontal and Vertical Accuracy: (Meet or exceed the accuracy specifications stated in SCDOT Pre-Construction Survey Manual, Section 3.05.01 dated October, 2012.)

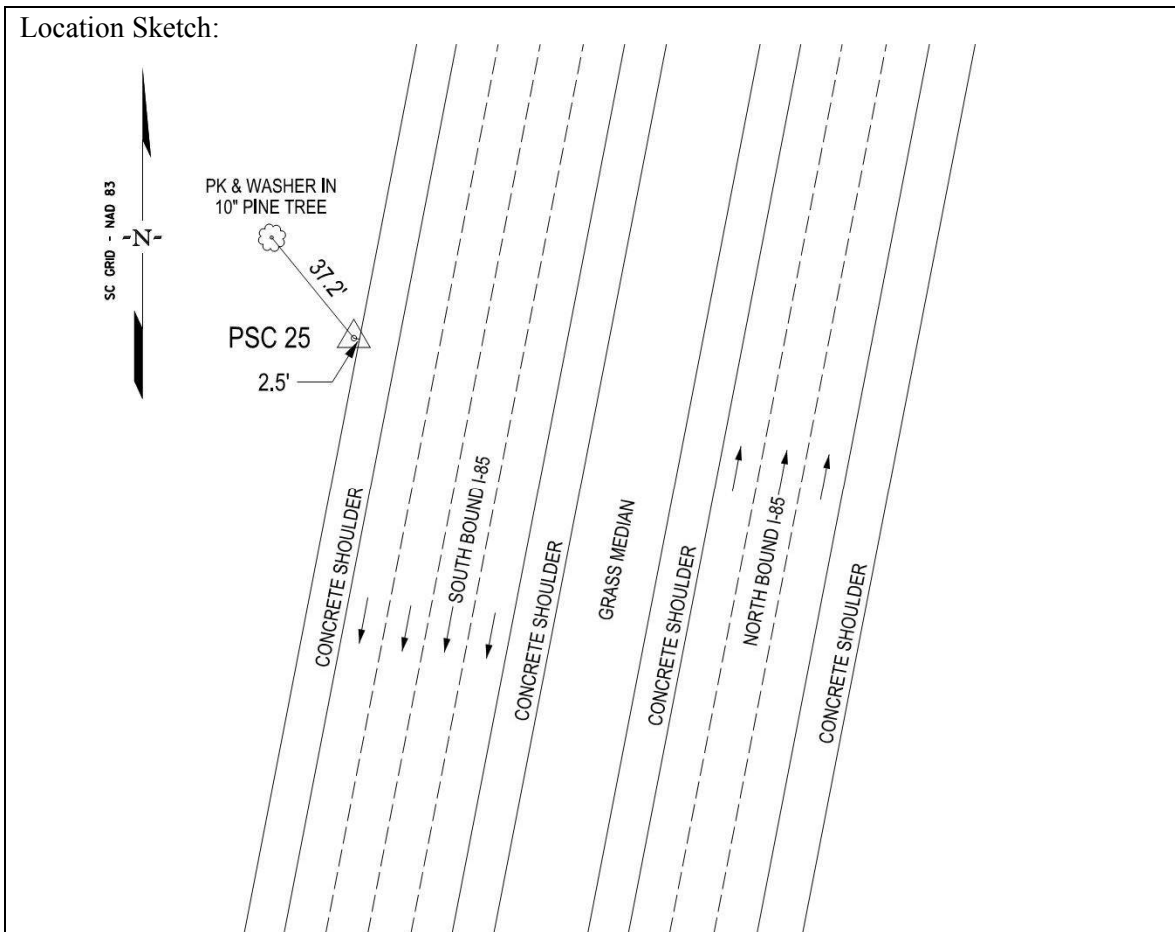
| | | | |
|-----------------------------------|----------------------------------|----------------------------------|------------------------------|
| Grid Northing (iFT) 1148110.02 | Grid Easting (iFT) 1699781.24 | Lat. (WGS 84) N/A | Long. (WGS 84) N/A |
| H. Datum; NAD 83 (2011) | V. Datum NAVD 88 | Project Elevation (Ft) 873.52 | Combined S.F.: 1.00002056 |

Station Location/Description:

To reach the station from the intersection of I-85 & US Hwy. 176, go westerly along I-85 for 1.08 miles to the station on the right just off the shoulder of I-85.

Point is a 2.5" aluminum cap on a 30" long # 5 rebar stamped SURVEY CONTROL – SCDOT – PSC # 25.

Location Sketch:



SCDOT Primary Survey Control Project: I-85

Station Designation: **PSC-26**

By: CDM Smith

Date Monumented: November 2016

CDM Smith Project # 111434

Horizontal values obtained via the mean of two 10 min RTN (VRS) GNSS observation.

Vertical values obtained via Digital leveling

Horizontal and Vertical Accuracy: (Meet or exceed the accuracy specifications stated in SCDOT Pre-Construction Survey Manual, Section 3.05.01 dated October, 2012.)

| | | | |
|-----------------------------------|----------------------------------|----------------------------------|------------------------------|
| Grid Northing (iFT) 1149405.93 | Grid Easting (iFT) 1700054.40 | Lat. (WGS 84) N/A | Long. (WGS 84) N/A |
| H. Datum; NAD 83 (2011) | V. Datum NAVD 88 | Project Elevation (Ft) 880.97 | Combined S.F.: 1.00002165 |

Station Location/Description:

To reach the station from the intersection of I-85 & US Hwy. 176, go westerly along I-85 for 0.82 miles to the station on the right just off the shoulder of I-85.

Point is a 2.5" aluminum cap on a 30" long # 5 rebar stamped SURVEY CONTROL – SCDOT – PSC # 26.

Location Sketch:

