

THIRD ORDER LEVELING
NATIONAL GEODETIC VERTICAL DATUM OF 1929

81 35-081-22
CLOVER QUADRANGLE
~~148 S.C.~~ 81 N.C.
N3500-W8100/15
DIAGRAM NI 17-2
CHARLOTTE

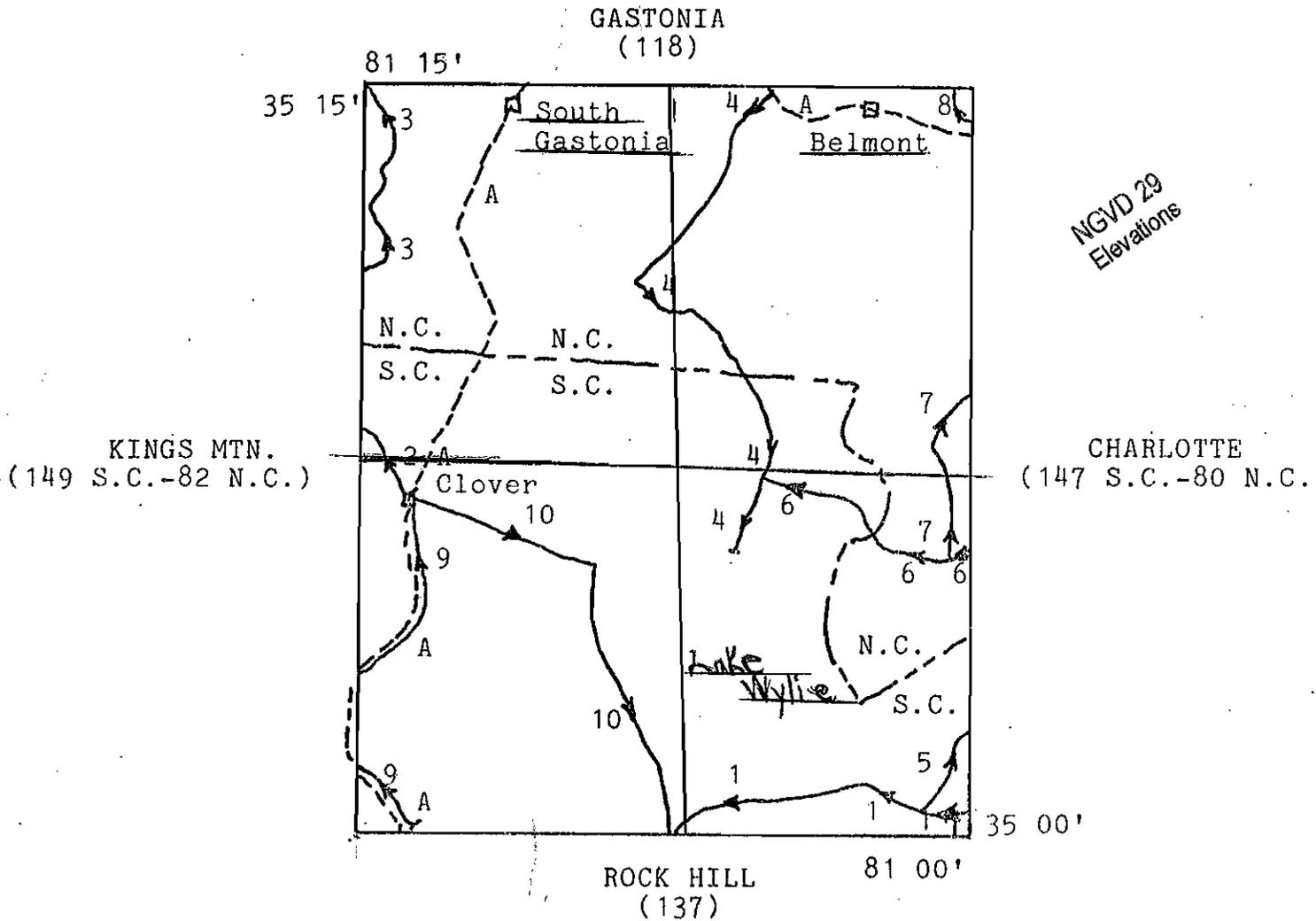
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Gaston and Mecklenburg Counties, N.C.;
York County, S.C.

Adjustment of 1975 and 1983

Edition of 1/14/83

PR: MMH/ss



USGS (USC&GS) VERTICAL CONTROL DATA

A, Quadrangle 350812

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NGS & STATE SURVEY

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NGVD 29
Elevations

148 S.C.-81 N.C.
CLOVER QUADRANGLE

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ISOLATED BENCH MARKS (By C. H. Semper, 1900; F. W. Crisp,
1912 C. W. Arnold, 1912; Books 8416, A8941; 8939)

FEET

Crowders, 498 ft SW. of station signboard; at residence
of W. W. Glenn; 148 ft W. of west rail; in south face of
south brick chimney; about 3 ft above ground; standard
tablet stamped "COLUMBIA 1900 777 PRIM TRAV STA 2 1906"
(Tied by NGS, 1935)

VIA NCGS LEVELS

774.84
~~775.484~~

Clover, opposite station, on Main Street; in front wall
of Dr. Campbell's block; standard tablet stamped "815
COLUMBIA 1900"

813.706

Belmont, 200 ft NE. of Southern Ry. station; at northeast
corner of Main Street crossing; 12 ft S. of southwest
corner of Piedmont & Northern Ry. station; on iron post;
standard tablet stamped "PRIM TRAV STA NO 338A 1912 678"
(Tied by NGS, 1932) (Reported not found, 1973)

676.528

Cramerton, about 1 mi NW. of; 1.6 mi SE. of Lowell, about
4 mi SW., thence northwest along Southern Ry., from
Belmont; about 0.4 mi W. of milepost 392; 60 ft W. of
overhead crossing of rd.; 45 ft N. of north rail; 2 ft
NE. of pole; on iron post; standard tablet stamped "PRIM
TRAV STA NO 22 1912 685.163" (Reported not found, 1973)

685.080

Belmont, 1.5 mi SW. of, along Southern Ry., about 0.4 mi
E. of milepost 391, about 0.2 mi E. of bridge over South
Fork River; on iron post; standard tablet stamped "PRIM
TRAV STA NO 23 1912 626" (Tied by NGS, 1932) (Reported
no found, 1973)

625.750

Note: In 1935 it was reported that this bench mark had
been moved. The present elevation is unknown.

Belmont, about 2.5 mi S. of; at South Point Church; 500
ft W. of residence of Thomas Williams; in southeast angle
of crossroads; on iron post; standard tablet stamped
"PRIM TRAV STA NO 13 1912 713" (Reported not found, 1973)

712.873

Belmont, about 6 mi S. of, about 3.5 mi S. of South
Point Church; 50 ft N. of north end of iron bridge over
South Fork River; on iron post; standard tablet stamped
"PRIM TRAV STA NO 14 1912 564" (Reported not found, 1973)

563.456

Belmont, 9.1 mi SW. of; 50 ft of crossroads; on iron
post; standard tablet stamped "PRIM TRAV STA NO 15 1912 637"

636.887

Newport, 7.9 mi NE. of; 8.0 mi E. of Clover; 20 ft NW. of
crossroads; on iron post; standard tablet stamped
"PRIM TRAV STA NO 16 1912 678" (Reported not found, 1973)

677.823

ISOLATED BENCH MARKS (Cont'd.)

FEET

Newport, 3.6 mi NE. of; in triangle at junction of rd. west; between two old stumps; on iron post; standard tablet stamped "PRIM TRAV STA NO 17 1912 646" (Reported not found, 1973) 645.430

Clover, 2.6 mi E. of; at mailbox of R. McNeil; in junction of T-rd. north; on iron post; standard tablet stamped "PRIM TRAV STA NO 19 1912 771" 770.835

Clover, 5.8 mi E. of; 2 ft S. of mailbox of J. W. Barnett; in southwest angle of crossroads; on iron post; standard tablet stamped "PRIM TRAV STA NO 12 1912 717" 715.934

LINE 1.

By W. B. Sykes, 1934; Book B6067

India Hook Church, 2 ft W. of southwest corner of; in yard; in concrete post; standard tablet stamped "TT 29 DS 1934" 646.567

Reference mark, 120 ft S. of tablet; 100 ft south of India Hook Church; in northeast angle of crossroads; 70 ft E. of centerline of India Hook-Rock Hill (N.S.) rd.; 10 ft S. of E.-W. rd.; in root on southwest side of 24-in. pine tree; copper nail and washer 644.24

Newport, 2.0 mi NE. of; 140 ft SW. of crossroads (rds. south to Newport, west to Tirzah Church, north to Buster Boyd Bridge and east to India Hook Church); 3 ft NW. of north corner of Union Church; in concrete post; standard tablet stamped "SY 14 1934" 694.501

Reference mark, 50 ft N. of tablet; in yard of Union Church; in root on south side of 20-in. oak tree; copper nail and washer 695.34

Union Church, 1.2 mi W. of; 0.4 mi SW. of Tirzah Church; 56 ft SW. of south rail of Southern Ry. track; 18 ft north of centerline of State Highway 5; on east end of concrete headwall; chiseled cross 704.14

LINE 2.

By R. L. Beitle, 1945; Book V180a

Clover, 93 ft SW. of southwest end of C. & NW. Ry. station; 53 ft SE. of center of U.S. Highway 321 (Main Street); 46 ft SW. of centerline of Kings Mountain Street; 23 ft SE. of southeast rail of main line track; in concrete projecting 2 in. above ground; NGS and State Survey standard tablet stamped "Y 212" 811.396

NGVD 29
Elevations

LINE 2. (Cont'd)

FEET

Clover, 2.0 mi NW. along State Highway 55, thence 225 ft W. along dirt rd.; 121 ft N. of center of hwy.; 124.5 ft SW. of southwest corner of large white frame house; 42 ft N. of center of dirt rd.; in concrete post; standard tablet stamped "RLB 1 1945 836" (Reported not found, 1971) 836.129

Reference mark, 50 ft SE. of tablet; 35 ft N. of center of rd.; in root on north side of 20-in. pine tree; copper nail and washer 835.53

LINE 3.

By R. L. Beitle, 1945; Book V180a

McGill Brook, 0.7 mi S. of, along dirt rd.; 2.3 mi S. of Chapel Grove School; at offset crossroads; 35 ft S. and 43 ft E. of forks of rd. south; 12 ft W. of lone pine tree; 12 ft E. of county rd.; signpost; in concrete post; standard tablet stamped "RLB 3 1945 754" (Reported not found, 1973) 754.091

Reference mark, 12 ft E. of tablet; in root on southwest side of 12-in. pine tree; copper nail and washer 753.33

Chapel Grove School, 148 ft E. of southeast corner of; 117 ft NW. of northwest corner of cemetery; 27 ft SW. of center of dirt rd.; in concrete post; standard tablet stamped "RLB 4 1945 807" (Reported not found, 1973) 806.956

Reference mark, 177 ft W. of tablet; at main entrance to Chapel Grove School; on south end of first concrete step; chiseled square 810.13

Gastonia Airport, 2.3 mi SW. of, along macadam rd., thence 0.3 mi SW. along dirt rd.; 0.4 mi SE. along macadam rd., thence 0.3 mi SW. along dirt rd. from Pisgah Church; 9.6 ft S. and 20 ft E. of southeast end of wooden bridge over stream; in concrete post; standard tablet stamped "RLB 5 1945 680" (Reported not found, 1973) 680.371

Reference mark, 60 ft W. of tablet; 13 ft S. and 16 ft W. of southwest corner of wooden bridge over stream; in root on southeast side of 36-in. white-oak tree; copper nail and washer 680.38

LINE 4.

By R. L. Beitle, 1945; Book V180a

"682.695 W 40 1932" (NGS) 682.653

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Elevations

LINE 4 (Cont'd)FEET

Elmores Crossroads, 1.1 mi N. of, along dirt rd.; 39 ft N. and 40 ft W. of northeast end of triangle formed by rd. forks; 18 ft W. of county rd. signpost; 19 ft E. of 36-in. oak tree; in concrete post; standard tablet stamped "RLB 8 1945 736"	735.898
Reference mark, 22 ft W. of tablet; 24 ft N. of center of rd.; in root on west side of 36-in. oak tree; copper nail and washer	735.62
Elmores Crosroads, 1.1 mi SW. of, along dirt rd.; 0.4 mi NW. along State Highway 274, thence 2.6 mi NE. along dirt rd. from Union Presbyterian Church; 88 ft N. and 47 ft W. of north end of wooden bridge over Catawba Creek; 19 ft W. of deep ditch; just west of pile of stones; in concrete post; standard tablet stamped "RLB 9 1945 618" (<u>Reported not found, 1973</u>)	617.843
Reference mark, 111 ft NE. of tablet; 48 ft E. of center of rd.; in pasture; in root on south side of 12-in. walnut tree; copper nail and washer	625.54
Union Presbyterian Church, 0.4 mi NW. of, along State Highway 274, thence 0.7 mi NE. along dirt rd.; 21 ft N. and 123 E. of private rd. N.; opposite lone white bungalow; in concrete post; standard tablet stamped "RLB 10 1945 777"	776.821
Reference mark, 75 ft SW. of tablet; 31 ft N. and 45 ft E. of private rd. north; in root on northwest side of 12-in. pine tree; copper nail and washer	775.54
Union Presbyterian Church; at north entrance; on end of first concrete step; chiseled square	791.18
Union Presbyterian Church, 1.0 mi SE. of; 2.5 mi NW. along State Highway 274 from North Carolina-South Carolina State line; 37 ft S. and 49 ft W. of junction of dirt rd. south to Mill Creek Farm; in concrete post; standard tablet stamped "RLB 11 1945 746" (<u>Reported not found, 1973</u>)	745.814
Reference mark, 36 ft W. of tablet; 46 ft S. of center of rd.; in root on east side of 18-in. black-oak tree; copper nail and washer	747.41
North Carolina-South Carolina State line, 0.4 mi NW. of, along State Highway 274; 31 ft S. and 25 ft W. of junction of dirt rd. south; in concrete post; standard tablet stamped "RLB 12 1945 718"	718.268
Reference mark, 650 ft NW. of tablet; 23 ft NE. of center of State Highway 274; in root on south side of 6-in. gum tree; copper nail and washer	711.46

NGVD 29
Elevations

LINE 4 (Cont'd)

FEET

Five Points, 2.0 mi NE. of, along State Highway 49, thence 1.0 mi NE. along State Highway 274; 1.7 mi SE. along hwy. from North Carolina-South Carolina State line; 118 ft N. and 40 ft E. of junction of rd. northeast; in concrete post about 5 ft lower than main hwy. grade; standard tablet stamped "RLB 13 1945 621" (Reported not found, 1973) 620.594

Reference mark, 30 ft SW. of tablet; 26 ft E. of hwy.; at concrete culvert; on north end of an L-shaped head-wall; chiseled "L" 626.14

Five Points, 2.0 mi NE. of, along State Highway 49, at Bethel Can Company; 25 ft S. and 46 ft E. of junction of dirt rd. connecting State Highways 557 and 49; 50 ft NE. of northwest corner of red brick building; on west end of south concrete headwall over drain; chiseled "L" 640.77

Five Points, 1.5 mi NE. of, along State Highway 49; in north end northwest backwall of concrete bridge over back water of Catawba River; formed by Duke Power Company Dam; iron bolt (probably Highway BM) 573.39

Clover, 8.1 mi E. of; 11.8 mi NE. of York; 30 ft S. of centerline of State Highways 49 and 55; 18 ft E. of center of State Highway 55; 8 ft S. of hwy. sign "Charlotte 21 miles," in concrete post; NGS and State Survey standard tablet stamped "679.867" γ 271 679.867

LINE 5.

By R. L. Beitle, 1945; Book V180a NGVD 29 Elevations
"TT 29 DS 1934" (Described in Line 1) 646.567

Duke Power Company Dam, 1.1 mi NE. of; 1.4 mi NW., thence 1.1 mi SW. of junction of State Highways 160 and 490; 38 ft SW. and 37 ft NW. from junction of woods rd. west; in concrete post; standard tablet stamped "RLB 19 1945 653" 652.664

Reference mark, 550 ft NE. of tablet; 20 ft SE. of center of rd.; 18 ft SW. of southwest corner of frame house; in root on west side of 30-in. oak tree; copper nail and washer 641.43

LINE 6.

By R. L. Beitle, 1945; Book V180a
Bridge over Catawba River at North Carolina-South Carolina State line; 2.3 mi E. of, along State Highway 49; 54 ft NE. and 31 ft SE. of north fork of crossroads; 9 ft NE. of sign "Skyport 3 miles"; in concrete post; standard tablet stamped "RLB 16 1945 705" (Reported not found, 1973) 214,972
705.288

LINE 6 (Cont'd)

FEET

Reference mark, 180 ft NE. of tablet; 69 ft SE. of center of State Highway 49; in root on northwest side of 8-in. oak tree; copper nail and washer 702.51

Bridge over Catawba River at North Carolina-South Carolina State line; 1.3 mi E. of, along State Highway 49; 2.0 mi W. of junction of State Highways 49 and 160; 17 ft E. of center of entrance to Pleasant Hill Presbyterian Church; on top of easternmost granite pillar; chiseled square 214.42
703.46

Bridge over Catawba River, at North Carolina-South Carolina State line; at south end of bridge; in southeast concrete backwall; standard tablet stamped "RLB 15 1945 578" 176.193
578.060
Disk gone
per report of Duke Power 1987
176.21
578.10

Reference mark, 22 ft W. of tablet; at south end of bridge over Catawba River; on southwest backwall; chiseled square 578.10

Catawba River Bridge, 2.0 mi NW. of; 1.2 mi E. along State Highway 49 from junction of State Highway 274; 40 ft N. and 78 ft W. of junction of dirt rd. east; on bank about 3 ft higher than rd. grade opposite Harper Bros. Service station and store; in concrete post; standard tablet stamped "RLB 14 1945 680" 680.090

Reference mark, 27 ft NW. of tablet; in root on SE. side of 24-in. pine tree; copper nail and washer 681.58

U.E.; chiseled "L" (Described in line 4) 640.77

LINE 7.

By R. L. Beitle, 1945; Book V180a

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Elevations

"RLB 16 1945 705" (Described in line 6) (Reported destroyed, 1973) 705.288

Shopton, 5.0 mi SW. along macadam and dirt rds; 2.3 mi E. along State Highway 49, thence 2.5 mi N. along dirt rd. from Bridge over Catawba River; 107 ft W. of center of rd.; 4 ft SE. of southeast corner of church; in concrete post; standard tablet stamped "RLB 20 1945 683" (Reported disturbed, 1973) 208.324
683.476

Reference mark, 45 ft S. of tablet; in root on northwest side of 25-in. ash tree; copper nail washer 682.15

LINE 8.

By R. L. Meador, 1967; Book AV 1436

Gastonia, 11.0 mi E. of City Hall, along U.S. Highway 29; at southwest corner of platform of North Carolina truck weight station No. 77; 54 ft SW. of entrance to station; 0.5 ft from south and west edge of concrete; in drilled hole; standard tablet stamped "TT 0 ELS RESET 1062 505" 505.110

LINE 9.FEETNGVD 29
Elevations

By Richard L. Meador, 1980; Book AV 1738

1	32	0.00	NGS and State Geodetic Survey bench mark "Y 152 1934"	730.589
1	32	1.10	York, 0.7 mi N. along State Route 5 from Post Office to junction of U.S. Highway 321 bypass, thence 1.1 mi NE. along 321 bypass to junction of bus. 321; 98.4 ft E. of SW. end of medium strip on bus. 321; 128 ft SW. of powerpole #806; 1.0 ft N. of metal witness post; set in top of concrete post set flush with ground; standard tablet stamped "11 MEA 1980 775"	774.817
[Jogs into Kings Mountain Quadrangle]				
1	33	1.85	U.E. centerline of T-rd. west nail and cap	785.056
1	34	2.92	York, 0.7 mi N. along S.R. 5 from Post Office to junction of U.S. 321 bypass; thence 1.8 mi NE. along 321 bypass; at Cabes Corner; junction U.S. 321 and S.R. 161; 78 ft W. and 3.1 ft higher than centerline of x-rds. in traffic island; 13.5 ft N. of Kings Mountain Battleground Historical marker; 5 ft NW. of pole; 0.5 ft E. of metal witness post; set in top of a concrete post projecting 5 in. standard tablet stamped "12 MEA 1980 776"	775.610
1	35	3.64	U .E., centerline of T-rd. north; nail and cap	802.079
1	36	4.33	U.E., centerline of T-rd. south; nail and cap	770.268
1	37	5.64	Clover, 3.4 mi S. of along U.S. Highway 321 from junction of Highway 321 and State Route 55; 29.6 ft SE. of centerline of south end of bridge; 1.5 ft north of south end of concrete wheelguard; standard tablet stamped "13 MEA 1980 658"	658.096
1	38	6.80	U.E., centerline of T-rd. east; nail and cap	745.040
1	39	7.53	Clover, 1.5 mi S. along U.S. Highway 321 from junction of Highway 321 and State Route 55; 39 ft SW., 31 ft SE., and level with T-rd. west; 2 ft NW. of pole; 0.5 ft S. of metal witness post; set in top of concrete post projecting 3 in.; standard tablet stamped "14 MEA 1980 784"	783.799
1	40	8.04	U.E., centerline of railroad at T-st. east (Flatrock Street); nail and cap	793.918
1	41	8.99	USGS bench mark "PTS NO. 1 815 RESET 1947" (Reset and tied by NGS in 1947)	813.706

LINE 10.FEET

By Richard L. Meador, 1980; Book AV 1738

1	43	0.00	USGS bench mark "PTS NO. 1 815 RESET 1947"	813.706
1	43	0.95	U.E., centerline of T-rd. south; nail and cap	763.491
1	44	1.68	U.E., centerline of T-rd. southwest.; nail and cap	779.352
1	45	2.28	Clover, 2.3 mi E. along State Route 55 from junction of U.S. Highway 321 and State Route 55; at junction of Routes 55 and 557; 70 ft W. and 0.4 ft higher than T-rd. north; 5.9 ft west of east end of concrete medium strip; standard tablet stamped "15 MEA 1980 770"	769.758
1	46	3.59	U.E., centerline of T-rd. south; nail and cap	752.784
1	47	4.63	Clover, 4.6 mi E. along State Route 55 from junction of U.S. Highway 321 and Route 55; 152 ft N., 26 ft W., and 0.2 ft higher than centerline of crossroads; 2 ft NW. of power pole; 0.5 ft E. of metal witness post; set in top of concrete post projecting 2 inches; standard tablet stamped "16 MEA 1980 739"	738.648
1	49	6.14	U.E., centerline of T-drive west; nail and cap	664.951
1	50	6.59	Clover, 4.6 mi E. of along State Route 55 from junction of U.S. Highway 321 and Route 55, thence 2.0 mi S.; at concrete bridge over Allison Creek; 19 ft SW. of southeast end of bridge; set in wingwall; standard tablet stamped "17 MEA 1980 602"	601.647
1	52	7.33	U.E., centerline of bridge; nail and cap	625.896
1	53	7.96	U.E., centerline of offset crossroad (Junction Route 49); nail and cap	723.195
1	54	8.08	NGS and State Survey disk "Y 262 1934"	724.952
1	55	8.80	York, 7.2 mi NE. of Post Office along State Route 49; thence 0.6 mi SE.; 13 ft W. and 0.8 ft higher than centerline of bridge; 7 ft N. of south end of concrete wheelguard; standard tablet stamped "18 MEA 1980 649"	648.965

148 S.C.-81 N.C.
CLOVER QUADRANGLE

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(LINE 10. (Cont'd)

FEET

1	56	9.32	U.E., centerline of crossroads; nail and cap	711.566
1	57	10.64	York, 7.2 mi NE. of Post Office along State Route 49, thence 2.5 mi SE.; 17 ft W. and 1.0 ft higher than centerline of bridge; 49 ft N. of south end of concrete wheelguard; standard tablet stamped "19 MEA 1980 607"	606.653

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Elevations