

OFFICE COPY HOLD

THIRD-ORDER LEVELS
SEA LEVEL DATUM OF 1929

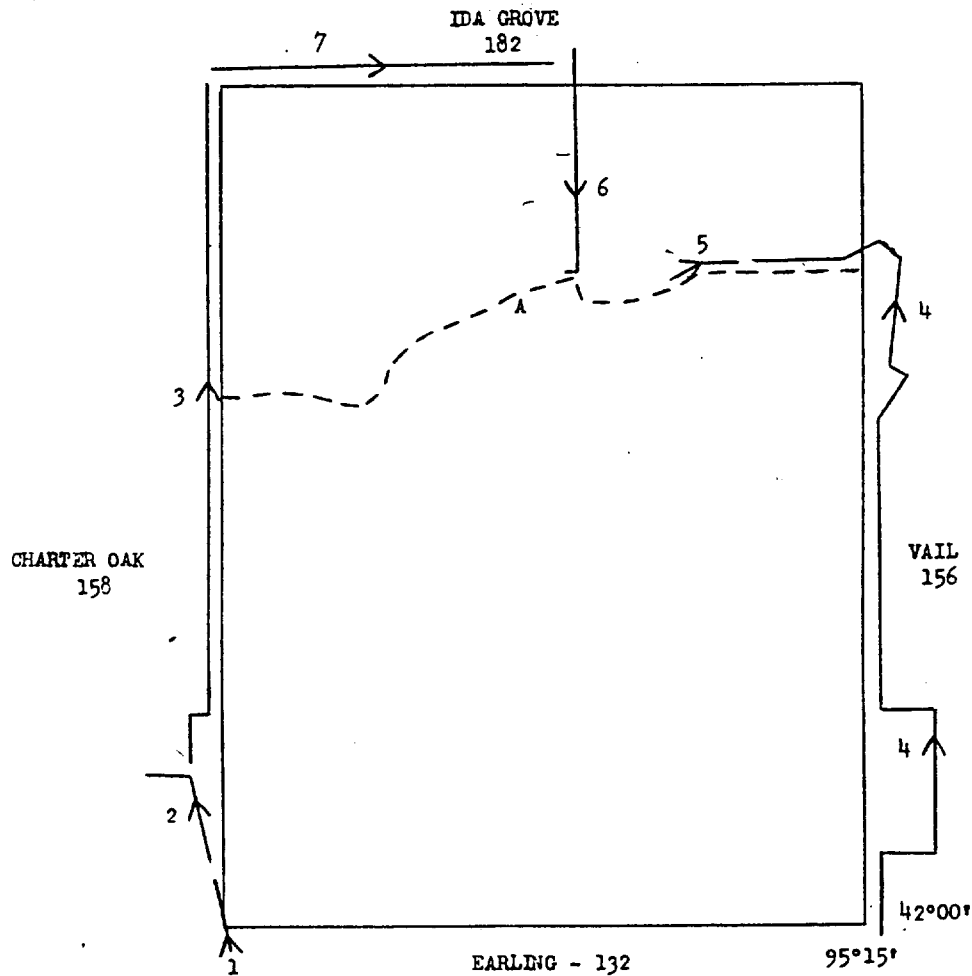
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DENISON QUADRANGLE
157 - IOWA
N4200-W9515/15
DIAGRAM NK 15-4
FT. DODGE

Sac, Ida and Crawford Counties

Final Adjustment of 1975 except
as noted
Edition of: 9/9/75

PR: AKH/PH/cb



N.G.S. VERTICAL CONTROL DATA

A. Quadrangle 420952

157-A

2
DENISON QUADRANGLE
157 - IOWA

FEET

LINE 1

R.M. Brown, 1971; Book CV-2670

EARLING QUAD. - 132

NOTE: Field elevations are published here pending additional checks.

- | | | | |
|--------------------------------|-----|---|----------|
| 1 61 | 0.0 | Arion, about 3.0 mi N. and 2.0 mi W. of, near cor. secs. 15, 16, 21 and 22, T. 83 N., R. 40 W., 85 ft SE. of, 17 ft SW. of and 2.1 ft lower than a T-rd. N., in a concrete culvert headwall, a standard tablet stamped "D 91 1935" | 1194.315 |
| 61 | 0.4 | Reference mark, 230 ft W. of tablet, in NE. cor. of RR. trestle, a copper nail and washer | 1196.646 |
| <u>CHARTER OAK QUAD. - 158</u> | | | |
| 62 | 1.2 | UE, 1.3 mi N. along RR. from tablet, in centerline of E.-W. rd., at a RR. crossing a copper nail and washer | 1238.751 |
| 63 | 1.7 | Charter Oak, about 3.5 mi S. of and 4.0 mi E. of, in general vicinity of Kenwood, in sec. 9, T. 83 N., R. 40 W., 99 ft SE. of, 28 ft SW. of and 9.4 ft lower than rd. at private drive NE. to a white farm house; in concrete culvert headwall, a standard disk stamped "E 91 1935" | 1243.473 |

THIS ELEV.	1243.473
PREV. ELEV.	1243.088
CLOSURE	+.385

LINE 2

R.M. Brown, 1971; Book CV-2670

CHARTER OAK QUAD. - 158

NOTE: Field elevations are published here pending additional checks.

- | | | | |
|-----|-----|--|----------|
| 2 1 | 0.0 | USC&GS BM, Charter Oak, about 3.5 mi S. of and 4.0 mi E. of, in general vicinity of Kenwood; in sec. 9, T. 83 N., R. 40 W., 99 ft SE. of 28 ft SW. of and 9.4 ft lower than rd. at a private drive NE. to a white farm house; a concrete culvert headwall, a standard disk stamped "E 91 1935" (the concrete culvert is on the SE. corner of SW. headwall) | 1243.088 |
| 1 | 0.6 | UE, 0.6 mi N. of tablet, near the W. sixteenth cor. between secs. 4 and 9, T. 83 N., R. 40 W., 32 ft S. of, 70 ft E. of and 0.5 ft higher than a T-rd. E.; in W. side of power pole, a lag bolt | 1265.298 |
| 3 | 1.6 | UE, 1.6 mi N. of tablet, near cor. secs. 4, 5, 32 and 33, Tps. 83 and 84 N., R. 40 W.; 36 ft N. of, 33 ft E. of and 6.9 ft lower than a T-rd. E.; in E. side of a power pole, a lag bolt | 1390.113 |
| 4 | 2.2 | UE, 2.2 mi N. of tablet, near quarter cor. between secs. 32 and 33, T. 84 N., R. 40 W., 38 ft S. of, 19 ft W. of and 1.2 ft lower than crossroads, on W. end of an iron pipe culvert, a punch mark | 1395.300 |
| 6 | 3.3 | USC&GS BM, Charter Oak, about 2.0 mi S. of and 2.7 mi E. of, near quarter cor. between secs. 31 and 32, T. 84 N., R. 40 W.; 64 ft S. of, 34 ft E. of and 2.5 ft lower than N.-S. rd. at a RR. crossing; 1.5 ft NE. of the right-of-way fence; in concrete post, standard disk stamped "F 91 1935" | 1322.352 |

LINE 3

FEET

R.M. Brown, 1971; Book CV-2670

CHARTER OAK QUAD. - 158

NOTE: Line leveled twice, unadjusted mean elevations published here.

2	7	0.0	UE, 2.2 mi N. of tablet, near quarter cor. between secs. 32 and 33, T. 84 N., R. 40 W., 38 ft S. of, 19 ft W. of and 1.2 ft lower than crossroads, on W. end of an iron pipe culvert, a punch mark	1395.300
7		0.4	Reference mark, 4.2 ft S. of tablet, in SW. side of a cor. fence post; a RR. spike	1400.746
8		0.4	Charter Oak, about 1.2 mi S. of and 3.6 mi E. of, near cor. secs. 28, 29, 32 and 33, T. 84 N., R. 40 W., 38 ft N. of, 30 ft E. of and 6.1 ft lower than crossroads; 4.2 ft N. and 0.5 ft W. of a cor. fence post, on rod support, a standard tablet, stamped "8 RB 1971"	1399.671
10		1.4	UE, 1.0 mi N. of tablet, near cor. of secs. 20, 21, 28 and 29, T. 84 N., R. 40 W., 64 ft S. of, 32 ft W. of and 3.8 ft higher than crossroads; in E. side of power pole, a lag bolt	1367.973
12		2.4	UE, 1.0 mi N. and 1.0 mi E. of tablet, near cor. secs. 21, 22, 27 and 28, T. 84 N., R. 40 W.; 23 ft S. of, 35 ft W. of and 1.4 ft lower than T-rd. N., on W. end of concrete tube culvert, a chiseled square	1379.766
14		3.5	Charter Oak, about 0.5 mi N. of and 4.5 mi E. of, near cor. secs. 15, 16, 21 and 22, T. 84 N., R. 40 W., 15 ft S. of, 35 ft W. of and 0.1 ft higher than rd. at a fence E.; 0.8 ft E. of a N.-S. fence, on rod support, a standard tablet stamped "9 RB 1971"	1464.112
15		3.5	Reference mark, 89 ft N. of tablet, in E. side of a power pole, a RR. spike	1457.485
16		4.0	UE, 0.5 mi N. of tablet, near the quarter cor. between secs. 15, 16, T. 84 N., R. 40 W., 8.0 ft S. of, 37 ft W. of and 3.2 ft lower than crossroads; in E. side of power pole, a RR. spike	1488.997
18		4.5	UE, 1.0 mi N. of tablet, near cor. secs. 9, 10, 15 and 16, T. 84 N., R. 40 W., 33 ft S. of, 65 ft W. of and 5.3 ft lower than crossroads; on S. end of an iron pipe culvert, a punch mark	1338.550
20		5.5	UE, 2.0 mi N. of tablet, near cor. secs. 3, 4, 9 and 10, T. 84 N., R. 40 W., 31 ft S. of, 36 ft E. of and 2.2 ft higher than crossroads, in E. side of power pole, a lag bolt	1373.746
22		6.5	Ricketts, about 4.0 mi E. of, near cor. secs. 3, 4, 33 and 34, Tps. 84 and 85 N., R. 40 W.; 42 ft S. of, 32 ft W. of and 2.0 ft lower than crossroads, 10.0 ft S. of and 1.3 ft E. of a fence cor.; on rod support, standard tablet stamped "10 RB 1971"	1386.164
23		6.5	Reference mark, 78 ft N. of tablet, in E. side of power pole, a lag bolt	1387.403
25		7.5	UE, 1.0 mi N. of tablet, near cor. secs. 27, 28, 33 and 34, T. 85 N., R. 40 W., 26 ft S. of, 32 ft E. of and 5.5 ft lower than crossroads, in NW. side of a cor. fence post, a lag bolt	1359.414
27		8.5	UE, 2.0 mi N. of tablet, near cor. secs. 21, 22, 27 and 28, T. 85 N., R. 40 W., 37 ft S. of, 40 ft W. of and 0.1 ft higher than crossroads; in E. side of power pole, a lag bolt	1458.470

LINE 3 (Cont'd)

CHARTER OAK QUAD. - 158

FEET

2	29	9.5	Schleswig, about 0.3 mi N. of and 3.5 mi W. of near cor. secs. 15, 16, 21 and 22, T. 85 N., R. 40 W.; 49 ft S. of, 34 ft E. of and 0.2 ft lower than crossroads, 16 ft S. of and 1.0 ft W. of a fence cor.; on rod support, a standard tablet stamped "11 RB 1971"	1440.940
	30	9.5	Reference mark, 19.5 ft N. of tablet, in N. side of power pole, a lag bolt	1439.984
	32	10.5	UE, 1.0 mi N. of tablet, near cor. secs. 9, 10, 15 and 16, T. 85 N., R. 40 W., 33 ft N. of, 18 ft E. of and 1.1 ft lower than crossroads; E. end of concrete tube culvert, a chiseled square	1351.920
	34	11.6	UE, 2.0 mi N. of tablet, near cor. secs. 3, 4, 9 and 10, T. 85 N., R. 40 W., 25 ft N. of, 32 ft E. of and 6.2 ft lower than a T-rd. W.; in W. side of cottonwood tree, a RR. spike	1386.100
	36	12.5	Reference mark, 89 ft SW. of tablet, on S. end of concrete tube culvert; a chiseled square	1406.296
	37	12.6	Schleswig, about 3.2 mi N. of and 3.5 mi W. of, near cor. secs. 3, 4, 33 and 34, Tps. 85 and 86 N., R. 40 W.; 47 ft N. of, 41 ft E. of, and 6.9 ft lower than crossroads; 11 ft N. of and 1.0 ft W. of a fence corner; on rod support; a standard tablet, stamped "12 RB 1971"	1400.514
	39	13.6	UE, 1.0 mi N. of tablet, near cor. secs. 27, 28, 33 and 34, T. 86 N., R. 40 W., in centerline of crossroads; a chiseled square	1487.095
	41	14.6	UE, 2.0 mi N. of tablet, near cor. secs. 21, 22, 27 and 28, T. 86 N., R. 40 W., 40 ft S. of, 32 ft W. of and 2.9 ft lower than crossroads; in N. side of power pole, a lag bolt	1371.586

IDA GROVE QUAD. - 182

43	15.6	Ida Grove, 6.0 mi S. and 1.0 mi W. from, 4.0 mi S. and 5.0 mi E. from Battle Creek; T. 86 N., R. 40 W.; near cor. secs. 15, 16, 21 and 22; 1 ft W. of E. right-of-fence, 59 ft S. and 40 ft E. of crossroads, in a concrete post; a standard tablet stamped "12 WEK 1966"	1396.220
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PREV. ELEV. 1396.755
MEAN ELEV. 1396.220
CLOSURE --.535

LINE 4

R.M. Brown, 1971; Book CV-2686

20	7.9	UE, 2.0 mi N. of tablet, near cor. secs. 14, 15, 22 and 23, T. 83 N., R. 38 W., 31 ft N. of, 30 ft W. of and 2.6 ft higher than crossroads; in E. side of power pole, a lag bolt	1382.80
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VAIL QUAD. - 156

22	8.9	Reference mark, 2.40 ft SW. of tablet, in W. side of power pole, a lag bolt	1411.49
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LINE 4 (Cont'd)

VAIL QUAD. - 156

FEET

1	23	8.9	Denison, about 1.0 mi S. of and 5.0 mi E. of, near cor. secs. 10, 11, 14 and 15, T. 83 N., R. 38 W., 9 ft S. of, 34 ft E. of and 1.1 ft lower than a T-rd. W.; 6.7 ft S. of and 1.0 ft W. of a cor. fence post; on rod support, standard tablet stamped "20 RB 1971"	1411.690
	25	9.9	UE, 1.0 mi N. of tablet, near cor. secs. 2, 3, 10 and 11, T. 83 N., R. 38 W.; 30 ft S. of, 26 ft W. of and 0.3 ft lower than T-rd. S.; in E. side of cor. fence post; a lag bolt	1299.59
	27	10.9	UE, 1.0 mi N. and 1.0 mi E. of tablet, near cor. secs. 1, 2, 11 and 12, T. 83 N., R. 38 W., 57 ft N. of, 30 ft W. of and 2.5 ft lower than crossroads; on N. end of an iron pipe culvert; a punch mark	1317.91
	28	12.0	Reference mark, 21 ft NE. of tablet, in center of concrete bridge curb, a chiseled square	1246.36
	29	12.0	Vail, about 1.5 mi S. of and 1.5 mi W. of, in the SW $\frac{1}{4}$ sec. 36, T. 84 N., R. 38 W., 10.5 ft SW. of (normal) and 1.0 ft higher than centerline of bridge; in center of SW. concrete curb, a standard tablet stamped "21 RB 1971" (Drain 25.0 ft lower)	1246.411
	31	12.8	UE, 0.9 mi N. of tablet, near cor. secs. 25, 26, 35 and 36, T. 84 N., R. 38 W., 45 ft S. of, 35 ft W. of and 3.6 ft lower than crossroads; in E. side of fence post, a RR. spike	1351.17
	33	13.8	UE, 1.9 mi N. of tablet, near cor. secs. 23, 24, 25 and 26, T. 84 N., R. 38 W., 24 ft S. of, 20 ft E. of and 1.0 ft lower than crossroads, on E. end on an iron pipe culvert, a punch mark	1409.40
	35	14.8	Vail, about 0.5 mi N. of and 2.5 mi W. of, in the SW $\frac{1}{4}$ sec. 23, T. 84 N., R. 38 W., 20 ft N. of (normal) and 2.7 ft lower than rd. at culvert, in center of N. concrete headwall, a standard tablet stamped "22 RB 1971"	1331.132
	37	15.8	UE, 1.0 mi N. of tablet, near cor. secs. 14, 15, 22 and 23, T. 84 N., R. 38 W., 32 ft S. of, 30 ft W. of and 1.6 ft higher than crossroads; in N. side of power pole, a lag bolt	1406.09
	39	16.8	UE, 2.0 mi N. of tablet, near cor. secs. 10, 11, 14 and 15, T. 84 N., R. 38 W., 34 ft N. of, 34 ft E. of and 0.2 ft lower than crossroads; in W. side of cor. fence post; a lag bolt	1372.11
	40	17.8	Reference mark, 79 ft WSW. of tablet, on S. end of a concrete tube culvert, a chiseled square	1360.45
	41	17.8	Vail, about 3.5 mi N. of and 2.5 mi W. of, near cor. secs. 2, 3, 10 and 11, T. 84 N., R. 38 W., 31 ft N. of, 87 ft E. of and 0.2 ft lower than crossroads; 1.2 ft S. of and 49 ft E. of a fence cor., on rod support, a standard stamped "23 RB 1971"	1360.868
	43	18.9	UE, 1.0 mi N. of tablet, near cor. secs. 2, 3, 34 and 35, Tps. 84 and 85 N., R. 38 W., 24 ft S. of, 24 ft W. of and 3.1 ft lower than crossroads, on W. end of a concrete tube culvert; a chiseled square	1356.74
	45	19.9	UE, 2.0 mi N. of tablet, near cor. secs. 26, 27, 34 and 35, T. 85 N., R. 38 W., 33 ft N. of, 33 ft E. of and 1.3 ft higher than crossroad; in W. side of power pole, a lag bolt	1326.53
	47	21.1	Reference mark, 21 ft NW. of tablet, in center of concrete bridge curb, a chiseled square	1219.28

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DENISON QUADRANGLE
157 - IOWA

LINE 4 (Cont'd)

VAIL QUAD. - 156

FEET

- 1 48 21.1 Boyer, about 1.9 mi S. of and 0.3 mi W. of, in the SW $\frac{1}{4}$ sec. 23, T. 85 N., R. 38 W., 10.5 ft SE. of (normal) and 0.8 ft higher than centerline of rd. at a small concrete bridge; in center of SE. bridge curb, a standard tablet, stamped "24 RB 1971" (Drain 16.4 ft lower) 1219.310
- 49 22.2 UE, 1.0 mi N. of tablet, near the W. sixteenth cor. between secs. 14 and 23, T. 85 N., R. 38 W., in centerline of deck bridge, a copper nail and washer (Drain 20.4 ft lower) 1214.15
- 50 23.2 Reference mark, 111.5 ft W. of tablet, in SW. wing wall, a chiseled square 1231.34
- 51 23.2 Boyer, at the village of, near the quarter cor. between secs. 11 and 14, T. 85 N., R. 38 W.; 16.8 ft S. of, 55.8 ft E. of and 0.9 ft higher than centerline of bridge; in SE. wingwall, a standard tablet, stamped "25 RB 1971" (Drain 24.2 ft lower) 1230.778
- 53 24.5 Boyer, about 1.5 mi N. of, in the SW. quarter of sec. 2, T. 85 N., R. 38 W., 12 ft NE. of (normal) and 1.6 ft lower than a dismantled RR. grade; in NE. concrete culvert, headwall, a monel rivet, (Listed USC&GS RV 14) (Drain 8.1 ft lower) 1281.369

DENISON QUAD. - 157

- 56 25.9 Kiron, about 3.0 mi E. of, near cor. secs. 3, 4, 9 and 10, T. 85 N., R. 38 W.; about 730 ft N. of crossroads and 500 ft E. along an abandoned RR. grade, on S. side of grade; 3 ft N. and 3.5 ft W. of a fence cor. at N.-S. fence crossing the old grade; in concrete post, about 2-in. above ground, standard disk stamped "F 94 1935" 1367.609
- 58 27.1 UE, 1.1 mi W. of tablet, near cor. secs. 4, 5, 8 and 9, T. 85 N., R. 38 W., 125 ft N. of, 23 ft E. of and 10.6 ft lower than T-rd. N., on E. end of an iron pipe culvert, a punch mark 1370.89
- 60 28.3 Kiron, 1.0 mi E. of, near cor. secs. 5, 6, 7 and 8, T. 85 N., R. 38 W.; about 700 ft N. of crossroads at an abandoned RR. grade crossing; 50 ft N. and 30 ft E. of the abandoned grade crossing; 15 ft S. of a power pole, 1 ft W. of a N.-S. fence line; in concrete post, projecting 2-in. above ground, a standard disk stamped "G 94 1935" 1340.847

LINE 5

R.M. Brown, 1971; Book CV-2686

DENISON QUAD. - 157

- 1 62 0.0 Kiron, about 2.0 mi W. and 0.3 mi S. of; 0.3 mi S. of the cor. secs. 2, 3, 10 and 11, T. 85 N., R. 39 W.; in SE $\frac{1}{4}$ of NW $\frac{1}{4}$ sec. 10; 666 ft W. of N.-S. rd. along an abandoned RR. grade at an old RR. concrete box culvert; 9.5 ft S. of abandoned RR. grade; on W. end of S. headwall of culvert; a standard USC&GS monel rivet and designated "RB 16" 1386.841
- 63 0.4 UE, 1.3 mi N. and E. of rivet, near the E. sixteenth cor. between secs. 2 and 11, T. 85 N., R. 39 W.; centerline of small bridge 1393.3

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DENISON QUADRANGLE
157 - IOWA

LINE 5 (Cont'd)

DENISON QUAD. - 157

FEET

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|------|-----|--|----------|
| 1 63 | 1.3 | UE, 1.3 mi N. and E. of rivert, near the E. sixteenth cor. between secs. 2 and 11, T. 85 N., R. 39 W.; centerline of small bridge | 1310.1 |
| 65 | 2.5 | At Kiron, Crawford Co., in the Kiron State Bank Bldg., 4.0 ft N. of 52 ft W. of and 5.7 ft higher than cross streets; in S. side of bldg. mounted vertically, a standard tablet, stamped "H 94 RESET 1956" (Elev. by U.S.G.S.) | 1340.762 |
| 67 | 3.8 | Kiron, 1.0 mi E. of; near cor. secs. 5, 6, 7 and 8, T. 85 N., R. 38 W.; about 700 ft N. of crossroads at an abandoned rd. grade crossing; 50 ft N. and 30 ft E. of the abandoned grade crossing; 15 ft S. of a power pole, 1 ft W. of a N.-S. fence line; in concrete post; projecting 2-in. above ground, a standard disk stamped "G 94 1935" | 1340.847 |

LINE 6

W. E. Knouse, 1966; Book CV-2058

IDA GROVE QUAD. - 182

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|------|--|----------|
| 16.3 | UE 4 B; T. 86 N., R. 39 W., near cor. secs. 10, 11, 14 and 15; 23 ft N. and 20 ft E. of crossroads; on N. end of concrete pipe culvert; chiseled cross | 1475.40. |
| 16.8 | UE 4 C; T. 86 N., R. 39 W., near quarter cor. secs. 14 and 15; 49 ft N. and 33 ft E. of rd. at fence W., about 0.1 ft above ground level in W. side of a power pole, rail spike | 1506.16 |
| 17.4 | UE 4 D; T. 86 N., R. 39 W., near cor. secs. 14, 15, 22 and 23; 20.5 ft N. and 24.5 ft E. of crossroads, on top of E. headwall of concrete culvert encompassing a steel pipe culvert; chiseled square | 1440.32 |

DENISON QUAD. - 157

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|------|---|----------|
| 17.9 | UE 4 E; T. 86 N., R. 39 W., near quarter cor. secs. 22 and 23; 11 ft N. and 30 ft W. of rd. at field entrance W., 1 ft N. and 30 ft W. of rd. at E.-W. fence line, at ground level in E. side of a telephone pole, rail spike | 1460.62 |
| 18.4 | Reference Mark No. 5 WEK; 31 ft NE. of tablet; 33 ft S. and 15 ft W. of crossroads; on top of W. end of corrugated steel culvert; punched hole | 1468.77 |
| 18.4 | Kiron, 3.0 mi N. and 1.5 mi W. from; 6.5 mi S. and 1.0 mi W. from Arthur; T. 86 N., R. 39 W., near cor. of secs. 22, 23, 26 and 27; 53 ft S. and 38 ft W. of crossroads; 17.5 ft S. of fence cor., 1 ft E. of W. right-of-way, in a concrete post; a standard tablet stamped "5 WEK 1966" | 1472.548 |
| 19.0 | UE 5 A; T. 86 N., R. 39 W., near quarter cor. secs. 26 and 27; about 300 ft N. of rd. at tree line W., 17 ft W. of center of N.-S. rd., on top of W. end of corrugated steel culvert; punched hole | 1442.48 |
| 19.4 | UE 5 B; T. 86 N., R. 39 W., near cor. secs. 26, 27, 34 and 35; 15.5 ft N. and 32.5 ft W. of crossroads, on N. end of a concrete pipe culvert; chiseled square | 1409.15 |
| 19.8 | UE 5 C; T. 86 N., R. 39 W., about 0.1 mi N. of quarter cor. secs. 34 and 35; 17.5 ft W. of center of N.-S. rd., on top and center of W. headwall of a box culvert; chiseled square | 1367.16 |
| 20.4 | UE 5 D; Ts. 85 and 96 N., R. 39 W., near cor. secs. 2, 3, 34 and 35; 27 ft S. and 20 ft W. of crossroads, on W. end of concrete pipe culvert; chiseled square | 1407.32 |

LINE 6 (Cont'd)

FEET

DENISON QUAD. - 157

- 21.1 UE 5 E; T. 85 N., R. 39 W., about 0.2 mi S. of quarter cor. secs. 2 and 3; 115 ft N. and 17 ft W. of rd. at drive W.; on top of N. end of corrugated steel culvert; punched hole 1357.35
- 21.7 Kiron, 2.2 mi W. along the Chicago and North Western RR. from the station at; Crawford County, 3 poles W. of a rd. crossing, at 6 x 6 ft cattle pass 143; in the top of the W. end of the S. concrete headwall, 9 ft S. of the center of the track, and 1 ft lower than the track; a standard USC&GS monel metal rivet designated "RV 16" 1386.841

LINE 7

W. E. Knouse, 1966; Book CV-2058

BATTLE CREEK QUAD. - 183

- 24.3 UE 11 D; T. 86 N., R. 40 W., near cor. secs. 16, 17, 20 and 21; 33 ft S. and 42 ft W. of crossroads, in N. side of telephone pole, rail spike 1385.70
- 24.7 UE 11 E; T. 86 N., R. 40 W., about 0.1 mi W. of quarter cor. secs. 16 and 21; 20 ft N. of center of E.-W. rd., on top W. end of N. headwall of concrete box culvert; chiseled square 1342.86
- 25.3 Reference Mark No. 12 WEK; 76 ft W. of tablet, 59 ft S. and 36 ft W. of crossroads; in NE. side of telephone pole and 0.5 ft above ground, rail spike 1397.03

IDA GROVE QUAD. - 182

- 25.3 Ida Grove, 6.0 mi S. and 1.0 mi W. from; 4.0 mi S. and 5.0 mi E. from Battle Creek; T. 86 N., R. 40 W., near cor. secs. 15, 16, 21 and 22; 1 ft W. of E. right-of-way fence, 59 ft S. and 40 ft E. of crossroads, in a concrete post; a standard tablet stamped "12 WEK 1966" 1396.755
- 25.8 UE 12 A; T. 86 N., R. 40 W.; about 300 ft W. of quarter cor. secs. 15 and 22; 41 ft E. and 16 ft S. of rd. at drive S., on top of S. headwall of box culvert; chiseled square 1329.33
- 26.3 UE 12 B; T. 86 N., R. 40 W.; near cor. secs. 14, 15, 22 and 23; 35 ft S. and 62 ft W. of crossroads; on top S. end of a corrugated steel culvert; punched hole 1382.24
- 26.7 UE 12 C; T. 86 N., R. 40 W.; about 0.1 mi W. of quarter cor. secs. 14 and 23; 23 ft N. of center of E.-W. rd., on top of N. end of concrete culvert; chiseled square (S. end of culvert is corrugated steel, they are joined under rd.) 1402.63
- 27.4 UE 12 D; T. 86 N., R. 40 W.; near cor. secs. 13, 14, 23 and 24; about 100 ft E. of crossroads; 10 ft S. of center of bridge, on top of center of S. rail curbing of bridge; chiseled square 1339.33
- 28.0 UE 12 E; T. 86 N., R. 40 W.; about 0.15 mi E. of quarter cor. secs. 13 and 24; 18 ft N. of center of rd., on N. end of corrugated steel culvert; punched hole 1383.14
- 28.3 Reference Mark No. 13 WEK; 49 ft WSW. of tablet; 36 ft N. and 28 ft E. of crossroads; on E. end of concrete pipe culvert; chiseled square 1419.92
- 28.3 Ida Grove, 6.0 mi S. and 1.0 mi E.; T. 86 N., Rs. 39 and 40 W.; near cor. secs. 13, 18, 19 and 24; 51 ft N. and 76 ft E. of crossroads; 6 ft E. of fence cor., 1.5 ft S. of N. right-of-way fence; in concrete post, standard tablets stamped "13 WEK 1966" 1427.678
- 28.9 UE 13 A; T. 86 N., R. 39 W.; about 0.1 mi E. of quarter cor. secs. 18 and 19; 34 ft S. and 18 ft W. of rd. at drive S., on W. end of concrete pipe culvert; chiseled square 1367.64
- 29.4 UE 13 B; T. 86 N., R. 39 W.; near cor. secs. 17, 18, 19 and 20; about 300 ft E. of crossroads; 24 ft N. and 8.5 ft E. of rd. at field entrance N., on top of E. end of concrete pipe culvert; chiseled square 1402.25

LINE 7 (Cont'd)

FEET

IDA GROVE QUAD. - 182

29.8	UE 13 C; T. 86 N., R. 39 W., near quarter cor. secs. 17 and 20; 15 ft S. and 25 ft E. of rd. at fence S., on top of S. end of corrugated steel culvert (end culvert bent); chiseled cross	1406.56
30.3	UE 13 D; T. 86 N., R. 39 W.; near cor. secs. 16, 17, 20 and 21; 15 ft S. and 33 ft E. of crossroads, on S. end of corrugated steel culvert; chiseled cross	1434.75
30.8	UE 13 E; T. 86 N., R. 39 W., near quarter cor. secs. 16 and 21; 154 ft N. and 111 ft W. of rd. at fence N., on N. end of a corrugated steel culvert; chiseled cross	1462.40
31.3	Reference Mark No. 14 WEK; 75 ft WSW. of tablet; 15 ft N. and 29 ft W. of crossroads, on top of N. end of a corrugated steel culvert; chiseled cross	1387.67
31.3	Ida Grove, 6.0 mi S. and 4.0 mi E. from; 4.0 mi N. and 3.0 mi W. from Kiron; T. 86 N., R. 39 W., near cor. secs. 15, 16, 21 and 22; 32.5 ft N. and 45.5 ft E. of crossroads; 12.5 ft E. of fence cor. post, 1 ft S. of N. right-of-way fence, in a concrete post; a standard tablet stamped "14 WEK 1966"	1387.087
32.0	UE 14 A; T. 86 N., R. 39 W., about 0.3 mi W. of cor. secs. 14, 15, 22 and 23; 18 ft N. of center of E.-W. rd., on top of N. end of concrete pipe culvert; chiseled square	1426.47
32.2	UE 4 D (Described in Line 6)	1440.32