

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

THIRD ORDER LEVELS
SEA LEVEL DATUM OF 1929

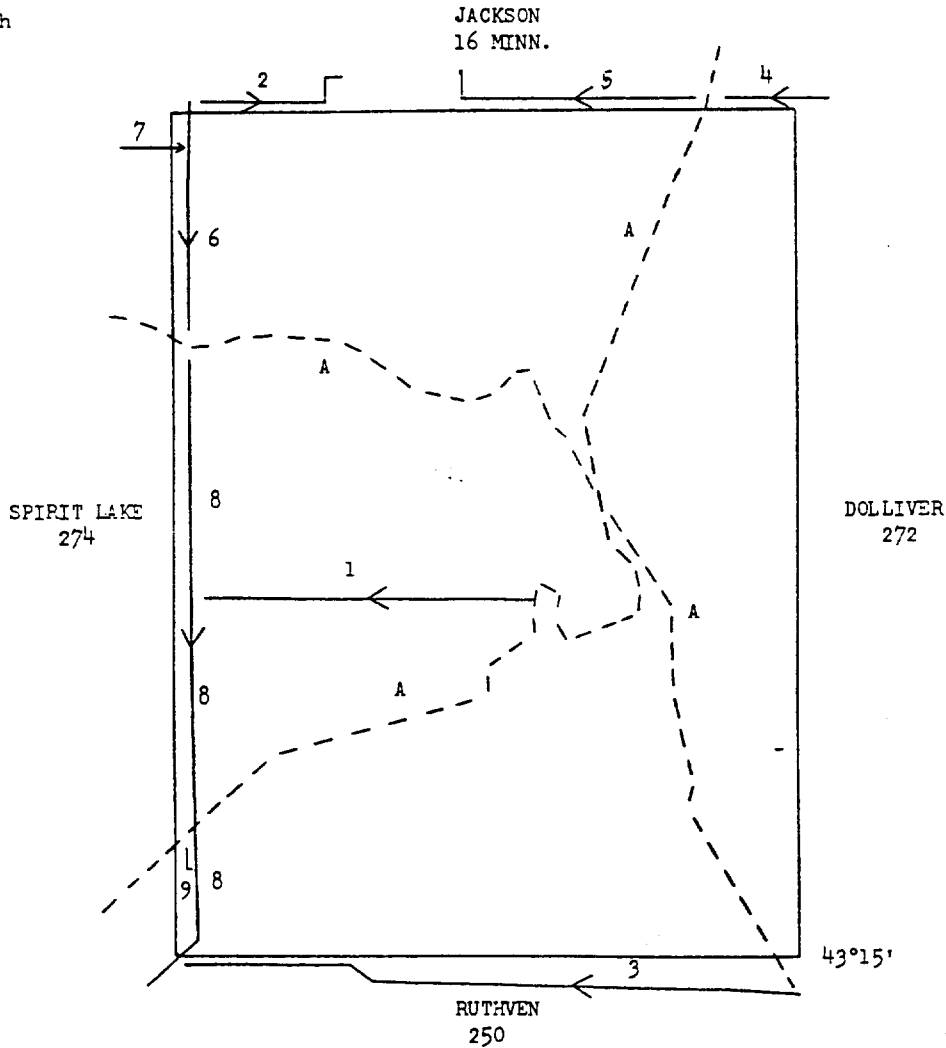
FINAL ADJUSTMENT OF 1970
EXCEPT AS NOTED

Clay, Dickinson, Emmet,
and Palo Alto Counties

Edition of 11/24/70

PR:AKH/cvb/gh

ESTHERVILLE QUADRANGLE
273 - IOWA
N4315-W9445/15
DIAGRAM NK 15-1
FAIRMONT



USC&GS VERTICAL CONTROL DATA
A. Quadrangle 430943

273 A

01

2
ESTHERVILLE QUADRANGLE
273 - IOWA

LINE 1

FEET

C. L. Crutchfield, 1970; Book CV 2586

ESTHERVILLE QUAD. - 273

- 1 4 0.0 Estherville, Emmet County, 7.2 mi SW. along the Minneapolis & St. Louis RR. from the station at; 1.5 mi NE. of the station at Raleigh, 165 ft N. of the center of a section rd., 44.5 ft NW. of the W. rail, and 1.5 ft SE. of the right-of-way fence; a USC&GS standard disk stamped "J 21 1934" and set in the top of a concrete post; projecting about 5 in. above ground 1418.129
- 4 0.1 Wallingford, 2.5 mi N. and 3.0 mi W. of; near cor. secs. 27, 28, 33 and 34, T. 99 N., R. 34 W., 75 ft N. and 34 ft W. and 3.4 ft lower than T-rd. W., top of the W. end of a large concrete tile culvert; a standard tablet stamped "1 CLC 1969" 1407.550
- 5 1.1 UE 1 A, 1.0 mi W. along a county rd. from tablet, center of T-rd. S.; a nail and washer in centerline (gravel) painted "UE centerline" 1454.13
- 6 2.1 UE 1 B, 2.0 mi W. along a county rd. from tablet, center of crossroads; a RR. spike in pavement; painted "UE centerline" 1459.62
- 7 3.0 UE 1 C, 2.9 mi W. along a county rd. from tablet, center of crossroads; an iron pipe in pavement, painted "UE centerline" 1448.77
- 8 3.9 Terril, 3.0 mi N. and 2.0 mi E. of; 22 ft N. and 810 ft E. of crossroads, 0.15 mi E. of the cor. secs. 25, 26, 35 and 36, T. 99 N., R. 35 W., in top of the N. end of a large concrete tile culvert; a standard tablet; stamped "2 CLC 1970" 1437.486
- 9 4.0 Reference mark, 22 ft S. and 810 ft W. and 3.7 ft higher than tablet, center of crossroads; a steel pipe in pavement, painted "RM" 1441.18
- 10 5.0 UE 2 A, 1.1 mi W. along a county rd. from tablet, center of crossroads; an iron bar in pavement painted "UE centerline" 1467.32
- 11 6.0 Reference mark, 2.1 mi W. along a county rd. from tablet, center of crossroads; a steel bar in pavement, 12 ft S. and 130 ft E. of "3 CLC 1970", painted "BM" 1440.34
- 12 6.0 Terril, 3.0 mi N. of, near cor. secs. 27, 28, 33 and 34, T. 98 N., R. 35 W., 12 ft N. and 130 ft W. and 4 ft lower than crossroads, top of the N. wheel guard of a concrete bridge; a standard tablet stamped "3 CLC 1970" 1438.930
- 13 7.0 UE 3 A, 1.0 mi W. along a county rd. from tablet, center of crossroads, a steel pipe in pavement, painted "UE centerline" 1451.60
- 14 7.0 UE ET 9 A, 0.7 mi S. of "ET 9 DLH 1966". T. 99 N., R. 35 W., near cor. secs. 28, 29, 32 and 33, 26 ft N. and 30 ft W. of crossroads; chiseled square, on 24-in. concrete pipe culvert, painted "UE ET 9 A" 1448.33

LINE 2

C. L. Crutchfield, 1970; Book CV 2586

JACKSON QUAD. - 16

- 1 17 0.0 Jackson, 9.6 mi S. of along U.S. Hwy. 71 from S. jct. of U.S. 16 at; at the Iowa-Minn. State line, 2.4 mi S. of tablet, Tps. 100 and 101 N., R. 35 W., near cor. secs. 8, 9, 35 and 36, in the NE. corner of a small park on Minnesota side of line, 431 ft N. of State Line Rd., 143 ft E. of U.S. Hwy. 7, 193 ft NE. of a stone monument (Welcome to Minn.) 28 ft NE. of a 6-in. elm, 8 ft S. of a witness sign; standard tablet set in concrete post flush with ground; stamped "38 DWB 1967 1439", not painted 1438.521

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ESTHERVILLE QUADRANGLE
273 - IOWA

LINE 1

FEET

C. L. Crutchfield, 1970; Book CV 2586

ESTHERVILLE QUAD. - 273

- | | | | | |
|----|-----|--|--|----------|
| 1 | 4 | 0.0 | Estherville, Emmet County, 7.2 mi SW. along the Minneapolis & St. Louis RR. from the station at; 1.5 mi NE. of the station at Raleigh, 165 ft N. of the center of a section rd., 44.5 ft NW. of the W. rail, and 1.5 ft SE. of the right-of-way fence; a USC&GS standard disk stamped "J 21 1934" and set in the top of a concrete post; projecting about 5 in. above ground | 1418.129 |
| 4 | 0.1 | Wallingford, 2.5 mi N. and 3.0 mi W. of; near cor. secs. 27, 28, 33 and 34, T. 99 N., R. 34 W., 75 ft N. and 34 ft W. and 3.4 ft lower than T-rd. W., top of the W. end of a large concrete tile culvert; a standard tablet stamped "1 CLC 1969" | 1407.550 | |
| 5 | 1.1 | UE 1 A, 1.0 mi W. along a county rd. from tablet, center of T-rd. S.; a nail and washer in centerline (gravel) painted "UE centerline" | 1454.13 | |
| 6 | 2.1 | UE 1 B, 2.0 mi W. along a county rd. from tablet, center of crossroads; a RR. spike in pavement; painted "UE centerline" | 1459.62 | |
| 7 | 3.0 | UE 1 C, 2.9 mi W. along a county rd. from tablet, center of crossroads; an iron pipe in pavement, painted "UE centerline" | 1448.77 | |
| 8 | 3.9 | Terril, 3.0 mi N. and 2.0 mi E. of; 22 ft N. and 810 ft E. of crossroads, 0.15 mi E. of the cor. secs. 25, 26, 35 and 36, T. 99 N., R. 35 W., in top of the N. end of a large concrete tile culvert; a standard tablet; stamped "2 CLC 1970" | 1437.486 | |
| 9 | 4.0 | Reference mark, 22 ft S. and 810 ft W. and 3.7 ft higher than tablet, center of crossroads; a steel pipe in pavement, painted "RM" | 1441.18 | |
| 10 | 5.0 | UE 2 A, 1.1 mi W. along a county rd. from tablet, center of crossroads; an iron bar in pavement painted "UE centerline" | 1467.32 | |
| 11 | 6.0 | Reference mark, 2.1 mi W. along a county rd. from tablet, center of crossroads; a steel bar in pavement, 12 ft S. and 130 ft E. of "3 CLC 1970", painted "BM" | 1440.34 | |
| 12 | 6.0 | Terril, 3.0 mi N. of, near cor. secs. 27, 28, 33 and 34, T. 98 N., R. 35 W., 12 ft N. and 130 ft W. and 4 ft lower than crossroads, top of the N. wheel guard of a concrete bridge; a standard tablet stamped "3 CLC 1970" | 1438.930 | |
| 13 | 7.0 | UE 3 A, 1.0 mi W. along a county rd. from tablet, center of crossroads, a steel pipe in pavement, painted "UE centerline" | 1451.60 | |
| 14 | 7.0 | UE ET 9 A, 0.7 mi S. of "ET 9 DLH 1966", T. 99 N., R. 35 W., near cor. secs. 28, 29, 32 and 33, 26 ft N. and 30 ft W. of crossroads; chiseled square, on 24-in. concrete pipe culvert, painted "UE ET 9 A" | 1448.33 | |

LINE 2

C. L. Crutchfield, 1970; Book CV 2586

JACKSON QUAD. - 16

- | | | | | |
|---|----|-----|--|----------|
| 1 | 17 | 0.0 | Jackson, 9.6 mi S. of along U.S. Hwy. 71 from S. jct. of U.S. 16 at; at the Iowa-Minn. State line, 2.4 mi S. of tablet, Tps. 100 and 101 N., R. 35 W., near cor. secs. 8, 9, 35 and 36, in the NE. corner of a small park on Minnesota side of line, 431 ft N. of State Line Rd., 143 ft E. of U.S. Hwy. 7, 193 ft NE. of a stone monument (Welcome to Minn.) 28 ft NE. of a 6-in. elm, 8 ft S. of a witness sign; standard tablet set in concrete post flush with ground; stamped "38 DWB 1967 1439", not painted | 1438.521 |
|---|----|-----|--|----------|

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ESTHERVILLE QUADRANGLE
273 - IOWA

<u>LINE 2 (Cont'd)</u>		<u>JACKSON QUAD. - 16 Minn.</u>	<u>FEET</u>
1	18 1.1	UE 1, 1.0 mi E. along a county rd. from tablet, center of county rd. at bend N.-W. painted "UE centerline"	1421.6
	19 2.1	UE 2, 2.0 mi E. along a county rd. from tablet, center of T-rd. E.; a nail and washer, painted "UE centerline"	1402.3
	20 2.7	Petersburg, Minnesota, 1.5 mi S. and 1.3 mi W. of; 0.68 mi E. of the cor. secs. 10, 11, 31 and 32, Tps. 100 and 101 N. (R. 34 W., Minn.) 8 ft N. and 0.2 ft higher than center of State Line Rd., at a concrete bridge in the center of the N. wheel guard; a standard tablet stamped "4 CLC 1970"	1353.284
	21 2.7	Reference mark, 15 ft S. and 6 ft E. of tablet, top of the SE. corner of a wheel guard; a chiseled square, painted "RM"	1353.27
	22 3.1	UE 4 A, 0.3 mi E. along a county rd. from tablet, center of T-rd. S.; a nail and washer, painted "UE centerline"	1356.14
	23 4.1	UE 4 B, 13 mi E. along a county rd. from tablet, center of T-rd. W.; a RR. spike in pavement, painted "UE centerline"	1392.00
	24 5.1	UE 4 C, 1.0 mi N. and 1.3 mi E. along a county rd. from tablet, 20 ft NW. and 2.1 ft lower than center of rd. at curve S.-E., top of the NW. end of a metal corrugated culvert; a USGS BM washer with bolt; top of bolt head, painted "UE 4 C"	1363.24
	25 5.1	At Petersburg, Minnesota, near center of the E. sixteenth cor. sec. 28, T. 101 N., R. 34 W., on Minnesota State Hwy. 23, top of the SE. corner of a new concrete bridge over West Des Moines River; a standard tablet stamped "5 CLC 1970"	1293.899
	26 6.3	Reference mark, 200 ft N. and 3 ft W. and normal to tablet, top of the NE. corner, 0.7 ft higher than center of bridge floor; a chiseled square, painted "BM"	1293.87
	27 6.8	UE 5 A, 0.25 mi N. and 0.25 mi E. along State and County Hwys. from tablet, center of T-rd. N.; a RR. spike in pavement, painted "UE centerline"	1324.75
	28 7.8	UE 5 B, 0.25 mi N. and 1.25 mi E. along State and Co. Hwys. from tablet, center of T-rd.; a RR. spike in pavement, painted "UE centerline"	1381.67
	29 8.8	UE 33 A, 0.9 mi N. of "33 DWB 1967", T. 101 N., R. 34 W., near cor. secs. 23, 24, 25 and 26, punched hole in N. end of 18-in. corrugated metal pipe culvert, 15 ft N. and 33 ft E. of crossroads, painted "UE 33 A"	1362.29

LINE 3

C. L. Crutchfield, 1970; Book CV 2586

EMMETSBURG QUAD. - 249

NOTE: FIELD ELEVATIONS ARE PUBLISHED HERE PENDING RERUNS

2	1	0.0	Emmetsburg, Palo Alto County, 6.7 mi NW. along the Chicago, Rock Island & Pacific RR. from the station at; 0.5 mi NW. of the station at Osgood, 0.2 mi NW. of wooden trestle 1909, 45.9 ft NE. of the NE. rail of the main track, 26 ft NW. of milepost 191, 1.5 ft SW. of the right-of-way fence; a USC&GS standard disk stamped "G 19 1934" and set in the top of a concrete post projecting about 4 in. above ground	1230.326
	2	1.0	UE G A, 1.0 mi N. along the RR. from tablet, center of E.-W. gravel rd. on top of W. rail, not painted	1232.025
	3	1.9	UE G B, 1.9 mi NNW. along the RR. from tablet, center of N.-S. gravel rd., on top of the S. rail, not painted	1235.793
	4	2.0	Osgood, Palo Alto County, 2.4 mi NW. along the C.R.I.&P. RR. from the station at; 1.7 mi SE. from the station at Graettinger, 330 ft SE. of milepost 193, 51 ft W. of the center of a section rd., 47.7 ft NE. of the NE. rail of the main track, 14.8 ft NW. of a fence corner, and 1.5 ft SW. of a right-of-way fence; a USC&GS standard disk stamped "H 19 1934" and set in the top of a concrete post projecting about 4 in. above ground (corner chipped but post solid 9/70 CLC)	1234.221

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ESTHERVILLE QUADRANGLE
273 - IOWA

<u>LINE 3 (Cont'd)</u>		<u>EMMETSBURG QUAD. - 249</u>	<u>FEET</u>
2	5 2.5	UE H A, 0.54 mi N. along a county rd. from tablet, center of T-rd. W.; a nail and washer, painted "UE centerline"	1236.660
		<u>RUTHVEN QUAD. - 250</u>	
6	3.3	UE H B, 1.3 mi N. along a county rd. from tablet, center of T-rd. S.; a chiseled square in concrete hwy., painted "UE centerline"	1233.243
7	3.5	UE H C, 1.3 mi N. and 0.2 mi W. along a county rd. and hwy. from tablet, center of T-rd. N.; a chiseled square, in concrete hwy. painted "UE centerline"	1238.553
8	4.5	UE H D, at Graettinger, first building W. of the city power plant, at the SW. corner of the new power plant garage; a chiseled square, not painted	1246.239
9	4.9	At Graettinger, 0.14 mi S. of the cor. secs. 4, 5, 8 and 9, T. 97 N., R. 33 W., 46 ft S. and 52 ft E. and 2.3 ft higher than T-rd. E. at the NW corner of the county shop; a standard tablet crimped to 10-ft steel rod, 1 ft N. of a witness sign; set 0.1 ft below ground and stamped "6 CLC 1970"	1295.757
10	4.9	Reference mark, 46 ft N. and 52 ft W. and 2.3 ft lower than tablet, center of State Hwy. 4, and rd. E.; a chiseled square, painted "RT"	1293.450
11	5.0	UE 6 A, 0.14 mi N. along State Hwy. 4 from tablet, center of T-rd. W.; a chiseled square, painted "UE centerline"	1287.693
12	6.0	UE 6 B, 0.14 mi N. and 1.0 mi W. along State and County Hwys. from tablet, center of T-rd. S.; a chiseled square, painted "UE centerline"	1306.020
13	7.0	UE 6 C, 0.14 mi N. and 2.0 mi W. along State and Co. Hwys. from tablet, center of hwy. at N.-S. fence; a chiseled square, painted "UE centerline"	1348.158
14	8.0	Graettinger, 3.0 mi W. of; near cor. secs. 1, 2, 11 and 12, T. 97 N., R. 34 W., 42 ft S. and 410 ft E. and 9.9 ft lower than crossroads, 1 ft N. of a fence corner, 0.5 ft N. of a witness sign; a copper coated steel rod driven to a depth of 10 ft; a standard brass tablet crimped to rod set 0.1 ft below ground and stamped "7 CLC 1970"	1367.589
15	8.1	Reference mark, 42 ft N. and 410 ft W. and 9.9 ft higher than tablet, center of crossroads; a chiseled square in center of hwy., painted "RM"	1377.450
16	9.1	UE 7 A, 1.1 mi W. along county hwy. from tablet, center of crossroads; a chiseled square, painted "UE centerline"	1439.922
17	9.6	UE 7 B, 1.6 mi W. along a County Hwy. from tablet, center of T-rd. S.; a chiseled square, painted "UE centerline"	1491.510
18	10.1	UE 7 C, 2.1 mi W. along a County Hwy. from tablet, center of crossroads; a chiseled square, painted "UE centerline"	1507.038
19	11.1	UE 7 D, 3.1 mi W. along a county rd. and hwy. from tablet, center of crossroads; a nail and washer in gravel, painted "UE centerline"	1428.963
20	11.2	Graettinger, 6.0 mi W. of; near cor. secs. 4, 5, 8 and 9, T. 97 N., R. 34 W., 38 ft N. and 590 ft W. and 7.5 ft lower than crossroads, 12 ft E. and 2 ft S. of a corner fence post, 1 ft S. of a witness sign; a copper coated steel rod driven to a depth of 10 ft; a standard brass tablet crimped to rod set 0.2 ft below ground and stamped "8 CLC 1970"	1421.484
21	11.5	UE 8 A, 0.3 mi W. along a county rd. from tablet, 10 ft N. and 10 ft W. and 0.3 ft higher than center of bridge over a small drain, top of the NW. wheel guard; a chiseled square, painted "UE 8 A"	1391.949
22	12.0	UE 8 B, 0.9 mi W. along a county rd. from tablet, center of crossroads; a nail and washer, painted "UE centerline"	1402.200

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ESTHERVILLE QUADRANGLE
273 - IOWA

<u>LINE 3 (Cont'd)</u>		<u>RUTHVEN QUAD. - 250</u>	<u>FEET</u>
2	23 12.9	UE 8 C, 1.8 mi W. along a county rd. from tablet, center of crossroads; a nail and washer, painted "UE centerline"	1430.265
24	14.0	UE 8 D, 2.8 mi W. along a county rd. from tablet, 12 ft N. and 1.1 ft higher than center of E.-W. rd., at drain crossing, in the center of the N. headwall of a concrete box culvert; a chiseled square, painted "UE 8 D"	1389.396
25	14.1	UE 8 E, 2.9 mi W. along a county rd. from tablet, center of crossroads; a nail and washer, painted "UE centerline"	1387.821
26	14.4	Terril, 4.0 mi S. and 1.7 mi E. of; 0.3 mi W. of the cor. secs. 1, 2, 11 and 12, T. 97 N., R. 35 W., 32 ft N. and 10 ft W. and 2.6 ft lower than T-field entrance N., 1 ft W. and 2 ft S. of a corner fence post, 1 ft S. of a witness sign; a copper coated steel rod driven to a depth of 10 ft; a standard brass tablet crimped to rod, set 0.1 ft below ground and stamped "9 CLC 1970"	1393.905
27	15.2	UE 9 A, 0.8 mi W. along a county rd. from tablet, center of crossroads; a nail and washer, painted "UE centerline"	1371.414
28	16.1	UE 9 B, 1.7 mi W. along a county rd. from tablet, center of crossroads; a nail and washer, painted "UE centerline"	1363.320
29	17.1	UE 9 C, 2.7 mi W. along a county rd. from tablet, center of crossroads; a nail and washer, painted "UE centerline"	1378.854
30	17.4	Fostoria, about 7.5 mi E. of; near quarter cor. secs. 5 and 8, T. 97 N., R. 35 W., 32 ft N. of center of E.-W. rd., 10 ft E. of center of gate at field entrance N., 2 ft S. of fence line, in concrete post; standard tablet stamped "ET 15 HK 1964 1388"	1387.476
		SPENCER QUAD. --251 THIS ELEV. 1387.776 PREV. ELEV. 1387.476 CLOSURE +.300	

LINE 4

D. W. Bennett, 1967; Book CV 2218

SHERBURN QUAD. - 15

17.2	Estherville, 7.0 mi N. and 5.5 mi E. of courthouse at; Dunnell, 4.0 mi S. of, 2.25 mi E. of; 2.4 mi W. of tablet, Tps. 100 and 101 N., R. 32 W., near quarter cor. sec. 10 and W. sixteenth cor. sec. 31, at the NW. corner of a cemetery on the Iowa side of State Line Rd., 95 ft W. of the gate to the cemetery, 43 ft S. of E.-W. rd., 41 ft NW. of Ruth and Earl A. Harvego monument, 11 ft SW. of a power pole, 7 ft S. and 2 ft W. of NW. corner post of cemetery; standard tablet set in top of concrete post, stamped "31 DWB 1967 1309", not painted		1308.634
17.8	UE 31 A, 0.7 mi W. of tablet, Tps. 100 and 101 N., Rs. 32 and 33 W., near cor. secs. 9, 10, and E. sixteenth cor. sec. 36, 12 ft N. and 210 ft W. of T-rd. S.; chiseled square on center of N. headwall of cattle underpass, painted "UE 31 A"		1328.72
18.6	UE 31 B, 1.5 mi W. of tablet, Tps. 100 and 101 N., R. 33 W., near cor. secs. 35 and 36, near W. sixteenth cor. sec. 9, 21 ft N. and 18 ft W. of T-rd. N.; chiseled "X" on 18-in. corrugated metal pipe culvert		1319.79
		<u>JACKSON QUAD. - 16</u>	
19.6	UE 31 C, 2.5 mi W. of tablet, Tps. 100 and 101 N., R. 33 W., near cor. secs. 34 and 35, near W. sixteenth cor. sec. 7, 15 ft S. and 12 ft W. of T-rd. N.; chiseled square, on concrete culvert headwall		1330.55
20.2	Dunnell, in Emmet County, Iowa, about 4 mi S. along the Minneapolis and St. Louis RR. from the station at; Martin County Minnesota, about 0.7 mi NE. of Huntington, Emmet County, Iowa, about 440 yards NE. of MP 161, at the state line, 76.5 ft S. of the center of the crossing of State Hwy. 17, 72.9 ft SW. of the center of the hwy., 45.9 ft SE. of the E. rail, 45 ft SW. of a right-of-way fence corner, and 1.5 ft NW. of the fence; a US&GS standard disk stamped "A 21 1934" and set in the top of a concrete post projecting about 3 in. above ground		1350.512

LINE 5

FEET

D. W. Bennett, 1967; Book CV 2218

JACKSON QUAD. - 16

0.0	USC&GS "A 21 1934" (described in Line 4)	1350.512
0.4	UE A 21 A, at the state line, Tps. 100 and 101 N., R. 33 W., near cor. secs. 33 and 34, and NW. cor. sec. 7, 27 ft N. and 27 ft W. of T-rd. N.; rail spike in corner fence post SE. side	1346.34
0.9	UE A 21 B, Tps. 100 and 101 N., Rs. 33 and 34 W., near quarter cor. secs. 33 and E. sixteenth cor. sec. 12, 27 ft N. and 24 ft E. of T-rd. N.; rail spike in power pole, S. side (T-rd. N.)	1362.48
1.6	UE A 21 C, Tps. 100 and 101 N., Rs. 33 and 34 W., near cor. secs. 11 and 12, and E. sixteenth cor. sec. 32, 34 ft S. and 20 ft E. of T-rd. S.; punched hole in 30-in. corrugated metal pipe culvert; T-rd. S.	1366.68
2.5	Estherville, 7.0 mi N. of; Dunnell, 4.0 mi S., 3.0 mi W. of; at the Iowa-Minnesota state line, Tps. 100 and 101 N., Rs. 33 and 34 W., near cor. secs. 31 and 32, W. sixteenth cor. sec. 11, 37 ft N. and 52 ft W. of T-rd. N., E. of a 12-in. box elder, 16 ft W. of 4-ft soft maple, 1 ft S. of witness sign; standard tablet set in concrete post projecting 2 in.; stamped "32 DWB 1967 1378"	1377.754
2.6	Reference mark, 850 ft WSW. of mark, 57 ft S. and 40 ft E. of T-rd. S.; chiseled square on 3 x 3 granite boulder	1384.54
3.5	UE 32 A, 1.0 mi W. of tablet, Tps. 100 and 101 N., Rs. 33 and 34 W., near cor. secs. 31 and 36, W. sixteenth cor. sec. 10, 30 ft N. and 33 ft W. of T-rd. N.; rail spike in power pole, S. side	1404.35
4.5	UE 32 B, 2.0 mi W. of tablet, Tps. 100 and 101 N., R. 34 W., near cor. secs. 35 and 36, W. sixteenth cor. sec. 9, 310 ft N. and 23 ft W. of T-rd. N.; chiseled square on 30-in. concrete pipe culvert	1379.99
5.5	Estherville, 9.0 mi N., 2.0 mi W. of; Jackson, 7.25 mi S. and 6.0 mi E. from courthouse at; 2.0 mi W. and 1.0 mi N. of tablet, T. 101 N., R. 34 W., near cor. secs. 25, 26, 35 and 36, 420 ft N. and 51 ft W. of T-rd. E., 6 ft S. and 1.5 ft _____ of metal fence post in N.-S. fence, 0.5 ft E. of metal witness sign; standard tablet set in top of concrete post projecting 1 in.; stamped "33 DWB 1967 1369"	1369.270
5.5	Reference mark, 450 ft S. of mark, 21 ft W. of rd.; chiseled square, on 30-in. concrete pipe culvert	1370.86
6.5	UE 33 A, 0.9 mi N. of tablet, T. 101 N., R. 34 W., near cor. secs. 23, 24, 25 and 26, punched hole in N. end of 18-in. corrugated metal pipe culvert, 15 ft N., 33 ft E. of crossroads	1362.29
7.5	UE 33 B, 1.9 mi N. of tablet, T. 101 N., R. 34 W., near cor. secs. 13, 14, 23 and 24, chiseled square, on 30-in. concrete pipe culvert, 60 ft S. and 27 ft E. of crossroads	1358.63
8.5	UE 33 C, 2.9 mi N. of tablet, T. 101 N., R. 34 W., near cor. secs. 11, 12, 13 and 14; iron pin at crossroads	1388.93
8.7	Jackson, 4.25 mi S. and 6.0 mi E. of courthouse at; Alpha, 5.5 mi S. of, 3.1 mi N. of tablet, T. 101 N., R. 34 W., about 1040 ft N. of cor. secs. 11, 12, 13 and 14, in the NW. corner of the Leo A. Cox yard, 133 ft N. and 50 ft E. of drive E. to house, 113 ft NW. of NW. corner of the house, 35 ft NW. of 10-in. elm. 1 ft S. and 1 ft E. of fence corner; standard tablet set in concrete post flush, stamped "34 DWB 1967 1385"	1385.248

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ESTHERVILLE QUADRANGLE
273 - IOWA

LINE 6

FEET

D. W. Bennett, 1967; Book CV 2218

JACKSON QUAD. - 16

- 9.6 Jackson, 9.6 mi S. of along U.S. Hwy. 71 from S. jct. of U.S. 16 at; at the Iowa-Minn. State line, 2.4 mi S. of tablet; Tps. 100 and 101 N., R. 35 W., near cor. secs. 8, 9, 35 and 36, in the NE. corner of a small park on Minnesota side of line, 431 ft N. of State Line Rd., 143 ft E. of U.S. Hwy. 71, 193 ft NE. of a stone monument (Welcome to Minn.) 28 ft NE. of a 6-in. elm, 8 ft S. of a witness sign; standard tablet set in concrete post flush with ground, stamped "38 DWB 1967 1439", not painted 1438.521
- 9.6 Reference Mark, 193 ft SW. of mark; chiseled on NE. corner of "Welcome to Minnesota" stone monument 1446.71

ESTHERVILLE QUAD. - 273

- 10.6 UE 38 A, 1.0 mi S. of tablet, T. 100 N., R. 35 W., near cor. secs. 8, 9, 16 and 17, 54 ft S. and 15 ft W. of crossroads; chiseled square on top of concrete catch basin 1471.81
- 11.5 UE 38 B, 1.9 mi S. of tablet, T. 100 N., R. 35 W., near cor. secs. 16, 17, 20 and 21; iron pin at center of crossroads 1487.19
- 12.3 Jackson, 12.3 mi S. along U.S. Hwy. 71 from S. jct. U.S. 16 at, 2.7 mi S. of Minnesota State Line, T. 100 N., R. 35 W., near S. sixteenth cor. secs. 20 and 21, 1080 ft N. and 68 ft W. of crossroads, about 300 ft N. of crest of a hill, 47 ft NW. of a 24-in. concrete pipe culvert under the hwy., at a slight dip; a standard tablet set in concrete post, 2 ft E. of fence; stamped "39 DWB 1967 1500" 1500.292
- 12.3 Reference Mark, 47 ft SE. of mark; chiseled square on W. end of 18-in. concrete pipe culvert 1503.12
- 13.6 UE 39 A, 1.2 mi S. of tablet, T. 100 N., R. 35 W., near cor. secs. 28, 29, 32 and 33; chiseled "X" at center of U.S. 71 and E.-W. gravel rd. 1512.88
- 14.5 UE 39 B, 2.2 mi S. of tablet, Tps. 99 and 100 N., R. 35 W., near cor. secs. 4, 5, 32 and 33; top of S. rail at center of U.S. 71 1512.19
- 14.9 Superior, 1.9 mi W. along the C.R.I. & P. RR. from the station at; Dickinson County, 115 yards SE. of MP 215+30, 65.5 ft NW. of the center of a farm rd. crossing, 45.2 ft N. of the N. rail of the main track, and 1.5 ft S. of the right-of-way fence; a standard USC&GS disk stamped "X 19 1934" and set in the top of a concrete post projecting about 4 in. above ground 1514.620

LINE 7

D. W. Bennett, 1967; Book CV 2220

SPIRIT LAKE QUAD. - 274

- 5.4 Spirit Lake, 4.5 mi N. of; 2.5 mi E. of; on E. bank of Big Spirit Lake, T. 100 N., R. 36 W., near quarter cor. secs. 13 and 14, at the Sand Bar Beach Resort, at a steel truss bridge just W. of a co. rd. and concrete bridge, 21 ft S. and 10 ft W. and 2.4 ft lower than center of bridge; standard tablet set in concrete abutment; stamped "72 DWB : 1967 1404" 1404.447
- 5.4 Reference mark, 170 ft E. of mark, at the bridge on the Co. Rd.; chiseled square on SE. concrete curb 1408.01
- 5.8 UE 72 A, 0.5 mi NE. of tablet, T. 100 N., R. 36 W., near cor. secs. 11, 12, 13 and 14; iron rod at center of blacktop rd. and T-rd. E. 1410.13
- 6.8 UE 72 B, 0.4 mi N. and 1.1 mi E. of tablet, T. 100 N., Rs. 36 and 37 W., near cor. secs. 7, 12, 13 and 18, 27 ft N. and 30 ft W. of crossroads; chiseled square on 18-in. concrete pipe culvert 1425.50

LINE 7 (Cont'd)

SPIRIT LAKE QUAD. - 274

FEET

- 7.8 Spirit Lake, 4.6 mi N. and 5.5 mi E. of jct. U.S. Hwy. 71 and Iowa Hwy. 276 at; 4.0 mi N. and 1.0 mi W. of jct. U.S. 71 N. and Iowa Hwy. 9 E., about 0.4 mi N. and 2.2 mi E. of tablet, T. 100 N., R. 35 W., near cor. secs. 7, 8, 17 and 18, 93 ft N. and 31 ft W. of crossroads, 51 ft N. of a SE. fence corner, 75 ft N. of the top of a 24-in. concrete pipe culvert, 31 ft N. of a power pole anchor, 1 ft E. of a fence and witness sign; standard tablet set in concrete post projecting 2 in.; stamped "73 DWB 1967 1461" 1460.610
- 7.8 Reference mark, 116 ft S. of mark, 18 ft S. and 32 ft W. of crossroads; chiseled square on 24-in. concrete pipe culvert 1460.01
- 8.8 UE 38 A, 1.0 mi S. of tablet, T. 100 N., R. 35 W., near cor. secs. 8, 9, 16 and 17, 54 ft S. and 15 ft W. of crossroads; chiseled square on top of concrete catch basin 1471.81

LINE 8

D. W. Bennett, 1967; Book CV 2220

ESTHERVILLE QUAD. - 273

- 0.0 Superior, 1.9 mi W. along the C.R.I. & P. RR. from the station at; Dickinson County, 115 yards SE. of MP 215+30, 65.5 ft NW. of the center of a farm rd., crossing, 45.2 ft N. of the N. rail of the main track, and 1.5 ft S. of the right-of-way fence; a standard USC&GS disk, stamped "X 19 1934" and set in the top of a concrete post projecting about 4 in. above ground 1514.620
- 1.5 UE Z 19 A, 1.2 mi S. and 0.25 mi W. of tablet, T. 99 N., R. 35 W., near cor. secs. 4, 5, 8 and 9, 40 ft N. and 24 ft E. of crossroads; chiseled square on 30-in. concrete pipe culvert 1495.39
- 2.4 UE Z 19 B, 2.2 mi S. and 0.25 mi W. of tablet, T. 99 N., R. 35 W., near cor. secs. 8, 9, 16 and 17, 30 ft N. and 30 ft E. of T-rd. E.; rail spike in power pole W. side 1518.78
- 2.9 Superior, 2.0 mi S. and 2.25 mi W. of, T. 99 N., R. 35 W., near cor. secs. 8, 9, 16 and 17, about 2.0 mi S. of jct. U.S. Hwy. 71 N. and Iowa Hwy. 9, 161 ft N. and 32 ft E. of T-rd. W., 7 ft E. of a power pole at the top of the ditch bank; standard tablet set in top of concrete post; stamped "77 DWB 1967 1507" 1507.194
- 2.9 Reference Mark, 360 ft NW. of mark, on opposite side of rd., 16 ft W. of rd.; chiseled square on 24-in. concrete pipe culvert 1497.58
- 3.5 UE 73 A, 0.5 mi S. of tablet, T. 99 N., R. 35 W., near cor. secs. 16, 17, 20 and 21, 40 ft S. and 19 ft W. of crossroads; chiseled square on 24-in. concrete pipe culvert 1479.53
- 4.7 Milford, 3.0 mi N. and 8.0 mi E. of; 4.5 mi N. and 1.0 mi W. of Terril, 1493 ft S. and 17 ft E. of crossroads, near cor. secs. 20, 21, 28 and 29, T. 99 N., R. 35 W., 139 ft S. and 3 ft W. of T-fence E., 2.2 ft W. of USGS Survey marker on metal post set flush with ground; standard tablet stamped "ET 9 DLH 1966 1480" 1480.195
- 4.4 Reference mark, 1500 ft N. of mark, 35 ft N. and 23 ft E. of crossroads; chiseled square on an 18-in. concrete pipe culvert 1475.84
- 5.4 UE ET 9 A, 0.7 mi S. of tablet, T. 99 N., R. 35 W., near cor. secs. 28, 29, 32 and 33, 26 ft N. and 30 ft W. of crossroads; chiseled square on 24-in. concrete pipe culvert 1448.33
- 6.4 UE ET 9 B, 1.7 mi S. of tablet, T. 99 N., R. 35 W., near cor. secs. 4, 5, 32 and 33, 66 ft N. and 33 ft W. of crossroads; chiseled square on 18-in. concrete pipe culvert; under field entrance W. 1449.04
- 7.2 Terrill, 1.6 mi N. and 1.25 mi W. of; Milford, 8.0 mi E. along Co. Rt. "B", thence 0.2 mi N. along sod rd. from jct. U.S. Hwy. 71 at; T. 98 N., R. 35 W., about 0.25 mi N. of cor. secs. 4, 5, 8 and 9, 23 ft S. and 23 ft E. of center of sod rd. at field entrance E. at a crest in the rd., 1 ft W. of a fence; standard tablet set in concrete post stamped "74 DWB 1967 1424" 1423.936

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ESTHERVILLE QUADRANGLE
273 - IOWA

LINE 8 (Cont'd)

ESTHERVILLE QUAD. - 273

FEET

- 7.2 Reference Mark, 290 ft N. of mark, at a 4 x 8 concrete box culvert; chiseled square at center of W. headwall, 1 ft higher than center of rd. 1423.01
- 8.4 UE 74 A, 1.2 mi S. of tablet, T. 98 N., R. 35 W., near cor. secs. 8, 9, 16 and 17, 33 ft S. and 66 ft W. of T-rd. N. (drive S.) rail spike in telephone pole, E. side 1432.07
- 9.2 Terrill, 0.25 mi S. of, 1.25 mi W. of; 2.0 mi S. of tablet, T. 98 N., R. 35 W., near S. sixteenth cor. secs. 16 and 17, at a dead end section line rd., 98 ft N. and 32 ft W. of center of rd. at drive E. at NW. corner of the rd. right-of-way, 3 ft S. and 1 ft E. of corner fence post; a standard tablet set in concrete post; stamped "75 DWB 1967 1447" 1447.138
- 9.2 Reference Mark, 98 ft SE. of mark; chiseled square on 15-in. concrete pipe culvert under drive 1447.79
- 10.5 UE 75 A, 1.25 mi S. of tablet, T. 98 N., R. 35 W., near cor. secs. 20, 21, 28 and 29, 36 ft S. and 38 ft W. of crossroads; rail spike in power pole 1413.22
- 11.5 Terrill, 2.5 mi S. of; 1.25 mi W. of; 2.25 mi S. of tablet, T. 98 N., R. 35 W., near cor. secs. 28, 29, 32 and 33, 30 ft S. and 40 ft W. of T-rd. E., 8 ft S. of center of gate, 8 ft W. of fence corner, 4 ft NW. of a guy pole, 1 ft N. of a fence and witness sign; standard tablet set in concrete post; projecting 6 in. stamped "76 DWB 1967 1393" 1393.041
- 11.5 Reference mark, 24 ft NE. of mark, at 18-in. concrete pipe culvert under field entrance W.; chiseled square, 12 ft N. of entrance W. 1390.97
- 12.5 UE 76 A, 1.0 mi S. of tablet, Tps. 97 and 98 N., R. 35 W., near cor. secs. 4, 5, 32 and 33, 25 ft N. and 36 ft E. of crossroads; chiseled square on 36-in. concrete pipe culvert 1395.42

SPENCER QUAD. - 251

- 13.5 Fostoria, about 7.5 mi E. of; near quarter cor. secs. 5 and 8, T. 97 N., R. 35 W., 32 ft N. of center of E.-W. rd., 10 ft E. of center of gate at field entrance N., 2 ft S. of fence line, in concrete post; standard tablet stamped "ET 15 HK 1964 1388" 1387.476

LINE 9

D. W. Bennett, 1967; Book CV 2220

ESTHERVILLE QUAD. - 273

- 0.0 Terrill, 2.4 mi SW. along the Minneapolis and St. Louis RR. from the station at; Dickinson County, 376 yards SW. of MP 185, 65 ft SW. of the center of a farm rd. crossing, 43.5 ft SW. of the center of the gate to the rd., 46.3 ft NW. of the NW. rail and 1 ft SE. of the right-of-way fence; a standard USC&GS disk stamped "Q 21 1934" and set in the top of a concrete post; projecting 3 in. above ground 1392.474
- 0.6 UE 75 A (described in Line 8) 1413.22