

THIRD-ORDER LEVELS  
NATIONAL GEODETIC VERTICAL DATUM OF 1929

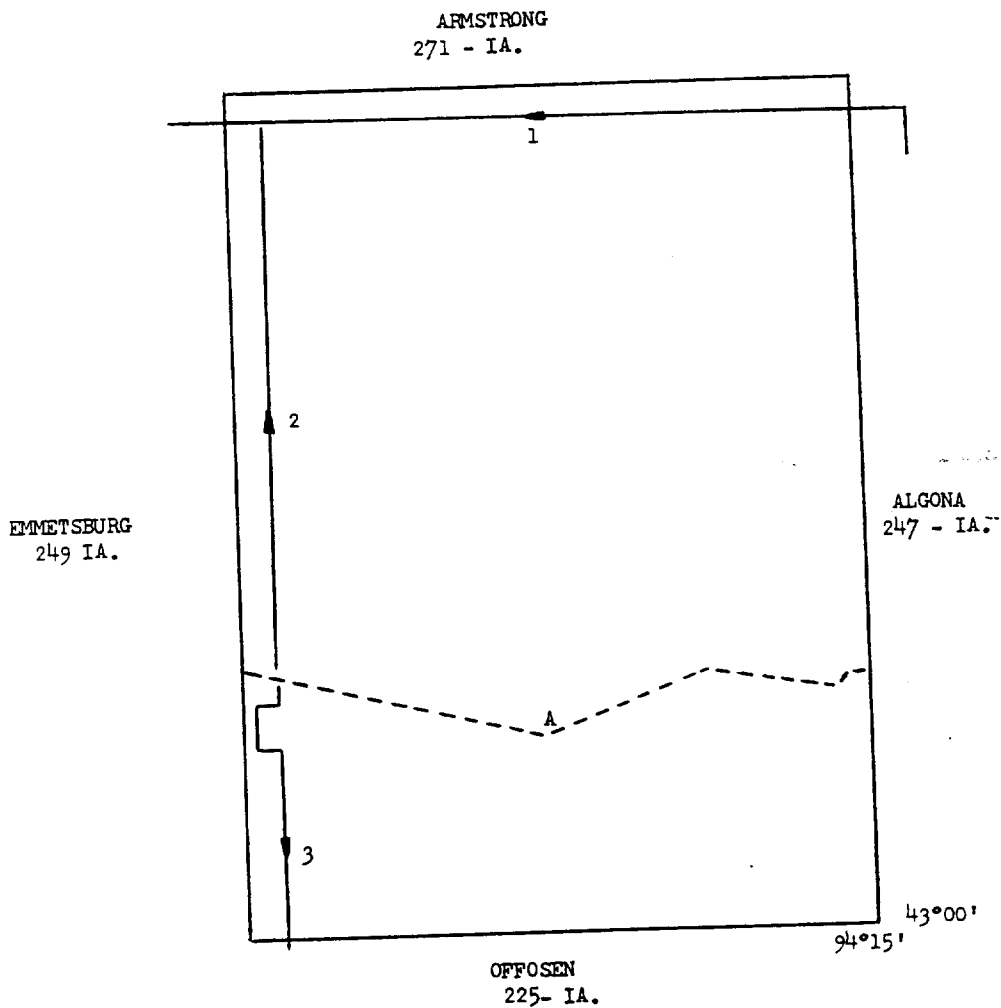
UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

43-094-23  
WHITTEMORE QUADRANGLE  
248 - IOWA  
N4300-W9415/15  
DIAGRAM NK 15-1  
FAIRMONT

Palo Alto and Kossuth Counties

Edition of: 2-17-77

PR: ADP/LB/cb



N.G.S. (USC&GS) VERTICAL CONTROL DATA

1. Quadrangle No. 430942

248 - A

FEET

LINE 1

ALGONA QUAD. - 247

C.D. Lien, 1976; Book CV-3330

- 1 2 0.0 BM, 4.5 mi S. along the Chicago and North Western R.R. from Bancroft, Kossuth County, 700 ft S. of bridge 285, 50 ft N. of and 48 ft W. of road at R.R. crossing, 20 ft N. of a fence corner set on top of a concrete post set flush with ground a standard N.G.S. disk stamped "1152.134 K 1 1930", it is in the SE. cor. of sec. 12, T. 97 N., R. 29 W. 1152.134
- 2 0.9 BM, Burt, 2.65 mi N. of along U.S. Hwy. 169, T. 97 N., R. 29 W., near the N. sixteenth cor. between secs. 11 and 12, it is 59 ft E. of centerline of hwy. 169, and 8 ft N. of the S. one of two telephone poles, and 1.4 ft N. of a metal witness post, set on top of a concrete post a standard disk stamped "BURT AZIMUTH MARK 1971" 1169.004
- 3 1.2 Reference mark 2, it is 62 ft W. of hwy. 169, 91.5 ft SE. of a metal witness post, 5 ft N. of a fence corner and 85.5 ft SE. of tri. sta. set on top of a concrete post set flush with ground, a standard disk stamped "R.M. # 2 1971" 1165.410
- 4 1.2 Burt, 3 mi N. of, T. 97 N., R. 29 W. sec. cors. 1, 2, 11 and 12, 65 ft S. and 102 ft W. of crossroads, 48.5 ft SW. of a power pole and 32 ft NE. of a fence and a metal witness post set on top of a concrete post set flush with ground, a standard USC&GS disk stamped "BURT 1971" 1165.555
- 5 1.3 Reference mark 1, 51 ft S. of county road B 14, 38 ft NW. of a witness post, 4 ft E.-SE. of a fence corner and 56.1 ft W. of triangulation station BURT, set on top of a concrete post set flush with ground, a standard disk stamped "R.M. #1 1971" 1170.127
- 6 2.2 UE Burt A, 1 mi W. along road from tablet, a copper nail and washer centerline of road at fence line S. 1182.7

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- 8 3.3 UE Burt B, 2 mi W. along road from tablet a copper nail and washer in centerline of crossroads 1167.8
- 10 3.8 Burt, 3 mi N. and 2.57 mi W. of; and Fenton, 1.5 mi N. and 7.43 mi E. of; T. 97 N., R. 29 W. near the quarter cor. between secs. 4 and 9, 415 ft W. of road at N.-S. fence lines, 36 ft S., 27 ft E. of road at drain, 6 ft S. and 27 ft E. of the S. end of a 36-in. concrete culvert cemented in the NE. cor. of an old concrete foundation, a standard tablet stamped "1 CDL 1976" 1162.962
- 11 3.9 Reference mark, 27 ft W. and 7.5 mi N. of tablet and 28.5 ft S. of centerline of road at drain, a chiseled square on the S. end of a 36-in. concrete culvert 1165.14
- 12 4.3 UE 1 A, 0.4 mi W. along road, from tablet, a copper nail and washer centerline of crossroads 1170.5
- 15 5.3 UE 1 B, 1.4 mi W. along road from tablet, T. 97 N., R. 29 W. at sec. cors. 5, 6, 7 and 8, 39 ft S. and 18 ft W. of; and 4.7 ft lower than crossroads a chiseled square on a concrete culvert 1183.68
- 17 6.2 UE 1 C, 2.3 mi W. along road from tablet, T. 37 N., R. 29 and 30 W., sec. cors. 1, 6, 7 and 12, 25 ft S. and 102 ft E. of; and 6 ft lower than crossroads, a chiseled square on a concrete culvert 1194.42
- 21 7.2 BM, Fenton, 1.5 mi N. and 4 mi E. of T. 97 N., R. 30 W., near sec. cors. 1, 2, 11 and 12, 12 ft N. and 18 ft W. of and 0.8 ft higher than centerline of bridge and 185 ft E. of crossroads, water -16 cemented in the NW. corner of bridge, a standard tablet stamped "2 CDL 1976" 1197.623

|                        |      | WHITTEMORE QUAD. - 248                                                                                                                                                                                                                                                                                                                                  | FEET     |
|------------------------|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| <u>LINE 1 (Cont'd)</u> |      |                                                                                                                                                                                                                                                                                                                                                         |          |
| 1                      | 22   | 7.2 Reference mark, 61 ft S. and 162 ft W. of tablet and 49 ft S. and 23 ft E. of crossroads, a chiseled square on a concrete culvert                                                                                                                                                                                                                   | 1196.27  |
| 25                     | 8.2  | UE 2 A, 1 mi W. along road from tablet, a copper nail and washer centerline of crossroads                                                                                                                                                                                                                                                               | 1223.33  |
| 28                     | 9.2  | UE 2 B, 2 mi W. along road from tablet, T. 97 N., R. 30 W., near sec. cors. 3, 4, 9 and 10, 30 ft N. and 31 ft W. of; and 4.9 ft lower than crossroads, a chiseled square on a concrete culvert                                                                                                                                                         | 1224.28  |
| 30                     | 10.2 | BM, Fenton, 1.5 mi N., 1 mi E. of; T. 97 N., R. 30 W., near sec. cors. 4, 5, 8 and 9, 21 ft N., 14 ft W. of; and 0.5 ft lower than centerline of bridge, 45 ft S., 14 ft W. of a T-rd. E. and 63 ft N., 14 ft W. of a T-rd. W. water -12.3 cemented in the NW. cor. of a bridge, a standard tablet stamped "3 CDL 1976"                                 | 1215.127 |
| 31                     | 10.2 | Reference mark, 1.5 ft N., 12 ft W. of tablet and 43.5 ft S., 26 ft W. of a T-rd. E. a punched hole in a metal culvert                                                                                                                                                                                                                                  | 1209.68  |
| 34                     | 11.2 | UE 3 A, 1 mi W. along road from tablet, a copper nail and washer in centerline of crossroads                                                                                                                                                                                                                                                            | 1231.60  |
| 35                     | 11.3 | Fenton, 1.5 mi N. of; 0.1 mi W. of; T. 97 N., R. 30 W. near sec. cors. 5, 6, 7 and 8, 555 ft W. of crossroads, 90 ft W., 30 ft S. of centerline of road at fence line S. and 2.9 ft W. of a metal witness post, set in the top of a concrete post, a standard disk stamped "FENTON AZIMUTH MARK 1971"                                                   | 1237.424 |
| 37                     | 12.2 | Fenton, 1.5 mi N., 0.9 mi W. of; T. 97 N., R. 30 W., near sec. cors. 1, 6, 7 and 12, 385 ft E. of crossroads, 182 ft E., 25 ft N. of centerline of road at a drive N., 8 ft SE. of a T-fence, 5.4 ft SE. of a metal witness post and 4.2 ft S. of a fence line, set on the top of a concrete post, a standard USC&GS disk stamped "TRI STA FENTON 1971" | 1258.129 |
| 38                     | 12.2 | Reference mark 1, it is 71.3 ft E. of tablet, 67.5 ft E. of a metal witness post, 28 ft N. of centerline of road and 0.9 ft S. of a fence line set in the top of a concrete post, a standard USC&GS disk stamped "FENTON R.M. #1 1971"                                                                                                                  | 1257.771 |
| 39                     | 12.2 | Reference mark 2, 28 ft N., 115 ft E. of centerline of road at a drive N. and 67.5 ft W. of station mark, set in the top of a concrete post, a standard USC&GS disk stamped "FENTON R.M. #2 1971"                                                                                                                                                       | 1259.195 |
| 44                     | 13.3 | UE Fenton A, 1 mi W. along road from tablet, T. 97 N., R. 31 W., sec. cors. 1, 2, 11 and 12, 46 ft N., 15 ft W. of; and 1.8 ft lower than crossroads, a chiseled square on a concrete culvert                                                                                                                                                           | 1254.87  |
| 47                     | 14.3 | UE Fenton B, 2 mi W. along road from tablet, T. 97 N., R. 31 W., sec. cors. 2, 3, 10 and 11, 33 ft S., 33 ft W. of; and 0.5 ft higher than crossroads, a chiseled square on a large rock                                                                                                                                                                | 1274.77  |
|                        |      | EMMETSBURG QUAD. - 249                                                                                                                                                                                                                                                                                                                                  |          |
| 51                     | 15.3 | UE Fenton C, 3 mi W. along road from tablet, R. 31 W., T. 97 N., sec. cors. 3, 4, 9 and 10, 50 ft N., 19 ft W. of crossroads, a chiseled square on a concrete culvert                                                                                                                                                                                   | 1289.17  |
| 53                     | 16.1 | Fenton, 1.5 mi N., 4.8 mi W. of; T. 97 N., R. 31 W. near the W. sixteenth cor. between secs. 4 and 9, 11 ft S., 13 ft E. of; 0.2 ft higher than centerline of bridge and 11 ft S., 76 ft E. of centerline of road at field entrance N. cemented in the SE. cor. of bridge, a standard tablet stamped "4 CDL 1976"                                       | 1270.001 |

LINE 2

WHITTEMORE QUAD. - 248

C.D. Lien, 1976; Book CV-3330

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|----|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| 3  | 61   | 2.0                                                                                                                                                                                                                                                                                                                                                                                                                    | BM, in Palo Alto County, 2.9 mi W. along the Chicago, Milwaukee, St. Paul and Pacific R.R. from the station at Whittemore, Kossuth county, 66 ft E. of section road crossing, 45 ft S. of the S. rail, 7.5 ft S. of the first pole E. of the crossing, 1.8 ft N. of a right-of-way fence set on top of a concrete post set flush with ground, a standard disk stamped "W 18 1934" | 1207.425 |
| 61 | 2.6  | UE W 18 A, 0.6 mi N. along road from tablet, a copper nail and washer centerline of crossroads                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                   | 1207.1   |
| 64 | 3.6  | UE W 18 B, 1.6 mi N. along road from tablet, T. 96 N., R. 31 W., sec. cors. 26, 27, 34 and 35, 24.7 ft N., 27 ft W. of; and 2.1 ft lower than T-rd. W. a punched hole in a metal culvert                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                   | 1212.53  |
| 67 | 4.6  | UE W 18 C, 2.6 mi N. along road from tablet, T. 96 N., R. 31 W., sec. cors. 22, 23, 26 and 27, 33 ft N., 34 ft E. of; and 3.2 ft lower than crossroads and 33 ft N., 18 ft W. of road at field entrance N., a punched hole in a metal culvert                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                   | 1231.49  |
| 69 | 5.3  | BM, Depew, 4.25 mi S., 3 mi E. of; T. 96 N., R. 31 W., near the N. sixteenth cor. between secs. 22 and 23, 15 ft E. of; and 2.8 ft lower than road at drain, 19 ft N., 15 ft E. of road, at field entrance E. and 19 ft S., 15 ft E. of road at field entrance W. and 1 ft N. of the SE. cor. of a concrete box culvert cemented in the E. headwall of a concrete box culvert, a standard tablet stamped "17 CDL 1976" |                                                                                                                                                                                                                                                                                                                                                                                   | 1273.074 |
| 70 | 5.4  | Reference mark, 37 ft N., 38 ft W. of tablet, 36 ft N., 33 ft W. of road at drain and 9 ft N., 33 ft W. of road at field entrance W.; a chiseled square on a concrete culvert                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                   | 1272.91  |
| 71 | 5.6  | UE 17 A, 0.25 mi N. along road from tablet, T. 96 N., R. 31 W. sec. cors. 14, 15, 22 and 23, 21 ft S., 34 ft E. of; and 2.9 ft lower than crossroads, a chiseled square on a concrete culvert                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                   | 1286.01  |
| 74 | 6.6  | UE 17 B, 1.25 mi N. along road from tablet, T. 96 N., R. 31 W., sec. cors. 10, 11, 14 and 15, 57 ft S., 28 ft E. of; and 1.8 ft lower than crossroads and 9 ft S., 28 ft E. of road at field entrance E., a chiseled square on a concrete culvert                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                   | 1302.26  |
| 77 | 7.6  | UE 17 C, 2.25 mi N. along road from tablet, top of a State Hwy. spike in centerline of crossroads                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                   | 1312.2   |
| 80 | 8.6  | BM, Depew, 1 mi S., 3 mi E. of; T. 96 and 97 N., R. 31 W. sec. cors. 2, 3, 34 and 35, 56 ft N., 37.5 ft E. of; and 3.6 ft lower than crossroads, 18 ft N. of a telephone pole and 1.4 ft W. of a metal witness post, set on top of a 0.5-in. copper coated steel rod which is enclosed by a 6-in. tile set flush with ground, a standard tablet stamped "18 CDL 1976"                                                  |                                                                                                                                                                                                                                                                                                                                                                                   | 1299.496 |
| 4  | 3    | 9.6                                                                                                                                                                                                                                                                                                                                                                                                                    | UE 18 A, 1 mi N. along road from tablet, T. 97 N., R. 31 W., sec. cors. 26, 27, 34 and 35, 27 ft S., 49 ft W. of; and 1.9 ft lower than crossroads and 5 ft N. of a right-of-way fence, a chiseled square on a rock                                                                                                                                                               | 1267.06  |
| 5  | 10.6 | UE 18 B, 2 mi N. along road from tablet, T. 97 N., R. 31 W., sec. cors. 22, 23, 26 and 27, 114 ft S., 27.6 ft E. of; and 1.8 ft lower than crossroads and 2 ft W. of a right-of-way fence, a chiseled square on a rock                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                   | 1277.47  |
| 8  | 11.6 | Reference mark, a chiseled square in the centerline of crossroads                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                   | 1272.16  |
| 9  | 11.6 | BM, Depew, 2 mi N., 3 mi E. of; T. 97 N., R. 31 W., sec. cors. 14, 15, 22 and 23, 48 ft N., 33 ft E. of; and 4.9 ft lower than crossroads and 2 ft N., 1.2 ft W. of a fence corner set on top of a 0.5-in. copper coated steel rod which is enclosed by a 6-in. tile set flush with ground, a standard tablet stamped "19 CDL 1976"                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                   | 1267.250 |

WHITTEMORE QUAD. - 248

FEET

LINE 2 (Cont'd)

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|----|------|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| 4  | 12   | 12.6 | UE 19 A, 1 mi N. along road from tablet, T. 97 N., R. 31 W., sec. cors. 10, 11, 14 and 15, 18 ft S., 33.6 ft E. of; and 2.6 ft lower than crossroads, a punched hole in a metal culvert | 1269.76 |
| 13 | 13.6 |      | UE Fenton B (Described previously in Line 1)                                                                                                                                            | 1274.77 |

LINE 3

WHITTEMORE QUAD. - 248

C.D. Lien, 1976; Book CV-3330

1207.425

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|----|-----|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| 4  | 15  | 0.0 | BM W 18 1934 (Described in Line 2)                                                                                                                                                                                                                                                                                                                                                                                                | 1207.425 |
| 17 | 1.0 |     | UE W 18 D, 0.5 mi S., 0.5 mi W. along road from tablet, T. 95 N., R. 31 W., quarter cor. between secs. 3 and 10, 24 ft N., 106 ft W. of; and 2.2 ft lower than T-rd. S., and 24 ft N., 15 ft E. of road at drive N., a chiseled square on a concrete culvert                                                                                                                                                                      | 1194.77  |
| 20 | 2.0 |     | UE W 18 E, 1.5 mi S., 0.5 mi W. along road from tablet, T. 95 N., R. 31 W., quarter cor. between secs. 10 and 15, 42 ft S., 18 ft E. of; and 4.7 ft lower centerline of rd. and road N. at offset crossroads and 42 ft S., 13 ft W. of road at field entrance S., a chiseled square on a concrete culvert                                                                                                                         | 1194.29  |
| 22 | 2.5 |     | BM, Mallard, at the junction of State Hwy. 4 and county road B 63; 8 mi N., 10 mi E. of; T. 95 N., R. 31 W., sec. cors. 10, 11, 14 and 15, 48 ft S., 39 ft E. of; and 3.8 ft lower than T-rd. S., 2 ft S., 4 ft W. of telephone pole and 1.7 ft S., 3.8 ft E. of an under ground cable box. set on top of 0.5-in. copper coated steel rod enclosed by a 6-in. tile set flush with ground, a standard tablet stamped "20 CDL 1976" | 1180.799 |
| 23 | 2.6 |     | Reference mark, 174 ft S., 15 ft W., T-rd. S. and 126 ft S., 54 ft W. of tablet; a chiseled square on a concrete culvert                                                                                                                                                                                                                                                                                                          | 1180.23  |
| 25 | 3.5 |     | UE 20 A, 1 mi S. along road from tablet, 32 ft N., 36 ft E. of; and 0.3 ft lower than T-rd. E. and 1 ft W. of power pole, on top of a 0.5-in. iron rod which projects 0.2 ft above ground                                                                                                                                                                                                                                         | 1172.08  |
| 28 | 4.5 |     | UE 20 B, 2 mi S. along road from tablet, a chiseled square in centerline of crossroads                                                                                                                                                                                                                                                                                                                                            | 1179.85  |
| 31 | 5.5 |     | BM, Mallard, at the junction of State Hwy. 4 and county road B 63, 5 mi N., 10 mi E. of; T. 95 N., R. 31 W. sec. cors. 26, 27, 34 and 35, 33 ft S. 33 ft E. of, and 3.2 ft lower than crossroads, 3 ft S., 1 ft E. of a telephone pole, set on top of a 0.5-in. copper coated steel rod which is enclosed by a 6-in. tile set flush with ground, a standard tablet stamped "21 CDL 1976"                                          | 1177.524 |
| 32 | 5.6 |     | Reference mark, 291 ft S., 15.6 ft W. of crossroads and 258 ft S., 48.6 ft W. of tablet, a chiseled square on a concrete culvert                                                                                                                                                                                                                                                                                                  | 1177.15  |

OTTOSEN QUAD. - 225

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|----|-----|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| 35 | 6.7 | 1.15 | UE 21 A, 1.15 mi S. along road from tablet, T. 94 N., R. 31 W., near the N. sixteenth cor. between secs. 2 and 3, 84 ft N., 18 ft W. of; and 3.9 ft lower than road at R.R. crossing; a chiseled square on a concrete culvert | 1163.37  |
| 37 | 7.5 |      | UE 21 B, 2 mi S. along road from tablet, T. 94 N., R. 31 W., sec. cors. 2, 3, 10 and 11, 21 ft N., 15 ft E. of; and 1.2 ft lower than crossroads, a chiseled square in the center top of a concrete box culvert               | 1161.180 |