

3/13/2008 2:39:23 PM

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|-----------------------|------------|----------|------------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| F.A.P. 351 | 2008-001VB | COOK | 579 | 322 |
| STA. | | TO STA. | | |
| FED. ROAD DIST. NO. 7 | | ILLINOIS | FED. AID PROJECT | |
| CONTRACT NO. 60E10 | | | | |

TEMPORARY RUN-AROUND - TRACKS 1 & 2

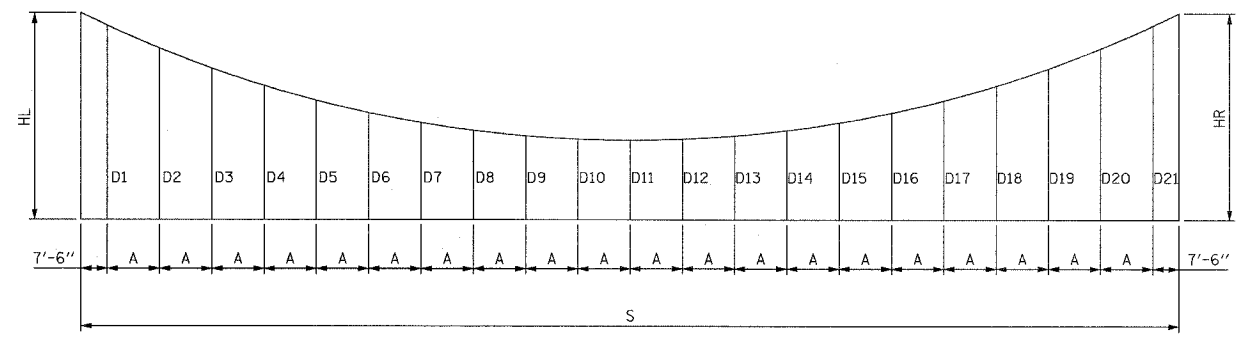
| STRUCTURE | NUMBER OF HANGERS | A | D1 | D2 | D3 | D4 | D5 | D6 | D7 | D8 | D9 | D10 | D11 | D12 | D13 | D14 | D15 | D16 | D17 | D18 | D19 | D20 | D21 | HL | S | HR |
|----------------|-------------------|-----------|-----------|----------|-----------|-----------|----------|----------|----------|----------|-----------|----------|-----------|-----------|----------|----------|-----------|----------|-----------|----------|---------|-----------|-----|----------|-------------|----------|
| Ex. 20.51 & 1 | 16 | 14'-4.75" | 4'-11" | 4'-2" | 3'-5.75" | 2'-10.75" | 2'-4.75" | 1'-11.5" | 1'-7.5" | 1'-4.5" | 1'-2.5" | 1'-1.5" | 1'-1.5" | 1'-2.5" | 1'-4.75" | 1'-7.75" | 1'-11.75" | 2'-5" | 2'-11.25" | 3'-6.25" | 4'-2.5" | - | - | 5'-4.25" | 274'-1.25" | 4'-7" |
| 1 & 2 | 15 | 13'-11" | 4'-1.75" | 3'-6.75" | 3'-0.5" | 2'-7.5" | 2'-3.25" | 2'-0" | 1'-9.75" | 1'-8.5" | 1'-8" | 1'-8.5" | 1'-10" | 2'-0.5" | - | - | - | - | - | - | - | - | - | 4'-7" | 167'-11.75" | 2'-3.5" |
| 2 & 3 | 12 | 14'-5.5" | 2'-1" | 1'-8.5" | 1'-5.25" | 1'-3" | 1'-1.75" | 1'-1.5" | 1'-2.5" | 1'-4.25" | 1'-7.25" | 1'-11" | 2'-4" | 2'-10" | - | - | - | - | - | - | - | - | - | 2'-3.5" | 174'-0.25" | 3'-1.25" |
| 3 & 4 | 15 | 14'-3.5" | 2'-10.5" | 2'-5.75" | 2'-2" | 1'-11.25" | 1'-9.5" | 1'-8.75" | 1'-9.25" | 1'-10.5" | 2'-0.75" | 2'-4" | 2'-8.25" | 3'-1.5" | 3'-8" | 4'-3.25" | 4'-11.5" | - | - | - | - | - | - | 3'-1.25" | 215'-0" | 5'-4.25" |
| 4 & 5 | 20 | 15'-0" | 4'-10.75" | 4'-1" | 3'-4" | 2'-8.25" | 2'-1.75" | 1'-8.25" | 1'-3.75" | 1'-0.5" | 0'-10.25" | 0'-9.25" | 0'-9.25" | 0'-10.25" | 1'-0.5" | 1'-3.75" | 1'-8.25" | 2'-1.75" | 2'-8.25" | 3'-4" | 4'-1" | 4'-10.75" | - | 5'-4.25" | 300'-0" | 5'-4.25" |
| 5 & 6 | 12 | 14'-5.25" | 4'-11.5" | 4'-3.25" | 3'-8.25" | 3'-2" | 2'-9" | 2'-5" | 2'-2" | 1'-12" | 1'-11" | 1'-11" | 1'-12" | 2'-2" | - | - | - | - | - | - | - | - | - | 5'-4.25" | 173'-9.75" | 2'-3.5" |
| 6 & 7 | 12 | 14'-5.75" | 2'-1.25" | 1'-9.75" | 1'-7" | 1'-5.5" | 1'-5" | 1'-5.5" | 1'-7" | 1'-1" | 1'-1" | 2'-5.75" | 2'-11.25" | 3'-6" | - | - | - | - | - | - | - | - | - | 2'-3.5" | 174'-2.25" | 3'-9.75" |
| 7 & 8 | 17 | 14'-4.25" | 3'-5.5" | 2'-9.75" | 2'-3.25" | 1'-9.75" | 1'-5" | 1'-5" | 0'-11" | 0'-9.5" | 0'-9" | 0'-9.5" | 0'-11" | 1'-1.5" | 1'-5" | 1'-9.75" | 2'-3.25" | 2'-9.75" | 3'-5.5" | - | - | - | - | 3'-9.75" | 244'-9" | 3'-9.75" |
| 8 & 9 | 12 | 14'-9" | 2'-9.5" | 2'-3.5" | 1'-10.5" | 1'-6.5" | 1'-3.5" | 1'-1.75" | 1'-1" | 1'-1.5" | 1'-2.75" | 1'-5.25" | 1'-9" | 2'-1.5" | - | - | - | - | - | - | - | - | - | 3'-9.75" | 177'-3" | 3'-1" |
| 9 & 10 | 15 | 14'-2.5" | 2'-9.25" | 2'-2.75" | 1'-9.5" | 1'-5" | 1'-1.5" | 0'-11" | 0'-9.5" | 0'-9" | 0'-9.5" | 0'-11" | 1'-1.5" | 1'-5" | 1'-9.5" | 2'-2.75" | 2'-9.25" | - | - | - | - | - | - | 3'-1" | 214'-0" | 3'-1" |
| 10 & 11 | 9 | 14'-4.5" | 2'-9.25" | 2'-4" | 1'-11.5" | 1'-8" | 1'-5.75" | 1'-4.25" | 1'-3.75" | 1'-4.5" | 1'-6" | - | - | - | - | - | - | - | - | - | - | - | - | 3'-1" | 130'-0" | 1'-7.75" |
| 11 & Ex. 20.95 | 9 | 14'-9" | 1'-8" | 1'-9" | 1'-11.25" | 2'-2.25" | 2'-6.5" | 2'-12" | 3'-6.25" | 4'-1.75" | 4'-10.25" | - | - | - | - | - | - | - | - | - | - | - | - | 1'-7.75" | 133'-0" | 5'-3" |

FINAL ALIGNMENT TRACK 1

| STRUCTURE | NUMBER OF HANGERS | A | D1 | D2 | D3 | D4 | D5 | D6 | D7 | D8 | D9 | D10 | D11 | D12 | D13 | D14 | D15 | D16 | D17 | D18 | D19 | D20 | D21 | HL | S | HR | |
|---------------|-------------------|-----------|-----------|-----------|----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|----------|---------|----------|----------|----------|-----------|-----------|----------|------------|-----------|----------|
| 20.51 & 1 | 16 | 14'-0.75" | 4'-11.5" | 4'-3.25" | 3'-7.75" | 3'-1.5" | 2'-8" | 2'-3.75" | 2'-0.25" | 1'-9.75" | 1'-8.25" | 1'-7.75" | 1'-8.25" | 1'-9.75" | 2'-0" | 2'-3.5" | 2'-7.75" | 3'-1" | - | - | - | - | - | - | 5'-4.25" | 225'-11" | 3'-4.25" |
| 1 & 2 | 15 | 14'-4.25" | 2'-10.75" | 2'-5.75" | 2'-1.75" | 1'-10.75" | 1'-8.75" | 1'-7.75" | 1'-8" | 1'-9" | 1'-11.25" | 2'-2.25" | 2'-6.5" | 2'-11.5" | 3'-5.75" | 4'-1" | 4'-9" | - | - | - | - | - | - | - | 3'-4.25" | 216'-0.5" | 5'-4.5" |
| 2 & 3A | 21 | 14'-3.25" | 4'-11" | 4'-1.5" | 3'-5" | 2'-9.5" | 2'-3" | 1'-9.5" | 1'-5" | 1'-1.5" | 0'-11" | 0'-9.5" | 0'-9" | 0'-9.5" | 0'-11" | 1'-1.5" | 1'-5" | 1'-9.5" | 2'-3" | 2'-9.5" | 3'-5" | 4'-1.5" | 4'-11" | 5'-4.5" | 300'-6" | 5'-4.5" | |
| 3A & 20.68 | 11 | 14'-3" | 1'-9.75" | 1'-5.25" | 1'-1.75" | 0'-11.25" | 0'-9.75" | 0'-9.25" | 0'-9.75" | 0'-11.25" | 1'-1.5" | 1'-5" | 1'-9.5" | - | - | - | - | - | - | - | - | - | - | 5'-4.5" | 157'-5" | 5'-4" | |
| 20.68 & 20.73 | 20 | 14'-12" | 5'-0.25" | 4'-2.25" | 3'-5.25" | 2'-9.5" | 2'-2.75" | 1'-9.25" | 1'-4.75" | 1'-1.5" | 0'-11" | 0'-10" | 0'-9.75" | 0'-11" | 1'-1" | 1'-4.25" | 1'-8.5" | 2'-2" | 2'-8.5" | 3'-4.25" | 4'-1" | 4'-10.75" | - | 5'-4" | 299'-11.5" | 5'-2.5" | |
| 20.73 & 20.79 | 21 | 14'-4.5" | 5'-1.25" | 4'-3.5" | 3'-6.75" | 2'-11" | 2'-4.5" | 1'-10.75" | 1'-6.25" | 1'-2.5" | 0'-12" | 0'-10.25" | 0'-9.75" | 0'-10.25" | 0'-11.75" | 1'-2" | 1'-5.5" | 1'-10" | 2'-3.5" | 2'-10" | 3'-5.75" | 4'-2.25" | 4'-11.75" | 5'-2.5" | 302'-5" | 5'-1" | |
| 20.79 & 20.84 | 19 | 14'-10.5" | 5'-1.25" | 4'-3.5" | 3'-7" | 2'-11.5" | 2'-5" | 1'-11.75" | 1'-7.5" | 1'-4.25" | 1'-2.25" | 1'-1.25" | 1'-1.25" | 1'-2.5" | 1'-4.75" | 1'-8.25" | 2'-0.5" | 2'-6" | 3'-0.75" | 3'-8.5" | 4'-5.25" | - | - | 5'-1" | 282'-8" | 4'-4.5" | |
| 20.84 & 9A | 13 | 14'-6.25" | 2'-4" | 1'-10.25" | 1'-5.5" | 1'-2" | 0'-11.25" | 0'-9.75" | 0'-9.25" | 0'-9.75" | 0'-11.25" | 1'-1.75" | 1'-5.25" | 1'-10" | 2'-3.75" | - | - | - | - | - | - | - | - | 4'-4.5" | 189'-2.25" | 4'-4.25" | |
| 9A & 11 | 18 | 14'-8.75" | 3'-11.5" | 3'-3" | 2'-7.5" | 2'-1" | 1'-7.75" | 1'-3.5" | 1'-0.25" | 0'-10.25" | 0'-9.25" | 0'-9.25" | 0'-10.25" | 1'-0.25" | 1'-3.5" | 1'-7.75" | 2'-1" | 2'-7.5" | 3'-3" | 3'-11.5" | - | - | - | 4'-4.25" | 265'-2.75" | 4'-4.25" | |
| 11 & 20.95 | 9 | 14'-9" | 1'-6.25" | 1'-3.5" | 1'-2.25" | 1'-1.75" | 1'-2.5" | 1'-4.25" | 1'-7" | 1'-10.75" | 2'-3.75" | - | - | - | - | - | - | - | - | - | - | - | - | 4'-4.25" | 133'-0" | 5'-3" | |

FINAL ALIGNMENT TRACK 2

| STRUCTURE | NUMBER OF HANGERS | A | D1 | D2 | D3 | D4 | D5 | D6 | D7 | D8 | D9 | D10 | D11 | D12 | D13 | D14 | D15 | D16 | D17 | D18 | D19 | D20 | D21 | HL | S | HR | |
|---------------|-------------------|-----------|-----------|-----------|----------|-----------|-----------|----------|----------|-----------|-----------|----------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|----------|------------|-----------|----------|
| 20.51 & 1 | 16 | 14'-0.75" | 4'-11.75" | 4'-3.5" | 3'-8" | 3'-1.75" | 2'-8.25" | 2'-4" | 2'-0.5" | 1'-10" | 1'-8.5" | 1'-8" | 1'-8.25" | 1'-9.75" | 2'-0.25" | 2'-3.5" | 2'-7.75" | 3'-1" | - | - | - | - | - | - | 5'-4.5" | 225'-11" | 3'-4.25" |
| 1 & 2 | 15 | 14'-4.25" | 2'-10.75" | 2'-5.75" | 2'-1.75" | 1'-10.75" | 1'-8.75" | 1'-7.75" | 1'-8" | 1'-9" | 1'-11.25" | 2'-2.25" | 2'-6.5" | 2'-11.5" | 3'-5.75" | 4'-1" | 4'-9" | - | - | - | - | - | - | - | 3'-4.25" | 216'-0.5" | 5'-4.5" |
| 2 & 3A | 21 | 14'-3.25" | 4'-11" | 4'-1.5" | 3'-5" | 2'-9.5" | 2'-3" | 1'-9.5" | 1'-5" | 1'-1.5" | 0'-11" | 0'-9.5" | 0'-9" | 0'-9.5" | 0'-11" | 1'-1.5" | 1'-5" | 1'-9.5" | 2'-3" | 2'-9.5" | 3'-5" | 4'-1.5" | 4'-11" | 5'-4.5" | 300'-6" | 5'-4.5" | |
| 3A & 20.68 | 11 | 14'-3" | 1'-9.5" | 1'-5" | 1'-1.5" | 0'-11" | 0'-9.5" | 0'-9" | 0'-9.5" | 0'-11" | 1'-1.5" | 1'-5" | 1'-9.5" | - | - | - | - | - | - | - | - | - | - | 5'-4.5" | 157'-5" | 5'-4.5" | |
| 20.68 & 20.73 | 20 | 14'-12" | 4'-11.25" | 4'-1.25" | 3'-4.5" | 2'-8.75" | 2'-2" | 1'-8.5" | 1'-4" | 1'-0.75" | 0'-10.5" | 0'-9.5" | 0'-9.5" | 0'-10.5" | 1'-0.75" | 1'-4" | 1'-8.25" | 2'-1.75" | 2'-8.5" | 3'-4" | 4'-1" | 4'-10.75" | - | 5'-4.5" | 299'-11.5" | 5'-4" | |
| 20.73 & 20.79 | 21 | 14'-4.5" | 4'-11.75" | 4'-2" | 3'-5.5" | 2'-9.75" | 2'-3.25" | 1'-9.75" | 1'-5" | 1'-1.5" | 0'-11" | 0'-9.5" | 0'-9" | 0'-9.5" | 0'-11" | 1'-1.5" | 1'-5" | 1'-9.75" | 2'-3.25" | 2'-9.75" | 3'-5.5" | 4'-2" | 4'-11.75" | 5'-4" | 302'-5" | 5'-4" | |
| 20.79 & 20.84 | 19 | 14'-10.5" | 5'-4.25" | 4'-6.25" | 3'-9.5" | 3'-2" | 2'-7.25" | 2'-1.75" | 1'-9.5" | 1'-6.25" | 1'-4" | 1'-2.75" | 1'-2.75" | 1'-3.75" | 1'-5.75" | 1'-9" | 2'-1.25" | 2'-6.75" | 3'-1" | 3'-8.75" | 4'-5.25" | - | - | 5'-4" | 282'-8.25" | 4'-4.5" | |
| 20.84 & 9A | 13 | 14'-6.25" | 2'-4" | 1'-10.25" | 1'-5.5" | 1'-2" | 0'-11.25" | 0'-9.75" | 0'-9.25" | 0'-9.75" | 0'-11.25" | 1'-1.75" | 1'-5.25" | 1'-10" | 2'-3.75" | - | - | - | - | - | - | - | - | 4'-4.5" | 189'-2.25" | 4'-4.25" | |
| 9A & 11 | 18 | 14'-8.75" | 3'-11.5" | 3'-3" | 2'-7.5" | 2'-1" | 1'-7.75" | 1'-3.5" | 1'-0.25" | 0'-10.25" | 0'-9.25" | 0'-9.25" | 0'-10.25" | 1'-0.25" | 1'-3.5" | 1'-7.75" | 2'-1" | 2'-7.5" | 3'-3" | 3'-11.5" | - | - | - | 4'-4.25" | 265'-2.75" | 4'-4.25" | |
| 11 & 20.95 | 9 | 14'-9" | 1'-6.25" | 1'-3.75" | 1'-2.25" | 1'-2" | 1'-2.75" | 1'-4.5" | 1'-7.25" | 1'-11.25" | 2'-4.25" | - | - | - | - | - | - | - | - | - | - | - | - | 4'-4.25" | 133'-0" | 5'-3.5" | |



TYPICAL CATENARY SPAN PROFILE

NOTES:

1. THE DIMENSION "D" IN THE ABOVE TABLE REPRESENTS THE DISTANCE BETWEEN THE CENTERLINE OF MESSENGER TO THE BOTTOM OF CONTACT WIRE.
2. FOR DETAILS OF HANGER ASSEMBLIES, SEE DRAWING CH-03.
3. WIRE ROPE HANGERS ARE USED FOR CROSSOVERS TO ALLOW FOR FINAL ADJUSTMENT OF CONTACT WIRE AT CROSSING POINTS.
4. HANGER LENGTHS SHOWN ARE APPROXIMATE. ACTUAL LENGTHS ARE TO BE DETERMINED USING FIELD MEASUREMENTS.
5. DIMENSION "A" MUST NOT EXCEED 15'-0".

| REVISIONS | |
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| NAME | DATE |
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ILLINOIS DEPARTMENT OF TRANSPORTATION
US RTE 6 FROM I-294 TO IL RTE 1
METRA OVER 159TH STREET

**CATENARY HARDWARE
PROFILE/HANGER TABULATION**

SHT. CH-02 OF CH-20 DRAWN BY PMV
DATE 2/21/2008 CHECKED BY DEY