

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
**PROPOSED  
BRIDGE REPLACEMENT**

| TR | SECTION        | COUNTY   | TOTAL SHEETS       | SHEET NO. |
|----|----------------|----------|--------------------|-----------|
| 82 | 08-08127-00-BR | BOND     | 55                 | 1         |
|    |                | ILLINOIS | CONTRACT NO. 97676 |           |

**INDEX OF SHEETS**

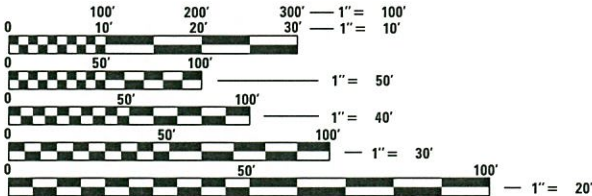
|       |                                                   |
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**STP - BRIDGE  
TR 82 (RENO ROAD)  
OVER ELM POINT BRANCH  
SECTION 08-08127-00-BR  
PROJECT 1J8U(505)  
SHOAL CREEK ROAD DISTRICT  
BOND COUNTY**

C-98-374-14

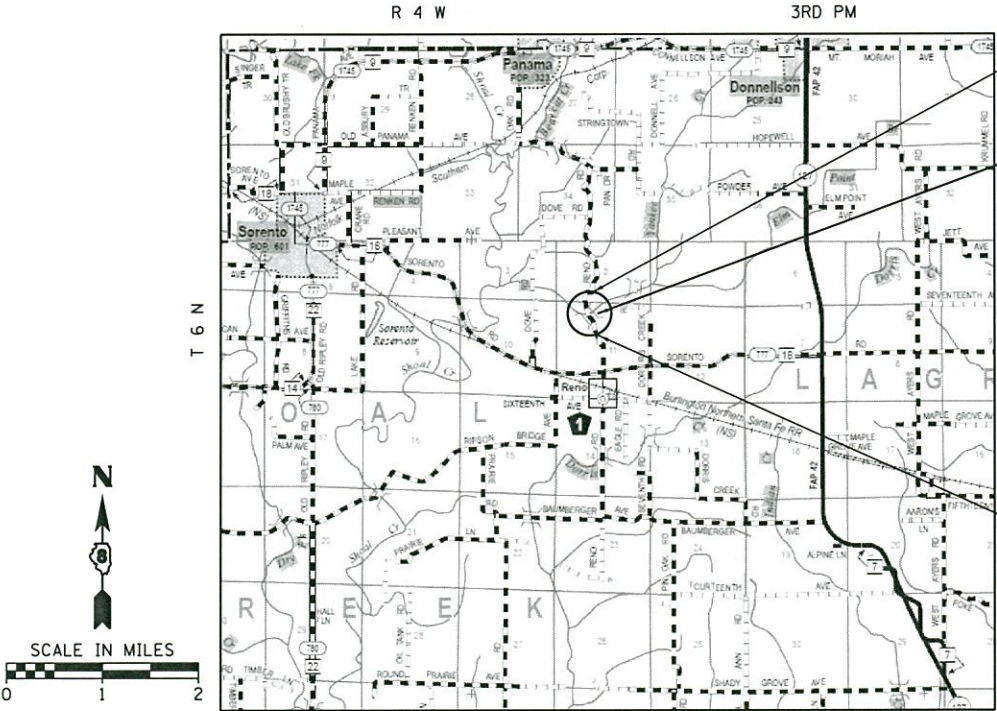
**DESIGN CLASSIFICATION**

LOCAL ROAD (RURAL) ADT = ADT < 250  
EXISTING ADT = 100 (2015)  
DESIGN ADT = 100 (2038)  
DESIGN SPEED = 25-MPH



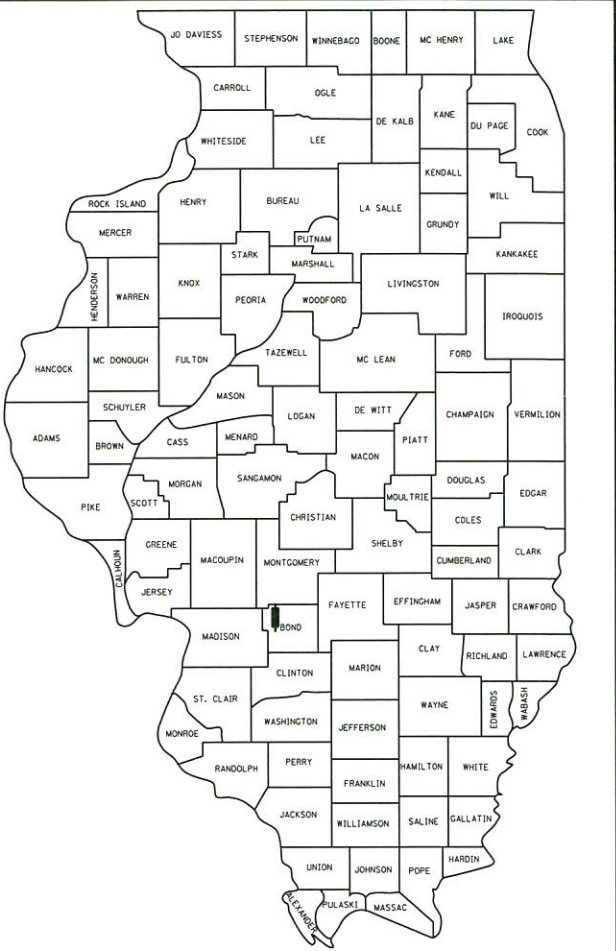
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
1-800-892-0123  
OR 811



LOCATION MAP

GROSS LENGTH = 965 FT. = 0.183 MILE  
NET LENGTH = 965 FT. = 0.183 MILE



LOCATION OF SECTION INDICATED THUS: — ■ —

**BOND COUNTY HIGHWAY DEPARTMENT**

APPROVED APRIL 4, 2018  
Robert Manning  
ROAD COMMISSIONER

APPROVED APRIL 4, 2018  
Jon P.  
BOND COUNTY ENGINEER

PASSED JULY 19, 2018  
Ray Under  
DISTRICT 8 ENGINEER OF LOCAL ROADS AND STREETS

RELEASING FOR BID  
BASED UPON LIMITED  
REVIEW JULY 19, 2018  
Jeffrey L. Keim  
REGION FIVE ENGINEER

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PREPARED BY:  
**HMG**  
Engineers • Surveyors

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

REGISTERED PROFESSIONAL ENGINEER  
KENT J. SCHWIERJOHN  
062-066103  
STATE OF ILLINOIS  
ILLINOIS REGISTERED ENGINEER NO. 062-066103  
REGISTRATION EXPIRES NOV 30, 2019  
03/30/18

GENERAL NOTES

1. ALL ELEVATIONS IN THE PLANS ARE BASED UPON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
2. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY HAVE BEEN CAUSED BY THE CONTRACTOR'S FAILURE TO LOCATE AND PRESERVE ANY AND ALL EXISTING UNDERGROUND UTILITIES. THE APPROXIMATE LOCATIONS OF THE KNOWN UTILITIES SHOWN ON THE PLANS REPRESENTS THE BEST INFORMATION AVAILABLE AT THE TIME OF DESIGN.
3. THE CONTRACTOR SHALL GIVE AT LEAST TWO WEEKS NOTICE BEFORE BEGINNING CONSTRUCTION SO THE ENGINEER MAY GIVE ADEQUATE NOTICE TO ALL EMERGENCY, SCHOOL AND POSTAL SERVICES.
4. THE PRIME CONTRACTOR SHALL BE RESPONSIBLE FOR TRAFFIC CONTROL AND PROTECTION.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING POSITIVE DRAINAGE IN THE DISTURBED AREAS, TO THE SATISFACTION OF THE ENGINEER. ANY GRADING SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR EARTH EXCAVATION, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
6. IF ASH TREES ARE REMOVED ON THE PROJECT, THE CONTRACTOR SHALL BECOME FAMILIAR WITH AND COMPLY WITH MEASURES SPECIFIED BY THE ILLINOIS DEPARTMENT OF AGRICULTURE (IDOA) TO PREVENT THE SPREAD OF THE EMERALD ASH BORER. THE IDOA INFORMATION FOR ASH TREE REMOVAL CAN BE FOUND ON THE IDOA WEBSITE AT WWW.AGR.STATE.IL.US/EAB.
7. GRADING SHALL BE DONE BY HAND AROUND LIGHT POLES, UTILITY POLES, SIGN POSTS, SHRUBS, TREES OR OTHER NATURAL OR MAN-MADE OBJECTS WHERE FILLS OR CUTS ARE ADJACENT TO THESE ITEMS. IT IS THE INTENT THAT THE LIMITS OF CONSTRUCTION BE SUCH AS TO PRESERVE, IN THE ORIGINAL STATE, AS MUCH AREA AS POSSIBLE. THE DECISION AS TO ITEMS TO REMAIN IN PLACE SHALL BE DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE CONTRACT UNIT PRICE FOR EARTH EXCAVATION, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
8. ALL ENTRANCES WITHIN THE PROJECT LIMITS SHALL REMAIN ACCESSIBLE, AS DIRECTED BY THE ENGINEER, THROUGHOUT THE TIME OF CONSTRUCTION.
9. TREE REMOVAL OPERATIONS SHALL BE CONDUCTED BETWEEN OCTOBER 1 AND MARCH 31.
10. AGGREGATE BASE COURSE SHALL BE PROOF ROLLED TO SATISFACTION OF ENGINEER.
11. THE FOLLOWING APPLICATION RATES HAVE BEEN USED IN THE CALCULATION OF THE PLAN QUANTITIES:

|                                   |                                  |
|-----------------------------------|----------------------------------|
| AGGREGATE BASE COURSE             | 2.05 TONS/CY                     |
| RIPRAP                            | 1.6 TONS/CY                      |
| TEMPORARY DITCH CHECKS            | 11 FT/DITCH CHECK                |
| AGGREGATE DITCH CHECKS            | 8 TONS/DITCH CHECK               |
| TEMPORARY EROSION CONTROL SEEDING | 2 APPLICATIONS OVER SEEDING AREA |

HIGHWAY STANDARDS

| STD NO    | STD TITLE                                                                                         |
|-----------|---------------------------------------------------------------------------------------------------|
| 000001-06 | STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS                                                      |
| 001001-02 | AREAS OF REINFORCEMENT BARS                                                                       |
| 001006    | DECIMAL OF AN INCH AND OF A FOOT                                                                  |
| 280001-07 | TEMPORARY EROSION CONTROL SYSTEMS                                                                 |
| 515001-03 | NAME PLATE FOR BRIDGES                                                                            |
| 542401-03 | METAL FLARED END SECTION FOR PIPE CULVERTS                                                        |
| 665001-02 | WOVEN WIRE FENCE                                                                                  |
| 701901-07 | TRAFFIC CONTROL DEVICES                                                                           |
| 720001-01 | SIGN PANEL MOUNTING DETAILS                                                                       |
| 720006-04 | SIGN PANEL ERECTION DETAILS                                                                       |
| 720011-01 | METAL POSTS FOR SIGNS, MARKERS AND DELINEATORS                                                    |
| 725001-01 | OBJECT AND TERMINAL MARKERS                                                                       |
| 729001-01 | APPLICATIONS OF TYPES A AND B METAL POSTS (FOR SIGNS & MARKERS)                                   |
| 782006    | GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS                                             |
| BLR 21-9  | TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS           |
| BLR 22-7  | TYP. APPL. OF T.C.D. FOR RURAL LOC. HWYS. (2-LANE 2 WAY RURAL TRAFF.) (RD. CLOSED TO THRU TRAFF.) |
| BLR 23-4  | TRAFFIC BARRIER TERMINAL TYPE 1                                                                   |
| BLR 26-3  | STEEL PLATE BEAM GUARDRAIL 29 IN. (731 MM) HEIGHT                                                 |
| BLR 27-1  | TRAFFIC BARRIER TERMINAL TYPE 5A                                                                  |

COMMITMENTS

THE COUNTY HAS MADE THE FOLLOWING COMMITMENTS FOR THE PROJECT. COMMITMENTS ARE NOT TO BE ALTERED WITHOUT THE WRITTEN APPROVAL OF ALL PARTIES TO WHICH THE COMMITMENT WAS MADE. THE FOLLOWING IS A GENERAL SUMMARY AND DOES NOT CONTAIN FULL DETAILS. THE CONTRACTOR SHALL ADHERE TO THESE CONDITIONS.

1. NONE.

KNOWN UTILITY COMPANIES

|                                                                                   |                                                                                     |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <u>FRONTIER COMMUNICATIONS (COMMUNICATIONS)</u><br>MELVIN EADES<br>(217) 854-2025 | <u>SOUTHWESTERN ELECTRIC CO-OP (ELECTRIC)</u><br>KIM JACKSON<br>(618) 664-5922      |
| <u>MARATHON PIPELINE (GAS)</u><br>MIRANDA STEINBERGER<br>(504) 252-8064           | <u>THREE COUNTY PUBLIC WATER DISTRICT (WATER)</u><br>JOSH BURDELL<br>(217) 456-8231 |

SUMMARY OF QUANTITIES

| SPEC. PROV. | SPECIALTY ITEM | CODE NO. | ITEM DESCRIPTION                                    | UNIT  | TOTAL QUANTITY |
|-------------|----------------|----------|-----------------------------------------------------|-------|----------------|
|             |                | 20100110 | TREE REMOVAL (6 TO 15 UNITS DIAMETER)               | UNIT  | 46             |
|             |                | 20100210 | TREE REMOVAL (OVER 15 UNITS DIAMETER)               | UNIT  | 262            |
|             |                | 20100500 | TREE REMOVAL, ACRES                                 | ACRE  | 1.00           |
| *           |                | 20200100 | EARTH EXCAVATION                                    | CU YD | 4620           |
| *           |                | 20300100 | CHANNEL EXCAVATION                                  | CU YD | 455            |
| *           |                | 20800150 | TRENCH BACKFILL                                     | CU YD | 3              |
| *           |                | 21101505 | TOPSOIL EXCAVATION AND PLACEMENT                    | CU YD | 905            |
|             |                | 25000200 | SEEDING, CLASS 2                                    | ACRE  | 1.50           |
|             |                | 25000400 | NITROGEN FERTILIZER NUTRIENT                        | POUND | 135            |
|             |                | 25000500 | PHOSPHORUS FERTILIZER NUTRIENT                      | POUND | 135            |
|             |                | 25000600 | POTASSIUM FERTILIZER NUTRIENT                       | POUND | 135            |
|             |                | 25100115 | MULCH, METHOD 2                                     | ACRE  | 1.25           |
|             |                | 25100635 | HEAVY DUTY EROSION CONTROL BLANKET                  | SQ YD | 1155           |
|             |                | 28000250 | TEMPORARY EROSION CONTROL SEEDING                   | POUND | 300            |
|             |                | 28000305 | TEMPORARY DITCH CHECKS                              | FOOT  | 858            |
|             |                | 28000315 | AGGREGATE DITCH CHECKS                              | TON   | 24             |
|             |                | 28000400 | PERIMETER EROSION BARRIER                           | FOOT  | 320            |
|             |                | 28000500 | INLET AND PIPE PROTECTION                           | EACH  | 1              |
| *           |                | 28100807 | STONE DUMPED RIPRAP, CLASS A4                       | TON   | 396            |
| *           |                | 35100700 | AGGREGATE BASE COURSE, TYPE A 8"                    | SQ YD | 1774           |
|             |                | 40200700 | AGGREGATE SURFACE COURSE, TYPE A 8"                 | SQ YD | 111            |
|             |                | 48100500 | AGGREGATE SHOULDERS, TYPE A 6"                      | SQ YD | 347            |
|             |                | 50100100 | REMOVAL OF EXISTING STRUCTURES                      | EACH  | 1              |
|             |                | 50105220 | PIPE CULVERT REMOVAL                                | FOOT  | 23             |
|             |                | 50200100 | STRUCTURE EXCAVATION                                | CU YD | 87             |
|             |                | 50300225 | CONCRETE STRUCTURES                                 | CU YD | 51.6           |
|             |                | 50300280 | CONCRETE ENCASEMENT                                 | CU YD | 15.8           |
| *           |                | 50400505 | PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH) | SQ FT | 3565           |

SUMMARY OF QUANTITIES

| SPEC. PROV. | SPECIALTY ITEM | CODE NO. | ITEM DESCRIPTION                          | UNIT  | TOTAL QUANTITY |
|-------------|----------------|----------|-------------------------------------------|-------|----------------|
|             |                | 50800205 | REINFORCEMENT BARS, EPOXY COATED          | POUND | 7640           |
|             | *              | 50900205 | STEEL RAILING, TYPE S1                    | FOOT  | 302            |
|             |                | 51201400 | FURNISHING STEEL PILES HP10X42            | FOOT  | 296            |
|             |                | 51201600 | FURNISHING STEEL PILES HP12X53            | FOOT  | 350            |
|             |                | 51202305 | DRIVING PILES                             | FOOT  | 646            |
|             |                | 51203400 | TEST PILE STEEL HP10X42                   | EACH  | 2              |
|             |                | 51500100 | NAME PLATES                               | EACH  | 1              |
|             | *              | 542D0223 | PIPE CULVERTS, CLASS D, TYPE 1 18"        | FOOT  | 31             |
|             |                | 54261718 | STEEL FLARED END SECTIONS 18"             | EACH  | 2              |
|             |                | 58300100 | PORTLAND CEMENT MORTAR FAIRING COURSE     | FOOT  | 743            |
|             |                | 59300100 | CONTROLLED LOW-STRENGTH MATERIAL          | CU YD | 23.8           |
|             | *              | 63100075 | TRAFFIC BARRIER TERMINAL, TYPE 5A         | EACH  | 4              |
|             | *              | 66500105 | WOVEN WIRE FENCE, 4'                      | FOOT  | 1759           |
|             | *              | 66501800 | WOVEN WIRE GATES, 4' X 20' DOUBLE         | EACH  | 2              |
|             |                | 67100100 | MOBILIZATION                              | L SUM | 1              |
|             | *              | 72000100 | SIGN PANEL - TYPE 1                       | SO FT | 10             |
|             | *              | 72501000 | TERMINAL MARKER - DIRECT APPLIED          | EACH  | 4              |
|             | *              | 72900100 | METAL POST - TYPE A                       | FOOT  | 25             |
|             | *              | 78200005 | GUARDRAIL REFLECTORS, TYPE A              | EACH  | 4              |
|             | *              | 78200011 | BARRIER WALL REFLECTORS, TYPE C           | EACH  | 4              |
|             | *              | Z0013798 | CONSTRUCTION LAYOUT                       | L SUM | 1              |
|             | *              | Z0022800 | FENCE REMOVAL                             | FOOT  | 1844           |
|             | * *            | X0640200 | TRAFFIC BARRIER TERMINAL (SPECIAL)        | EACH  | 4              |
|             | *              | X7010216 | TRAFFIC CONTROL AND PROTECTION, (SPECIAL) | L SUM | 1              |
|             |                |          |                                           |       |                |

EXISTING TYPICAL SECTION NOTES:  
STATION RANGE REFERENCES PROPOSED BASELINE.

EXISTING STRUCTURE OMIISION FROM STA 107+57.99  
TO STA 108+00.76.

| CURVE: PR_TR82.1 |                         |                          |
|------------------|-------------------------|--------------------------|
| Station          | LEFT<br>Cross Slope (%) | RIGHT<br>Cross Slope (%) |
| 102+40.00        | -2.00                   | -2.00                    |
| 102+45.00        | -2.00                   | -2.00                    |
| 102+50.00        | -2.00                   | -1.69                    |
| 102+55.00        | -2.00                   | -1.38                    |
| 102+60.00        | -2.00                   | -1.06                    |
| 102+65.00        | -2.00                   | -0.75                    |
| 102+70.00        | -2.00                   | -0.44                    |
| 102+75.00        | -2.00                   | -0.13                    |
| 102+77.00        | -2.00                   | 0.00                     |
| 102+80.00        | -2.00                   | 0.19                     |
| 102+85.00        | -2.00                   | 0.50                     |
| 102+90.00        | -2.00                   | 0.81                     |
| 102+95.00        | -2.00                   | 1.13                     |
| 103+00.00        | -2.00                   | 1.44                     |
| 103+05.00        | -2.00                   | 1.75                     |
| 103+09.00        | -2.00                   | 2.00                     |
| 103+10.00        | -2.06                   | 2.06                     |
| 103+15.00        | -2.38                   | 2.38                     |
| 103+20.00        | -2.69                   | 2.69                     |
| 103+25.00        | -3.00                   | 3.00                     |
| 103+30.00        | -3.31                   | 3.31                     |
| 103+35.00        | -3.63                   | 3.63                     |
| 103+37.00        | -3.75                   | 3.75                     |
| 104+59.00        | -3.75                   | 3.75                     |

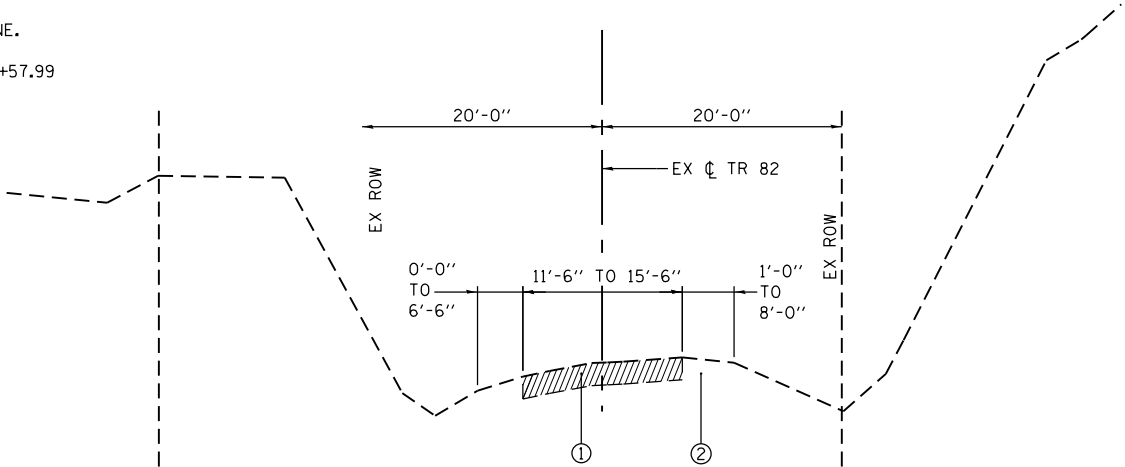
REVERSE CURVES: PR\_TR82.1 and PR\_TR82.2

| Station   | LEFT<br>Cross Slope (%) | RIGHT<br>Cross Slope (%) |
|-----------|-------------------------|--------------------------|
| 103+37.00 | -3.75                   | 3.75                     |
| 104+59.00 | -3.75                   | 3.75                     |
| 104+60.00 | -3.69                   | 3.69                     |
| 104+65.00 | -3.41                   | 3.41                     |
| 104+70.00 | -3.13                   | 3.13                     |
| 104+75.00 | -2.85                   | 2.85                     |
| 104+80.00 | -2.57                   | 2.57                     |
| 104+85.00 | -2.29                   | 2.29                     |
| 104+90.00 | -2.01                   | 2.01                     |
| 104+95.00 | -1.73                   | 1.73                     |
| 105+00.00 | -1.45                   | 1.45                     |
| 105+05.00 | -1.17                   | 1.17                     |
| 105+10.00 | -0.89                   | 0.89                     |
| 105+15.00 | -0.61                   | 0.61                     |
| 105+20.00 | -0.32                   | 0.32                     |
| 105+25.00 | -0.04                   | 0.04                     |
| 105+28.96 | 0.18                    | -0.18                    |
| 105+30.00 | 0.24                    | -0.24                    |
| 105+35.00 | 0.52                    | -0.52                    |
| 105+40.00 | 0.80                    | -0.80                    |
| 105+45.00 | 1.08                    | -1.08                    |
| 105+50.00 | 1.36                    | -1.36                    |
| 105+55.00 | 1.64                    | -1.64                    |
| 105+60.00 | 1.92                    | -1.92                    |
| 105+65.00 | 2.20                    | -2.20                    |
| 105+70.00 | 2.48                    | -2.48                    |
| 105+75.00 | 2.76                    | -2.76                    |
| 105+80.00 | 3.05                    | -3.05                    |
| 105+85.00 | 3.33                    | -3.33                    |
| 105+90.00 | 3.61                    | -3.61                    |
| 105+95.00 | 3.89                    | -3.89                    |
| 105+97.00 | 4.00                    | -4.00                    |
| 106+39.00 | 4.00                    | -4.00                    |

PROPOSED TYPICAL SECTION NOTES:  
SEE PLAN AND PROFILE SHEETS FOR EXACT LOCATIONS  
OF PROPOSED GUARDRAIL.

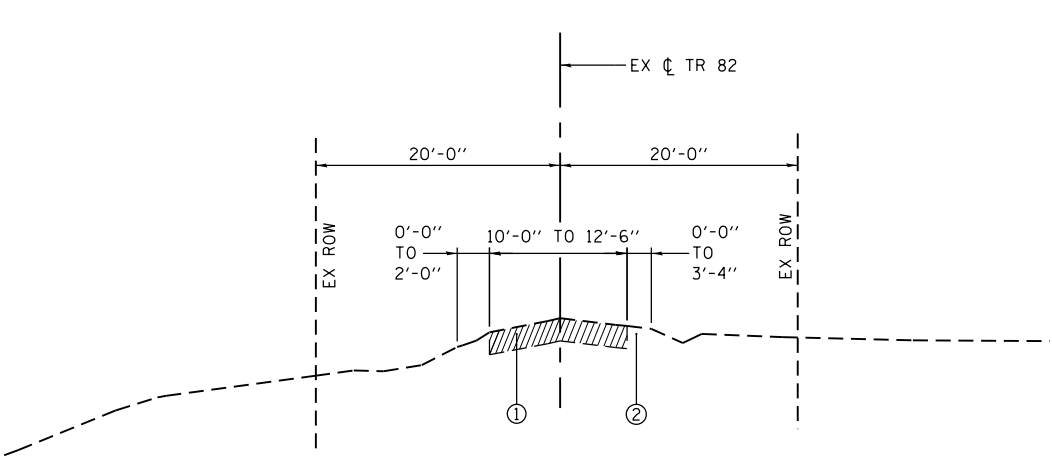
SEE PLAN AND PROFILE SHEETS FOR EXACT LOCATIONS  
OF PROPOSED DITCHES.

PROPOSED STRUCTURE OMISSION FROM STA 107+41.96  
TO STA 108+92.04.



EXISTING TYPICAL SECTION

STA 102+45.00 TO STA 104+80.00  
STA 110+80.00 TO STA 112+10.00



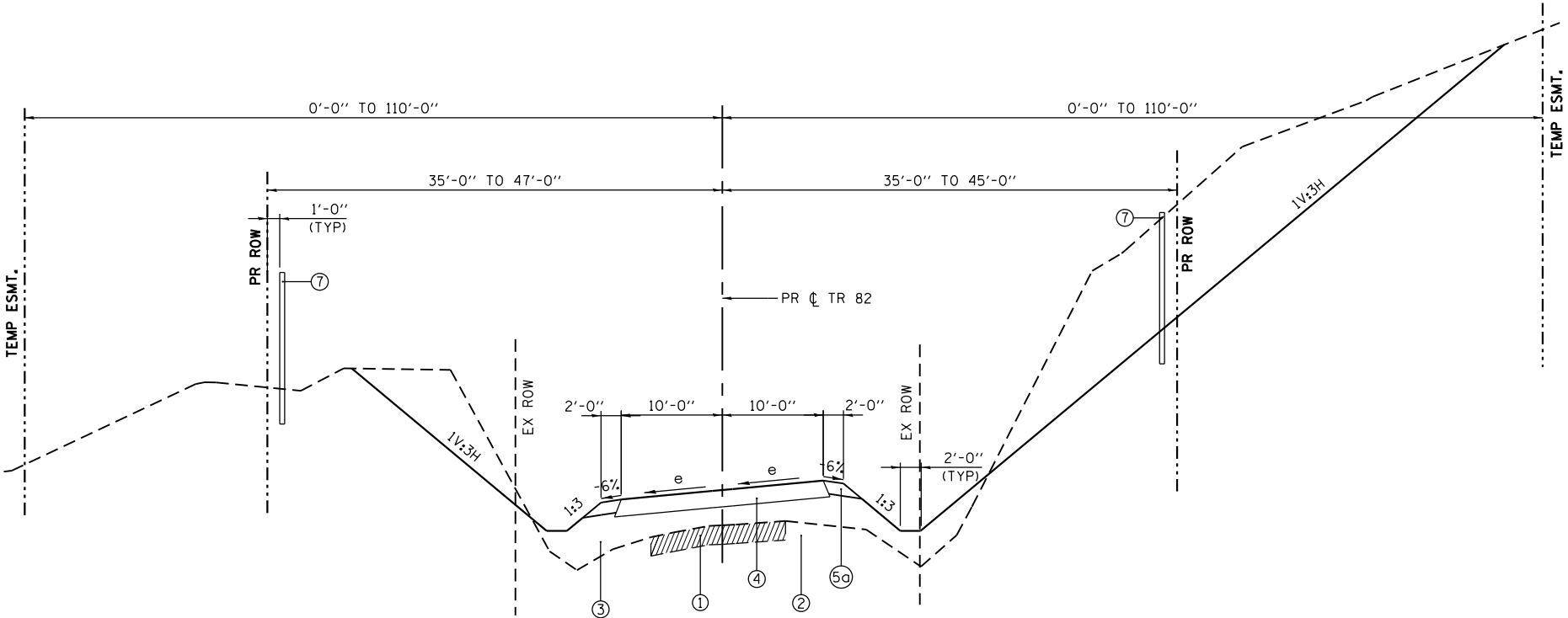
EXISTING TYPICAL TANGENT SECTION

STA 104+80.00 TO STA 107+57.99  
STA 108+00.76 TO STA 110+80.00

| CURVE: PR_TR82.2 |                         |                          |
|------------------|-------------------------|--------------------------|
| Station          | LEFT<br>Cross Slope (%) | RIGHT<br>Cross Slope (%) |
| 105+97.00        | 4.00                    | -4.00                    |
| 106+39.00        | 4.00                    | -4.00                    |
| 106+40.00        | 3.94                    | -3.94                    |
| 106+45.00        | 3.64                    | -3.64                    |
| 106+50.00        | 3.34                    | -3.34                    |
| 106+55.00        | 3.04                    | -3.04                    |
| 106+60.00        | 2.74                    | -2.74                    |
| 106+65.00        | 2.45                    | -2.45                    |
| 106+69.66        | 2.17                    | -2.17                    |
| 106+70.00        | 2.15                    | -2.15                    |
| 106+75.00        | 1.85                    | -1.85                    |
| 106+80.00        | 1.55                    | -1.55                    |
| 106+80.82        | 1.50                    | -1.50                    |
| 106+85.00        | 1.25                    | -1.50                    |
| 106+90.00        | 0.95                    | -1.50                    |
| 106+95.00        | 0.65                    | -1.50                    |
| 107+00.00        | 0.35                    | -1.50                    |
| 107+05.00        | 0.05                    | -1.50                    |
| 107+05.90        | 0.00                    | -1.50                    |
| 107+10.00        | -0.24                   | -1.50                    |
| 107+15.00        | -0.54                   | -1.50                    |
| 107+20.00        | -0.84                   | -1.50                    |
| 107+25.00        | -1.14                   | -1.50                    |
| 107+30.00        | -1.44                   | -1.50                    |
| 107+31.00        | -1.50                   | -1.50                    |
| 109+40.00        | -1.50                   | -1.50                    |

LEGEND

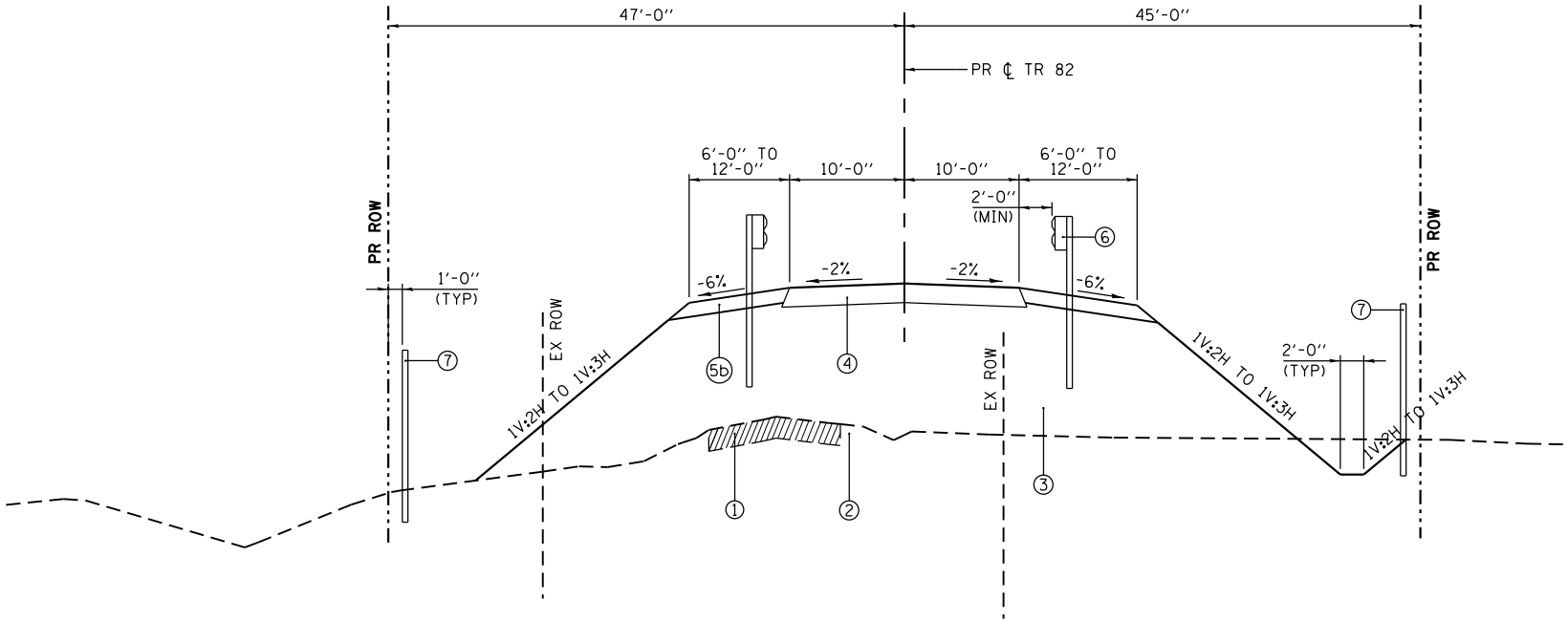
- ① EX OIL AND CHIP SURFACE WITH  
AGGREGATE BASE, 9"( $\pm$ )
- ② EX EARTH SHOULDER
- ③ EMBANKMENT
- ④ AGGREGATE BASE COURSE, TYPE A 6"
- ⑤a EARTH SHOULDERS
- ⑤b AGGREGATE SHOULDERS, TYPE A 8"
- ⑥ GUARDRAIL & TRAFFIC BARRIER TERMINALS
- ⑦ WOVEN WIRE FENCE, 4'



PROPOSED TYPICAL SUPERELEVATED SECTION

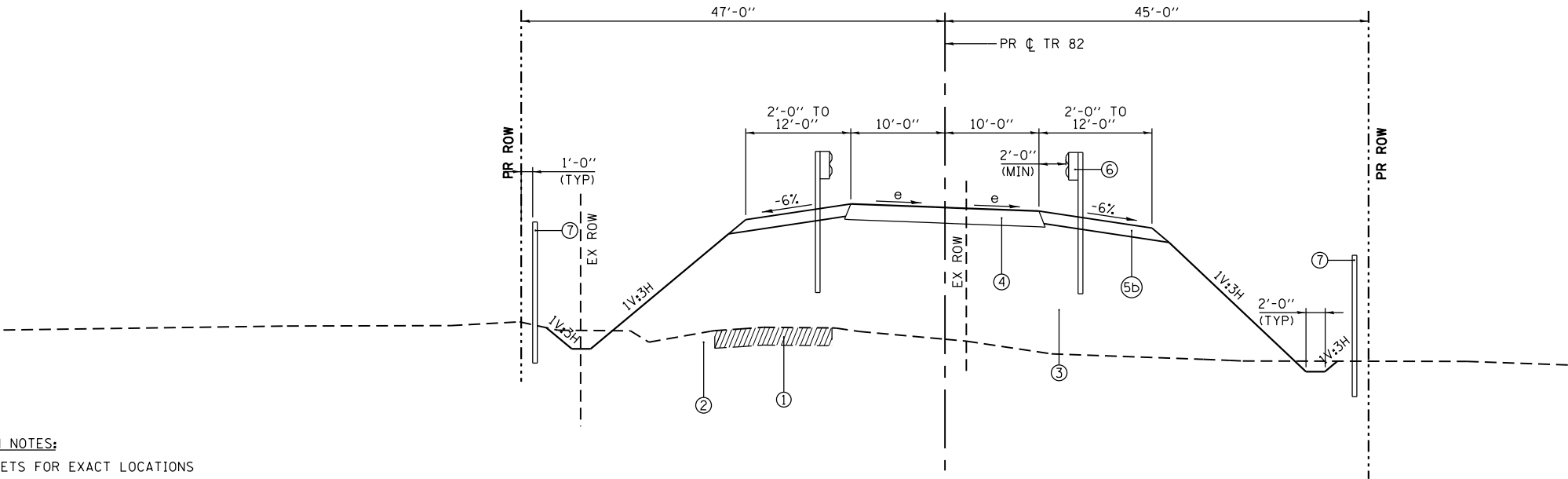
STA 102+45.00 TO STA 106+52.66  
STA 109+83.84 TO STA 112+10.00

|                                                                                         |  |  |  |            |           |                                                   |  |                          |  |                    |                     |        |                 |                           |
|-----------------------------------------------------------------------------------------|--|--|--|------------|-----------|---------------------------------------------------|--|--------------------------|--|--------------------|---------------------|--------|-----------------|---------------------------|
| FILE NAME = H:\6182\CADD_Sheets\6182_SHT_TYPICAL.dgn                                    |  |  |  | DESIGNED - | REVISED - | STATE OF ILLINOIS<br>DEPARTMENT OF TRANSPORTATION |  | TYPICAL ROADWAY SECTIONS |  | TR                 | SECTION             | COUNTY | TOTAL<br>SHEETS | SHEET<br>NO.              |
| HMG ENGINEERS, INC.<br>9360 HOLY CROSS LANE<br>BREESE, ILLINOIS 62230<br>(618) 526-9611 |  |  |  | DRAWN -    | REVISED - |                                                   |  |                          |  | 82                 | 08-08127-00-BR      | BOND   | 55              | 5                         |
| USER NAME = kschwier.john<br>PLOT SCALE = 28.0000' / in.<br>PLOT DATE = 3/30/2018       |  |  |  | CHECKED -  | REVISED - |                                                   |  |                          |  | CONTRACT NO. 97676 |                     |        |                 |                           |
|                                                                                         |  |  |  | DATE -     | REVISED - |                                                   |  |                          |  | SCALE:             | SHEET 1 OF 2 SHEETS | STA.   | TO STA.         | ILLINOIS FED. AID PROJECT |



PROPOSED TYPICAL TANGENT SECTION

STA 107+31.00 TO STA 107+41.96  
STA 108+92.04 TO STA 109+40.00



PROPOSED TYPICAL SUPERELEVATED SECTION

STA 106+52.66 TO STA 107+31.00  
STA 109+40.00 TO STA 109+83.84

| CURVE: PR_TR82_3 |                         |                          |
|------------------|-------------------------|--------------------------|
| Station          | LEFT<br>Cross Slope (%) | RIGHT<br>Cross Slope (%) |
| 107+31.00        | -1.50                   | -1.50                    |
| 109+40.00        | -1.50                   | -1.50                    |
| 109+45.00        | -1.24                   | -1.50                    |
| 109+50.00        | -0.98                   | -1.50                    |
| 109+55.00        | -0.73                   | -1.50                    |
| 109+60.00        | -0.47                   | -1.50                    |
| 109+65.00        | -0.21                   | -1.50                    |
| 109+69.00        | 0.00                    | -1.50                    |
| 109+70.00        | 0.05                    | -1.50                    |
| 109+75.00        | 0.31                    | -1.50                    |
| 109+80.00        | 0.57                    | -1.50                    |
| 109+85.00        | 0.82                    | -1.50                    |
| 109+90.00        | 1.08                    | -1.50                    |
| 109+95.00        | 1.34                    | -1.50                    |
| 109+98.11        | 1.50                    | -1.50                    |
| 110+00.00        | 1.60                    | -1.60                    |
| 110+05.00        | 1.86                    | -1.86                    |
| 110+10.00        | 2.11                    | -2.11                    |
| 110+15.00        | 2.37                    | -2.37                    |
| 110+20.00        | 2.63                    | -2.63                    |
| 110+25.00        | 2.89                    | -2.89                    |
| 110+30.00        | 3.15                    | -3.15                    |
| 110+32.00        | 3.25                    | -3.25                    |
| 111+29.00        | 3.25                    | -3.25                    |
| 111+30.00        | 3.19                    | -3.19                    |
| 111+35.00        | 2.91                    | -2.91                    |
| 111+40.00        | 2.62                    | -2.62                    |
| 111+42.90        | 2.46                    | -2.46                    |
| 111+50.00        | 2.05                    | -2.05                    |
| 111+50.90        | 2.00                    | -2.00                    |
| 111+55.00        | 1.77                    | -2.00                    |
| 111+60.00        | 1.48                    | -2.00                    |
| 111+65.00        | 1.20                    | -2.00                    |
| 111+70.00        | 0.91                    | -2.00                    |
| 111+75.00        | 0.63                    | -2.00                    |
| 111+80.00        | 0.34                    | -2.00                    |
| 111+85.00        | 0.05                    | -2.00                    |
| 111+90.00        | -0.23                   | -2.00                    |
| 111+95.00        | -0.52                   | -2.00                    |
| 112+00.00        | -0.80                   | -2.00                    |
| 112+05.00        | -1.09                   | -2.00                    |
| 112+10.00        | -1.37                   | -2.00                    |
| 112+15.00        | -1.66                   | -2.00                    |
| 112+20.00        | -1.94                   | -2.00                    |
| 112+21.00        | -2.00                   | -2.00                    |
| 112+25.00        | -2.00                   | -2.00                    |

LEGEND

- ① EX OIL AND CHIP SURFACE WITH AGGREGATE BASE, 9"( $\pm$ )
- ② EX EARTH SHOULDER
- ③ EMBANKMENT
- ④ AGGREGATE BASE COURSE, TYPE A 6"
- ⑤a EARTH SHOULDERS
- ⑤b AGGREGATE SHOULDERS, TYPE A 8"
- ⑥ GUARDRAIL & TRAFFIC BARRIER TERMINALS
- ⑦ WOVEN WIRE FENCE, 4'

PROPOSED TYPICAL SECTION NOTES:  
SEE PLAN AND PROFILE SHEETS FOR EXACT LOCATIONS  
OF PROPOSED GUARDRAIL.

SEE PLAN AND PROFILE SHEETS FOR EXACT LOCATIONS  
OF PROPOSED DITCHES.

PROPOSED STRUCTURE OMISSION FROM STA 107+41.96  
TO STA 108+92.04.

THE 1V:2H FRONT SLOPES AND BACK SLOPES ARE LOCATED  
AT THE BACK OF ABUTMENTS AND SHALL BE TRANSITIONED  
TO 1V:3H WITHIN 20'-0".

|                                                                                         |  |                          |           |                                                   |  |                          |  |                           |                |        |                 |              |
|-----------------------------------------------------------------------------------------|--|--------------------------|-----------|---------------------------------------------------|--|--------------------------|--|---------------------------|----------------|--------|-----------------|--------------|
| FILE NAME = H:\6182\CADD_Sheets\6182_SHT_TYPICAL.dgn                                    |  | DESIGNED -               | REVISED - | STATE OF ILLINOIS<br>DEPARTMENT OF TRANSPORTATION |  | TYPICAL ROADWAY SECTIONS |  | TR                        | SECTION        | COUNTY | TOTAL<br>SHEETS | SHEET<br>NO. |
| HMG ENGINEERS, INC.<br>9360 HOLY CROSS LANE<br>BREESE, ILLINOIS 62230<br>(618) 526-9611 |  | USER NAME = kschwierjohn | DRAWN -   |                                                   |  |                          |  | 82                        | 08-08127-00-BR | BOND   | 55              | 6            |
| PLOT SCALE = 20.0000' / in.                                                             |  | CHECKED -                | REVISED - |                                                   |  |                          |  | CONTRACT NO. 97676        |                |        |                 |              |
| PLOT DATE = 3/30/2018                                                                   |  | DATE -                   | REVISED - |                                                   |  |                          |  | ILLINOIS FED. AID PROJECT |                |        |                 |              |
| SCALE:                                                                                  |  | SHEET 2 OF 2 SHEETS      |           | STA.                                              |  | TO STA.                  |  |                           |                |        |                 |              |

EARTHWORK SCHEDULE

| LOCATION                                                        | A                     | B                                      | C                   | D                                            | E             | F                                        |
|-----------------------------------------------------------------|-----------------------|----------------------------------------|---------------------|----------------------------------------------|---------------|------------------------------------------|
|                                                                 | CHANNEL<br>EXCAVATION | TOPSOIL<br>EXCAVATION AND<br>PLACEMENT | EARTH<br>EXCAVATION | EXCAVATION<br>ADJUSTED FOR<br>SHRINKAGE/LOSS | REQUIRED FILL | BALANCE:<br>WASTE (+) OR<br>SHORTAGE (-) |
|                                                                 | CU YD                 | CU YD                                  | CU YD               | CU YD                                        | CU YD         | CU YD                                    |
| STA 102+45.00 (BEGIN PROJECT) TO STA 107+41.96 (SOUTH ABUTMENT) |                       | 664.6                                  | 4,618.8             | 3,464.1                                      | 1,722.7       | 1,741.4                                  |
| STA 107+41.96 (SOUTH ABUTMENT TO STA 108+92.04 (NORTH ABUTMENT) | 455.0                 |                                        |                     | 255.9                                        | 74.2          | 181.7                                    |
| STA 108+92.04 (NORTH ABUTMENT) TO STA 112+10.00 (END PROJECT)   |                       | 240.3                                  | 0.0                 | 0.0                                          | 1,059.6       | -1,059.6                                 |
| TOTAL                                                           | 455.0                 | 904.9                                  | 4,618.8             | 3,720.0                                      | 2,856.5       | 863.5                                    |
| USE                                                             | 455                   | 905                                    | 4,620               | 3,720                                        | 2,860         | 865                                      |

NOTES:  
ESTIMATED EARTHWORK QUANTITIES WERE CALCULATED FROM CROSS-SECTION END AREAS.  
SCHEDULE ASSUMES A 25% SHRINKAGE/LOSS FACTOR. (CHANNEL EXCAVATION ADJUSTED FOR 25% SHRINKAGE/LOSS AND 25% WASTE).  
COLUMN "A" - ESTIMATED VOLUME OF CUT MATERIAL FROM BETWEEN THE PROPOSED ABUTMENTS (CHANNEL EXCAVATION). SCHEDULE ASSUMES 25% SHRINKAGE/LOSS AND 25% WASTE DUE TO UNSUITABLE MATERIAL.  
COLUMN "B" - ESTIMATED VOLUME OF CUT MATERIAL PRODUCED BY REMOVAL OF THE EXISTING TOPSOIL MATERIAL. THIS VOLUME HAS BEEN CALCULATED USING THE AREA WITHIN THE GRADING LIMITS DEFINED IN THE CROSS-SECTIONS, OUTSIDE THE ABUTMENTS AND EXCLUDING THE EXISTING ROADWAY/ENTRANCES, OVER A CONSTANT DEPTH OF 5'.  
COLUMN "C" - ESTIMATED VOLUME OF CUT MATERIAL LOCATED OUTSIDE THE ABUTMENTS. THIS VOLUME HAS BEEN CALCULATED USING CROSS-SECTION END AREAS AND DOES NOT INCLUDE THE TOPSOIL VOLUME TO BE EXCAVATED WITHIN THE GRADING LIMITS DEFINED IN THE CROSS-SECTIONS.  
COLUMN "D" - ESTIMATED VOLUME OF CUT MATERIAL ADJUSTED FOR WASTE & SHRINKAGE/LOSS THAT IS SUITABLE FOR EMBANKMENT (NOT A PAY ITEM).  
COLUMN "E" - ESTIMATED VOLUME OF EMBANKMENT/FILL MATERIAL REQUIRED. THIS VOLUME HAS BEEN CALCULATED USING CROSS-SECTION END AREAS AND INCLUDES THE TOPSOIL VOLUME (4" MINIMUM) REQUIRED TO BE PLACED WITHIN THE CONSTRUCTION LIMITS (NOT A PAY ITEM).  
COLUMN "F" - ESTIMATED EARTHWORK MATERIAL BALANCE (MATERIAL TO BE HAULED OFF. NOT A PAY ITEM).

TREE REMOVAL SCHEDULE

| LOCATION      |       |    |               |    |  |  | TREE REMOVAL<br>(6 TO 15 UNITS<br>DIAMETER) | TREE REMOVAL<br>(OVER 15 UNITS<br>DIAMETER) | TREE<br>REMOVAL,<br>ACRES |
|---------------|-------|----|---------------|----|--|--|---------------------------------------------|---------------------------------------------|---------------------------|
|               |       |    |               |    |  |  | UNIT                                        | UNIT                                        | ACRE                      |
| STA 105+22.04 | 22.76 | RT |               |    |  |  | 10                                          |                                             |                           |
| STA 105+37.54 | 27.58 | RT |               |    |  |  | 10                                          |                                             |                           |
| STA 107+00.14 | 5.09  | RT |               |    |  |  | 8                                           |                                             |                           |
| STA 108+15.41 | 5.82  | RT |               |    |  |  | 8                                           |                                             |                           |
| STA 108+19.54 | 28.89 | RT |               |    |  |  | 10                                          |                                             |                           |
| STA 105+29.29 | 27.86 | RT |               |    |  |  |                                             | 20                                          |                           |
| STA 105+58.25 | 24.08 | RT |               |    |  |  |                                             | 20                                          |                           |
| STA 105+83.64 | 24.66 | RT |               |    |  |  |                                             | 18                                          |                           |
| STA 106+89.68 | 4.62  | RT |               |    |  |  |                                             | 36                                          |                           |
| STA 106+90.97 | 11.94 | RT |               |    |  |  |                                             | 48                                          |                           |
| STA 107+20.04 | 35.16 | RT |               |    |  |  |                                             | 20                                          |                           |
| STA 107+43.53 | 5.87  | RT |               |    |  |  |                                             | 20                                          |                           |
| STA 107+45.09 | 35.72 | RT |               |    |  |  |                                             | 30                                          |                           |
| STA 109+22.04 | 38.62 | RT |               |    |  |  |                                             | 20                                          |                           |
| STA 109+99.34 | 11.09 | RT |               |    |  |  |                                             | 30                                          |                           |
| STA 102+45.00 | LT    | TO | STA 107+41.96 | LT |  |  |                                             |                                             | 0.41                      |
| STA 102+45.00 | RT    | TO | STA 107+41.96 | RT |  |  |                                             |                                             | 0.41                      |
| STA 108+92.04 | LT    | TO | STA 112+10.00 | LT |  |  |                                             |                                             | 0.04                      |
| STA 108+92.04 | RT    | TO | STA 112+10.00 | RT |  |  |                                             |                                             | 0.09                      |
| TOTAL         |       |    |               |    |  |  | 46                                          | 262                                         | 0.95                      |
| USE           |       |    |               |    |  |  | 46                                          | 262                                         | 1.00                      |

FENCE SCHEDULE

| LOCATION      |        |    |    |               |        |    |  |  | FENCE<br>REMOVAL | WOVEN WIRE<br>FENCE - 4' | WOVEN WIRE<br>GATE - 4' X<br>20' DOUBLE |
|---------------|--------|----|----|---------------|--------|----|--|--|------------------|--------------------------|-----------------------------------------|
|               |        |    |    |               |        |    |  |  | FOOT             | FOOT                     | EACH                                    |
| STA 102+46.00 | 37.69' | LT | TO | STA 107+58.17 | 35.80' | LT |  |  | 512.6            |                          |                                         |
| STA 102+46.00 | 48.12' | RT | TO | STA 107+55.36 | 17.72' | LT |  |  | 530.5            |                          |                                         |
| STA 108+07.79 | 33.43' | LT | TO | STA 111+18.38 | 15.62' | LT |  |  | 314.4            |                          |                                         |
| STA 109+16.80 | 29.83' | LT | TO | STA 109+19.47 | 44.00' | LT |  |  | 14.4             |                          |                                         |
| STA 111+42.60 | 14.91' | LT | TO | STA 112+09.00 | 15.28' | LT |  |  | 67.1             |                          |                                         |
| STA 108+02.15 | 13.61' | LT | TO | STA 112+09.00 | 22.09' | RT |  |  | 404.6            |                          |                                         |
| STA 102+46.00 | 48.12' | RT | TO | STA 107+37.00 | 18.50' | RT |  |  |                  | 519.4                    |                                         |
| STA 102+46.00 | 37.69' | LT | TO | STA 107+47.16 | 19.41' | LT |  |  |                  | 539.2                    |                                         |
| STA 108+86.84 | 19.41' | RT | TO | STA 110+20.19 | 34.00' | RT |  |  |                  | 173.8                    |                                         |
| STA 110+41.21 | 34.00' | RT | TO | STA 112+09.00 | 22.09' | RT |  |  |                  | 173.2                    |                                         |
| STA 108+97.00 | 18.51' | LT | TO | STA 111+20.96 | 34.00' | LT |  |  |                  | 263.6                    |                                         |
| STA 111+40.04 | 34.00' | LT | TO | STA 112+09.00 | 15.28' | LT |  |  |                  | 89.4                     |                                         |
| STA 110+20.19 | 34.00' | RT | TO | STA 110+41.21 | 34.00' | RT |  |  |                  |                          | 1                                       |
| STA 111+20.96 | 34.00' | LT | TO | STA 111+40.04 | 34.00' | LT |  |  |                  |                          | 1                                       |
| TOTAL         |        |    |    |               |        |    |  |  | 1,843.6          | 1,758.6                  | 2                                       |
| USE           |        |    |    |               |        |    |  |  | 1,844            | 1,759                    | 2                                       |

EROSION CONTROL AND SEEDING SCHEDULE

| LOCATION      |    |    |               | SEEDING,<br>CLASS 2 | NITROGEN<br>FERTILIZER<br>NUTRIENT | PHOSPHORUS<br>FERTILIZER<br>NUTRIENT | POTASSIUM<br>FERTILIZER<br>NUTRIENT | MULCH,<br>METHOD 2 | HEAVY DUTY<br>EROSION<br>CONTROL<br>BLANKET | TEMPORARY<br>EROSION<br>CONTROL<br>SEEDING | TEMPORARY<br>DITCH CHECKS | AGGREGATE<br>DITCH CHECKS | PERIMETER<br>EROSION<br>BARRIER | INLET AND<br>PIPE<br>PROTECTION |
|---------------|----|----|---------------|---------------------|------------------------------------|--------------------------------------|-------------------------------------|--------------------|---------------------------------------------|--------------------------------------------|---------------------------|---------------------------|---------------------------------|---------------------------------|
|               |    |    |               | ACRE                | POUND                              | POUND                                | POUND                               | ACRE               | SQ YD                                       | POUND                                      | FOOT                      | TON                       | FOOT                            | EACH                            |
| STA 102+45.00 | LT | TO | STA 107+41.96 | LT                  | 0.5                                | 43.8                                 | 43.8                                | 43.8               | 0.4                                         | 454.3                                      | 97                        | 352                       | 8.0                             |                                 |
| STA 102+45.00 | RT | TO | STA 107+41.96 | RT                  | 0.5                                | 49.3                                 | 49.3                                | 49.3               | 0.5                                         | 443.1                                      | 110                       | 385                       | 8.0                             |                                 |
| STA 108+92.04 | LT | TO | STA 112+10.00 | LT                  | 0.1                                | 10.0                                 | 10.0                                | 10.0               | 0.1                                         |                                            | 22                        | 22                        | 320.0                           |                                 |
| STA 108+92.04 | RT | TO | STA 112+10.00 | RT                  | 0.2                                | 16.7                                 | 16.7                                | 16.7               | 0.1                                         | 256.8                                      | 37                        | 99                        | 8.0                             | 1                               |
| TOTAL         |    |    |               |                     | 1.3                                | 119.8                                | 119.8                               | 119.8              | 1.1                                         | 1154.2                                     | 266                       | 858                       | 24.0                            | 1                               |
| USE           |    |    |               |                     | 1.50                               | 135                                  | 135                                 | 135                | 1.25                                        | 1155                                       | 300                       | 858                       | 24                              | 1                               |

CULVERT SCHEDULE

| LOCATION  |    |               |        |        |    |               |        |        |      |      | PIPE CULVERT<br>REMOVAL | PIPE CULVERTS,<br>CLASS D, TYPE 1<br>18" | STEEL FLARED<br>END SECTIONS<br>18" | TRENCH<br>BACKFILL |
|-----------|----|---------------|--------|--------|----|---------------|--------|--------|------|------|-------------------------|------------------------------------------|-------------------------------------|--------------------|
|           |    |               |        |        |    |               |        |        |      |      | FOOT                    | FOOT                                     |                                     | CU YD              |
| ENTRANCE  |    |               | INV EL |        |    |               |        | INV EL |      |      |                         |                                          |                                     |                    |
| 110+30.70 | RT | STA 110+12.23 | 26.58' | 517.83 | TO | STA 110+49.28 | 22.60' | 519.05 | 22.2 | 30.8 | 2                       | 2.1                                      |                                     |                    |
|           |    |               |        |        |    |               |        |        |      |      |                         |                                          |                                     |                    |
| TOTAL     |    |               |        |        |    |               |        |        | 22.2 | 30.8 | 2                       | 2.1                                      |                                     |                    |
| USE       |    |               |        |        |    |               |        |        | 23   | 31   | 2                       | 3                                        |                                     |                    |

PAVING SCHEDULE

| LOCATION                       | AGGREGATE BASE<br>COURSE, TYPE A 8" | AGGREGATE<br>SHOULDER,<br>TYPE A 6" |
|--------------------------------|-------------------------------------|-------------------------------------|
|                                | SQ YD                               | SQ YD                               |
| STA 102+45.00 TO STA 107+41.96 | 1090.2                              | 172.6                               |
| BRIDGE OMISSION                |                                     |                                     |
| STA 108+92.04 TO STA 112+10.00 | 682.9                               | 173.5                               |
|                                |                                     |                                     |
| TOTAL                          | 1773.1                              | 346.1                               |
| USE                            | 1774                                | 347                                 |

ENTRANCE SCHEDULE

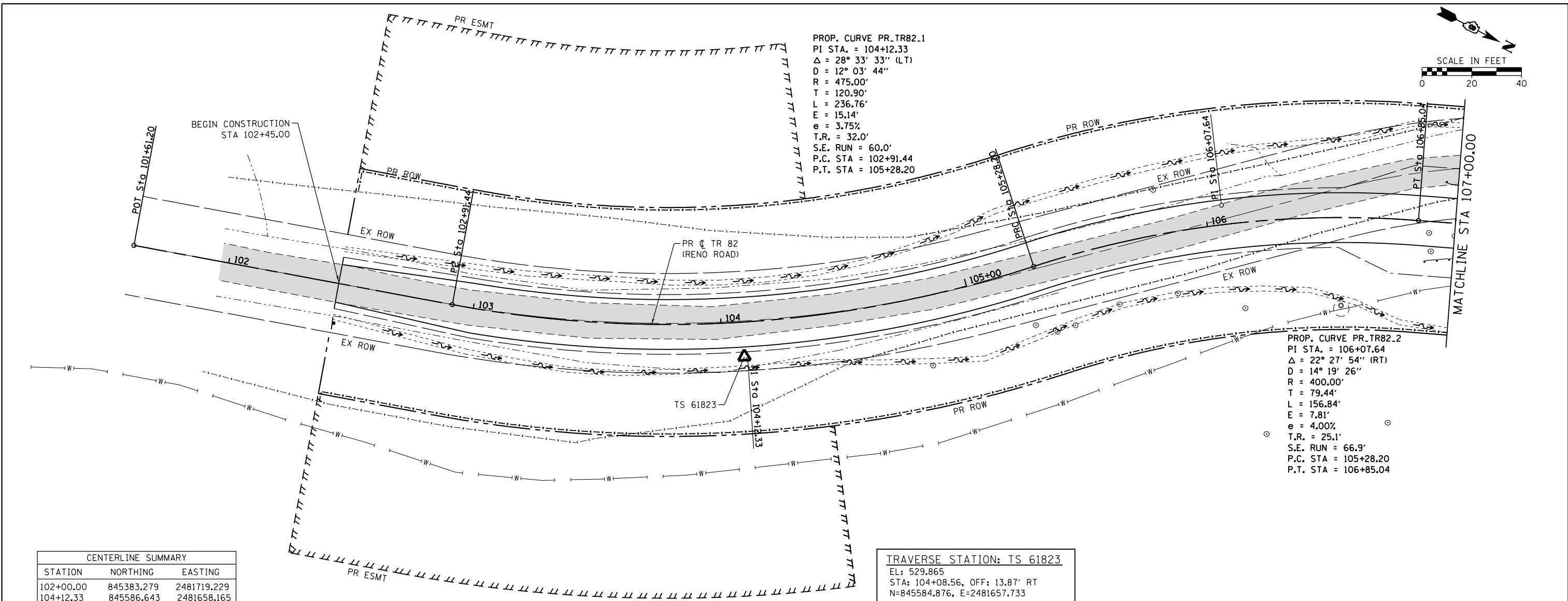
| TYPE  | LOCATION      |       |  | AGGREGATE<br>SURFACE<br>COURSE,<br>TYPE A 8" |
|-------|---------------|-------|--|----------------------------------------------|
|       | STA           | LT/RT |  | SQ YD                                        |
| FE    | STA 110+30.70 | RT    |  | 58.7                                         |
| FE    | STA 111+30.50 | LT    |  | 51.8                                         |
| TOTAL |               |       |  | 110.5                                        |
| USE   |               |       |  | 111                                          |

GUARDRAIL SCHEDULE

| LOCATION                                          | TRAFFIC<br>BARRIER<br>TERMINAL,<br>TYPE 5A | TRAFFIC<br>BARRIER<br>TERMINAL<br>(SPECIAL) | GUARDRAIL<br>REFLECTORS,<br>TYPE A | BARRIER WALL<br>REFLECTORS,<br>TYPE C | TERMINAL<br>MARKER -<br>DIRECT<br>APPLIED |
|---------------------------------------------------|--------------------------------------------|---------------------------------------------|------------------------------------|---------------------------------------|-------------------------------------------|
|                                                   | EACH                                       | EACH                                        | EACH                               | EACH                                  | EACH                                      |
| STA 106+94.74 16.00' L TO STA 107+31.93 12.00' LT |                                            | 1                                           | 1                                  |                                       | 1                                         |
| STA 107+31.93 12.00' L TO STA 107+45.18 12.00' LT | 1                                          |                                             |                                    |                                       |                                           |
| STA 106+88.31 16.00' R TO STA 107+25.49 12.00' RT |                                            | 1                                           | 1                                  |                                       | 1                                         |
| STA 107+25.49 12.00' R TO STA 107+38.74 12.00' RT | 1                                          |                                             |                                    |                                       |                                           |
| STA 108+95.26 12.00' L TO STA 109+08.51 12.00' LT | 1                                          |                                             | 1                                  |                                       |                                           |
| STA 109+08.51 12.00' L TO STA 109+45.70 16.00' LT |                                            | 1                                           |                                    |                                       | 1                                         |
| STA 108+88.83 12.00' R TO STA 109+02.08 12.00' RT | 1                                          |                                             | 1                                  |                                       |                                           |
| STA 109+02.08 12.00' R TO STA 109+39.26 16.00' RT |                                            | 1                                           |                                    |                                       | 1                                         |
| STA 107+45.18 12.00' L TO STA 108+95.26 12.00' LT |                                            |                                             |                                    | 2                                     |                                           |
| STA 107+38.74 12.00' R TO STA 108+88.83 12.00' RT |                                            |                                             |                                    | 2                                     |                                           |
| TOTAL & USE                                       | 4                                          | 4                                           | 4                                  | 4                                     | 4                                         |

SIGNING SCHEDULE

| LOCATION                       | SIGN PANEL -<br>TYPE 1 | METAL POST,<br>TYPE A |
|--------------------------------|------------------------|-----------------------|
|                                | SQ FT                  | FOOT                  |
| STA 102+45.91 16.04' RT (R2-1) | 5.0                    | 12.5                  |
| STA 112+09.48 14.16' LT (R2-1) | 5.0                    | 12.5                  |
| TOTAL                          | 10.0                   | 25.0                  |
| USE                            | 10                     | 25                    |



PROP. CURVE PR.TR82.1  
PI STA. = 104+12.33  
 $\Delta$  = 28° 33' 33" (LT)  
D = 12° 03' 44"  
R = 475.00'  
T = 120.90'  
L = 236.76'  
E = 15.14'  
e = 3.75%  
T.R. = 32.0'  
S.E. RUN = 60.0'  
P.C. STA = 102+91.44  
P.T. STA = 105+28.20

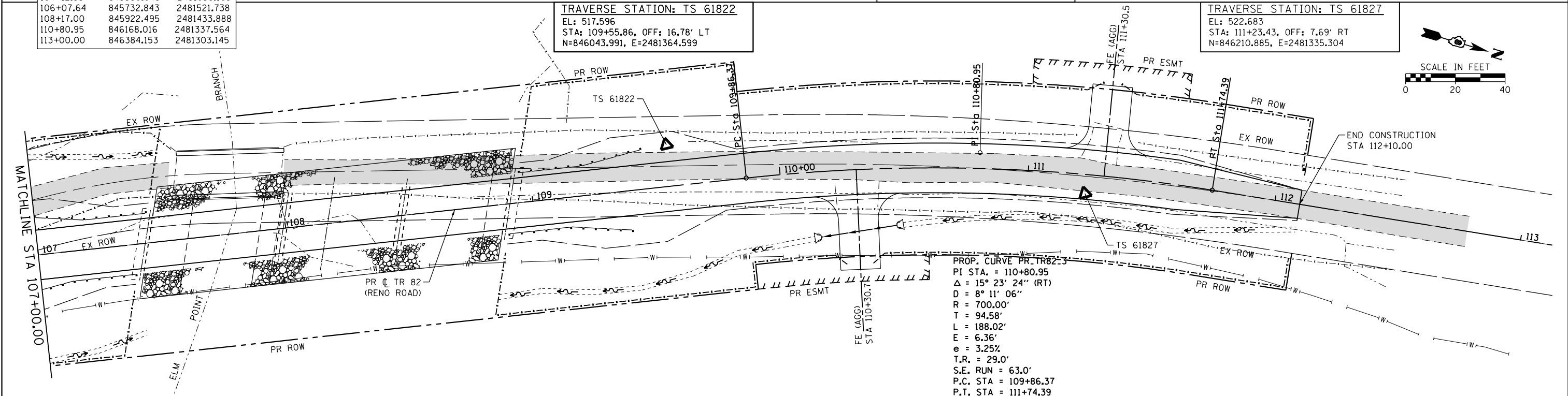
PROP. CURVE PR.TR82.2  
PI STA. = 106+07.64  
 $\Delta$  = 22° 27' 54" (RT)  
D = 14° 19' 26"  
R = 400.00'  
T = 79.44'  
L = 156.84'  
E = 7.81'  
e = 4.00%  
T.R. = 25.1'  
S.E. RUN = 66.9'  
P.C. STA = 105+28.20  
P.T. STA = 106+85.04

| CENTERLINE SUMMARY |            |             |
|--------------------|------------|-------------|
| STATION            | NORTHING   | EASTING     |
| 102+00.00          | 845383.279 | 2481719.229 |
| 104+12.33          | 845586.643 | 2481658.165 |
| 106+07.64          | 845732.843 | 2481521.738 |
| 108+17.00          | 845922.495 | 2481433.888 |
| 110+80.95          | 846168.016 | 2481337.564 |
| 113+00.00          | 846384.153 | 2481303.145 |

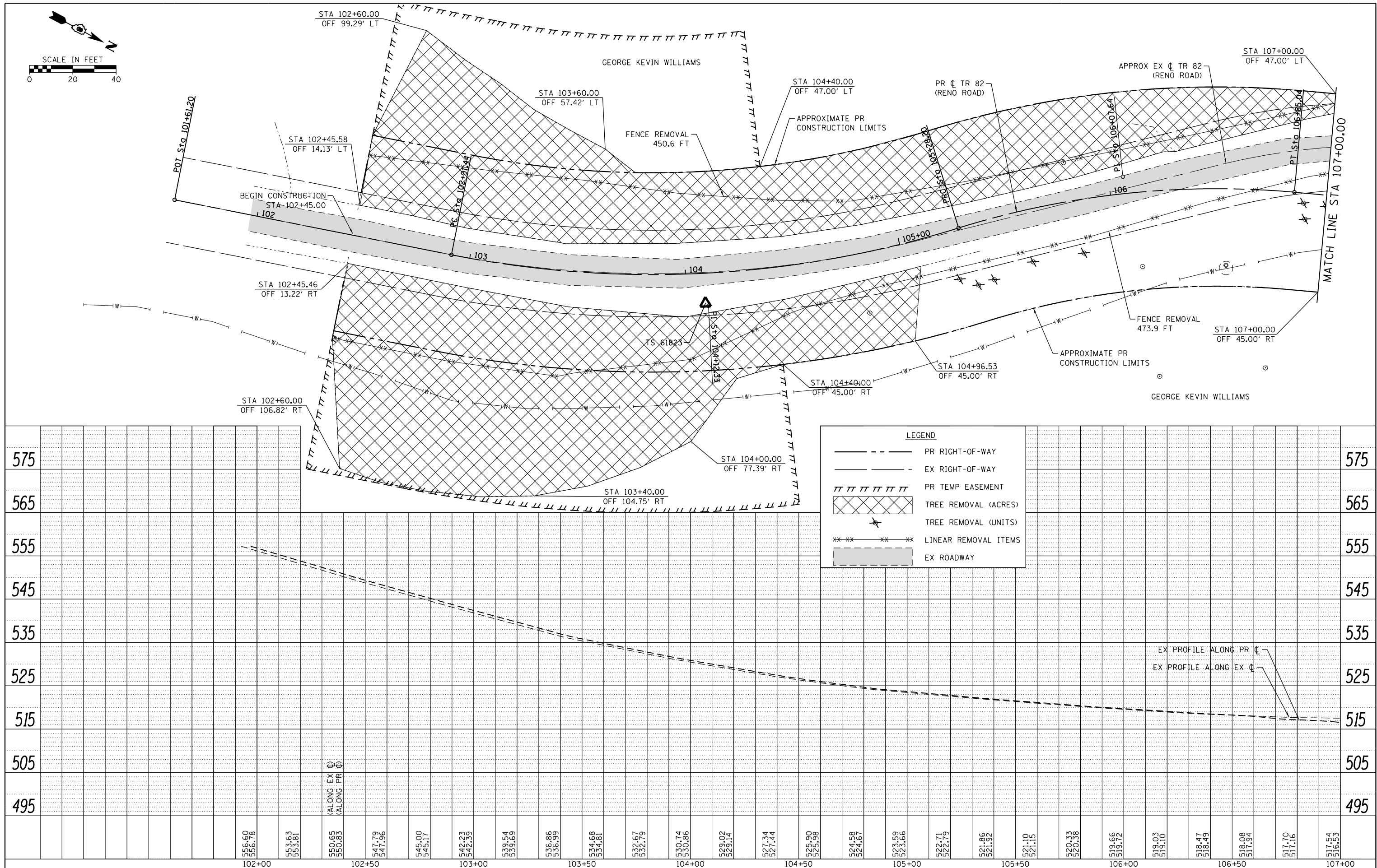
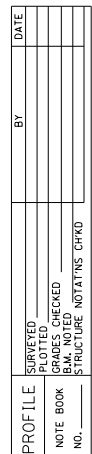
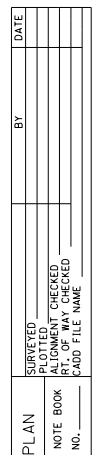
TRAVERSE STATION: TS 61823  
EL: 529.865  
STA: 104+08.56, OFF: 13.87' RT  
N=845584.876, E=2481657.733

TRAVERSE STATION: TS 61822  
EL: 517.596  
STA: 109+55.86, OFF: 16.78' LT  
N=846043.991, E=2481364.599

TRAVERSE STATION: TS 61827  
EL: 522.683  
STA: 111+23.43, OFF: 7.69' RT  
N=846210.885, E=2481335.304



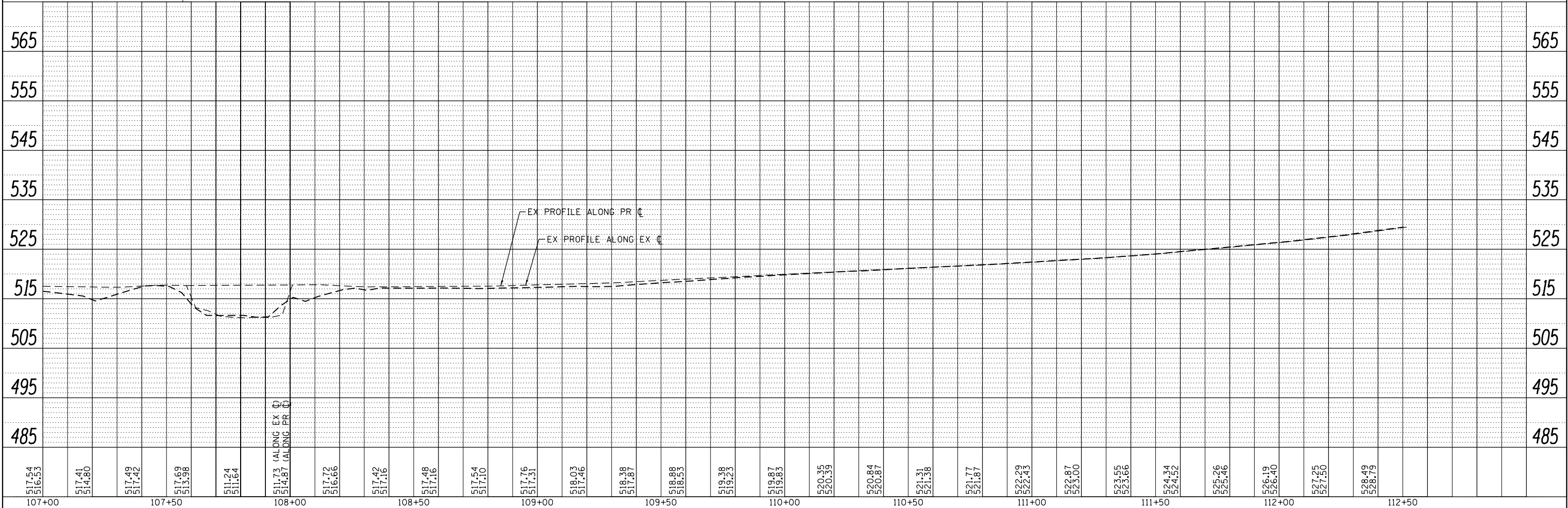
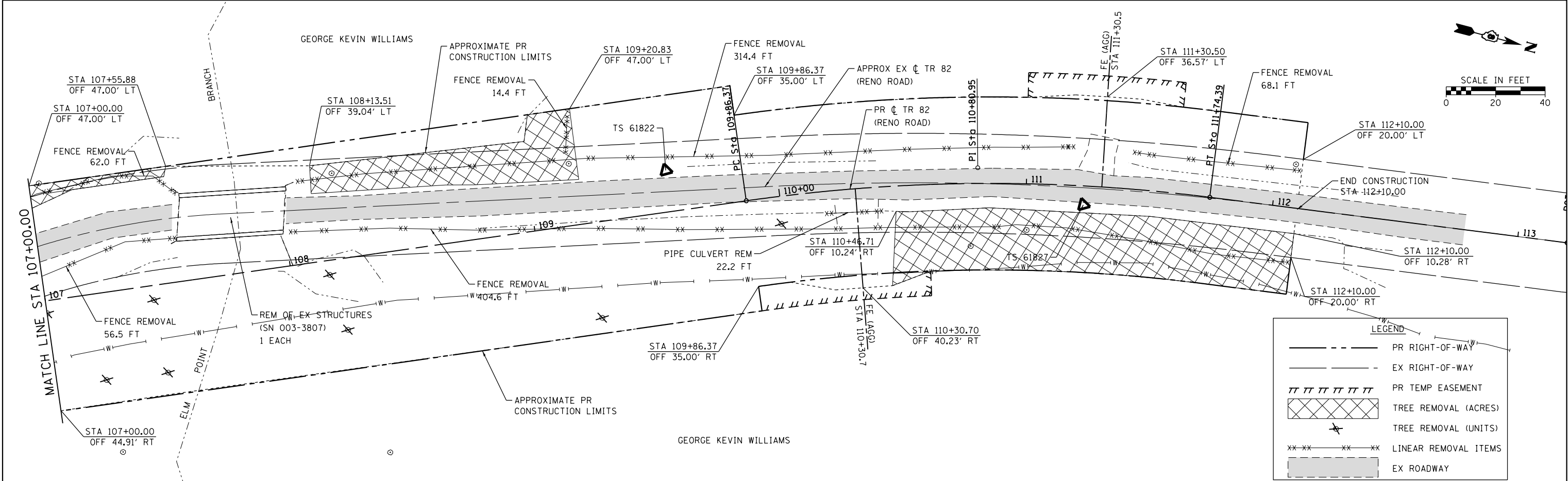
PROP. CURVE PR.TR82.3  
PI STA. = 110+80.95  
 $\Delta$  = 15° 23' 24" (RT)  
D = 8° 11' 06"  
R = 700.00'  
T = 94.58'  
L = 188.02'  
E = 6.36'  
e = 3.25%  
T.R. = 29.0'  
S.E. RUN = 63.0'  
P.C. STA = 109+86.37  
P.T. STA = 111+74.39



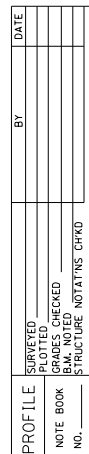
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| <div>HMG<br/>Engineers + Surveyors</div> <div>HMG ENGINEERS, INC.<br/>9360 HOLY CROSS LANE<br/>BREESE, ILLINOIS 62230<br/>(618) 526-9611</div> | USER NAME = kschwier.john   | DRAWN -    | REVISED - |                                                               |                                                                  |  |  |  |  | 82              | 08-08127-00-BR | BOND   | 55           | 10             |
|                                                                                                                                                | PLOT SCALE = 40.0000' / in. | CHECKED -  | REVISED - |                                                               | <div>CONTRACT NO. 97676</div>                                    |  |  |  |  |                 |                |        |              |                |
|                                                                                                                                                | PLOT DATE = 3/30/2018       | DATE -     | REVISED - |                                                               |                                                                  |  |  |  |  | SCALE: 1" = 20' | SHEET 1        | OF 2   | SHEETS       | STA. 102+00.00 |

| PLAN           | SURVEYED | DATE |
|----------------|----------|------|
| NO.            | BY       |      |
| NOTE BOOK      | ALIGNED  |      |
| CADD FILE NAME | CHECKED  |      |

|           |                                 |          |            |
|-----------|---------------------------------|----------|------------|
| PROFILE   | SURVEYED _____                  | BY _____ | DATE _____ |
| NOTE BOOK | PLOTTED _____                   |          |            |
|           | GRADES CHECKED _____            |          |            |
|           | B.M. NOTED _____                |          |            |
| NO. _____ | STRUCTURE NOTATIONS CHK'D _____ |          |            |

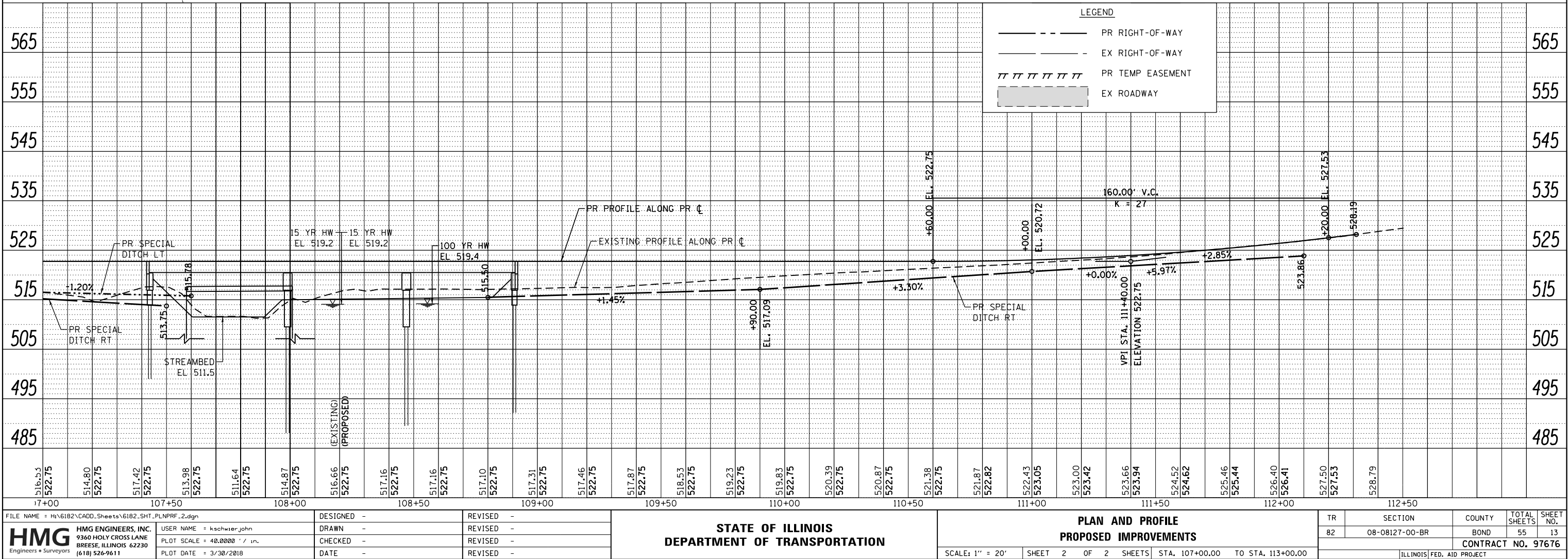
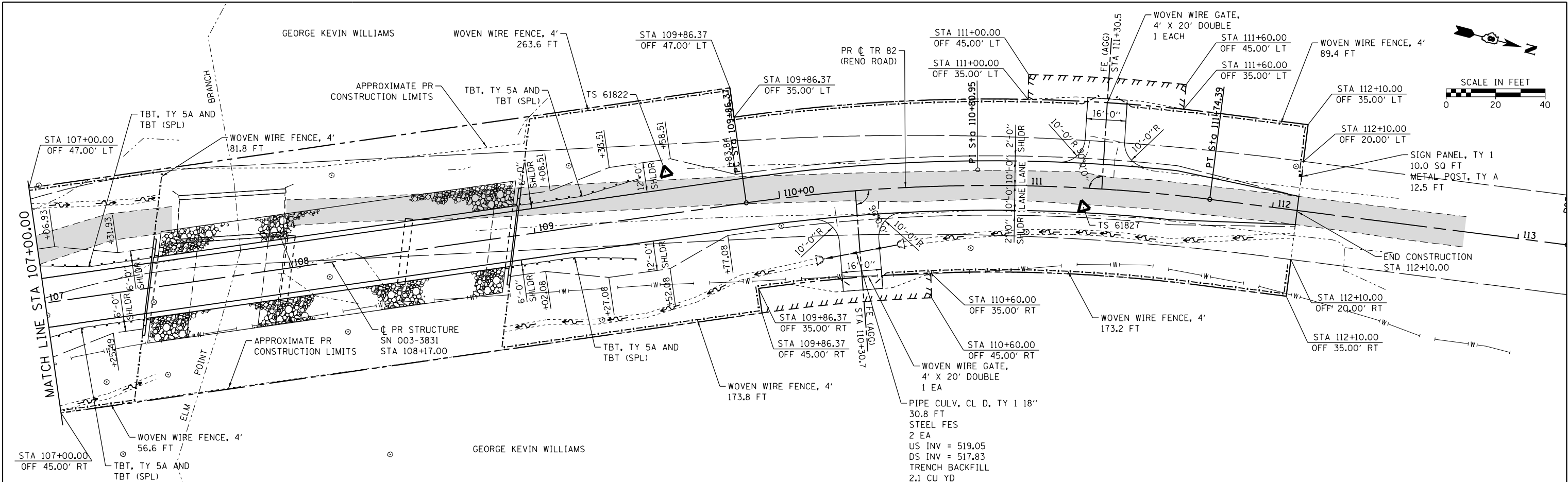


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| <b>HMG</b><br>ENGINEERS, INC.<br>9360 HOLY CROSS LANE<br>BREESE, ILLINOIS 62230<br>(618) 526-9611 | USER NAME = kschwartzjohn   | REVISOR - | EXISTING CONDITIONS AND REMOVALS |                 | 82                        | 08-08127-00-BR      | BOND   | 55                               | 11        |
|                                                                                                   | PLOT SCALE = 40.0000' / in. | CHECKED - |                                  |                 | CONTRACT NO. 97676        |                     |        |                                  |           |
|                                                                                                   | PLOT DATE = 3/30/2018       | DATE -    | REVISED -                        | SCALE: 1" = 20' |                           | SHEET 2 OF 2 SHEETS |        | STA. 107+00.00 TO STA. 113+00.00 |           |
|                                                                                                   |                             |           |                                  |                 | ILLINOIS FED. AID PROJECT |                     |        |                                  |           |

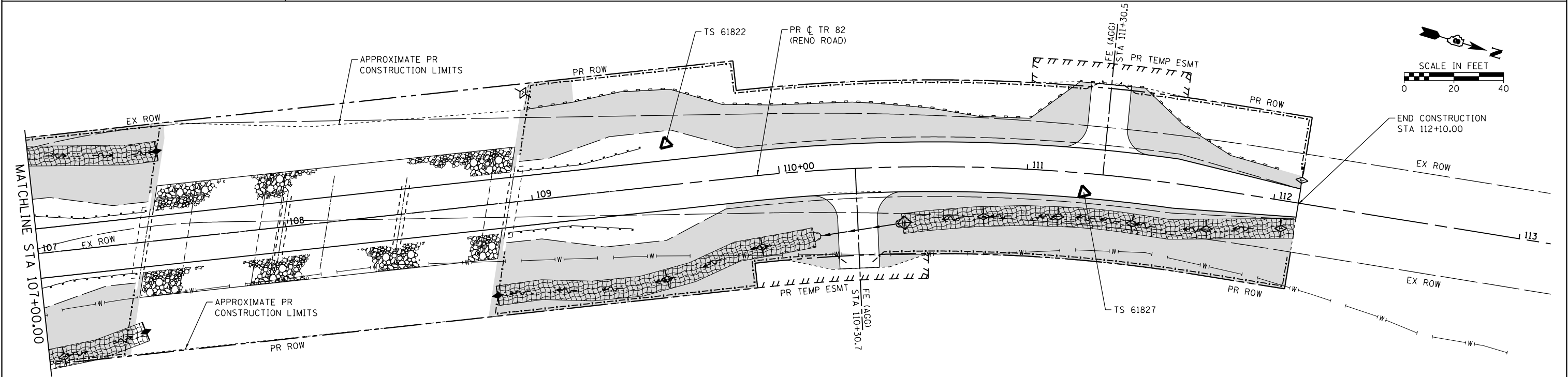
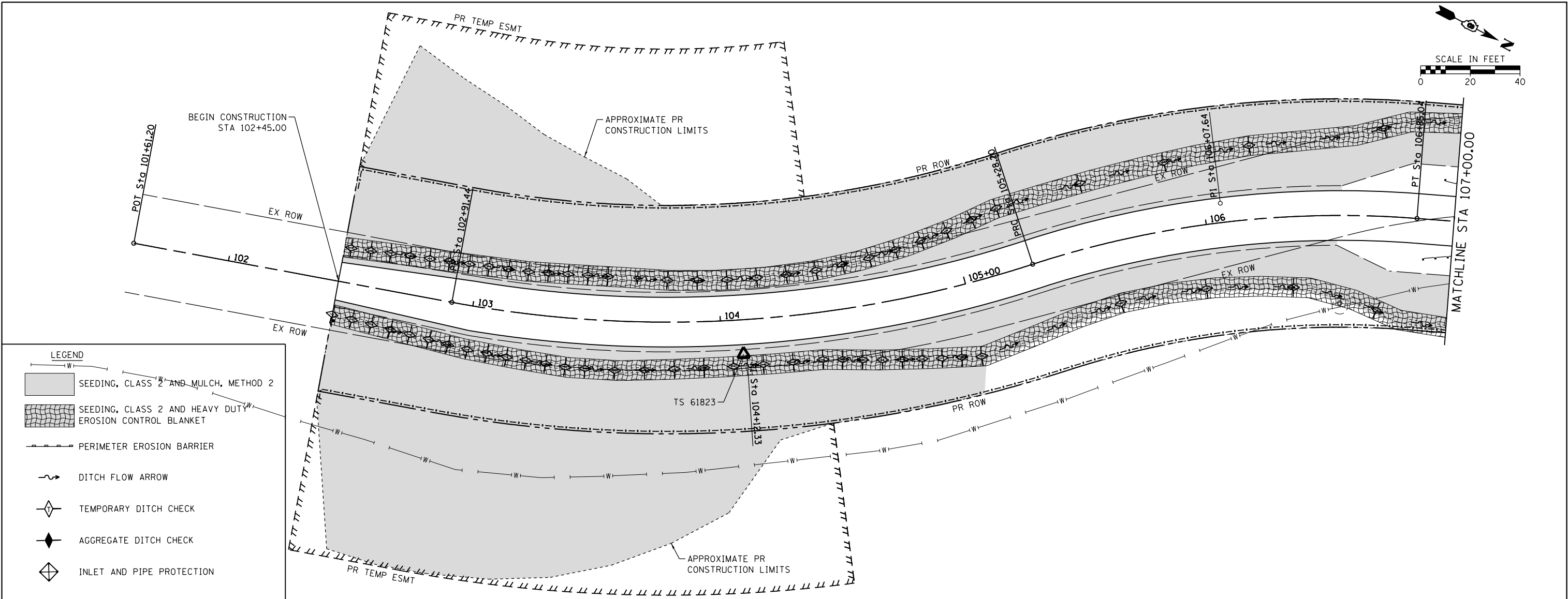


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|-----------|----------------|------|
| NOTE BOOK | ALIGNED        | BY   |
| NO.       | CADD FILE NAME |      |

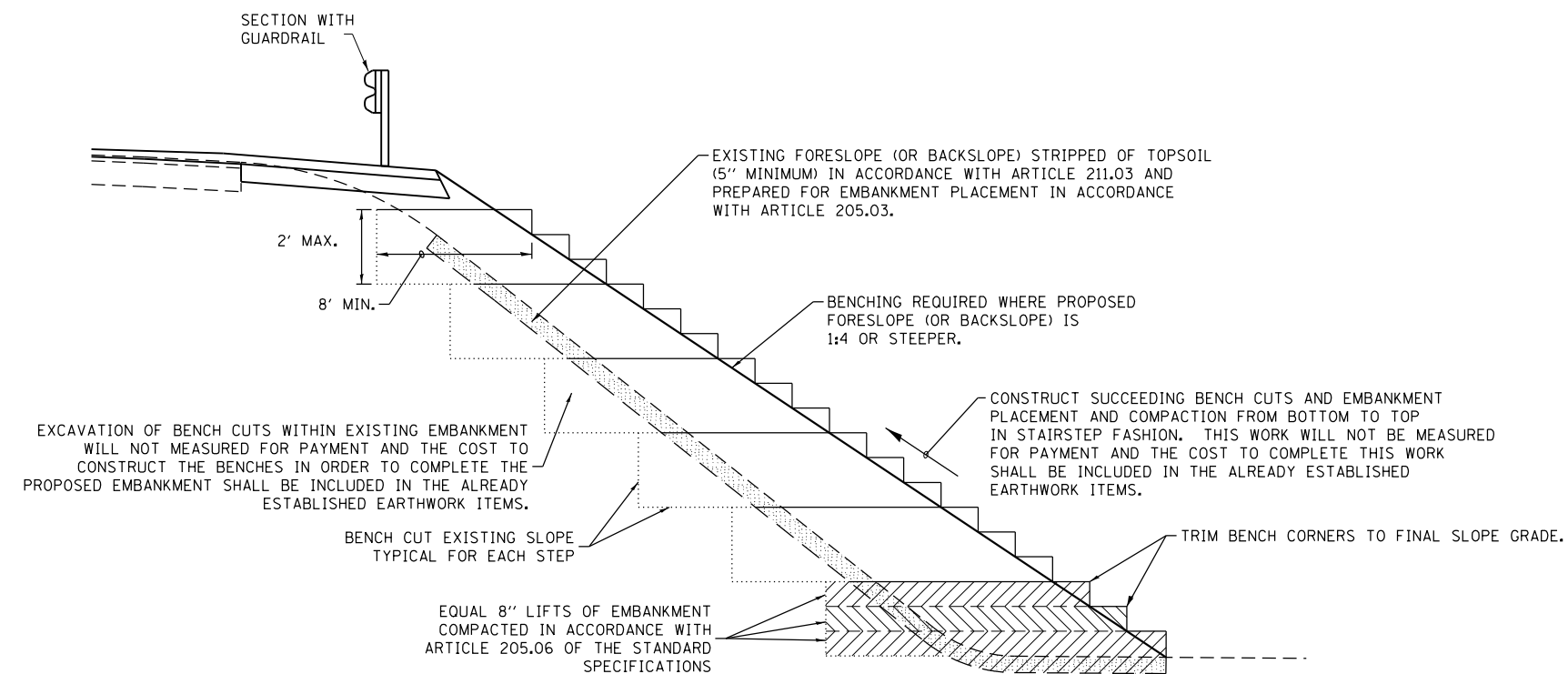
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|-----------|--------------------------|------|
| NOTE BOOK | GRADES CHECKED           | BY   |
| NO.       | STRUCTURE NOTATIONS CHKD |      |



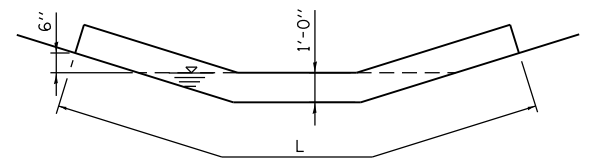
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| HMG ENGINEERS, INC.<br>9360 HOLY CROSS LANE<br>BREESE, ILLINOIS 62230<br>(618) 526-9611 | DRAWN -    | REVISED - | PROPOSED IMPROVEMENTS            |  | 82                  | 08-08127-00-BR | BOND                      | 55           | 13        |
| USER NAME = kschwartz-john                                                              | CHECKED -  | REVISED - | SCALE: 1" = 20'                  |  | SHEET 2 OF 2 SHEETS |                | CONTRACT NO. 97676        |              |           |
| PLOT SCALE = 40.0000' / in.                                                             | DATE -     | REVISED - | STA. 107+00.00 TO STA. 113+00.00 |  |                     |                | ILLINOIS FED. AID PROJECT |              |           |
| PLOT DATE = 3/30/2018                                                                   |            |           |                                  |  |                     |                |                           |              |           |



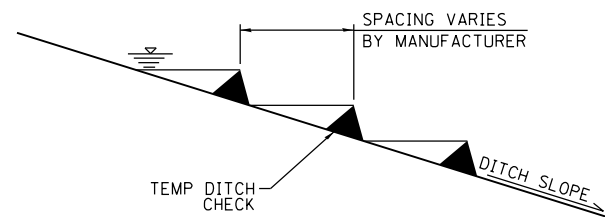
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| HMG<br>Engineers & Surveyors                                     |  | USER NAME = kschwierjohn    | DRAWN -   |                                                   |  |                      |  | 82                               | 08-08127-00-BR | BOND   | 55           | 14        |
| 9360 HOLY CROSS LANE<br>BREESE, ILLINOIS 62230<br>(618) 526-9611 |  | PLOT SCALE = 48.0000' / in. | CHECKED - |                                                   |  |                      |  | CONTRACT NO. 97676               |                |        |              |           |
|                                                                  |  | PLOT DATE = 3/30/2018       | DATE -    |                                                   |  |                      |  | ILLINOIS FED. AID PROJECT        |                |        |              |           |
|                                                                  |  |                             |           | SCALE: 1" = 20'                                   |  | SHEET 1 OF 1 SHEETS  |  | STA. 102+00.00 TO STA. 113+00.00 |                |        |              |           |



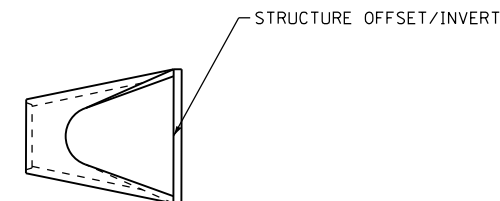
TYPICAL BENCHING FOR EMBANKMENTS DETAIL  
(NOT TO SCALE)



TYPICAL TEMPORARY DITCH CHECK SECTION  
(NOT TO SCALE)

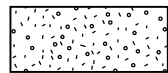


TYPICAL DITCH CHECK PROFILE  
(NOT TO SCALE)



METAL END SECTION DETAIL

|                                                      |                                                                                         |                          |           |                                                   |                      |  |                           |                |                    |              |           |
|------------------------------------------------------|-----------------------------------------------------------------------------------------|--------------------------|-----------|---------------------------------------------------|----------------------|--|---------------------------|----------------|--------------------|--------------|-----------|
| FILE NAME = H:\6182\CADD_Sheets\6182_SHT_DETAILS.dgn |                                                                                         | DESIGNED -               | REVISED - | STATE OF ILLINOIS<br>DEPARTMENT OF TRANSPORTATION | CONSTRUCTION DETAILS |  | TR                        | SECTION        | COUNTY             | TOTAL SHEETS | SHEET NO. |
| <div>HMG<br/>Engineers • Surveyors</div>             | HMG ENGINEERS, INC.<br>9360 HOLY CROSS LANE<br>BREESE, ILLINOIS 62230<br>(618) 526-9611 | USER NAME = kschwierjohn | DRAWN -   |                                                   |                      |  | 82                        | 08-08127-00-BR | BOND               | 55           | 15        |
|                                                      | PLOT SCALE = 48.0000' / in.                                                             | CHECKED -                | REVISED - |                                                   | SCALE:               |  | SHEET 1 OF 2 SHEETS       |                | CONTRACT NO. 97676 |              |           |
|                                                      | PLOT DATE = 3/30/2018                                                                   | DATE -                   | REVISED - |                                                   | TO STA.              |  | ILLINOIS FED. AID PROJECT |                |                    |              |           |



**FINAL BACKFILL - 1**  
LOCATION - EDGE OF TRENCH LOCATED WITHIN  
2.0 FT OF A PERMANENT SURFACE,  
INCLUDING ENTRANCES AND SIDEWALK  
PIPE MATERIAL - RIGID, FLEXIBLE  
BACKFILL MATERIAL - AGGREGATE  
PAYMENT - PAID FOR AS TRENCH BACKFILL



**FINAL BACKFILL - 2**  
LOCATION - EDGE OF TRENCH NOT LOCATED WITHIN  
2.0 FT OF A PERMANENT SURFACE,  
INCLUDING ENTRANCES AND SIDEWALK  
PIPE MATERIAL - RIGID, FLEXIBLE  
BACKFILL MATERIAL - SUITABLE EXCAVATED MATERIAL, EARTH  
PAYMENT - INCIDENTAL TO THE COST OF PIPE

**INITIAL BACKFILL - 1**  
LOCATION - EDGE OF TRENCH LOCATED WITHIN  
2.0 FT OF A PERMANENT SURFACE,  
INCLUDING ENTRANCES AND SIDEWALK  
PIPE MATERIAL - RIGID, FLEXIBLE  
BACKFILL MATERIAL - AGGREGATE  
PAYMENT - PAID FOR AS TRENCH BACKFILL



**INITIAL BACKFILL - 2A**  
LOCATION - EDGE OF TRENCH NOT LOCATED WITHIN  
2.0 FT OF A PERMANENT SURFACE,  
INCLUDING ENTRANCES AND SIDEWALK  
PIPE MATERIAL - RIGID  
BACKFILL MATERIAL - SUITABLE EXCAVATED MATERIAL, EARTH  
PAYMENT - INCIDENTAL TO THE COST OF PIPE

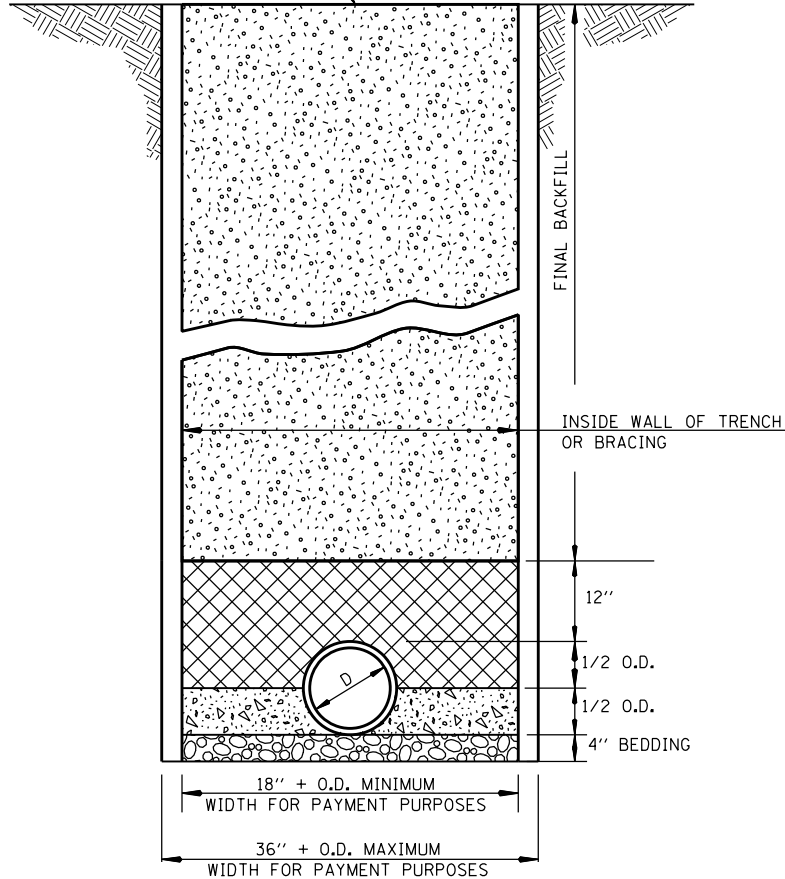
**INITIAL BACKFILL - 2B**  
LOCATION - EDGE OF TRENCH NOT LOCATED WITHIN  
2.0 FT OF A PERMANENT SURFACE,  
INCLUDING ENTRANCES AND SIDEWALK  
PIPE MATERIAL - FLEXIBLE  
BACKFILL MATERIAL - AGGREGATE  
PAYMENT - INCIDENTAL TO THE COST OF PIPE

**HAUNCHING**  
LOCATION - ALL  
PIPE MATERIAL - RIGID, FLEXIBLE  
BACKFILL MATERIAL - AGGREGATE  
PAYMENT - INCIDENTAL TO THE COST OF PIPE



**BEDDING**  
LOCATION - ALL  
PIPE MATERIAL - RIGID, FLEXIBLE  
BACKFILL MATERIAL - AGGREGATE  
PAYMENT - INCIDENTAL TO THE COST OF PIPE

TOP OF GROUND OR  
BOTTOM OF BASE COURSE OR  
BOTTOM OF SURFACE COURSE OR  
BOTTOM OF PAVEMENT



PIPE CULVERT/STORM SEWER  
TRENCHING AND BACKFILL DETAIL



R2-1  
24X30

**REGULATORY SIGNS**

(SIGN DIMENSIONS AS ESTIMATED FOR QUANTITIES)



6'-0"

4'-0"

**TYPICAL SIGN INSTALLATION DETAIL**

(NOT TO SCALE)

|                                                      |                                                                                         |                             |  |           |  |                                                   |  |              |  |  |  |                      |  |                     |                |                           |      |         |    |        |              |           |
|------------------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------|--|-----------|--|---------------------------------------------------|--|--------------|--|--|--|----------------------|--|---------------------|----------------|---------------------------|------|---------|----|--------|--------------|-----------|
| FILE NAME = H:\6182\CADD_Sheets\6182_SHT_DETAILS.dgn |                                                                                         | DESIGNED -                  |  | REVISED - |  | STATE OF ILLINOIS<br>DEPARTMENT OF TRANSPORTATION |  |              |  |  |  | CONSTRUCTION DETAILS |  |                     |                |                           | TR   | SECTION |    | COUNTY | TOTAL SHEETS | SHEET NO. |
| <div>HMG<br/>Engineers • Surveyors</div>             | HMG ENGINEERS, INC.<br>9360 HOLY CROSS LANE<br>BREESE, ILLINOIS 62230<br>(618) 526-9611 | USER NAME = kschwier.john   |  | DRAWN -   |  |                                                   |  |              |  |  |  | REVISED -            |  | 82                  | 08-08127-00-BR |                           | BOND |         | 55 | 16     |              |           |
|                                                      |                                                                                         | PLOT SCALE = 40.0000' / in. |  | CHECKED - |  |                                                   |  |              |  |  |  | REVISED -            |  | SCALE:              |                | CONTRACT NO. 97676        |      |         |    |        |              |           |
|                                                      |                                                                                         | PLOT DATE = 3/30/2018       |  | DATE -    |  |                                                   |  |              |  |  |  | REVISED -            |  | SHEET 2 OF 2 SHEETS |                | ILLINOIS FED. AID PROJECT |      |         |    |        |              |           |
|                                                      |                                                                                         |                             |  |           |  |                                                   |  | STA. TO STA. |  |  |  |                      |  |                     |                |                           |      |         |    |        |              |           |

**BENCHMARK:** Survey Traverse Station,  
Iron Rod Set  
Sta 109+58.86, 16.77' Lt.  
El 517.596

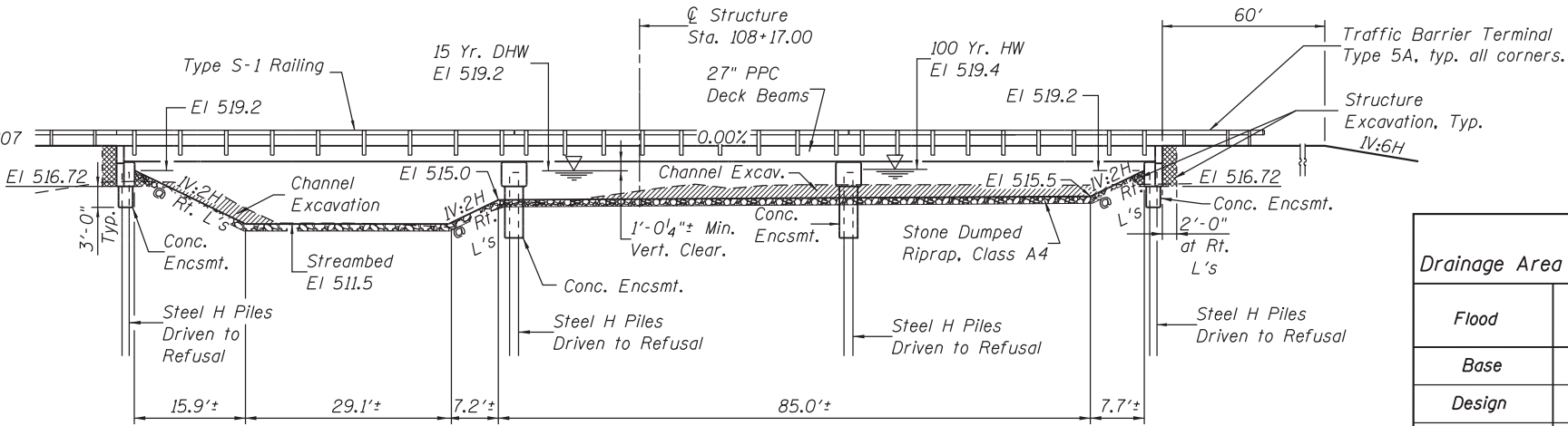
**EXISTING STRUCTURE** SN 003-3807

The existing structure, constructed in 1928, consists of one span of cast-in-place concrete thru girder spanning closed concrete abutments. The existing structure measures 43'-0" back to back of abutments and 19'-0" out to out of bridge deck.

The Contractor shall remove and dispose of the existing structure in accordance with Section 501 of the Standard Specifications.

The existing roadway will be closed to traffic during the construction period.

**SALVAGE:** No Salvage



**ELEVATION**

**DESIGN SPECIFICATIONS**  
2010 AASHTO LRFD Bridge Design Specifications  
**LOADING HL-93**  
Allow 50 p.s.f. for future wearing surface

**DESIGN STRESSES**

**PRECAST PRESTRESSED UNITS**

f'c = 6,000 psi  
f'ci = 5,000 psi  
f's = 270,000 psi (1/2" Strands)  
f'si = 201,960 psi (1/2" Strands)

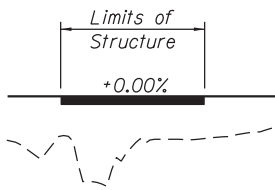
**FIELD UNITS**

f'c = 4,000 psi  
fy = 60,000 psi (reinf.)  
fy = 50,000 psi (M270 Grade 50)

**Note:**  
Channel excavation shall be transitioned from the edge of the proposed deck to match the existing channel at the ROW line, as directed by the Engineer.

**SEISMIC DATA**

Seismic Performance Zone (SPZ): 2  
Design Spectral Acceleration at 1.0 sec. (SD1): = 0.220 g  
Design Spectral Acceleration at 2.0 sec. (SDS): = 0.489 g  
Soil Site Class = D



**PROFILE GRADE**

Along Proposed CL TR 82 (Reno Road)

| Event/Limit State | Design Scour Elevations (ft.) |        |        |          | Item 113 |
|-------------------|-------------------------------|--------|--------|----------|----------|
|                   | S. Abut.                      | Pier 1 | Pier 2 | N. Abut. |          |
| Q100              | -----                         | 510.2  | 510.5  | -----    | 8        |
| Q200              | -----                         | 510.2  | 510.5  | -----    |          |
| Design            | 516.8                         | 506.5  | 510.0  | 516.8    |          |
| Check             | 516.8                         | 506.5  | 510.0  | 516.8    |          |

**WATERWAY INFORMATION**

| Existing Low Grade El = 517.39 |           |                                |                 |       |             | Sta 107+24 |       |               |       |
|--------------------------------|-----------|--------------------------------|-----------------|-------|-------------|------------|-------|---------------|-------|
| Drainage Area = 9.2 Sq. Mi.    |           | Proposed Low Grade El = 522.75 |                 |       |             |            |       | Sta 108+17    |       |
| Flood                          | Freq. Yr. | Q C.F.S.                       | Opening Sq. Ft. |       | Nat. H.W.E. | Head - Ft. |       | Headwater El. |       |
|                                |           |                                | Exist.          | Prop. |             | Exist.     | Prop. | Exist.        | Prop. |
| Base                           | 10        | 2,310                          | 205             | 643   | 518.9       | 0.1        | 0.5   | 519.0         | 519.4 |
| Design                         | 15        | 2,580                          | 205             | 712   | 519.2       | 0.1        | 0.6   | 519.3         | 519.8 |
| Base                           | 100       | 4,450                          | 205             | 783   | 519.4       | 0.0        | 1.0   | 519.4         | 520.4 |
| Overtopping                    | < 2       | 870                            | 204             | N/A   | 516.6       | 0.7        | N/A   | 517.3         | N/A   |
| Max. Calc.                     | 500       | 6,100                          | N/A             | 783   | 520.1       | N/A        | 1.0   | N/A           | 521.1 |

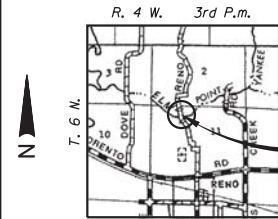
**INDEX OF BRIDGE SHEETS**

- General Plan & Elevation
- General Data
- Superstructure
- 27" x 48" P.P.C. Deck Beam - Span 1
- 27" x 48" P.P.C. Deck Beam - Span 2
- 27" x 48" P.P.C. Deck Beam - Span 3
- 27" x 48" P.P.C. Deck Beam Details
- Pile Bent Abutment
- Pier Details
- Steel Railing, Type S-1
- HP Pile Details
- Soil Boring Logs

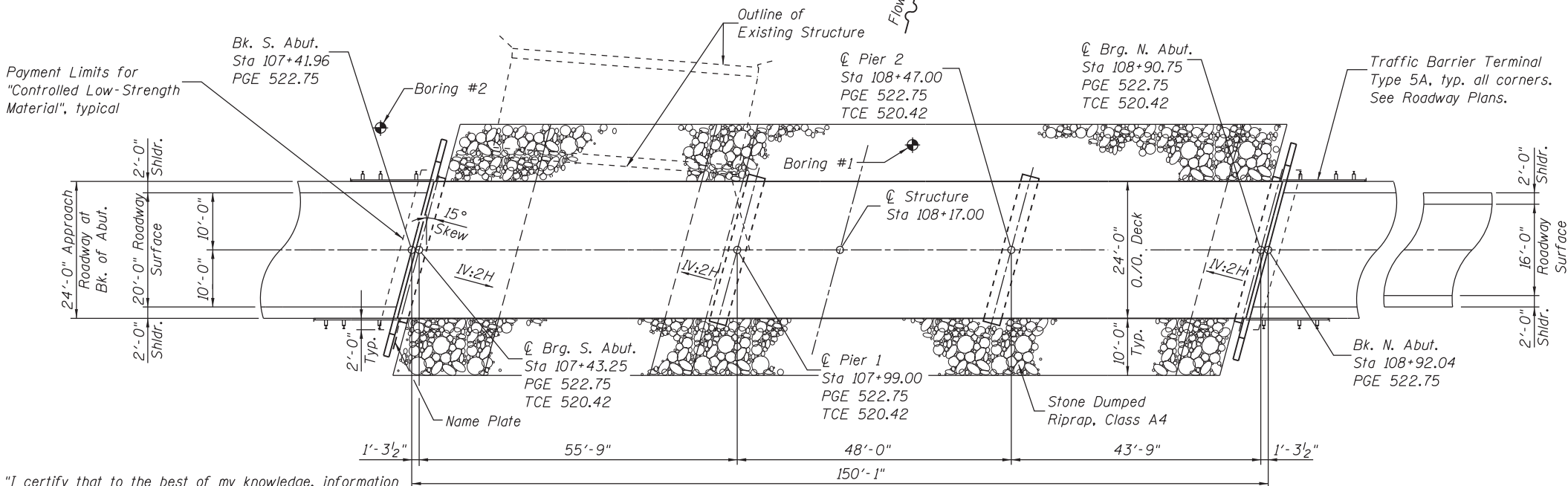
**TOTAL BILL OF MATERIAL**

| ITEM                                   | UNIT  | SUPER. | SUB.  | TOTAL |
|----------------------------------------|-------|--------|-------|-------|
| Channel Excavation                     | Cu Yd | ---    | ---   | 455   |
| Stone Dumped Riprap, Class A4          | Ton   | ---    | ---   | 396   |
| Removal of Existing Structures         | Each  | ---    | ---   | 1     |
| Structure Excavation                   | Cu Yd | ---    | 87    | 87    |
| Concrete Structures                    | Cu Yd | ---    | 51.6  | 51.6  |
| Concrete Encasement                    | Cu Yd | ---    | 15.8  | 15.8  |
| Prec. Pres. Conc. Dk. Bms. (27" Depth) | Sq Ft | 3,565  | ---   | 3,565 |
| Reinforcement Bars, Epoxy Coated       | Pound | ---    | 7,640 | 7,640 |
| Steel Railing, Type S-1                | Foot  | 302    | ---   | 302   |
| Furnishing Steel Piles HP 10x42        | Foot  | ---    | 296   | 296   |
| Furnishing Steel Piles HP 12x53        | Foot  | ---    | 350   | 350   |
| Driving Piles                          | Foot  | ---    | 646   | 646   |
| Test Pile Steel HP 10x42               | Each  | ---    | 2     | 2     |
| Name Plates                            | Each  | ---    | ---   | 1     |
| Portland Cement Mortar Fairing Course  | Foot  | 743    | ---   | 743   |
| Controlled Low-Strength Material       | Cu Yd | ---    | ---   | 23.8  |

**GENERAL PLAN & ELEVATION**  
**TR 82 (RENO ROAD)**  
**OVER ELM POINT BRANCH**  
**SECTION 08-08127-00-BR**  
**BOND COUNTY**  
**STATION 108+17.00**  
**SN 003-3831**



**LOCATION SKETCH**



**PLAN**

TCE = Top of Cap Elevation

**Note:**  
The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.

"I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current 'AASHTO LRFD Bridge Design Specifications' including Seismic Design."

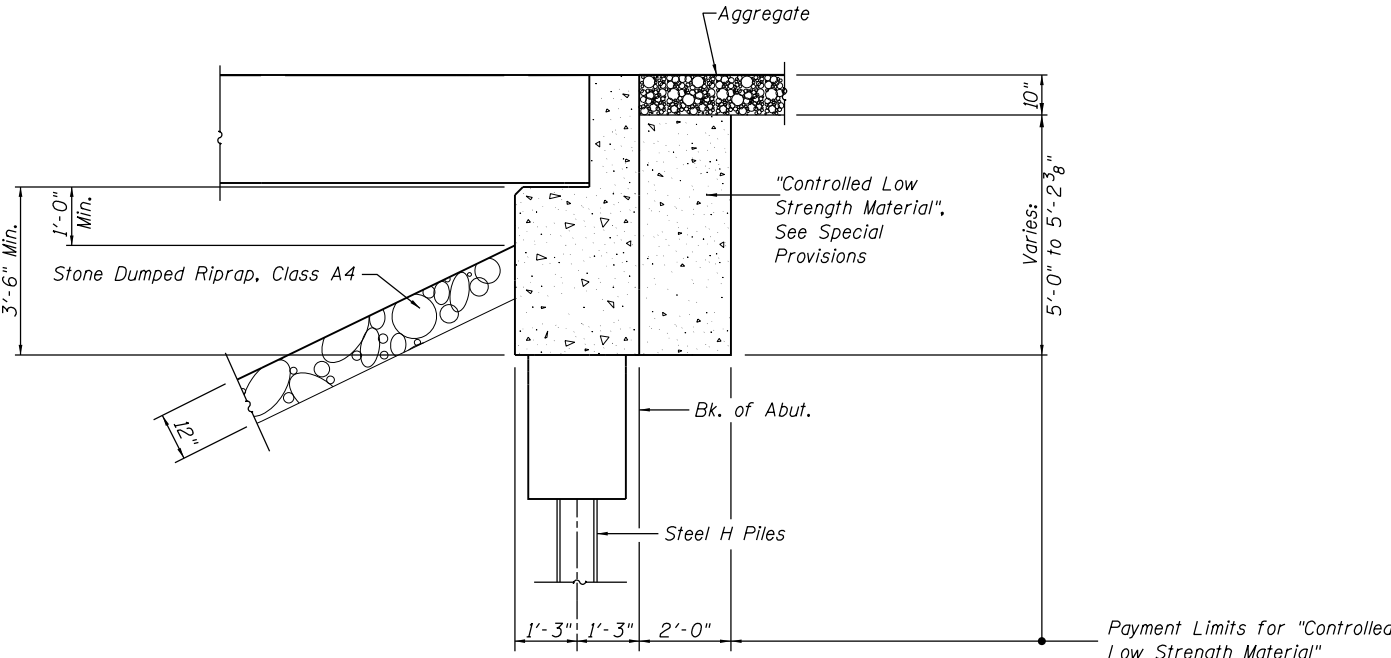
**Bradley G. Hummert** Date: 4/5/18  
**Bradley G. Hummert**  
Licensed Structural Engineer  
in Illinois No. 081-005428 Expires: November 30, 2018



|                                                                                         |  |                      |               |                                                   |  |                          |  |                           |                |        |              |           |
|-----------------------------------------------------------------------------------------|--|----------------------|---------------|---------------------------------------------------|--|--------------------------|--|---------------------------|----------------|--------|--------------|-----------|
| FILE NAME = H:\6182\CADD_Sheets\6182_SHT_01_Bridge.gpd.dgn                              |  | DESIGNED - KMM       | REVISED -     | STATE OF ILLINOIS<br>DEPARTMENT OF TRANSPORTATION |  | GENERAL PLAN & ELEVATION |  | TR                        | SECTION        | COUNTY | TOTAL SHEETS | SHEET NO. |
| HMG ENGINEERS, INC.<br>9360 HOLY CROSS LANE<br>BREESE, ILLINOIS 62230<br>(618) 526-9611 |  | USER NAME = k1aux    | DRAWN - KHL   |                                                   |  |                          |  | 82                        | 08-08127-00-BR | BOND   | 55           | 17        |
| PLOT SCALE = 12,5000' / 1" =                                                            |  | PLOT DATE = 4/5/2018 | CHECKED - LDG |                                                   |  |                          |  | CONTRACT NO. 97676        |                |        |              |           |
|                                                                                         |  |                      | DATE -        |                                                   |  |                          |  | ILLINOIS FED. AID PROJECT |                |        |              |           |

## GENERAL NOTES

1. *The Contractor shall drive two (2) test piles, one at the North Abutment and one at the South Abutment, in permanent locations, as directed by the Engineer, before ordering remaining piles.*
2. *Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.*
3. *Reinforcement bars designated (E) shall be epoxy coated.*



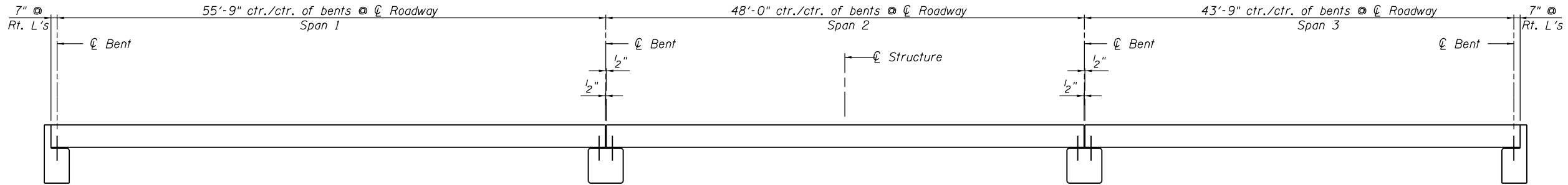
SECTION THRU ABUTMENT

Elm Point Branch  
Built 201 by  
Bond County  
Section 08-08127-00-BR  
Proj. No. 1J8U(505)  
Station 108+17.00  
SN 003-3831 Loading HL 93

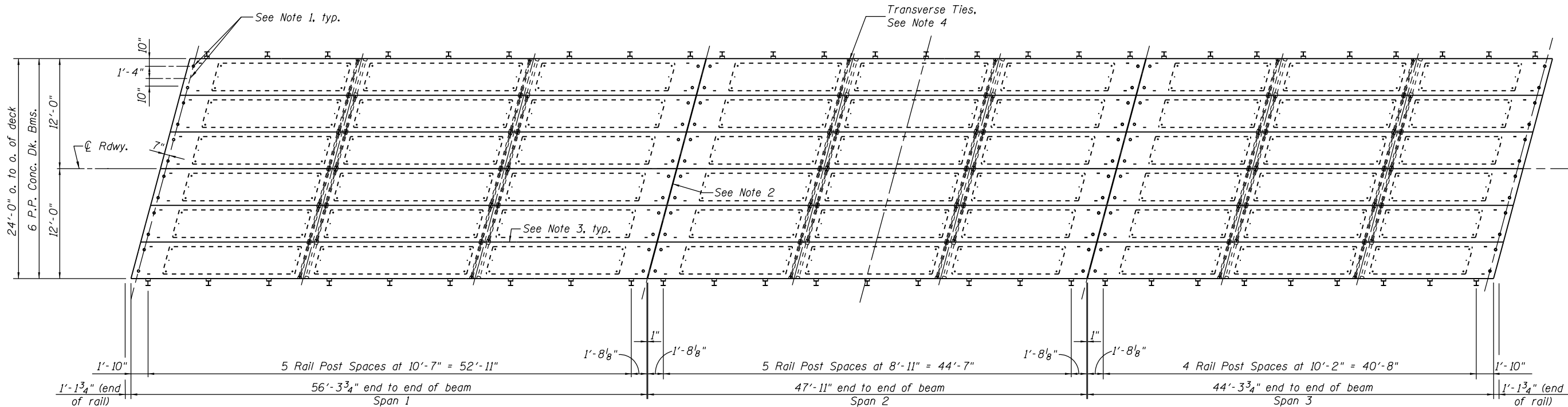
## NAME PLATE

Locate Name Plate as shown in  
Plan View. See Std. 515001.

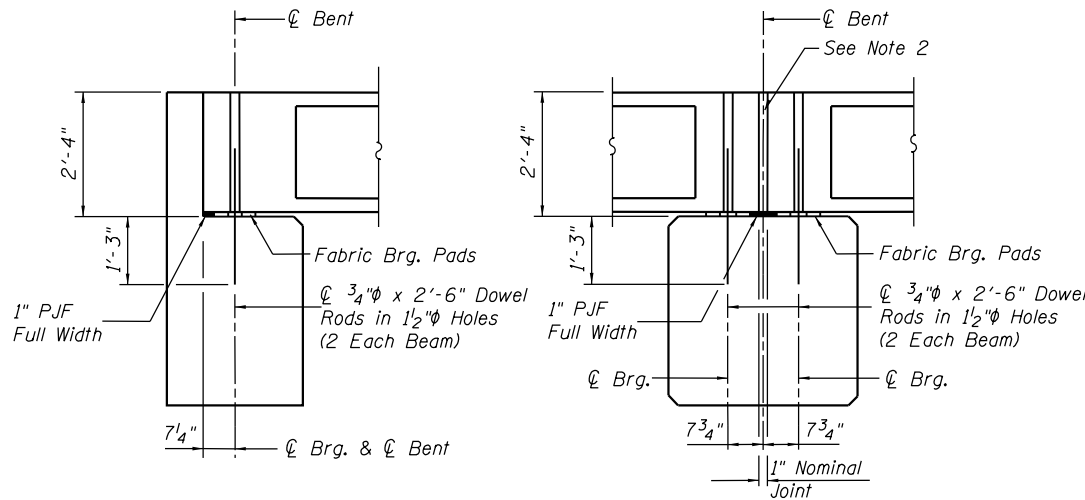
|                                                                                                                                                        |  |                           |             |                                                               |                                                    |  |  |                                                  |         |                |              |           |
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| FILE NAME = H:\6182\CADD_Sheets\6182_SHT_02_Bridge_data.dgn                                                                                            |  | DESIGNED - KMM            | REVISED -   | <div>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</div> | <div>GENERAL DATA<br/>STRUCTURE NO. 003-3831</div> |  |  | TR                                               | SECTION | COUNTY         | TOTAL SHEETS | SHEET NO. |
| <div><div>HMG</div><div>HMG ENGINEERS, INC.<br/>9360 HOLY CROSS LANE<br/>BREESE, ILLINOIS 62230<br/>614-657-0100<br/>Engineers + Surveyors</div></div> |  | USER NAME = kschwier.john | DRAWN - KHL |                                                               |                                                    |  |  | REVISED -                                        | 82      | 08-08127-00-BR | BOND         | 55        |
| PLOT SCALE = 4.0000' / in.                                                                                                                             |  | CHECKED - LDG             | REVISED -   |                                                               | <div>CONTRACT NO. 97676</div>                      |  |  | <div>SCALE SHEET 2 OF 12 SHEETS STA TO STA</div> |         |                |              |           |
| PLOT DATE = 2/28/2010                                                                                                                                  |  | DATE                      | REVISED     |                                                               |                                                    |  |  |                                                  |         |                |              |           |



SUPERSTRUCTURE ELEVATION

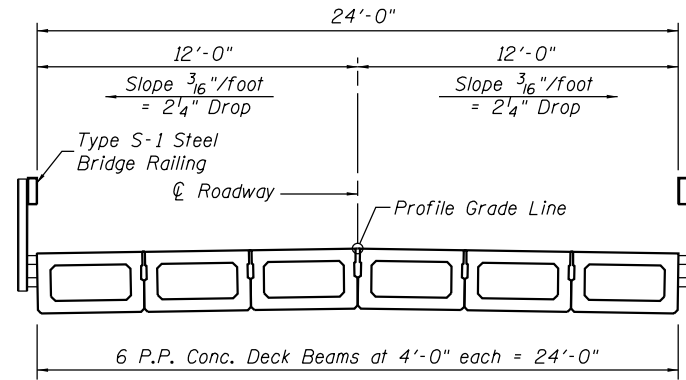


SUPERSTRUCTURE PLAN



SECTION AT ABUTS.  
(Along  $\varnothing$  Beams)

SECTION AT PIERS  
(Along  $\varnothing$  Beams)



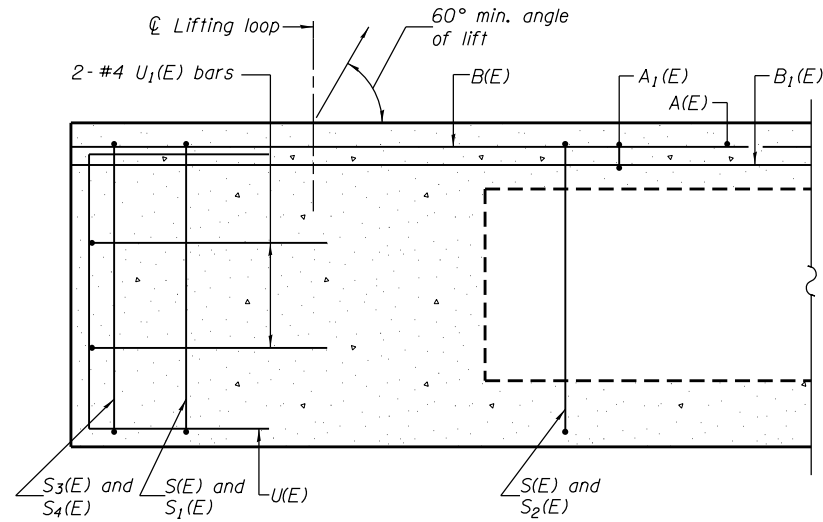
CROSS SECTION

BILL OF MATERIAL

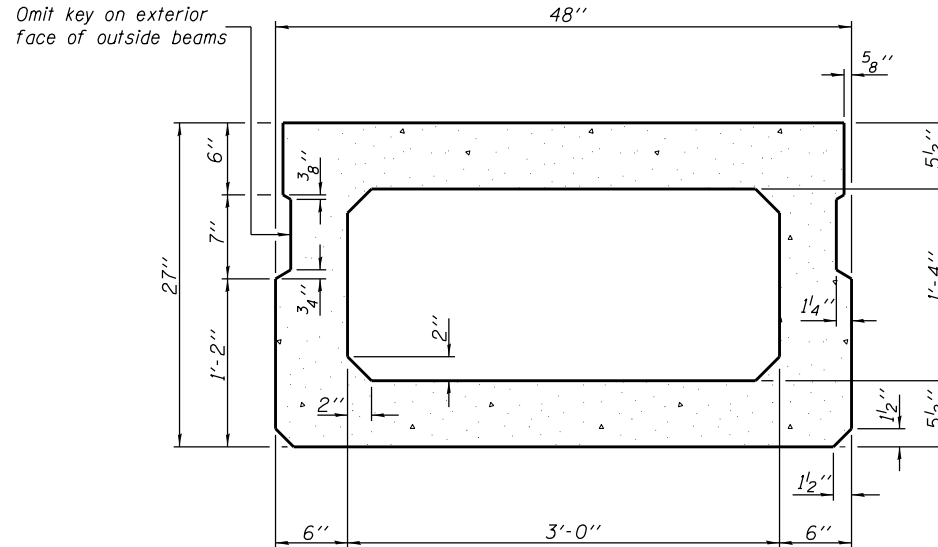
| Item                                  | Unit | Quantity |
|---------------------------------------|------|----------|
| Portland Cement Mortar Fairing Course | Foot | 743      |

NOTES

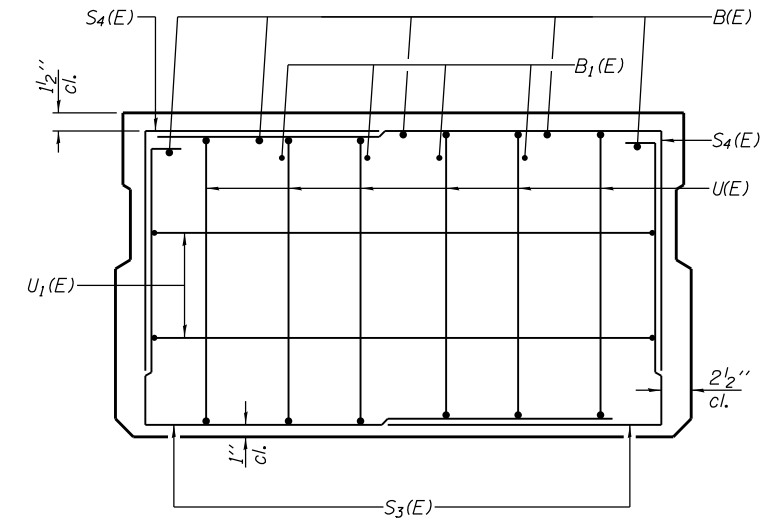
- After beams have been erected, holes shall be drilled into substructure and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure min. 24 hrs. prior to grouting the shear keys.
- Nominal 1" joint at  $\varnothing$  Pier shall be filled with non-shrink grout. 1" Dimension may vary to accomodate tolerance in beam lengths.
- The 1"  $\varnothing$  rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bars outside shall be filled with grout after transverse tie assembly is in place.



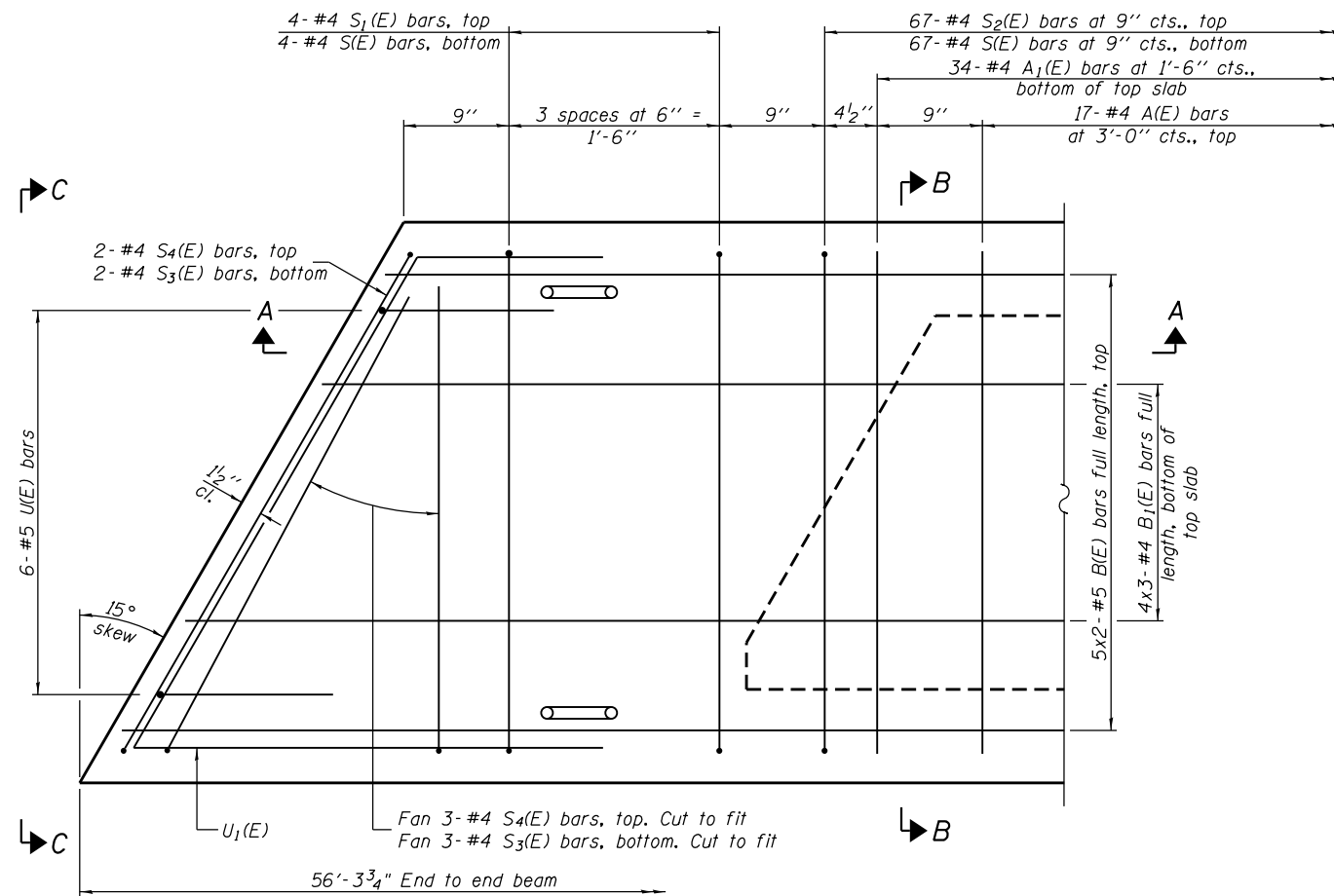
SECTION A-A



SECTION B-B  
(Showing dimensions)

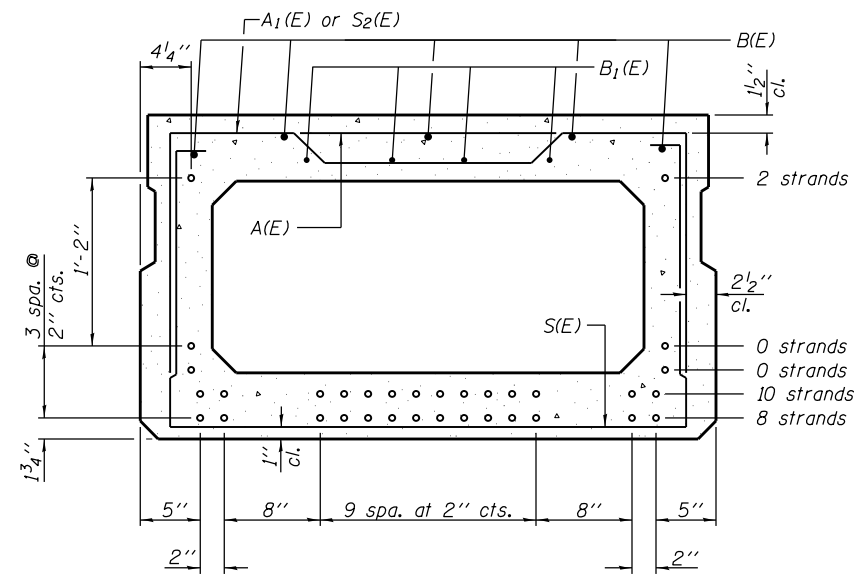


VIEW C-C



PLAN VIEW

Note: Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.



SECTION B-B  
(Showing reinforcement and permissible strand locations)

20 - 1/2"Φ Strands  
(8 Strands 1 3/4" Up, 10 Strands 3 3/4" up, 2 Strands 21 3/4" Up)

Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

MINIMUM BAR LAP

#4 bar = 1'-11"  
#5 bar = 2'-6"

BAR LIST  
ONE BEAM ONLY  
(For information only)

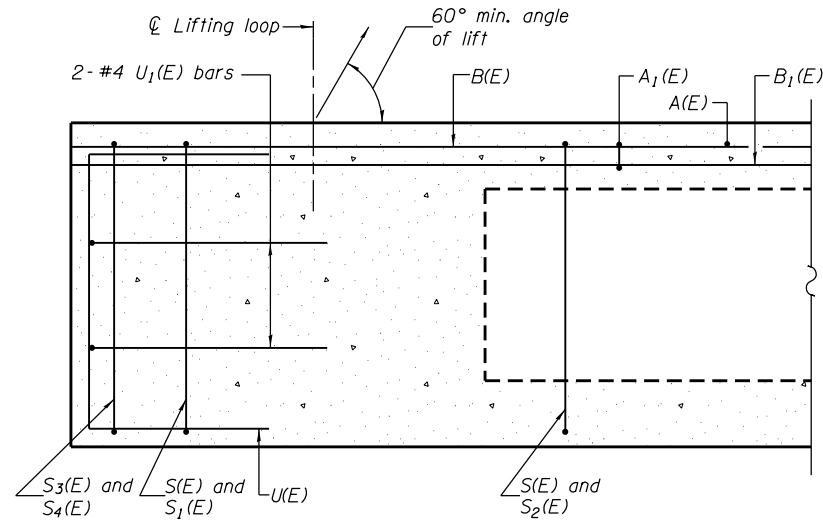
| Bar   | No. | Size | Length | Shape   |
|-------|-----|------|--------|---------|
| A(E)  | 17  | #4   | 3'-7"  | —       |
| A1(E) | 34  | #4   | 3'-10" | —       |
| B(E)  | 10  | #5   | 29'-3" | —       |
| B1(E) | 12  | #4   | 20'-0" | —       |
| S(E)  | 75  | #4   | 8'-5"  | ┌ ┐</td |
| S1(E) | 8   | #4   | 6'-11" | ┌ ┐</td |
| S2(E) | 67  | #4   | 7'-2"  | ┌ ┐</td |
| S3(E) | 10  | #4   | 6'-2"  | ┌ ┐</td |
| S4(E) | 10  | #4   | 5'-5"  | ┌ ┐</td |
| U(E)  | 12  | #5   | 4'-6"  | ┌ ┐</td |
| U1(E) | 4   | #4   | 7'-1"  | ┌ ┐</td |

Note: See sheet 7 of 12 for additional details and Bill of Material.

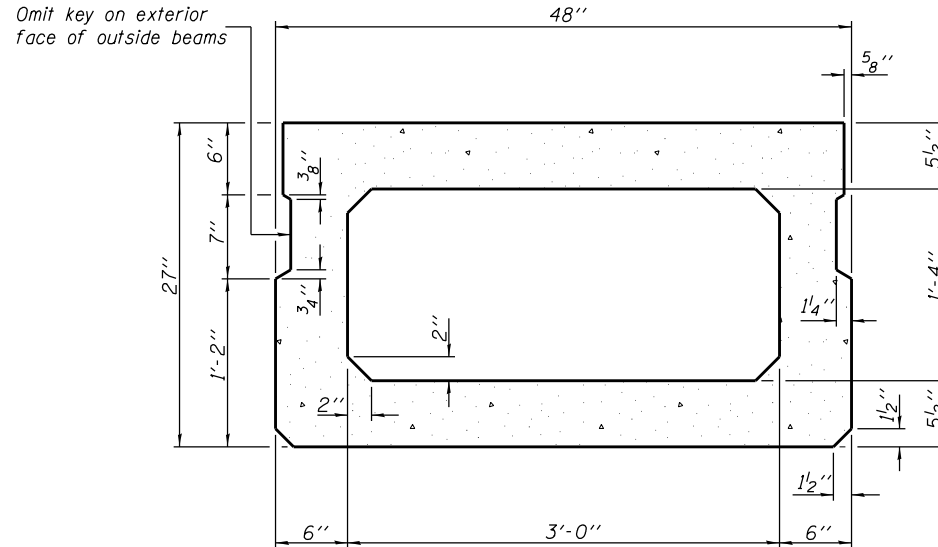
PD-2748-L

06-01-16

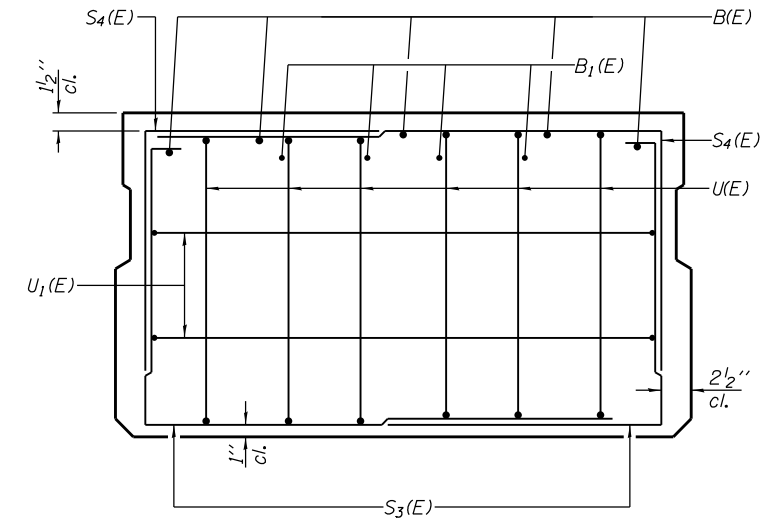
|                                                                 |                                                                                         |                           |               |                                                   |                                                            |                           |                |      |    |         |        |              |           |
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| <div>HMG</div> <div>Engineers + Surveyors</div>                 | HMG ENGINEERS, INC.<br>9360 HOLY CROSS LANE<br>BREESE, ILLINOIS 62230<br>(618) 526-9611 | USER NAME = kschwier.john | DRAWN - KHL   |                                                   | REVISED -                                                  | 82                        | 08-08127-00-BR | BOND | 55 | 20      |        |              |           |
|                                                                 | PLOT SCALE = 2.0000' / 1"                                                               |                           | CHECKED - LDG |                                                   | REVISED -                                                  | CONTRACT NO. 97676        |                |      |    |         |        |              |           |
|                                                                 | PLOT DATE = 3/30/2018                                                                   |                           | DATE -        |                                                   | REVISED -                                                  | ILLINOIS FED. AID PROJECT |                |      |    |         |        |              |           |
|                                                                 |                                                                                         |                           |               | SCALE:                                            |                                                            | SHEET 4 OF 12 SHEETS      |                | STA. |    | TO STA. |        |              |           |



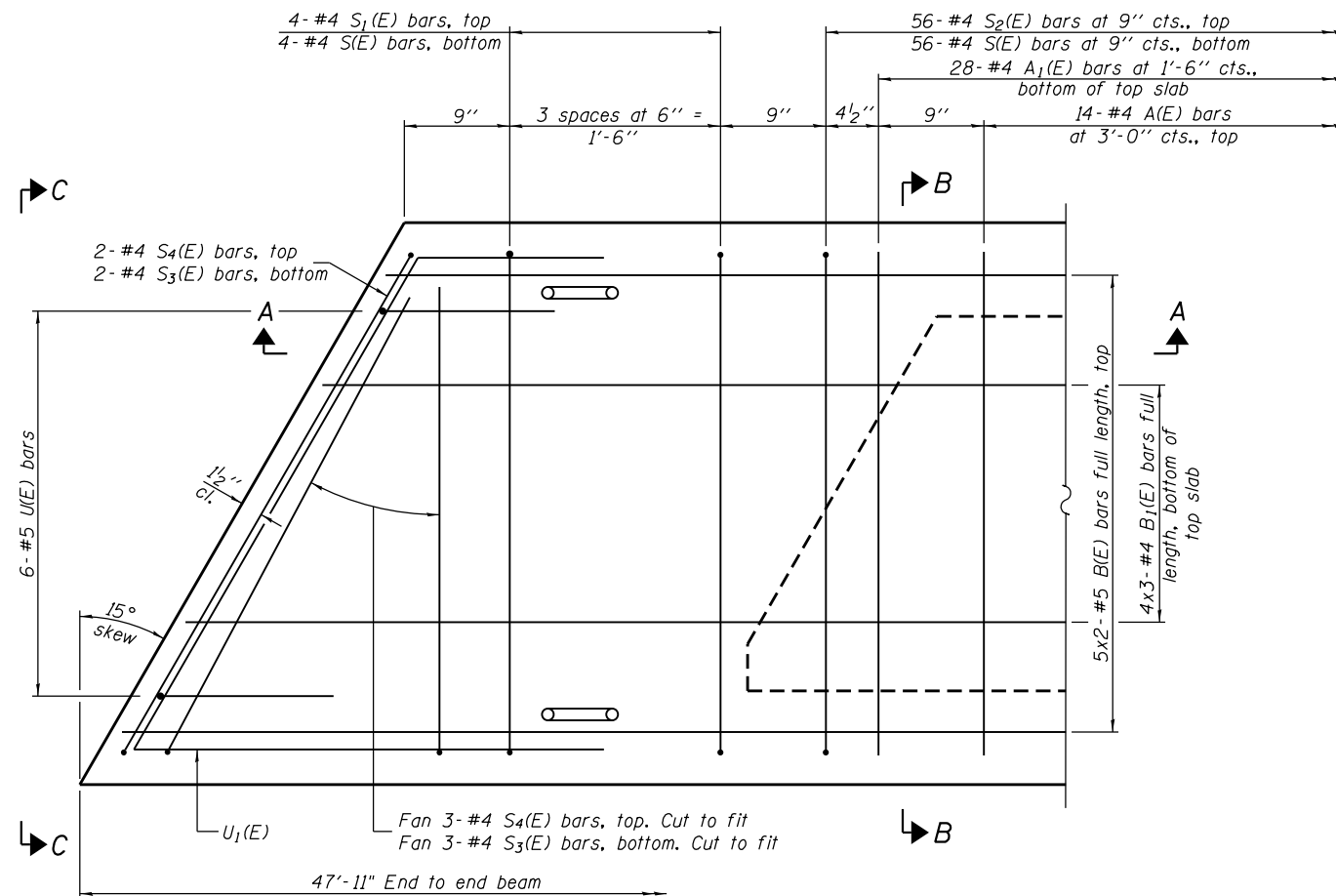
**SECTION A-A**



**SECTION B-B**  
(Showing dimensions)

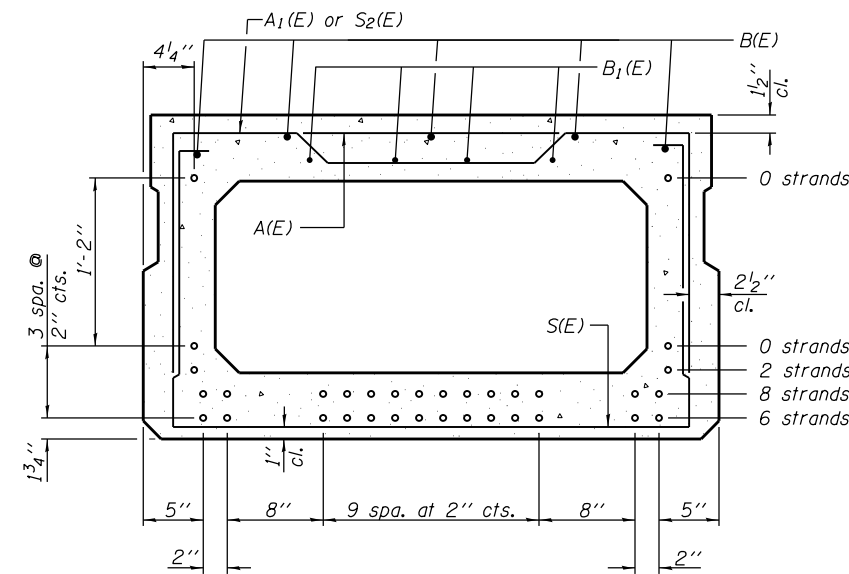


**VIEW C-C**



**PLAN VIEW**

Note: Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.



**SECTION B-B**  
(Showing reinforcement and permissible strand locations)

16 - 1/2"φ Strands  
(6 Strands 1 3/4" Up, 8 Strands 3 3/4" up, 2 Strands 5 3/4" Up)

Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

**MINIMUM BAR LAP**

#4 bar = 1'-11"  
#5 bar = 2'-6"

**BAR LIST**  
**ONE BEAM ONLY**  
(For information only)

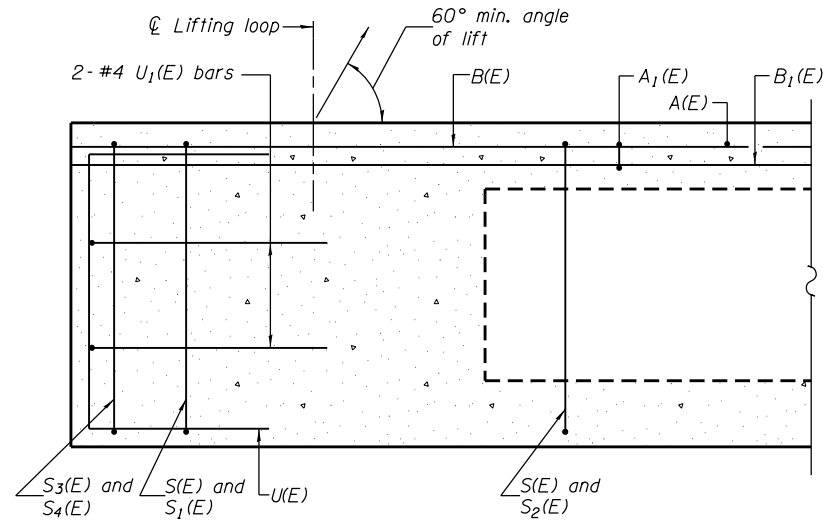
| Bar   | No. | Size | Length | Shape |
|-------|-----|------|--------|-------|
| A(E)  | 14  | #4   | 3'-7"  | —     |
| A1(E) | 28  | #4   | 3'-10" | —     |
| B(E)  | 10  | #5   | 25'-1" | —     |
| B1(E) | 12  | #4   | 17'-2" | —     |
| S(E)  | 64  | #4   | 8'-5"  | ⌈     |
| S1(E) | 8   | #4   | 6'-11" | ⌈     |
| S2(E) | 56  | #4   | 7'-2"  | ⌈     |
| S3(E) | 10  | #4   | 6'-2"  | ⌈     |
| S4(E) | 10  | #4   | 5'-5"  | ⌈     |
| U(E)  | 12  | #5   | 4'-6"  | ⌈     |
| U1(E) | 4   | #4   | 7'-1"  | ⌈     |

Note: See sheet 7 of 12 for additional details and Bill of Material.

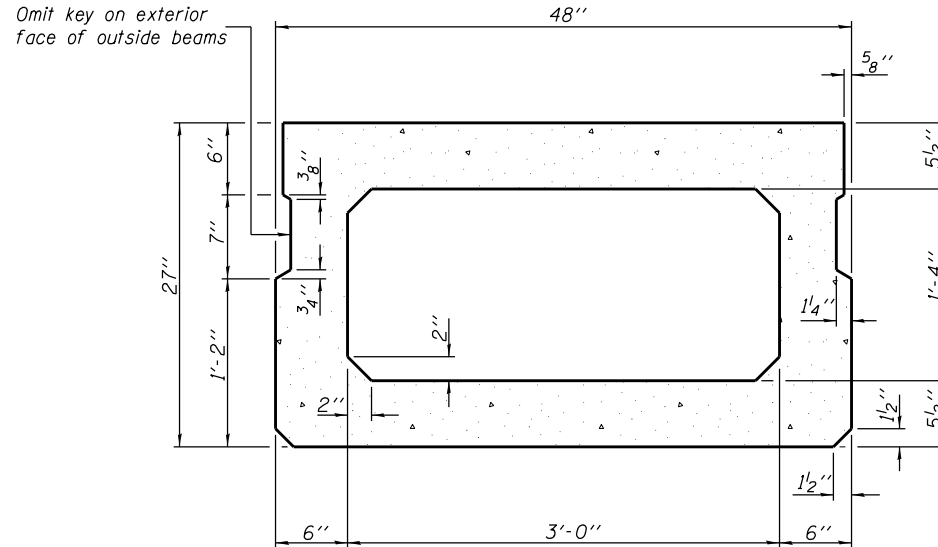
PD-2748-L

06-01-16

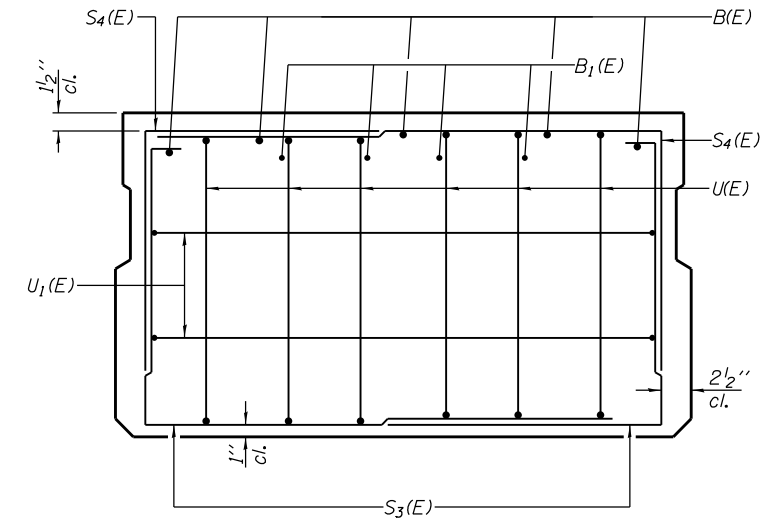
|                                                                                         |  |                          |             |                                                   |  |                                                            |  |                           |                |        |              |           |
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| HMG ENGINEERS, INC.<br>9360 HOLY CROSS LANE<br>BREESE, ILLINOIS 62230<br>(618) 526-9611 |  | USER NAME = kschwierjohn | DRAWN - KHL |                                                   |  |                                                            |  | 82                        | 08-08127-00-BR | BOND   | 55           | 21        |
| PLOT SCALE = 2.0000' / 1"                                                               |  | CHECKED - LDG            | REVISED -   |                                                   |  |                                                            |  | CONTRACT NO. 97676        |                |        |              |           |
| PLOT DATE = 3/30/2018                                                                   |  | DATE -                   | REVISED -   |                                                   |  |                                                            |  | ILLINOIS FED. AID PROJECT |                |        |              |           |



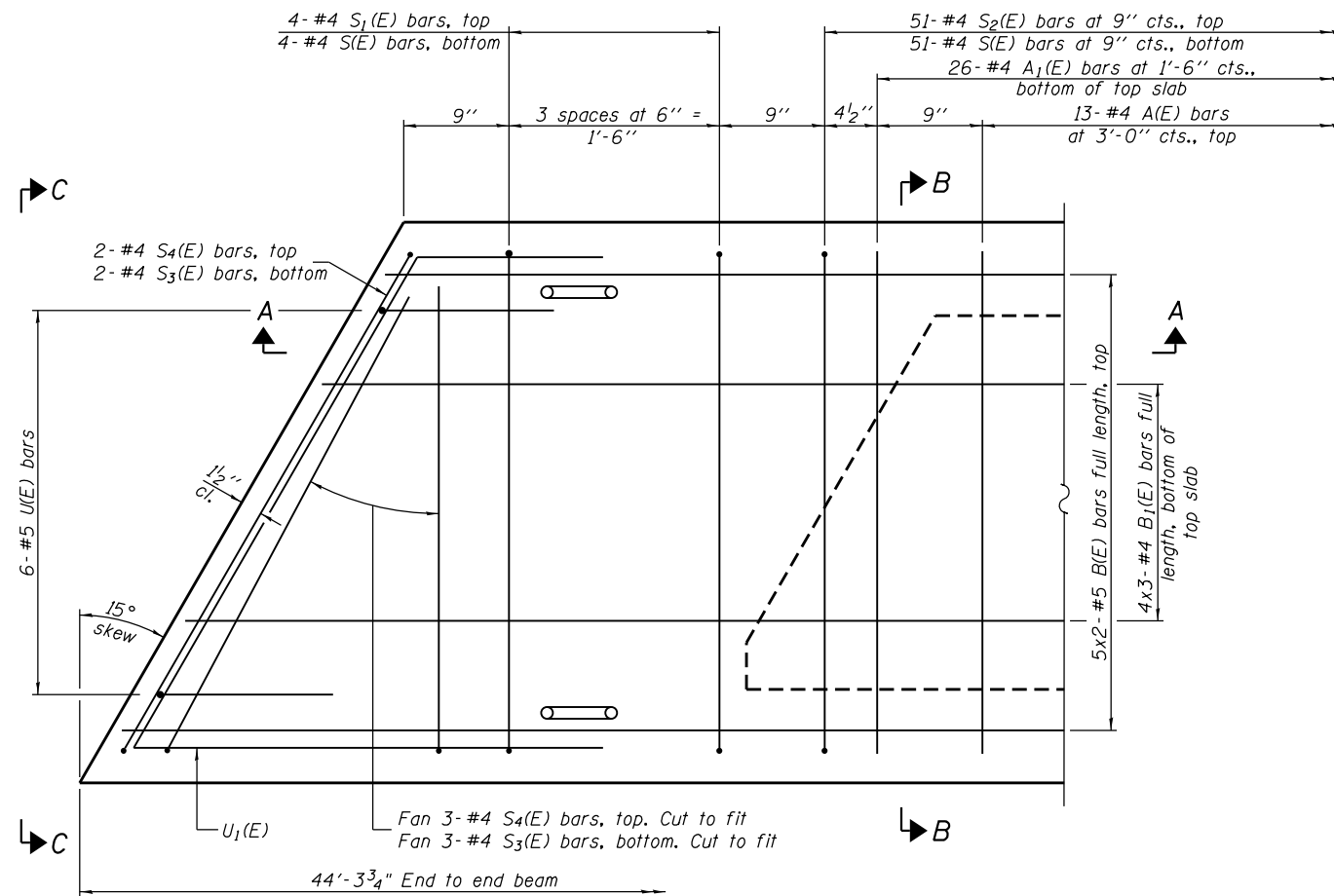
**SECTION A-A**



**SECTION B-B**  
(Showing dimensions)

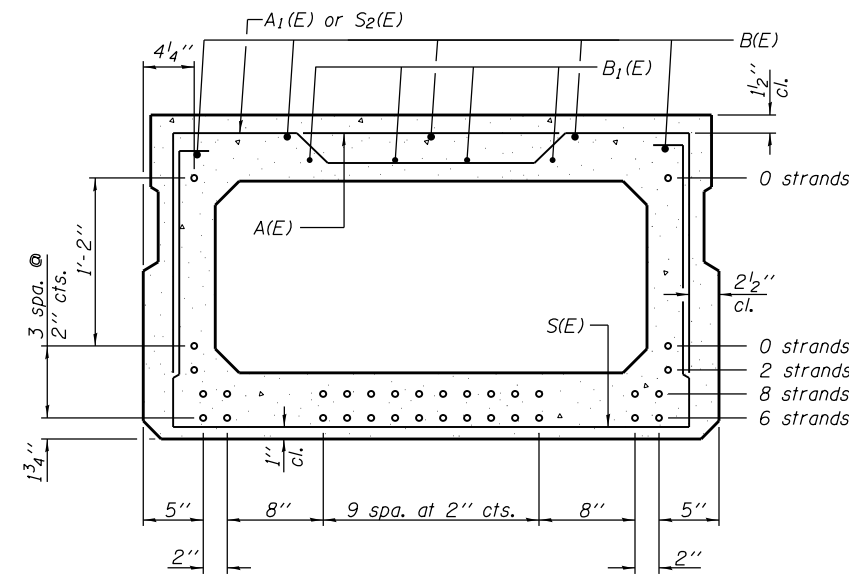


**VIEW C-C**



**PLAN VIEW**

Note: Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.



**SECTION B-B**  
(Showing reinforcement and permissible strand locations)

16 - 1/2"φ Strands  
(6 Strands 1 3/4" Up, 8 Strands 3 3/4" up, 2 Strands 5 3/4" Up)

Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

**MINIMUM BAR LAP**

#4 bar = 1'-11"  
#5 bar = 2'-6"

**BAR LIST**  
**ONE BEAM ONLY**  
(For information only)

| Bar   | No. | Size | Length | Shape   |
|-------|-----|------|--------|---------|
| A(E)  | 13  | #4   | 3'-7"  | —       |
| A1(E) | 26  | #4   | 3'-10" | —       |
| B(E)  | 10  | #5   | 23'-3" | —       |
| B1(E) | 12  | #4   | 16'-0" | —       |
| S(E)  | 59  | #4   | 8'-5"  | ┌ ┐</td |
| S1(E) | 8   | #4   | 6'-11" | ┌ ┐</td |
| S2(E) | 51  | #4   | 7'-2"  | ┌ ┐</td |
| S3(E) | 10  | #4   | 6'-2"  | ┌ ┐</td |
| S4(E) | 10  | #4   | 5'-5"  | ┌ ┐</td |
| U(E)  | 12  | #5   | 4'-6"  | ┌ ┐</td |
| U1(E) | 4   | #4   | 7'-1"  | ┌ ┐</td |

Note: See sheet 7 of 12 for additional details and Bill of Material.

PD-2748-L

06-01-16

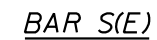
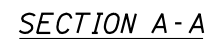
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| <div>HMG</div> <div>Engineers + Surveyors</div>                 | HMG ENGINEERS, INC.<br>9360 HOLY CROSS LANE<br>BREESE, ILLINOIS 62230<br>(618) 526-9611 | USER NAME = kschwierjohn | DRAWN - KHL   |                                                   | REVISED -                                                  | 82                        | 08-08127-00-BR |      | BOND | 55      | 22      |        |              |           |
|                                                                 | PLOT SCALE = 2.0000' / 1"                                                               |                          | CHECKED - LDG |                                                   | REVISED -                                                  | CONTRACT NO. 97676        |                |      |      |         |         |        |              |           |
|                                                                 | PLOT DATE = 3/30/2018                                                                   |                          | DATE -        |                                                   | REVISED -                                                  | ILLINOIS FED. AID PROJECT |                |      |      |         |         |        |              |           |
|                                                                 |                                                                                         |                          |               | SCALE:                                            |                                                            | SHEET 6 OF 12 SHEETS      |                | STA. |      | TO STA. |         |        |              |           |



*All bearing pads shall be 1" thick.  
Omit holes when using expansion bearings.  
Expansion bearing pad shall be bonded to the substructure.*



FIXED

BAR  $S_1(E)$ 

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be  $\frac{1}{2}$ " and the nominal cross-sectional area shall be 0.153 sq. in.

The 1"  $\phi$  rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.

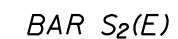
Two  $\frac{3}{8}$ " fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.

A minimum 2 $\frac{1}{2}$ "  $\phi$  lifting pin shall be used to engage the lifting loops during handling.

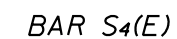
Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.

Compressive strength of prestressed concrete,  $f'_c$ , shall be 6000 psi.

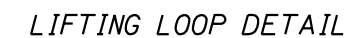
Compressive strength of prestressed concrete at release,  $f'_{ci}$ , shall be 5000 psi.



BAR  $S_3(E)$



BAR U(E)

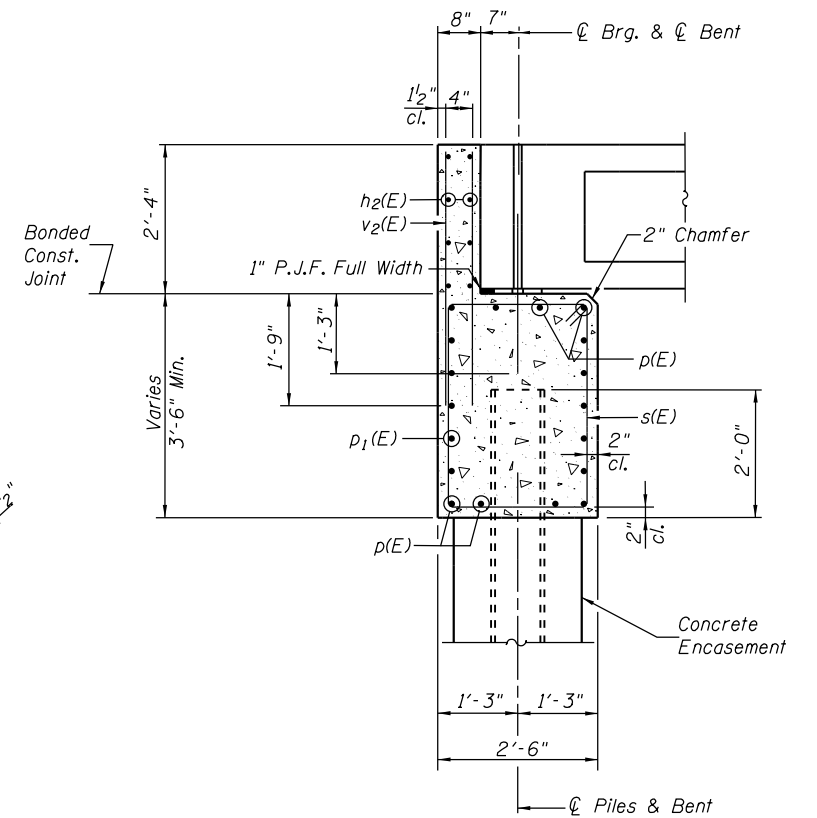
 $BAR \ U_1(E)$ 

### BILL OF MATERIAL

|                                                    |       |       |
|----------------------------------------------------|-------|-------|
| Precast Prestressed<br>Conc. Deck Bms. (27" depth) | Sq Ft | 3,565 |
|----------------------------------------------------|-------|-------|

PD-2748-LD 06-01-16

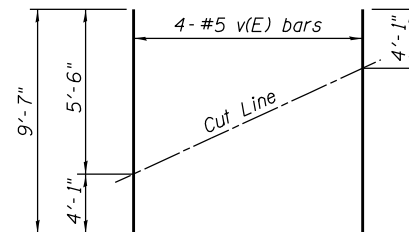
|                                                             |                                                                                         |                           |             |                                                               |                                                           |                      |                |         |      |                           |        |              |           |
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| FILE NAME = H:\6182\CADD_Sheets\6182_SHT_07_Bridge.bmdt.dgn |                                                                                         | DESIGNED - KMM            | REVISED -   | <div>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</div> | 27" x 48" PPC DECK BEAM DETAILS<br>STRUCTURE NO. 003-3831 |                      |                |         | TR   | SECTION                   | COUNTY | TOTAL SHEETS | SHEET NO. |
| <div>HMG<br/>Engineers • Surveyors</div>                    | HMG ENGINEERS, INC.<br>9360 HOLY CROSS LANE<br>BREESE, ILLINOIS 62230<br>(618) 526-9611 | USER NAME = kschwier.john | DRAWN - KHL |                                                               | REVISED -                                                 | 82                   | 08-08127-00-BR |         | BOND | 55                        | 23     |              |           |
|                                                             | PLOT SCALE = 2.0000' / 1in.                                                             | CHECKED - LDG             | REVISED -   |                                                               | REVISED -                                                 | CONTRACT NO. 97676   |                |         |      |                           |        |              |           |
|                                                             | PLOT DATE = 3/30/2028                                                                   | DATE -                    | REVISED -   |                                                               | SCALE:                                                    | SHEET 7 OF 12 SHEETS | STA.           | TO STA. |      | ILLINOIS FED. AID PROJECT |        |              |           |



SECTION THRU ABUTMENT  
(at Right Angles)

BILL OF MATERIAL  
FOR ONE ABUTMENT

| Bar                                                 | No. | Size | Length  | Shape |
|-----------------------------------------------------|-----|------|---------|-------|
| $h(E)$                                              | 28  | #7   | 10'-10" | —     |
| $h_1(E)$                                            | 16  | #7   | 10'-10" | —     |
| $h_2(E)$                                            | 8   | #4   | 26'-2"  | —     |
|                                                     |     |      |         |       |
| $p(E)$                                              | 8   | #7   | 26'-2"  | —     |
| $p_1(E)$                                            | 10  | #4   | 26'-2"  | —     |
|                                                     |     |      |         |       |
| $s(E)$                                              | 30  | #4   | 11'-5"  | □     |
|                                                     |     |      |         |       |
| $u(E)$                                              | 14  | #6   | 11'-1"  | □     |
|                                                     |     |      |         |       |
| $v(E)$                                              | 8   | #5   | 9'-7"   | —     |
| $v_1(E)$                                            | 16  | #5   | 5'-6"   | —     |
| $v_2(E)$                                            | 56  | #4   | 4'-0"   | —     |
| Concrete Structures                                 |     |      | Cu Yd   | 13.4  |
| Concrete Encasement - S. Abut.                      |     |      | Cu Yd   | 1.8   |
| Concrete Encasement - N. Abut.                      |     |      | Cu Yd   | 1.8   |
| Reinforcement Bars,<br>Epoxy Coated                 |     |      | Pound   | 2,500 |
| Furnishing Steel Piles HP 10x42<br>- South Abutment |     |      | Foot    | 160   |
| Furnishing Steel Piles HP 10x42<br>- North Abutment |     |      | Foot    | 136   |
| Driving Steel Piles - S. Abut.                      |     |      | Foot    | 160   |
| Driving Steel Piles - N. Abut.                      |     |      | Foot    | 136   |
| Test Pile Steel HP 10x42                            |     |      | Each    | 1     |



FIELD CUTTING DIAGRAM

Order  $v(E)$  bars full length. Cut as shown and use remainder of bars in opposite face.

*NOTES*

1. *The Backwall and the portion of the Wingwalls above the bonded construction joint shall be cast against the in-place beams.*
2. *Space reinforcement in cap to miss dowel rods.*

Type:  
Nominal Required Bearing:  
Factored Resistance Available:  
Est. Length:  
No. Production Piles:  
No. Test Piles:

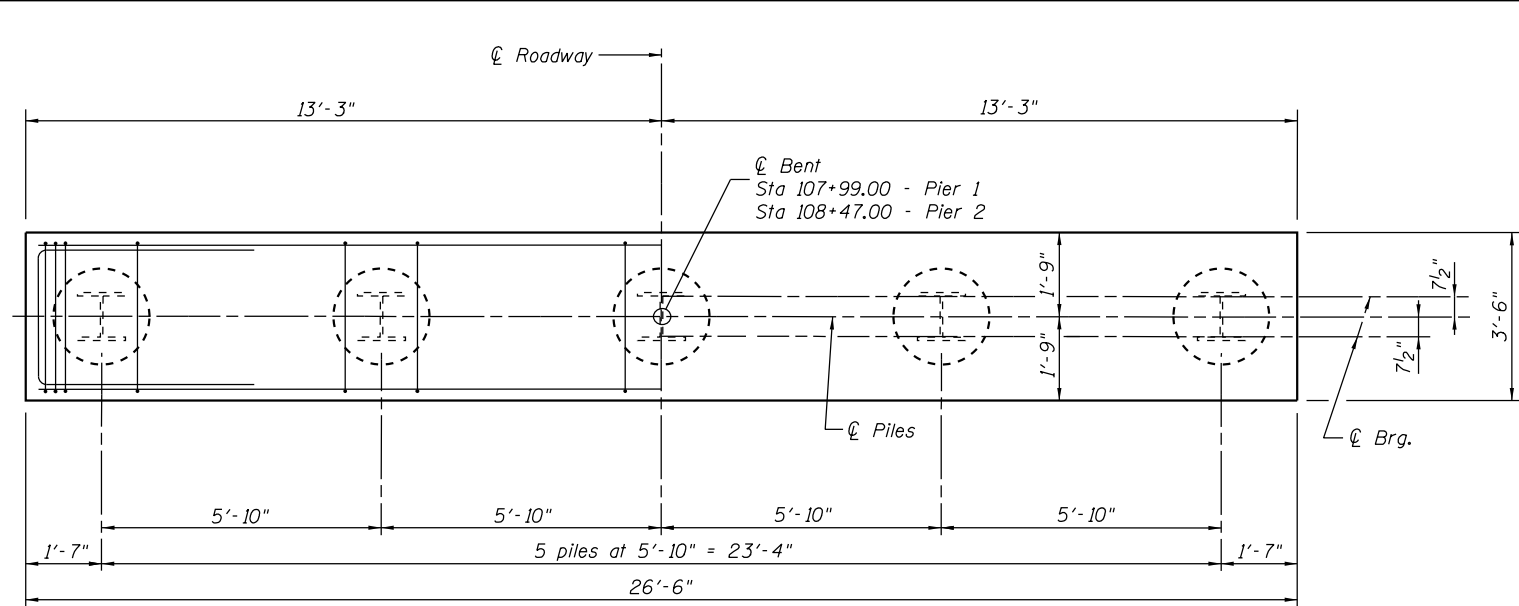
### PILE DATA

*SOUTH ABUTMENT*

Steel HP 10x42  
335 k  
184 k  
40 ft.  
4  
1

## NORTH ABUTMENT

Steel HP 10x42  
335 k  
184 k  
34 ft.  
4  
1

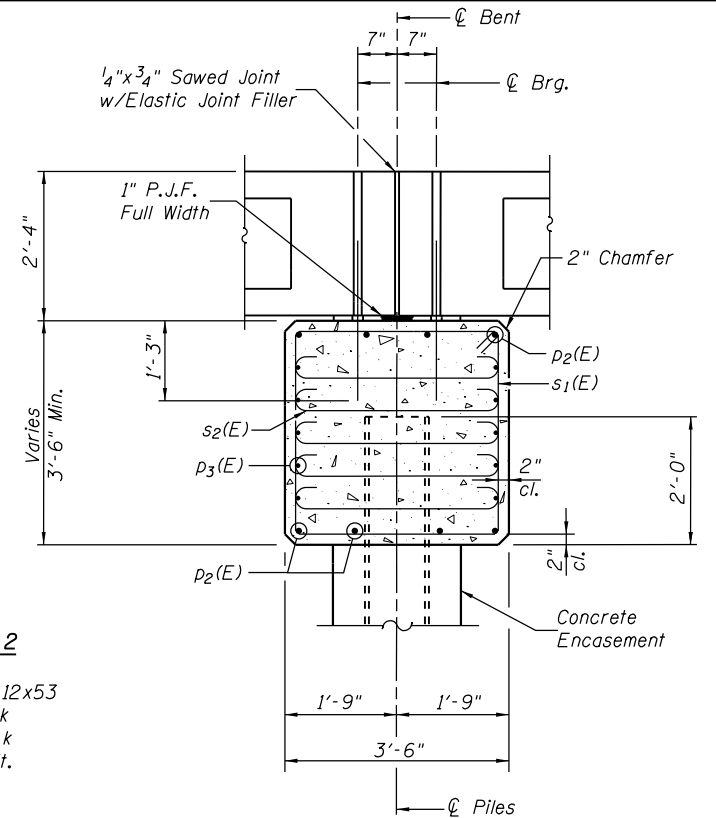


PLAN

Type:  
Nominal Required Bearing:  
Factored Resistance Available:  
Est. Length:  
No. Production Piles:  
No. Test Piles:

PILE DATA

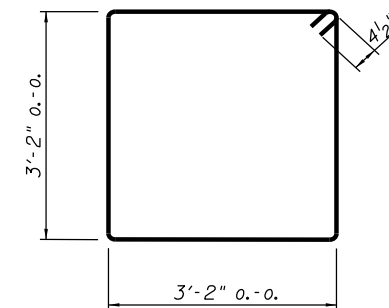
| PIER 1         | PIER 2         |
|----------------|----------------|
| Steel HP 12x53 | Steel HP 12x53 |
| 419 k          | 419 k          |
| 230 k          | 230 k          |
| 36 ft.         | 34 ft.         |
| 5              | 5              |
| 0              | 0              |



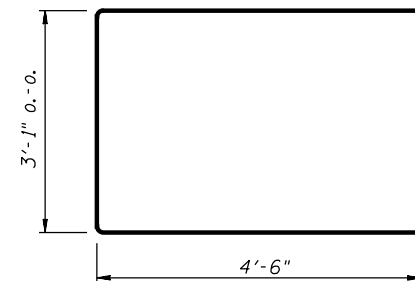
SECTION THRU PIER  
(at Right Angles)

BILL OF MATERIAL  
FOR ONE PIER

| Bar                              | No. | Size | Length | Shape |
|----------------------------------|-----|------|--------|-------|
| $p_2(E)$                         | 8   | #7   | 26'-2" | —     |
| $p_3(E)$                         | 10  | #4   | 26'-2" | —     |
| $s_1(E)$                         | 30  | #4   | 13'-5" | □     |
| $s_2(E)$                         | 70  | #4   | 4'-2"  | U     |
| $u_1(E)$                         | 14  | #6   | 12'-1" | □     |
| Concrete Structures              |     |      | Cu Yd  | 12.4  |
| Concrete Encasement              |     |      | Cu Yd  | 6.1   |
| Reinforcement Bars, Epoxy Coated |     |      | Pound  | 1,320 |
| Furnishing Steel Piles - Pier 1  |     |      | Foot   | 180   |
| Furnishing Steel Piles - Pier 2  |     |      | Foot   | 170   |
| Driving Steel Piles - Pier 1     |     |      | Foot   | 180   |
| Driving Steel Piles - Pier 2     |     |      | Foot   | 170   |



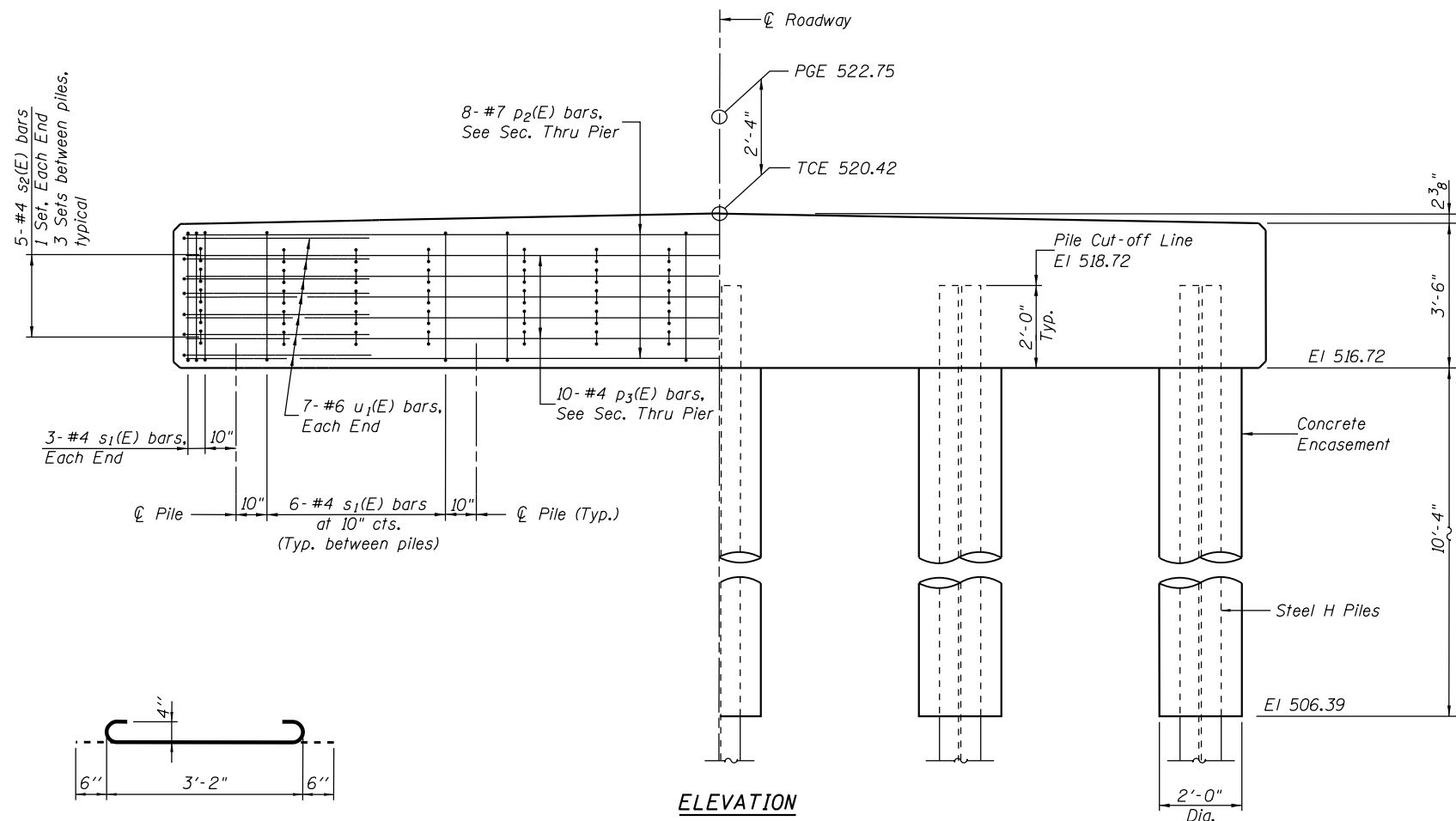
BAR  $s_1(E)$



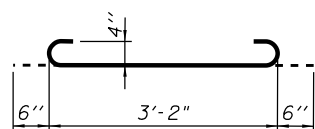
BAR  $u_1(E)$

Notes:

For details of piles and concrete encasement see sheet 11 of 12.  
Space reinforcement in pile cap to miss dowel rods.  
If a portion of the concrete encasement is under water, reinforcement may be placed under water into forms.  
Concrete shall be tremied according to Article 503.08 of the Standard Specifications to an elevation of 1'-0" above the water line at the time of construction.



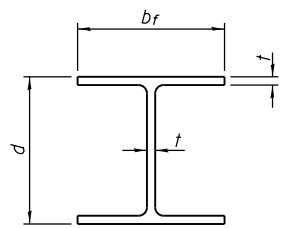
ELEVATION



BAR  $s_2(E)$

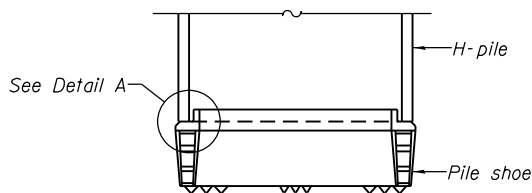
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| FILE NAME = H:\6182\CADD\Sheets\6182_SHT_09_Bridge.pier.dgn                             |  |  | DESIGNED - KMM | REVISED - | STATE OF ILLINOIS<br>DEPARTMENT OF TRANSPORTATION |  | PIER DETAILS<br>STRUCTURE NO. 003-3831 |  | TR                                | SECTION        | COUNTY | TOTAL SHEETS | SHEET NO. |
| HMG ENGINEERS, INC.<br>9360 HOLY CROSS LANE<br>BREESE, ILLINOIS 62230<br>(618) 526-9611 |  |  | DRAWN - KHL    | REVISED - |                                                   |  |                                        |  | 82                                | 08-08127-00-BR | BOWD   | 55           | 25        |
| USER NAME = kschwier.john                                                               |  |  | CHECKED - LDG  | REVISED - |                                                   |  |                                        |  | CONTRACT NO. 97676                |                |        |              |           |
| PLOT SCALE = 4.0000' / 1"                                                               |  |  | DATE -         | REVISED - |                                                   |  |                                        |  | ILLINOIS FED. AID PROJECT         |                |        |              |           |
| PLOT DATE = 3/30/2018                                                                   |  |  |                |           |                                                   |  | SCALE:                                 |  | SHEET 9 OF 12 SHEETS STA. TO STA. |                |        |              |           |



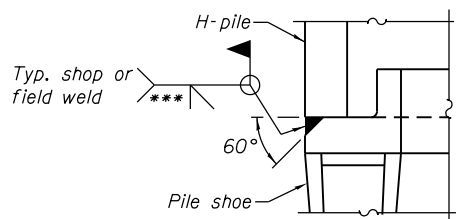


STEEL PILE TABLE

| Designation | Depth d | Flange width br | Web and Flange thickness t | Encasement diameter A |
|-------------|---------|-----------------|----------------------------|-----------------------|
| HP 14x117   | 14 1/4" | 14 7/8"         | 13/16"                     | 30"                   |
| x102        | 14"     | 14 3/4"         | 1/16"                      | 30"                   |
| x89         | 13 7/8" | 14 3/4"         | 5/8"                       | 30"                   |
| x73         | 13 5/8" | 14 5/8"         | 1/2"                       | 30"                   |
| HP 12x84    | 12 1/4" | 12 1/4"         | 1/16"                      | 24"                   |
| x74         | 12 1/8" | 12 1/4"         | 5/8"                       | 24"                   |
| x63         | 12"     | 12 1/8"         | 1/2"                       | 24"                   |
| x53         | 11 3/4" | 12"             | 7/16"                      | 24"                   |
| HP 10x57    | 10"     | 10 1/4"         | 9/16"                      | 24"                   |
| x42         | 9 3/4"  | 10 1/8"         | 7/16"                      | 24"                   |
| HP 8x36     | 8"      | 8 1/8"          | 7/16"                      | 18"                   |

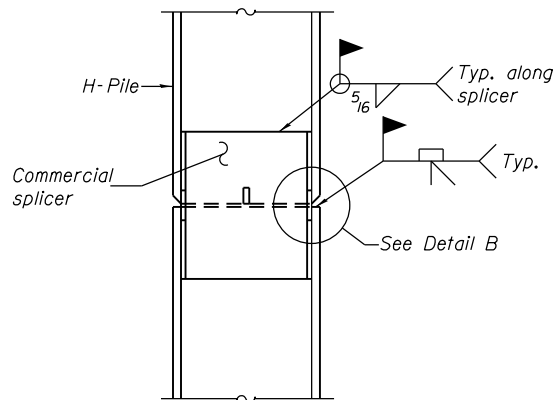


ELEVATION

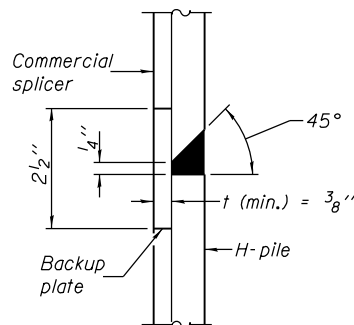


DETAIL A

H-PILE SHOE ATTACHMENT

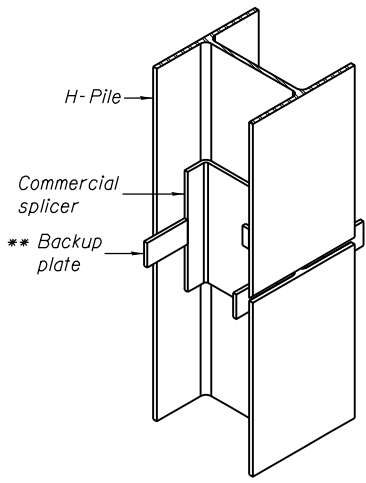


ELEVATION

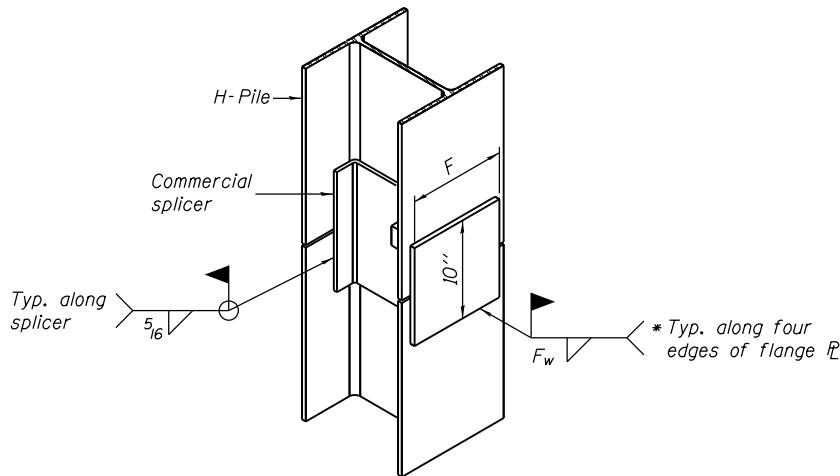


DETAIL "B"

WELDED COMMERCIAL SPLICE



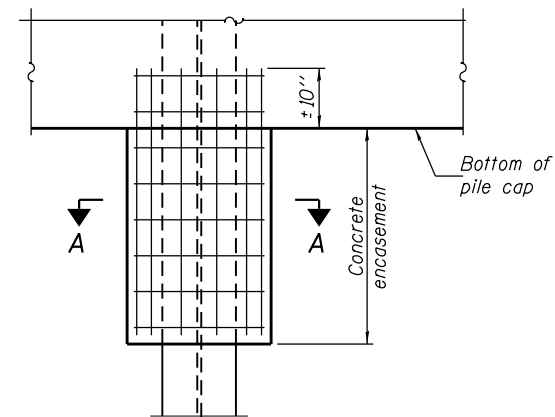
ISOMETRIC VIEW



ISOMETRIC VIEW

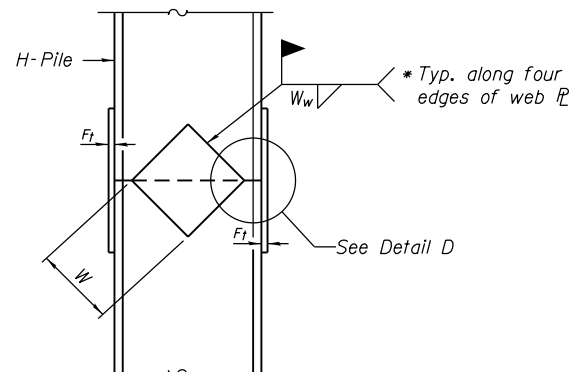
WELDED COMMERCIAL SPLICE ALTERNATE

- \* Interrupt welds 1/4" from end of web and/or each flange.
- \*\* Remove portions of backup plates that extend outside the flanges.
- \*\*\* Weld size per pile shoe manufacturer (5/16" min.).

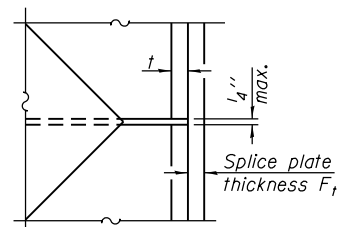


ELEVATION

PILE ENCASEMENT

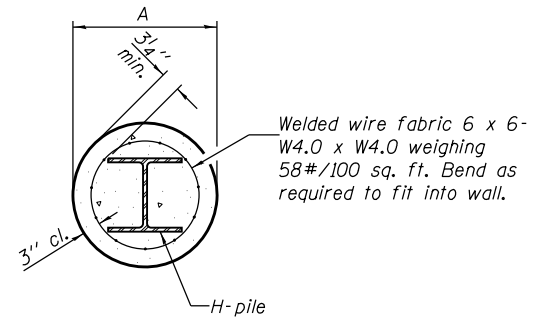


ELEVATION



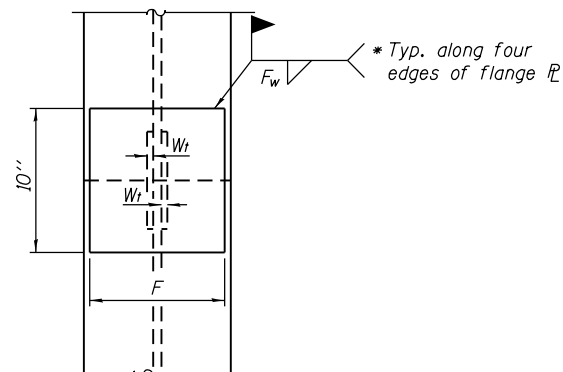
DETAIL D

WELDED PLATE FIELD SPLICE



Note:  
Forms for encasement may be omitted when soil conditions permit.

SECTION A-A



END VIEW

| Designation | F       | Ft   | Fw    | W      | Wt   | Ww   |
|-------------|---------|------|-------|--------|------|------|
| HP 14x117   | 12 1/2" | 1"   | 7/8"  | 7 3/4" | 5/8" | 1/2" |
| x102        | 12 1/2" | 7/8" | 3/4"  | 7 3/4" | 5/8" | 1/2" |
| x89         | 12 1/2" | 3/4" | 1/16" | 7 3/4" | 5/8" | 1/2" |
| x73         | 12 1/2" | 5/8" | 9/16" | 7 3/4" | 5/8" | 1/2" |
| HP 12x84    | 10"     | 7/8" | 1/16" | 6 1/2" | 5/8" | 1/2" |
| x74         | 10"     | 7/8" | 1/16" | 6 1/2" | 5/8" | 1/2" |
| x63         | 10"     | 5/8" | 1/2"  | 6 1/2" | 1/2" | 3/8" |
| x53         | 10"     | 5/8" | 1/2"  | 6 1/2" | 1/2" | 3/8" |
| HP 10x57    | 8"      | 3/4" | 9/16" | 5 1/4" | 1/2" | 3/8" |
| x42         | 8"      | 5/8" | 9/16" | 5 1/4" | 1/2" | 3/8" |
| HP 8x36     | 7"      | 5/8" | 7/16" | 4 1/4" | 1/2" | 3/8" |

Note:  
The steel H-piles shall be according to AASHTO M270 Grade 50.

F - HP 1-27-12

|                                                                                         |                          |             |                                                   |  |                                           |                       |                           |                |        |              |           |
|-----------------------------------------------------------------------------------------|--------------------------|-------------|---------------------------------------------------|--|-------------------------------------------|-----------------------|---------------------------|----------------|--------|--------------|-----------|
| FILE NAME = H:\6182\CADD_Sheets\6182_SHT_11.Bridge-pile.dgn                             | DESIGNED - KMM           | REVISED -   | STATE OF ILLINOIS<br>DEPARTMENT OF TRANSPORTATION |  | HP PILE DETAILS<br>STRUCTURE NO. 003-3831 |                       | TR                        | SECTION        | COUNTY | TOTAL SHEETS | SHEET NO. |
| HMG ENGINEERS, INC.<br>9360 HOLY CROSS LANE<br>BREESE, ILLINOIS 62230<br>(618) 526-9611 | USER NAME = kschwierjohn | DRAWN - KHL |                                                   |  |                                           |                       | 82                        | 08-08127-00-BR | BOND   | 55           | 27        |
| PLOT SCALE = 2.0000' / in.                                                              | CHECKED - LDG            | REVISED -   |                                                   |  |                                           |                       | CONTRACT NO. 97676        |                |        |              |           |
| PLOT DATE = 3/30/2018                                                                   | DATE -                   | REVISED -   |                                                   |  |                                           |                       | ILLINOIS FED. AID PROJECT |                |        |              |           |
|                                                                                         |                          |             |                                                   |  | SCALE:                                    | SHEET 11 OF 12 SHEETS | STA.                      | TO STA.        |        |              |           |

HOLCOMB FOUNDATION ENGINEERING INC.

P.O. Box 88

Carbondale, IL 62903

618-529-5262

618-457-8991 fax

Bridge Foundation Boring Log

Project: H-08221 Bridge Reno Rd over Elm Point Branch Date: 12/21/11

Section: 08-08127-00-BR Station \_\_\_\_\_ Bored by: B. Schwartz

Structure: SN 003-3807 \_\_\_\_\_ Checked By: T. Holcomb

County: Bond \_\_\_\_\_

Boring No: 1

Station: \_\_\_\_\_

Offset: \_\_\_\_\_

Elevation

Z

Qu

tsf

Surface Water Elev. \_\_\_\_\_

Ground Water Elev. \_\_\_\_\_

During Drilling 508.0

Upon Completion 514.0

Elevation

Z

Qu

tsf

w %

Ground Surface 517.0 0

1" A-3 Surface over 8" gravel and clay mix

Brown Medium SAND (A-2-4) with gravel

513.0

Brown Mottled Gray Clayey SAND (A-2-4)

510.5

Gray Silty CLAY to Clayey SILT (A6-A4)

508.0

Gray Clayey SAND (A-2-4)

505.5

Gray Clayey SAND (A-2-4) with gravel

503.0

Gray Silty CLAY (A-6) with sand

500.5

Brown Mottled Gray Sandy CLAY (A-6) with gravel

498.0

Gray Silty CLAY (A-6)

5 0.48 21

clay (continued)

493.0

Gray Silty CLAY (A-6) with sand

490.5

Gray Clayey SILT to SILT (A-4)

488.5

Gray SHALE

486.0

Gray SHALE with limestone

483.0

End of Boring @ -34.0'

100

73

100

73

100

74

1

45

100

73

100

74

--

3.55

--

--

--

--

19

19

12

13

N = Standard Penetration Test Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with a 140 lbs. hammer falling 30"

Qu = Unconfined Compressive Strength in tons/sq.ft. w = Water Content - percentage of oven dry weight-%

B = Bulge Failure S = Shear Failure E = Estimated Value P = Penetrometer

HOLCOMB FOUNDATION ENGINEERING INC.  
P.O. Box 88 618-529-5262  
Carbondale, IL 62903 618-457-8991 fax

Bridge Foundation Boring Log

Project: H-08221 Bridge Reno Rd over Elm Point Branch Date: 12/21/11  
Section: 08-08127-00-BR Station \_\_\_\_\_ Bored by: B. Schwartz  
Structure: SN 003-3807 \_\_\_\_\_ Checked By: T. Holcomb  
County: Bond \_\_\_\_\_

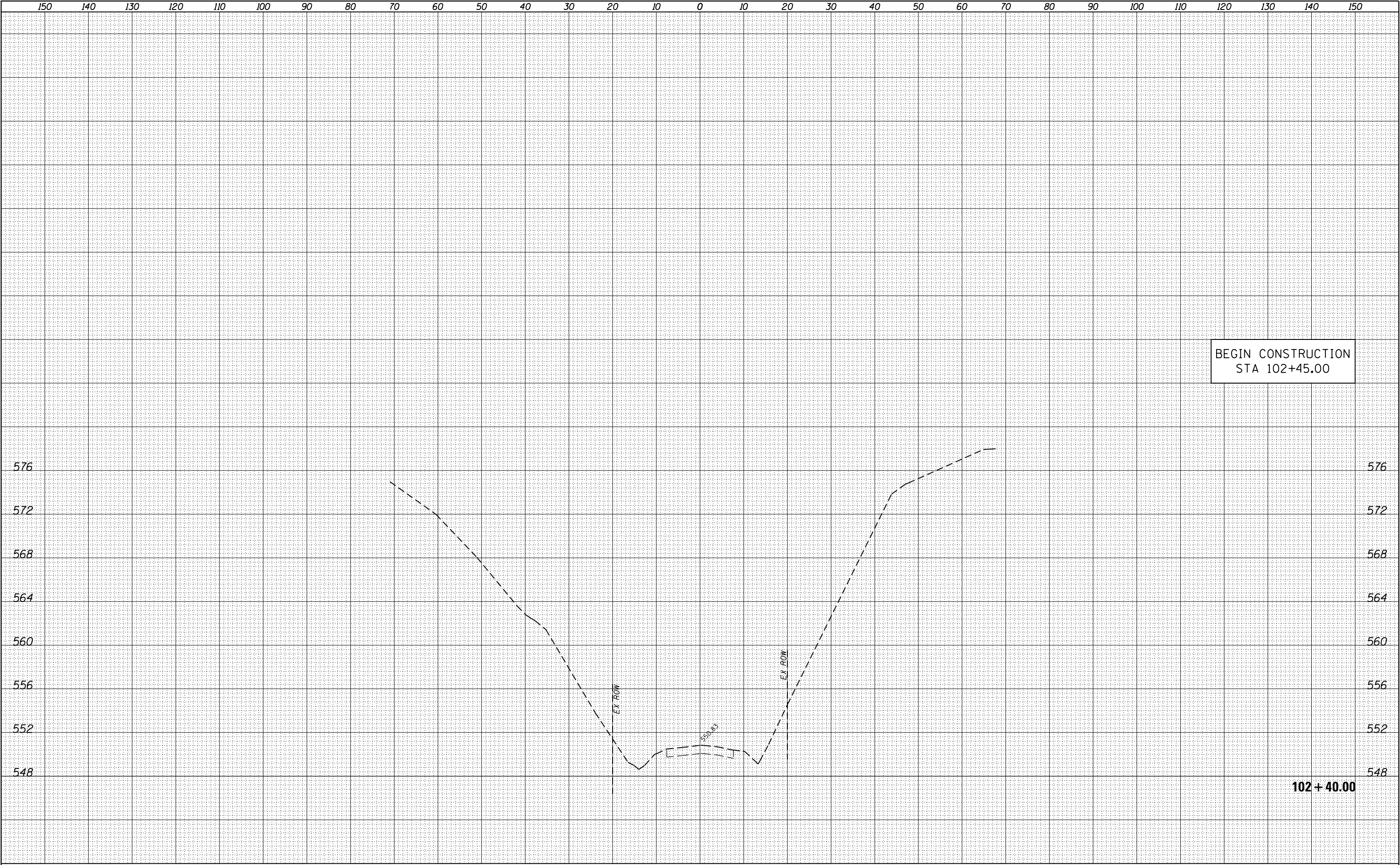
| Boring No: <u>2</u>                                | Elevation    | Z         | Qu          | tsf       | Surface Water Elev. _____    | Elevation    | Z          | Qu          | tsf          |
|----------------------------------------------------|--------------|-----------|-------------|-----------|------------------------------|--------------|------------|-------------|--------------|
| Station: _____                                     |              |           |             |           | Ground Water Elev. _____     |              |            |             |              |
| Offset: _____                                      |              |           |             |           | During Drilling <u>507.4</u> |              |            |             |              |
|                                                    |              |           |             |           | Upon Completion <u>---</u>   |              |            |             |              |
| Ground Surface <u>516.4</u>                        | <u>0</u>     |           |             |           | silt (continued)             |              |            |             |              |
| 2" A-3 Surface over 10" gravel and clay mix        |              |           |             |           |                              |              |            |             |              |
| Gray Silty CLAY (A-6) with cinders                 |              | <u>2</u>  | <u>0.48</u> | <u>22</u> |                              | <u>-25</u>   | <u>82</u>  | <u>3.75</u> | <u>19</u>    |
|                                                    |              |           |             |           |                              |              |            |             |              |
|                                                    | <u>-5</u>    | <u>0</u>  | <u>0.58</u> | <u>24</u> |                              |              | <u>54</u>  | <u>1.75</u> | <u>21</u>    |
|                                                    |              |           |             |           |                              |              |            |             |              |
|                                                    | <u>509.9</u> | <u>1</u>  | <u>0.68</u> | <u>21</u> |                              | <u>-30</u>   | <u>47</u>  | <u>1.75</u> | <u>21</u>    |
| Gray Silty CLAY (A-6) with sand                    |              |           |             |           |                              |              |            |             |              |
|                                                    | <u>506.9</u> |           |             |           |                              |              |            |             |              |
| Gray Fine to Medium SAND (A-2-4) with sand         |              | <u>1</u>  | <u>---</u>  | <u>28</u> |                              |              |            |             |              |
|                                                    | <u>-10</u>   |           |             |           |                              | <u>482.9</u> | <u>100</u> | <u>76</u>   | <u>-- 10</u> |
|                                                    |              |           |             |           |                              |              |            |             |              |
| Gray Mottled Brown Clayey SAND (A-2-4) with gravel |              | <u>6</u>  | <u>--</u>   | <u>15</u> | Gray SHALE                   | <u>-35</u>   |            |             |              |
|                                                    |              |           |             |           |                              |              | <u>100</u> | <u>74</u>   | <u>-- 8</u>  |
|                                                    | <u>502.4</u> |           |             |           |                              |              |            |             |              |
| Gray GRAVEL (A-2-4) with sand                      |              | <u>17</u> | <u>--</u>   | <u>15</u> |                              |              |            |             |              |
|                                                    | <u>-15</u>   |           |             |           |                              |              | <u>100</u> | <u>74</u>   | <u>-- 10</u> |
|                                                    |              |           |             |           |                              |              |            |             |              |
|                                                    | <u>499.9</u> |           |             |           |                              | <u>477.4</u> |            |             |              |
| Gray CLAY (A-6) with pebbles                       |              | <u>12</u> | <u>3.35</u> | <u>16</u> | End of Boring @ -39.0'       | <u>-40</u>   |            |             |              |
|                                                    |              |           |             |           |                              |              |            |             |              |
|                                                    | <u>-20</u>   | <u>20</u> | <u>3.65</u> | <u>15</u> |                              |              |            |             |              |
|                                                    |              |           |             |           |                              |              |            |             |              |
|                                                    | <u>494.9</u> |           |             |           |                              |              |            |             |              |
| Gray Clayey SILT (A-4)                             |              | <u>71</u> | <u>3.75</u> | <u>19</u> |                              |              |            |             |              |

N = Standard Penetration Test Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with a 140 lbs. hammer falling 30"  
Qu = Unconfined Compressive Strength in tons/sq.ft.  
w = Water Content - percentage of oven dry weight-%  
B = Bulge Failure  
S = Shear Failure  
E = Estimated Value  
P = Penetrometer

|                                                                                         |  |                          |             |                                                   |  |                                            |  |                           |                |        |              |           |
|-----------------------------------------------------------------------------------------|--|--------------------------|-------------|---------------------------------------------------|--|--------------------------------------------|--|---------------------------|----------------|--------|--------------|-----------|
| FILE NAME = H:\6182\CADD_Sheets\6182_SHT.12\Bridge.bore.dgn                             |  | DESIGNED - KMM           | REVISED -   | STATE OF ILLINOIS<br>DEPARTMENT OF TRANSPORTATION |  | SOIL BORING LOGS<br>STRUCTURE NO. 003-3831 |  | TR                        | SECTION        | COUNTY | TOTAL SHEETS | SHEET NO. |
| HMG ENGINEERS, INC.<br>9360 HOLY CROSS LANE<br>BREESE, ILLINOIS 62230<br>(618) 526-9611 |  | USER NAME = kschwierjohn | DRAWN - KHL |                                                   |  |                                            |  | 82                        | 08-08127-00-BR | BOND   | 55           | 28        |
| PLOT SCALE = 2.0000' / in.                                                              |  | CHECKED - LDG            | REVISED -   |                                                   |  |                                            |  | CONTRACT NO. 97676        |                |        |              |           |
| PLOT DATE = 3/30/2018                                                                   |  | DATE -                   | REVISED -   |                                                   |  |                                            |  | ILLINOIS FED. AID PROJECT |                |        |              |           |
| SCALE:                                                                                  |  | SHEET 12 OF 12 SHEETS    |             | STA.                                              |  | TO STA.                                    |  |                           |                |        |              |           |

|                 |          |    |      |
|-----------------|----------|----|------|
| FINAL<br>SURVEY | SURVEYED | BY | DATE |
| NOTE BOOK       | PLOTTED  |    |      |
| NO.             | TEMPLATE |    |      |
|                 | AREAS    |    |      |
|                 | CHECKED  |    |      |

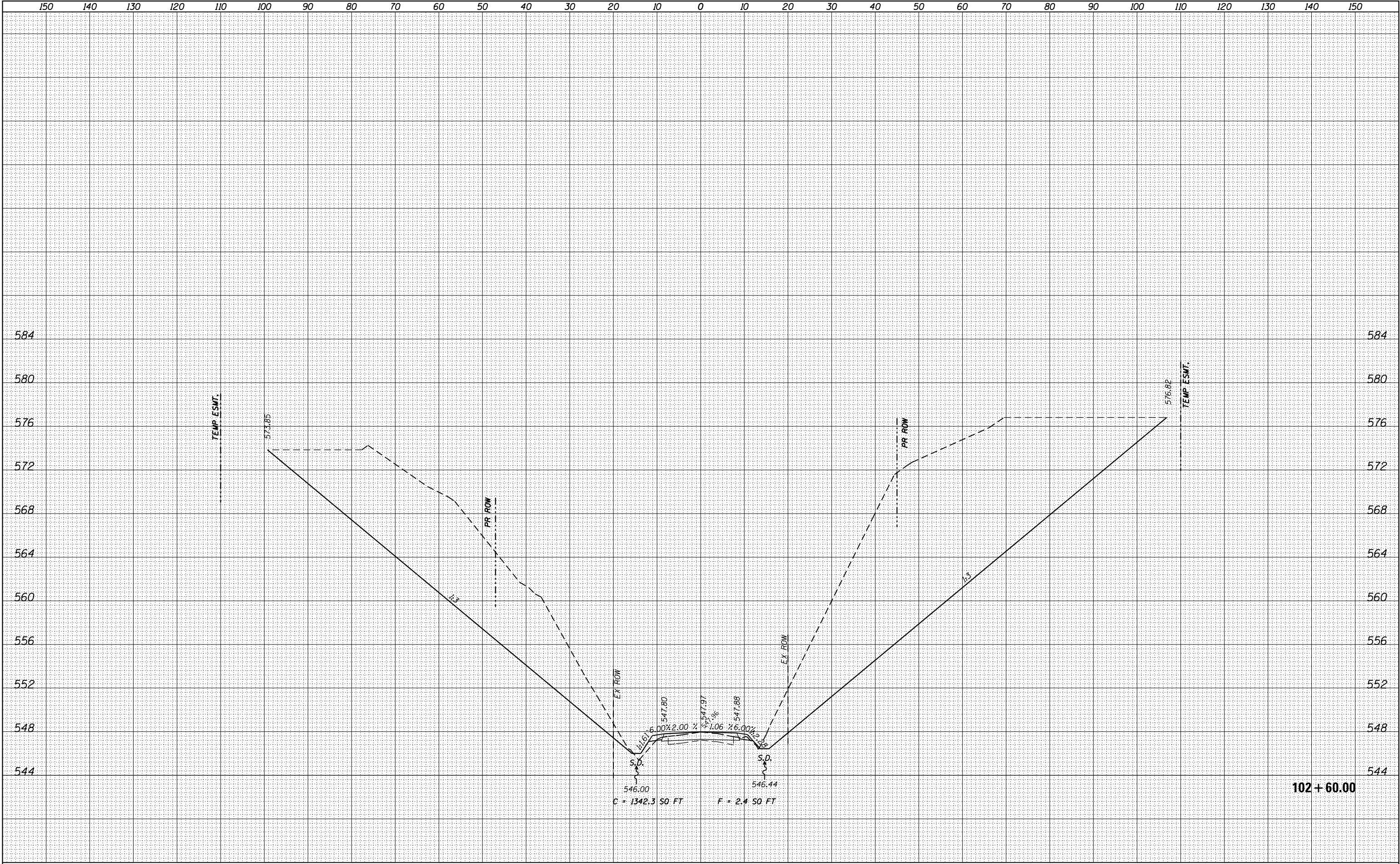
|                    |          |    |      |
|--------------------|----------|----|------|
| ORIGINAL<br>SURVEY | SURVEYED | BY | DATE |
| NOTE BOOK          | PLOTTED  |    |      |
| NO.                | TEMPLATE |    |      |
|                    | AREAS    |    |      |
|                    | CHECKED  |    |      |



|                                                                                                                                                       |     |     |     |     |     |                              |    |           |    |                                                   |    |    |    |    |   |    |    |    |    |                |    |    |    |    |     |           |         |                           |                |              |           |                                                             |    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----|-----|-----|-----|------------------------------|----|-----------|----|---------------------------------------------------|----|----|----|----|---|----|----|----|----|----------------|----|----|----|----|-----|-----------|---------|---------------------------|----------------|--------------|-----------|-------------------------------------------------------------|----|
| 150                                                                                                                                                   | 140 | 130 | 120 | 110 | 100 | 90                           | 80 | 70        | 60 | 50                                                | 40 | 30 | 20 | 10 | 0 | 10 | 20 | 30 | 40 | 50             | 60 | 70 | 80 | 90 | 100 | 110       | 120     | 130                       | 140            | 150          |           |                                                             |    |
| FILE NAME = H:\6182\CADD_Sheets\6182_SHT_XS_10240-104.dgn                                                                                             |     |     |     |     |     | DESIGNED -                   |    | REVISED - |    | STATE OF ILLINOIS<br>DEPARTMENT OF TRANSPORTATION |    |    |    |    |   |    |    |    |    | CROSS SECTIONS |    |    |    |    |     | TR        | SECTION |                           | COUNTY         | TOTAL SHEETS | SHEET NO. |                                                             |    |
| <div>HMG</div> <div>Engineers • Surveyors</div> <div>HMG ENGINEERS, INC.<br/>9360 HOLY CROSS LANE<br/>BREESE, ILLINOIS 62230<br/>(618) 526-9611</div> |     |     |     |     |     | USER NAME = kschrwerjohn     |    | DRAWN -   |    |                                                   |    |    |    |    |   |    |    |    |    |                |    |    |    |    |     | REVISED - |         | 82                        | 08-08127-00-BR |              | BOND      | 55                                                          | 29 |
|                                                                                                                                                       |     |     |     |     |     | PLOT SCALE = 20.0000 ' / in. |    | CHECKED - |    |                                                   |    |    |    |    |   |    |    |    |    |                |    |    |    |    |     | REVISED - |         | CONTRACT NO. 97676        |                |              |           |                                                             |    |
|                                                                                                                                                       |     |     |     |     |     | PLOT DATE = 3/30/2018        |    | DATE -    |    |                                                   |    |    |    |    |   |    |    |    |    |                |    |    |    |    |     | REVISED - |         | ILLINOIS FED. AID PROJECT |                |              |           |                                                             |    |
|                                                                                                                                                       |     |     |     |     |     |                              |    |           |    |                                                   |    |    |    |    |   |    |    |    |    |                |    |    |    |    |     |           |         |                           |                |              |           | SCALE: SHEET 1 OF 27 SHEETS STA. 102+40.00 TO STA.102+40.00 |    |

|                 |          |    |      |
|-----------------|----------|----|------|
| FINAL<br>SURVEY | SURVEYED | BY | DATE |
| NOTE BOOK       | PLOTTED  |    |      |
| NO.             | TEMPLATE |    |      |
|                 | AREAS    |    |      |
|                 | CHECKED  |    |      |

|                    |          |    |      |
|--------------------|----------|----|------|
| ORIGINAL<br>SURVEY | SURVEYED | BY | DATE |
| NOTE BOOK          | PLOTTED  |    |      |
| NO.                | TEMPLATE |    |      |
|                    | AREAS    |    |      |
|                    | CHECKED  |    |      |



|                                                                                                |                          |          |                           |                |        |              |           |
|------------------------------------------------------------------------------------------------|--------------------------|----------|---------------------------|----------------|--------|--------------|-----------|
| FILE NAME = H:\6182\CADD_Sheets\6182_SHT_XS_102+60-104.dgn                                     | DESIGNED -               | REVISD - | TR                        | SECTION        | COUNTY | TOTAL SHEETS | SHEET NO. |
| <b>HMG</b> ENGINEERS, INC.<br>9360 HOLY CROSS LANE<br>BREESE, ILLINOIS 62230<br>(618) 526-9611 | USER NAME = kschwierjohn | REVISD - | 82                        | 08-08127-00-BR | BOND   | 55           | 30        |
| PLOT SCALE = 20.0000' / in.                                                                    | CHECKED -                | REVISD - | CONTRACT NO. 97676        |                |        |              |           |
| PLOT DATE = 3/30/2018                                                                          | DATE -                   | REVISD - | ILLINOIS FED. AID PROJECT |                |        |              |           |

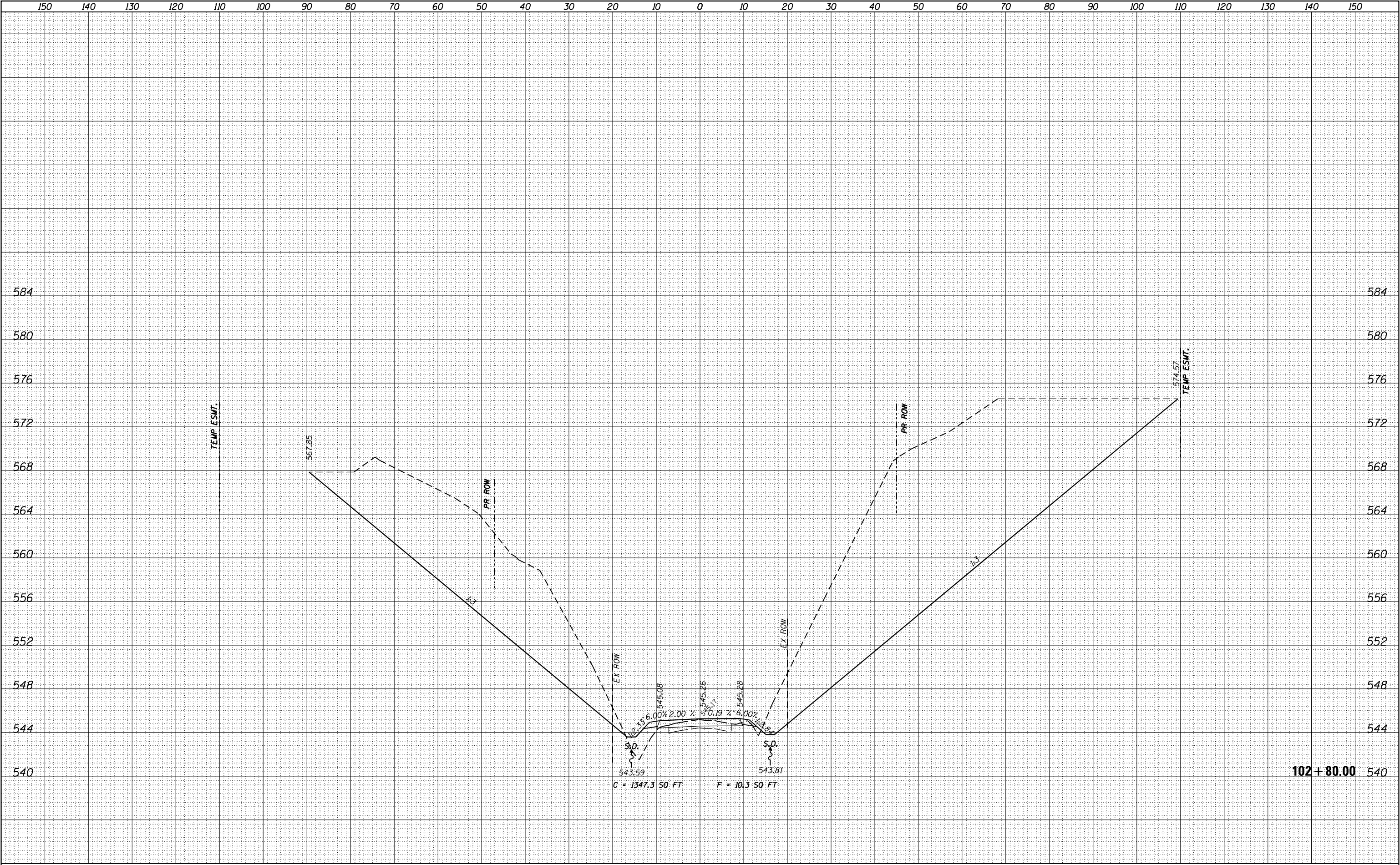
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

SCALE: SHEET 2 OF 27 SHEETS STA. 102+60.00 TO STA. 102+60.00

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| FINAL<br>SURVEY<br>NO. | SURVEYED<br>PLOTTED<br>NOTE BOOK<br>AREAS CHECKED | BY | DATE |
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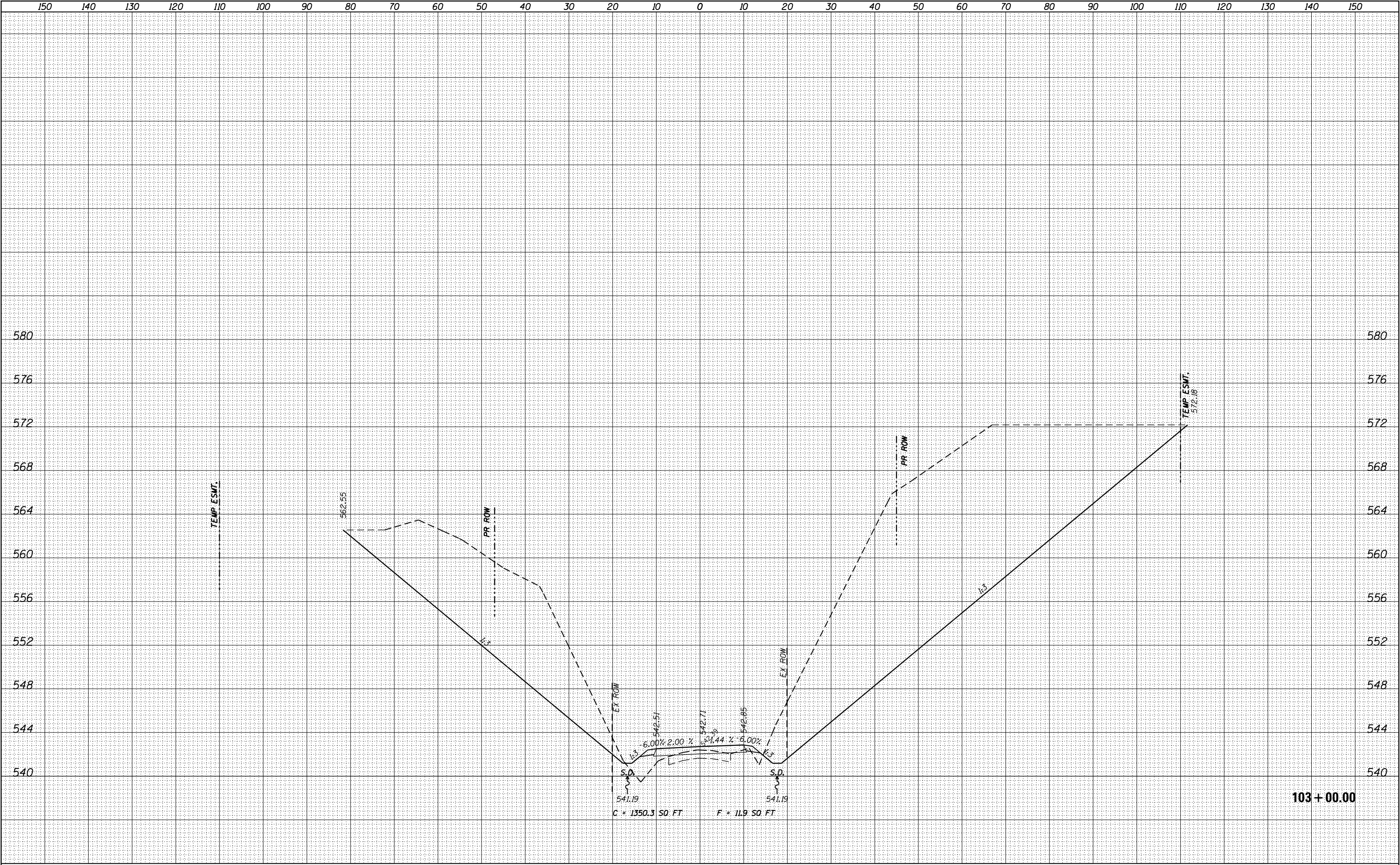
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| <div>HMG</div> <div>HMG ENGINEERS, INC.<br/>9360 HOLY CROSS LANE<br/>BREESE, ILLINOIS 62230<br/>(618) 526-9611</div> <div>Engineers • Surveyors</div> |  |  |  | DRAWN -                     |  | REVISED - |  |                                                   |  |  |  |                |  |              |  | 82                              |  | 08-08127-00-BR |  | BOND                      |  | 55           |  | 31        |  |
|                                                                                                                                                       |  |  |  | CHECKED -                   |  | REVISED - |  |                                                   |  |  |  |                |  |              |  | CONTRACT NO. 97676              |  |                |  |                           |  |              |  |           |  |
|                                                                                                                                                       |  |  |  | PLOT SCALE = 20.0000' / in. |  | REVISED - |  |                                                   |  |  |  |                |  |              |  |                                 |  |                |  |                           |  |              |  |           |  |
| PLOT DATE = 3/30/2018                                                                                                                                 |  |  |  | DATE -                      |  | REVISED - |  | SCALE:                                            |  |  |  | SHEET 3        |  | OF 27 SHEETS |  | STA. 102+80.00 TO STA.102+80.00 |  |                |  | ILLINOIS FED. AID PROJECT |  |              |  |           |  |

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| FINAL<br>SURVEY<br>NO. | SURVEYED<br>PLOTTED<br>NOTE BOOK<br>AREAS CHECKED | BY | DATE |
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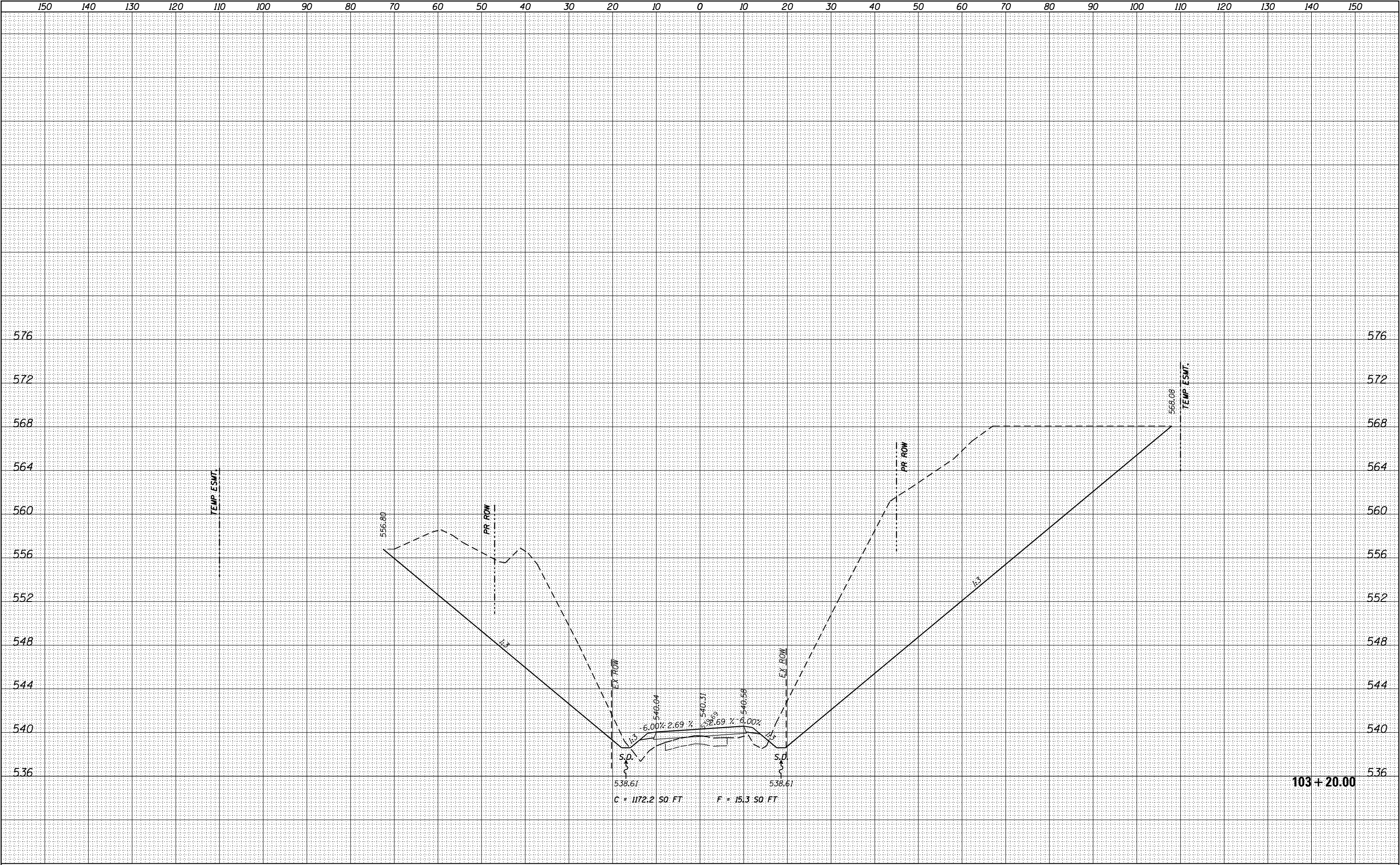
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| ORIGINAL<br>SURVEY<br>NO. | SURVEYED<br>PLOTTED<br>NOTE BOOK<br>AREAS CHECKED | BY | DATE |
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| FILE NAME = H:\6182\CADD_Sheets\6182_SHT.XS_10240-104.dgn                                                                                             |  | DESIGNED -                  |  | REVISED - |  | STATE OF ILLINOIS<br>DEPARTMENT OF TRANSPORTATION |  |        |  |                      |  |                                 |  |                           |  | CROSS SECTIONS |  |                    |  |                | TR |  | SECTION |  | COUNTY |  | TOTAL SHEETS |  | SHEET NO. |  |
| <div>HMG</div> <div>Engineers • Surveyors</div> <div>HMG ENGINEERS, INC.<br/>9360 HOLY CROSS LANE<br/>BREESE, ILLINOIS 62230<br/>(618) 526-9611</div> |  | USER NAME = kschwierjohn    |  | DRAWN -   |  |                                                   |  |        |  |                      |  |                                 |  |                           |  | REVISED -      |  | 82                 |  | 08-08127-00-BR |    |  | BOND    |  | 55     |  | 32           |  |           |  |
|                                                                                                                                                       |  | PLOT SCALE = 20.0000' / in. |  | CHECKED - |  |                                                   |  |        |  |                      |  |                                 |  |                           |  | REVISED -      |  | CONTRACT NO. 97676 |  |                |    |  |         |  |        |  |              |  |           |  |
|                                                                                                                                                       |  | PLOT DATE = 3/30/2018       |  | DATE -    |  |                                                   |  |        |  |                      |  |                                 |  |                           |  | REVISED -      |  |                    |  |                |    |  |         |  |        |  |              |  |           |  |
|                                                                                                                                                       |  |                             |  |           |  |                                                   |  | SCALE: |  | SHEET 4 OF 27 SHEETS |  | STA. 103+00.00 TO STA.103+00.00 |  | ILLINOIS FED. AID PROJECT |  |                |  |                    |  |                |    |  |         |  |        |  |              |  |           |  |

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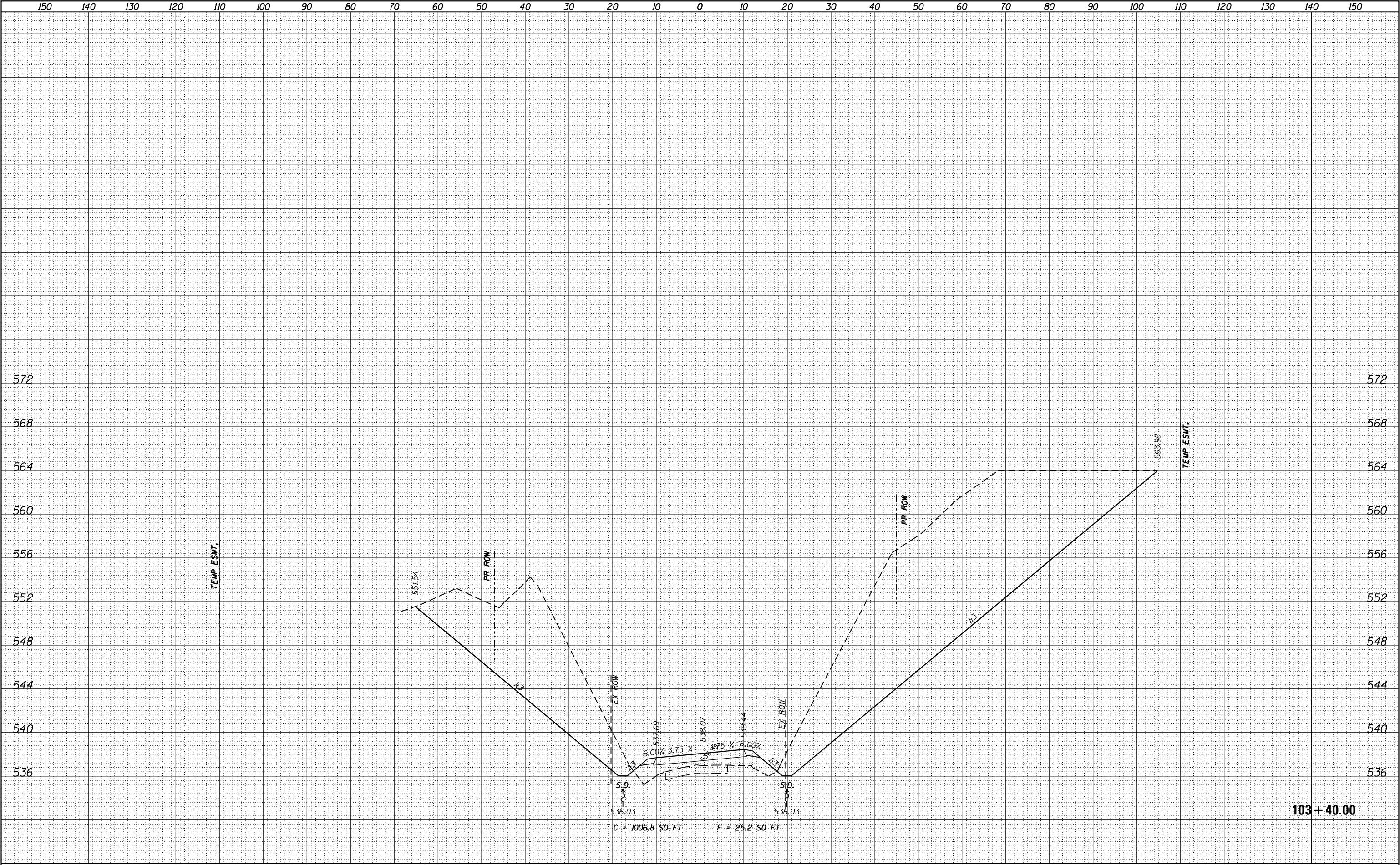
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| <div>HMG</div> <div>Engineers • Surveyors</div>           | HMG ENGINEERS, INC.<br>9360 HOLY CROSS LANE<br>BREESE, ILLINOIS 62230<br>(618) 526-9611 | USER NAME = kschwierjohn | DRAWN -  |                                                   |         |              |                                 |                           |  |  |  |  | REVISD - | 82      | 08-08127-00-BR |        | BOND         | 55        |
|                                                           | PLOT SCALE = 20.0000' / in.                                                             | CHECKED -                | REVISD - |                                                   |         |              |                                 | CONTRACT NO. 97676        |  |  |  |  |          |         |                |        |              |           |
|                                                           | PLOT DATE = 3/30/2018                                                                   | DATE -                   | REVISD - |                                                   |         |              |                                 | ILLINOIS FED. AID PROJECT |  |  |  |  |          |         |                |        |              |           |
|                                                           |                                                                                         |                          |          | SCALE:                                            | SHEET 5 | OF 27 SHEETS | STA. 103+20.00 TO STA.103+20.00 |                           |  |  |  |  |          |         |                |        |              |           |

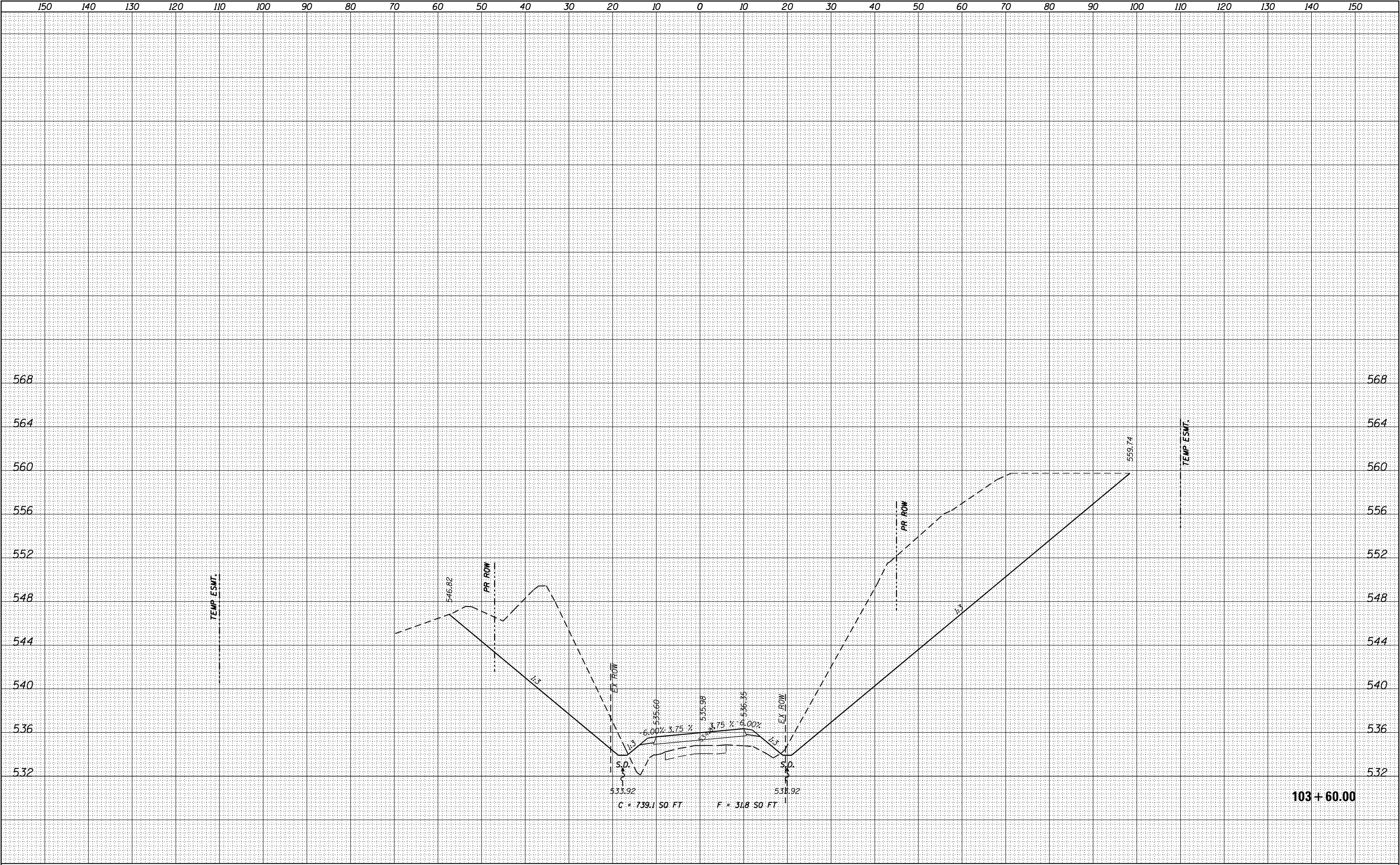
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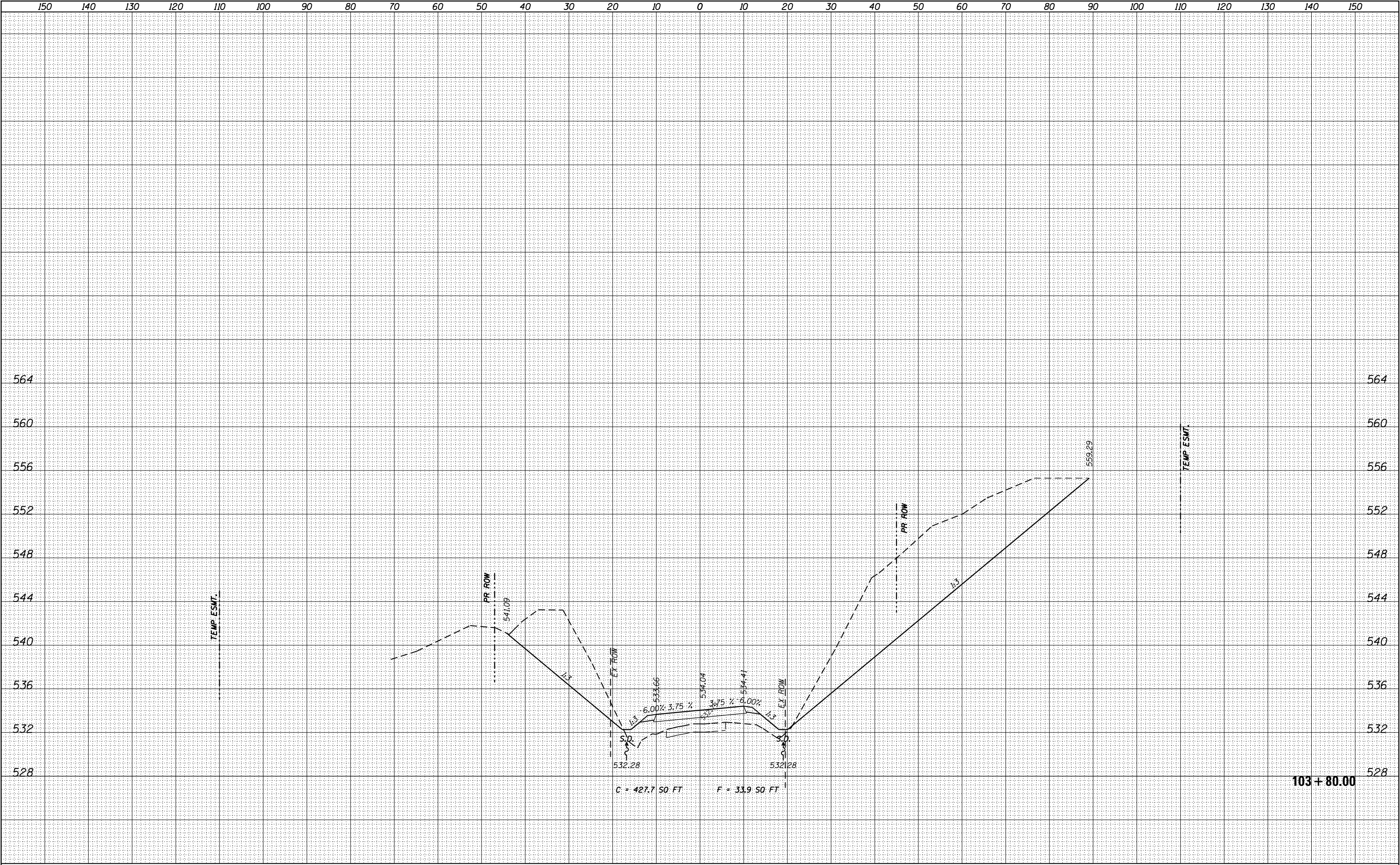
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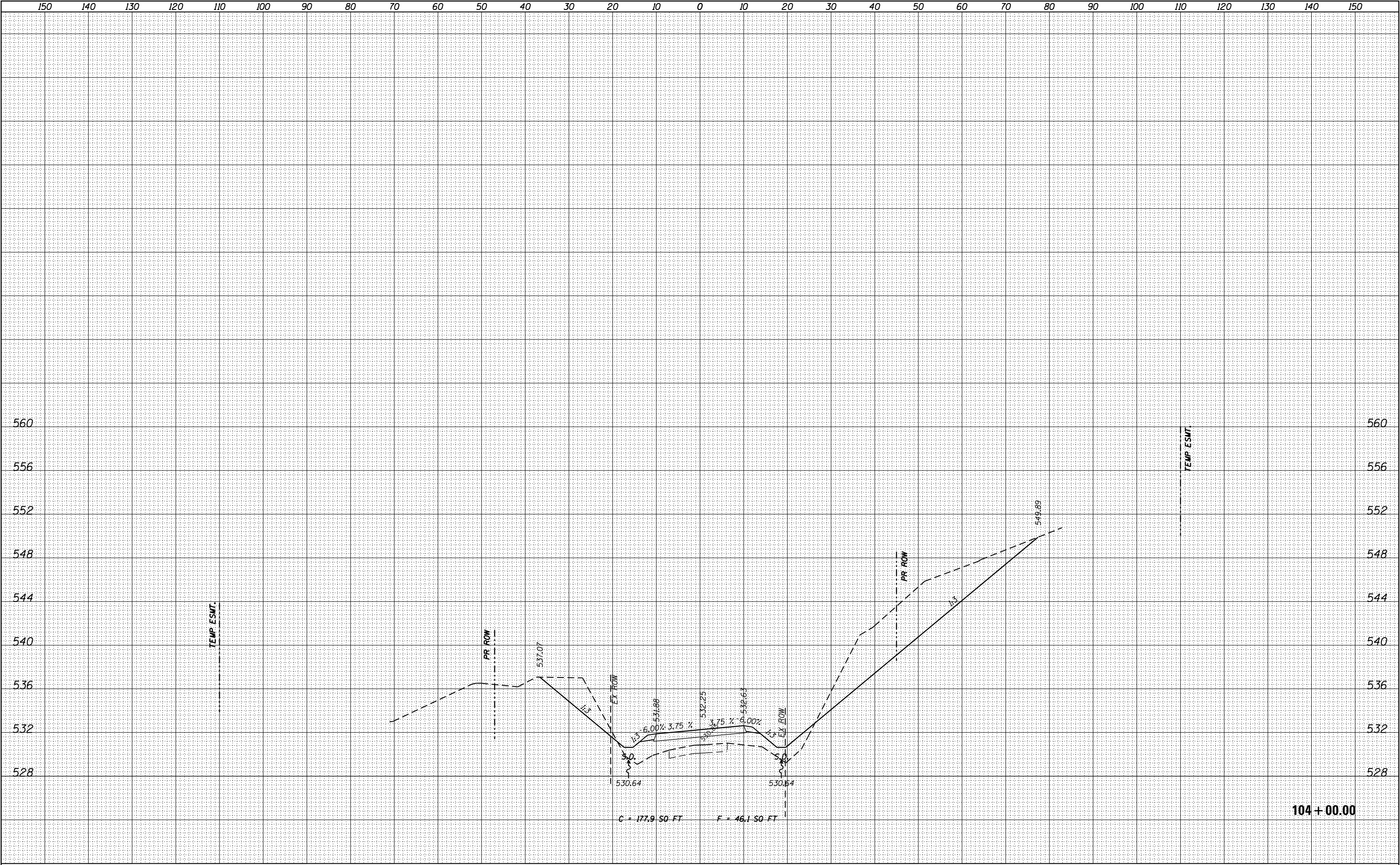
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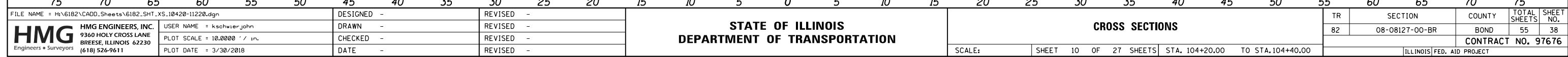
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| FILE NAME = H:\6182\CADD_Sheets\6182_SHT_XS_10240-104.dgn |                                                                                         | DESIGNED -                  | REVISED - | STATE OF ILLINOIS<br>DEPARTMENT OF TRANSPORTATION | CROSS SECTIONS |  |  |  |  | TR        | SECTION            | COUNTY               | TOTAL SHEETS                    | SHEET NO.                 |    |
| <div>HMG</div> <div>Engineers • Surveyors</div>           | HMG ENGINEERS, INC.<br>9360 HOLY CROSS LANE<br>BREESE, ILLINOIS 62230<br>(618) 526-9611 | USER NAME = kschwierjohn    | DRAWN -   |                                                   |                |  |  |  |  | REVISED - | 82                 | 08-08127-00-BR       | BOND                            | 55                        | 37 |
|                                                           |                                                                                         | PLOT SCALE = 20.0000' / in. | CHECKED - |                                                   |                |  |  |  |  | REVISED - | CONTRACT NO. 97676 |                      |                                 |                           |    |
|                                                           |                                                                                         | PLOT DATE = 3/30/2018       | DATE -    |                                                   |                |  |  |  |  | REVISED - | SCALE:             | SHEET 9 OF 27 SHEETS | STA. 104+00.00 TO STA.104+00.00 | ILLINOIS FED. AID PROJECT |    |

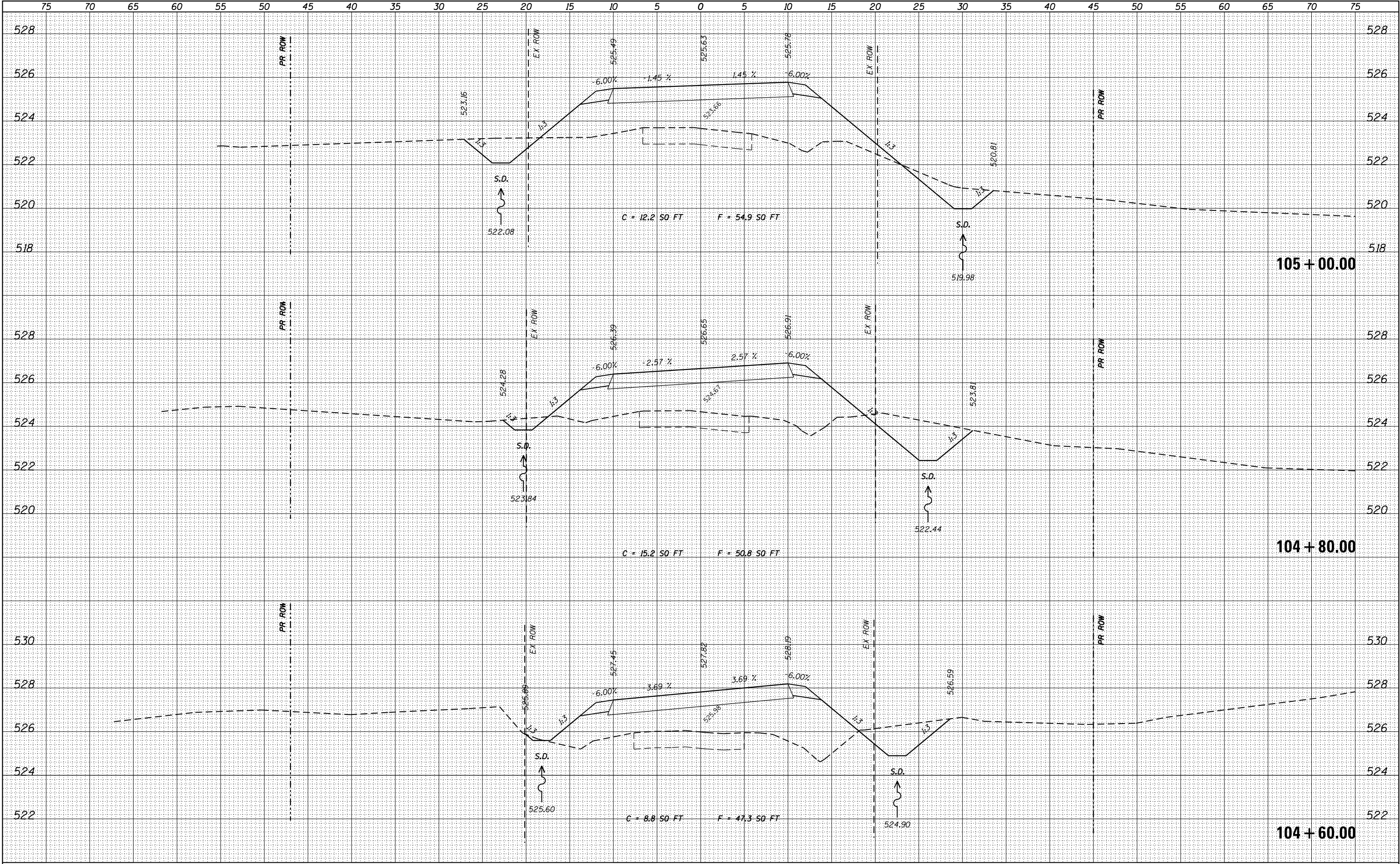
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| <div><div><div>HMG</div><div>Engineers • Surveyors</div></div><div><div>HMG ENGINEERS, INC.</div><div>9360 HOLY CROSS LANE</div><div>BREESE, ILLINOIS 62230</div><div>(618) 526-9611</div></div></div> |  |  |  |  |  |  |  |  |  | DRAWN -                      |  | REVISED - |  |                                                   |  |  |  |  |  |  |  |  |  |                |                       |                                 |  |                    |  |  |  |                           |  | 82 | 08-08127-00-BR |  | BOND   | 55           | 38        |
|                                                                                                                                                                                                        |  |  |  |  |  |  |  |  |  | PLOT SCALE = 10.0000 ' / in. |  |           |  |                                                   |  |  |  |  |  |  |  |  |  | CHECKED -      |                       | REVISED -                       |  | CONTRACT NO. 97676 |  |  |  |                           |  |    |                |  |        |              |           |
| PLOT DATE = 3/30/2018                                                                                                                                                                                  |  |  |  |  |  |  |  |  |  | DATE -                       |  | REVISED - |  |                                                   |  |  |  |  |  |  |  |  |  | SCALE:         | SHEET 10 OF 27 SHEETS | STA. 104+20.00 TO STA.104+40.00 |  |                    |  |  |  | ILLINOIS FED. AID PROJECT |  |    |                |  |        |              |           |

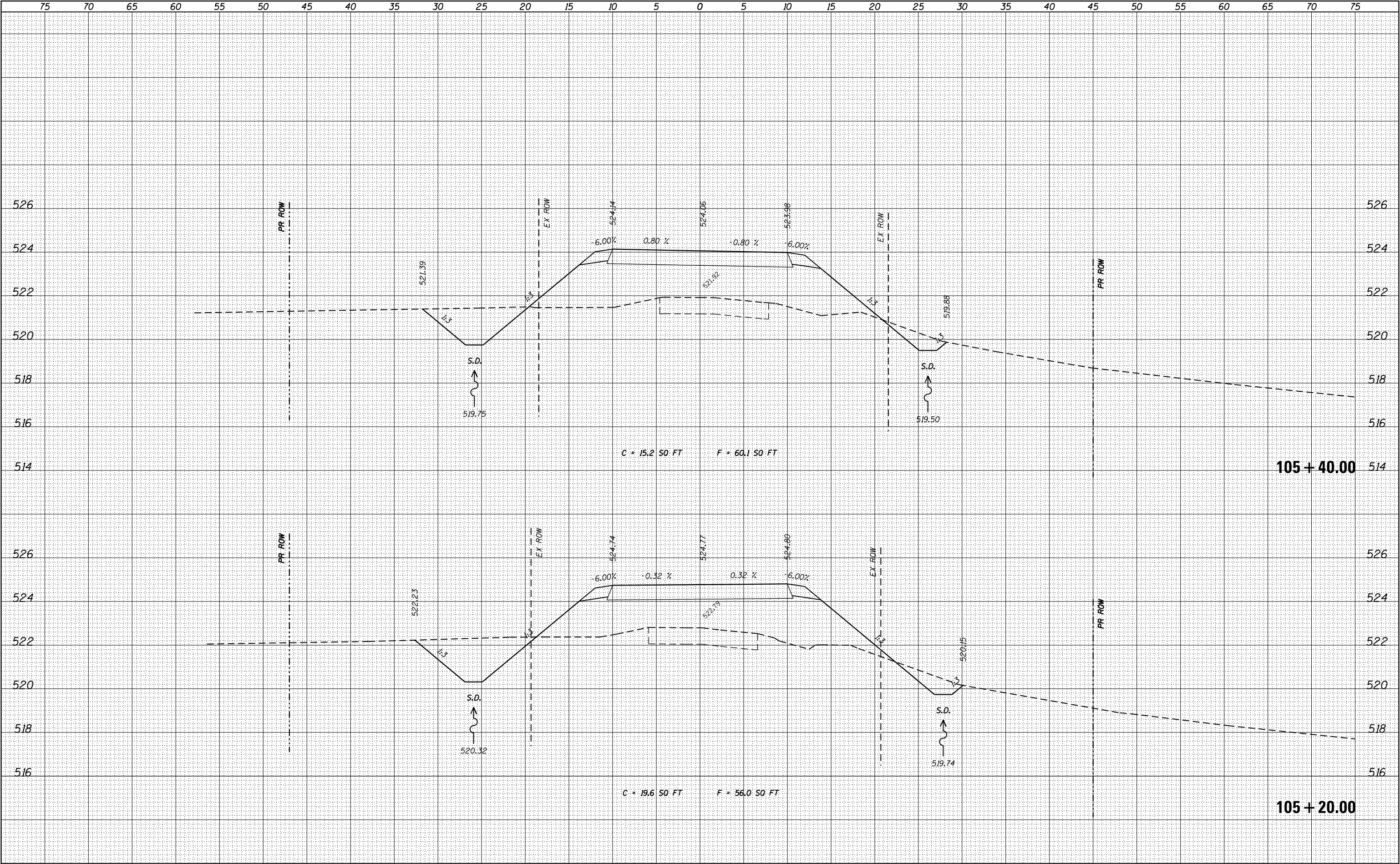
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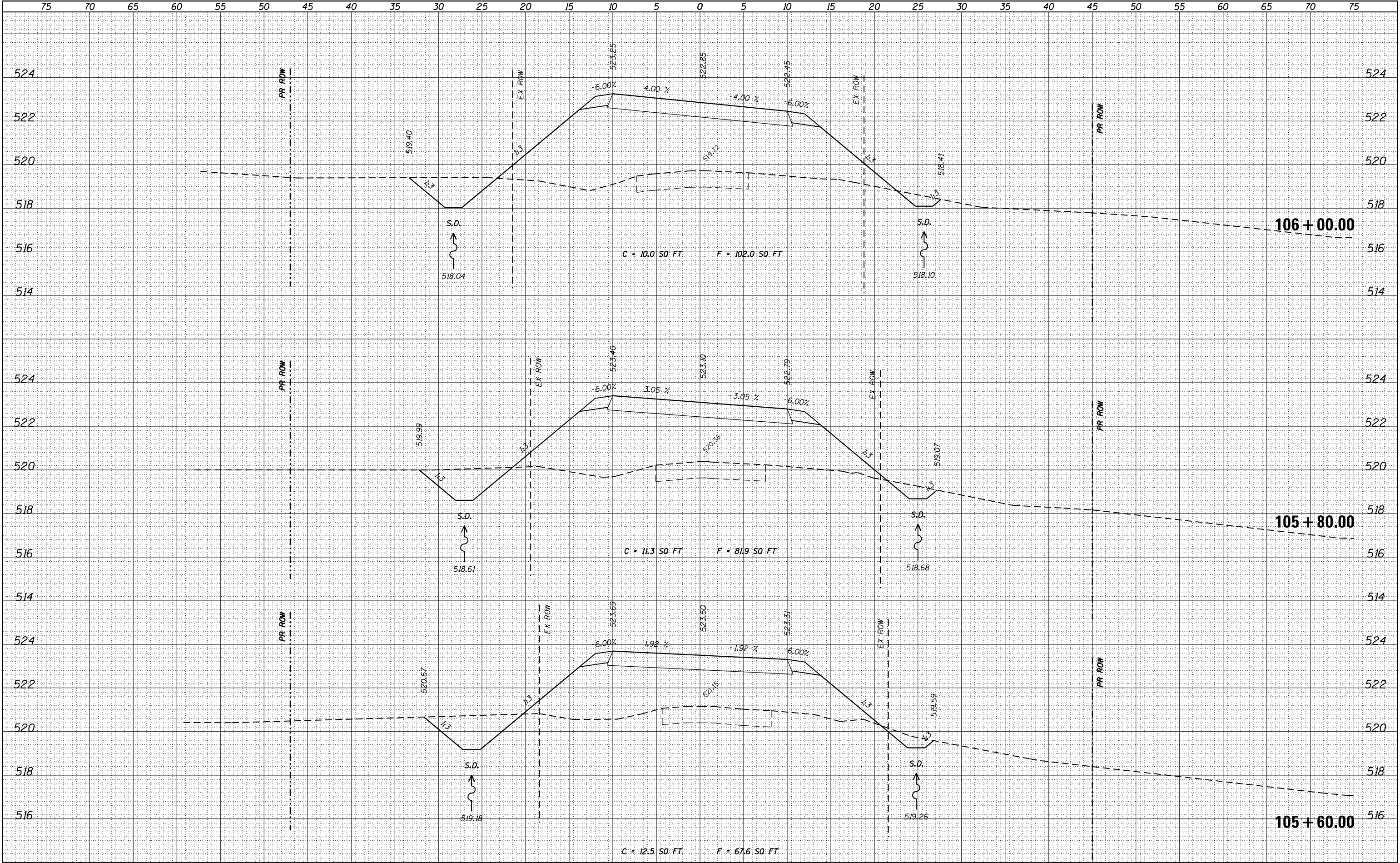
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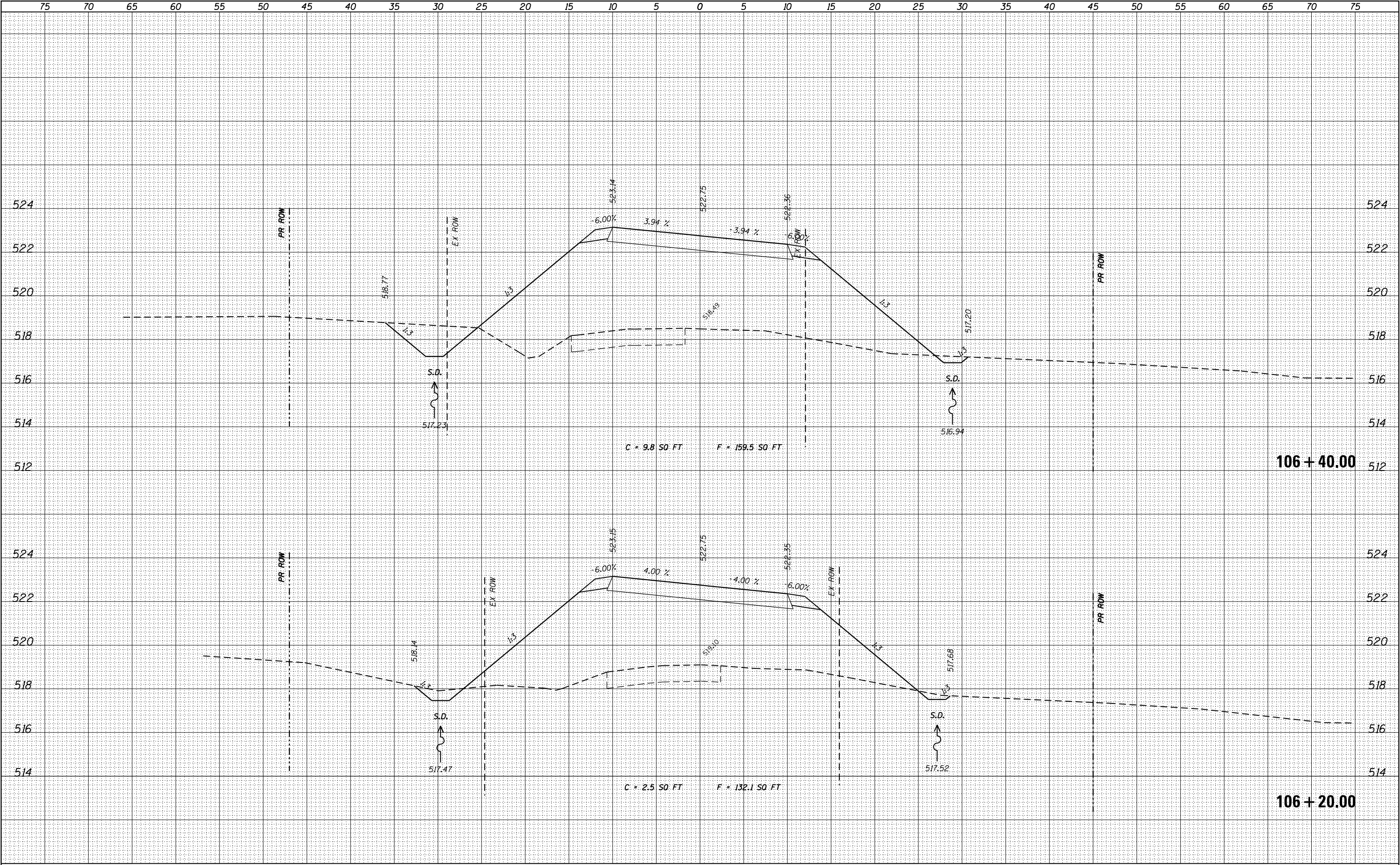
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| FILE NAME = H:\6182\CADD_Sheets\6182_SHT_XS_10420-11220.dgn                                                                                           |  |  |  | DESIGNED -                   |  | REVISED - |  | STATE OF ILLINOIS<br>DEPARTMENT OF TRANSPORTATION |  |                       |  |                                  |  |  |  |  |  | CROSS SECTIONS |  |  |  |  |  |  |  |  |  | TR        | SECTION |                           | COUNTY         | TOTAL SHEETS | SHEET NO. |  |    |    |
| <div>HMG</div> <div>HMG ENGINEERS, INC.<br/>9360 HOLY CROSS LANE<br/>BREESE, ILLINOIS 62230<br/>(618) 526-9611</div> <div>Engineers • Surveyors</div> |  |  |  | USER NAME = kschwierjohn     |  | DRAWN -   |  |                                                   |  |                       |  |                                  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  | REVISED - |         | 82                        | 08-08127-00-BR |              | BOND      |  | 55 | 41 |
|                                                                                                                                                       |  |  |  | PLOT SCALE = 10.0000 ' / in. |  | CHECKED - |  |                                                   |  |                       |  |                                  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  | REVISED - |         | CONTRACT NO. 97676        |                |              |           |  |    |    |
|                                                                                                                                                       |  |  |  | PLOT DATE = 3/30/2018        |  | DATE -    |  |                                                   |  |                       |  |                                  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  | REVISED - |         | ILLINOIS FED. AID PROJECT |                |              |           |  |    |    |
|                                                                                                                                                       |  |  |  |                              |  |           |  | SCALE:                                            |  | SHEET 13 OF 27 SHEETS |  | STA. 105+60.00 TO STA. 106+00.00 |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |           |         |                           |                |              |           |  |    |    |

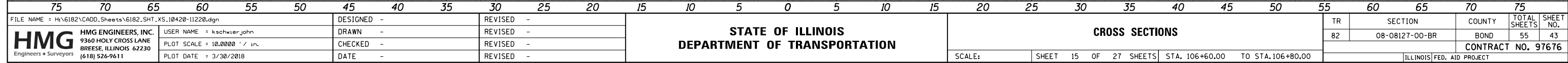
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|                                                             |                                                                                         |                          |           |                                                   |                                 |    |                |      |    |    |         |        |              |           |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------|--------------------------|-----------|---------------------------------------------------|---------------------------------|----|----------------|------|----|----|---------|--------|--------------|-----------|
| FILE NAME = H:\6182\CADD_Sheets\6182_SHT_XS_10420-11220.dgn |                                                                                         | DESIGNED -               | REVISED - | STATE OF ILLINOIS<br>DEPARTMENT OF TRANSPORTATION | CROSS SECTIONS                  |    |                |      |    | TR | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| <div>HMG</div> <div>Engineers • Surveyors</div>             | HMG ENGINEERS, INC.<br>9360 HOLY CROSS LANE<br>BREESE, ILLINOIS 62230<br>(618) 526-9611 | USER NAME = kschwierjohn | DRAWN -   |                                                   | REVISED -                       | 82 | 08-08127-00-BR | BOND | 55 | 42 |         |        |              |           |
|                                                             | PLOT SCALE = 10.0000' / in.                                                             | CHECKED -                | REVISED - |                                                   | CONTRACT NO. 97676              |    |                |      |    |    |         |        |              |           |
|                                                             | PLOT DATE = 3/30/2018                                                                   | DATE -                   | REVISED - |                                                   | ILLINOIS FED. AID PROJECT       |    |                |      |    |    |         |        |              |           |
| SCALE:                                                      |                                                                                         | SHEET 14 OF 27 SHEETS    |           |                                                   | STA. 106+20.00 TO STA.106+40.00 |    |                |      |    |    |         |        |              |           |

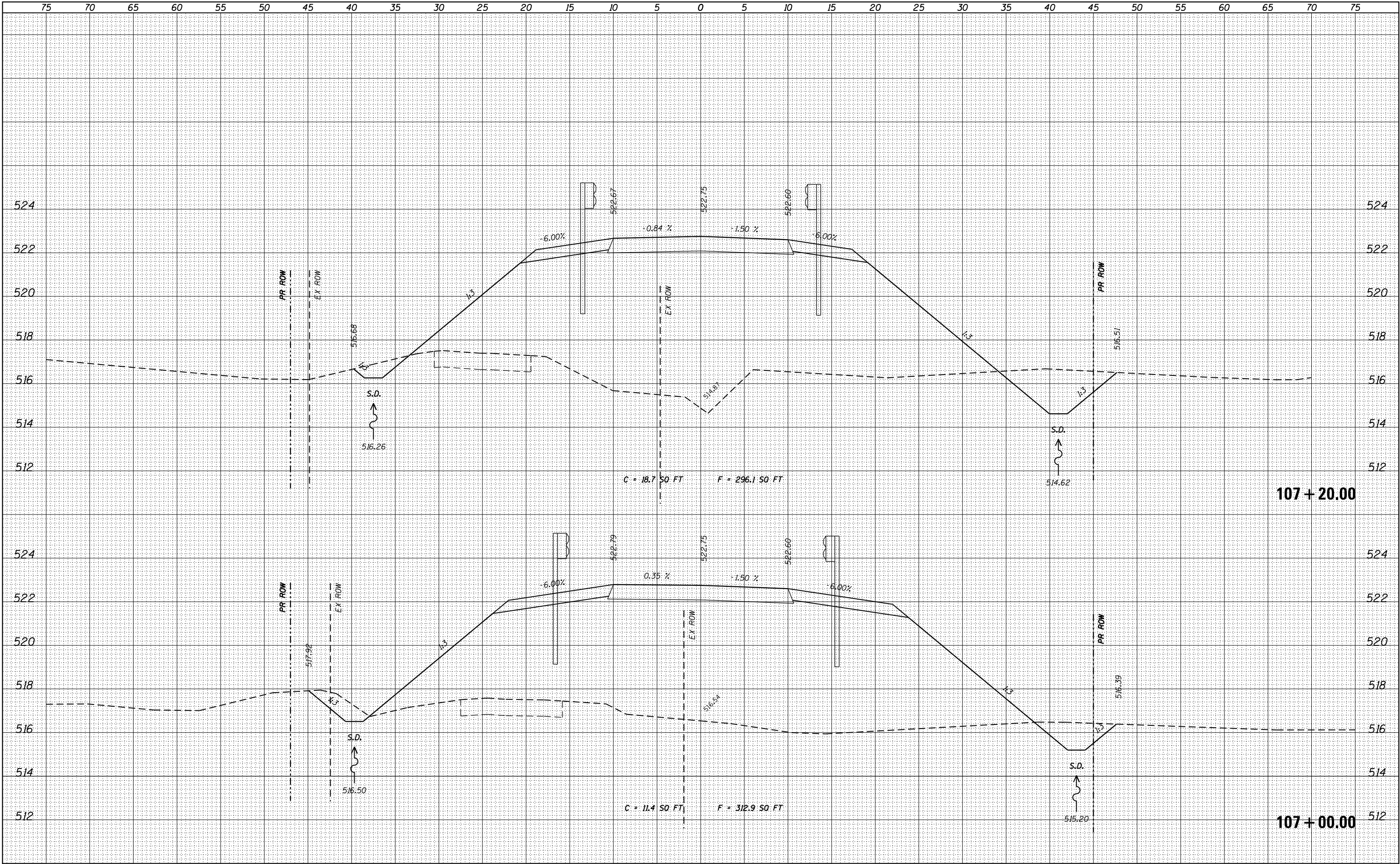
|           |               |    |      |
|-----------|---------------|----|------|
| ORIGINAL  |               | BY | DATE |
| SURVEY    | SURVEYED      |    |      |
|           | PLOTTED       |    |      |
| NOTE BOOK | TEMPLATE      |    |      |
|           | AREAS         |    |      |
| NO.       | AREAS CHECKED |    |      |



|          |                |                    |    |    |
|----------|----------------|--------------------|----|----|
| 82       | 08-08127-00-BR | BOND               | 55 | 43 |
|          |                | CONTRACT NO. 97676 |    |    |
| ILLINOIS |                | FED. AID PROJECT   |    |    |

|           |               |    |      |
|-----------|---------------|----|------|
| FINAL     | SURVEYED      | BY | DATE |
| SURVEY    | PLOTTED       |    |      |
| NOTE BOOK | TEMPLATE      |    |      |
| NO.       | AREAS CHECKED |    |      |

|           |               |    |      |
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| ORIGINAL  | SURVEYED      | BY | DATE |
| SURVEY    | PLOTTED       |    |      |
| NOTE BOOK | TEMPLATE      |    |      |
| NO.       | AREAS CHECKED |    |      |



|                                                                                         |                          |          |                           |                |        |              |           |
|-----------------------------------------------------------------------------------------|--------------------------|----------|---------------------------|----------------|--------|--------------|-----------|
| FILE NAME = H:\6182\CADD_Sheets\6182_SHT_XS_10420-11220.dgn                             | DESIGNED -               | REVISD - | TR                        | SECTION        | COUNTY | TOTAL SHEETS | SHEET NO. |
| HMG ENGINEERS, INC.<br>9360 HOLY CROSS LANE<br>BREESE, ILLINOIS 62230<br>(618) 526-9611 | USER NAME = kschwierjohn | REVISD - | 82                        | 08-08127-00-BR | BOND   | 55           | 44        |
| PLOT SCALE = 10.0000' / in.                                                             | CHECKED -                | REVISD - | CONTRACT NO. 97676        |                |        |              |           |
| PLOT DATE = 3/30/2018                                                                   | DATE -                   | REVISD - | ILLINOIS FED. AID PROJECT |                |        |              |           |

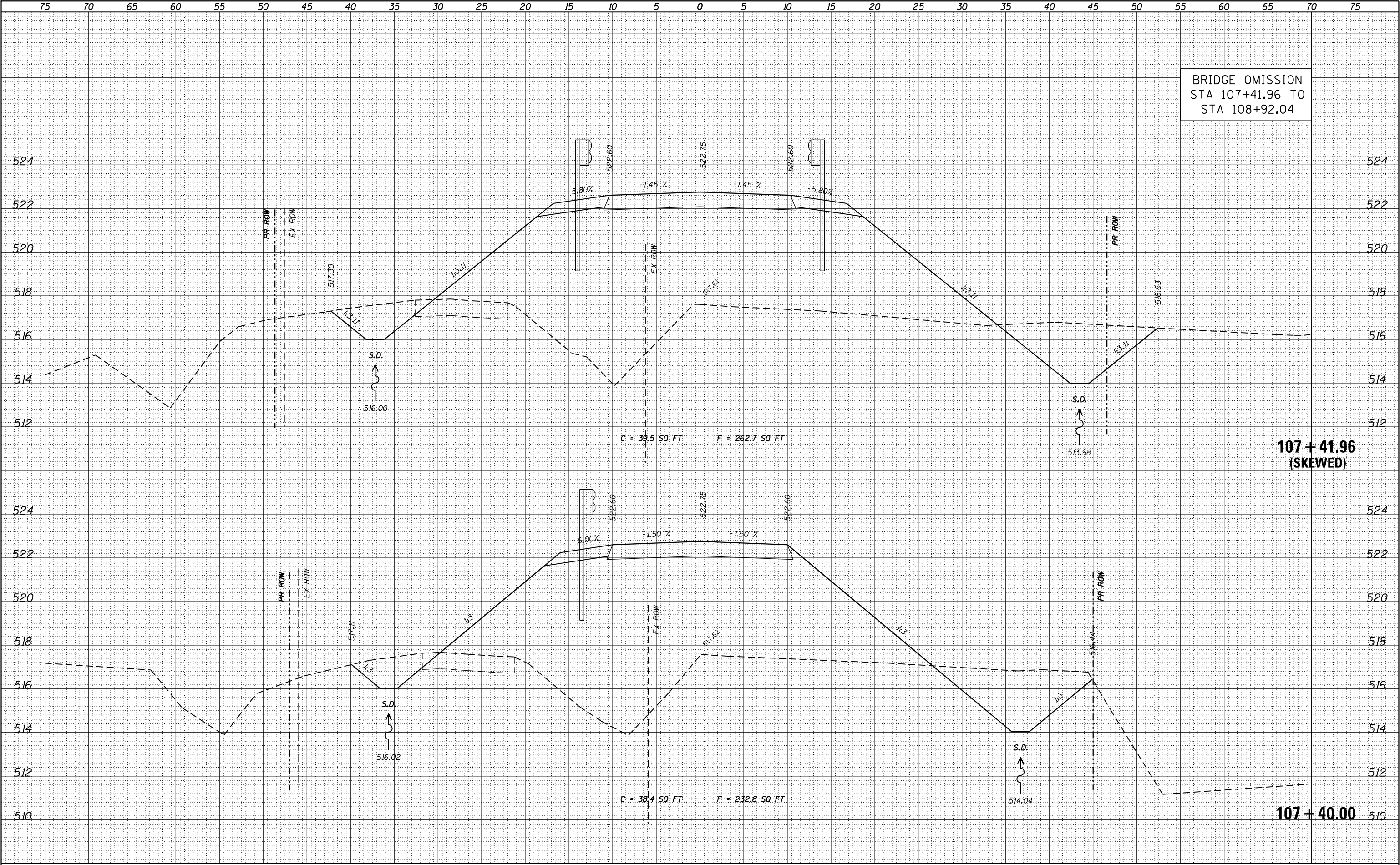
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

SCALE: SHEET 16 OF 27 SHEETS STA. 107+00.00 TO STA.107+20.00

|        |    |          |         |           |               |
|--------|----|----------|---------|-----------|---------------|
| DATE   | BY | SURVEYED | PLOTTED | NOTE BOOK | AREAS CHECKED |
|        |    |          |         |           |               |
| FINAL  |    |          |         |           |               |
| SURVEY |    |          |         |           |               |
| NO.    |    |          |         |           |               |

|          |    |          |         |           |               |
|----------|----|----------|---------|-----------|---------------|
| DATE     | BY | SURVEYED | PLOTTED | NOTE BOOK | AREAS CHECKED |
|          |    |          |         |           |               |
| ORIGINAL |    |          |         |           |               |
| SURVEY   |    |          |         |           |               |
| NO.      |    |          |         |           |               |



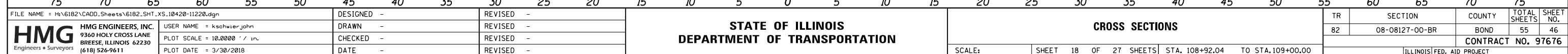
BRIDGE OMISSION  
STA 107+41.96 TO  
STA 108+92.04

107 + 41.96  
(SKEWED)

107 + 40.00

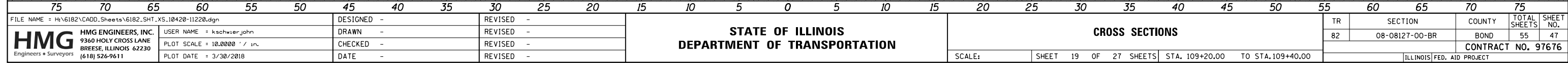
|                                                                                         |                           |          |                           |                       |                                 |              |           |
|-----------------------------------------------------------------------------------------|---------------------------|----------|---------------------------|-----------------------|---------------------------------|--------------|-----------|
| FILE NAME = H:\6182\CADD_Sheets\6182_SHT_XS_10420-11220.dgn                             | DESIGNED -                | REVISD - | TR                        | SECTION               | COUNTY                          | TOTAL SHEETS | SHEET NO. |
| HMG ENGINEERS, INC.<br>9360 HOLY CROSS LANE<br>BREESE, ILLINOIS 62230<br>(618) 526-9611 | USER NAME = kschwartzjohn | REVISD - | 82                        | 08-08127-00-BR        | BOND                            | 55           | 45        |
| PLOT SCALE = 10.0000' / in.                                                             | CHECKED -                 | REVISD - | CONTRACT NO. 97676        |                       |                                 |              |           |
| PLOT DATE = 3/30/2018                                                                   | DATE -                    | REVISD - | ILLINOIS FED. AID PROJECT |                       |                                 |              |           |
| STATE OF ILLINOIS<br>DEPARTMENT OF TRANSPORTATION                                       |                           |          | CROSS SECTIONS            |                       |                                 |              |           |
|                                                                                         |                           |          | SCALE:                    | SHEET 17 OF 27 SHEETS | STA. 107+40.00 TO STA.107+41.96 |              |           |

|           |               |    |      |
|-----------|---------------|----|------|
| ORIGINAL  |               | BY | DATE |
| SURVEY    | SURVEYED      |    |      |
|           | PLOTTED       |    |      |
| NOTE BOOK | TEMPLATE      |    |      |
|           | AREAS         |    |      |
| NO.       | AREAS CHECKED |    |      |



|                                                                                                                                                                   |                             |            |           |                                                   |  |                       |  |                                  |  |  |  |  |    |                |        |              |           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|------------|-----------|---------------------------------------------------|--|-----------------------|--|----------------------------------|--|--|--|--|----|----------------|--------|--------------|-----------|
| FILE NAME = H:\6182\CADD_Sheets\6182_SHT_XS.10420-11220.dgn                                                                                                       |                             | DESIGNED - | REVISED - | STATE OF ILLINOIS<br>DEPARTMENT OF TRANSPORTATION |  |                       |  | CROSS SECTIONS                   |  |  |  |  | TR | SECTION        | COUNTY | TOTAL SHEETS | SHEET NO. |
| <div>HMG</div> <div>HMG ENGINEERS, INC.<br/>9360 HOLY CROSS LANE<br/>BREESE, ILLINOIS 62230<br/>(618) 526-9611<br/><small>Engineers &amp; Surveyors</small></div> | USER NAME = kschwier.john   | DRAWN -    | REVISED - |                                                   |  |                       |  |                                  |  |  |  |  | 82 | 08-08127-00-BR | BOND   | 55           | 46        |
|                                                                                                                                                                   | PLOT SCALE = 10.0000' / in. | CHECKED -  | REVISED - |                                                   |  |                       |  | CONTRACT NO. 97676               |  |  |  |  |    |                |        |              |           |
|                                                                                                                                                                   | PLOT DATE = 3/30/2018       | DATE -     | REVISED - |                                                   |  |                       |  | ILLINOIS FED. AID PROJECT        |  |  |  |  |    |                |        |              |           |
|                                                                                                                                                                   |                             |            |           | SCALE:                                            |  | SHEET 18 OF 27 SHEETS |  | STA. 108+92.04 TO STA. 109+00.00 |  |  |  |  |    |                |        |              |           |

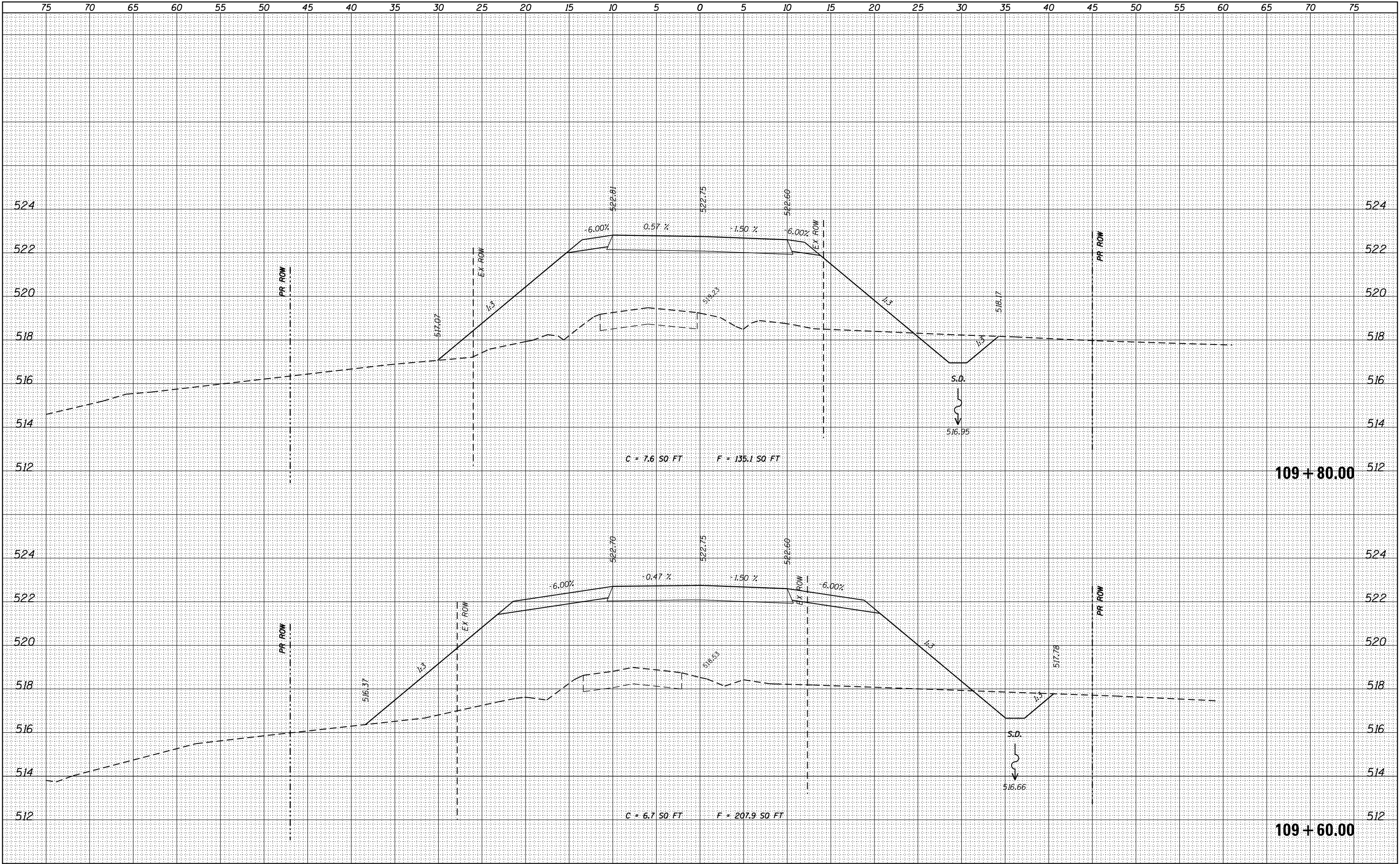
|           |               |    |      |
|-----------|---------------|----|------|
| ORIGINAL  |               | BY | DATE |
| SURVEY    | SURVEYED      |    |      |
|           | PLOTTED       |    |      |
| NOTE BOOK | TEMPLATE      |    |      |
|           | AREAS         |    |      |
| NO.       | AREAS CHECKED |    |      |



|                                                                                                                                                |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |  |  |  |  |  |  |  |           |  |  |  |  |  |  |  |  |  |  |  |                                                   |  |  |  |  |  |  |  |  |  |  |  |                       |  |  |  |  |  |  |  |  |  |  |  |                                  |  |  |  |  |  |  |  |  |  |  |  |                           |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |           |  |         |  |  |  |  |  |  |  |  |  |                    |  |                |  |  |  |  |  |  |  |  |  |   |  |              |  |  |  |  |  |  |  |  |  |   |  |           |  |  |  |  |  |  |  |  |  |   |  |    |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|--|--|--|------------------------------|--|--|--|--|--|--|--|--|--|--|--|-----------|--|--|--|--|--|--|--|--|--|--|--|---------------------------------------------------|--|--|--|--|--|--|--|--|--|--|--|-----------------------|--|--|--|--|--|--|--|--|--|--|--|----------------------------------|--|--|--|--|--|--|--|--|--|--|--|---------------------------|--|--|--|--|--|--|--|--|--|--|--|----------------|--|--|--|--|--|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|--|--|--|-----------|--|---------|--|--|--|--|--|--|--|--|--|--------------------|--|----------------|--|--|--|--|--|--|--|--|--|---|--|--------------|--|--|--|--|--|--|--|--|--|---|--|-----------|--|--|--|--|--|--|--|--|--|---|--|----|--|--|--|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|--|--|--|
| 75                                                                                                                                             |  |  |  |  |  |  |  |  |  |  |  | 70 |  |  |  |  |  |  |  |  |  |  |  | 65                           |  |  |  |  |  |  |  |  |  |  |  | 60        |  |  |  |  |  |  |  |  |  |  |  | 55                                                |  |  |  |  |  |  |  |  |  |  |  | 50                    |  |  |  |  |  |  |  |  |  |  |  | 45                               |  |  |  |  |  |  |  |  |  |  |  | 40                        |  |  |  |  |  |  |  |  |  |  |  | 35             |  |  |  |  |  |  |  |  |  |  |  | 30 |  |  |  |  |  |  |  |  |  |  |  | 25 |  |  |  |  |  |  |  |  |  |  |  | 20 |  |  |  |  |  |  |  |  |  |  |  | 15        |  |         |  |  |  |  |  |  |  |  |  | 10                 |  |                |  |  |  |  |  |  |  |  |  | 5 |  |              |  |  |  |  |  |  |  |  |  | 0 |  |           |  |  |  |  |  |  |  |  |  | 5 |  |    |  |  |  |  |  |  |  |  |  | 10 |  |  |  |  |  |  |  |  |  |  |  | 15 |  |  |  |  |  |  |  |  |  |  |  | 20 |  |  |  |  |  |  |  |  |  |  |  | 25 |  |  |  |  |  |  |  |  |  |  |  | 30 |  |  |  |  |  |  |  |  |  |  |  | 35 |  |  |  |  |  |  |  |  |  |  |  | 40 |  |  |  |  |  |  |  |  |  |  |  | 45 |  |  |  |  |  |  |  |  |  |  |  | 50 |  |  |  |  |  |  |  |  |  |  |  | 55 |  |  |  |  |  |  |  |  |  |  |  | 60 |  |  |  |  |  |  |  |  |  |  |  | 65 |  |  |  |  |  |  |  |  |  |  |  | 70 |  |  |  |  |  |  |  |  |  |  |  | 75 |  |  |  |  |  |  |  |  |  |  |  |
| FILE NAME = H:\6182\CADD_Sheets\6182_SHT_XS_10420-11220.dgn                                                                                    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  | DESIGNED -                   |  |  |  |  |  |  |  |  |  |  |  | REVISED - |  |  |  |  |  |  |  |  |  |  |  | STATE OF ILLINOIS<br>DEPARTMENT OF TRANSPORTATION |  |  |  |  |  |  |  |  |  |  |  |                       |  |  |  |  |  |  |  |  |  |  |  |                                  |  |  |  |  |  |  |  |  |  |  |  |                           |  |  |  |  |  |  |  |  |  |  |  | CROSS SECTIONS |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  | TR        |  | SECTION |  |  |  |  |  |  |  |  |  |                    |  | COUNTY         |  |  |  |  |  |  |  |  |  |   |  | TOTAL SHEETS |  |  |  |  |  |  |  |  |  |   |  | SHEET NO. |  |  |  |  |  |  |  |  |  |   |  |    |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |
| <div>HMG</div> <div>HMG ENGINEERS, INC.<br/>9360 HOLY CROSS LANE<br/>BREESE, ILLINOIS 62230<br/>(618) 526-9611<br/>Engineers • Surveyors</div> |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  | USER NAME = kschwiler.john   |  |  |  |  |  |  |  |  |  |  |  | DRAWN -   |  |  |  |  |  |  |  |  |  |  |  |                                                   |  |  |  |  |  |  |  |  |  |  |  |                       |  |  |  |  |  |  |  |  |  |  |  |                                  |  |  |  |  |  |  |  |  |  |  |  |                           |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  | REVISED - |  |         |  |  |  |  |  |  |  |  |  | 82                 |  | 08-08127-00-BR |  |  |  |  |  |  |  |  |  |   |  | BOND         |  |  |  |  |  |  |  |  |  |   |  | 55        |  |  |  |  |  |  |  |  |  |   |  | 47 |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  | PLOT SCALE = 10.0000' / 1in. |  |  |  |  |  |  |  |  |  |  |  | CHECKED - |  |  |  |  |  |  |  |  |  |  |  |                                                   |  |  |  |  |  |  |  |  |  |  |  |                       |  |  |  |  |  |  |  |  |  |  |  |                                  |  |  |  |  |  |  |  |  |  |  |  |                           |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  | REVISED - |  |         |  |  |  |  |  |  |  |  |  | CONTRACT NO. 97676 |  |                |  |  |  |  |  |  |  |  |  |   |  |              |  |  |  |  |  |  |  |  |  |   |  |           |  |  |  |  |  |  |  |  |  |   |  |    |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  | PLOT DATE = 3/30/2018        |  |  |  |  |  |  |  |  |  |  |  | DATE -    |  |  |  |  |  |  |  |  |  |  |  |                                                   |  |  |  |  |  |  |  |  |  |  |  |                       |  |  |  |  |  |  |  |  |  |  |  |                                  |  |  |  |  |  |  |  |  |  |  |  |                           |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  | REVISED - |  |         |  |  |  |  |  |  |  |  |  |                    |  |                |  |  |  |  |  |  |  |  |  |   |  |              |  |  |  |  |  |  |  |  |  |   |  |           |  |  |  |  |  |  |  |  |  |   |  |    |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |  |  |  |
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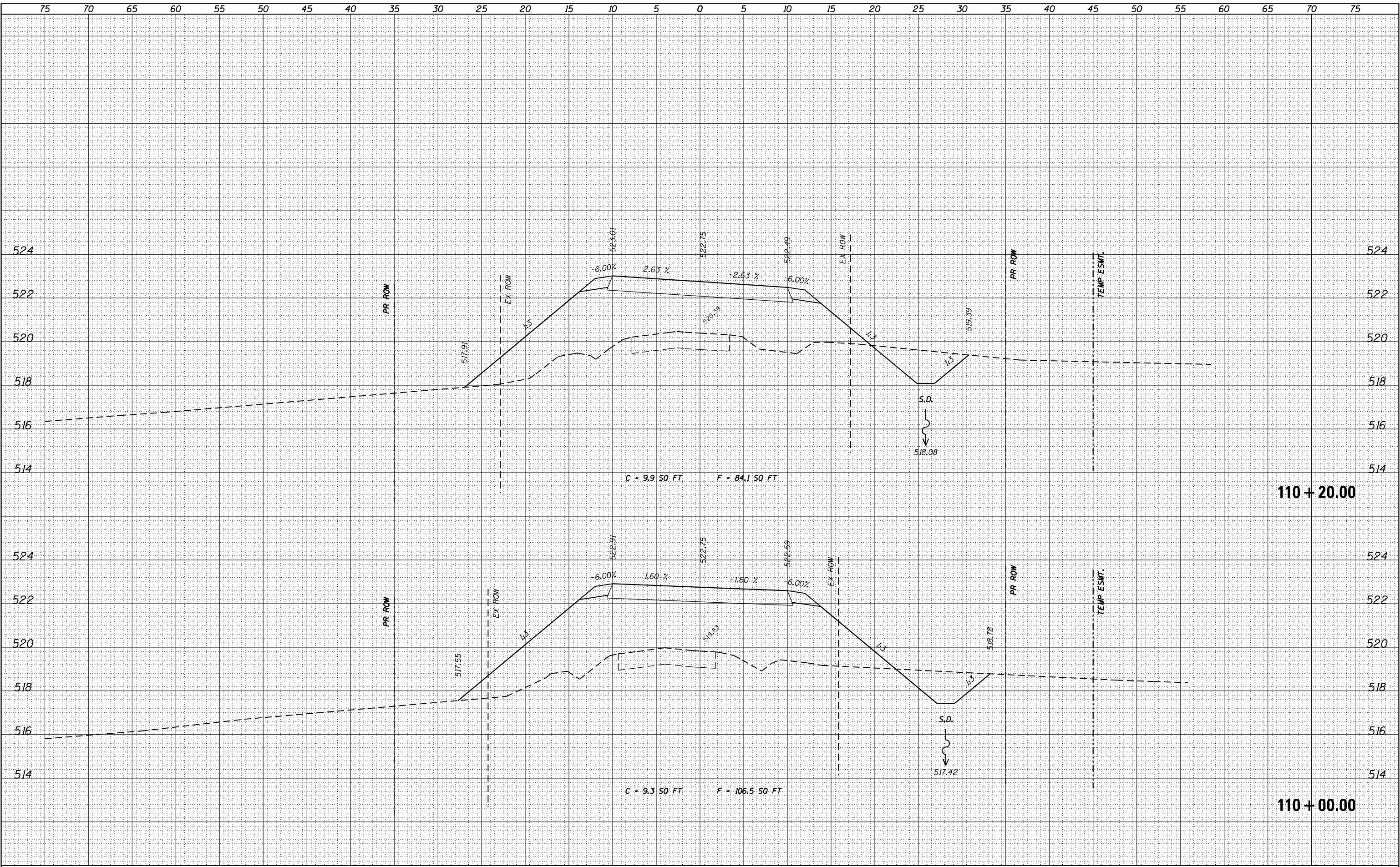
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| ORIGINAL  | SURVEYED      | BY | DATE |
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|                                                                                                                                                       |  |                             |  |           |  |                                                   |  |                                 |  |  |  |                |  |                           |                |  |  |    |         |  |        |              |           |
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| FILE NAME = H:\6182\CADD_Sheets\6182_SHT_XS_10420-11220.dgn                                                                                           |  | DESIGNED -                  |  | REVISED - |  | STATE OF ILLINOIS<br>DEPARTMENT OF TRANSPORTATION |  |                                 |  |  |  | CROSS SECTIONS |  |                           |                |  |  | TR | SECTION |  | COUNTY | TOTAL SHEETS | SHEET NO. |
| <div>HMG</div> <div>Engineers • Surveyors</div> <div>HMG ENGINEERS, INC.<br/>9360 HOLY CROSS LANE<br/>BREESE, ILLINOIS 62230<br/>(618) 526-9611</div> |  | USER NAME = kschwierjohn    |  | DRAWN -   |  |                                                   |  |                                 |  |  |  | REVISED -      |  | 82                        | 08-08127-00-BR |  |  |    | BOND    |  | 55     | 48           |           |
|                                                                                                                                                       |  | PLOT SCALE = 10.0000' / in. |  | CHECKED - |  |                                                   |  |                                 |  |  |  | REVISED -      |  | CONTRACT NO. 97676        |                |  |  |    |         |  |        |              |           |
|                                                                                                                                                       |  | PLOT DATE = 3/30/2018       |  | DATE -    |  |                                                   |  |                                 |  |  |  | REVISED -      |  | ILLINOIS FED. AID PROJECT |                |  |  |    |         |  |        |              |           |
| SCALE:                                                                                                                                                |  |                             |  |           |  | SHEET 20 OF 27 SHEETS                             |  | STA. 109+60.00 TO STA.109+80.00 |  |  |  |                |  |                           |                |  |  |    |         |  |        |              |           |

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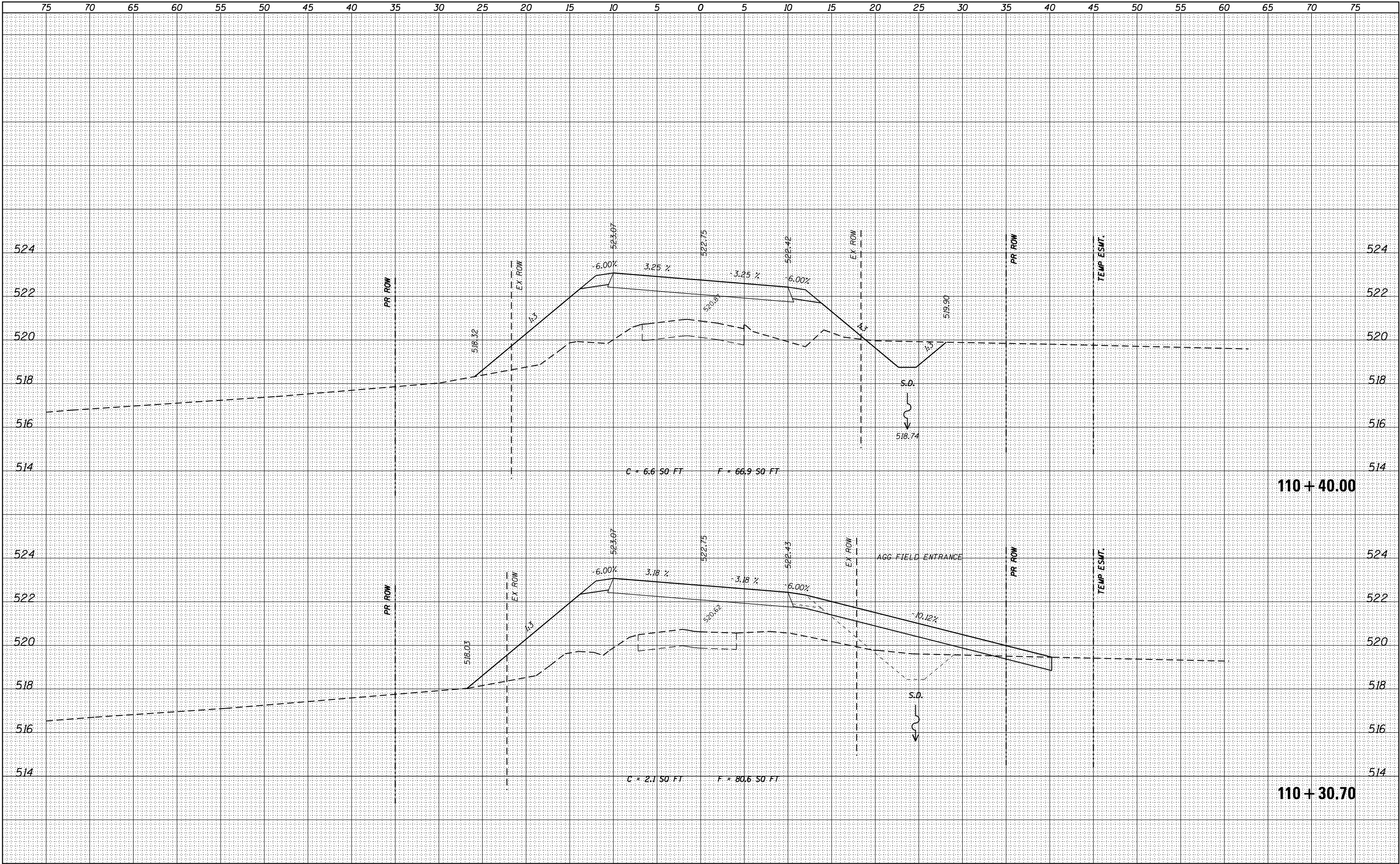
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| NOTE BOOK | TEMPLATE |         |      |
| NO.       | AREAS    | CHECKED | 81   |



|                                                             |                                                                                         |                          |           |                                                   |                |  |  |  |  |                           |         |                |              |           |    |
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| <div>HMG</div> <div>Engineers • Surveyors</div>             | HMG ENGINEERS, INC.<br>9360 HOLY CROSS LANE<br>BREESE, ILLINOIS 62230<br>(618) 526-9611 | USER NAME = kschwierjohn | DRAWN -   |                                                   |                |  |  |  |  | REVISED -                 | 82      | 08-08127-00-BR | BOND         | 55        | 49 |
|                                                             | PLOT SCALE = 10.0000' / in.                                                             | CHECKED -                | REVISED - |                                                   |                |  |  |  |  | CONTRACT NO. 97676        |         |                |              |           |    |
|                                                             | PLOT DATE = 3/30/2018                                                                   | DATE -                   | REVISED - |                                                   |                |  |  |  |  | ILLINOIS FED. AID PROJECT |         |                |              |           |    |
|                                                             | SCALE: SHEET 21 OF 27 SHEETS STA. 110+00.00 TO STA.110+20.00                            |                          |           |                                                   |                |  |  |  |  |                           |         |                |              |           |    |

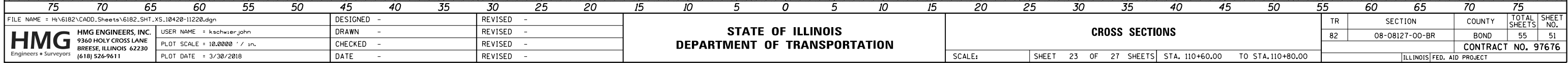
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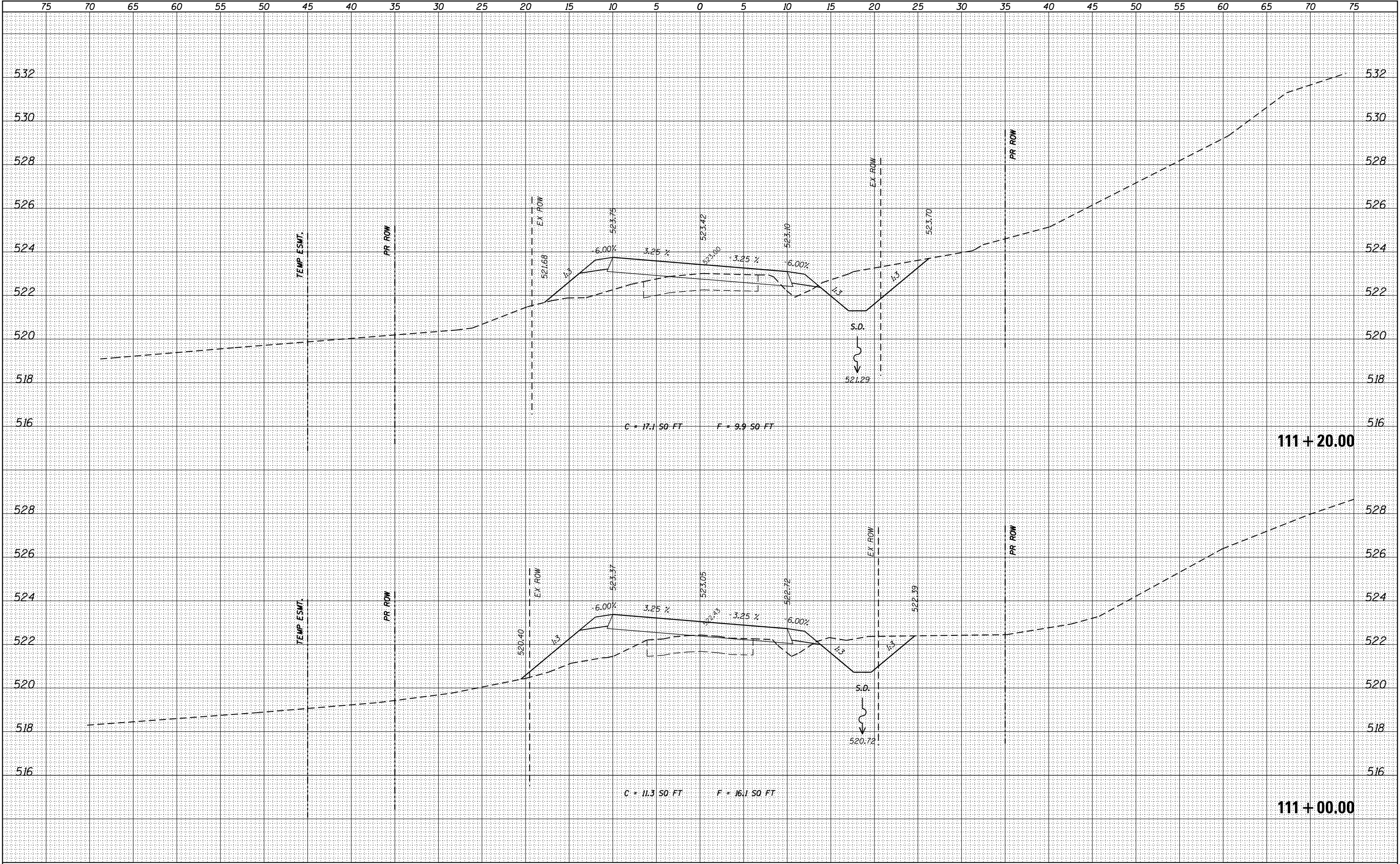
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| <div>HMG</div> <div>HMG ENGINEERS, INC.<br/>9360 HOLY CROSS LANE<br/>BREESE, ILLINOIS 62230<br/>(618) 526-9611</div> <div>Engineers • Surveyors</div> | USER NAME = kschwierjohn                                      | DRAWN -    | REVISED - |                                                   |                | 82                        | 08-08127-00-BR | BOND   | 55           | 50        |  |
|                                                                                                                                                       | PLOT SCALE = 10.0000 ' / in.                                  | CHECKED -  | REVISED - |                                                   |                | CONTRACT NO. 97676        |                |        |              |           |  |
|                                                                                                                                                       | PLOT DATE = 3/30/2018                                         | DATE -     | REVISED - |                                                   |                | ILLINOIS FED. AID PROJECT |                |        |              |           |  |
|                                                                                                                                                       | SCALE: SHEET 22 OF 27 SHEETS STA. 110+30.70 TO STA. 110+40.00 |            |           |                                                   |                |                           |                |        |              |           |  |

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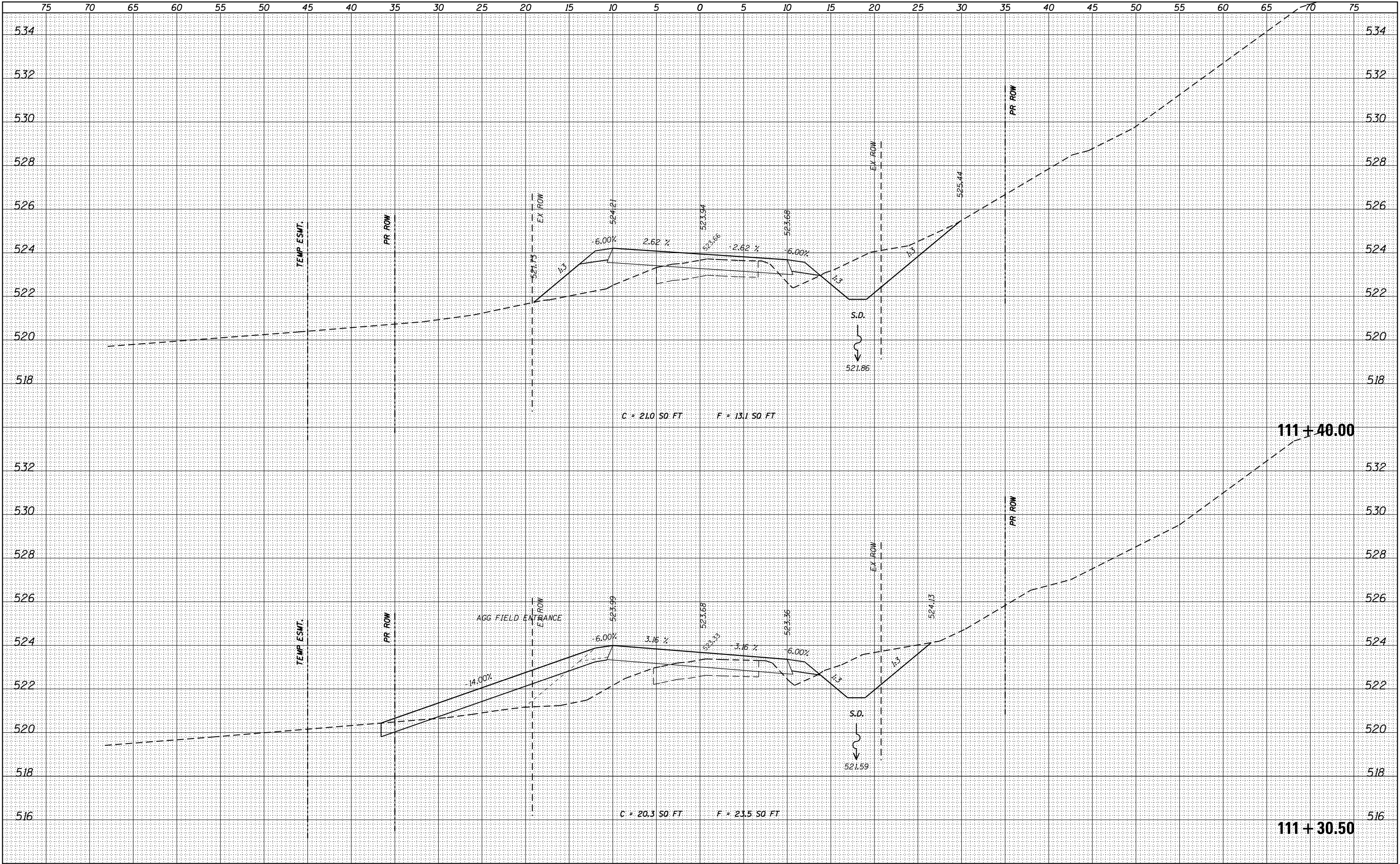
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|                                                                                                                                                       |  |                              |  |           |  |                                                   |  |        |  |                       |                |                                  |                           |                |  |      |         |    |        |              |           |
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| FILE NAME = H:\6182\CADD_Sheets\6182_SHT_XS_10420-11220.dgn                                                                                           |  | DESIGNED -                   |  | REVISED - |  | STATE OF ILLINOIS<br>DEPARTMENT OF TRANSPORTATION |  |        |  |                       | CROSS SECTIONS |                                  |                           |                |  | TR   | SECTION |    | COUNTY | TOTAL SHEETS | SHEET NO. |
| <div>HMG</div> <div>Engineers • Surveyors</div> <div>HMG ENGINEERS, INC.<br/>9360 HOLY CROSS LANE<br/>BREESE, ILLINOIS 62230<br/>(618) 526-9611</div> |  | USER NAME = kschwierjohn     |  | DRAWN -   |  |                                                   |  |        |  |                       | REVISED -      |                                  | 82                        | 08-08127-00-BR |  | BOND |         | 55 | 52     |              |           |
|                                                                                                                                                       |  | PLOT SCALE = 10.0000 ' / in. |  | CHECKED - |  |                                                   |  |        |  |                       | REVISED -      |                                  | CONTRACT NO. 97676        |                |  |      |         |    |        |              |           |
|                                                                                                                                                       |  | PLOT DATE = 3/30/2018        |  | DATE -    |  |                                                   |  |        |  |                       | REVISED -      |                                  | ILLINOIS FED. AID PROJECT |                |  |      |         |    |        |              |           |
|                                                                                                                                                       |  |                              |  |           |  |                                                   |  | SCALE: |  | SHEET 24 OF 27 SHEETS |                | STA. 111+00.00 TO STA. 111+20.00 |                           |                |  |      |         |    |        |              |           |

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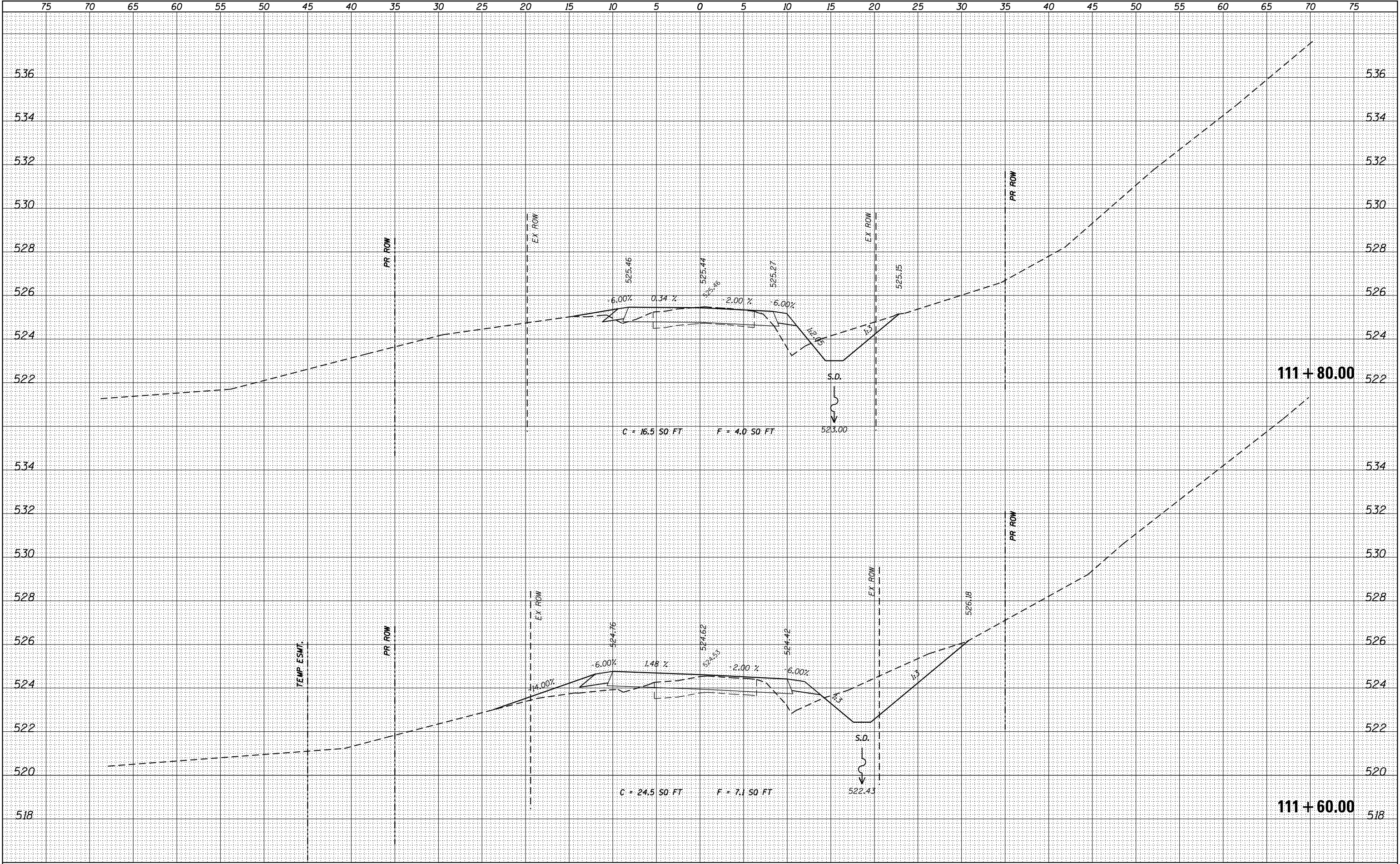
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| HMG ENGINEERS, INC.<br>9360 HOLY CROSS LANE<br>BREESE, ILLINOIS 62230<br>(618) 526-9611 | USER NAME = kschwierjohn | REvised - |                                                   |                |  | 82                        | 08-08127-00-BR | BOND   | 55           | 53        |
| PLOT SCALE = 10.0000' / in.                                                             | CHECKED -                | REvised - |                                                   |                |  | CONTRACT NO. 97676        |                |        |              |           |
| PLOT DATE = 3/30/2018                                                                   | DATE -                   | REvised - |                                                   |                |  | ILLINOIS FED. AID PROJECT |                |        |              |           |

**HMG**  
Engineers & Surveyors

SCALE: SHEET 25 OF 27 SHEETS STA. 111+30.50 TO STA. 111+40.00

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| NOTE BOOK | TEMPLATE      |    |      |
| NO.       | AREAS CHECKED |    |      |

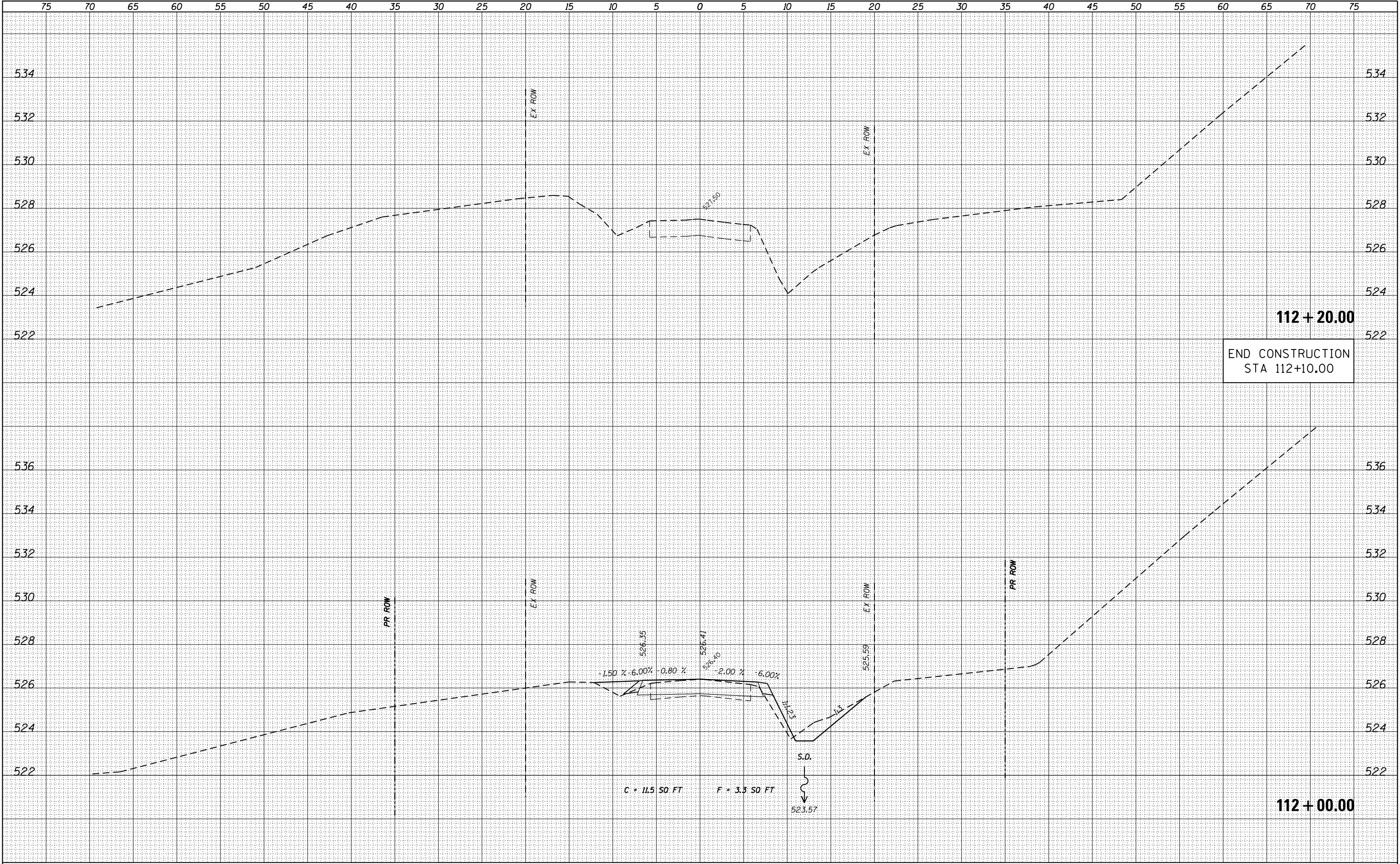
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| ORIGINAL  | SURVEYED      | BY | DATE |
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| NO.       | AREAS CHECKED |    |      |



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| <div>HMG</div> <div>HMG ENGINEERS, INC.<br/>9360 HOLY CROSS LANE<br/>BREESE, ILLINOIS 62230<br/>(618) 526-9611</div> <div>Engineers • Surveyors</div> |  | USER NAME = kschwierjohn     |  | DRAWN -   |  |                                                   |  |                                  |  |                |  |                    |  | REVISED -                 |         | 82 | 08-08127-00-BR |              | BOND      |
|                                                                                                                                                       |  | PLOT SCALE = 10.0000 ' / in. |  | CHECKED - |  |                                                   |  |                                  |  | REVISED -      |  | CONTRACT NO. 97676 |  |                           |         |    |                |              |           |
|                                                                                                                                                       |  | PLOT DATE = 3/30/2018        |  | DATE -    |  |                                                   |  |                                  |  | REVISED -      |  |                    |  |                           |         |    |                |              |           |
| SCALE:                                                                                                                                                |  |                              |  |           |  | SHEET 26 OF 27 SHEETS                             |  | STA. 111+60.00 TO STA. 111+80.00 |  |                |  |                    |  | ILLINOIS FED. AID PROJECT |         |    |                |              |           |

|           |               |    |      |
|-----------|---------------|----|------|
| FINAL     | SURVEYED      | BY | DATE |
| SURVEY    | PLOTTED       |    |      |
| NOTE BOOK | TEMPLATE      |    |      |
| NO.       | AREAS CHECKED |    |      |

|           |               |    |      |
|-----------|---------------|----|------|
| ORIGINAL  | SURVEYED      | BY | DATE |
| SURVEY    | PLOTTED       |    |      |
| NOTE BOOK | TEMPLATE      |    |      |
| NO.       | AREAS CHECKED |    |      |



|                                                                                                |                             |           |                                                   |                                  |  |                           |                |        |              |           |
|------------------------------------------------------------------------------------------------|-----------------------------|-----------|---------------------------------------------------|----------------------------------|--|---------------------------|----------------|--------|--------------|-----------|
| FILE NAME = H:\6182\CADD_Sheets\6182_SHT_XS_10420-11220.dgn                                    | DESIGNED -                  | REVISD -  | STATE OF ILLINOIS<br>DEPARTMENT OF TRANSPORTATION | CROSS SECTIONS                   |  | TR                        | SECTION        | COUNTY | TOTAL SHEETS | SHEET NO. |
| <b>HMG</b> ENGINEERS, INC.<br>9360 HOLY CROSS LANE<br>BREESE, ILLINOIS 62230<br>(618) 526-9611 | USER NAME = kschwierjohn    | DRAWN -   |                                                   | SCALE:                           |  | 82                        | 08-08127-00-BR | BOND   | 55           | 55        |
|                                                                                                | PLOT SCALE = 10.0000' / in. | CHECKED - |                                                   | SHEET 27 OF 27 SHEETS            |  | CONTRACT NO. 97676        |                |        |              |           |
|                                                                                                | PLOT DATE = 3/30/2018       | DATE -    |                                                   | STA. 112+00.00 TO STA. 112+20.00 |  | ILLINOIS FED. AID PROJECT |                |        |              |           |