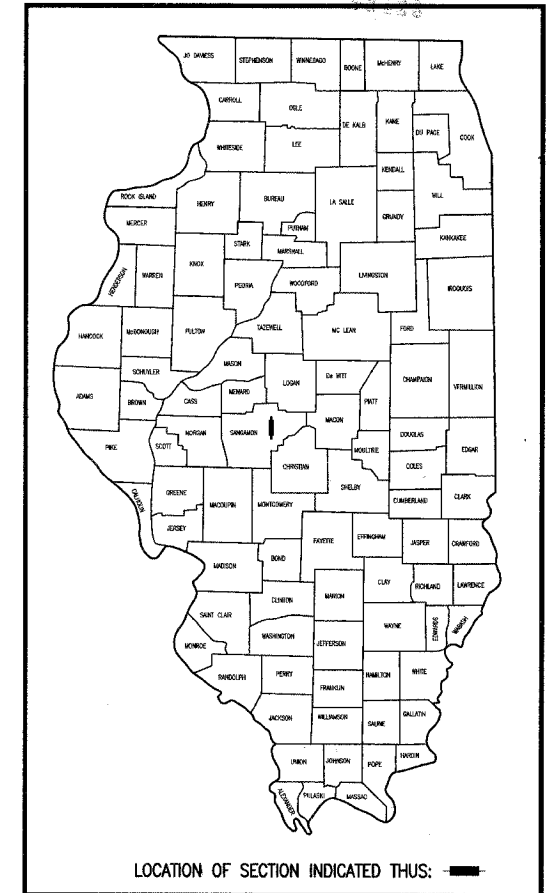


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
**PROPOSED HIGHWAY PLANS**  
**FAU ROUTE 8075 (CARDINAL HILL ROAD-C.H.37)**

SEE SHEET 2 FOR INDEX OF SHEETS,  
IDOT HIGHWAY STANDARDS AND GENERAL NOTES

SURFACE TRANSPORTATION/RURAL PROGRAM  
W/ HRRRP FUNDING  
SECTION 03-00167-04-FP  
PROJECT NO. HS-RS-167(46)  
SANGAMON COUNTY  
CARDINAL HILL ROAD (C.H. 37)  
C-96-244-06

| FAU RTE             | SECTION        | COUNTY   | TOTAL SHEETS | SHEET NO         |
|---------------------|----------------|----------|--------------|------------------|
| 8075                | 03-00167-04-FP | SANGAMON | 109          | 1                |
| STA.                |                | TO STA.  |              |                  |
| FED. ROAD DIST. NO. |                | ILLINOIS |              | FED. AID PROJECT |



LOCATION OF SECTION INDICATED THIS:     

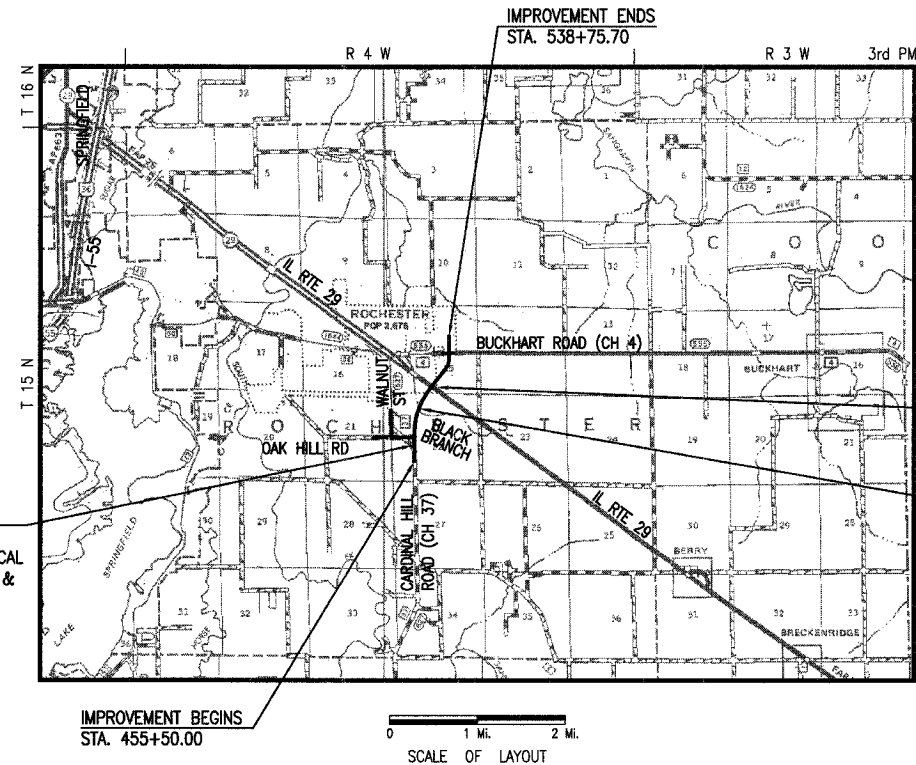
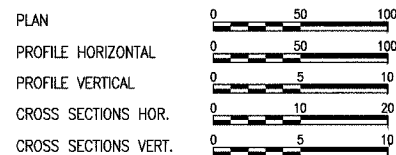
**TOLL FREE**  
JOINT UTILITY LOCATING INFORMATION FOR EXCAVATORS  
(J.U.L.I.E.) TELEPHONE NUMBER  
1-800-892-0123

|                                                                                                |                                                                                                               |
|------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| SBC<br>529 SOUTH SEVENTH ST., FLOOR 3B<br>SPRINGFIELD, IL 62703<br>TERESA MAYER 217-789-8686   | INSIGHT COMMUNICATIONS<br>711 SOUTH DIRKSEN PARKWAY<br>SPRINGFIELD, IL 62703<br>DON BRITTON 217-788-5898 x671 |
| AMEREN/CILCO<br>322 EAST CAPITAL AVENUE<br>SPRINGFIELD, IL 62701<br>KENT KOWALSKI 309-677-5371 | VILLAGE OF ROCHESTER<br>1 COMMUNITY DRIVE<br>ROCHESTER, IL 62563<br>WAYNE BECK 217-498-7062                   |
| McLEOD USA<br>102 EAST SHAFER STREET<br>FORSYTH, IL 62535<br>MARK MILLS 217-876-7194 x240      |                                                                                                               |

**UTILITY NOTE**

THE LOCATIONS OF THOSE BURIED AND ABOVEGROUND UTILITIES SHOWN ARE APPROXIMATE, ARE SHOWN FOR CONTRACTOR INFORMATIONAL USE ONLY, AND ARE NOT TO BE REFERENCED FOR CONSTRUCTION PURPOSES. THE IMPLIED PRESENCE OR ABSENCE OF UTILITIES IS NOT TO BE CONSTRUED BY THE OWNER, ENGINEER, CONTRACTOR, OR SUBCONTRACTORS TO BE AN ACCURATE AND COMPLETE REPRESENTATION OF UTILITIES THAT MAY OR MAY NOT EXIST ON THE CONSTRUCTION SITE. BURIED AND ABOVEGROUND UTILITY LOCATION, IDENTIFICATION, AND MARKING ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. REROUTING, DISCONNECTION, PROTECTION, ETC. OF ANY UTILITIES MUST BE COORDINATED BETWEEN THE CONTRACTOR, UTILITY COMPANY, AND OWNER. SITE SAFETY, INCLUDING THE AVOIDANCE OF HAZARDS ASSOCIATED WITH BURIED AND ABOVEGROUND UTILITIES, REMAIN THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

**SCALES**



PROPOSED IMPROVEMENT  
CONSTRUCT 1.6 MILES ON  
A NEW HORIZONTAL & VERTICAL  
ALIGNMENT, DRAINAGE ITEMS &  
OTHER ASSOCIATED WORK

PAVING OMISSION  
STA 499+67.05 TO  
STA 504+68.00

STA 484+47 SINGLE SPAN  
STEEL I-BEAM BRIDGE  
PROP. S.N. 084-3640

IMPROVEMENT BEGINS STA. 455+50.00

IMPROVEMENT ENDS STA. 538+75.70

|                    |                                  |                               |
|--------------------|----------------------------------|-------------------------------|
| LENGTH OF PROJECT: | CARDINAL HILL ROAD =             | 8325.70 ft = 1.577 mi         |
|                    | OAK HILL ROAD =                  | 1800.00 ft = 0.341 mi         |
|                    | WALNUT STREET =                  | 1100.00 ft = 0.208 mi         |
|                    | CARDINAL HILL ROAD DEGRADING =   | 1925.00 ft = 0.365 mi         |
|                    | BUCKHART ROAD =                  | 1455.00 ft = 0.276 mi         |
|                    | <b>TOTAL LENGTH OF PROJECT =</b> | <b>14605.70 ft = 2.766 mi</b> |

**HANSON**  
Hanson Professional Services Inc.  
1525 South Sixth Street, Springfield, IL 62703  
Registration No. 18-001084  
Phone: 217-788-2450 Fax: 217-788-2503  
© Copyright Hanson Professional Services Inc. 2006

DATE SIGNED: *Lisa D. Kramer*  
LIC. EXP. DATE: 11/30/2007

AGENCY RESPONSIBLE FOR LETTING

APPROVED: *July 21, 2006*  
COUNTY ENGINEER

PASSED: *7-27, Lisa Kramer*  
DISTRICT 6 ENGINEER LOCAL ROADS & STREETS

PASSED: *July 27th, Lisa Kramer*  
DISTRICT 6 ENGINEER OF CONSTRUCTION

RELEASING FOR BID BASED ON LIMITED REVIEW: *Christine M. Reed*  
DEPUTY DIRECTOR OF HIGHWAYS, REGION 4 ENGINEER

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DESIGN DESIGNATION: ADT = 4110 (26) DHV = 411 MINOR ARTERIAL 0.52(FD-20)  
DESIGN SPEED = 60 MPH (STA 455+50 TO STA 494+00 & STA 528+49.64 TO 538+75.70)  
= 45 MPH (STA 494+00 TO STA 528+49.64)

CONTRACT NO. 93423

| FAM. RFE.           | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO. |
|---------------------|----------------|------------------|--------------|-----------|
| 8075                | 03-00167-04-FP | SANGAMON         | 109          | 2         |
| STA.                |                | TO STA.          |              |           |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |           |

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| 64      | REINFORCED CONCRETE END SECTION FOR PRECAST BOX CULVERT NO. 2<br>36" HIGH x 120" WIDE, STA 512+30.00                       |
| 65-75   | BRIDGE PLANS                                                                                                               |
| 76-92   | CROSS SECTIONS - CARDINAL HILL ROAD                                                                                        |
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| 97-99   | CROSS SECTIONS - WALNUT STREET                                                                                             |
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| 103     | CROSS SECTIONS - SWALE NORTH OF COMMUNITY DRIVE                                                                            |
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### IDOT HIGHWAY STANDARDS

|             |                                                                                                                                                        |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 000001-04   | STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS                                                                                                           |
| 280001-02   | TEMPORARY EROSION CONTROL SYSTEMS                                                                                                                      |
| 420401-05   | BRIDGE APPROACH PAVEMENT                                                                                                                               |
| 424001-04   | CURB RAMPS FOR SIDEWALKS                                                                                                                               |
| 515001-02   | NAME PLATE FOR BRIDGES                                                                                                                                 |
| 542301      | PRECAST REINFORCED CONCRETE FLARED END SECTION                                                                                                         |
| 542306      | PRECAST REINFORCED CONCRETE ELLIPTICAL FLARED END SECTION                                                                                              |
| 542401      | METAL END SECTION FOR PIPE CULVERTS                                                                                                                    |
| 601101      | CONCRETE HEADWALL FOR PIPE DRAIN                                                                                                                       |
| 602301-01   | INLET-TYPE A                                                                                                                                           |
| 602306-01   | INLET-TYPE B                                                                                                                                           |
| 602401-01   | MANHOLE TYPE A                                                                                                                                         |
| 602601      | PRECAST REINFORCED CONCRETE FLAT SLAB TOP                                                                                                              |
| 602701-01   | MANHOLE STEPS                                                                                                                                          |
| 604001-02   | FRAME AND LIDS TYPE 1                                                                                                                                  |
| 604006-02   | FRAME AND GRATE TYPE 3                                                                                                                                 |
| 604036-01   | GRATE TYPE 8                                                                                                                                           |
| 606001-02   | CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER                                                                                          |
| 606006      | OUTLETS FOR CONCRETE CURB & GUTTER TYPE B-15.60 (B-6.24)                                                                                               |
| 606301-02   | PC CONCRETE ISLANDS AND MEDIANS                                                                                                                        |
| 630001-06   | STEEL PLATE BEAM GUARDRAIL                                                                                                                             |
| 630301-03   | SHOULDER WIDENING FOR TYPE I (SPECIAL) GUARDRAIL TERMINALS                                                                                             |
| 631032-02   | TRAFFIC BARRIER TERMINAL, TYPE 6A                                                                                                                      |
| 635006-02   | REFLECTOR AND TERMINAL MARKER PLACEMENT                                                                                                                |
| 666001      | RIGHT OF WAY MARKERS                                                                                                                                   |
| 701001-01   | OFF-RD OPERATIONS, 2L, 2W, MORE THAN 4.5m (15') AWAY                                                                                                   |
| 701006-02   | OFF-RD OPERATIONS, 2L, 2W, 4.5m (15') TO 600mm (24") FROM PAVEMENT EDGE                                                                                |
| 701011-01   | OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY                                                                                                             |
| 701301-02   | LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS                                                                                                            |
| 701311-02   | LANE CLOSURE, 2L, 2W, MOVING OPERATIONS-DAY ONLY                                                                                                       |
| 701602-02   | URBAN CLOSURE, MULTILANE, 2W WITH BIDIRECTIONAL LEFT TURN LANE                                                                                         |
| 701701-04   | URBAN LANE CLOSURE, MULTILANE INTERSECTION                                                                                                             |
| 701801-03   | LANE CLOSURE MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE                                                                                          |
| 702001-06   | TRAFFIC CONTROL DEVICES                                                                                                                                |
| 720001      | SIGN PANEL MOUNTING DETAILS                                                                                                                            |
| 720016-01   | MAST ARM MOUNTED STREET NAME SIGNS                                                                                                                     |
| 780001-01   | TYPICAL PAVEMENT MARKINGS                                                                                                                              |
| 805001      | ELECTRICAL SERVICE INSTALLATION DETAILS                                                                                                                |
| 814001      | CONCRETE HANDHOLES                                                                                                                                     |
| 814006      | DOUBLE HANDHOLES                                                                                                                                       |
| 857001      | STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES                                                                                                |
| 873001      | TRAFFIC SIGNAL GROUNDING                                                                                                                               |
| 877011-02   | STEEL COMBINATION MAST ARM ASSEMBLY AND POLE                                                                                                           |
| 878001-04   | CONCRETE FOUNDATION DETAILS                                                                                                                            |
| 880006      | TRAFFIC SIGNAL MOUNTING DETAILS                                                                                                                        |
| B.L.R. 21-6 | TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS                                                                |
| B.L.R. 22-4 | TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS (TWO-LANE TWO WAY RURAL TRAFFIC) (ROAD CLOSED TO THRU TRAFFIC) |
| B.L.R. 24-1 | MAILBOX TURNOUT FOR LOCAL ROADS                                                                                                                        |

### GENERAL NOTES

1. THE COST OF REMOVAL OF ANY EXISTING OBSTRUCTIONS OR CULVERTS WHICH INTERFERE WITH CONSTRUCTION AND ARE NOT NOTED TO BE REMOVED WILL BE CONSIDERED INCLUDED WITH THE COST OF EARTH EXCAVATION.
2. WHERE SECTION OR SUB-SECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKERS AND MONUMENTS UNTIL THE OWNER OR AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.
3. THE LOCATIONS OF THOSE BURIED AND ABOVEGROUND UTILITIES SHOWN ARE APPROXIMATE, ARE SHOWN FOR CONTRACTOR INFORMATIONAL USE ONLY, AND ARE NOT TO BE REFERENCED FOR CONSTRUCTION PURPOSES. THE IMPLIED PRESENCE OR ABSENCE OF UTILITIES IS NOT TO BE CONSTRUED BY THE OWNER, ENGINEER, CONTRACTOR, OR SUBCONTRACTORS TO BE AN ACCURATE AND COMPLETE REPRESENTATION OF UTILITIES THAT MAY OR MAY NOT EXIST ON THE CONSTRUCTION SITE. BURIED AND ABOVEGROUND UTILITY LOCATION, IDENTIFICATION, AND MARKING ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. REROUTING, DISCONNECTION, PROTECTION, ETC. OF ANY UTILITIES MUST BE COORDINATED BETWEEN THE CONTRACTOR, UTILITY COMPANY, AND OWNER. SITE SAFETY, INCLUDING THE AVOIDANCE OF HAZARDS ASSOCIATED WITH BURIED AND ABOVEGROUND UTILITIES, REMAINS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. J.U.L.I.E. MEMBERS ACTIVE IN THE VICINITY OF THE PROJECT ARE LISTED ON THE COVER SHEET.
4. THE CONTRACTOR SHALL REMOVE ALL EXISTING RIGHT-OF-WAY MARKERS THAT INTERFERE WITH CONSTRUCTION AT NO ADDITIONAL COST TO THE PROJECT.
5. ALL TREES, BRUSH, AND SHRUBS WITHIN THE CONSTRUCTION LIMITS WILL BE REMOVED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. TREES TO BE REMOVED UNDER THE PAY ITEM "TREE REMOVAL, ACRES" SHALL BE REMOVED TO 30 FEET LEFT AND RIGHT OF THE PROPOSED EDGE OF PAVEMENT OR THE CONSTRUCTION LIMITS, WHICHEVER IS GREATER. INDIVIDUAL TREES TO BE REMOVED ARE MARKED ON THE PLAN AND PROFILE SHEETS. ALL OTHER TREES LOCATED OUTSIDE OF THE CONSTRUCTION LIMITS WILL BE PRESERVED UNLESS DESIGNATED TO BE REMOVED BY THE ENGINEER.
6. CONTROLLED LOW-STRENGTH MATERIAL (CLSM) SHALL BE USED AS BACKFILL FOR ALL CROSS-ROAD CULVERTS AND CROSS-ROAD STORM SEWERS WHICH PASS BENEATH OR WITHIN 2' OF A PAVED SURFACE.
7. STORM SEWER SHALL BE CONSTRUCTED OF WATER MAIN QUALITY PIPE WHERE HORIZONTAL SEPARATION BETWEEN THE SEWER AND WATER MAINS IS LESS THAN 10 FEET AND THE WATER MAIN INVERT IS LESS THAN 18" ABOVE THE TOP OF THE SEWER. THE USE OF WATER MAIN QUALITY PIPE, WHERE REQUIRED, WILL BE CONSIDERED INCLUDED WITH THE COST OF STORM SEWERS AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

LAYOUT 3/15/04  
 DRAWN 7/22/04  
 REVIEWED LDK 7/27/04  
 J:\G3005\03S2035B\Civil\Sheet\03S2035B-001.DWG JUL 21, 2006 8:32AM BJB

INDEX OF SHEETS, HIGHWAY STANDARDS  
 & GENERAL NOTES  
 SEC. 03-00167-04-FP  
 CARDINAL HILL ROAD (C.H. 37)  
 SANGAMON COUNTY



JOB NO.  
 03S2035B  
 DATE  
 6/21/06

# SUMMARY OF QUANTITIES

|                     |                |                  |              |           |
|---------------------|----------------|------------------|--------------|-----------|
| FAU. RITE           | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO. |
| 8075                | 03-00167-04-FP | SANGAMON         | 109          | 3         |
| STA.                |                | TO STA.          |              |           |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |           |

| CODE NO.  | ITEM                                               | UNIT   | TOTAL |
|-----------|----------------------------------------------------|--------|-------|
| *20100110 | TREE REMOVAL (6 TO 15 UNITS DIAMETER)              | UNIT   | 372   |
| *20100210 | TREE REMOVAL (OVER 15 UNITS DIAMETER)              | UNIT   | 42    |
| *20100500 | TREE REMOVAL, ACRES                                | ACRE   | 1.6   |
| *20200100 | EARTH EXCAVATION                                   | CU YD  | 38185 |
| *20201200 | REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL        | CU YD  | 500** |
| *20400800 | FURNISHED EXCAVATION                               | CU YD  | 2010  |
| 20700220  | POROUS GRANULAR EMBANKMENT                         | CU YD  | 173   |
| 20800150  | TRENCH BACKFILL                                    | CU YD  | 214   |
| *21101505 | TOPSOIL EXCAVATION AND PLACEMENT                   | CU YD  | 16710 |
| 25000200  | SEEDING, CLASS 2                                   | ACRE   | 20.1  |
| 25000400  | NITROGEN FERTILIZER NUTRIENT                       | POUND  | 1809  |
| 25000500  | PHOSPHORUS FERTILIZER NUTRIENT                     | POUND  | 1809  |
| 25000600  | POTASSIUM FERTILIZER NUTRIENT                      | POUND  | 1809  |
| 25000700  | AGRICULTURAL GROUND LIMESTONE                      | TON    | 40    |
| 25100115  | MULCH, METHOD 2                                    | ACRE   | 20.1  |
| 28000250  | TEMPORARY EROSION CONTROL SEEDING                  | POUND  | 4020  |
| 28000300  | TEMPORARY DITCH CHECKS                             | EACH   | 83    |
| 28000400  | PERIMETER EROSION BARRIER                          | FOOT   | 4100  |
| 28000500  | INLET AND PIPE PROTECTION                          | EACH   | 34    |
| *28100205 | STONE RIPRAP, CLASS A3                             | TON    | 1909  |
| *28100207 | STONE RIPRAP, CLASS A4                             | TON    | 595   |
| 31000600  | PROCESSING LIME STABILIZED SOIL MIXTURE 12"        | SQ YD  | 38687 |
| 31001500  | LIME                                               | TON    | 677** |
| 35100300  | AGGREGATE BASE COURSE, TYPE A 4"                   | SQ YD  | 536   |
| 35101800  | AGGREGATE BASE COURSE, TYPE B 6"                   | SQ YD  | 84    |
| 40200800  | AGGREGATE SURFACE COURSE, TYPE B                   | TON    | 238   |
| 40600100  | BITUMINOUS MATERIALS (PRIME COAT)                  | GALLON | 2508  |
| 40600980  | BITUMINOUS SURFACE REMOVAL - BUTT JOINT            | SQ YD  | 131   |
| 40600990  | TEMPORARY RAMP                                     | SQ YD  | 54    |
| *42001400 | BRIDGE APPROACH PAVEMENT (SPECIAL)                 | SQ YD  | 267   |
| 42001430  | BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)      | SQ YD  | 54    |
| 42300200  | PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6 INCH | SQ YD  | 79    |
| 42300400  | PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 8 INCH | SQ YD  | 536   |
| 42400100  | PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH           | SQ FT  | 549   |
| 42400800  | DETECTABLE WARNINGS                                | SQ FT  | 141   |
| 44000100  | PAVEMENT REMOVAL                                   | SQ YD  | 7551  |
| 44000200  | DRIVEWAY PAVEMENT REMOVAL                          | SQ YD  | 819   |
| 44000500  | COMBINATION CURB AND GUTTER REMOVAL                | FOOT   | 437   |
| *44213200 | SAW CUTS                                           | FOOT   | 459   |
| 48100500  | AGGREGATE SHOULDERS, TYPE A 6"                     | SQ YD  | 8885  |
| *48202600 | BITUMINOUS SHOULDERS SUPERPAVE 8"                  | SQ YD  | 4330  |
| *50105220 | PIPE CULVERT REMOVAL                               | FOOT   | 738   |
| 50200100  | STRUCTURE EXCAVATION                               | CU YD  | 242   |
| 50300225  | CONCRETE STRUCTURES                                | CU YD  | 37.7  |

| CODE NO.  | ITEM                                                                        | UNIT  | TOTAL |
|-----------|-----------------------------------------------------------------------------|-------|-------|
| 50300255  | CONCRETE SUPERSTRUCTURE                                                     | CU YD | 107.9 |
| 50300260  | BRIDGE DECK GROOVING                                                        | SQ YD | 356   |
| 50300300  | PROTECTIVE COAT                                                             | SQ YD | 377   |
| 50500105  | FURNISHING AND ERECTING STRUCTURAL STEEL                                    | L SUM | 1     |
| 50500505  | STUD SHEAR CONNECTORS                                                       | EACH  | 1152  |
| 50800205  | REINFORCEMENT BARS, EPOXY COATED                                            | POUND | 26900 |
| 51201600  | FURNISHING STEEL PILES HP12x53                                              | FOOT  | 510   |
| 51202700  | DRIVING STEEL PILES                                                         | FOOT  | 510   |
| 51203600  | TEST PILE STEEL HP12x53                                                     | EACH  | 2     |
| 51500100  | NAME PLATES                                                                 | EACH  | 1     |
| 54000900  | BOX CULVERT END SECTIONS, SPECIAL                                           | EACH  | 1     |
| 54001001  | BOX CULVERT END SECTIONS, CULVERT NO. 1                                     | EACH  | 1     |
| 54001002  | BOX CULVERT END SECTIONS, CULVERT NO. 2                                     | EACH  | 2     |
| 54020804  | PRECAST CONCRETE BOX CULVERTS 8'x4' (M273)                                  | FOOT  | 161   |
| 54021003  | PRECAST CONCRETE BOX CULVERTS 10'x3' (M273)                                 | FOOT  | 62    |
| 54200439  | PIPE CULVERTS, TYPE 1 RCCP 24"                                              | FOOT  | 113   |
| 54200445  | PIPE CULVERTS, TYPE 1 RCCP 30"                                              | FOOT  | 103   |
| 54200640  | PIPE CULVERTS, TYPE 1, CORRUGATED STEEL OR ALUMINUM CULVERT PIPE 15" (CSCP) | FOOT  | 310   |
| 54200643  | PIPE CULVERTS, TYPE 1, CORRUGATED STEEL OR ALUMINUM CULVERT PIPE 18" (CSCP) | FOOT  | 345   |
| 54206739  | PIPE CULVERTS, TYPE 1, REINFORCED CONCRETE, EQUIVALENT ROUND-SIZE 24"       | FOOT  | 267   |
| 54213657  | PRECAST REINFORCED CONCRETE FLARED END SECTIONS 12"                         | EACH  | 1     |
| 54213660  | PRECAST REINFORCED CONCRETE FLARED END SECTIONS 15"                         | EACH  | 3     |
| 54213663  | PRECAST REINFORCED CONCRETE FLARED END SECTIONS 18"                         | EACH  | 4     |
| 54213669  | PRECAST REINFORCED CONCRETE FLARED END SECTIONS 24"                         | EACH  | 6     |
| 54213675  | PRECAST REINFORCED CONCRETE FLARED END SECTIONS 30"                         | EACH  | 1     |
| 54213870  | STEEL END SECTIONS 15"                                                      | EACH  | 12    |
| 54213873  | STEEL END SECTIONS 18"                                                      | EACH  | 12    |
| 54214509  | PRECAST REINFORCED CONCRETE FLARED END SECTIONS, EQUIVALENT ROUND-SIZE 24"  | EACH  | 4     |
| 550A0050  | STORM SEWERS, CLASS A, TYPE 1 12"                                           | FOOT  | 757   |
| 550A0070  | STORM SEWERS, CLASS A, TYPE 1 15"                                           | FOOT  | 544   |
| 550A0090  | STORM SEWERS, CLASS A, TYPE 1 18"                                           | FOOT  | 1861  |
| 550A0120  | STORM SEWERS, CLASS A, TYPE 1 24"                                           | FOOT  | 994   |
| 55100900  | STORM SEWER REMOVAL 18"                                                     | FOOT  | 57    |
| 60218400  | MANHOLES, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID                     | EACH  | 11    |
| 60234200  | INLETS, TYPE A, TYPE 1 FRAME, OPEN LID                                      | EACH  | 2     |
| 60235700  | INLETS, TYPE A, TYPE 3 FRAME AND GRATE                                      | EACH  | 24    |
| 60236200  | INLETS, TYPE A, TYPE 8 GRATE                                                | EACH  | 7     |
| 60240215  | INLETS, TYPE B, TYPE 1 FRAME, CLOSED LID                                    | EACH  | 5     |
| 60240220  | INLETS, TYPE B, TYPE 3 FRAME AND GRATE                                      | EACH  | 10    |
| 60240301  | INLETS, TYPE B, TYPE 8 GRATE                                                | EACH  | 2     |
| 60255500  | MANHOLES TO BE ADJUSTED                                                     | EACH  | 1     |
| 60500060  | REMOVING INLETS                                                             | EACH  | 4     |
| *60600097 | CLASS SI CONCRETE (OUTLET), SPECIAL                                         | CU YD | 13.7  |
| 60604400  | COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.18                           | FOOT  | 7426  |

\* SEE SPECIAL PROVISIONS AND/OR DETAILS  
 \*\* QUANTITY PARTIALLY OR WHOLLY ASSUMED FOR ESTABLISHMENT OF UNIT PRICE  
 (S) DENOTES SPECIALTY ITEM

CONSTRUCTION TYPE CODE: I000-2A

**SUMMARY OF QUANTITIES**  
 SEC. 03-00167-04-FP  
 CARDINAL HILL ROAD (C.H. 37)  
 SANGAMON COUNTY

SHEET 1 OF 2



Hanson Professional Services Inc.  
 1525 South Sixth Street, Springfield, IL 62703  
 Registration No. 154-061054  
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JOB NO.  
03S2035B

DATE  
6/21/06

LAYOUT 3/15/04  
 DRAWN 7/22/04  
 REVIEWED 7/21/04  
 J. V. JOHNS (03S2035B) CIVIL SHEET C-6031010.DWG JUL 21 2006 9:33AM BJB

# SUMMARY OF QUANTITIES

| F.A.U. RITE         | SECTION        | COUNTY   | TOTAL SHEETS     | SHEET NO. |
|---------------------|----------------|----------|------------------|-----------|
| 8075                | 03-00167-04-FP | SANGAMON | 109              | 4         |
| STA.                |                | TO STA.  |                  |           |
| FED. ROAD DIST. NO. |                | ILLINOIS | FED. AID PROJECT |           |

| CODE NO.  | ITEM                                                             | UNIT   | TOTAL   |
|-----------|------------------------------------------------------------------|--------|---------|
| 60605000  | COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24                | FOOT   | 491     |
| 60608600  | COMBINATION CONCRETE CURB AND GUTTER, TYPE M-6.06                | FOOT   | 122     |
| 60610400  | COMBINATION CONCRETE CURB AND GUTTER, TYPE M-6.24                | FOOT   | 245     |
| 60618300  | CONCRETE MEDIAN SURFACE, 4 INCH                                  | SQ FT  | 851     |
| 61100500  | EXPLORATION TRENCH 52" DEPTH                                     | FOOT   | 10000** |
| 61101005  | STORM SEWER PROTECTED, CLASS A, 4"                               | FOOT   | 125**   |
| 61101007  | STORM SEWER PROTECTED, CLASS A, 6"                               | FOOT   | 125**   |
| 61101009  | STORM SEWER PROTECTED, CLASS A, 8"                               | FOOT   | 125**   |
| 61101011  | STORM SEWER PROTECTED, CLASS A, 10"                              | FOOT   | 125**   |
| 61101013  | STORM SEWER PROTECTED, CLASS A, 12"                              | FOOT   | 125**   |
| 61133100  | FIELD TILE JUNCTION VAULTS, 2' DIA.                              | EACH   | 5**     |
| 61139800  | STORM SEWER (SPECIAL) 4"                                         | FOOT   | 125**   |
| 61139900  | STORM SEWER (SPECIAL) 6"                                         | FOOT   | 125**   |
| 61140000  | STORM SEWER (SPECIAL) 8"                                         | FOOT   | 125**   |
| 61140100  | STORM SEWER (SPECIAL) 10"                                        | FOOT   | 125**   |
| 61140200  | STORM SEWER (SPECIAL) 12"                                        | FOOT   | 125**   |
| 63000000  | STEEL PLATE BEAM GUARDRAIL, TYPE A                               | FOOT   | 775.0   |
| *63100087 | TRAFFIC BARRIER TERMINAL, TYPE 6A                                | EACH   | 4       |
| *63100167 | TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)               | EACH   | 4       |
| *63400305 | GUARD POSTS, SPECIAL                                             | EACH   | 2       |
| 66600105  | FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS                     | EACH   | 102     |
| 67000500  | ENGINEER'S FIELD OFFICE, TYPE B                                  | CAL MO | 24      |
| 67100100  | MOBILIZATION                                                     | L SUM  | 1       |
| *70103700 | TRAFFIC CONTROL COMPLETE                                         | L SUM  | 1       |
| 70300210  | TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS                 | SQ FT  | 671     |
| 70300230  | TEMPORARY PAVEMENT MARKING - LINE 5"                             | FOOT   | 50093   |
| 70300240  | TEMPORARY PAVEMENT MARKING - LINE 6"                             | FOOT   | 2046    |
| 70300250  | TEMPORARY PAVEMENT MARKING - LINE 8"                             | FOOT   | 1156    |
| 70300260  | TEMPORARY PAVEMENT MARKING - LINE 12"                            | FOOT   | 885     |
| 70300280  | TEMPORARY PAVEMENT MARKING - LINE 24"                            | FOOT   | 312     |
| 70301000  | WORK ZONE PAVEMENT MARKING REMOVAL                               | SQ FT  | 24845   |
| 72000100  | SIGN PANEL, TYPE 1                                               | SQ FT  | 34      |
| 72000200  | SIGN PANEL, TYPE 2                                               | SQ FT  | 20      |
| 78000300  | THERMOPLASTIC PAVEMENT MARKING - LINE 5"                         | FOOT   | 50093   |
| 78000400  | THERMOPLASTIC PAVEMENT MARKING - LINE 6"                         | FOOT   | 2046    |
| 78000500  | THERMOPLASTIC PAVEMENT MARKING - LINE 8"                         | FOOT   | 1156    |
| 78000600  | THERMOPLASTIC PAVEMENT MARKING - LINE 12"                        | FOOT   | 885     |
| *78003100 | PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - LETTERS AND SYMBOLS | SQ FT  | 671     |
| *78003180 | PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - LINE 24"            | FOOT   | 312     |
| *78201000 | TERMINAL MARKER - DIRECT APPLIED                                 | EACH   | 4       |
| 78300100  | PAVEMENT MARKING REMOVAL                                         | SQ FT  | 348     |
| 80500100  | SERVICE INSTALLATION, TYPE A                                     | EACH   | 1       |
| 80801400  | WOOD POLE, 25 FT., CLASS 4                                       | EACH   | 1       |
| *81012500 | CONDUIT IN TRENCH, 1 1/2" DIA., PVC                              | FOOT   | 824     |
| *81013000 | CONDUIT IN TRENCH, 4" DIA., PVC                                  | FOOT   | 148     |
| *81021540 | CONDUIT, AUGERED 1 1/2" DIA., PVC                                | FOOT   | 285     |
| *81021570 | CONDUIT, AUGERED 3" DIA., PVC                                    | FOOT   | 185     |
| *81021590 | CONDUIT, AUGERED 4" DIA., PVC                                    | FOOT   | 64      |
| *81306100 | JUNCTION BOX (SPECIAL)                                           | EACH   | 4       |

| CODE NO.    | ITEM                                                                               | UNIT  | TOTAL |
|-------------|------------------------------------------------------------------------------------|-------|-------|
| *81400400   | CONCRETE HANDHOLE                                                                  | EACH  | 3     |
| 81400600    | CONCRETE DOUBLE HANDHOLE                                                           | EACH  | 2     |
| 81500200    | TRENCH AND BACKFILL FOR ELECTRICAL WORK                                            | FOOT  | 1592  |
| *81702100   | ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1C NO. 12                           | FOOT  | 3075  |
| 82104250    | LUMINAIRE, SODIUM VAPOR, MULTI-MOUNT, PHOTO-CELL CONTROL, 250 WATT                 | EACH  | 4     |
| *85700200   | FULL-ACTUATED CONTROLLER AND TYPE IV CABINET                                       | EACH  | 1     |
| *86400100   | TRANSCEIVER-FIBER OPTIC                                                            | EACH  | 1     |
| 87100110    | FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, 6F                                     | FOOT  | 1430  |
| *87301225   | ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C                                        | FOOT  | 909   |
| *87301245   | ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C                                        | FOOT  | 113   |
| *87301255   | ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C                                        | FOOT  | 2070  |
| *87301265   | ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 9C                                        | FOOT  | 500   |
| *87301715   | ELECTRIC CABLE IN CONDUIT, COMMUNICATION, NO. 18, 6 PAIR                           | FOOT  | 964   |
| *87301815   | ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 3C                                       | FOOT  | 51    |
| *87702910   | STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 36 FT.                                | EACH  | 2     |
| *87702860   | STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 26 FT.                                | EACH  | 2     |
| 87800200    | CONCRETE FOUNDATION, TYPE D                                                        | FOOT  | 3.5   |
| 87800400    | CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER                                       | FOOT  | 47    |
| *88200100   | TRAFFIC SIGNAL BACKPLATE                                                           | EACH  | 10    |
| *88800100   | PEDESTRIAN PUSH-BUTTON                                                             | EACH  | 4     |
| Z0002600    | BAR SPLICERS                                                                       | EACH  | 82    |
| *Z0013798   | CONSTRUCTION LAYOUT                                                                | L SUM | 1     |
| *Z0013825   | CONTROLLED LOW-STRENGTH MATERIAL                                                   | CU YD | 699   |
| *Z0022800   | FENCE REMOVAL                                                                      | FOOT  | 189   |
| *XX004449   | GUARD POSTS REMOVABLE, SPECIAL                                                     | EACH  | 1     |
| *XX004633   | FIELD TILE ADJUSTMENT                                                              | EACH  | 5**   |
| XX006199    | STEEL BRIDGE RAIL, TYPE SM (SPECIAL)                                               | FOOT  | 160   |
| *X0320872   | VIDEO VEHICLE DETECTION SYSTEM                                                     | EACH  | 1     |
| *X0323153   | ELECTRICAL CABLE IN CONDUIT, GROUND, NO. 6 1C (GREEN)                              | FOOT  | 464   |
| *X0324896   | PEDESTRIAN SIGNAL HEAD, POLYCARBONATE, LED, 2-FACE, 2-SECTION, BRACKET MOUNTED     | EACH  | 1     |
| *X4066414   | BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "C", N50                        | TON   | 1060  |
| *X4066614   | BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, IL 19.0 N50                          | TON   | 1255  |
| *X4066765   | LEVELING BINDER (MACHINE METHOD), SUPERPAVE N50                                    | TON   | 116   |
| *X4073086   | BITUMINOUS CONCRETE PAVEMENT (FULL-DEPTH), SUPERPAVE, 10 1/4"                      | SQ YD | 34850 |
| X6063600    | COMBINATION CONCRETE CURB AND GUTTER, TYPE M-4.24                                  | FOOT  | 34    |
| X6064201    | COMBINATION CONCRETE CURB AND GUTTER, TYPE M-4.06                                  | FOOT  | 14    |
| *X8801310   | SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED               | EACH  | 6     |
| *X8801400   | SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED               | EACH  | 4     |
| X8801460    | SIGNAL HEAD, POLYCARBONATE, LED, 3-FACE, 1-3-SECTION, 2-5-SECTION, BRACKET MOUNTED | EACH  | 2     |
| X8801465    | SIGNAL HEAD, POLYCARBONATE, LED, 3-FACE, 2-3-SECTION, 1-5-SECTION, BRACKET MOUNTED | EACH  | 2     |
| X8810397    | PEDESTRIAN SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 2-SECTION, BRACKET MOUNTED     | EACH  | 2     |
| *Z0067300   | STEEL CASINGS 12"                                                                  | FOOT  | 210   |
| *Z0067500   | STEEL CASINGS 16"                                                                  | FOOT  | 180   |
| *XX006630   | ERECT ALUMINUM BOX CULVERT, 13'x3' (MATERIAL FURNISHED BY THE COUNTY)              | FOOT  | 36    |
| *XX006631   | FURNISH AND ERECT ALUMINUM BOX CULVERT HEADWALL                                    | EACH  | 1     |
| A Z 0076600 | TRAINEES                                                                           | Hour  | 1,000 |

\* SEE SPECIAL PROVISIONS AND/OR DETAILS  
 \*\* QUANTITY PARTIALLY OR WHOLLY ASSUMED FOR ESTABLISHMENT OF UNIT PRICE  
 ⊙ DENOTES SPECIALTY ITEM  
 Δ Y080  
 CONSTRUCTION TYPE CODE: I000-2A

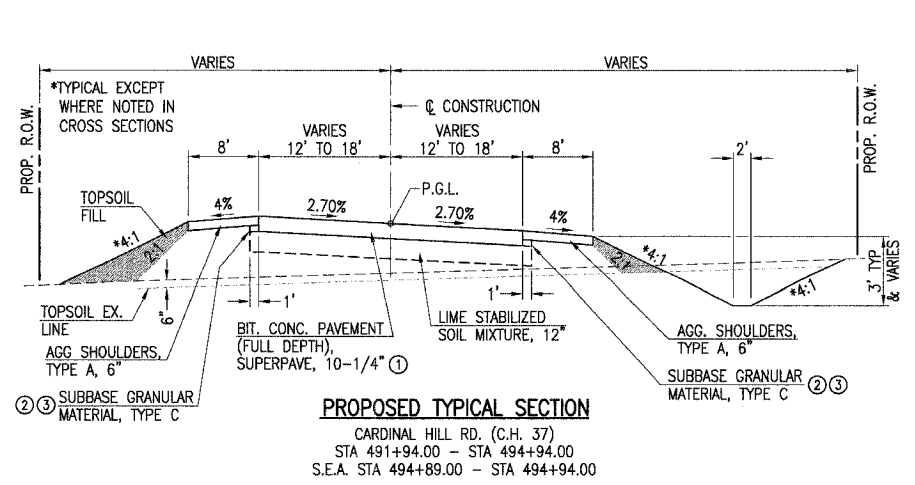
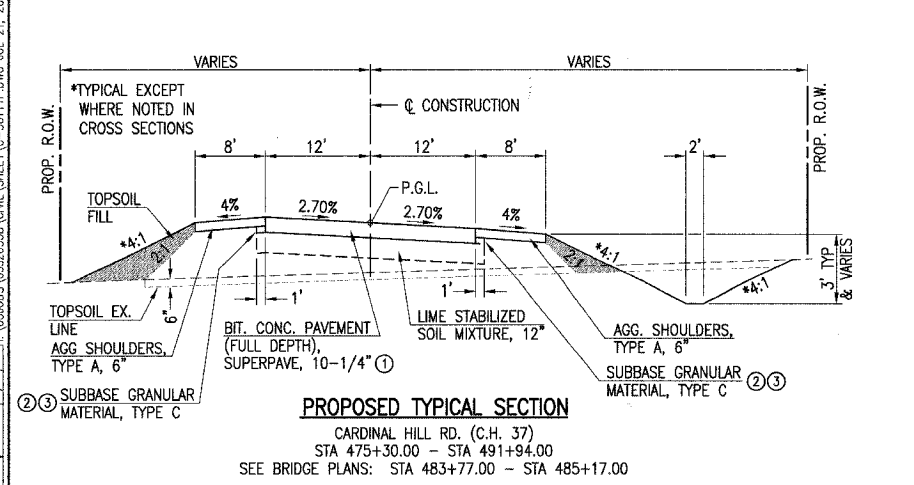
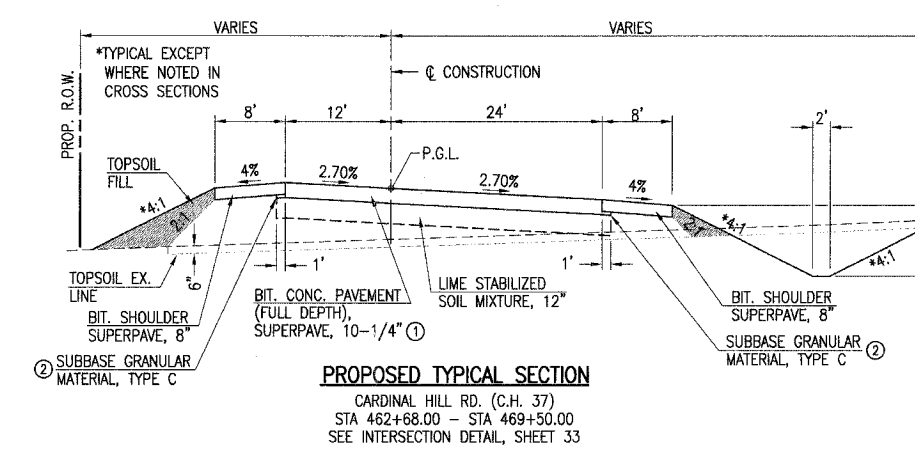
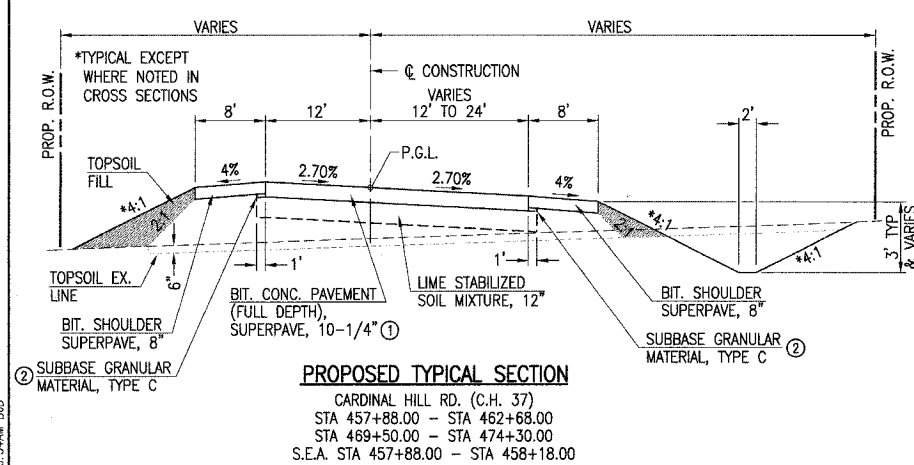
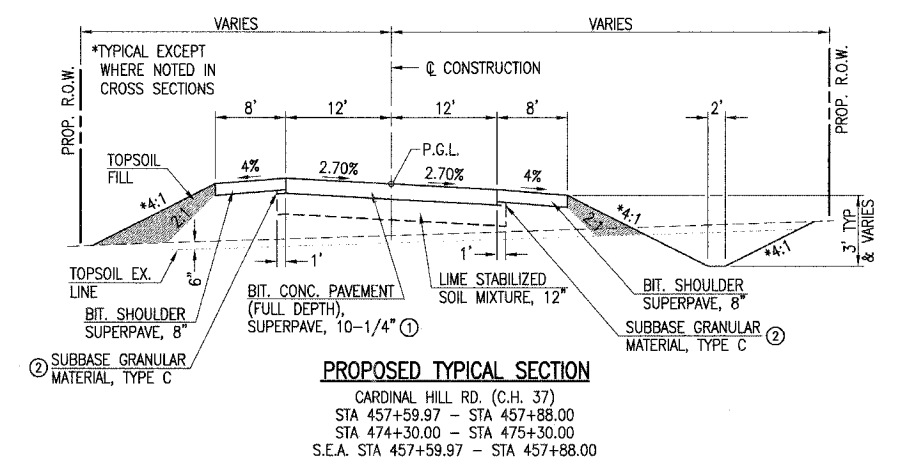
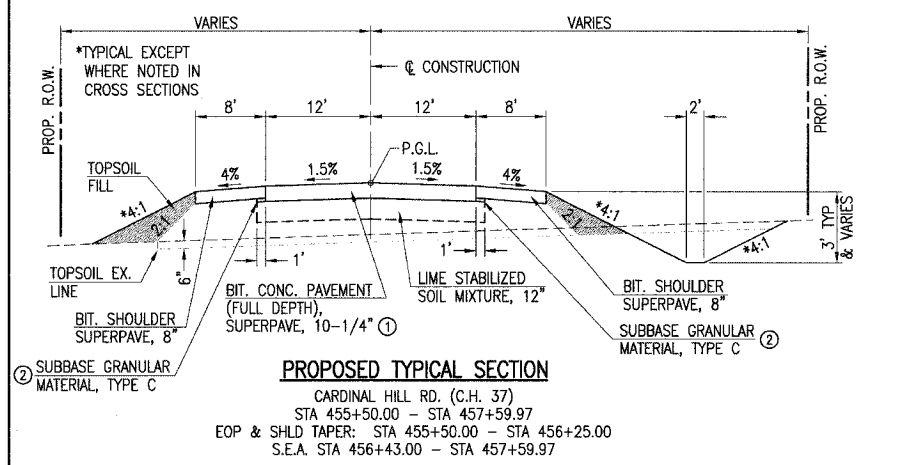
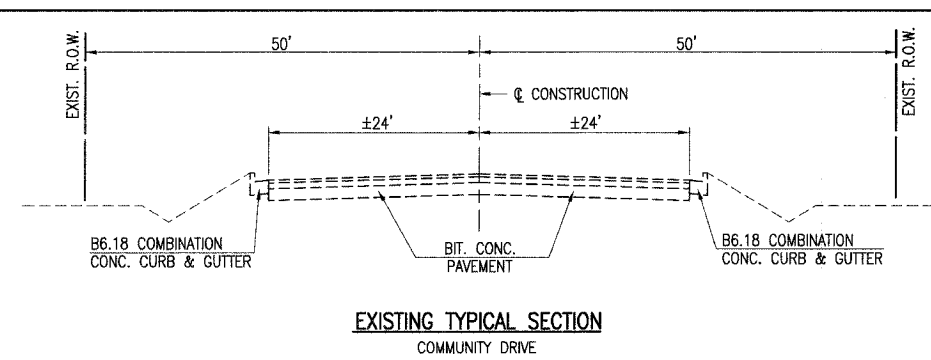
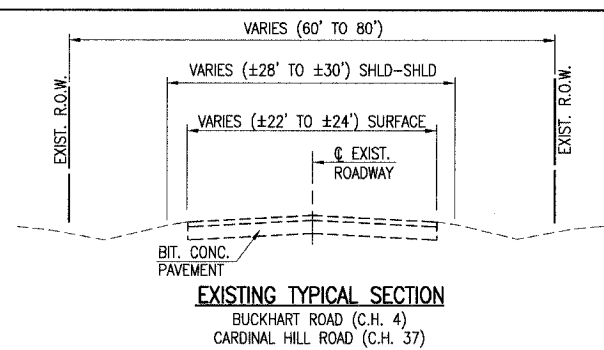
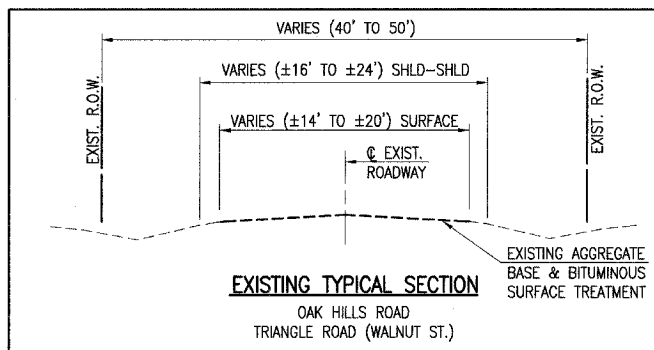
SUMMARY OF QUANTITIES  
 SEC. 03-00167-04-FP  
 CARDINAL HILL ROAD (C.H. 37)  
 SANGAMON COUNTY



SHEET 2 OF 2  
 JOB NO. 03S2035B  
 DATE 6/21/06

LAYOUT 3/15/04  
 DRAWN 5/8 7/22/04  
 REVIEWED LUK 7/21/04  
 PROJECT: 03S2035B CIVIL SHEET: C-603SUM.DWG JUL 21 2006 9:34AM BJB

|                     |                |                  |              |           |
|---------------------|----------------|------------------|--------------|-----------|
| FAU. RITE.          | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO. |
| B075                | 03-00167-04-FP | SANGAMON         | 109          | 5         |
| STA.                | TO STA.        |                  |              |           |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |           |



**STRUCTURAL DESIGN INFORMATION**

STRUCTURAL DESIGN TRAFFIC: YEAR 2016  
 PV=2820 SU=150 MU=90  
 ROAD/STREET CLASSIFICATION: CLASS II  
 SUBGRADE SUPPORT RATING: SSR=FAIR  
 PERCENT OF S.D.T. IN DESIGN LANE:  
 P=92% S=5% M=3%  
 TRAFFIC FACTOR: TF=0.519  
 AC TYPE = AC-20

- ① 6-1/2" LOWER BINDER - 2 LIFTS  
 2-1/4" TOP LIFT BINDER (POLYMERIZED)  
 1-1/2" SURFACE LIFT (POLYMERIZED)  
 [BITUMINOUS PRIME/RC 70 (FOG COAT)  
 REQUIRED BETWEEN SUCCESSIVE LIFTS]
- ② COST INCLUDED WITH SOIL-LIME MIXTURE, 12"
- ③ MATERIAL USED FOR AGGREGATE SHOULDERS,  
 TYPE A CAN BE USED IN THIS LOCATION

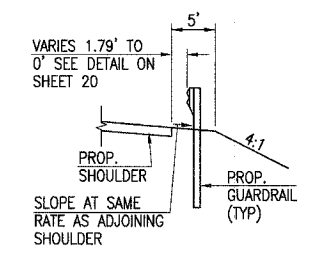
**FULL DEPTH (SEC. 407) PAVEMENT CONSTRUCTION**

| BITUMINOUS CONCRETE MIXTURE REQUIREMENTS   |                        |               |               |            |
|--------------------------------------------|------------------------|---------------|---------------|------------|
| ITEM                                       | AGGREGATE COMPOSITION  | ASPHALT GRADE | ALLOWABLE RAP | VOIDS      |
| LOWER BINDER, SUPERPAVE                    | IL-19.0 OR 25.0        | PG 64-22      | 20%           | 4.0% @ N50 |
| POLYMERIZED BINDER, SUPERPAVE (TOP 2-1/4") | IL-19.0                | SBS PG 64-28  | NONE          | 4.0% @ N50 |
| POLYMERIZED SURFACE, SUPERPAVE             | IL-9.5 OR 12.5 MIX "C" | SBS PG 64-28  | NONE          | 4.0% @ N50 |

ALL BITUMINOUS QUANTITIES COMPUTED AT 112#/square yard/inch

**NOTES**

- 1. THE NOMINAL COMPACTED THICKNESS OF BITUMINOUS CONCRETE PAVEMENT AND AGGREGATE SURFACE COURSE IS SHOWN IN THE TYPICAL SECTION. THE CONSTRUCTED THICKNESS SHALL NOT BE LESS THAN 90 PERCENT OF THE NOMINAL THICKNESS AT ANY LOCATION.
- 2. THE PRIME COAT APPLICATION RATE SHALL BE A MINIMUM OF 0.10 GALLONS PER SQUARE YARD ON EXISTING PAVED SURFACES, 0.375 GALLONS PER SQUARE YARD ON AGGREGATE SURFACES AND 0.02 GALLONS PER SQUARE YARD (FOG/TACK COAT) ON EACH SUCCESSIVE LIFT FOR FULL DEPTH PAVEMENT. THE PRIME COAT SHALL BE PAID FOR AT THE UNIT PRICE BID FOR 'BITUMINOUS MATERIALS (PRIME COAT).'



**PROPOSED TYPICAL SECTION**

CARDINAL HILL ROAD (C.H. 37)  
 SHOULDER WIDENING FOR GUARDRAIL  
 STA 480+46.93 TO STA 484+07.00, RT  
 STA 481+38.31 TO STA 484+07.00, LT  
 STA 484+87.00 TO STA 487+59.24, RT  
 STA 484+87.00 TO STA 488+44.34, LT

NOTE:  
 THE LEADING AND TRAILING TAPERS FOR THE SHOULDER WIDENING SHALL OCCUR AT A POINT 10' BEYOND THE TYPE 1, SPECIAL TERMINAL AND AT A RATE OF 6:1

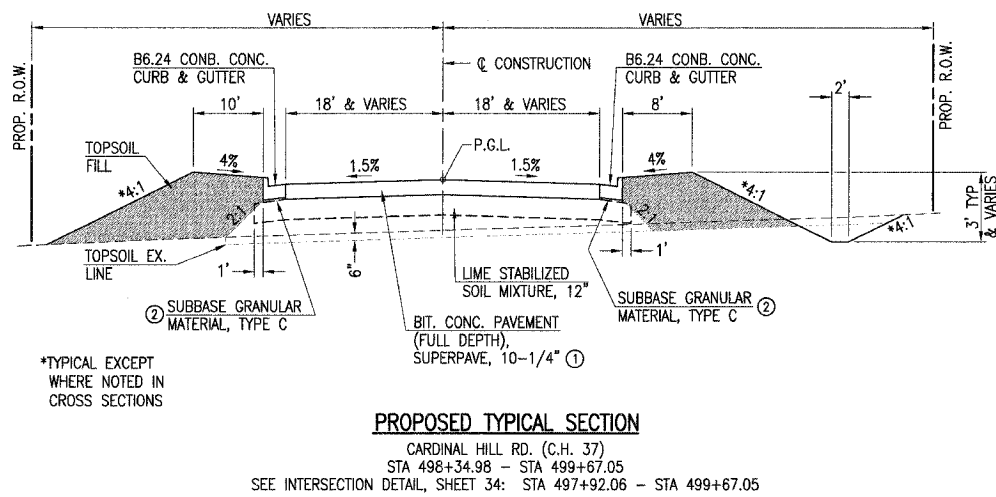
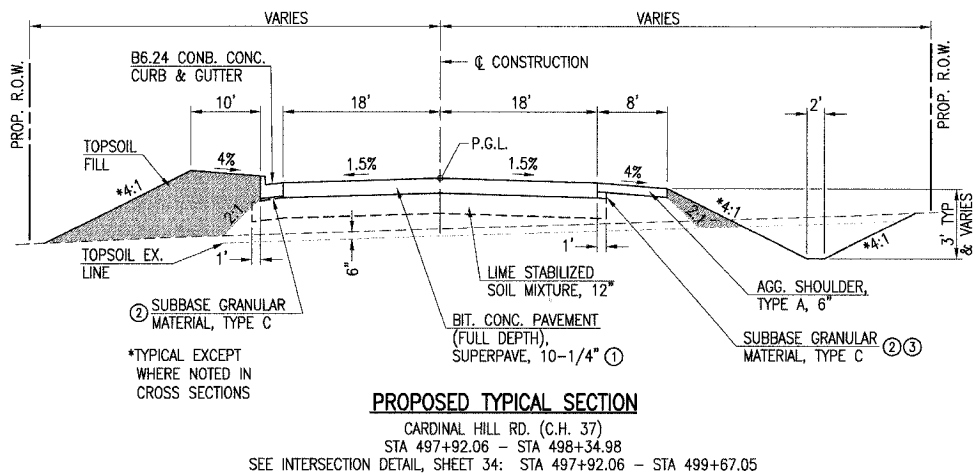
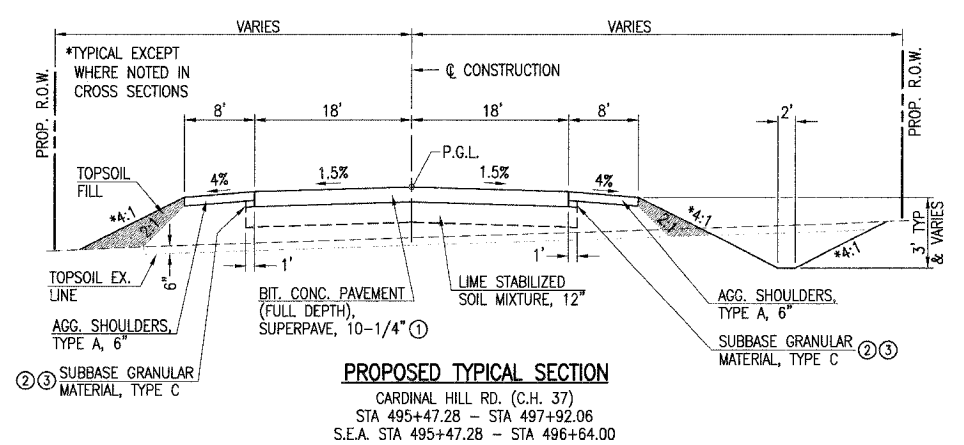
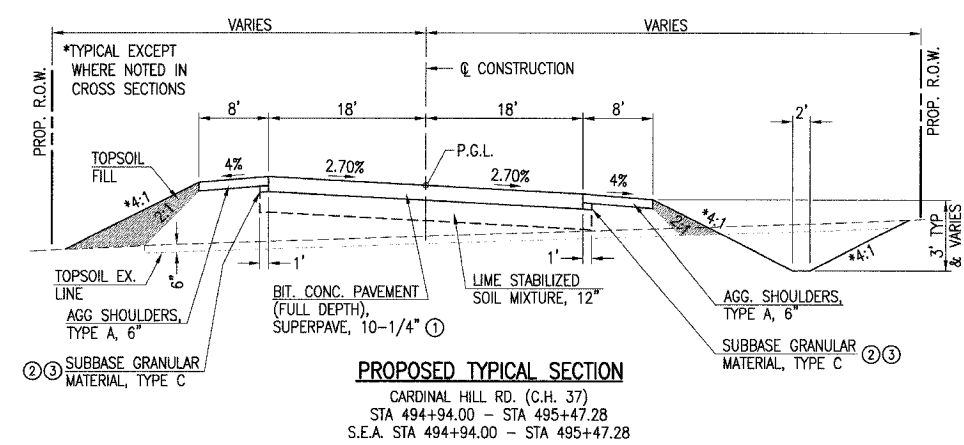
TYPICAL SECTIONS  
 SEC. 03-00167-04-FP  
 CARDINAL HILL ROAD (C.H. 37)  
 SANGAMON COUNTY



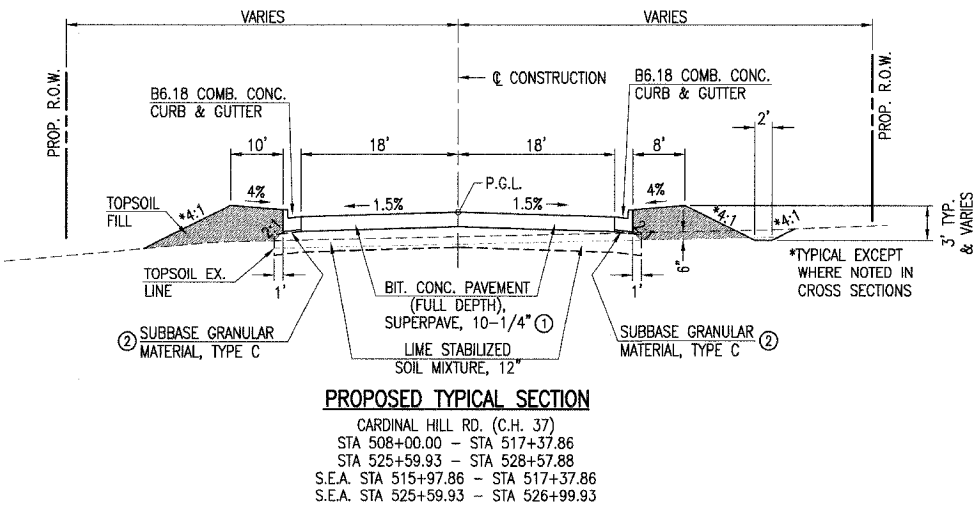
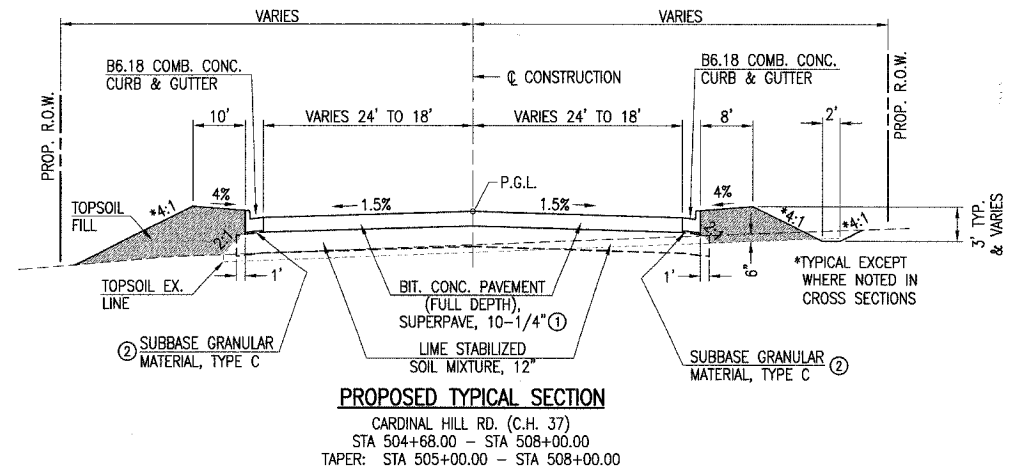
SHEET 1 OF 5  
 JOB NO. 03S2035B  
 DATE 6/21/06

LAYOUT: BJB 3/15/04  
 DRAWN: BJB 7/22/04  
 REVIEWED: DJK 7/27/04  
 I:\03\085\03S2035B\CIVIL\SHSHEET\0-501.TYP.DWG JUL 21, 2006 9:34AM BJB

| FAU. RITE.          | SECTION        | COUNTY   | TOTAL SHEETS | SHEET NO.        |
|---------------------|----------------|----------|--------------|------------------|
| 8075                | 03-00167-04-FP | SANGAMON | 109          | 6                |
| STA.                |                | TO STA.  |              |                  |
| FED. ROAD DIST. NO. |                | ILLINOIS |              | FED. AID PROJECT |



- ① 6-1/2" LOWER BINDER - 2 LIFTS  
2-1/4" TOP LIFT BINDER (POLYMERIZED)  
1-1/2" SURFACE LIFT (POLYMERIZED)  
[BITUMINOUS PRIME/RC 70 (FOG COAT)  
REQUIRED BETWEEN SUCCESSIVE LIFTS]
- ② COST INCLUDED WITH SOIL-LIME MIXTURE, 12"
- ③ MATERIAL USED FOR AGGREGATE SHOULDERS, TYPE A CAN BE USED IN THIS LOCATION



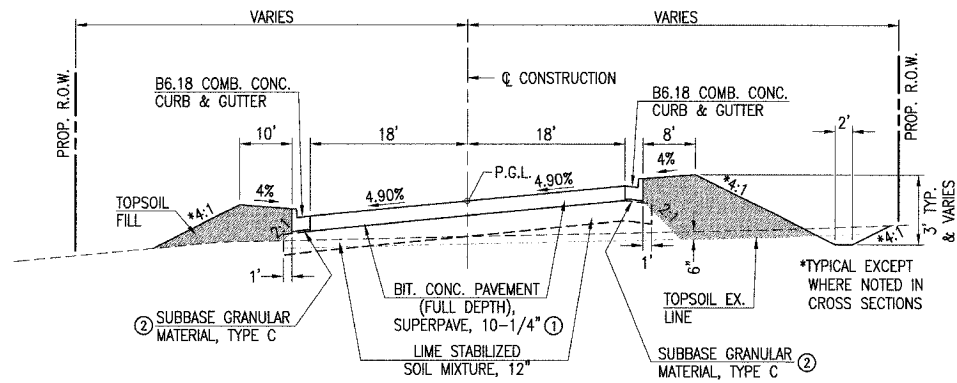
TYPICAL SECTIONS  
SEC. 03-00167-04-FP  
CARDINAL HILL ROAD (C.H. 37)  
SANGAMON COUNTY



SHEET 2 OF 5  
JOB NO. 03S2035B  
DATE 6/21/06

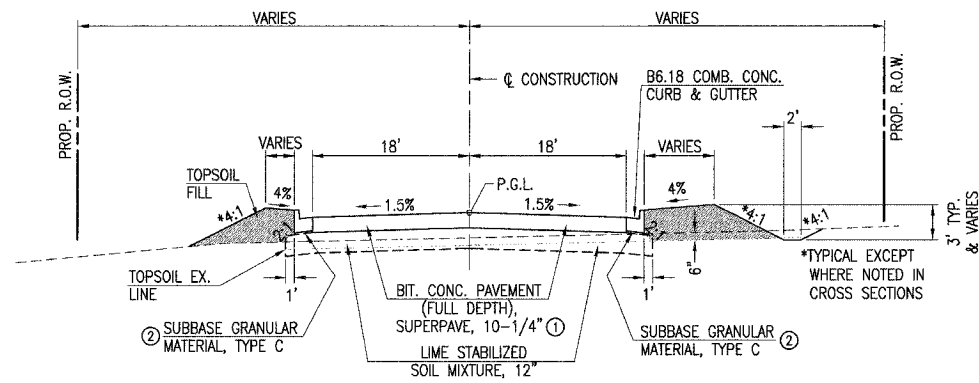
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 3/22/04  
 7/21/04  
 03S2035B C.H. SHEET C-501 TYP. DWG. JUL. 21, 2006 9:55AM B.B.

|                     |                |          |                  |           |
|---------------------|----------------|----------|------------------|-----------|
| FAU. RTZ.           | SECTION        | COUNTY   | TOTAL SHEETS     | SHEET NO. |
| 8075                | 03-00167-04-FP | SANGAMON | 109              | 7         |
| STA.                |                | TO STA.  |                  |           |
| FED. ROAD DIST. NO. |                | ILLINOIS | FED. AID PROJECT |           |



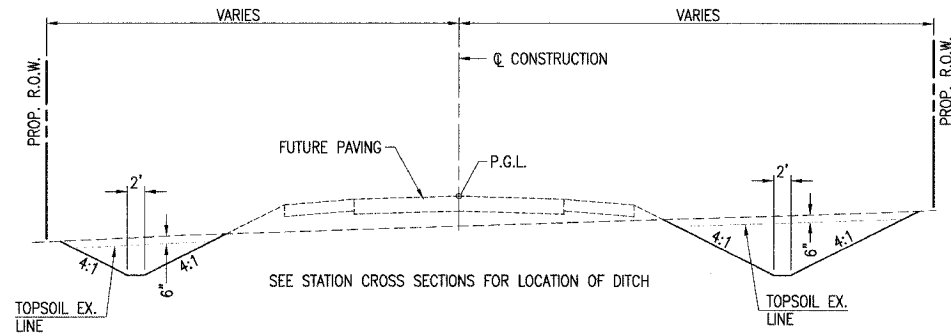
**PROPOSED TYPICAL SECTION**

CARDINAL HILL RD. (C.H. 37)  
 STA 517+37.86 - STA 525+57.88  
 S.E.A. STA 517+37.86 - STA 518+07.86  
 S.E.A. STA 524+89.93 - STA 526+99.93  
 SEE INTERSECTION DETAIL, SHEET 36: STA 525+89.93 - STA 528+75.45



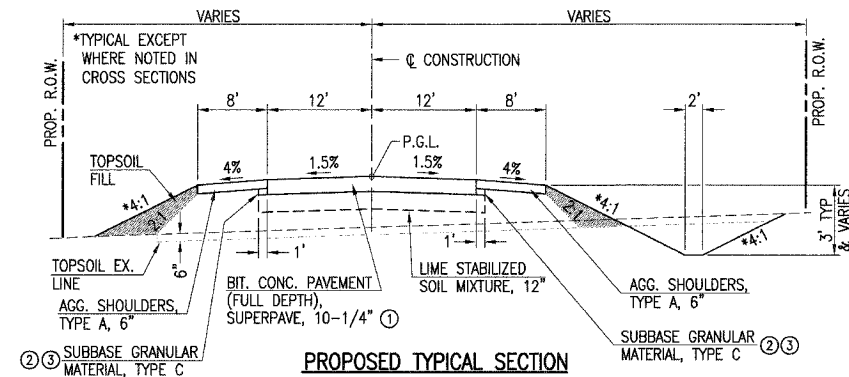
**PROPOSED TYPICAL SECTION**

CARDINAL HILL RD. (C.H. 37)  
 STA 528+57.88 - STA 528+75.45  
 SEE INTERSECTION DETAIL, SHEET 36: STA 525+89.93 - STA 528+75.45



**PROPOSED TYPICAL SECTION**

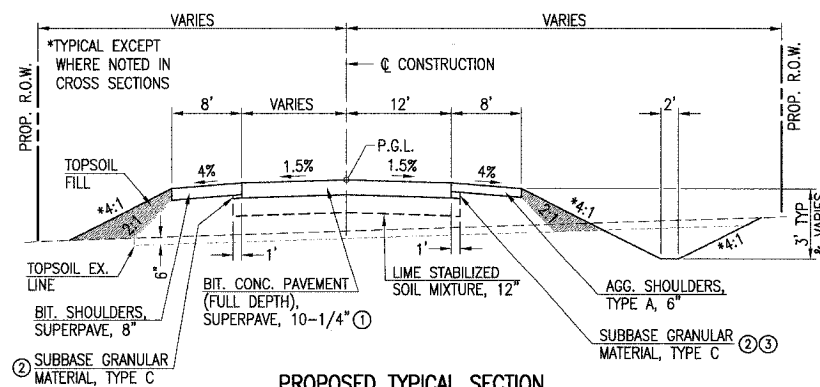
CARDINAL HILL RD. (C.H. 37)  
 STA 528+75.45 - STA 538+75.70



**PROPOSED TYPICAL SECTION**

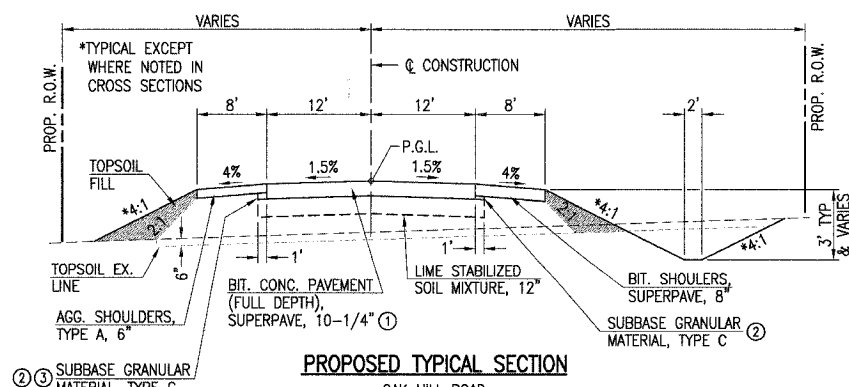
OAK HILL ROAD  
 STA 182+00.00 - STA 184+02.49  
 STA 186+06.56 - STA 194+33.00  
 EOP & SHLD TAPER: STA 182+00.00 - STA 183+00.00  
 SEE INTERSECTION DETAIL, SHEET 37: STA 184+02.49 - STA 186+06.56

- ① 6-1/2" LOWER BINDER - 2 LIFTS  
 2-1/4" TOP LIFT BINDER (POLYMERIZED)  
 1-1/2" SURFACE LIFT (POLYMERIZED)  
 [BITUMINOUS PRIME/RC 70 (FOG COAT)  
 REQUIRED BETWEEN SUCCESSIVE LIFTS]
- ② COST INCLUDED WITH SOIL-LIME MIXTURE, 12"
- ③ MATERIAL USED FOR AGGREGATE SHOULDERS,  
 TYPE A CAN BE USED IN THIS LOCATION



**PROPOSED TYPICAL SECTION**

OAK HILL ROAD  
 STA 184+02.49 - STA 186+06.56  
 SEE INTERSECTION DETAIL, SHEET 37



**PROPOSED TYPICAL SECTION**

OAK HILL ROAD  
 STA 194+33.00 - STA 195+33.00

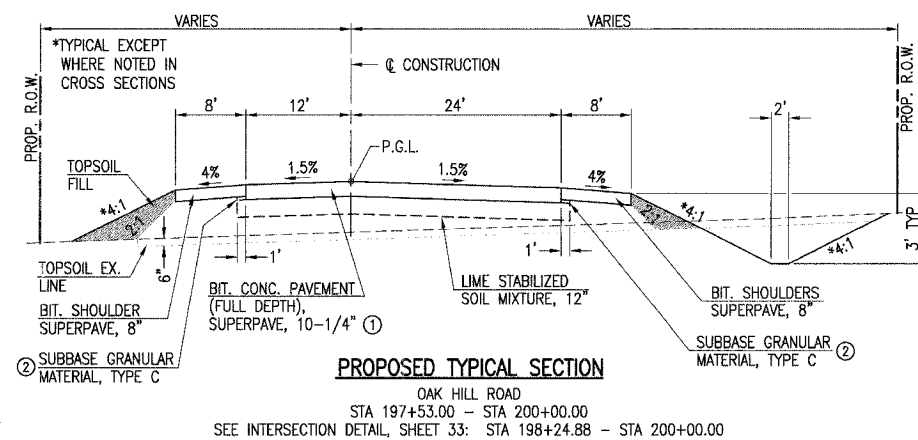
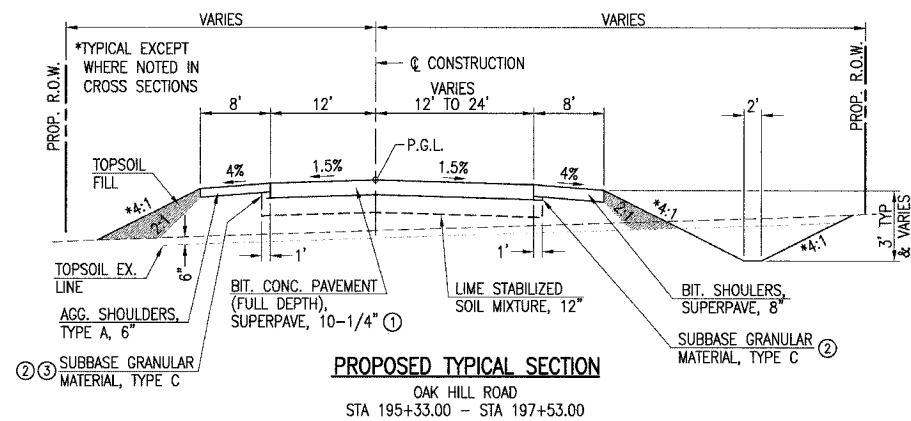
TYPICAL SECTIONS  
 SEC. 03-00167-04-FP  
 CARDINAL HILL ROAD (C.H. 37)  
 SANGAMON COUNTY



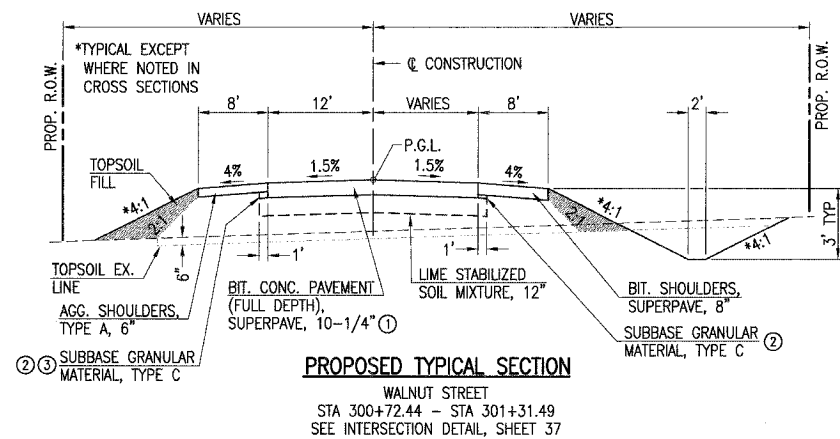
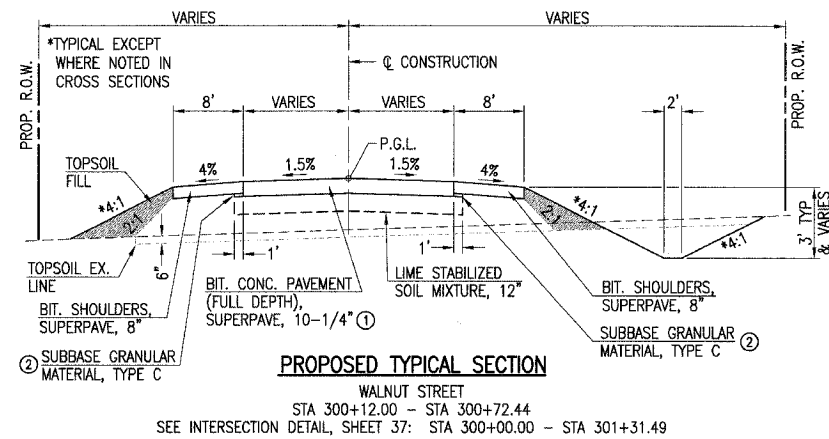
SHEET 3 OF 5  
 JOB NO. 03S2035B  
 DATE 6/21/06

LAYOUT B.B. 3/15/04  
 DRAWN B.B. 7/27/04  
 REVISION LDK 7/21/04  
 03S00167-04-FP-03S00167-04-FP-SHEET 3 OF 5-DWG. JUL 21, 2006 9:36AM B.B.

|                     |                |          |              |                  |
|---------------------|----------------|----------|--------------|------------------|
| FAU RITE            | SECTION        | COUNTY   | TOTAL SHEETS | SHEET NO         |
| 8075                | 03-00167-04-FP | SANGAMON | 109          | 8                |
| STA.                |                | TO STA.  |              |                  |
| FED. ROAD DIST. NO. |                | ILLINOIS |              | FED. AID PROJECT |



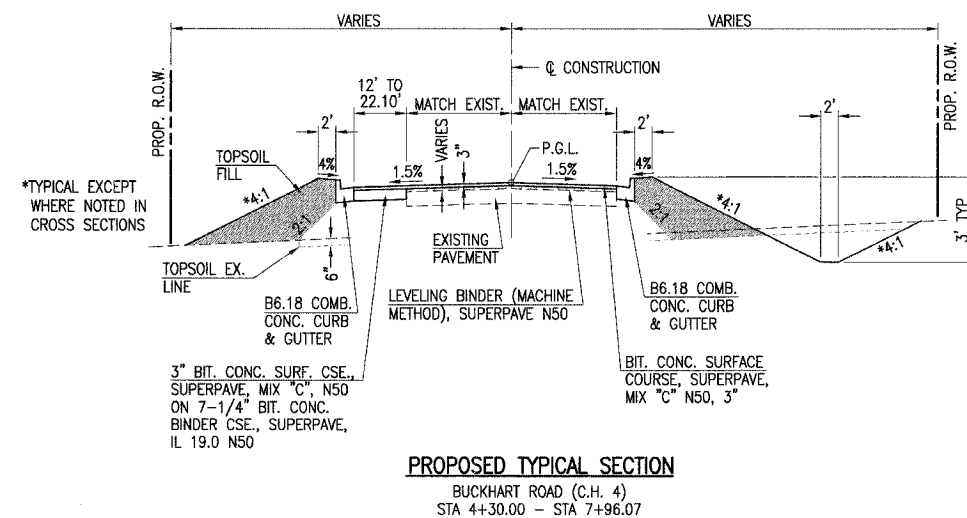
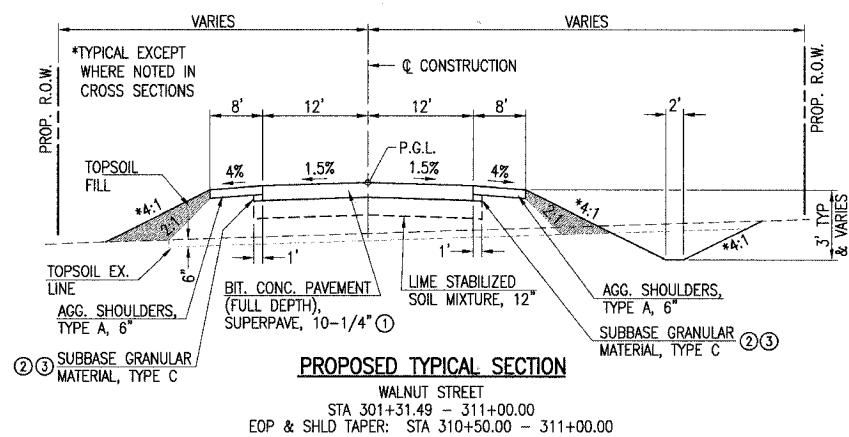
- ① 6-1/2" LOWER BINDER - 2 LIFTS  
2-1/4" TOP LIFT BINDER (POLYMERIZED)  
1-1/2" SURFACE LIFT (POLYMERIZED)  
[BITUMINOUS PRIME/RC 70 (FOG COAT)  
REQUIRED BETWEEN SUCCESSIVE LIFTS]
- ② COST INCLUDED WITH SOIL-LIME MIXTURE, 12"
- ③ MATERIAL USED FOR AGGREGATE SHOULDERS,  
TYPE A CAN BE USED IN THIS LOCATION



**BUCKHART ROAD (WIDEN & RESURFACE)**

| BITUMINOUS CONCRETE MIXTURE REQUIREMENTS |                        |               |               |            |
|------------------------------------------|------------------------|---------------|---------------|------------|
| ITEM                                     | AGGREGATE COMPOSITION  | ASPHALT GRADE | ALLOWABLE RAP | VOIDS      |
| BINDER, SUPERPAVE                        | IL-19.0                | PG 64-22      | 20%           | 4.0% @ N50 |
| LEVEL BINDER (MM) SUPERPAVE              | IL-9.5                 | PG 64-22      | 15%           | 4.0% @ N50 |
| SURFACE, SUPERPAVE                       | IL-9.5 OR 12.5 MIX "C" | PG 64-22      | 15%           | 4.0% @ N50 |

ALL BITUMINOUS QUANTITIES COMPUTED AT 112#/square yard/inch



TYPICAL SECTIONS  
SEC. 03-00167-04-FP  
CARDINAL HILL ROAD (C.H. 37)  
SANGAMON COUNTY

SHEET 4 OF 5



Hanson Professional Services Inc.  
1625 South Sixth Street, Springfield, IL 62703  
Registration No. 194-001084  
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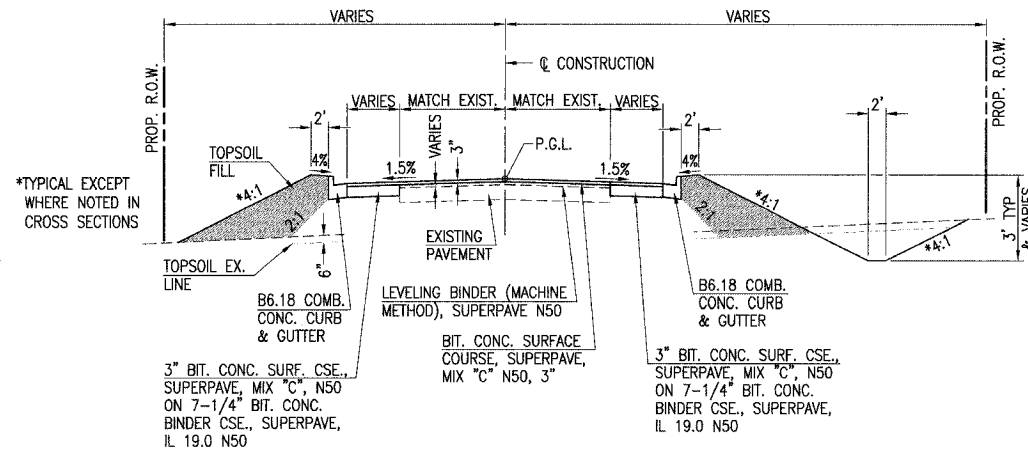
JOB NO.  
03S2035B

DATE  
6/21/06

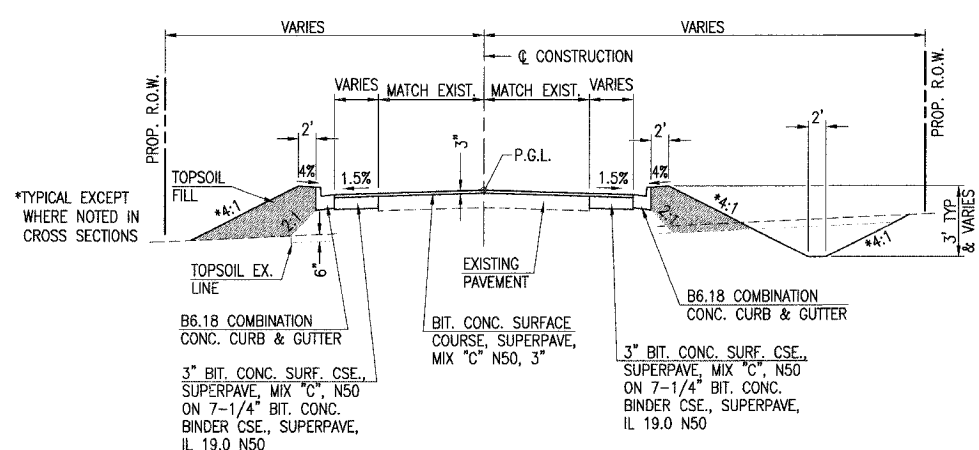
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DRAWN 7/22/04  
REVIEWED 7/21/04  
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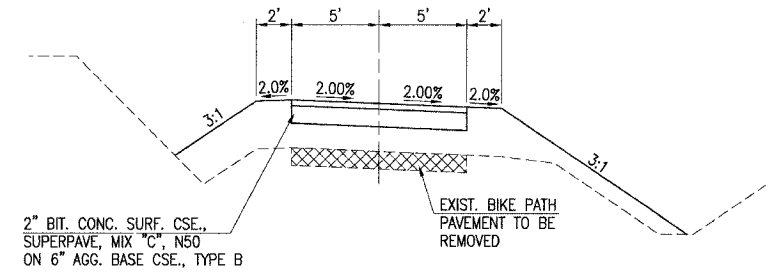
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|---------------------|----------------|------------------|--------------|-----------|
| FAU. RITE.          | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO. |
| B075                | 03-00167-04-FP | SANGAMON         | 109          | 9         |
| STA.                | TO STA.        |                  |              |           |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |           |



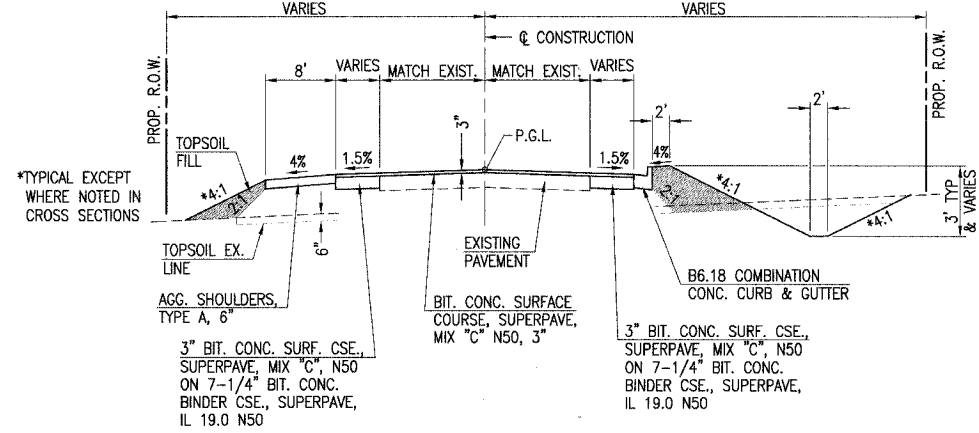
**PROPOSED TYPICAL SECTION**  
 BUCKHART ROAD (C.H. 4)  
 STA 7+96.07 - STA 9+00.00  
 SEE INTERSECTION DETAIL, SHEET 36: STA 7+96.07 - STA 12+23.60



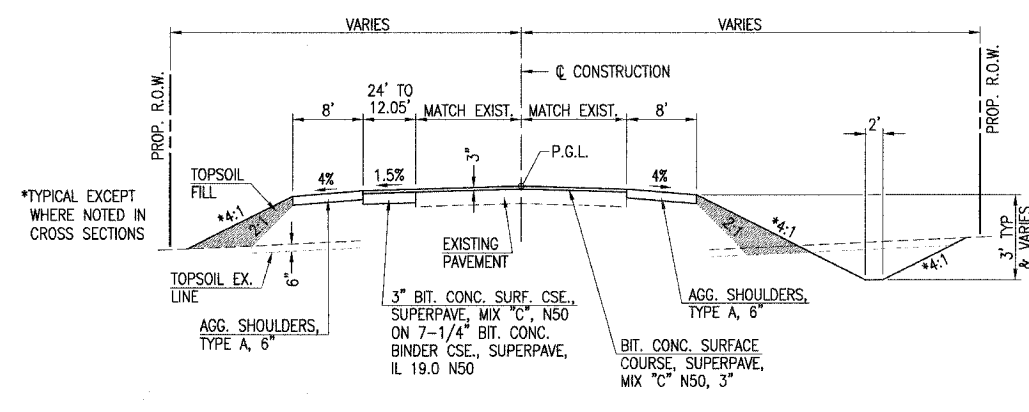
**PROPOSED TYPICAL SECTION**  
 BUCKHART ROAD (C.H. 4)  
 STA 9+00.00 - STA 12+33.38  
 SEE INTERSECTION DETAIL, SHEET 36: STA 7+96.07 - STA 12+23.60



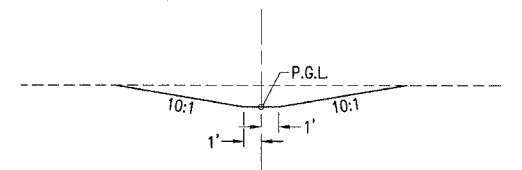
**PROPOSED TYPICAL SECTION**  
 BIKE PATH AT CARDINAL HILL ROAD  
 & IL RTE 29 INTERSECTION  
 SEE INTERSECTION DETAIL, SHEET 34



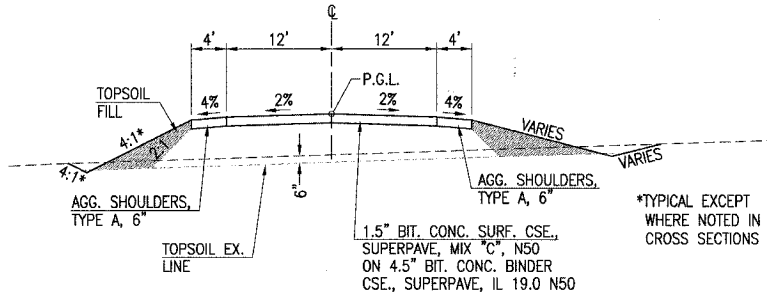
**PROPOSED TYPICAL SECTION**  
 BUCKHART ROAD (C.H. 4)  
 STA 12+33.38 - STA 12+47.63  
 SEE INTERSECTION DETAIL, SHEET 36: STA 7+96.07 - STA 12+23.60



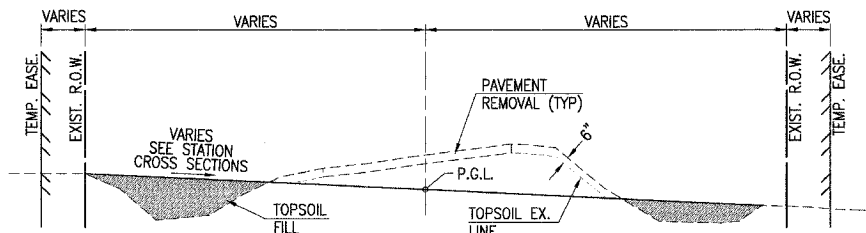
**PROPOSED TYPICAL SECTION**  
 BUCKHART ROAD (C.H. 4)  
 STA 12+47.63 - STA 18+85.00



**PROPOSED TYPICAL SECTION**  
 SWALE NORTH OF COMMUNITY DRIVE



**PROPOSED TYPICAL SECTION**  
 VILLAGE ENTRANCE ROAD  
 STA 504+13.93 - 506+66.44, LT  
 SEE INTERSECTION DETAIL, SHEET 35



**PROPOSED TYPICAL SECTION**  
 CARDINAL HILL ROAD DEGRADING  
 STA 235+75.00 - STA 255+00.00

TYPICAL SECTIONS  
 SEC. 03-00167-04-FP  
 CARDINAL HILL ROAD (C.H. 37)  
 SANGAMON COUNTY



SHEET 5 OF 5  
 JOB NO. 03S2035B  
 DATE 6/21/06

LAYOUT B.B. 3/15/04  
 DRAWN B.B. 7/22/04  
 REVIEWED LUK 7/21/04  
 I:\03A005\03S2035B\CIVIL\03S2035B\03S2035B.DWG JUL 21, 2006 9:37AM B.B.





|                     |                |                  |              |           |
|---------------------|----------------|------------------|--------------|-----------|
| FAU. RITE.          | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO. |
| B075                | 03-00167-04-FP | SANGAMON         | 109          | 12        |
| STA.                |                | TO STA.          |              |           |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |           |

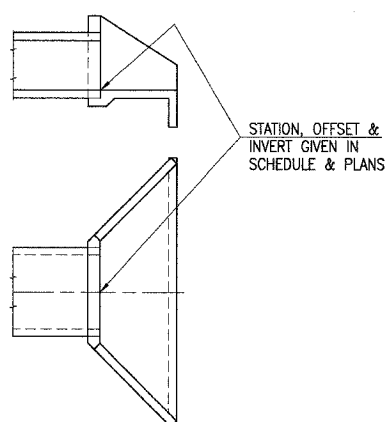
PIPE CULVERT SCHEDULE

| ROADWAY       | C STATION     | REFERENCE STATION*           | REF. OFFSET* (RT ANGLE TO C AT REF STATION) | REFERENCE INVERT*        | 8'x4' PRECAST BOX (M273) FOOT | 10'x3' PRECAST BOX (M273) FOOT | 13'x3' ALUMINUM BOX CULV. FOOT | 24" RCCP TY 1 FOOT | 30" RCCP TY 1 FOOT | EQ RND 24" RCCP TY 1 FOOT | 15" CSCP TY 1 FOOT | 18" CSCP TY 1 FOOT | P.R.C. FLARED END SECTIONS |          |                 | STEEL END SECTIONS |          | BOX CULVERT END SECTIONS |                    |                    | C.L.S.M. CU YD |                        |       |
|---------------|---------------|------------------------------|---------------------------------------------|--------------------------|-------------------------------|--------------------------------|--------------------------------|--------------------|--------------------|---------------------------|--------------------|--------------------|----------------------------|----------|-----------------|--------------------|----------|--------------------------|--------------------|--------------------|----------------|------------------------|-------|
|               |               |                              |                                             |                          |                               |                                |                                |                    |                    |                           |                    |                    | 24" EACH                   | 30" EACH | EQ RND 24" EACH | 15" EACH           | 18" EACH | SPECIAL EACH             | CULVERT NO. 1 EACH | CULVERT NO. 2 EACH |                | ALUMINUM HEADWALL EACH |       |
| CARDINAL HILL | 468+05.77     | 467+45.25 LT<br>468+62.90 RT | 61.48' LT<br>56.29' RT                      | 564.30' LT<br>563.39' RT | 161                           |                                |                                |                    |                    |                           |                    |                    |                            |          |                 |                    |          | 1                        | 1                  |                    | 1              | 121.2                  |       |
| CARDINAL HILL | 468+22.47, RT | 468+18.49 RT<br>468+54.89 RT | 64.92' RT<br>64.72' RT                      | 563.63' RT<br>563.40' RT |                               |                                | 36**                           |                    |                    |                           |                    |                    |                            |          |                 |                    |          |                          |                    |                    | 1              | -                      |       |
| CARDINAL HILL | 468+83.11     | 468+65.33 RT<br>469+00.00 LT | 52.12' RT<br>50.46' LT                      | 563.40' RT<br>563.59' LT |                               |                                |                                |                    | 103                |                           |                    |                    |                            |          | 1               |                    |          |                          |                    |                    |                |                        | 76.3  |
| CARDINAL HILL | 481+51.21, LT | 481+29.90 LT<br>482+00.30 LT | 51.90' LT<br>60.15' LT                      | 564.45' LT<br>562.40' LT |                               |                                |                                |                    |                    |                           |                    | 66                 |                            |          |                 |                    |          |                          |                    |                    |                |                        | -     |
| CARDINAL HILL | 495+62.00, LT | 495+35.80 LT<br>495+87.65 LT | 39.00' LT<br>38.90' LT                      | 571.90' LT<br>572.05' LT |                               |                                |                                |                    |                    |                           |                    | 47                 |                            |          |                 |                    |          |                          |                    |                    |                |                        | -     |
| CARDINAL HILL | 495+62.00, RT | 495+34.45 RT<br>495+88.00 RT | 39.10' RT<br>39.00' RT                      | 571.10' RT<br>571.50' RT |                               |                                |                                |                    |                    |                           |                    | 48                 |                            |          |                 |                    |          |                          |                    |                    |                |                        | -     |
| CARDINAL HILL | 511+20.00, LT | 510+91.10 LT<br>511+51.70 LT | 42.15' LT<br>45.05' LT                      | 575.90' LT<br>575.20' LT |                               |                                |                                |                    |                    |                           | 56                 |                    |                            |          |                 |                    |          |                          |                    |                    |                |                        | -     |
| CARDINAL HILL | 511+20.00, RT | 510+85.10 RT<br>511+56.40 RT | 50.00' RT<br>50.50' RT                      | 573.40' RT<br>573.00' RT |                               |                                |                                |                    |                    |                           |                    | 66                 |                            |          |                 |                    |          |                          |                    |                    |                |                        | -     |
| CARDINAL HILL | 512+30.00     | 512+30.00 LT<br>512+30.00 RT | 31.00' LT<br>30.50' RT                      | 572.44' LT<br>572.56' RT |                               | 62                             |                                |                    |                    |                           |                    |                    |                            |          |                 |                    |          |                          |                    |                    | 2              |                        | 9.4   |
| CARDINAL HILL | 517+49.00, LT | 517+15.90 LT<br>517+81.30 LT | 48.65' LT<br>46.40' LT                      | 573.85' LT<br>574.05' LT |                               |                                |                                |                    |                    |                           | 60                 |                    |                            |          |                 |                    |          |                          |                    |                    |                |                        | -     |
| CARDINAL HILL | 517+49.00, RT | 517+10.70 RT<br>517+86.10 RT | 47.60' RT<br>47.10' RT                      | 574.35' RT<br>574.60' RT |                               |                                |                                |                    |                    |                           | 72                 |                    |                            |          |                 |                    |          |                          |                    |                    |                |                        | -     |
| CARDINAL HILL | 522+70.00, LT | 522+38.30 LT<br>523+01.00 LT | 43.55' LT<br>42.55' LT                      | 575.45' LT<br>575.65' LT |                               |                                |                                |                    |                    |                           | 57                 |                    |                            |          |                 |                    |          |                          |                    |                    |                |                        | -     |
| CARDINAL HILL | 524+17.78, LT | 524+02.60 LT<br>524+66.95 LT | 42.05' LT<br>41.60' LT                      | 575.55' LT<br>575.45' LT |                               |                                |                                |                    |                    |                           | 58                 |                    |                            |          |                 |                    |          |                          |                    |                    |                |                        | -     |
| OAK HILL      | 183+43.70, LT | 183+25.50 LT<br>183+62.90 LT | 28.80' LT<br>30.20' LT                      | 573.15' LT<br>572.90' LT |                               |                                |                                |                    |                    |                           | 33                 |                    |                            |          |                 |                    |          |                          |                    |                    |                |                        | -     |
| OAK HILL      | 184+80.00     | 184+80.00 LT<br>184+80.00 RT | 42.71' LT<br>31.61' RT                      | 572.11' LT<br>572.39' RT |                               |                                |                                | 62                 |                    |                           |                    |                    |                            |          |                 |                    |          |                          |                    |                    |                |                        | 12.8  |
| OAK HILL      | 188+63.50, RT | 188+38.80 RT<br>188+89.20 RT | 36.25' RT<br>36.75' RT                      | 574.30' RT<br>574.05' RT |                               |                                |                                |                    |                    |                           | 46                 |                    |                            |          |                 |                    |          |                          |                    |                    |                |                        | -     |
| OAK HILL      | 195+90.00, LT | 195+65.50 LT<br>196+17.10 LT | 33.00' LT<br>33.00' LT                      | 567.60' LT<br>567.00' LT |                               |                                |                                |                    |                    |                           | 46                 |                    |                            |          |                 |                    |          |                          |                    |                    |                |                        | -     |
| WALNUT ST     | 304+60.00     | 304+60.00 LT<br>304+60.00 RT | 30.96' LT<br>32.05' RT                      | 570.79' LT<br>570.51' RT |                               |                                |                                | 51                 |                    |                           |                    |                    |                            |          |                 |                    |          |                          |                    |                    |                |                        | 10.3  |
| BUCKHART RD   | 9+40.10       | 9+40.10 LT<br>9+40.10 RT     | 74.56' LT<br>62.58' RT                      | 574.91' LT<br>575.10' RT |                               |                                |                                |                    |                    | 133                       |                    |                    |                            |          |                 |                    |          |                          |                    |                    |                |                        | 22.9  |
| BUCKHART RD   | 10+60.50      | 10+60.50 LT<br>10+60.50 RT   | 78.09' LT<br>67.40' RT                      | 575.19' LT<br>575.40' RT |                               |                                |                                |                    |                    | 134                       |                    |                    |                            |          |                 |                    |          |                          |                    |                    |                |                        | 17.2  |
| <b>TOTALS</b> |               |                              |                                             |                          | 161                           | 62                             | 36                             | 113                | 103                | 267                       | 310                | 345                | 4                          | 1        | 4               | 12                 | 12       | 1                        | 1                  | 2                  | 1              |                        | 270.1 |

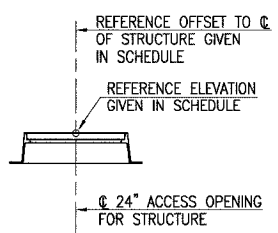
C.I.P. = CAST-IN-PLACE  
C.L.S.M. = CONTROLLED LOW-STRENGTH MATERIAL

\*\*MATERIAL FURNISHED BY THE COUNTY

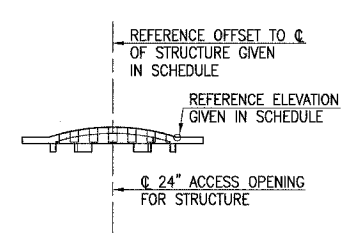
\*REFERENCE STATION, OFFSET, & INVERTS ARE SHOWN IN DETAIL ON THIS SHEET



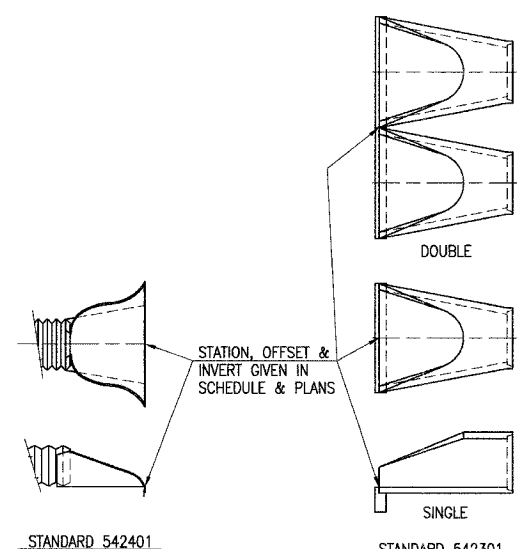
BOX CULVERT END SECTION OFFSETS



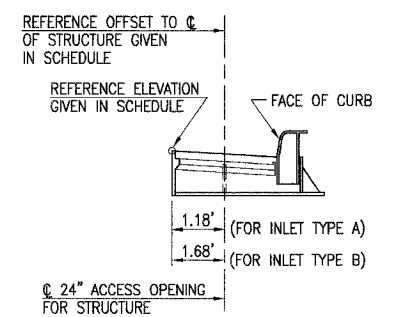
TYPE 1 FRAME & LID



TYPE 8 GRATE



END SECTIONS



TYPE 3 FRAME & GRATE

DRAINAGE SCHEDULE  
SEC. 03-00167-04-FP  
CARDINAL HILL ROAD (C.H. 37)  
SANGAMON COUNTY

SHEET 1 OF 3  
JOB NO. 03S2035B  
DATE 6/21/06

**HANSON**  
Hanson Professional Services Inc.  
1525 South Sixth Street, Springfield, IL 62703  
Registration No. 164-001084  
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LAYOUT: BAR 3/15/04  
DRAWN: BAR 7/22/04  
REVIEWED: LOK 7/27/04  
I:\03\0065\03S2035B\CIVIL\DRAWING\03-00167-04-FP\03S2035B.DWG JUL 21, 2006 9:39AM BAR

STRUCTURE SCHEDULE

Summary table with columns: FAU. RITE, SECTION, COUNTY, TOTAL SHEETS, SHEET NO. Values: 8075, 03-00167-04-FP, SANGAMON, 109, 13.

Main structure schedule table with columns: STRUCT. NO., ROADWAY, REFERENCE STATION, REFERENCE OFFSET, REFERENCE ELEVATION, STRUCTURE INVERT, and various inlet types (MH TY A, INLET TY A, INLET TY B, etc.) and pipe sizes (12 inch, 15 inch, 18 inch, 24 inch).

NOTE: STRUCTURE NUMBERS 1 THRU 12, 43 THRU 98 & 134 ARE NOT USED IN THIS PROJECT. REFERENCE STATION, OFFSET, & INVERTS ARE SHOWN IN DETAIL ON PREVIOUS SHEET.

DRAINAGE SCHEDULE SEC. 03-00167-04-FP CARDINAL HILL ROAD (C.H. 37) SANGAMON COUNTY



SHEET 2 OF 3 JOB NO. 03S2035B DATE 6/21/06

Layout B.B. 3/15/04, Drawn B.B. 7/22/04, Reviewed LDK 7/21/04, I:\03\00167\03S2035B\CADD\SHEDT\C-RDINR.DWG - JUL 21, 2006 9:39AM B.B.

|                     |                |          |              |                  |
|---------------------|----------------|----------|--------------|------------------|
| FAU. RTE.           | SECTION        | COUNTY   | TOTAL SHEETS | SHEET NO.        |
| 8075                | 03-00167-04-FP | SANGAMON | 109          | 14               |
| STA.                |                | TO STA.  |              |                  |
| FED. ROAD DIST. NO. |                | ILLINOIS |              | FED. AID PROJECT |

**STORM SEWER SCHEDULE**

| FROM STRUCT.  | PIPE INVERT | TO STRUCT. | PIPE INVERT | SLOPE % | 12" CL A TYPE 1 FOOT | 15" CL A TYPE 1 FOOT | 18" CL A TYPE 1 FOOT | 24" CL A TYPE 1 FOOT | TRENCH BACKFILL CU YD | C.L.S.M. CU YD |
|---------------|-------------|------------|-------------|---------|----------------------|----------------------|----------------------|----------------------|-----------------------|----------------|
| 13            | 574.40      | 14         | 574.10      | 0.60%   | 49                   |                      |                      |                      | -                     | 6.8            |
| 14            | 574.10      | 15         | 574.05      | 0.89%   | 4                    |                      |                      |                      | 0.5                   | -              |
| 15            | 574.05      | 20         | 573.68      | 0.40%   |                      | 90                   |                      |                      | -                     | -              |
| 16            | 574.21      | 17         | 574.19      | 0.40%   | 3                    |                      |                      |                      | 0.3                   | -              |
| 17            | 574.19      | 19         | 574.00      | 0.39%   | 46                   |                      |                      |                      | -                     | 6.5            |
| 18            | 574.21      | 19         | 574.19      | 0.40%   | 3                    |                      |                      |                      | 0.3                   | -              |
| 19            | 574.00      | 20         | 573.98      | 0.41%   | 4                    |                      |                      |                      | 0.3                   | -              |
| 20            | 573.68      | 23         | 573.35      | 0.20%   |                      |                      | 163                  |                      | 15.1                  | -              |
| 21            | 574.50      | 22         | 574.33      | 0.42%   | 39                   |                      |                      |                      | -                     | 6.3            |
| 22            | 574.33      | 23         | 574.31      | 0.38%   | 3                    |                      |                      |                      | 0.5                   | -              |
| 23            | 573.35      | 26         | 573.13      | 0.20%   |                      |                      | 107                  |                      | -                     | -              |
| 24            | 574.00      | 25         | 573.84      | 0.42%   | 37                   |                      |                      |                      | -                     | 9.4            |
| 25            | 573.84      | 26         | 573.82      | 0.38%   | 3                    |                      |                      |                      | 0.8                   | -              |
| 26            | 573.13      | 29         | 572.69      | 0.20%   |                      |                      | 217                  |                      | -                     | -              |
| 27            | 574.00      | 28         | 573.84      | 0.42%   | 37                   |                      |                      |                      | -                     | 9.4            |
| 28            | 573.84      | 29         | 573.82      | 0.38%   | 3                    |                      |                      |                      | 0.8                   | -              |
| 29            | 572.69      | 32         | 572.52      | 0.15%   |                      |                      |                      | 107                  | 45.3                  | -              |
| 30            | 573.94      | 31         | 573.78      | 0.42%   | 37                   |                      |                      |                      | -                     | 8.2            |
| 31            | 573.78      | 32         | 573.70      | 1.50%   | 3                    |                      |                      |                      | 0.7                   | -              |
| 32            | 572.52      | 33         | 572.45      | 0.17%   |                      |                      |                      | 33                   | -                     | -              |
| 34            | 572.45      | 35         | 572.50      | 0.23%   |                      |                      |                      | 14                   | -                     | -              |
| 35            | 572.50      | 36         | 572.63      | 0.15%   |                      |                      |                      | 86                   | -                     | -              |
| 118           | 573.54      | 117        | 573.52      | 0.40%   | 3                    |                      |                      |                      | 0.5                   | -              |
| 117           | 573.52      | 115        | 573.37      | 0.38%   | 37                   |                      |                      |                      | -                     | 8.2            |
| 116           | 573.54      | 115        | 573.52      | 0.40%   | 3                    |                      |                      |                      | 0.5                   | -              |
| 115           | 573.37      | 36         | 573.35      | 0.41%   | 2                    |                      |                      |                      | 0.3                   | -              |
| 36            | 572.63      | 119        | 572.91      | 0.15%   |                      |                      |                      | 185                  | -                     | -              |
| 121           | 573.97      | 120        | 573.82      | 0.39%   | 37                   |                      |                      |                      | -                     | 8.2            |
| 120           | 573.82      | 119        | 573.80      | 0.38%   | 3                    |                      |                      |                      | 0.6                   | -              |
| 119           | 572.91      | 122        | 573.30      | 0.15%   |                      |                      |                      | 257                  | 18.9                  | -              |
| 123           | 573.50      | 122        | 573.48      | 0.38%   | 3                    |                      |                      |                      | 0.5                   | -              |
| 122           | 573.30      | 124        | 573.50      | 0.15%   |                      |                      |                      | 127                  | -                     | -              |
| 127           | 573.91      | 125        | 573.75      | 0.42%   | 37                   |                      |                      |                      | -                     | 7.5            |
| 126           | 573.77      | 125        | 573.75      | 0.40%   | 3                    |                      |                      |                      | 0.3                   | -              |
| 125           | 573.75      | 124        | 573.73      | 0.42%   | 2                    |                      |                      |                      | 0.2                   | -              |
| 124           | 573.50      | 128        | 573.78      | 0.15%   |                      |                      |                      | 185                  | -                     | -              |
| 130           | 574.16      | 129        | 574.00      | 0.42%   | 37                   |                      |                      |                      | -                     | 8.6            |
| 129           | 574.00      | 128        | 573.98      | 0.38%   | 3                    |                      |                      |                      | 0.4                   | -              |
| 128           | 573.78      | 131        | 574.51      | 0.20%   |                      |                      | 363                  |                      | 27.5                  | -              |
| 131           | 574.51      | 132        | 574.53      | 0.41%   | 2                    |                      |                      |                      | 0.2                   | -              |
| 132           | 574.53      | 133        | 574.55      | 0.50%   | 2                    |                      |                      |                      | 0.2                   | -              |
| 37            | 575.25      | 38         | 575.10      | 1.27%   |                      | 5                    |                      |                      | 0.2                   | -              |
| 39            | 576.30      | 40         | 576.20      | 1.96%   |                      | 3                    |                      |                      | 0.3                   | -              |
| 40            | 576.20      | 41         | 575.50      | 0.53%   |                      | 128                  |                      |                      | 2.5                   | -              |
| 41            | 575.50      | 42         | 575.40      | 0.53%   |                      | 12                   |                      |                      | 0.2                   | -              |
| 99            | 571.35      | 100        | 571.10      | 0.36%   | 69                   |                      |                      |                      | 3.0                   | -              |
| 100           | 571.10      | 101        | 570.51      | 0.46%   | 121                  |                      |                      |                      | 3.6                   | -              |
| 102           | 576.35      | 103        | 576.10      | 1.19%   |                      |                      | 14                   |                      | -                     | -              |
| 103           | 576.10      | 104        | 575.80      | 0.20%   |                      |                      | 148                  |                      | 17.4                  | -              |
| 104           | 575.80      | 105        | 575.95      | 1.38%   | 9                    |                      |                      |                      | 0.1                   | -              |
| 104           | 575.80      | 106        | 575.20      | 0.20%   |                      |                      | 298                  |                      | 12.3                  | -              |
| 106           | 575.20      | 107        | 575.10      | 0.19%   |                      |                      | 46                   |                      | -                     | -              |
| 108           | 576.55      | 109        | 575.91      | 3.08%   |                      |                      | 14                   |                      | -                     | -              |
| 109           | 575.91      | 110        | 575.61      | 0.20%   |                      |                      | 148                  |                      | 19.1                  | -              |
| 110           | 575.61      | 111        | 575.85      | 2.20%   | 9                    |                      |                      |                      | 0.1                   | -              |
| 110           | 575.61      | 112        | 575.23      | 0.20%   |                      |                      | 188                  |                      | 19.5                  | -              |
| 112           | 575.23      | 113        | 575.01      | 0.20%   |                      |                      | 108                  |                      | 9.8                   | -              |
| 113           | 575.01      | 114        | 574.90      | 0.21%   |                      |                      | 47                   |                      | -                     | -              |
| 135           | 575.00      | 136        | 574.10      | 0.30%   |                      | 298                  |                      |                      | 5.2                   | -              |
| 136           | 574.10      | 137        | 574.00      | 0.66%   |                      | 8                    |                      |                      | -                     | -              |
| 138           | 574.45      | 139        | 574.25      | 0.37%   | 53                   |                      |                      |                      | 5.1                   | -              |
| 139           | 574.25      | 15         | 574.05      | 0.51%   | 37                   |                      |                      |                      | -                     | -              |
| 140           | 574.40      | 17         | 574.19      | 1.19%   | 14                   |                      |                      |                      | 0.5                   | -              |
| <b>TOTALS</b> |             |            |             |         | 757                  | 544                  | 1861                 | 994                  | 214                   | 79.1           |

LAYOUT: B.P. 3/15/04  
 DRAWN: B.B. 7/22/04  
 REVIEWED: L.O.K. 7/27/04  
 I:\03\005\03S2035B\CIVIL\SHEET\03S2035B.DWG JUL 21, 2006 9:39AM B.B.

NOTE:  
 STRUCTURE NUMBERS 1 THRU 12, 43 THRU 98 & 134  
 ARE NOT USED IN THIS PROJECT.

DRAINAGE SCHEDULE  
 SEC. 03-00167-04-FP  
 CARDINAL HILL ROAD (C.H. 37)  
 SANGAMON COUNTY

SHEET 3 OF 3  
 JOB NO. 03S2035B  
 DATE 6/21/06



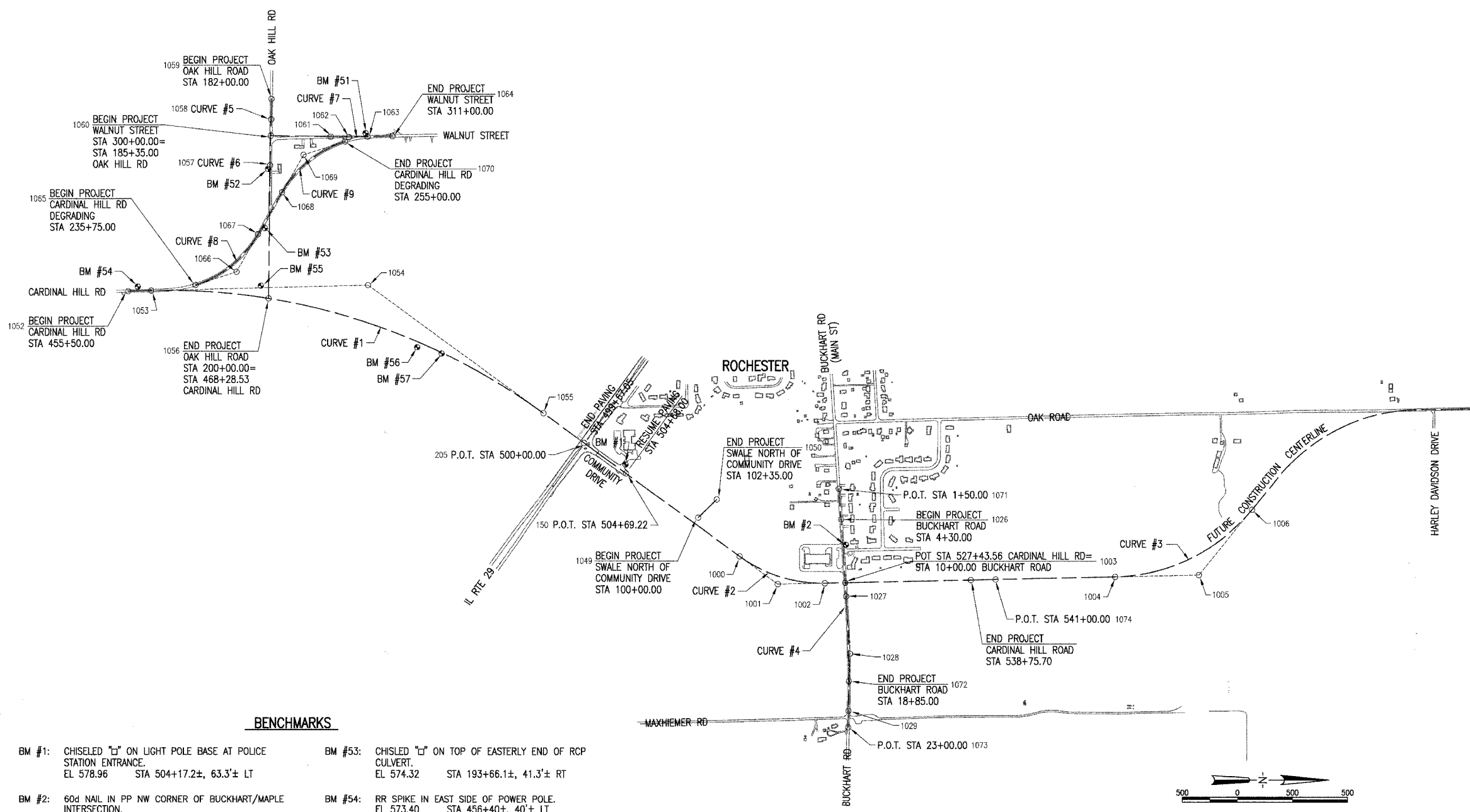
Hanson Professional Services Inc.  
 1525 South Sixth Street, Springfield, IL 62703  
 Registration No. 104-001004  
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| FAU. RTE.                | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO. |
|--------------------------|----------------|------------------|--------------|-----------|
| B075                     | 03-00167-04-FP | SANGAMON         | 109          | 15        |
| STA. _____ TO STA. _____ |                | FED. AID PROJECT |              |           |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                         |                                                                                                                    |                                                                                                                    |                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>CURVE #1</b></p> <p>P.I. STA 477+23.91<br/> <math>\Delta = 37-24-48^\circ</math> R<br/> <math>D_a = 00-59-16"</math><br/> <math>T = 1963.94'</math><br/> <math>R = 5800.00'</math><br/> <math>L = 3787.31'</math><br/> <math>E = 323.48'</math></p> <p>P.C. STA 457+59.97<br/>         P.T. STA 495+47.28<br/>         S.E. = 2.70%<br/>         S.E.A.</p> <p>STA 456+43.00 TO STA 458+18.00<br/>         STA 494+89.00 TO STA 496+64.00</p> | <p><b>CURVE #2</b></p> <p>P.I. STA 521+64.00<br/> <math>\Delta = 37-14-02^\circ</math> L<br/> <math>D_a = 04-31-46"</math><br/> <math>T = 426.14'</math><br/> <math>R = 1265.00'</math><br/> <math>L = 822.07'</math><br/> <math>E = 69.85'</math></p> <p>P.C. STA 517+37.86<br/>         P.T. STA 525+59.93<br/>         S.E. = 4.90%<br/>         S.E.A.</p> <p>STA 515+97.86 TO STA 518+07.86<br/>         STA 524+89.93 TO STA 526+99.93</p> | <p><b>CURVE #3</b></p> <p>P.I. STA 559+44.60<br/> <math>\Delta = 49-25-10^\circ</math> L<br/> <math>D_a = 03-28-21"</math><br/> <math>T = 759.26'</math><br/> <math>R = 1650.00'</math><br/> <math>L = 1423.18'</math><br/> <math>E = 166.31'</math></p> <p>P.C. STA 551+85.34<br/>         P.T. STA 566+08.52<br/>         S.E. = 6.00%<br/>         S.E.A.</p> <p>STA 550+02.34 TO STA 552+52.34<br/>         STA 565+41.52 TO STA 567+99.33</p> | <p><b>CURVE #4</b></p> <p>P.I. STA 16+36.88<br/> <math>\Delta = 5-25-37^\circ</math> R<br/> <math>D_a = 00-31-33"</math><br/> <math>T = 516.31'</math><br/> <math>R = 10894.00'</math><br/> <math>L = 1031.84'</math><br/> <math>E = 12.23'</math></p> <p>P.C. STA 11+20.57<br/>         P.T. STA 21+52.41<br/>         S.E. = NONE</p> | <p><b>CURVE #5</b></p> <p>P.I. STA 183+85.00<br/>         NO CURVE<br/> <math>\Delta = 00-40-05^\circ</math> R</p> | <p><b>CURVE #6</b></p> <p>P.I. STA 188+00.00<br/>         NO CURVE<br/> <math>\Delta = 00-48-52^\circ</math> L</p> | <p><b>CURVE #7</b></p> <p>P.I. STA 307+08.02<br/> <math>\Delta = 2-20-04^\circ</math> L<br/> <math>D_a = 00-41-55"</math><br/> <math>T = 167.08'</math><br/> <math>R = 8200.00'</math><br/> <math>L = 334.12'</math><br/> <math>E = 1.70'</math></p> <p>P.C. STA 305+40.94<br/>         P.T. STA 308+75.06<br/>         S.E. = NONE</p> | <p><b>CURVE #8</b></p> <p>P.I. STA 239+64.67<br/> <math>\Delta = 42-08-14^\circ</math> L<br/> <math>D_a = 5-39-52"</math><br/> <math>T = 389.67'</math><br/> <math>R = 1011.51'</math><br/> <math>L = 743.90'</math><br/> <math>E = 72.46'</math></p> <p>P.C. STA 235+75.00<br/>         P.T. STA 243+18.90</p> | <p><b>CURVE #9</b></p> <p>P.I. STA 251+44.28<br/> <math>\Delta = 42-20-11^\circ</math> R<br/> <math>D_a = 5-39-52"</math><br/> <math>T = 391.69'</math><br/> <math>R = 1011.51'</math><br/> <math>L = 747.42'</math><br/> <math>E = 73.19'</math></p> <p>P.C. STA 247+52.58<br/>         P.T. STA 255+00.00</p> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

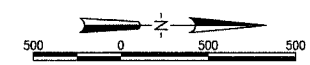
**CENTERLINE POINTS**

| PT # | NORTH      | EAST       |
|------|------------|------------|
| 150  | 1121569.93 | 2476994.16 |
| 205  | 1121190.15 | 2476718.61 |
| 1000 | 1122596.78 | 2477739.17 |
| 1001 | 1122941.69 | 2477989.42 |
| 1002 | 1123367.73 | 2477979.96 |
| 1003 | 1123551.31 | 2477975.89 |
| 1004 | 1125992.49 | 2477921.69 |
| 1005 | 1126751.56 | 2477904.84 |
| 1006 | 1127232.55 | 2477317.37 |
| 1026 | 1123512.43 | 2477407.22 |
| 1027 | 1123559.53 | 2478096.18 |
| 1028 | 1123594.75 | 2478611.28 |
| 1029 | 1123581.10 | 2479127.41 |
| 1049 | 1122221.54 | 2477391.56 |
| 1050 | 1122388.89 | 2477226.58 |
| 1052 | 1117060.88 | 2475354.47 |
| 1053 | 1117270.78 | 2475349.15 |
| 1054 | 1119234.09 | 2475299.42 |
| 1055 | 1120823.71 | 2476452.75 |
| 1056 | 1118335.45 | 2475420.37 |
| 1057 | 1118348.19 | 2474220.44 |
| 1058 | 1118358.49 | 2473805.57 |
| 1059 | 1118360.93 | 2473620.58 |
| 1060 | 1118354.77 | 2473955.52 |
| 1061 | 1118895.62 | 2473965.13 |
| 1062 | 1119062.68 | 2473968.10 |
| 1063 | 1119229.72 | 2473964.26 |
| 1064 | 1119454.60 | 2473959.09 |
| 1065 | 1117672.75 | 2475297.53 |
| 1066 | 1118043.73 | 2475178.26 |
| 1067 | 1118238.80 | 2474840.93 |
| 1068 | 1118455.91 | 2474465.51 |
| 1069 | 1118652.00 | 2474126.43 |
| 1070 | 1119025.31 | 2474007.84 |
| 1071 | 1123493.33 | 2477127.87 |
| 1072 | 1123584.89 | 2478860.03 |
| 1073 | 1123577.20 | 2479274.94 |
| 1074 | 1124907.42 | 2477945.78 |



**BENCHMARKS**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>BM #1:</b> CHISELED "I" ON LIGHT POLE BASE AT POLICE STATION ENTRANCE.<br/>         EL 578.96 STA 504+17.2±, 63.3'± LT</p> <p><b>BM #2:</b> 60d NAIL IN PP NW CORNER OF BUCKHART/MAPLE INTERSECTION.<br/>         EL 578.32 STA 6+57.8±, 29.6'± LT</p> <p><b>BM #51:</b> RR SPIKE IN POWER POLE WEST OF CARDINAL HILL ROAD &amp; WALNUT STREET INTERSECTION.<br/>         EL 575.99 STA 308+58.1±, 30.7'± LT</p> <p><b>BM #52:</b> RR SPIKE IN 2nd POWER POLE WEST OF CARDINAL HILL ROAD &amp; OAK HILL ROAD INTERSECTION.<br/>         EL 578.57 STA 188+32.0±, 16.6'± RT</p> | <p><b>BM #53:</b> CHISELED "I" ON TOP OF EASTERLY END OF RCP CULVERT.<br/>         EL 574.32 STA 193+66.1±, 41.3'± RT</p> <p><b>BM #54:</b> RR SPIKE IN EAST SIDE OF POWER POLE.<br/>         EL 573.40 STA 456+40±, 40'± LT</p> <p><b>BM #55:</b> 60d NAIL IN NORTH FACE OF POWER POLE.<br/>         EL 569.95 STA 467+85±, 155'± LT</p> <p><b>BM #56:</b> 60d NAIL IN EAST FACE OF 18" TREE 200'± SOUTH OF BLACK BRANCH CREEK.<br/>         EL 563.11 STA 482+50±, 50'± RT</p> <p><b>BM #57:</b> 60d NAIL IN WEST FACE OF 24" MAPLE TREE NORTH OF BLACK BRANCH CREEK FORK.<br/>         EL 562.47 STA 484+75±, 10'± RT</p> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|



NOTE: ALL COORDINATES ARE GROUND COORDINATES.

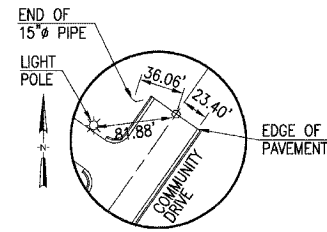
**GEOMETRIC CONTROL**  
 SEC. 03-00167-04-FP  
 CARDINAL HILL ROAD (C.H. 37)  
 SANGAMON COUNTY



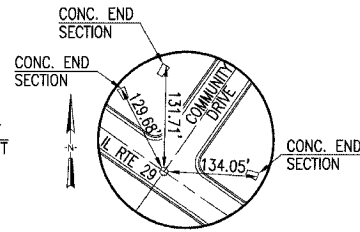
JOB NO.  
03S2035B  
 DATE  
6/21/06

LAYOUT: BJB 3/15/04  
 DRAWN: BJB 7/22/04  
 REVIEWED: LDK 7/21/04  
 I:\03\00167\03S2035B\CAD\1\03S2035B.DWG JUL 21, 2006 9:40AM BJB

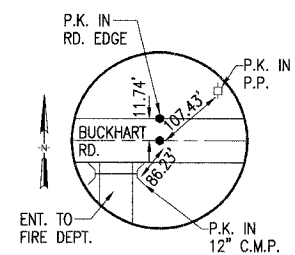
| F.A.U. RITE         | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO. |
|---------------------|----------------|------------------|--------------|-----------|
| 8075                | 03-00167-04-FP | SANGAMON         | 109          | 16        |
| STA.                |                | TO STA.          |              |           |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |           |



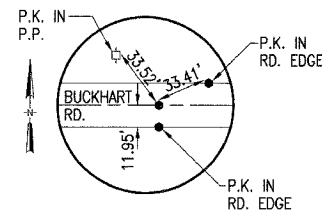
**CONTROL POINT 150**  
P.O.T. STA 504+69.22  
FND. P.K. NAIL



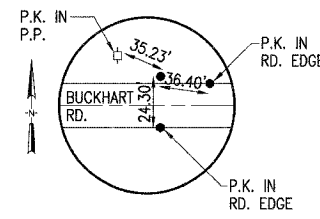
**CENTERLINE POINT 205**  
P.O.T. STA 500+00.00  
FND. P.K. NAIL



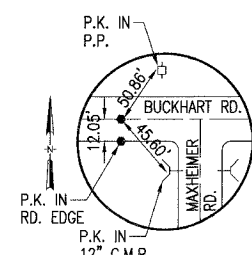
**CENTERLINE POINT 1003**  
P.O.T. STA 527+43.56 CARDINAL HILL RD=  
P.O.T. STA 10+00.00 BUCKHART ROAD  
SET P.K. & WASHER



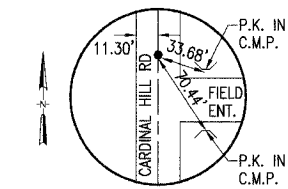
**CENTERLINE POINT 1027**  
P.C. STA 11+20.57  
SET P.K. & WASHER



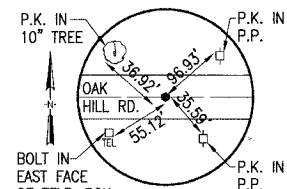
**CENTERLINE POINT 1028**  
P.I. STA 16+36.88  
SET 5/8" I.P.



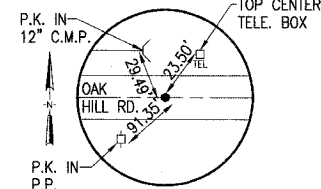
**CENTERLINE POINT 1029**  
P.T. STA 21+52.41  
SET P.K. & WASHER



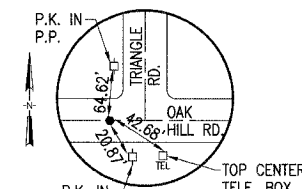
**CENTERLINE POINT 1052**  
P.I. STA 455+50.00  
SET P.K. & WASHER



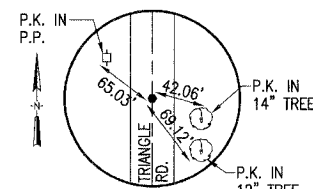
**CENTERLINE POINT 1057**  
P.I. STA 188+00.00  
SET P.K. & WASHER



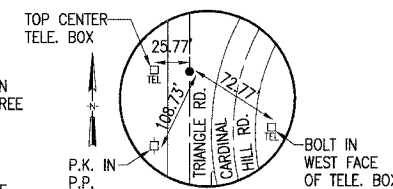
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P.I. STA 183+85.00  
SET P.K. & WASHER



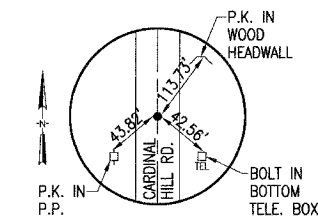
**CENTERLINE POINT 1060**  
P.I. STA 300+00.00 WALNUT STREET=  
STA 185+35.00 OAK HILL ROAD  
SET PK & WASHER



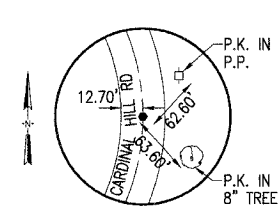
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SET PK & WASHER



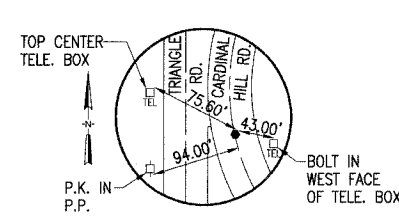
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P.I. STA 307+08.02  
SET PK & WASHER



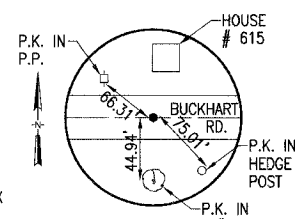
**CENTERLINE POINT 1064**  
P.I. STA 311+00.00  
SET P.K. & WASHER



**CENTERLINE POINT 1065**  
P.C. STA 235+75.00  
SET P.K. & WASHER



**CENTERLINE POINT 1070**  
P.T. STA 255+00.00  
SET P.K. & WASHER




**CENTERLINE POINT 1071**  
P.O.T. STA 1+50.00  
SET P.K. & WASHER

| CENTERLINE POINTS SET BUT NOT REFERENCED |                                                                     |                              |
|------------------------------------------|---------------------------------------------------------------------|------------------------------|
| POINT NO.                                | STATION                                                             | DESCRIPTION                  |
| 1000                                     | P.C. STA. 517+37.86                                                 | SET 5/8" I.P. 18" DEEP       |
| 1001                                     | P.I. STA. 521+64.00                                                 | SET 5/8" I.P. 18" DEEP       |
| 1002                                     | P.T. STA. 525+59.93                                                 | SET 5/8" I.P. 18" DEEP       |
| 1053                                     | P.C. STA. 457+59.97                                                 | SET P.K. & WASHER            |
| 1054                                     | P.I. STA. 477+23.91                                                 | SET 5/8" I.P. 18" DEEP       |
| 1055                                     | P.T. STA. 495+47.28                                                 | SET 5/8" I.P. 18" DEEP       |
| 1056                                     | P.I. STA. 200+00.00 OAK HILL RD=<br>STA. 468+28.53 CARDINAL HILL RD | SET 5/8" I.P. W/CAP 18" DEEP |
| 1059                                     | P.I. STA. 182+00.00                                                 | SET P.K. & WASHER            |
| 1063                                     | P.T. STA. 308+75.06                                                 | SET P.K. & WASHER            |
| 1066                                     | P.I. STA. 239+64.57                                                 | SET 5/8" I.P. W/CAP 18" DEEP |
| 1067                                     | P.T. STA. 243+18.90                                                 | SET P.K. & WASHER            |
| 1068                                     | P.C. STA. 247+52.48                                                 | SET P.K. & WASHER            |
| 1069                                     | P.I. STA. 251+44.28                                                 | SET 5/8" I.P. W/CAP 18" DEEP |
| 1074                                     | P.O.T. STA. 541+00.00                                               | SET 5/8" I.P. 18" DEEP       |

LAYOUT BJB 3/15/04  
DRAWN BJB 7/22/04  
REVIEWED LDK 7/21/04  
I:\03\0085\03S2035B\CIVIL\SH-EET\C-10260.DWG JDL 21. 2006 9:41AM BJB

**CENTERLINE CROSS TIES**  
SEC. 03-00167-04-FP  
CARDINAL HILL ROAD (C.H. 37)  
SANGAMON COUNTY

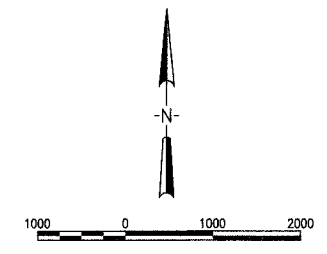
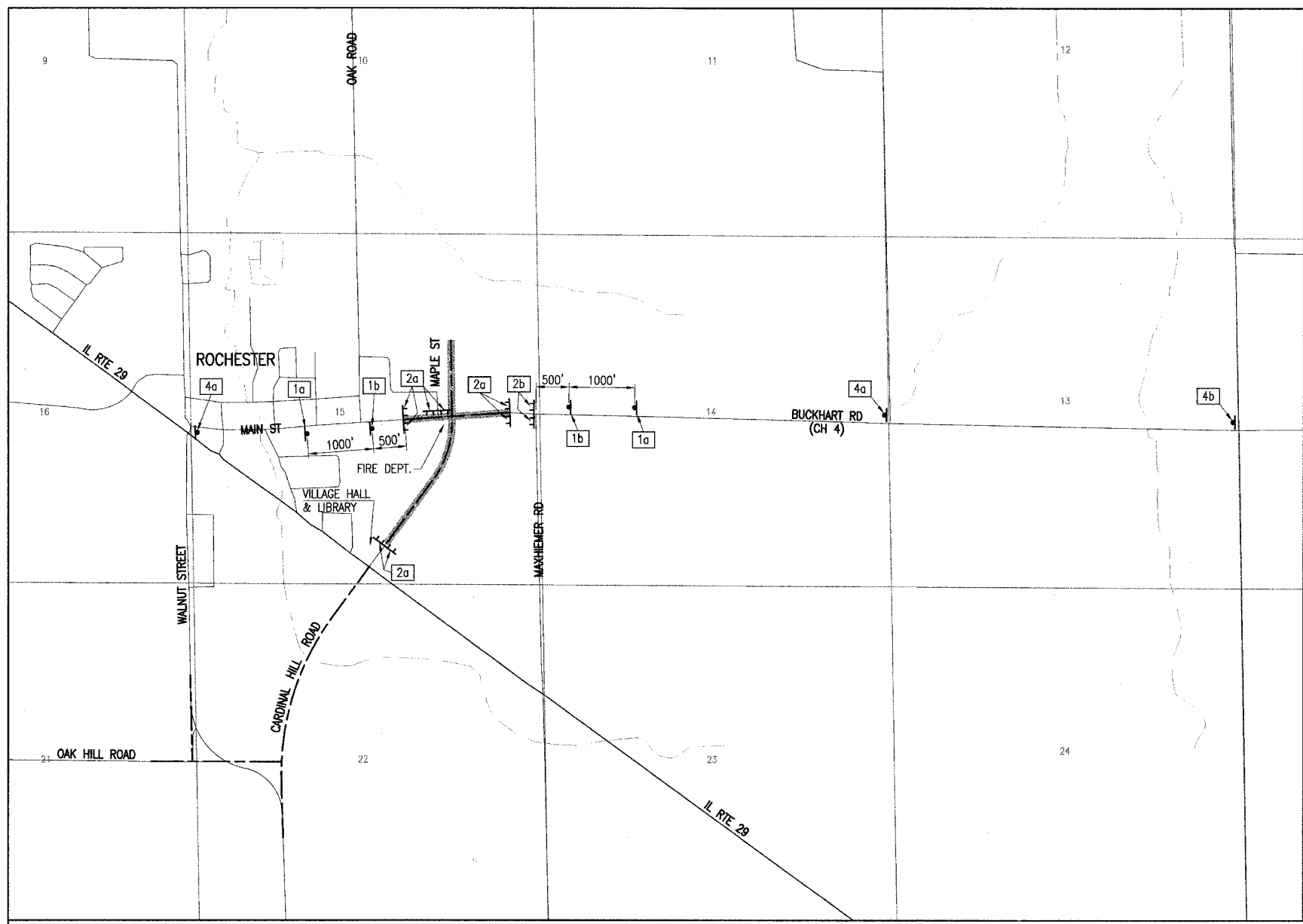


Hanson Professional Services Inc.  
1625 South Sixth Street, Springfield, IL 62703  
Registration No. 154-07084  
© Copyright Hanson Professional Services Inc. 2006

JOB NO.  
03S2035B  
DATE  
6/21/06



| FAU. REF.           | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO. |
|---------------------|----------------|------------------|--------------|-----------|
| 8075                | 03-00167-04-FP | SANGAMON         | 109          | 17        |
| STA.                |                | TO STA.          |              |           |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |           |



**LEGEND**

- 1a ROAD CLOSED AHEAD  
W20-3 (O) 48x48
- 1b ROAD CLOSED 500 FT  
W20-3 (O) 48x48
- 2a ROAD CLOSED  
R11-2 48x30
- 2b ROAD CLOSED TO THRU TRAFFIC  
R11-4 60x30
- 3a MS-1(L) (O)  
21x15
- 3b MS-1(R) (O)  
21x15
- 4a ROAD CLOSED 1 MILE AHEAD  
LOCAL TRAFFIC ONLY  
R11-3 60x30
- 4b ROAD CLOSED 2 MILES AHEAD  
LOCAL TRAFFIC ONLY  
R11-3 60x30
- SIGN
- TYPE III BARRICADE WITH  
2 TYPE A AMBER FLASHING LIGHTS

TRAFFIC CONTROL PLAN NORTH OF RTE 29

**NOTES:**

- CONTRACTOR SHALL PROVIDE NECESSARY TRAFFIC CONTROL DEVICES AND PRACTICES REQUIRED TO MAINTAIN THE SAFE AND EFFICIENT OPERATION OF TRAFFIC IN AND AROUND THE CONSTRUCTION SITE. FIELD MODIFICATION OF THE TRAFFIC CONTROL SCHEME DEPICTED ON THIS SHEET MAY BE REQUIRED TO FIT ACTUAL CONDITIONS. MODIFICATIONS SHALL ONLY BE MADE IF APPROVED IN WRITING BY THE RESIDENT ENGINEER.
- ACCESS TO THE ROCHESTER VILLAGE HALL, LIBRARY AND THE FIRE DEPARTMENT SHALL BE MAINTAINED AT ALL TIMES.

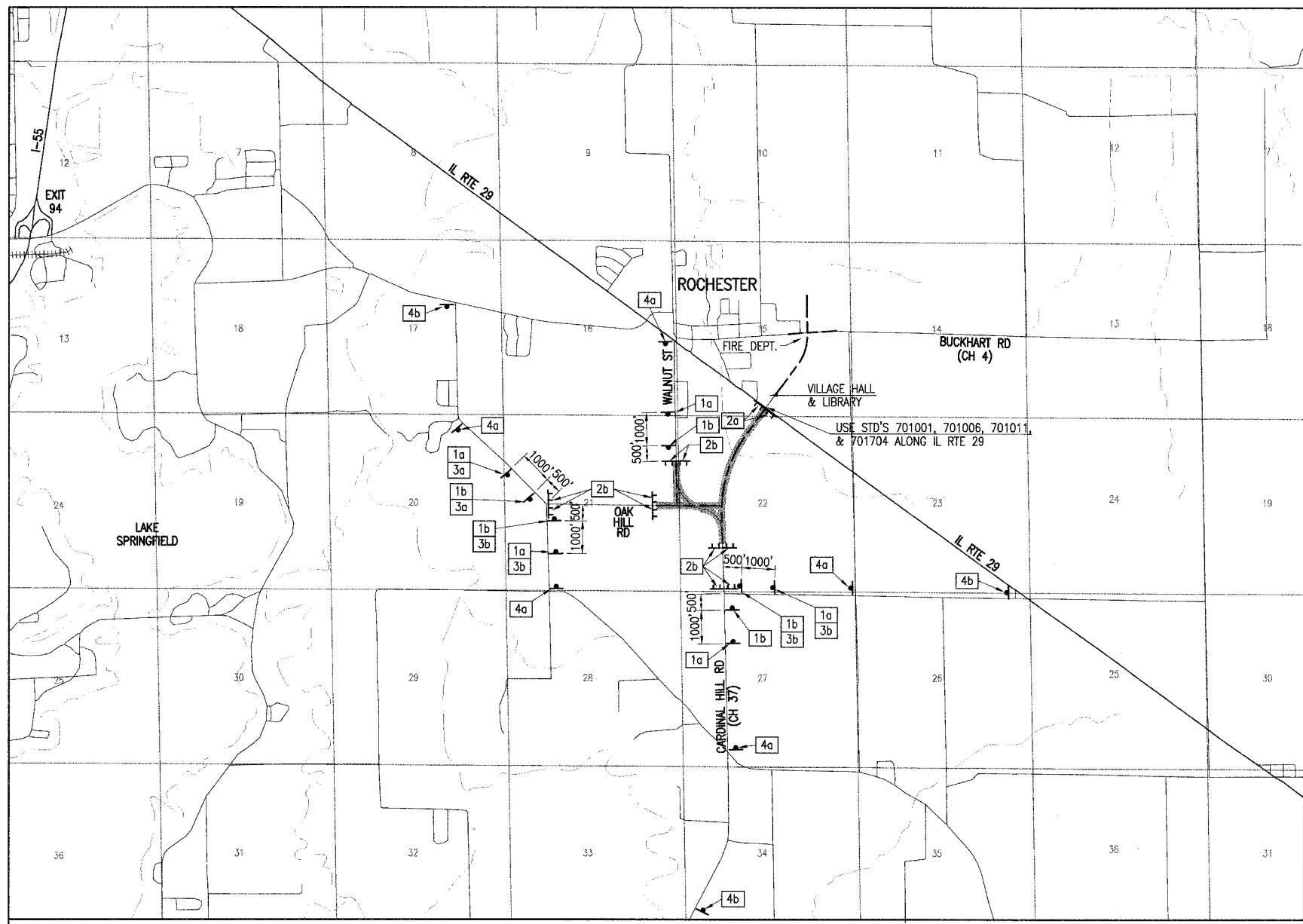
LAYOUT BJB 3/15/04  
 DRAWN BJB 7/22/04  
 REVIEWED LDK 7/21/04  
 I:\03\0085\03S2035B\CIVIL\SHEET\C-101TRF.DWG JUL 21, 2006 9:41AM BJB

**TRAFFIC CONTROL PLAN**  
 SEC. 03-00167-04-FP  
 CARDINAL HILL ROAD (C.H. 37)  
 SANGAMON COUNTY

SHEET 1 OF 2

|                                                                                                                                                                                                             |                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| <b>HANSON</b><br><small>Hanson Professional Services Inc.<br/>1625 South Sixth Street, Springfield, IL 62703<br/>Registration No. 164-001084<br/>© Copyright Hanson Professional Services Inc. 2006</small> | JOB NO.<br>03S2035B |
|                                                                                                                                                                                                             | DATE<br>6/21/06     |

| F.A.U. RTE.         | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO. |
|---------------------|----------------|------------------|--------------|-----------|
| 8075                | 03-00167-04-FP | SANGAMON         | 109          | 18        |
| STA.                |                | TO STA.          |              |           |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |           |



TRAFFIC CONTROL PLAN SOUTH OF RTE 29

**LEGEND**

|    |  |                                                                |
|----|--|----------------------------------------------------------------|
| 1a |  | ROAD CLOSED AHEAD<br>W20-3 (O) 48x48                           |
| 1b |  | ROAD CLOSED 500 FT<br>W20-3 (O) 48x48                          |
| 2a |  | ROAD CLOSED<br>R11-2 48x30                                     |
| 2b |  | ROAD CLOSED TO THRU TRAFFIC<br>R11-4 60x30                     |
| 3a |  | MS-1(L) (O)<br>21x15                                           |
| 3b |  | MS-1(R) (O)<br>21x15                                           |
| 4a |  | ROAD CLOSED 1 MILE AHEAD<br>LOCAL TRAFFIC ONLY<br>R11-3 60x30  |
| 4b |  | ROAD CLOSED 2 MILES AHEAD<br>LOCAL TRAFFIC ONLY<br>R11-3 60x30 |
|    |  | SIGN                                                           |
|    |  | TYPE III BARRICADE WITH<br>2 TYPE A AMBER FLASHING LIGHTS      |

**NOTES:**

- CONTRACTOR SHALL PROVIDE NECESSARY TRAFFIC CONTROL DEVICES AND PRACTICES REQUIRED TO MAINTAIN THE SAFE AND EFFICIENT OPERATION OF TRAFFIC IN AND AROUND THE CONSTRUCTION SITE. FIELD MODIFICATION OF THE TRAFFIC CONTROL SCHEME DEPICTED ON THIS SHEET MAY BE REQUIRED TO FIT ACTUAL CONDITIONS. MODIFICATIONS SHALL ONLY BE MADE IF APPROVED IN WRITING BY THE RESIDENT ENGINEER.
- ACCESS TO THE ROCHESTER VILLAGE HALL, LIBRARY AND THE FIRE DEPARTMENT SHALL BE MAINTAINED AT ALL TIMES.

TRAFFIC CONTROL PLAN  
SEC. 03-00167-04-FP  
CARDINAL HILL ROAD (C.H. 37)  
SANGAMON COUNTY

SHEET 2 OF 2



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Registration No. 184-001084  
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JOB NO.

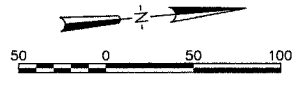
03S2035B

DATE

6/21/06

LAYOUT B.B. 3/15/04  
DRAWN B.B. 7/22/04  
REVIEWED LDK 7/27/04  
I:\03\0085\03S2035B\CIVIL\SHETS\C-10TRF.DWG JUL 21, 2006 9:42AM B.B.

Krefs:  
 C-PP001  
 PLAN-E  
 GRID-E  
 C-ROW

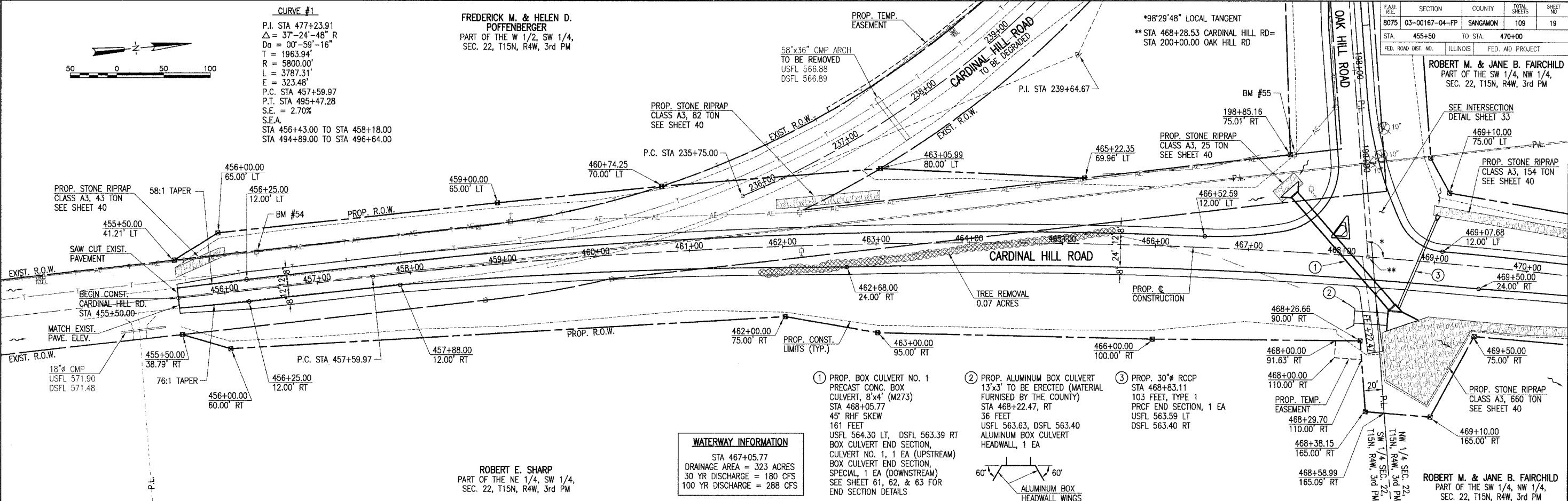


**CURVE #1**  
 P.I. STA 477+23.91  
 $\Delta = 37^\circ-24'-48''$  R  
 $D_a = 00^\circ-59'-18''$   
 $T = 1963.94'$   
 $R = 5800.00'$   
 $L = 3787.31'$   
 $E = 323.48'$   
 P.C. STA 457+59.97  
 P.T. STA 495+47.28  
 $S.E.A. = 2.70\%$   
 STA 456+43.00 TO STA 458+18.00  
 STA 494+89.00 TO STA 496+64.00

**FREDERICK M. & HELEN D. POFFENBERGER**  
 PART OF THE W 1/2, SW 1/4,  
 SEC. 22, T15N, R4W, 3rd PM

| FAM. RITE           | SECTION        | COUNTY   | TOTAL SHEETS     | SHEET NO. |
|---------------------|----------------|----------|------------------|-----------|
| 8075                | 03-00167-04-FP | SANGAMON | 109              | 19        |
| STA                 | 455+50         | TO STA   | 470+00           |           |
| FED. ROAD DIST. NO. | ILLINOIS       |          | FED. AID PROJECT |           |

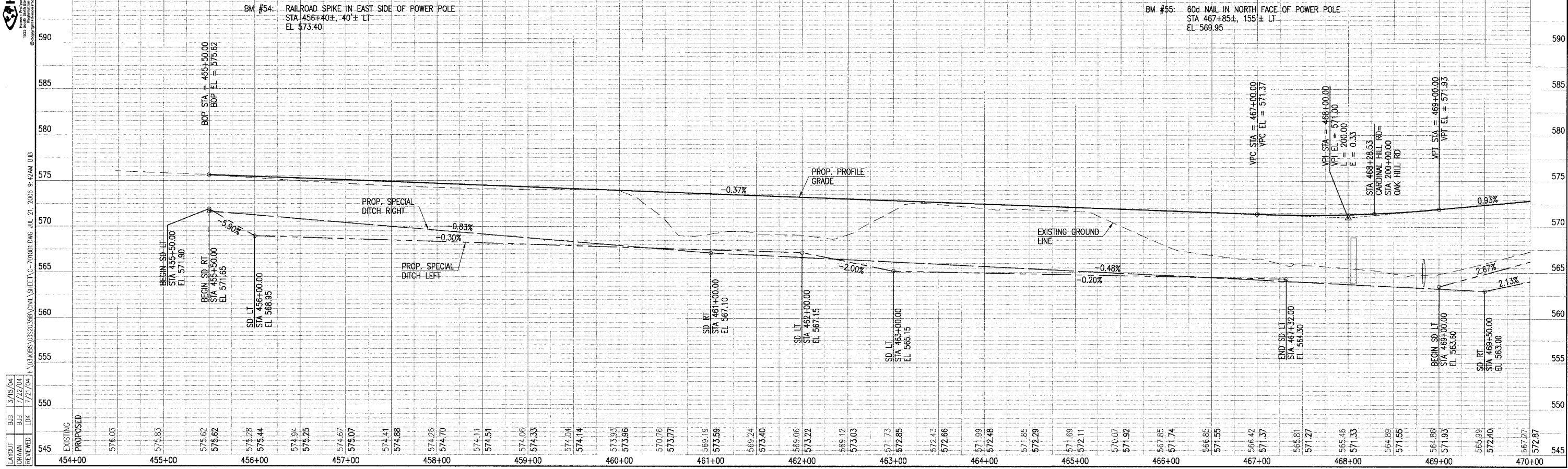
**ROBERT M. & JANE B. FAIRCHILD**  
 PART OF THE SW 1/4, NW 1/4,  
 SEC. 22, T15N, R4W, 3rd PM



**WATERWAY INFORMATION**  
 STA 467+05.77  
 DRAINAGE AREA = 323 ACRES  
 30 YR DISCHARGE = 180 CFS  
 100 YR DISCHARGE = 288 CFS

**ROBERT E. SHARP**  
 PART OF THE NE 1/4, SW 1/4,  
 SEC. 22, T15N, R4W, 3rd PM

**ROBERT M. & JANE B. FAIRCHILD**  
 PART OF THE SW 1/4, NW 1/4,  
 SEC. 22, T15N, R4W, 3rd PM

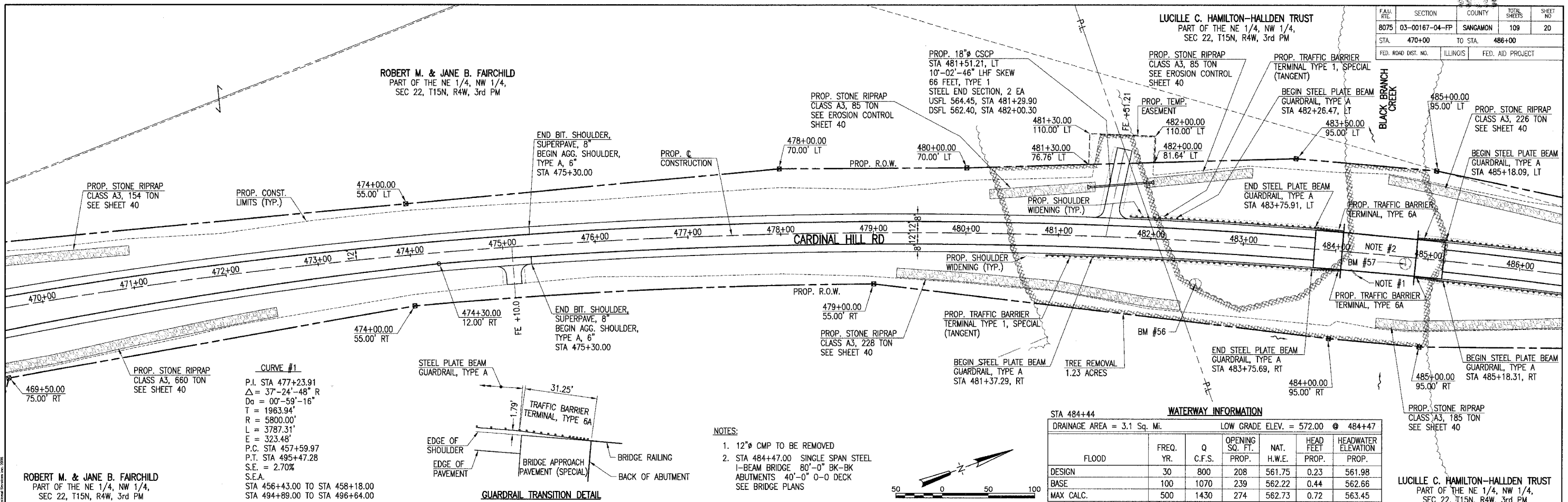


| LAYOUT | DATE    |
|--------|---------|
| BUB    | 3/15/04 |
| BAR    | 7/22/04 |
| LOK    | 7/22/04 |

Xrefs:  
 PLAN-E  
 GRID-E  
 C-PP001  
 C-RP  
 C-TP  
 C-ROW

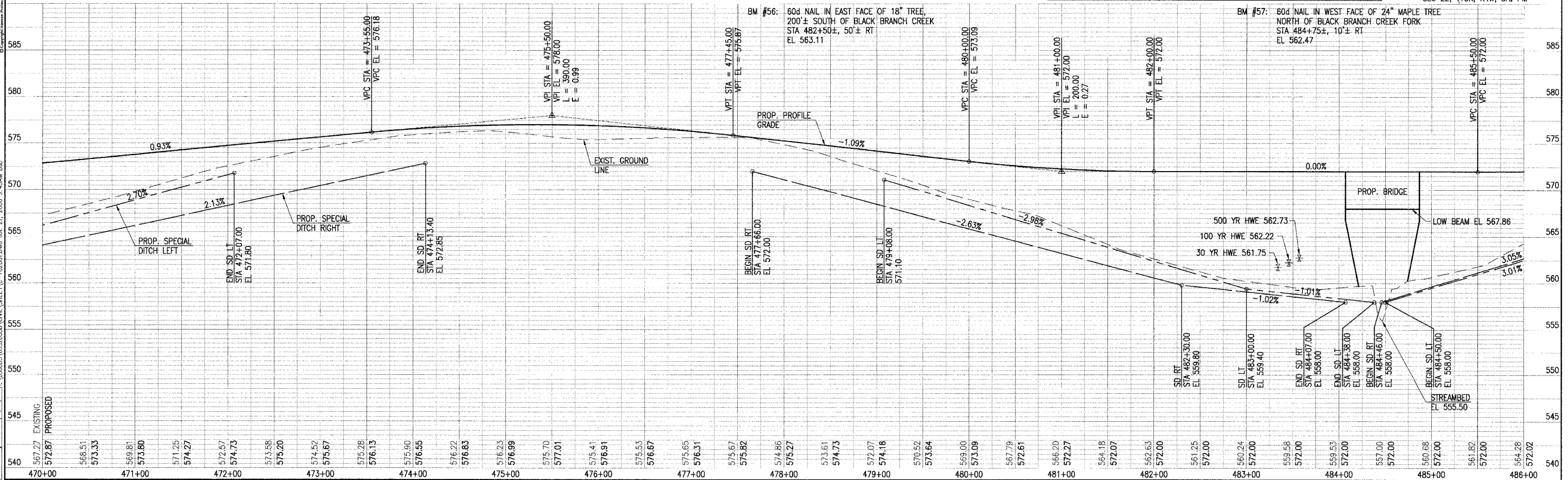
63428

| FAU. RITE.          | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO. |
|---------------------|----------------|------------------|--------------|-----------|
| 8075                | 03-00167-04-FP | SANGAMON         | 109          | 20        |
| STA.                | 470+00         | TO STA.          | 486+00       |           |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |           |



**HANSON**  
 CIVIL ENGINEERING  
 1000 S. WASHINGTON ST., SUITE 200  
 CHAMPAIGN, ILL. 61820  
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LAYOUT 3/15/04  
 DRAWN 7/22/04  
 REVIEWED 7/25/04  
 FILED 7/25/04  
 V:\03\0352035R\CIVIL\PROJECT\03-00167-04-FP\03-00167-04-FP-02001.DWG JUL 21, 2006 9:43AM BJB



CARDINAL HILL ROAD

Xrefs:  
 C-PP001  
 C-RP  
 C-TP  
 PLAN-E  
 GRID-E  
 C-ROW

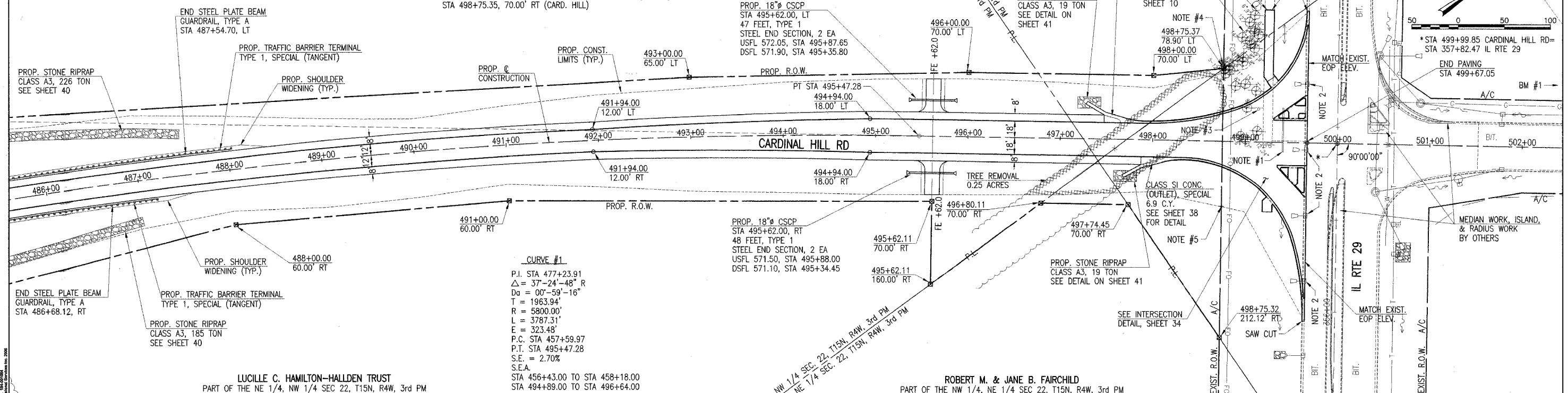
LUCILLE C. HAMILTON-HALDEN TRUST  
 PART OF THE NE 1/4, NW 1/4 SEC 22, T15N, R4W, 3rd PM

NOTES:

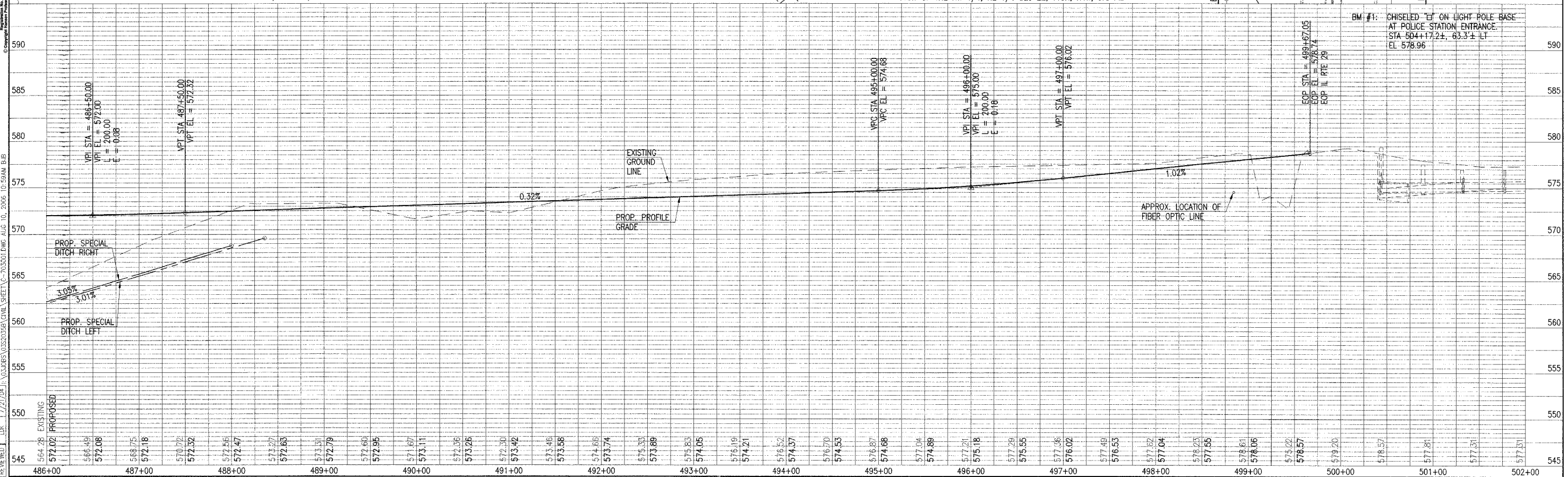
- EXIST. 15" PIPE CULVERT TO BE REMOVED - 35 FEET
- INLETS & STORM SEWERS TO BE REMOVED. SEE SCHEDULE ON SHEET 10.
- "BIKE PATH ENDS" SIGN TO BE REMOVED & RE-ERECTED. THE COST SHALL BE INCLUDED WITH THE COST OF EARTH EXCAVATION.
- END ACCESS CONTROL STA 358+61.37, 124.46' LT (RTE 29) = STA 498+75.37, 78.90' LT (CARD. HILL)
- END ACCESS CONTROL STA 357+12.47, 124.50' RT (RTE 29) = STA 498+75.35, 70.00' RT (CARD. HILL)

LUCILLE C. HAMILTON-HALDEN & MORGAN LIMITED  
 PART OF THE SE 1/4, SW 1/4 SEC 15, T15N, R4W, 3rd PM

| FAU RTE | SECTION        | COUNTY   | TOTAL SHEETS | SHEET NO |
|---------|----------------|----------|--------------|----------|
| 8075    | 03-00167-04-FP | SANGAMON | 109          | 21       |

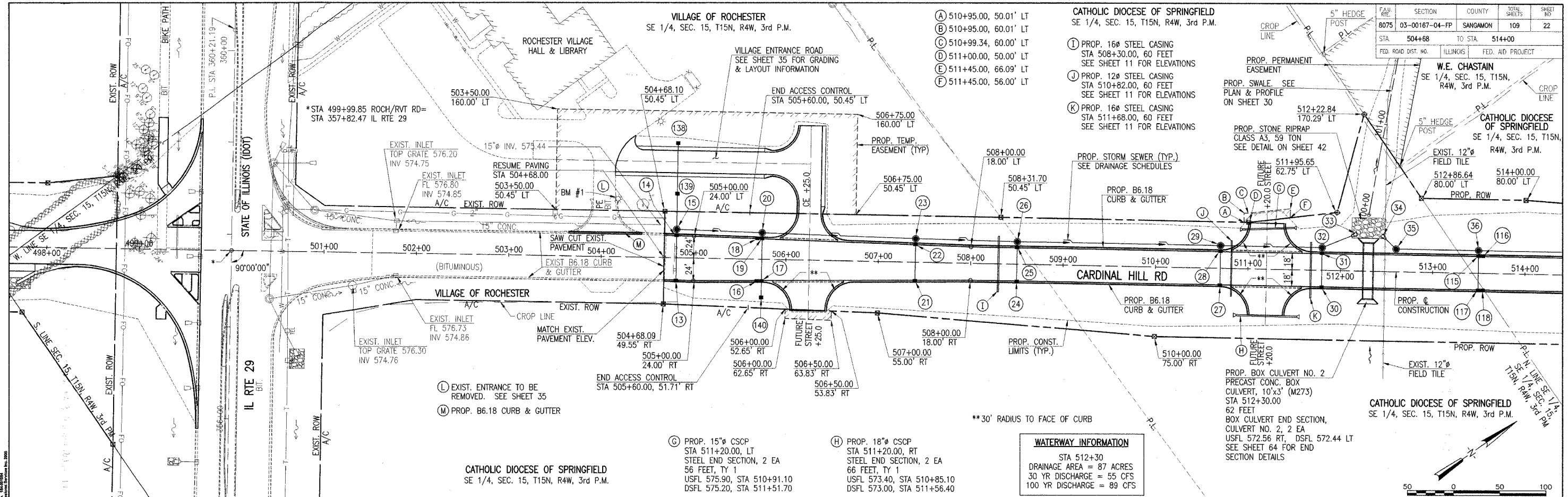


LAYOUT: B.B. 1.3/15/04  
 DRAWN: B.B. 7/22/04  
 REVIEWED: L.K. 7/21/04  
 PROJECT: 03-00167-04-FP CIVIL SHEET C-2033001 DWS AUG. 10, 2006 10:59AM B.B.



BM #1: CHISELED 'E' ON LIGHT POLE BASE AT POLICE STATION ENTRANCE, STA 504+17.2±, 63.3± LT, EL 578.96

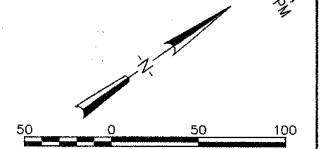
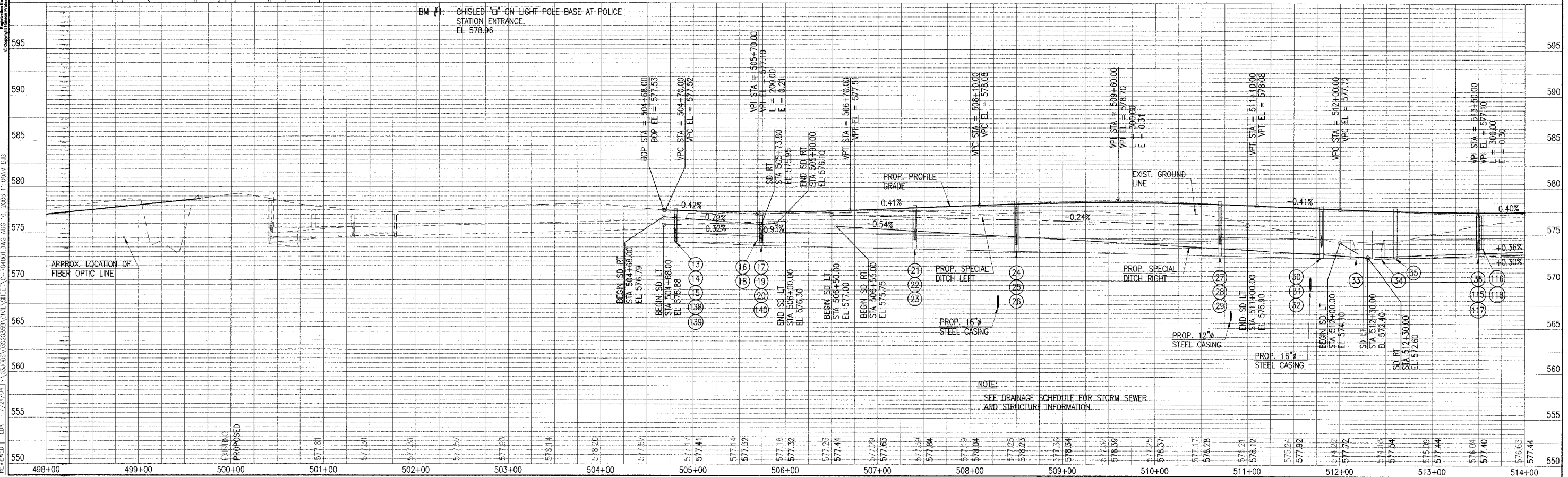
Xrefs:  
 PLAN-E  
 GRID-E  
 C-PP001  
 C-RP  
 C-TP  
 C-ROW



| SECTION             | COUNTY   | TOTAL SHEETS | SHEET NO. |
|---------------------|----------|--------------|-----------|
| 8075 03-00167-04-FP | SANGAMON | 109          | 22        |



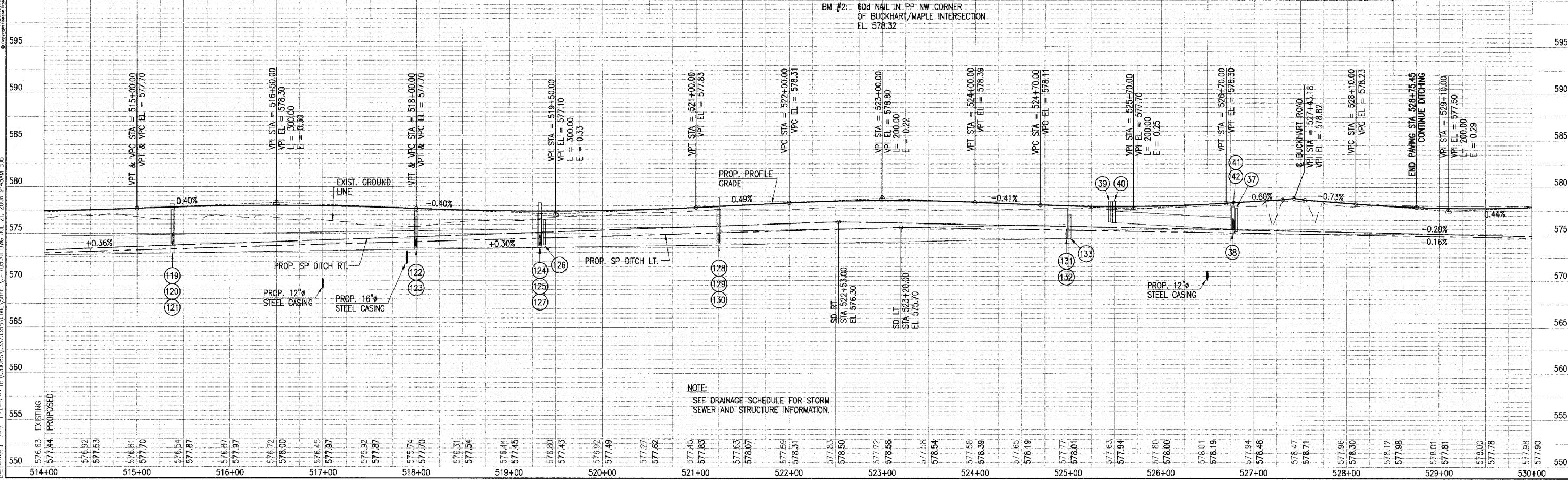
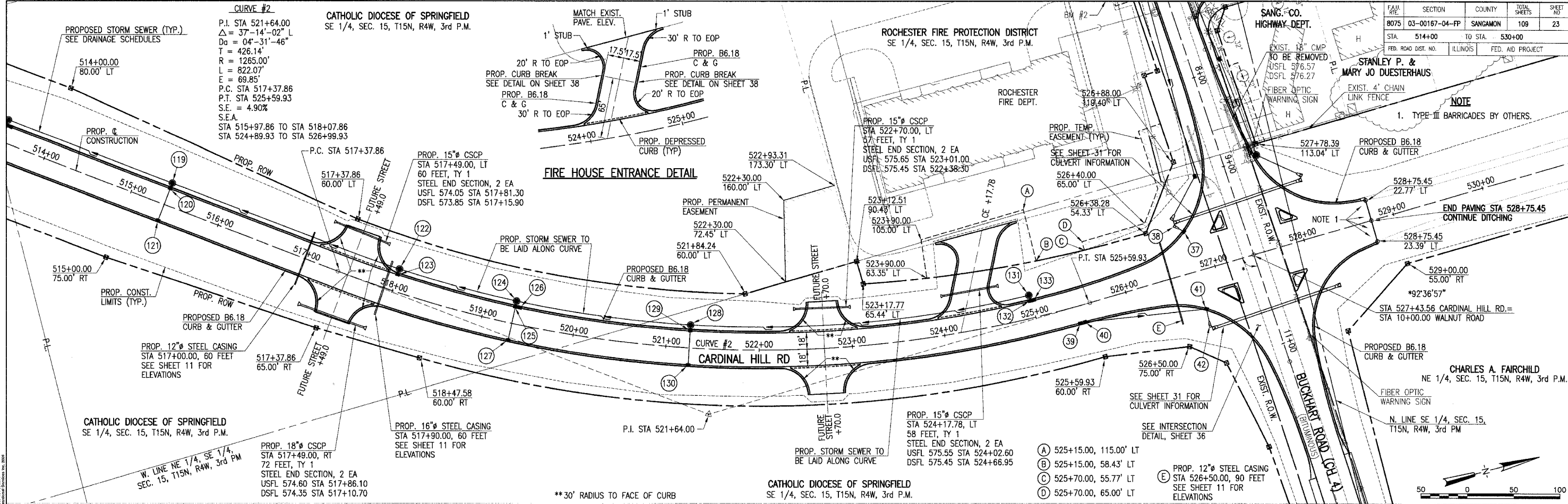
LAYOUT: B/B 3/15/04  
 DRAWN: B/B 7/22/04  
 REVIEWED: LDK 7/21/04  
 PROJECT: 03-00167-04-FP (SHEET) C:\704001.DWG AUG 10, 2005 11:00AM B.B.



CARDINAL HILL ROAD

Xrefs:  
 PLAN-E  
 GRID-E  
 C-RP  
 C-TP  
 C-PP001  
 C-RW

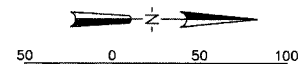
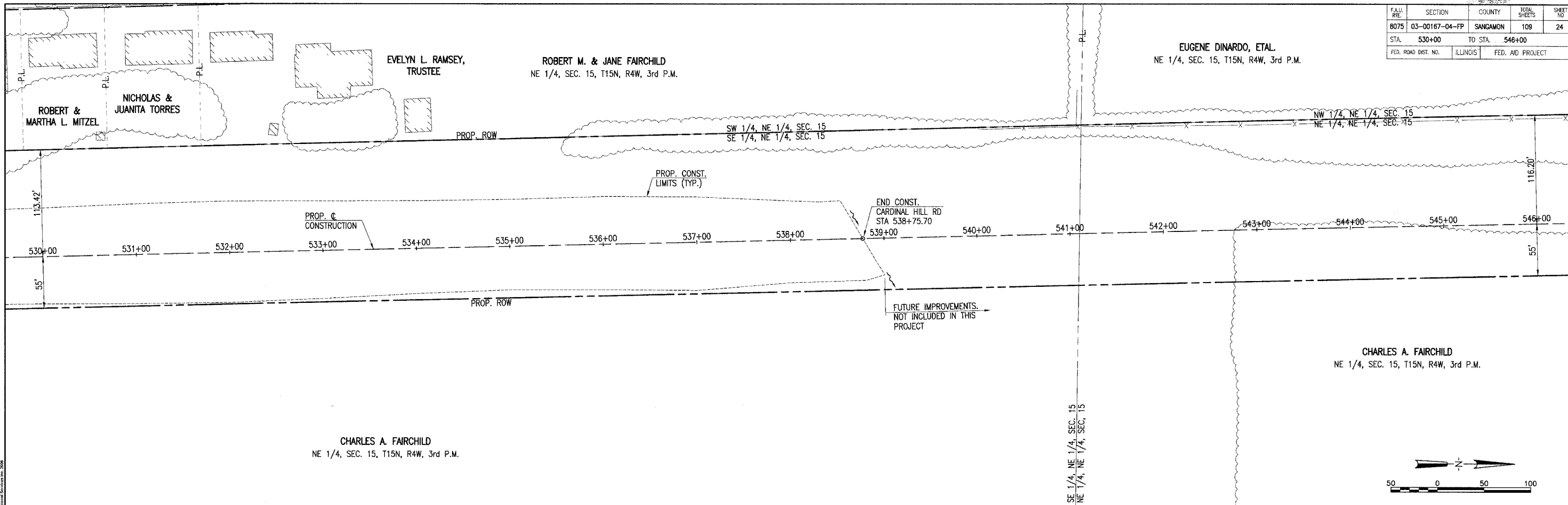
| SECTION             | COUNTY        | TOTAL SHEETS     | SHEET NO |
|---------------------|---------------|------------------|----------|
| 8075 03-00167-04-PP | SANGAMON      | 109              | 23       |
| STA 514+00          | TO STA 530+00 |                  |          |
| FED. ROAD DIST. NO. | ILLINOIS      | FED. AID PROJECT |          |



| LAYOUT | DATE    |
|--------|---------|
| BAB    | 3/15/04 |
| DRW    | 7/22/04 |
| REV    | 7/21/04 |

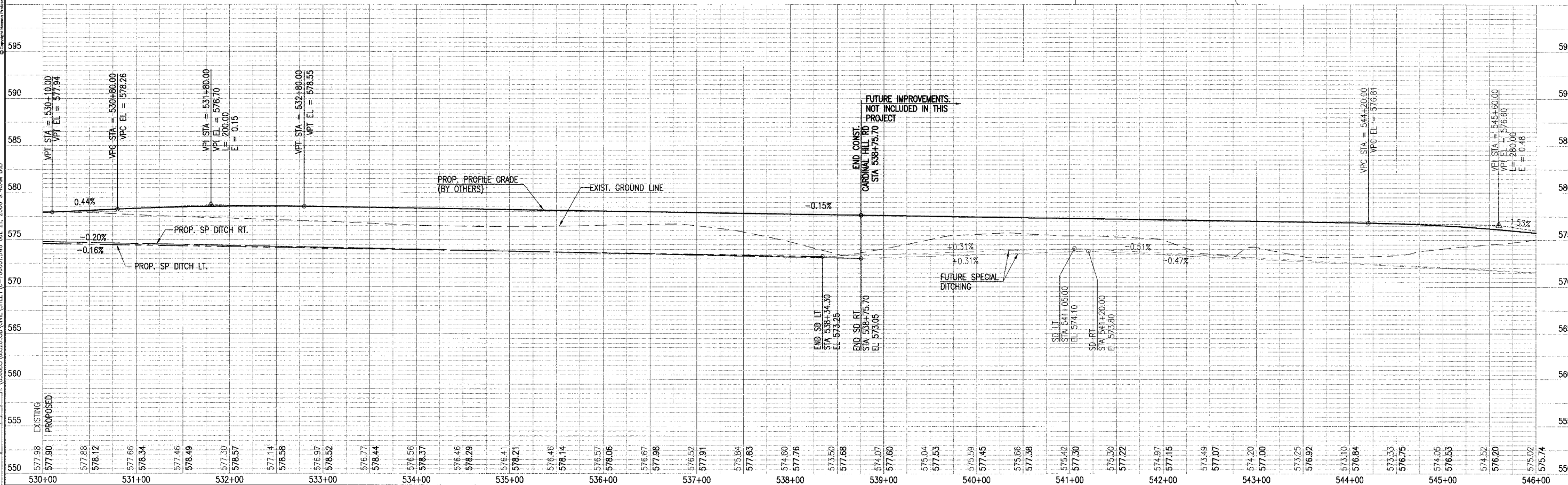
Xrefs:  
 PLAN-E  
 GRID-F  
 C-PROP  
 C-RP  
 C-TP  
 C-ROW

| FAU. RE.            | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO. |
|---------------------|----------------|------------------|--------------|-----------|
| 8075                | 03-00167-04-FP | SANGAMON         | 109          | 24        |
| STA.                | 530+00         | TO STA.          | 546+00       |           |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |           |



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 Springfield, Illinois 62761  
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LAYOUT B.B. 3/15/04  
 DRAWN B.B. 7/22/04  
 REVIEWED L.K. 7/21/04  
 I:\03\085\03203560\CIVIL\SHEET\03-706001.DWG JUL 21, 2008 9:46AM B.B.





Xrefs:  
 PLAN-E  
 GRID-E  
 C-RP  
 C-TP  
 C-PP02  
 C-RW

JEANE E. & RICHARD L. SCOTT  
 PART OF THE SE 1/4, NE 1/4,  
 SEC. 21, T15N, R4W, 3rd PM

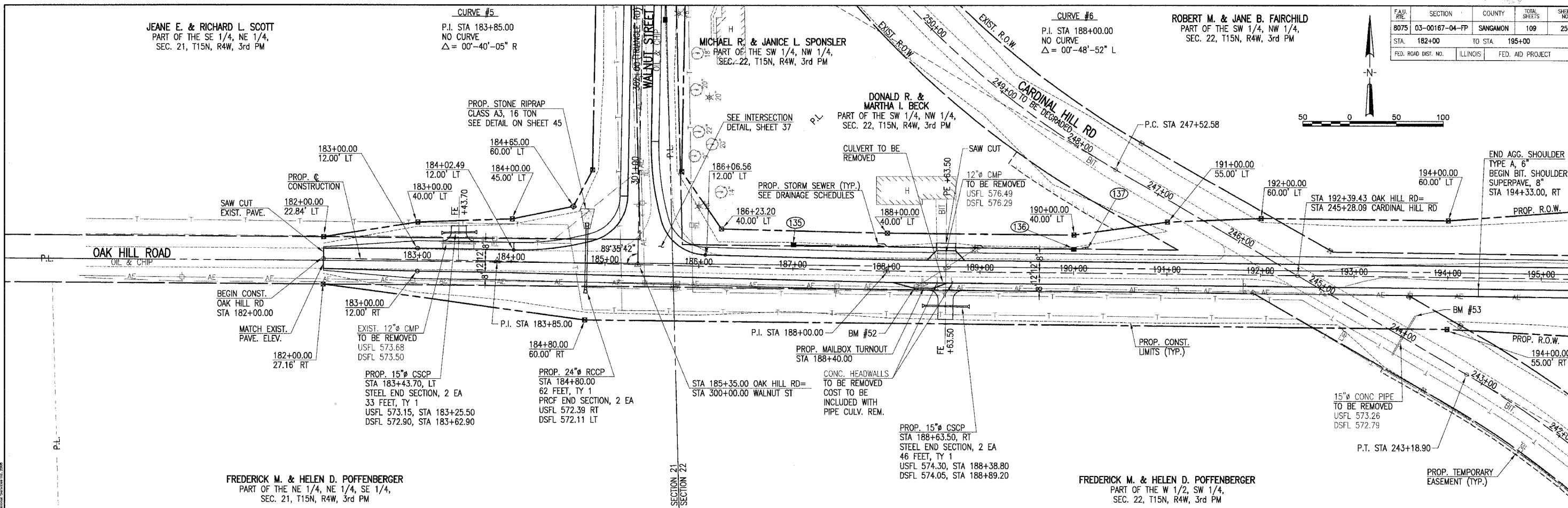
CURVE #5  
 P.I. STA 183+85.00  
 NO CURVE  
 $\Delta = 00^\circ-40'-05''$  R

MICHAEL R. & JANICE L. SPONSLER  
 PART OF THE SW 1/4, NW 1/4,  
 SEC. 22, T15N, R4W, 3rd PM

CURVE #6  
 P.I. STA 188+00.00  
 NO CURVE  
 $\Delta = 00^\circ-48'-52''$  L

ROBERT M. & JANE B. FAIRCHILD  
 PART OF THE SW 1/4, NW 1/4,  
 SEC. 22, T15N, R4W, 3rd PM

| F&M<br>RTE.         | SECTION        | COUNTY         | TOTAL<br>SHEETS  | SHEET<br>NO. |
|---------------------|----------------|----------------|------------------|--------------|
| 8075                | 03-00167-04-FP | SANGAMON       | 109              | 25           |
| STA. 182+00         |                | TO STA. 195+00 |                  |              |
| FED. ROAD DIST. NO. |                | ILLINOIS       | FED. AID PROJECT |              |

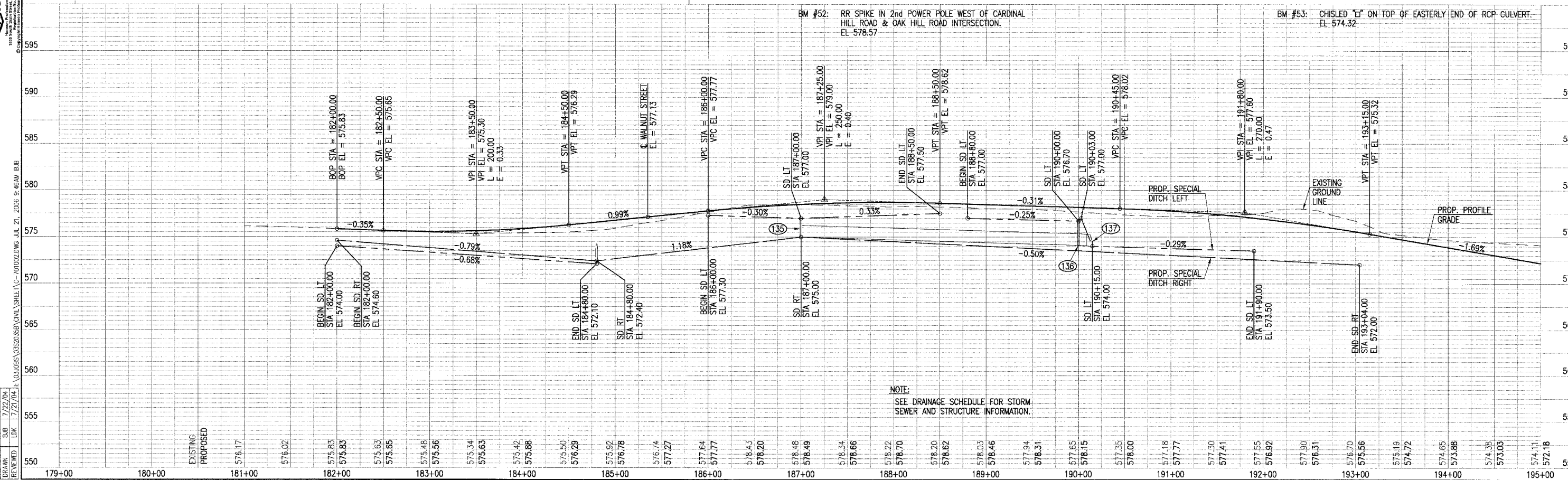


FREDERICK M. & HELEN D. POFFENBERGER  
 PART OF THE NE 1/4, NE 1/4, SE 1/4,  
 SEC. 21, T15N, R4W, 3rd PM

FREDERICK M. & HELEN D. POFFENBERGER  
 PART OF THE W 1/2, SW 1/4,  
 SEC. 22, T15N, R4W, 3rd PM



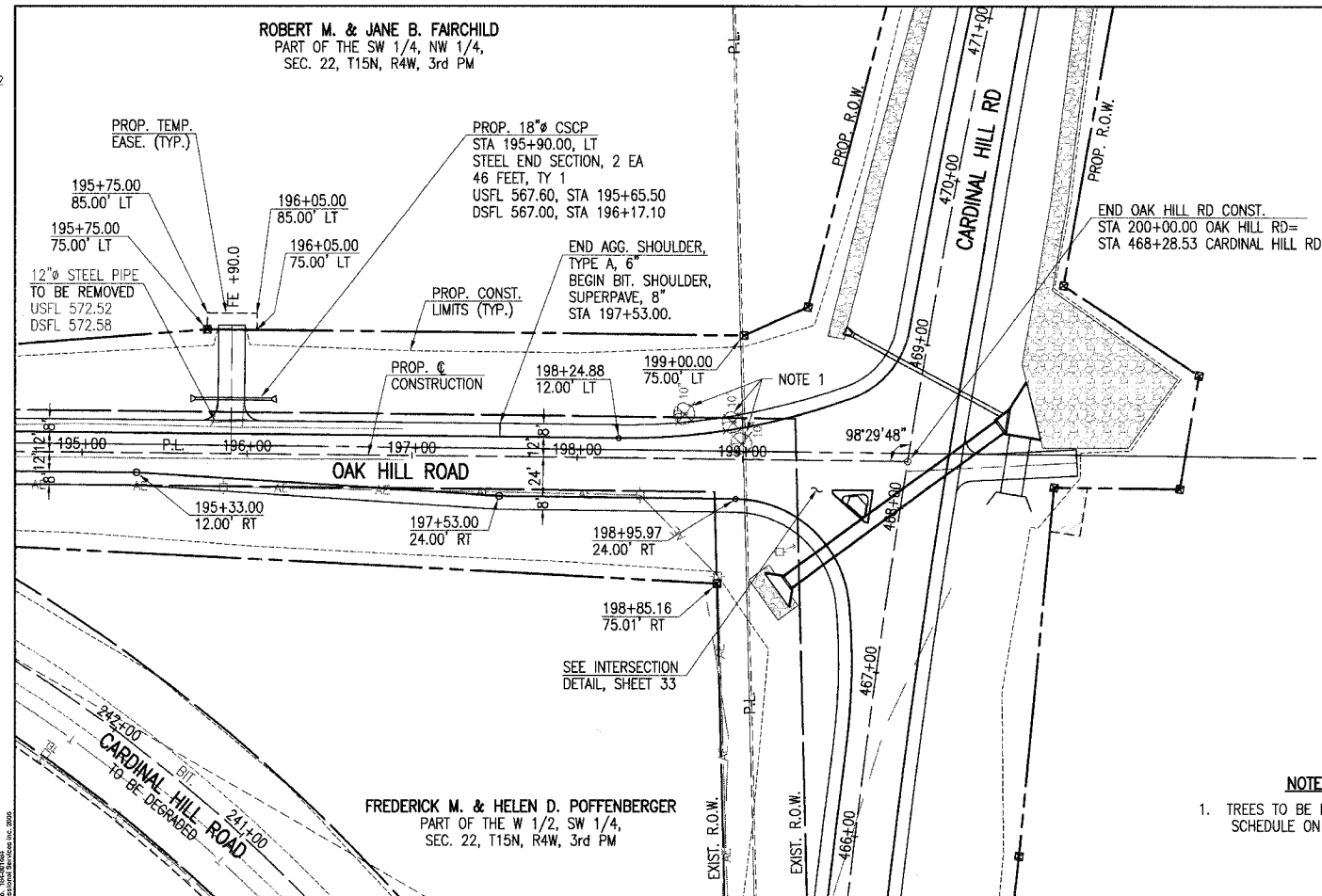
LAYOUT: BB 3/15/04  
 DRAWN: BB 7/22/04  
 REVIEWED: LB 7/23/04  
 1525 N. Lincoln St., Suite 200, Springfield, IL 62761  
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NOTE:  
 SEE DRAINAGE SCHEDULE FOR STORM  
 SEWER AND STRUCTURE INFORMATION.

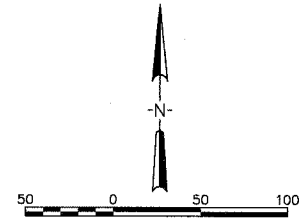
Xrefs:  
PLAN-E  
GRID-E  
C-10  
C-1P  
C-PP002  
C-ROW

| FAU RITE            | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO |
|---------------------|----------------|------------------|--------------|----------|
| 8075                | 03-00167-04-PP | SANGAMON         | 109          | 26       |
| STA. 195+00         | TO STA. 200+00 |                  |              |          |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |          |



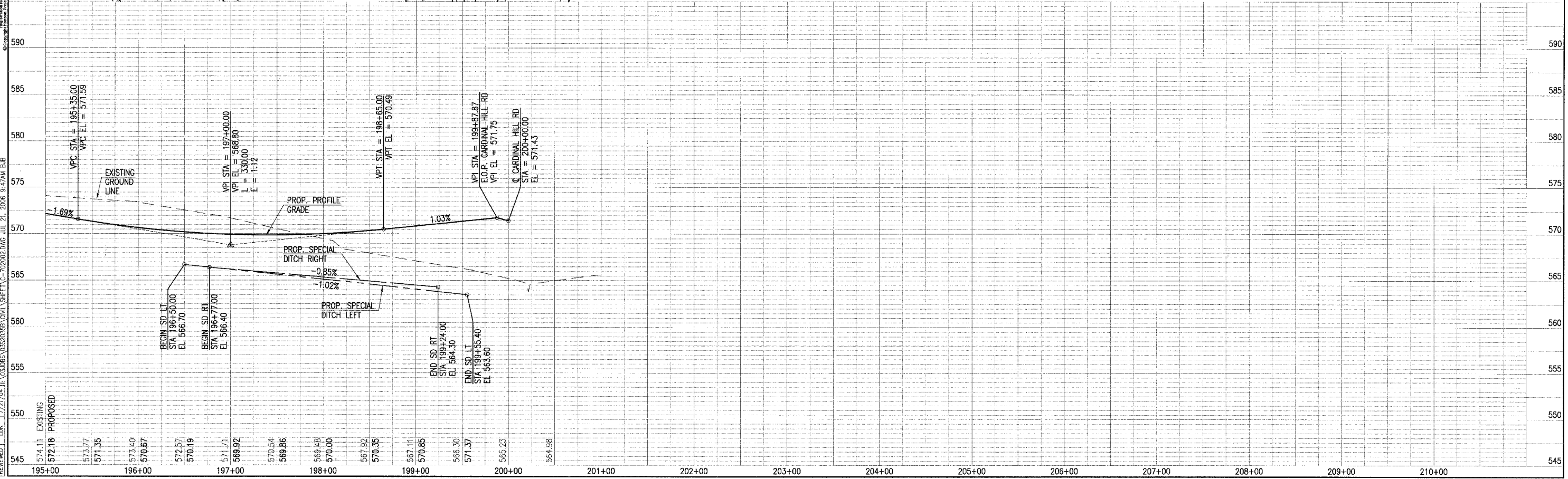
**NOTES**

1. TREES TO BE REMOVED. SEE SCHEDULE ON SHEET 10.



**HANSON**  
1320 W. Professional Building, Springfield, IL 62760  
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LAYOUT: B.B. 3/15/04  
DRAWN: B.B. 7/22/04  
REVIEWED: LUK 7/27/04  
C:\3320359\CIVIL\SHEET\C-702002.DWG JUL 21, 2006 9:47AM B.B.



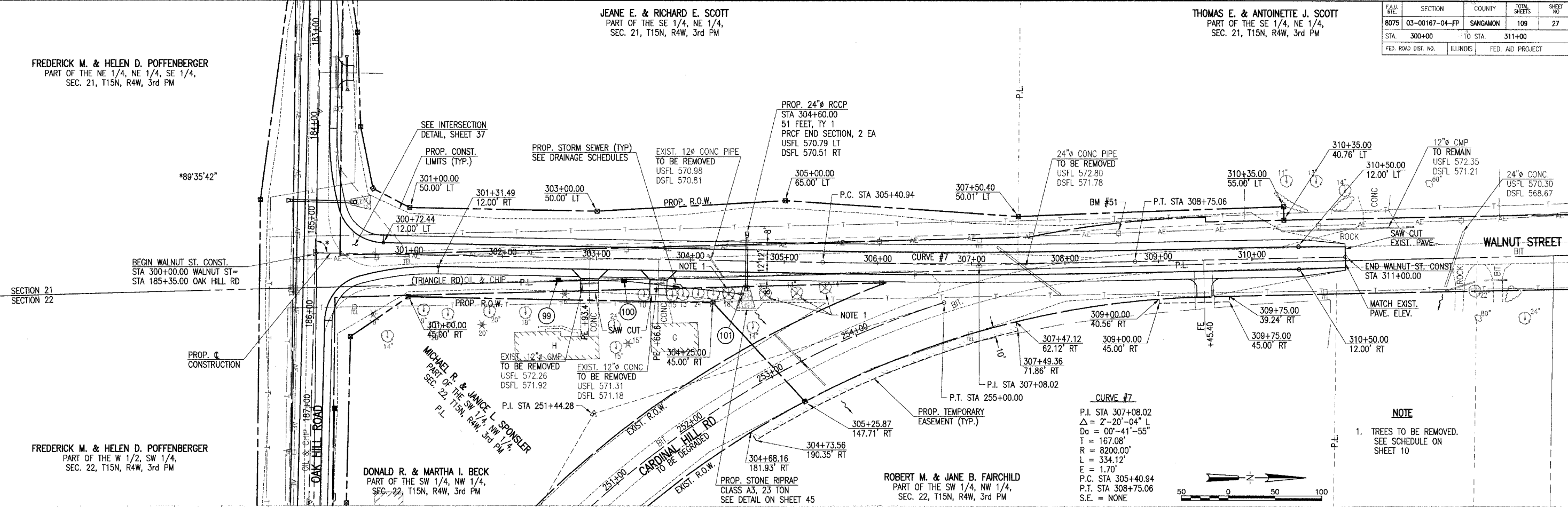
Xrefs:  
 PLAN-E  
 GRID-E  
 C-TP  
 C-RP  
 C-PP004  
 C-ROW

FREDERICK M. & HELEN D. POFFENBERGER  
 PART OF THE NE 1/4, NE 1/4, SE 1/4,  
 SEC. 21, T15N, R4W, 3rd PM

JEANE E. & RICHARD E. SCOTT  
 PART OF THE SE 1/4, NE 1/4,  
 SEC. 21, T15N, R4W, 3rd PM

THOMAS E. & ANTOINETTE J. SCOTT  
 PART OF THE SE 1/4, NE 1/4,  
 SEC. 21, T15N, R4W, 3rd PM

| FAU RITE            | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO |
|---------------------|----------------|------------------|--------------|----------|
| 8075                | 03-00167-04-FP | SANGAMON         | 109          | 27       |
| STA                 | 300+00         | TO STA           | 311+00       |          |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |          |



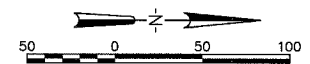
FREDERICK M. & HELEN D. POFFENBERGER  
 PART OF THE W 1/2, SW 1/4,  
 SEC. 22, T15N, R4W, 3rd PM

DONALD R. & MARTHA I. BECK  
 PART OF THE SW 1/4, NW 1/4,  
 SEC. 22, T15N, R4W, 3rd PM

ROBERT M. & JANE B. FAIRCHILD  
 PART OF THE SW 1/4, NW 1/4,  
 SEC. 22, T15N, R4W, 3rd PM

**CURVE #7**  
 P.I. STA 307+08.02  
 $\Delta = 2^\circ-20'-04''$  L  
 $D_a = 00^\circ-41'-55''$   
 $T = 167.08'$   
 $R = 8200.0'$   
 $L = 334.12'$   
 $E = 1.70'$   
 P.C. STA 305+40.94  
 P.T. STA 308+75.06  
 S.E. = NONE

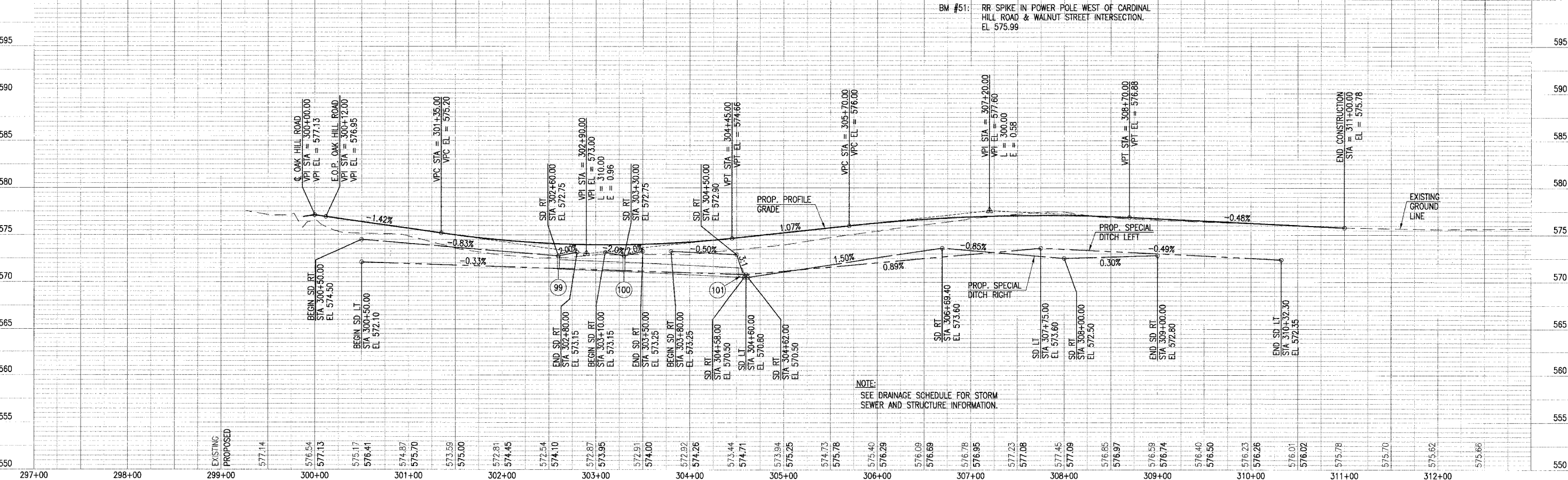
**NOTE**  
 1. TREES TO BE REMOVED.  
 SEE SCHEDULE ON SHEET 10



100% Minimum Professional Liability Insurance  
 100% Minimum Professional Liability Insurance  
 100% Minimum Professional Liability Insurance

| LAYOUT   | DATE    |
|----------|---------|
| B.B.     | 3/15/04 |
| B.B.     | 7/22/04 |
| REVIEWED | 7/27/04 |

03:00BS\032038\03\01\0004.DWG JUL 21, 2006 9:47AM B.B.



**NOTE:**  
 SEE DRAINAGE SCHEDULE FOR STORM SEWER AND STRUCTURE INFORMATION.

WALNUT STREET

Xrefs:  
 PLAN-E  
 GR-D-E  
 C-PP003  
 C-TP  
 C-RP  
 C-RW

FREDERICK M. & HELEN D. POFFENBERGER  
 PART OF THE W 1/2, SW 1/4,  
 SEC. 22, T15N, R4W, 3rd PM

| FAUL. REC. | SECTION        | COUNTY   | TOTAL SHEETS | SHEET NO. |
|------------|----------------|----------|--------------|-----------|
| 8075       | 03-00167-04-FP | SANGAMON | 109          | 28        |

| STA.   | TO STA. |
|--------|---------|
| 235+75 | 248+00  |

| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT |
|---------------------|----------|------------------|
|                     |          |                  |

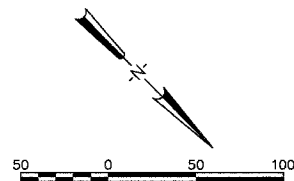
**CURVE #8 - TO BE REMOVED**  
 P.I. STA 239+64.67  
 $\Delta = 42^{\circ}-08'-14''$  L  
 $D_a = 5^{\circ}-39'-52''$   
 $T = 389.67'$   
 $R = 1011.51'$   
 $L = 743.90'$   
 $E = 72.46'$   
 P.C. STA 235+75.00  
 P.T. STA 243+18.90

**CURVE #9 - TO BE REMOVED**  
 P.I. STA 251+44.28  
 $\Delta = 42^{\circ}-20'-11''$  R  
 $D_a = 5^{\circ}-39'-52''$   
 $T = 391.69'$   
 $R = 1011.51'$   
 $L = 747.42'$   
 $E = 73.19'$   
 P.C. STA 247+52.58  
 P.T. STA 255+00.00

ROBERT E. SHARP  
 PART OF THE NE 1/4, SW 1/4,  
 SEC. 22, T15N, R4W, 3rd PM

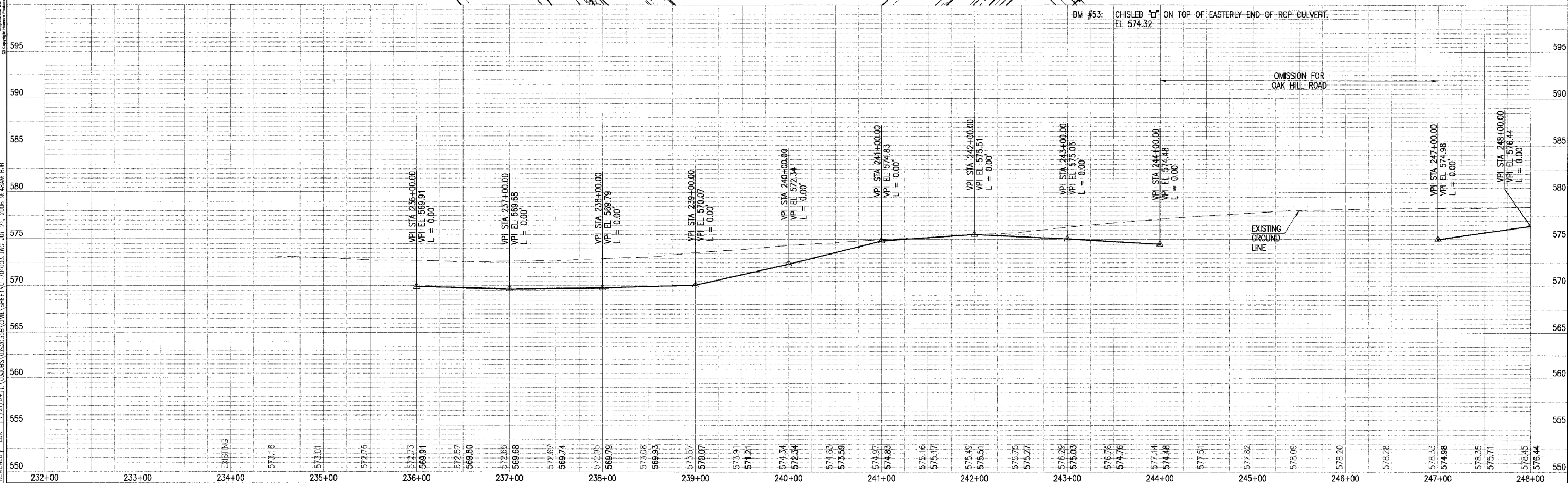
FREDERICK M. & HELEN D. POFFENBERGER  
 PART OF THE W 1/2, SW 1/4,  
 SEC. 22, T15N, R4W, 3rd PM

ROBERT M. & JANE B. FAIRFIELD  
 PART OF THE SW 1/4, NW 1/4,  
 SEC. 22, T15N, R4W, 3rd PM



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 Fax: (309) 241-1112  
 www.hanson-engineering.com

| LAYOUT   | B.B. | 3/15/04 |
|----------|------|---------|
| DRAWN    | B.B. | 7/22/04 |
| REVIEWED | DK   | 7/21/04 |



Xrefs:  
 PLAN-E  
 GRID-E  
 C-PP003  
 C-TP  
 C-RP  
 C-ROW

| FALL                | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO. |
|---------------------|----------------|------------------|--------------|-----------|
| 8075                | 03-00167-04-FP | SANGAMON         | 109          | 29        |
| STA.                | 248+00         | TO STA.          | 255+00       |           |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |           |

JEANE E. & RICHARD E. SCOTT  
 PART OF THE SE 1/4, NE 1/4,  
 SEC. 21, T15N, R4W, 3rd PM

MICHAEL R. & JANICE L. SPONSLER  
 PART OF THE SW 1/4, NW 1/4,  
 SEC. 22, T15N, R4W, 3rd PM

DONALD R. & MARTHA I. BECK  
 PART OF THE SW 1/4, NW 1/4,  
 SEC. 22, T15N, R4W, 3rd PM

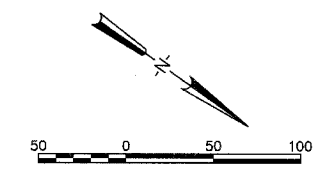
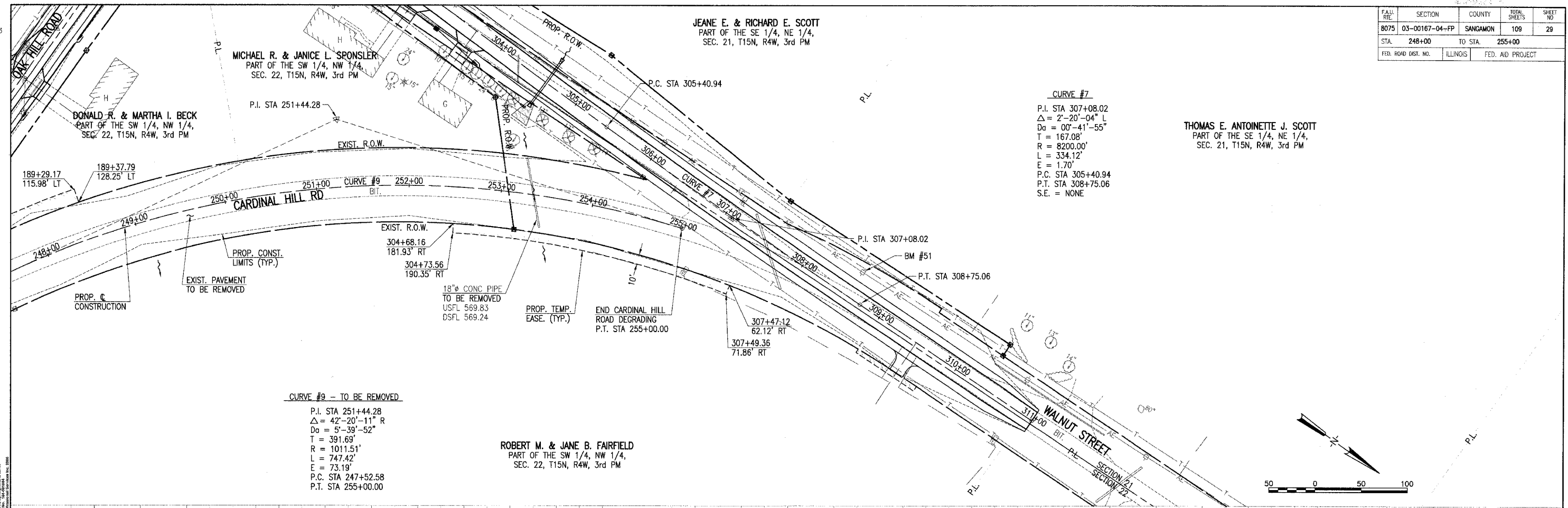
THOMAS E. ANTOINETTE J. SCOTT  
 PART OF THE SE 1/4, NE 1/4,  
 SEC. 21, T15N, R4W, 3rd PM

CURVE #7  
 P.I. STA 307+08.02  
 $\Delta = 2^{\circ}20'04''$  L  
 $D_a = 00^{\circ}41'55''$   
 T = 167.08'  
 R = 8200.00'  
 L = 334.12'  
 E = 1.70'  
 P.C. STA 305+40.94  
 P.T. STA 308+75.06  
 S.E. = NONE

CURVE #9 - TO BE REMOVED  
 P.I. STA 251+44.28  
 $\Delta = 42^{\circ}20'11''$  R  
 $D_a = 5^{\circ}39'52''$   
 T = 391.69'  
 R = 1011.51'  
 L = 747.42'  
 E = 73.19'  
 P.C. STA 247+52.58  
 P.T. STA 255+00.00

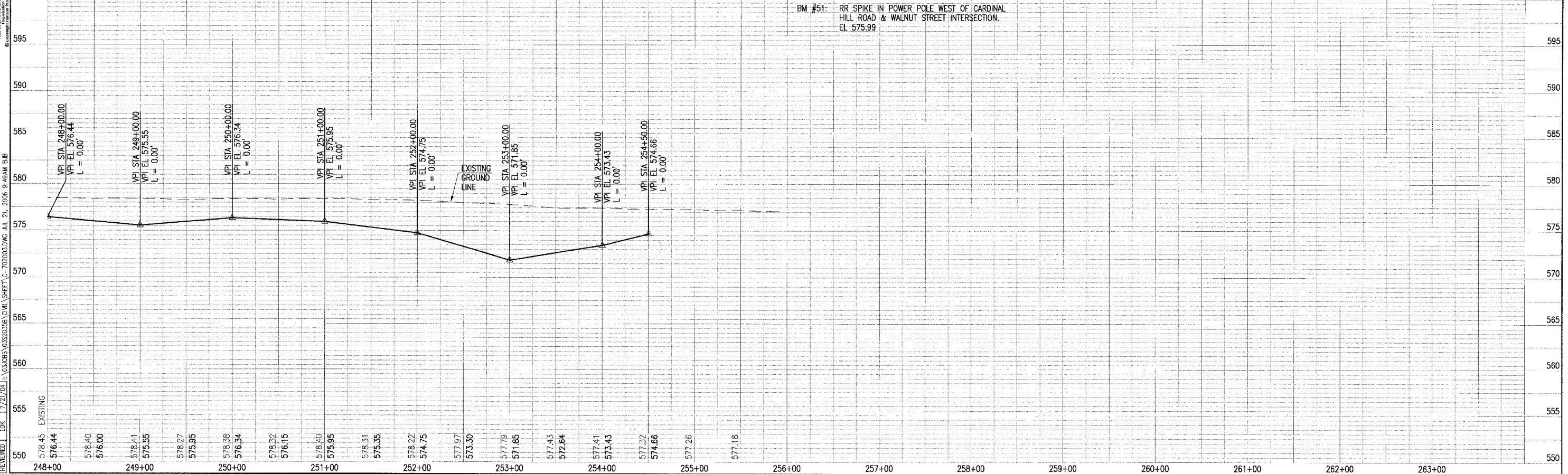
ROBERT M. & JANE B. FAIRFIELD  
 PART OF THE SW 1/4, NW 1/4,  
 SEC. 22, T15N, R4W, 3rd PM

BM #51: RR SPIKE IN POWER POLE WEST OF CARDINAL HILL ROAD & WALNUT STREET INTERSECTION. EL 575.99



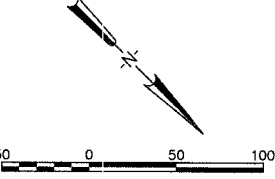
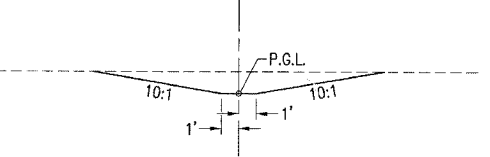
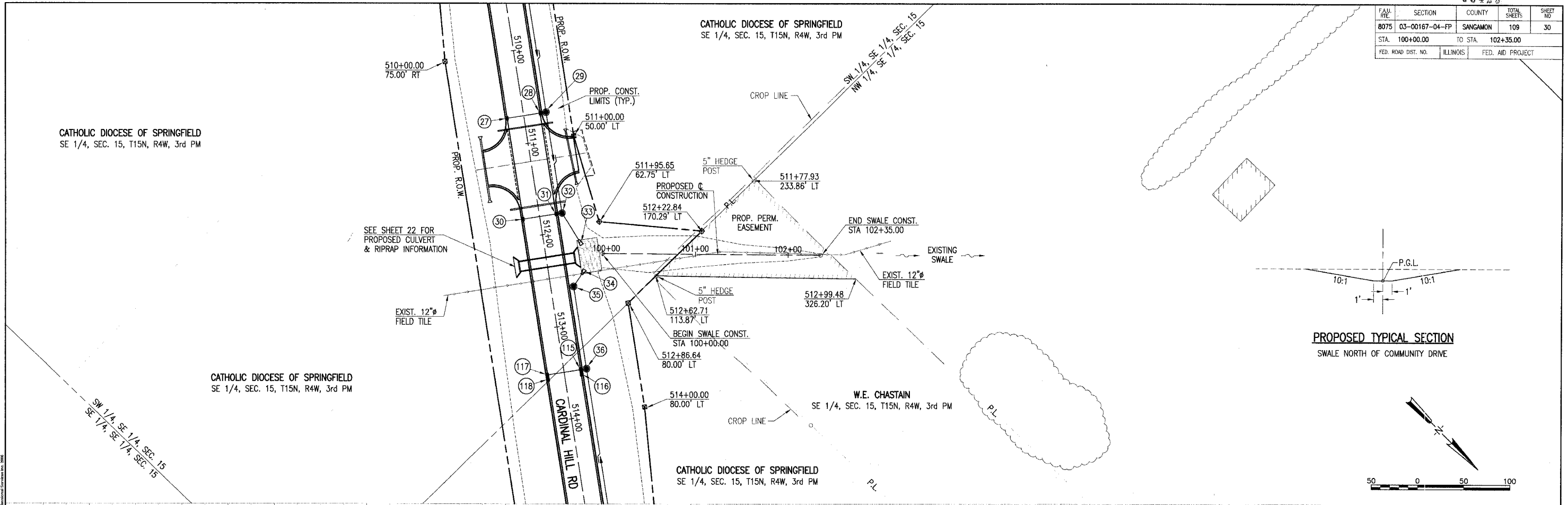
HANSON  
 1400 South Main Street, Springfield, IL 62761  
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LAYOUT: B.B. 3/15/04  
 DRAWN: B.B. 7/22/04  
 REVIEWED: LOK 7/21/04  
 I:\GLOBES\032006\032006.DWG JUL 21, 2006 9:49AM B.B.



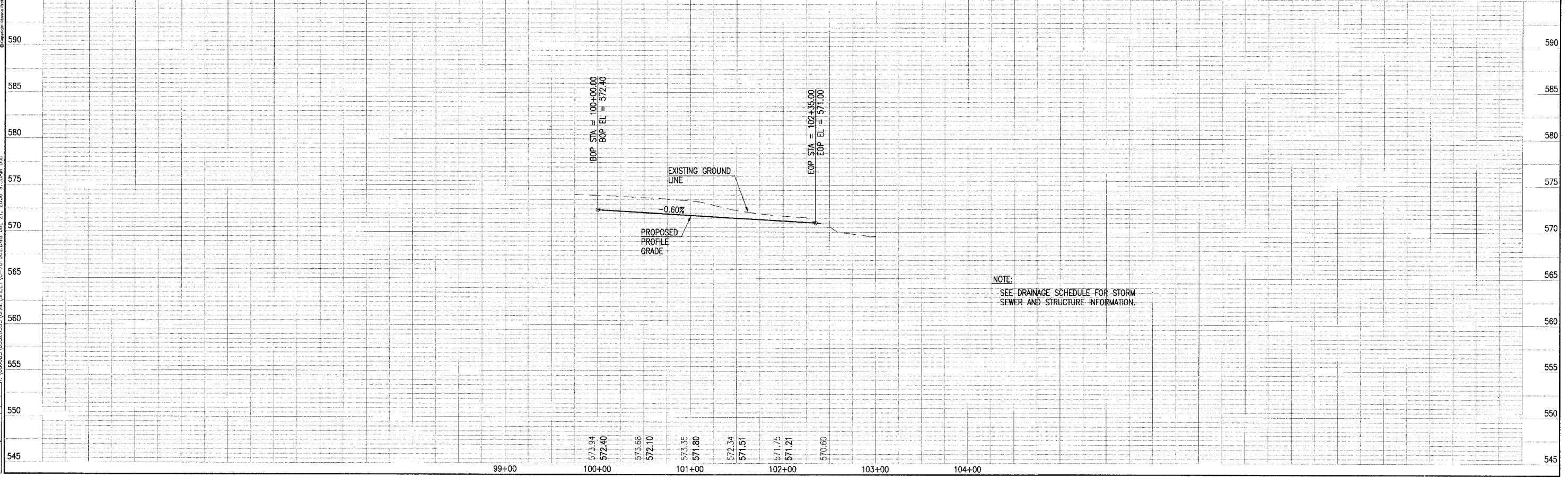
Xrefs:  
 C-TP  
 C-RIP  
 C-PROG  
 PLAN-E  
 GRID-E  
 C-ROW

| FAU RITE            | SECTION        | COUNTY            | TOTAL SHEETS     | SHEET NO. |
|---------------------|----------------|-------------------|------------------|-----------|
| 8075                | 03-00167-04-FP | SANGAMON          | 109              | 30        |
| STA. 100+00.00      |                | TO STA. 102+35.00 |                  |           |
| FED. ROAD DIST. NO. |                | ILLINOIS          | FED. AID PROJECT |           |



|         |     |         |
|---------|-----|---------|
| LAYOUT  | BJB | 3/15/04 |
| DRAWN   | BJB | 7/22/04 |
| REVISED | LDK | 7/21/04 |

H:\C:\WORKS\032020358\CONV\SHIFTC-701009.DWG, JUL 21, 2006 9:50AM BJB



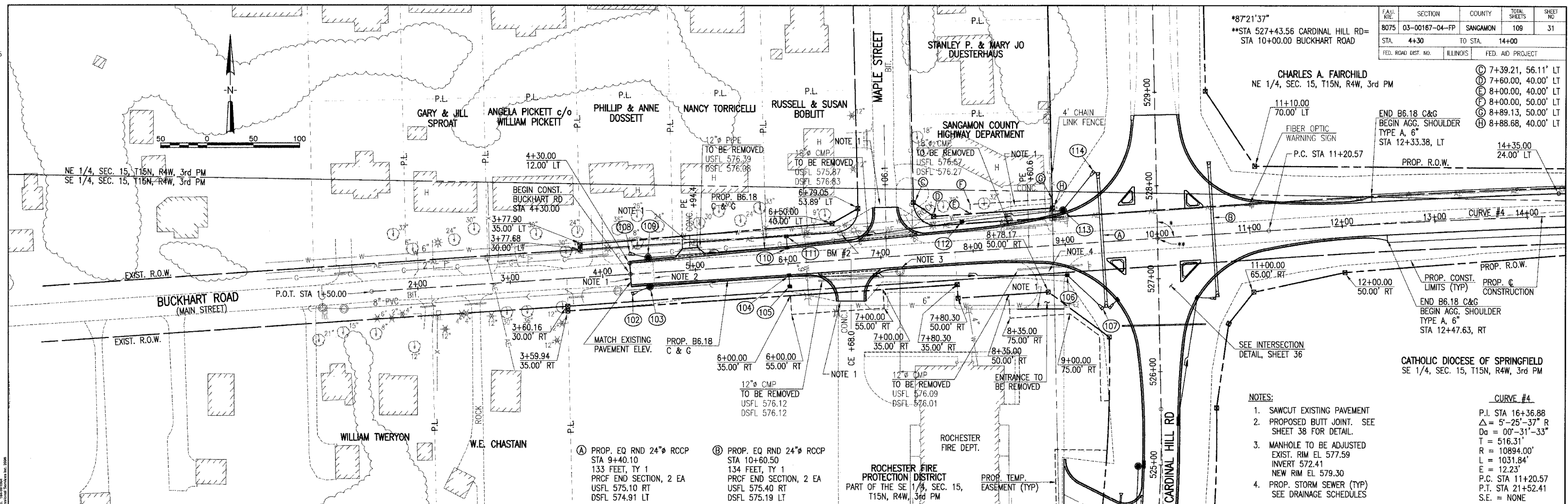
NOTE:  
 SEE DRAINAGE SCHEDULE FOR STORM SEWER AND STRUCTURE INFORMATION.

SWALE NORTH OF COMMUNITY DRIVE

Xrefs:  
 PLAN-E  
 GRID-E  
 C-TP  
 C-ROW  
 C-PP  
 C-PP005

8343

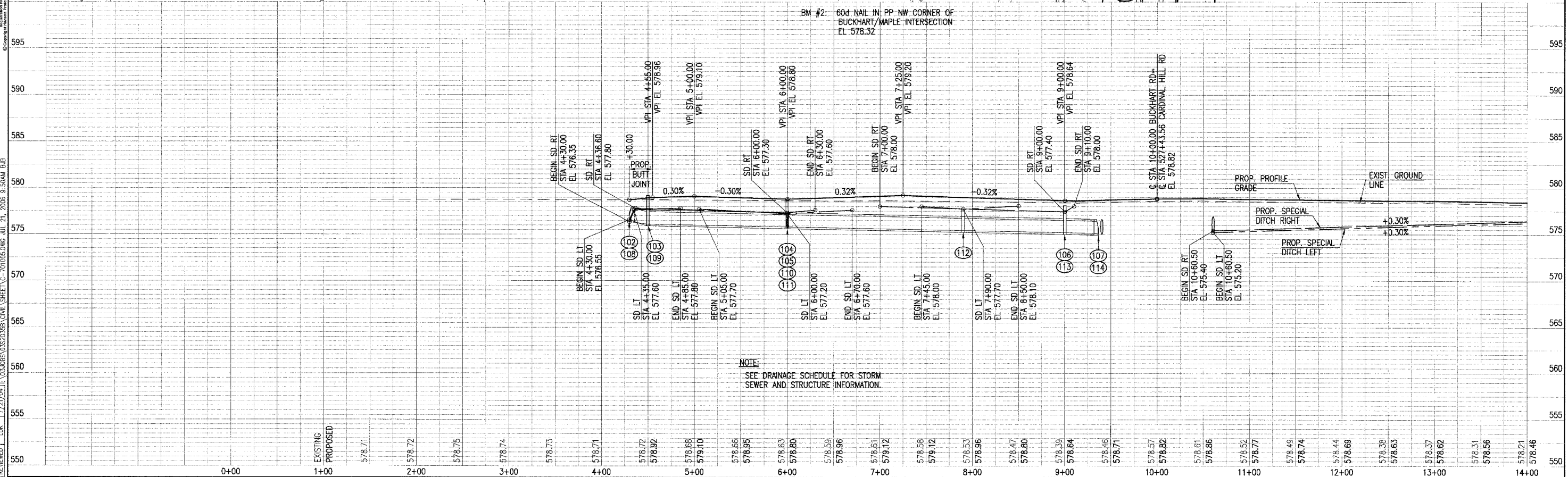
| FAU. RITE.          | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO. |
|---------------------|----------------|------------------|--------------|-----------|
| 8075                | 03-00167-04-FP | SANGAMON         | 109          | 31        |
| STA. 4+30           | TO STA. 14+00  |                  |              |           |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |           |



- NOTES:**
- SAWCUT EXISTING PAVEMENT
  - PROPOSED BUTT JOINT. SEE SHEET 38 FOR DETAIL.
  - MANHOLE TO BE ADJUSTED EXIST. RIM EL 577.59 INVERT 572.41 NEW RIM EL 579.30
  - PROP. STORM SEWER (TYP) SEE DRAINAGE SCHEDULES
- CURVE #4**
- P.I. STA 16+36.88  
 $\Delta = 5^\circ 25' - 37''$  R  
 $D_a = 00' - 31' - 33''$   
 $T = 516.31'$   
 $R = 10894.00'$   
 $L = 1031.84'$   
 $E = 12.23'$   
 P.C. STA 11+20.57  
 P.T. STA 21+52.41  
 S.E. = NONE



| DATE    | BY  | REVISION |
|---------|-----|----------|
| 3/15/04 | ... | ...      |
| 7/22/04 | ... | ...      |
| 7/27/04 | ... | ...      |



**NOTE:**  
 SEE DRAINAGE SCHEDULE FOR STORM SEWER AND STRUCTURE INFORMATION.

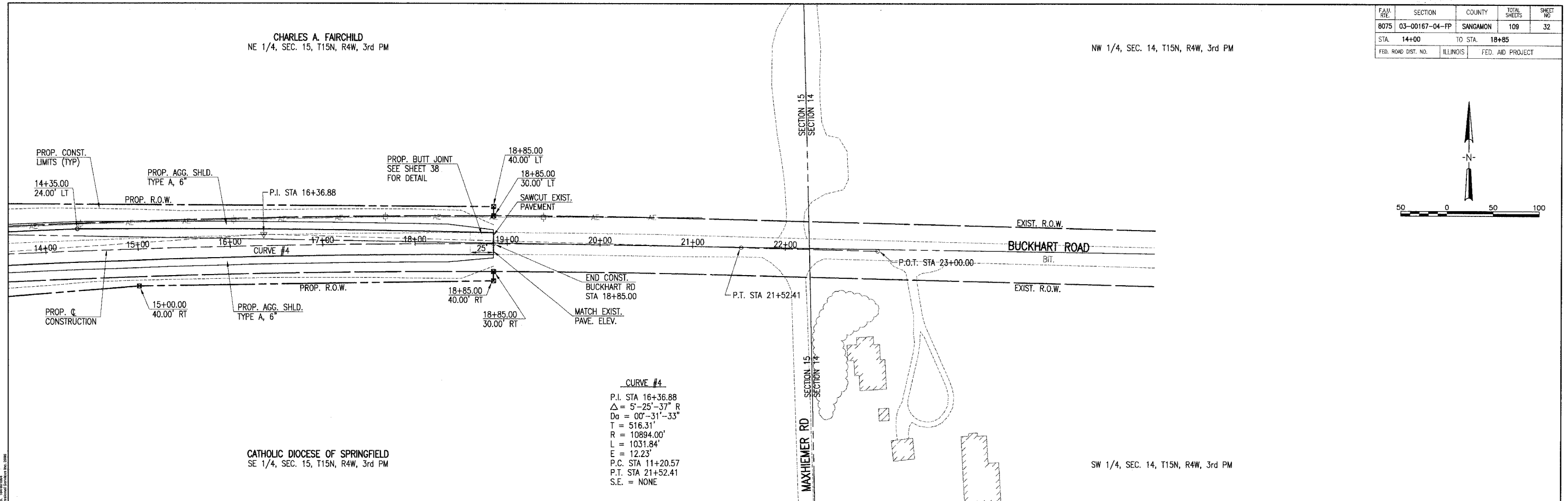
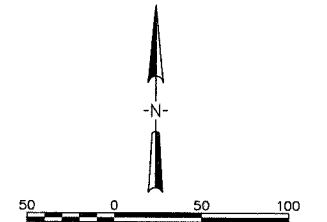
BUCKHART ROAD/MAIN STREET

Xrefs:  
 PLAN-E  
 GRID-E  
 C-TP  
 C-RW  
 C-RP  
 C-PP005

CHARLES A. FAIRCHILD  
 NE 1/4, SEC. 15, T15N, R4W, 3rd PM

NW 1/4, SEC. 14, T15N, R4W, 3rd PM

| FAA/RTE             | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO |
|---------------------|----------------|------------------|--------------|----------|
| 8075                | 03-00167-04-PP | SANGAMON         | 109          | 32       |
| STA                 | 14+00          | TO STA           | 18+85        |          |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |          |



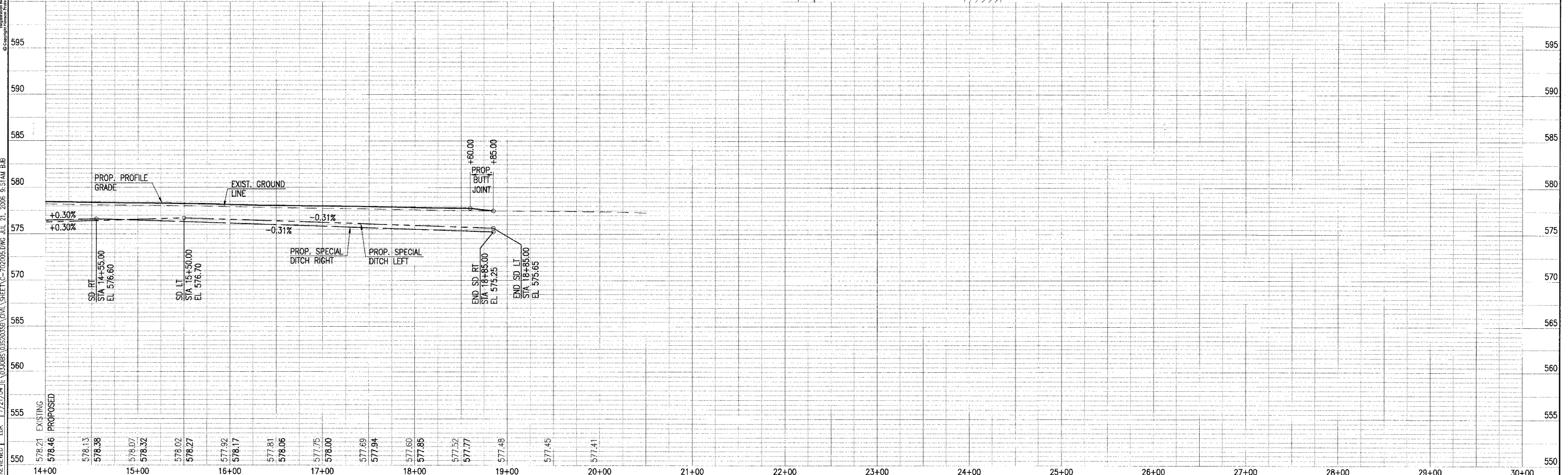
**CURVE #4**  
 P.I. STA 16+36.88  
 $\Delta = 5^{\circ}25'37''$  R  
 $D\alpha = 00^{\circ}31'33''$   
 $T = 516.31'$   
 $R = 10894.00'$   
 $L = 1031.84'$   
 $E = 12.23'$   
 P.C. STA 11+20.57  
 P.T. STA 21+52.41  
 S.E. = NONE

CATHOLIC DIOCESE OF SPRINGFIELD  
 SE 1/4, SEC. 15, T15N, R4W, 3rd PM

SW 1/4, SEC. 14, T15N, R4W, 3rd PM



LAYOUT 3/15/04  
 DRAWN 7/22/04  
 REVIEWED LUK 7/27/04  
 14505J005\032005\032005.DWG JUL 21, 2006 9:51AM BJB

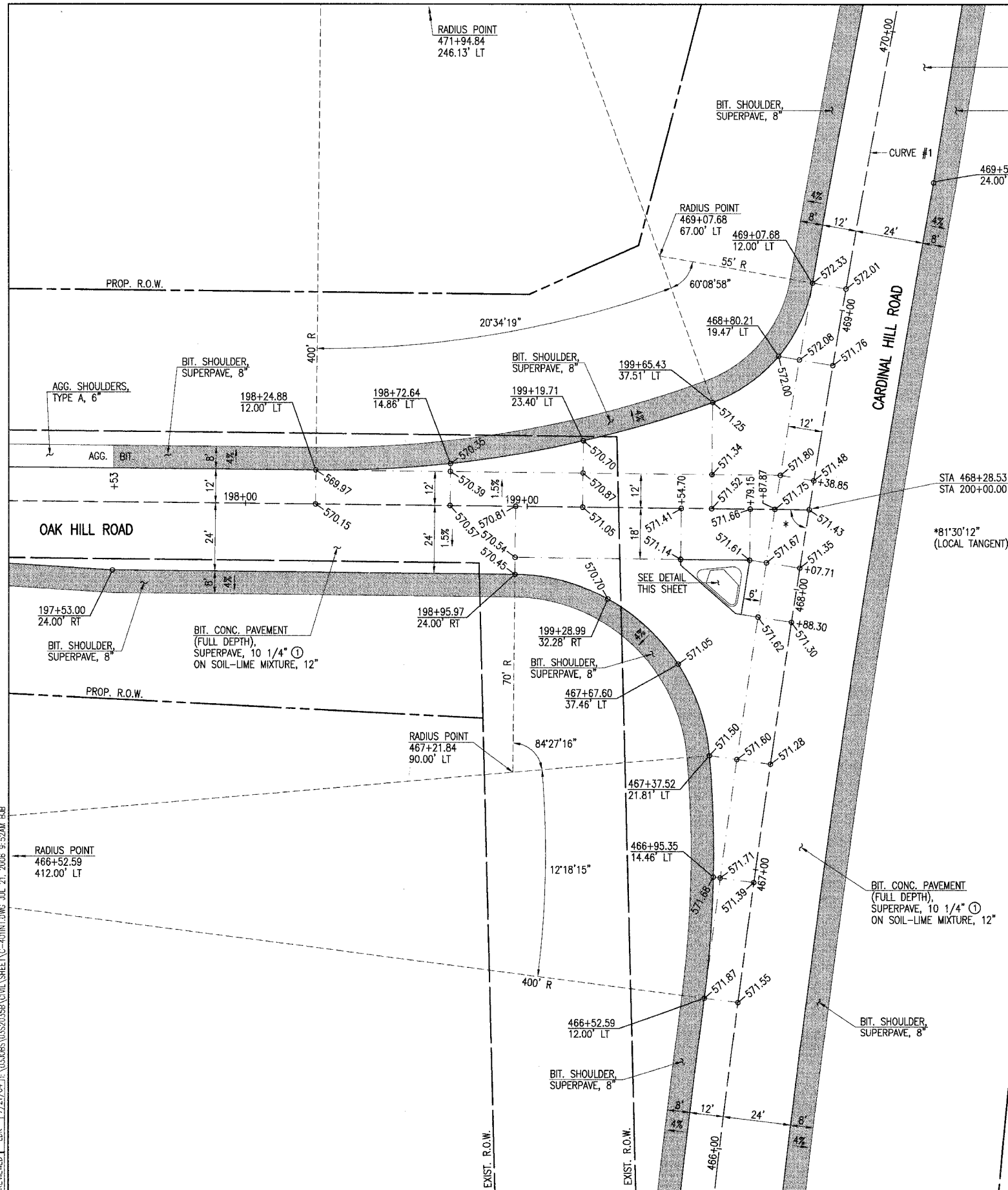


BUCKHART ROAD/MAIN STREET

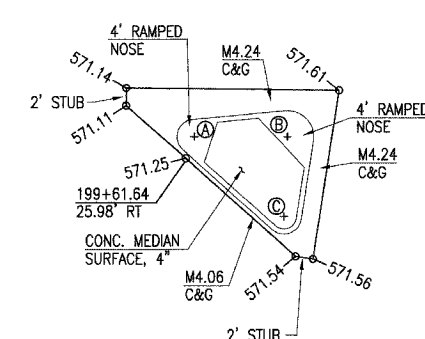


Xref:  
C-RP  
C-TP  
PLAN-E  
TITLE-E  
C-ROW

|                     |                |                  |              |           |
|---------------------|----------------|------------------|--------------|-----------|
| F.A.M. R.T.E.       | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO. |
| 8075                | 03-00167-04-FP | SANGAMON         | 109          | 33        |
| STA.                |                | TO STA.          |              |           |
| FED. ROAD DIST. NO. |                | ILLINOIS         |              |           |
|                     |                | FED. AID PROJECT |              |           |



\*81°30'12"  
(LOCAL TANGENT)



ISLAND DETAIL

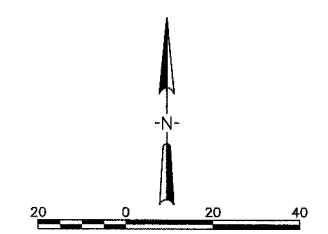
ISLAND RADIUS POINTS

| LOCATION | STATION   | OFFSET    | CURB FACE RADIUS |
|----------|-----------|-----------|------------------|
| A        | 199+62.59 | 23.51' RT | 2'               |
| B        | 199+73.31 | 23.39' RT | 3'               |
| C        | 199+73.01 | 32.50' RT | 2'               |

CURVE #1  
P.I. STA 477+23.91  
 $\Delta = 37^\circ-24'-48''$  R  
 $D_0 = 00^\circ-59'-16''$   
T = 1963.94'  
R = 5800.00'  
L = 3787.31'  
E = 323.48'  
P.C. STA 457+59.97  
P.T. STA 495+47.28  
S.E. = 2.70%

① 6-1/2" LOWER BINDER - 2 LIFTS  
2-1/4" TOP LIFT BINDER (POLYMERIZED)  
1-1/2" SURFACE LIFT (POLYMERIZED)  
[BITUMINOUS PRIME/RC 70 (FOG COAT)  
REQUIRED BETWEEN SUCCESSIVE LIFTS]  
SEE TABLE ON SHEET 5 FOR FULL DEPTH  
PAVEMENT CONSTRUCTION TABLE

NOTE:  
ALL DIMENSIONS GIVEN ARE TO THE EDGE  
OF PAVEMENT UNLESS OTHERWISE NOTED.



INTERSECTION DETAILS  
CARDINAL HILL & OAK HILL ROADS  
SEC. 03-00167-04-FP  
CARDINAL HILL ROAD (C.H. 37)  
SANGAMON COUNTY

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JOB NO.  
03S2035B  
DATE  
6/21/06

LAYOUT BAR 3/15/04  
DRAWN BAR 7/22/04  
REVIEWED LUK 7/21/04  
J:\SACRIS\03S2035B\Civil\Sheet\C-40INT.DWG JUL 21, 2006 9:52AM B&B

Xrefs:  
C-RP  
C-TP  
PLAN-C  
TITLE-E  
C-ROW

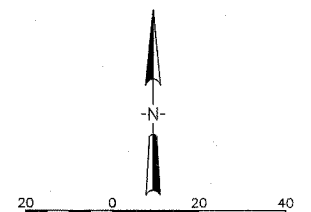
| F&M R/C                   | SECTION        | COUNTY        | TOTAL SHEETS           | SHEET NO |
|---------------------------|----------------|---------------|------------------------|----------|
| 8075                      | 03-00167-04-FP | SANGAMON      | 109                    | 34       |
| STA. _____                |                | TO STA. _____ |                        |          |
| FED. ROAD DIST. NO. _____ |                | ILLINOIS      | FED. AID PROJECT _____ |          |

**ISLAND RADIUS POINTS**

| LOCATION | STATION   | OFFSET    | CURB FACE RADIUS |
|----------|-----------|-----------|------------------|
| A        | 499+62.99 | 46.47' LT | 2'               |
| B        | 499+61.74 | 29.00' LT | 3'               |
| C        | 499+37.60 | 28.00' LT | 2'               |
| D        | 499+61.99 | 29.23' RT | 3'               |
| E        | 499+62.93 | 52.18' RT | 2'               |
| F        | 499+40.29 | 28.00' RT | 2'               |
| G        | 499+55.10 | 41.84' LT | 2'               |
| H        | 499+59.05 | 29.84' LT | 2'               |
| I        | 499+45.05 | 31.85' LT | 2'               |
| J        | 499+57.05 | 43.66' RT | -                |

DETECTABLE WARNING

NOTE:  
ALL DIMENSIONS GIVEN TO EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.  
SEE SHEET 21 FOR TREE REMOVAL LOCATIONS.



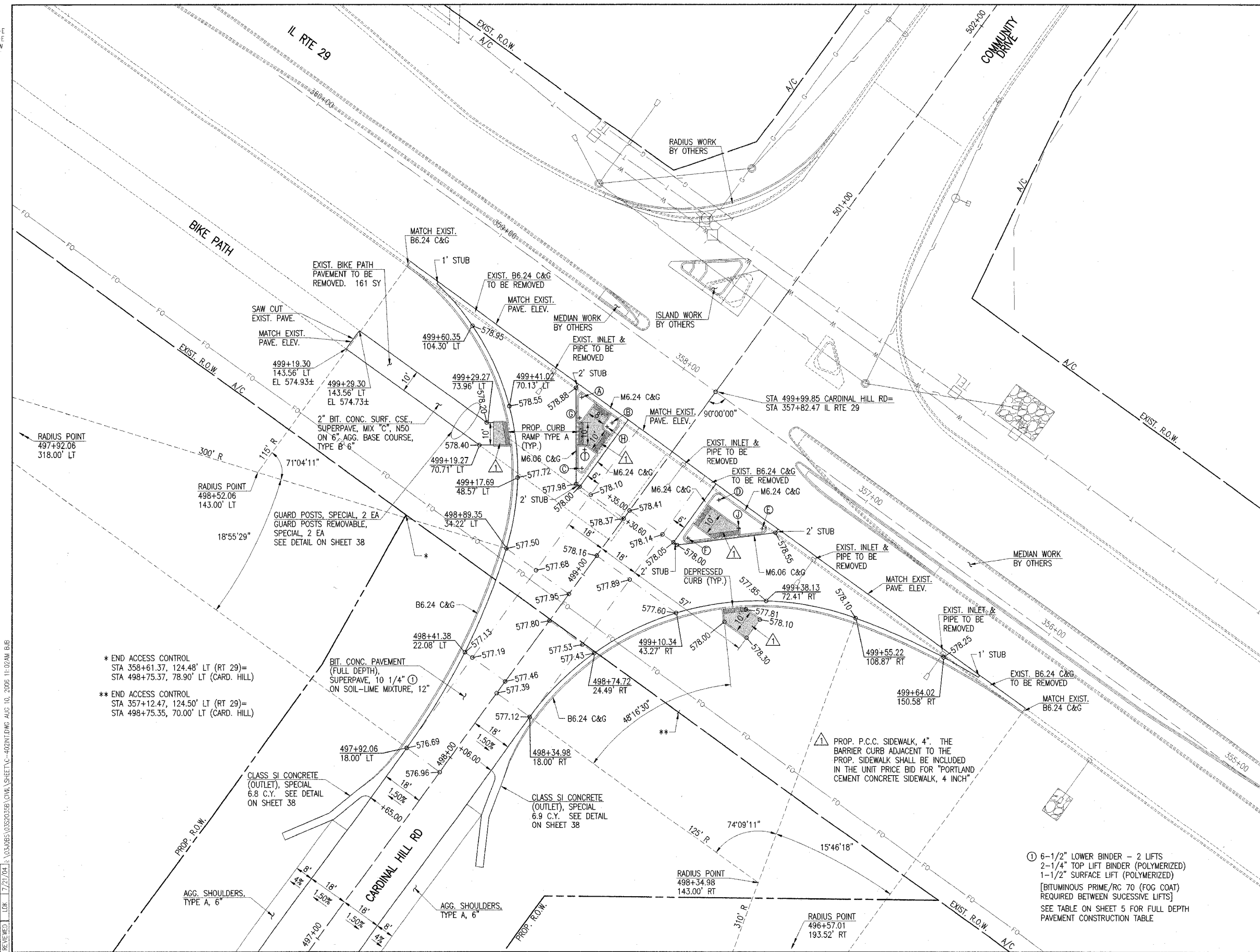
**INTERSECTION DETAILS**  
CARDINAL HILL ROAD & IL RTE 29  
SEC. 03-00167-04-FP  
CARDINAL HILL ROAD (C.H. 37)  
SANGAMON COUNTY

- ① 6-1/2" LOWER BINDER - 2 LIFTS
- 2-1/4" TOP LIFT BINDER (POLYMERIZED)
- 1-1/2" SURFACE LIFT (POLYMERIZED)
- [BITUMINOUS PRIME/RC 70 (FOG COAT) REQUIRED BETWEEN SUCCESSIVE LIFTS]
- SEE TABLE ON SHEET 5 FOR FULL DEPTH PAVEMENT CONSTRUCTION TABLE



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JOB NO.  
03S20358  
DATE  
6/21/06



LAYOUT: B.B. 3/15/04  
 DRAWN: B.B. 7/22/04  
 REVIEWED: L.R. 7/21/04  
 L:\ASPH\03S20358\CONV\SHEET\CONV\SHEET.C-402.DWG AUG. 10, 2006 11:02AM B.B.

\* END ACCESS CONTROL  
STA 358+61.37, 124.48' LT (RT 29)=  
STA 498+75.37, 78.90' LT (CARD. HILL)

\*\* END ACCESS CONTROL  
STA 357+12.47, 124.50' LT (RT 29)=  
STA 498+75.35, 70.00' LT (CARD. HILL)

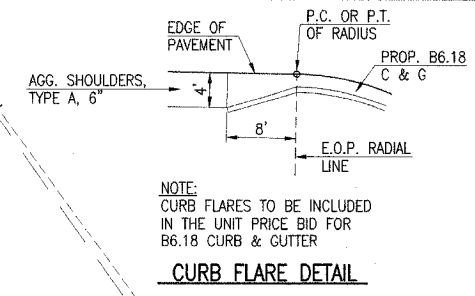
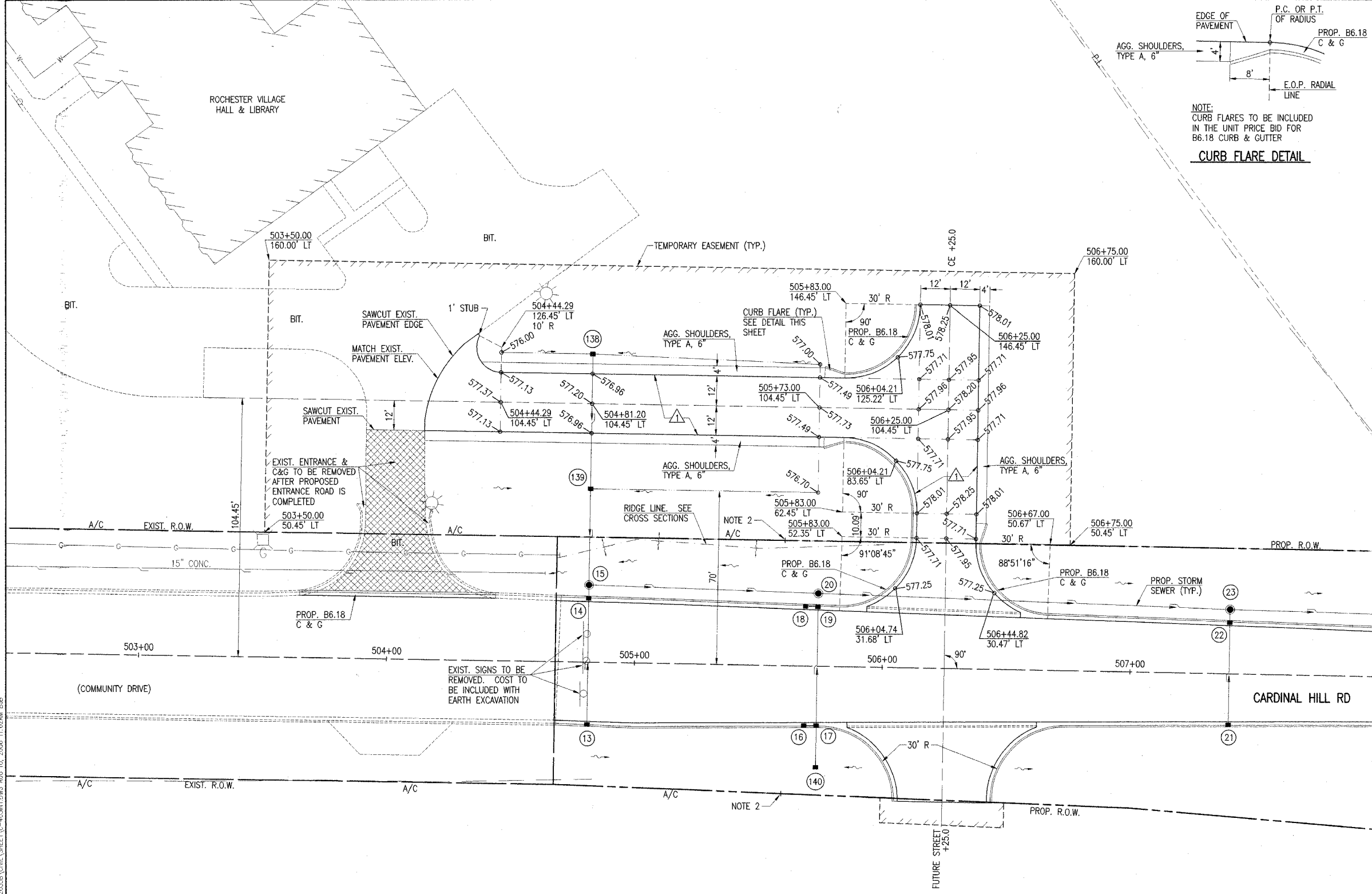
CLASS SI CONCRETE (OUTLET), SPECIAL 6.8 C.Y. SEE DETAIL ON SHEET 38

CLASS SI CONCRETE (OUTLET), SPECIAL 6.9 C.Y. SEE DETAIL ON SHEET 38

① PROP. P.C.C. SIDEWALK, 4". THE BARRIER CURB ADJACENT TO THE PROP. SIDEWALK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR "PORTLAND CEMENT CONCRETE SIDEWALK, 4 INCH"

Xrefs:  
C-RP  
C-TP  
PLAN-E  
TITLE-E  
C-ROW

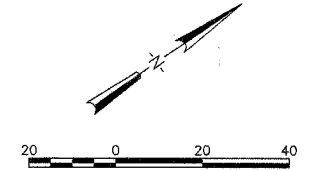
| FAU                 | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO |
|---------------------|----------------|------------------|--------------|----------|
| 8075                | 03-00167-04-FP | SANGAMON         | 109          | 35       |
| STA.                | TO STA.        |                  |              |          |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |          |



NOTE:  
CURB FLARES TO BE INCLUDED  
IN THE UNIT PRICE BID FOR  
B6.18 CURB & GUTTER  
**CURB FLARE DETAIL**

1 1/2" BIT. CONC. SURFACE COURSE,  
SUPERPAVE, MIX "C" N50 ON 4 1/2"  
BIT. CONC. BINDER COURSE, SUPERPAVE,  
IL 19.0 N50

- NOTE:
- ALL DIMENSIONS ARE GIVEN TO EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
  - ACCESS CONTROL ENDS AT STA 505+60.00, 50.45' LT & 51.71' RT.
  - A/C = ACCESS CONTROL
  - SEE DRAINAGE SCHEDULE FOR STORM SEWER AND STRUCTURE INFORMATION.



**INTERSECTION DETAILS**  
VILLAGE ENTRANCE ROAD  
SEC. 03-00167-04-FP  
CARDINAL HILL ROAD (C.H. 37)  
SANGAMON COUNTY



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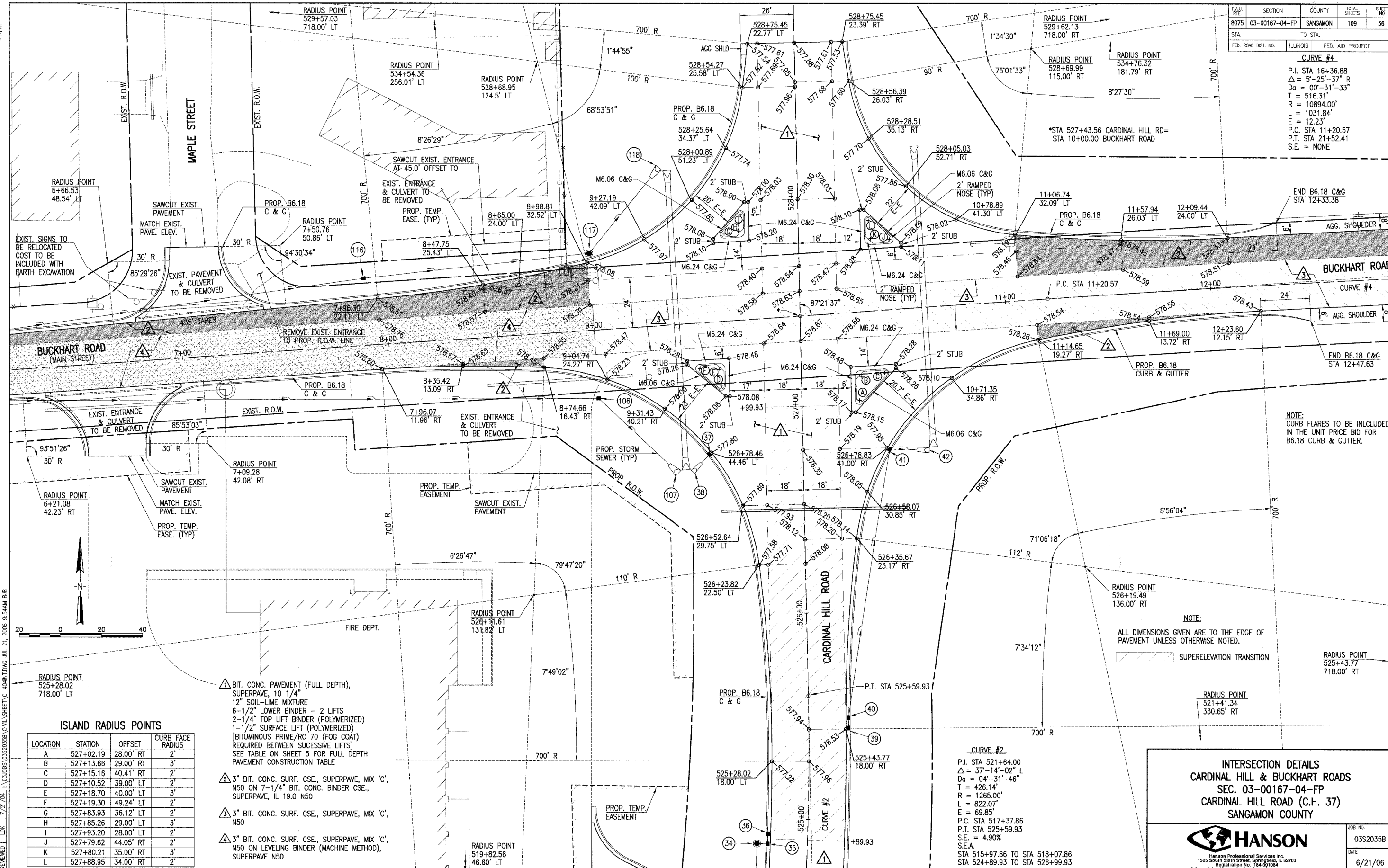
JOB NO.  
03S2035B

DATE  
6/21/06

3/15/04 BMB  
 7/22/04 BMB  
 7/21/04 LDK  
 LAYOUT  
 DRAWN  
 REVIEWED  
 03S2035B CIVIL SHEET C-40 DTD AUG 10, 2006 11:02AM BMB

Krefs:  
C-TP  
PLAN-  
TITLE-  
C-ROW

| FAA RITE            | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO |
|---------------------|----------------|------------------|--------------|----------|
| 8075                | 03-00167-04-FP | SANGAMON         | 109          | 36       |
| STA.                |                | TO STA.          |              |          |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |          |



**CURVE #4**  
P.I. STA 16+36.88  
 $\Delta = 5^{\circ}-25'-37''$  R  
 $D_a = 0^{\circ}-31'-33''$   
 $T = 516.31'$   
 $R = 10894.00'$   
 $L = 1031.84'$   
 $E = 12.23'$   
P.C. STA 11+20.57  
P.T. STA 21+52.41  
S.E. = NONE

NOTE:  
CURB FLARES TO BE INCLUDED IN THE UNIT PRICE BID FOR B6.18 CURB & GUTTER.

NOTE:  
ALL DIMENSIONS GIVEN ARE TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.



**ISLAND RADIUS POINTS**

| LOCATION | STATION   | OFFSET    | CURB FACE RADIUS |
|----------|-----------|-----------|------------------|
| A        | 527+02.19 | 28.00' RT | 2'               |
| B        | 527+13.66 | 29.00' RT | 3'               |
| C        | 527+15.16 | 40.41' RT | 2'               |
| D        | 527+10.52 | 39.00' LT | 2'               |
| E        | 527+18.70 | 40.00' LT | 3'               |
| F        | 527+19.30 | 49.24' LT | 2'               |
| G        | 527+83.93 | 36.12' LT | 2'               |
| H        | 527+85.26 | 29.00' LT | 3'               |
| I        | 527+93.20 | 28.00' LT | 2'               |
| J        | 527+79.62 | 44.05' RT | 2'               |
| K        | 527+80.21 | 35.00' RT | 3'               |
| L        | 527+88.95 | 34.00' RT | 2'               |

- ▲ BIT. CONC. PAVEMENT (FULL DEPTH), SUPERPAVE, 10 1/4" 12" SOIL-LIME MIXTURE 6-1/2" LOWER BINDER - 2 LIFTS 2-1/4" TOP LIFT BINDER (POLYMERIZED) 1-1/2" SURFACE LIFT (POLYMERIZED) [BITUMINOUS PRIME/RC 70 (FOG COAT) REQUIRED BETWEEN SUCCESSIVE LIFTS] SEE TABLE ON SHEET 5 FOR FULL DEPTH PAVEMENT CONSTRUCTION TABLE
- ▲ 3" BIT. CONC. SURF. CSE., SUPERPAVE, MIX 'C', N50 ON 7-1/4" BIT. CONC. BINDER CSE., SUPERPAVE, IL 19.0 N50
- ▲ 3" BIT. CONC. SURF. CSE., SUPERPAVE, MIX 'C', N50
- ▲ 3" BIT. CONC. SURF. CSE., SUPERPAVE, MIX 'C', N50 ON LEVELING BINDER (MACHINE METHOD), SUPERPAVE N50

**CURVE #2**  
P.I. STA 521+64.00  
 $\Delta = 37^{\circ}-14'-02''$  L  
 $D_a = 04^{\circ}-31'-46''$   
 $T = 426.14'$   
 $R = 1265.00'$   
 $L = 822.07'$   
 $E = 69.85'$   
P.C. STA 517+37.86  
P.T. STA 525+59.93  
S.E. = 4.90%  
S.E.A.  
STA 515+97.86 TO STA 518+07.86  
STA 524+89.93 TO STA 526+99.93

**INTERSECTION DETAILS**  
**CARDINAL HILL & BUCKHART ROADS**  
**SEC. 03-00167-04-FP**  
**CARDINAL HILL ROAD (C.H. 37)**  
**SANGAMON COUNTY**



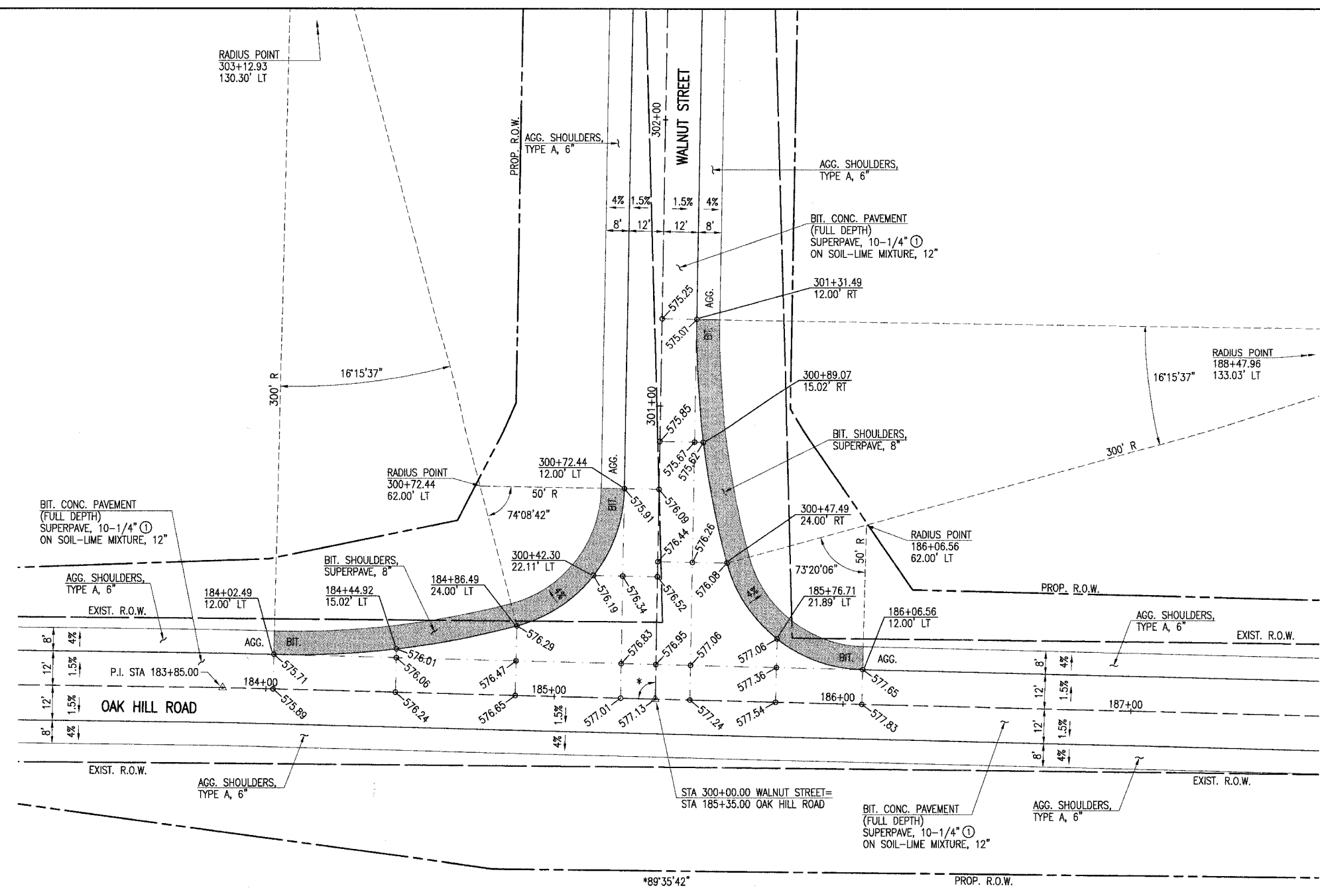
JOB NO.  
03S20358  
DATE  
6/21/06

LAYOUT  
DRAWN  
REVIEWED  
DATE  
3/15/04  
5/17/04  
7/22/04  
7/27/04

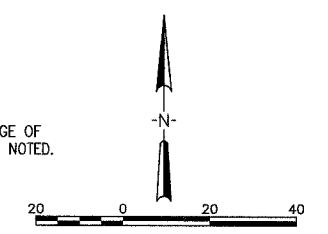
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Xrefs:  
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 C-TP  
 PLAN-E  
 TITLE-E  
 C-ROW

| FAU. R/E.           | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO. |
|---------------------|----------------|------------------|--------------|-----------|
| B075                | 03-00167-04-FP | SANGAMON         | 109          | 37        |
| STA.                |                | TO STA.          |              |           |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |           |



NOTE:  
 ALL DIMENSIONS GIVEN TO EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.



① 6-1/2" LOWER BINDER - 2 LIFTS  
 2-1/4" TOP LIFT BINDER (POLYMERIZED)  
 1-1/2" SURFACE LIFT (POLYMERIZED)  
 [BITUMINOUS PRIME/RC 70 (FOG COAT)  
 REQUIRED BETWEEN SUCCESSIVE LIFTS]  
 SEE TABLE ON SHEET 5 FOR FULL DEPTH PAVEMENT CONSTRUCTION TABLE

**INTERSECTION DETAILS**  
**OAK HILL ROAD & WALNUT STREET**  
 SEC. 03-00167-04-FP  
 CARDINAL HILL ROAD (C.H. 37)  
 SANGAMON COUNTY

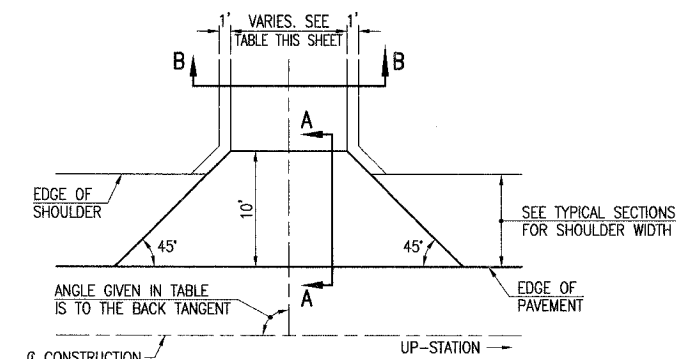
JOB NO.  
03S2035B  
DATE  
6/21/06

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 Hanson Professional Services Inc.  
 1525 South Sixth Street, Springfield, IL 62703  
 Registration No. 154-001004  
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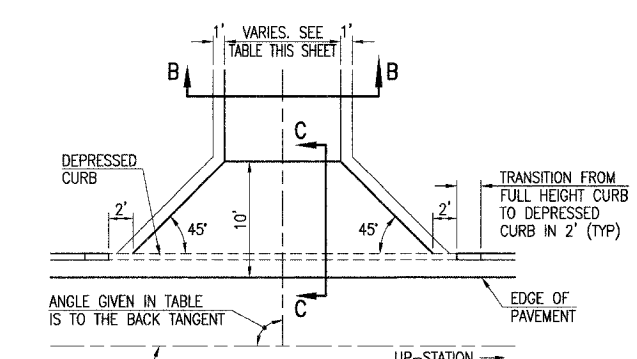
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 REVIEWED: LDK 7/27/04  
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|                     |                |                  |              |           |
|---------------------|----------------|------------------|--------------|-----------|
| F.A.U. NO.          | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO. |
| 8075                | 03-00167-04-FP | SANGAMON         | 109          | 38        |
| STA.                | TO STA.        |                  |              |           |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |           |

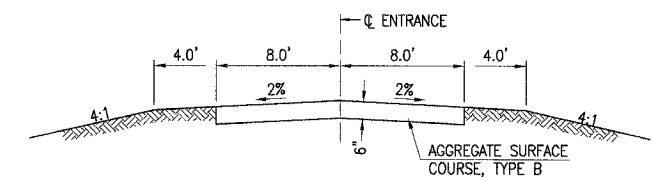
| PRIVATE, COMMERCIAL, & FIELD ENTRANCES |               |              |       |                                  |
|----------------------------------------|---------------|--------------|-------|----------------------------------|
| ROADWAY                                | LOCATION      | ANGLE        | WIDTH | COMMENT                          |
| CARDINAL HILL                          | 468+22.47, RT | 78°-07'-25"  | 16.0' | F.E. SEE DETAIL THIS SHEET       |
| CARDINAL HILL                          | 475+10.00, RT | 90°-00'-00"  | 16.0' | F.E. SEE DETAIL THIS SHEET       |
| CARDINAL HILL                          | 481+51.21, LT | 100°-02'-46" | 16.0' | F.E. SEE DETAIL THIS SHEET       |
| CARDINAL HILL                          | 495+62.00, LT | 90°-00'-00"  | 16.0' | F.E. SEE DETAIL THIS SHEET       |
| CARDINAL HILL                          | 495+62.00, RT | 90°-00'-00"  | 16.0' | F.E. SEE DETAIL THIS SHEET       |
| CARDINAL HILL                          | 506+25.00, LT | 90°-00'-00"  | 24.0' | C.E. (VILLAGE HALL) SEE SHEET 22 |
| CARDINAL HILL                          | 506+25.00, RT | 90°-00'-00"  | 36.0' | FUTURE STREET SEE SHEET 22       |
| CARDINAL HILL                          | 511+20.00, LT | 90°-00'-00"  | 36.0' | FUTURE STREET SEE SHEET 22       |
| CARDINAL HILL                          | 511+20.00, RT | 90°-00'-00"  | 36.0' | FUTURE STREET SEE SHEET 22       |
| CARDINAL HILL                          | 517+49.00, LT | 90°-00'-00"  | 36.0' | FUTURE STREET SEE SHEET 22       |
| CARDINAL HILL                          | 517+49.00, RT | 90°-00'-00"  | 36.0' | FUTURE STREET SEE SHEET 22       |
| CARDINAL HILL                          | 522+70.00, LT | 90°-00'-00"  | 36.0' | FUTURE STREET SEE SHEET 22       |
| CARDINAL HILL                          | 522+70.00, RT | 90°-00'-00"  | 36.0' | FUTURE STREET SEE SHEET 22       |
| CARDINAL HILL                          | 524+17.78, LT | 111°-20'-33" | 35.0' | C.E. (FIRE DEPT) SEE SHEET 23    |
| OAK HILL                               | 183+43.70, LT | 90°-00'-00"  | 16.0' | F.E. SEE DETAIL THIS SHEET       |
| OAK HILL                               | 188+63.50, LT | 90°-00'-00"  | 20.5' | P.E. SEE DETAIL THIS SHEET       |
| OAK HILL                               | 188+63.50, RT | 90°-00'-00"  | 16.0' | F.E. SEE DETAIL THIS SHEET       |
| OAK HILL                               | 195+90.00, LT | 90°-00'-00"  | 16.0' | F.E. SEE DETAIL THIS SHEET       |
| WALNUT ST                              | 302+93.40, RT | 90°-00'-00"  | 19.0' | P.E. SEE DETAIL THIS SHEET       |
| WALNUT ST                              | 303+66.60, RT | 90°-00'-00"  | 18.0' | P.E. SEE DETAIL THIS SHEET       |
| WALNUT ST                              | 309+45.40, LT | 90°-00'-00"  | 16.0' | F.E. SEE DETAIL THIS SHEET       |
| BUCKHART RD                            | 4+94.40, LT   | 92°-56'-52"  | 16.0' | P.E. SEE DETAIL THIS SHEET       |
| BUCKHART RD                            | 6+68.00, RT   | 86°-10'-32"  | 28.0' | C.E. (FIRE DEPT) SEE SHEET 31    |
| BUCKHART RD                            | 7+06.10, LT   | 92°-55'-45"  | 24.0' | MAPLE STREET SEE SHEET 31        |



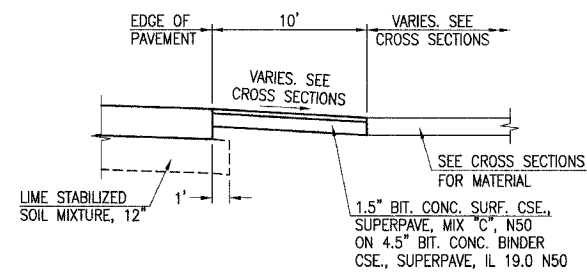
PRIVATE & COMMERCIAL ENTRANCE WITH SHOULDER DETAIL



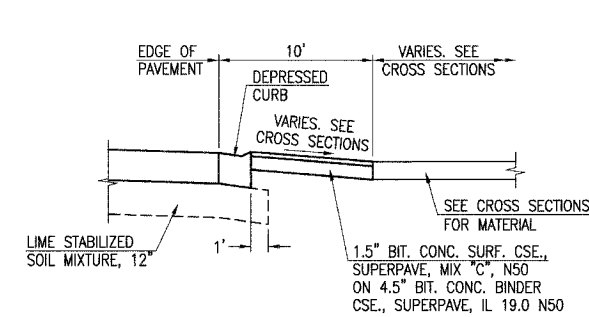
PRIVATE & COMMERCIAL ENTRANCE WITH CURB DETAIL



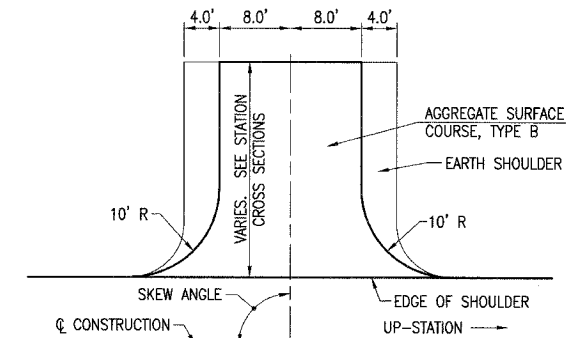
PROPOSED FIELD ENTRANCE SECTION



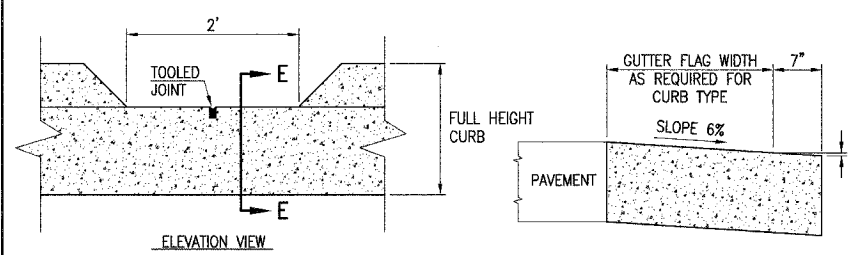
SECTION A-A



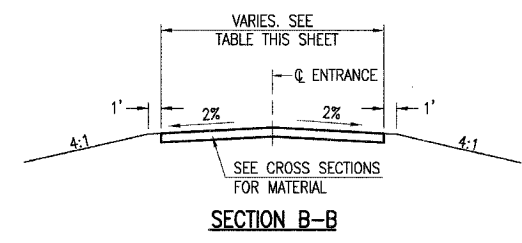
SECTION C-C



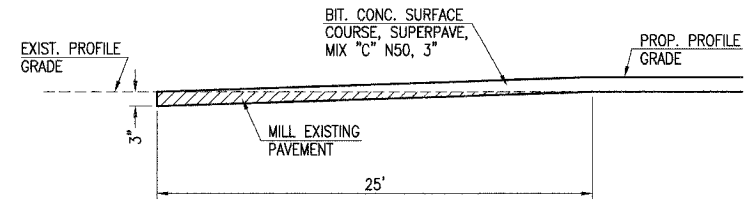
FIELD ENTRANCE WITH SHOULDER DETAIL



SECTION E-E



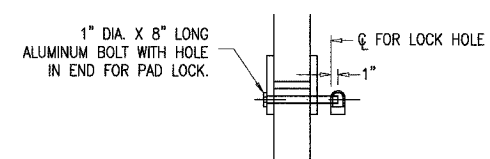
SECTION B-B



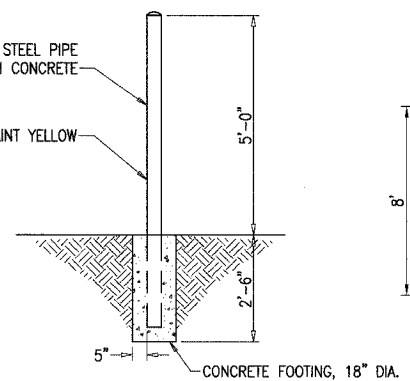
BUTT JOINT DETAIL

- NOTE:
1. THE TRANSITION FROM FULL HEIGHT CURB TO DEPRESSED CURB SHALL BE MADE AT THE RATE OF 3" PER FOOT OF LENGTH OR FLATTER.
  2. DEPRESSED CURB IN THE CURB BREAK SHALL BE CONSTRUCTED TO ALLOW WATER TO FLOW OUT OF THE CURB BREAK WITHOUT ANY PONDING OF THE WATER ON THE PAVEMENT.

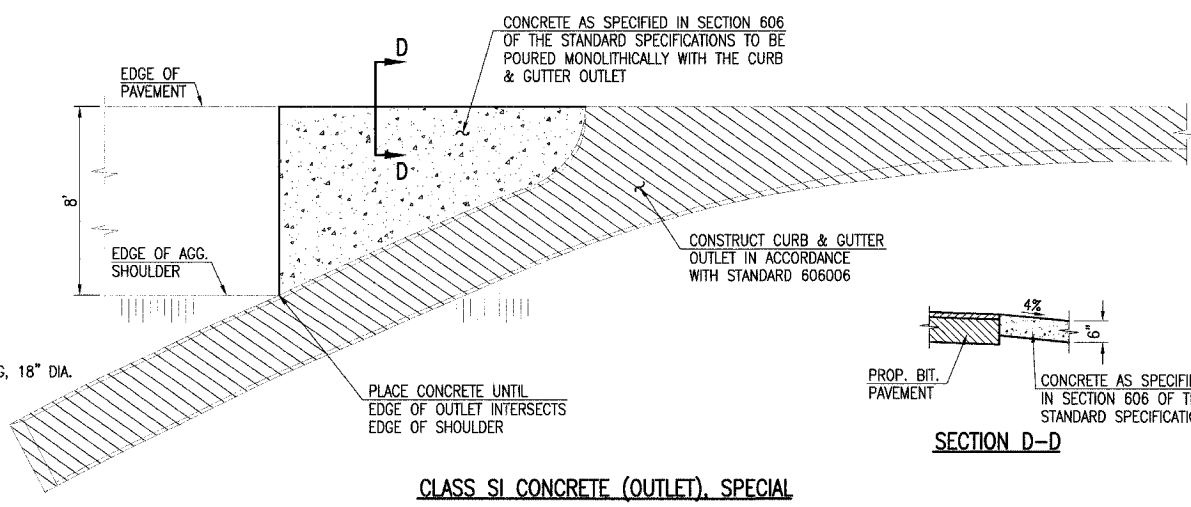
CURB BREAK DETAIL



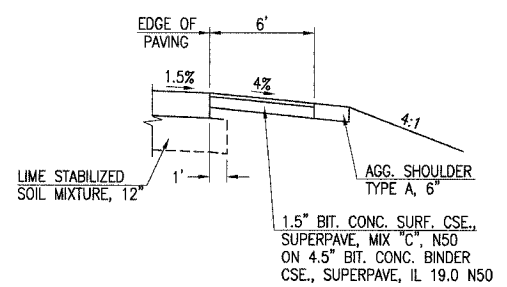
ALL EXCAVATION, BACKFILL, CONCRETE AND PAINT IS INCLUDED IN THE COST OF THE GUARD POST.



4" DIA. GUARD POST

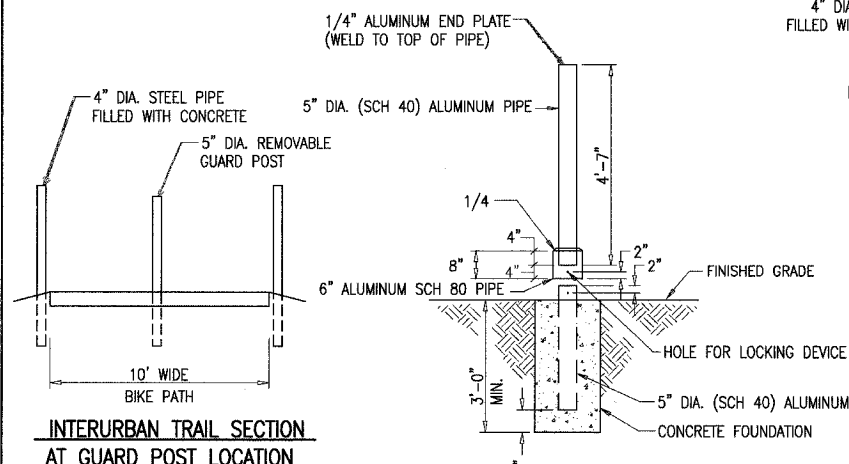


CLASS SI CONCRETE (OUTLET), SPECIAL



MAILBOX TURNOUT SECTION

- NOTES:
1. STATION AS SHOWN ON PLANS IS CALLED OUT AT MAILBOX LOCATION.
  2. SEE STANDARD DRAWING B.L.R. 24 FOR PLAN VIEW LAYOUT OF TURNOUT. USE A SHOULDER WIDTH OF 8'.



INTERURBAN TRAIL SECTION AT GUARD POST LOCATION

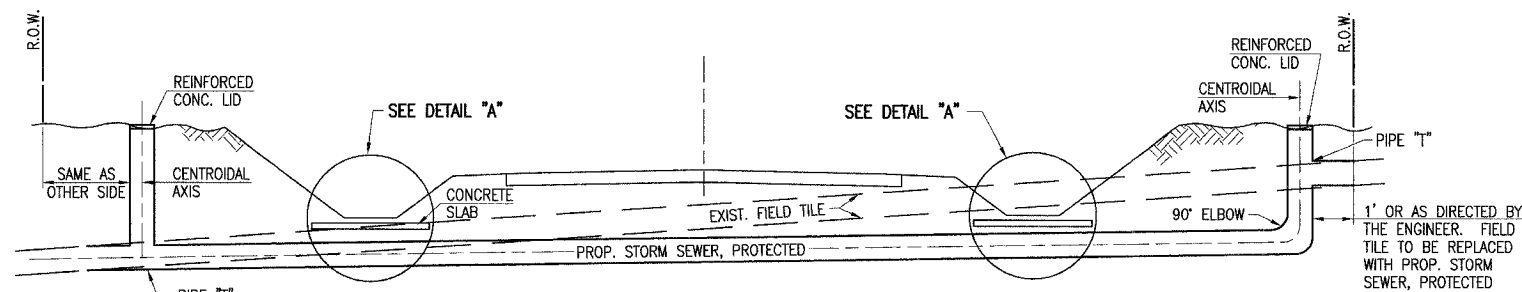
DETAILS  
SEC. 03-00167-04-FP  
CARDINAL HILL ROAD (C.H. 37)  
SANGAMON COUNTY

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Registration No. 164-001064  
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JOB NO. 03S2035B  
DATE 6/21/06

LAYOUT 3/15/04  
 DRAWN 3/17/04  
 CHECKED 7/21/04  
 IN: C:\COURSES\03S2035B\CIVIL\SHEETC-500DET.DWG, JUL 21, 2006 9:57AM 9:58

|                     |                |                  |              |           |
|---------------------|----------------|------------------|--------------|-----------|
| FAU. REC.           | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO. |
| 8075                | 03-00167-04-FP | SANGAMON         | 109          | 39        |
| STA.                |                | TO STA.          |              |           |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |           |



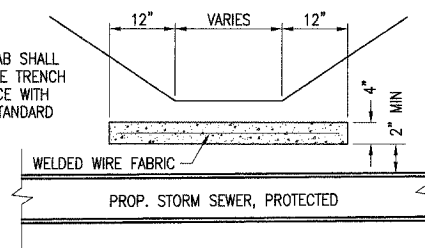
**STORM SEWER, PROTECTED**

NOTE: DIAMETER OF PROP. STORM SEWER, PROTECTED, SHALL BE EQUAL TO OR GREATER THAN EXIST. FIELD TILE

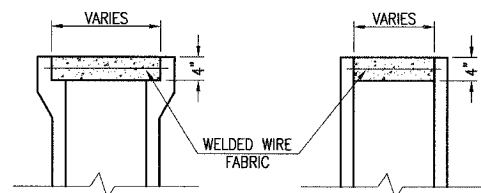
**FIELD TILE ADJUSTMENT NOTES**

1. LOCATION OF THE EXPLORATION TRENCH, 52" DEPTH SHALL BE AS DIRECTED BY THE ENGINEER TO LOCATE EXISTING FIELD TILE DRAINS. THE QUANTITY FOR EXPLORATION TRENCH, 52" WAS ESTIMATED TO ESTABLISH A CONTRACT UNIT PRICE.
2. THE WELDED WIRE FABRIC SHALL BE 6X6 W4XW4 CONFORMING TO THE REQUIREMENTS OF A.S.T.M. A158.
3. THE GALVANIZED HARDWARE CLOTH SHALL MEET THE APPROVAL OF THE ENGINEER PRIOR TO PLACEMENT.
4. LOCATIONS OF ALL EXISTING FIELD TILES ARE UNKNOWN. ALL FIELD TILE ADJUSTMENT SHALL BE DONE IN ACCORDANCE WITH SECTION 611 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
5. THE CONCRETE HEADWALL, EXCELSIOR BLANKET, AND ADDITIONAL HARDWARE SHOWN SHALL BE INCLUDED IN THE COST FOR THIS WORK. ALL EXISTING FIELD TILE THAT WILL REMAIN AND BE ABANDONED SHALL BE BLOCKED WITH MASONRY OR CRUSHED AS DIRECTED BY THE ENGINEER OR REMOVED WHEN NECESSARY FOR CONSTRUCTION. THE COST OF SUCH WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER EACH FOR FIELD TILE ADJUSTMENT. SEE SPECIAL PROVISIONS.
6. ANY EXISTING TILE THAT IS DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
7. WELDED WIRE FABRIC SHALL BE 6"x6" MESH, #4 GAUGE, 58 POUNDS PER 100 SQUARE FEET, CONFORMING TO THE REQUIREMENTS OF A.S.T.M. A158. THE COST FOR FURNISHING AND PLACING THE WELDED WIRE FABRIC AND CONCRETE SLAB SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER FOOT FOR STORM SEWER, PROTECTED.
8. ALL EXISTING FIELD TILE SHALL BE REPLACED WITH STORM SEWER OF THE TYPE REQUIRED FOR THE DEPTH OF COVER. THE 4", 6", 8", 10" OR 12" STORM SEWER SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR STORM SEWER SPECIAL OR STORM SEWER, PROTECTED REGARDLESS OF DEPTH. THE FOOT MEASUREMENT SHALL BE MADE ALONG THE CENTROIDAL AXIS AND THIS PRICE SHALL INCLUDE ALL BENDS, ELBOWS, OR PIPE 12" WHICH ARE REQUIRED.
9. REINFORCED CONCRETE LID SHALL BE MISCELLANEOUS CONCRETE OR PRECAST REINFORCED CONCRETE AND THE COST OF SUCH SHALL BE INCLUDED WITH THE CONTRACT UNIT PRICE FOR STORM SEWER, PROTECTED.
10. THE ESTIMATE OF QUANTITIES INCLUDES 50 FEET OF 4", 6", 8", 10" AND 12" STORM SEWERS SPECIAL AND STORM SEWERS PROTECTED, CLASS A FOR THE PURPOSE OF ESTABLISHING A CONTRACT UNIT PRICE PER FOOT.
11. FIELD TILE JUNCTION VAULTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 602 OF THE STANDARD SPECIFICATIONS. EXCAVATION, BEDDING AND BACKFILL SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE, PER EACH FOR FIELD TILE JUNCTION VAULTS, 2' DIA. THE QUANTITY FOR FIELD TILE JUNCTION VAULTS WAS ESTIMATED TO ESTABLISH A CONTRACT UNIT PRICE.

WIDTH OF CONC. SLAB SHALL BE THE SAME AS THE TRENCH WIDTH IN ACCORDANCE WITH SEC. 611 OF THE STANDARD SPECIFICATIONS



**DETAIL "A"**

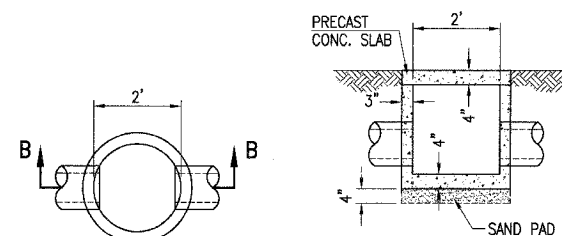


**ALT. A**

**ALT. B**

DIMENSIONS WILL VARY TO MATCH NOMINAL SIZE OF PROPOSED STORM SEWER

**REINFORCED CONCRETE LID DETAIL**

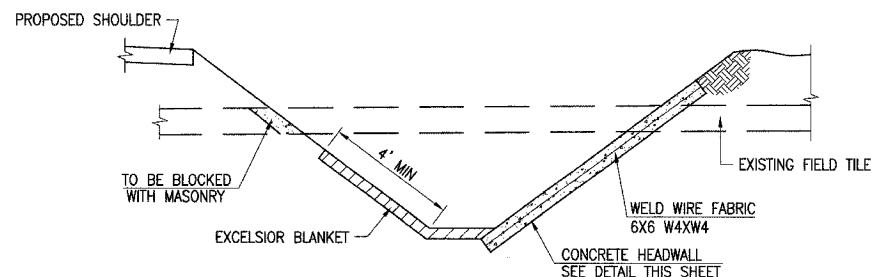


**PLAN**

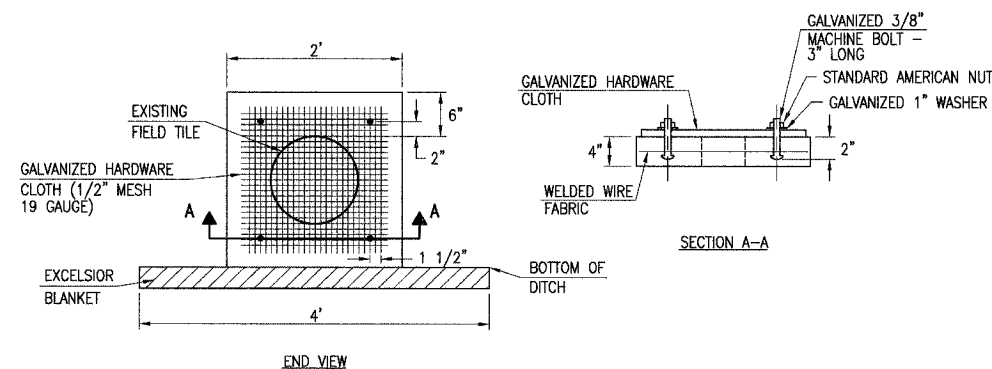
**SECTION B-B**

THE ENTIRE STRUCTURE INCLUDING LID AND SAND PAD SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR FIELD TILE JUNCTION VAULT, 2' DIA.

**FIELD TILE JUNCTION VAULT DETAIL**



**SECTION AT FIELD TILE ADJUSTMENT**



**END VIEW**

**SECTION A-A**

**FIELD TILE CONCRETE HEADWALL DETAIL**

**FIELD TILE ADJUSTMENT DETAILS**

**FIELD TILE ADJUSTMENT DETAILS**  
 SEC. 03-00167-04-FP  
 CARDINAL HILL ROAD (C.H. 37)  
 SANGAMON COUNTY



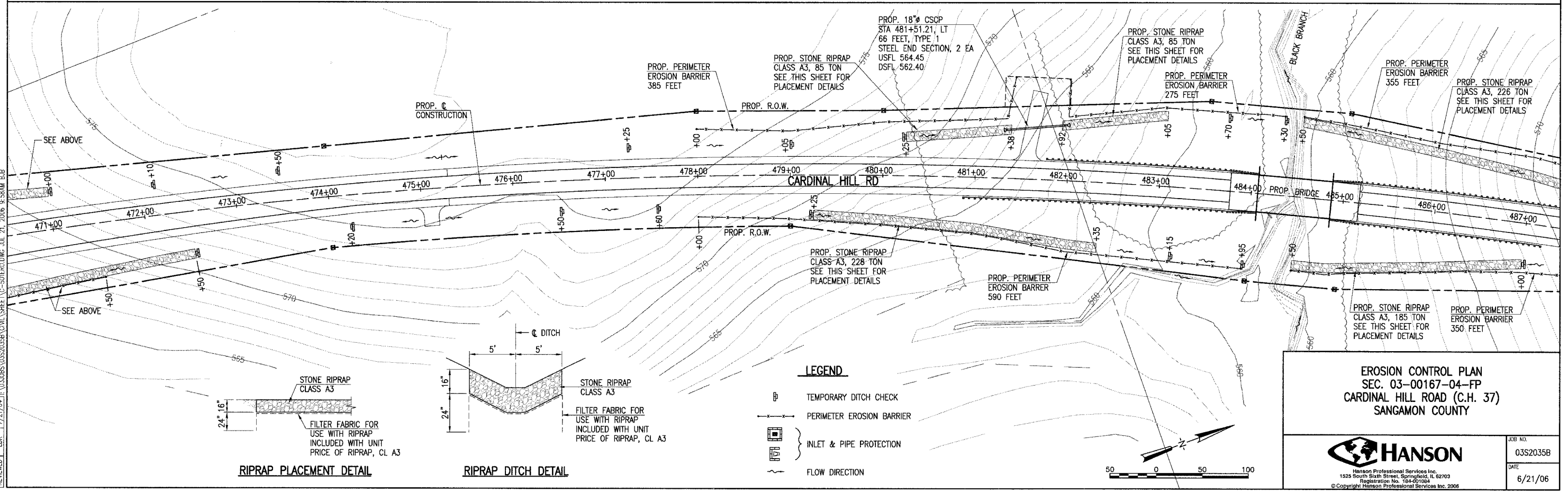
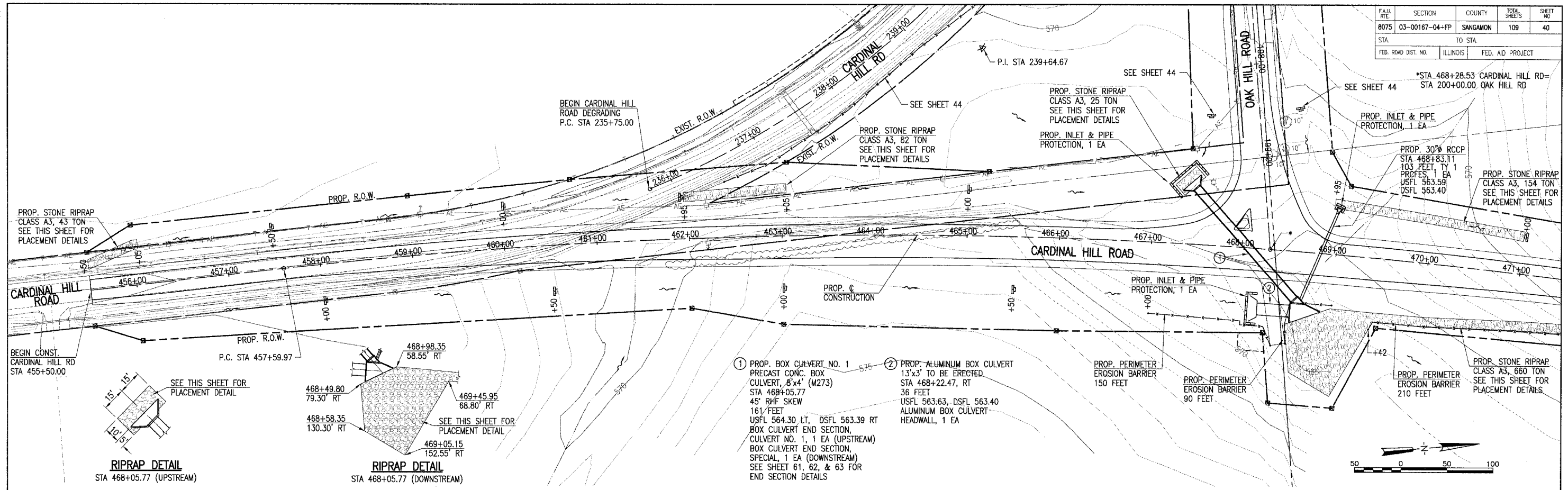
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 1525 South Sixth Street, Springfield, IL 62703  
 Registration No. 04-001004  
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JOB NO.  
 03S2035B  
 DATE  
 6/21/06

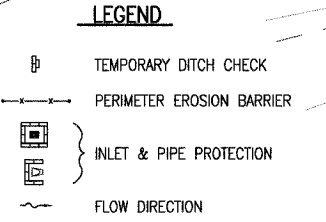
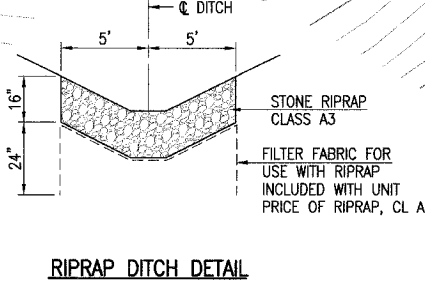
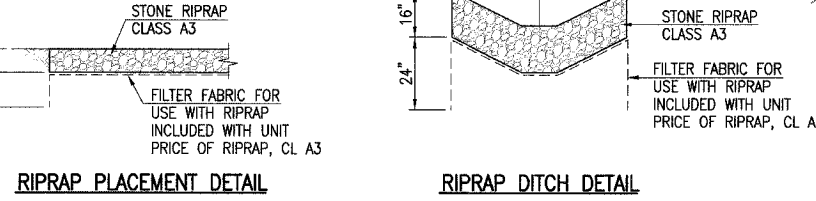
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 DRAWN: BUB 7/27/04  
 REVIEWED: BUB 7/27/04  
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Xrefs:  
 PLAN-E  
 C-RR  
 C-TP  
 TITLE-E  
 C-ROW

| FAXI                | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO |
|---------------------|----------------|------------------|--------------|----------|
| 8075                | 03-00167-04-FP | SANGAMON         | 109          | 40       |
| STA.                | TO STA.        |                  |              |          |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |          |



DATE 6/21/06  
 DRAWN BY J.L.B.  
 CHECKED BY J.L.B.  
 REVIEWED BY J.L.B.



**EROSION CONTROL PLAN**  
**SEC. 03-00167-04-FP**  
**CARDINAL HILL ROAD (C.H. 37)**  
**SANGAMON COUNTY**

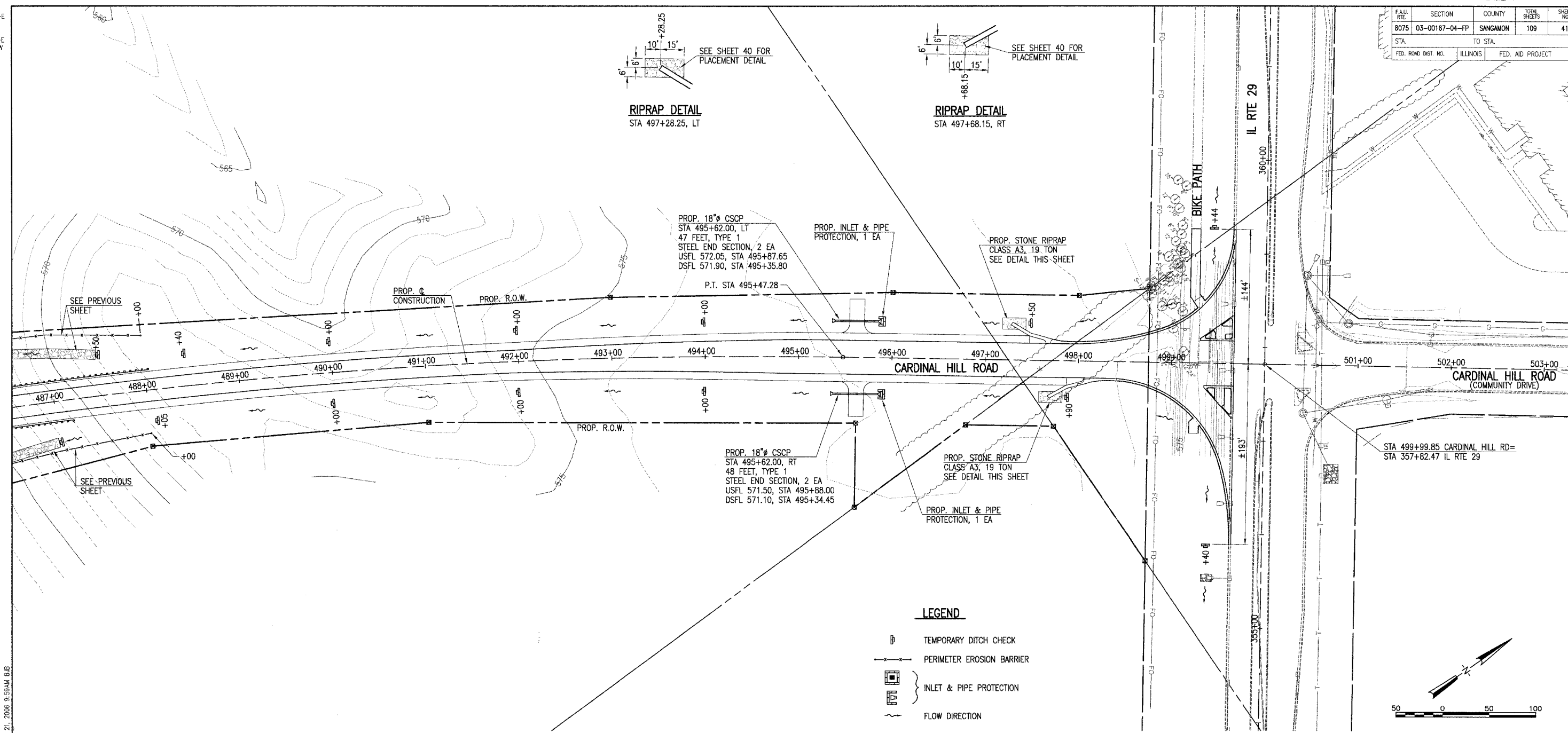
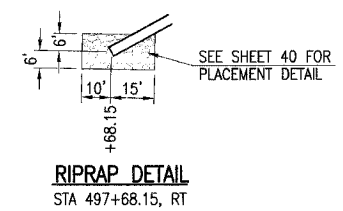
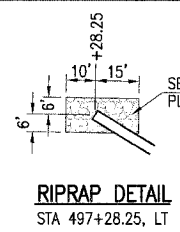
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JOB NO.  
03S2035B  
DATE  
6/21/06



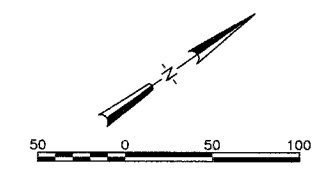
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 C-RP  
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 TITLE-E  
 C-ROW

| FAU. RTE.           | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO. |
|---------------------|----------------|------------------|--------------|-----------|
| 8075                | 03-00167-04-FP | SANGAMON         | 109          | 41        |
| STA.                |                | TO STA.          |              |           |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |           |



**LEGEND**

- TEMPORARY DITCH CHECK
- PERIMETER EROSION BARRIER
- INLET & PIPE PROTECTION
- FLOW DIRECTION



LAYOUT: BUB 3/15/04  
 DRAWN: BUB 7/22/04  
 REVIEWED: LUK 7/22/04  
 J:\PROJECTS\03S20358\CIVIL\SHR1\03S20358-02\EROD.MXD JUL 21, 2006 9:59AM BUB

**EROSION CONTROL PLAN**  
 SEC. 03-00167-04-FP  
 CARDINAL HILL ROAD (C.H. 37)  
 SANGAMON COUNTY

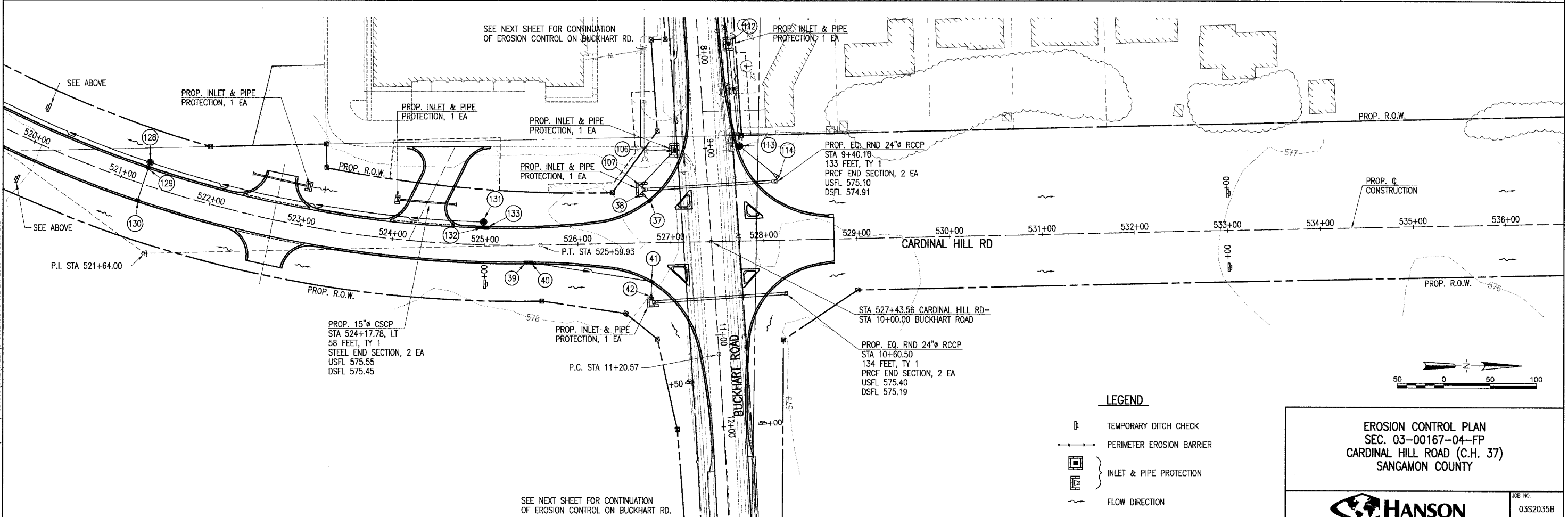
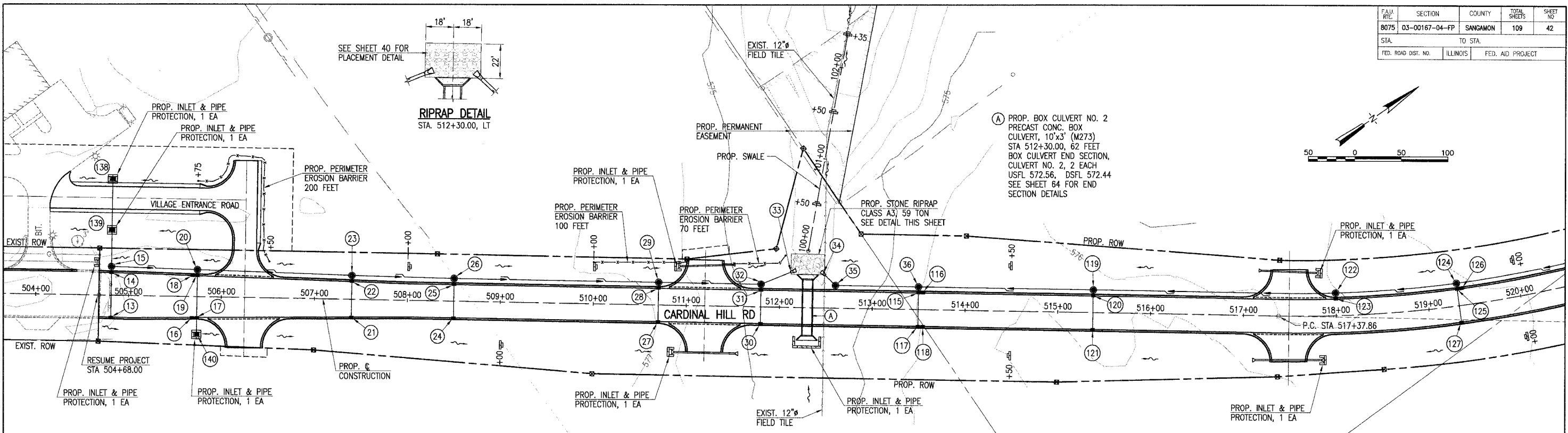


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|                     |                 |
|---------------------|-----------------|
| JOB NO.<br>03S20358 | DATE<br>6/21/06 |
|---------------------|-----------------|

Xrefs:  
 PLAN-E  
 C-RP  
 C-TP  
 TITLE-E  
 C-ROW

| FAU RITE            | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO |
|---------------------|----------------|------------------|--------------|----------|
| 8075                | 03-00167-04-FP | SANGAMON         | 109          | 42       |
| STA.                | TO STA.        |                  |              |          |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |          |



**LEGEND**

|  |                           |
|--|---------------------------|
|  | TEMPORARY DITCH CHECK     |
|  | PERIMETER EROSION BARRIER |
|  | INLET & PIPE PROTECTION   |
|  | FLOW DIRECTION            |

**EROSION CONTROL PLAN**  
 SEC. 03-00167-04-FP  
 CARDINAL HILL ROAD (C.H. 37)  
 SANGAMON COUNTY

JOB NO.  
03S20358  
 DATE  
6/21/06

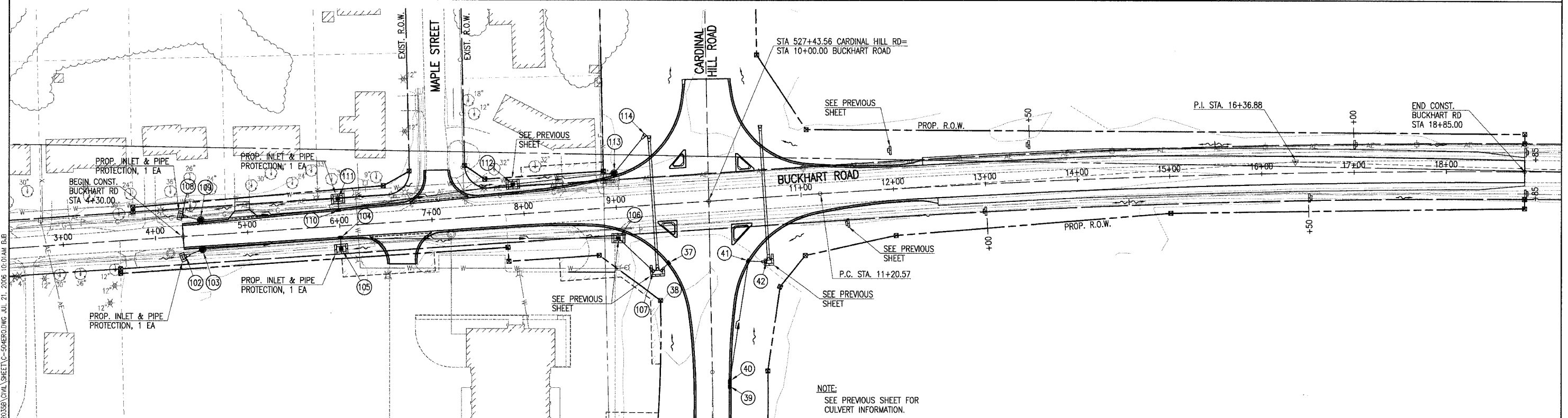
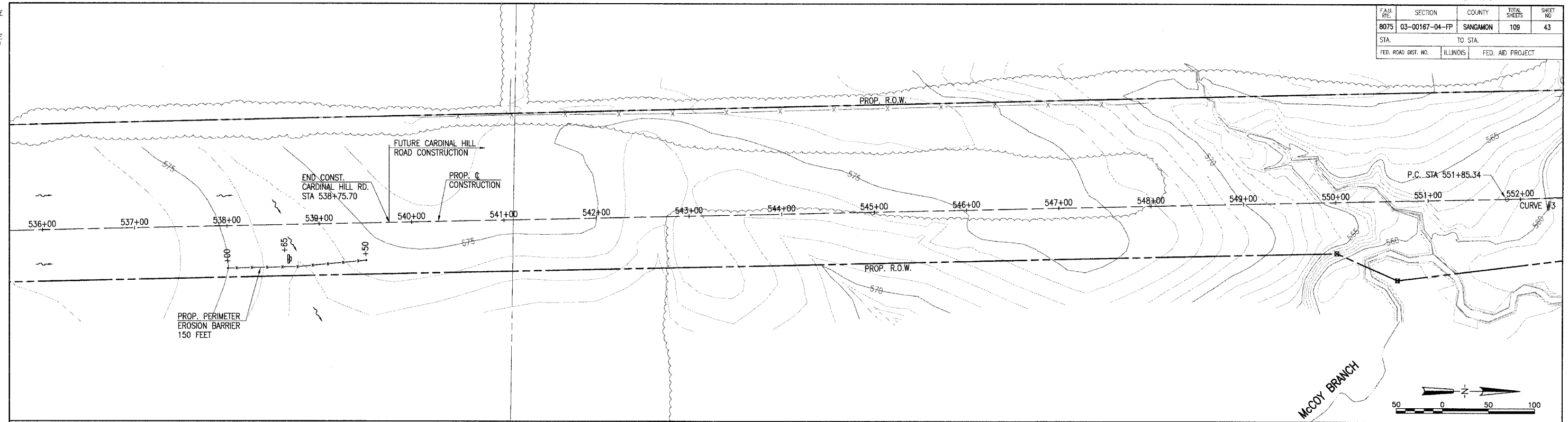
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LAYOUT 3/15/04  
 DRAWN 7/22/04  
 REVISION 1/22/04  
 03S20358 CIVIL SHEET C-502ERODWG JUL 21, 2006 10:00AM BJB

SEE NEXT SHEET FOR CONTINUATION OF EROSION CONTROL ON BUCKHART RD.

Xrefs:  
 PLAN-E  
 C-RP  
 C-TP  
 TITLE-E  
 C-ROW

| FAU. RE.            | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO. |
|---------------------|----------------|------------------|--------------|-----------|
| 8075                | 03-00167-04-FP | SANGAMON         | 109          | 43        |
| STA.                |                | TO STA.          |              |           |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |           |



**LEGEND**

- TEMPORARY DITCH CHECK
- PERIMETER EROSION BARRIER
- INLET & PIPE PROTECTION
- FLOW DIRECTION

**EROSION CONTROL PLAN**  
 SEC. 03-00167-04-FP  
 CARDINAL HILL ROAD (C.H. 37)  
 SANGAMON COUNTY

JOB NO.  
03S2035B

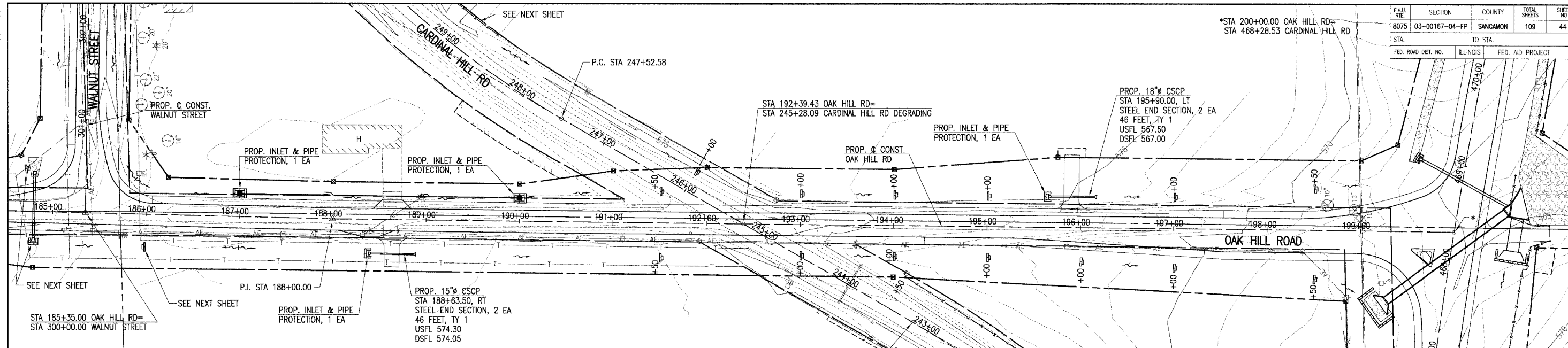
DATE  
6/21/06

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LAYOUT: E.B. 3/15/04  
 DRAWN: E.B. 7/22/04  
 REVISION: E.B. 7/27/04  
 \03JAMES\03S2035B\CIVIL\SHEETC-50\MERC.DWG, JUL 21, 2006 10:01AM E.B.

Xrefs:  
 PLAN-E  
 C-RR  
 C-TP  
 TITLE-E  
 C-ROW

| FILE NO.                    | SECTION        | COUNTY                             | TOTAL SHEETS | SHEET NO. |
|-----------------------------|----------------|------------------------------------|--------------|-----------|
| 8075                        | 03-00167-04-FP | SANGAMON                           | 109          | 44        |
| STA. 200+00.00 OAK HILL RD= |                | TO STA. 468+28.53 CARDINAL HILL RD |              |           |
| FED. ROAD DIST. NO.         | ILLINOIS       | FED. AID PROJECT                   |              |           |



**EROSION CONTROL NOTES**

THE FOLLOWING PLAN IS INCLUDED TO DIRECT THE CONTRACTOR IN THE PLACEMENT OF TEMPORARY EROSION CONTROL SYSTEMS.

PLACEMENT AND MAINTENANCE OF TEMPORARY EROSION CONTROL SYSTEMS WILL BE UTILIZED THROUGHOUT THE CONSTRUCTION WORK ZONE, AS SOON AS POSSIBLE TO STABILIZE EXPOSED SOILS AND PREVENT ON-SITE DAMAGE. THIS WORK MAY BE CONSTRUCTED OF HAY OR STRAW BALES, SILT FILTER FENCE, SEEDING, MULCH, OR OTHER APPROPRIATE METHODS AND MATERIALS, SEPARATELY OR IN COMBINATION, AS APPROVED, BY THE ENGINEER.

EROSION CONTROL DEVICES SHALL BE IN PLACE AND APPROVED BY THE ENGINEER AS TO PROPER PLACEMENT AND INSTALLATION PRIOR TO BEGINNING OTHER WORK.

THE CONTRACTOR SHALL PLACE PERMANENT SEEDING WITHIN A REASONABLE AMOUNT OF TIME. THE RESIDENT ENGINEER WILL DETERMINE WHEN TEMPORARY EROSION CONTROL SYSTEMS SHOWN IN THE PLAN CAN BE DELETED.

THE WORK SHALL BE COMPLETED IN ACCORDANCE WITH SECTION 280, TEMPORARY EROSION CONTROL, OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

THE CONTRACTOR SHALL PERFORM ALL WORK AS DIRECTED BY THE ENGINEER AND AS SHOWN IN STANDARD 280001.

TEMPORARY EROSION CONTROL SYSTEMS ARE NOTED IN THE EROSION CONTROL PLANS. THE PLAN MAY INCLUDE THE FOLLOWING:

- TEMPORARY DITCH CHECKS - ROLLED EXCELSIOR OR STRAW BALES
- PERIMETER EROSION BARRIER INLET AND PIPE PROTECTION
- TEMPORARY SEEDING AND MULCHING

PERIMETER EROSION BARRIER TO BE INSTALLED ALONG THE CONSTRUCTION LIMITS.

PRIOR TO CONSTRUCTION

PRIOR TO PERFORMING CONSTRUCTION ACTIVITIES RESULTING IN LAND DISTURBANCE, THE CONTRACTOR SHALL INSTALL ITEMS (IF SPECIFIED ON THE PLANS OR AS DIRECTED BY THE ENGINEER) INTENDED TO PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION SITE. THE ITEMS MAY INCLUDE THE FOLLOWING TEMPORARY EROSION CONTROL SYSTEMS.

- TEMPORARY DITCH CHECKS
- INLET AND PIPE PROTECTION
- PERIMETER EROSION BARRIER

DURING CONSTRUCTION

DURING CONSTRUCTION, THE CONTRACTOR SHALL:

CLEAN UP AND GRADE THE WORK AREA TO ELIMINATE CONCENTRATION OF RUNOFF.

INSTALL TEMPORARY DITCH CHECKS AT LOCATIONS SPECIFIED IN THE PLANS OR AS DIRECTED BY THE RESIDENT ENGINEER.

INSTALL INLET PROTECTION AS SPECIFIED IN THE PLANS OR AS DIRECTED BY THE RESIDENT ENGINEER FOR CULVERTS AND INLETS AS THEY ARE INSTALLED AND AS WORK PROCEEDS.

COVER THE OPEN ENDS OF PIPES IN TRENCHES AT THE CLOSE OF EACH WORKING DAY.

MAINTAIN OR REPLACE (IF SPECIFIED BY THE RESIDENT ENGINEER) SEDIMENT CONTROL ITEMS.

THE TEMPORARY EROSION CONTROL SYSTEMS INSTALLED BY THE CONTRACTOR SHALL BE PROPERLY MAINTAINED AS DIRECTED BY THE ENGINEER TO CONTROL SILTATION AT ALL TIMES DURING THE LIFE OF THE CONTRACT. THIS WORK SHALL INCLUDE REPAIR OF THE VARIOUS SYSTEMS, REMOVAL OF TRAPPED SEDIMENT AND CLEANING OF ANY SILT FILTER FABRIC.

IF THE CONTRACTOR FAILS TO MAINTAIN THE TEMPORARY EROSION CONTROL SYSTEMS AS DIRECTED BY THE ENGINEER, THE ENGINEER MAY AT THE EXPIRATION OF A PERIOD OF 48 HOURS, AFTER HAVING GIVEN THE CONTRACTOR WRITTEN NOTICE, PROCEED TO MAINTAIN THE SYSTEMS AS DEEMED NECESSARY, AND THE COST THEREOF WILL BE DEDUCTED FROM ANY COMPENSATION DUE, OR WHICH MAY BECOME DUE TO THE CONTRACTOR UNDER THIS CONTRACT.

IF THE CONTRACTOR FAILS TO MAINTAIN THE TEMPORARY EROSION CONTROL SYSTEMS AS DIRECTED BY THE ENGINEER, THE ENGINEER MAY AT THE EXPIRATION OF A PERIOD OF 48 HOURS, AFTER HAVING GIVEN THE CONTRACTOR WRITTEN NOTICE, PROCEED TO MAINTAIN THE SYSTEMS AS DEEMED NECESSARY, AND THE COST THEREOF WILL BE DEDUCTED FROM ANY COMPENSATION DUE, OR WHICH MAY BECOME DUE TO THE CONTRACTOR UNDER THIS CONTRACT.

PRIOR TO LANDSCAPING/RESTORATION

IMMEDIATELY PRIOR TO LANDSCAPING/RESTORATION WORK, THE CONTRACTOR SHALL:

REMOVE AND DISPOSE OF SILT RETAINED BY THE TEMPORARY DITCH CHECKS, REINSTALL TEMPORARY DITCH CHECKS AFTER CLEANING, AND REMOVE AND REPLACE PLUGGED HAY OR STRAW BALES.

FOLLOWING LANDSCAPING/RESTORATION

AFTER LANDSCAPING/RESTORATION WORK, THE CONTRACTOR SHALL:

MAINTAIN OR REPLACE (IF SPECIFIED BY THE RESIDENT ENGINEER) SEDIMENT CONTROL ITEMS.

VEGETATION ESTABLISHED

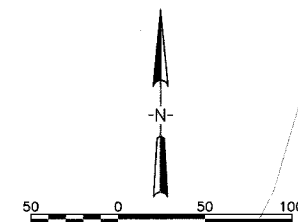
AFTER THE VEGETATION IS ESTABLISHED IN THE DISTURBED AREAS, THE CONTRACTOR SHALL:

REMOVE THE REMAINING SEDIMENT CONTROL ITEMS (SEDIMENT BARRIERS, INLET PROTECTION, AND OTHER REMAINING ITEMS).

RESTORE THE AREAS DISTURBED BY THE SEDIMENT CONTROL ITEMS BY PERMANENT SEEDING AND MULCHING.

**LEGEND**

- TEMPORARY DITCH CHECK
- PERIMETER EROSION BARRIER
- INLET & PIPE PROTECTION
- FLOW DIRECTION



EROSION CONTROL PLAN  
 SEC. 03-00167-04-FP  
 CARDINAL HILL ROAD (C.H. 37)  
 SANGAMON COUNTY



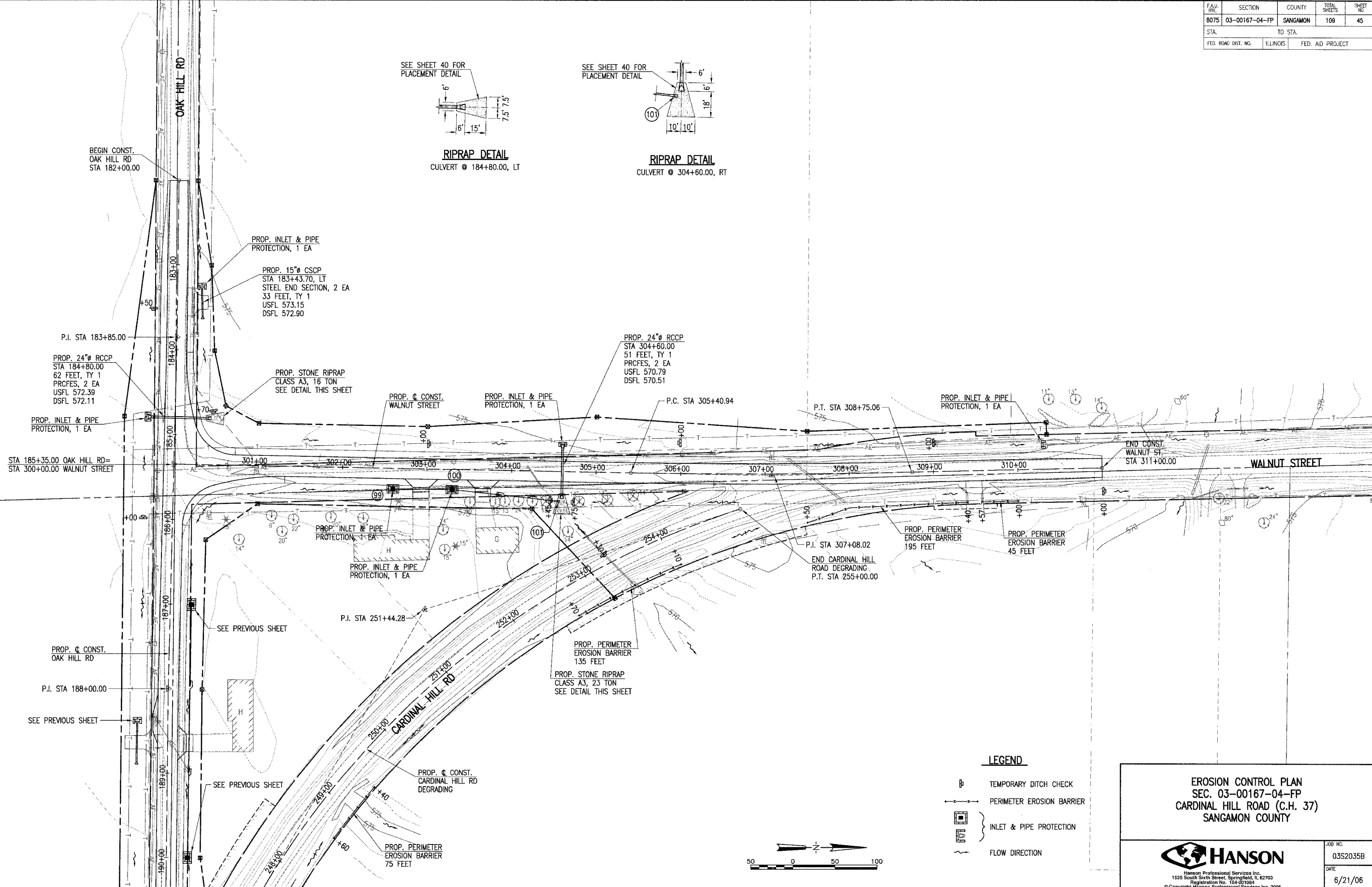
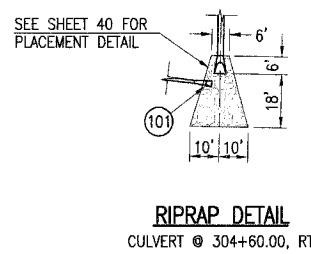
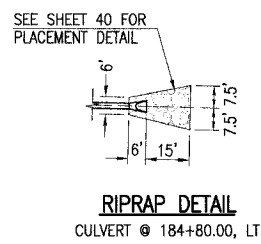
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 Registration No. 164-01064  
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JOB NO.  
 03S2035B  
 DATE  
 6/21/06

3/15/04  
 7/22/04  
 7/21/04  
 03S2035B.DWG  
 SHEET C-50580.DWG  
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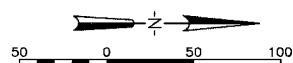
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 C-RP  
 C-TP  
 TITLE-E  
 C-ROW

| FAU. RE.            | SECTION        | COUNTY   | TOTAL SHEETS     | SHEET NO. |
|---------------------|----------------|----------|------------------|-----------|
| 8075                | 03-00167-04-FP | SANGAMON | 109              | 45        |
| STA.                |                | TO STA.  |                  |           |
| FED. ROAD DIST. NO. |                | ILLINOIS | FED. AID PROJECT |           |



**LEGEND**

- TEMPORARY DITCH CHECK
- PERIMETER EROSION BARRIER
- INLET & PIPE PROTECTION
- FLOW DIRECTION



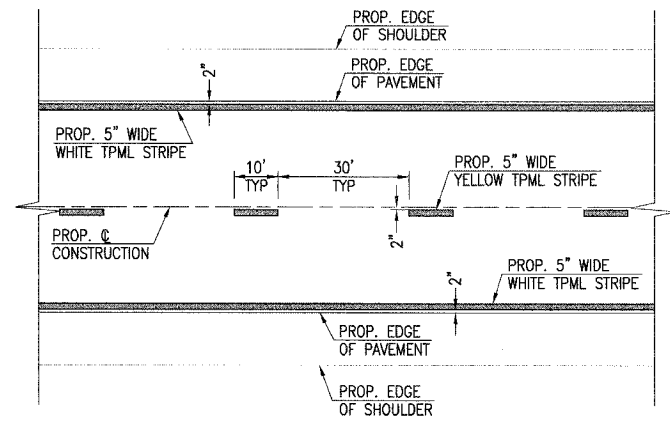
**EROSION CONTROL PLAN**  
 SEC. 03-00167-04-FP  
 CARDINAL HILL ROAD (C.H. 37)  
 SANGAMON COUNTY

JOB NO.  
03S2035B  
 DATE  
6/21/06

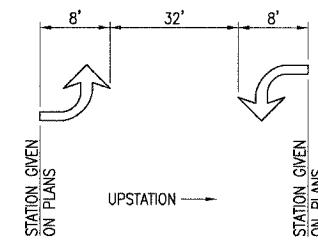
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LAYOUT: BJB 3/15/04  
 DRAWN: BJB 7/22/04  
 REVISED: LOK 7/21/04  
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|                     |                |                  |                 |             |
|---------------------|----------------|------------------|-----------------|-------------|
| FAU-<br>RTE:        | SECTION        | COUNTY           | TOTAL<br>SHEETS | SHEET<br>NO |
| 8075                | 03-00167-04-FP | SANGAMON         | 109             | 46          |
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| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |                 |             |

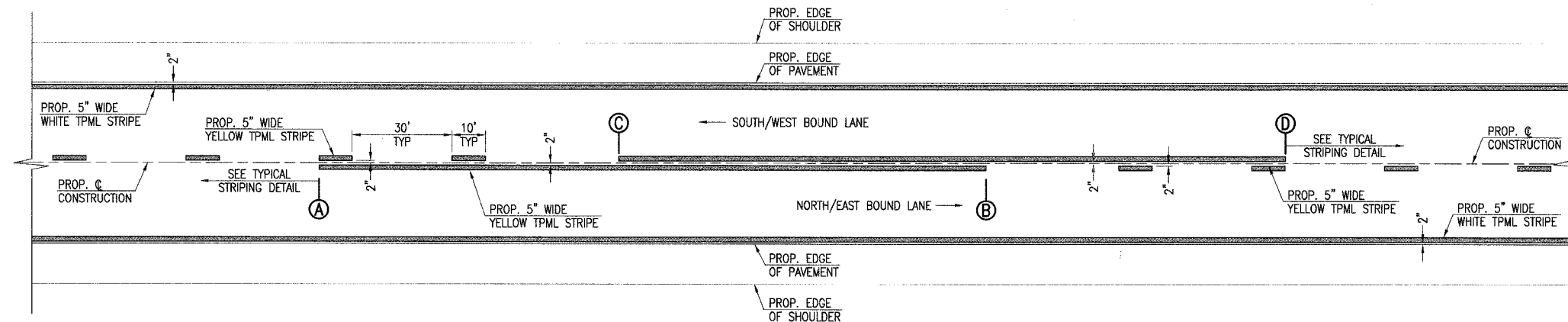


**TYPICAL STRIPING DETAIL**  
STA 482+00.00 TO STA 491+60.00



**BIDIRECTIONAL TURN ARROW SPACING DETAIL**

TPML = THERMOPLASTIC PAVEMENT MARKING LINE



**NO-PASSING ZONE STRIPING**

|                                       |        |                                       |        |
|---------------------------------------|--------|---------------------------------------|--------|
| CARDINAL HILL ROAD<br>NORTHBOUND LANE |        | CARDINAL HILL ROAD<br>SOUTHBOUND LANE |        |
| A                                     | B      | C                                     | D      |
| 455+50                                | 457+88 | 455+50                                | 457+88 |
|                                       |        | 475+70                                | 482+00 |
| OAK HILL ROAD<br>EASTBOUND LANE       |        | OAK HILL ROAD<br>WESTBOUND LANE       |        |
| A                                     | B      | C                                     | D      |
| 182+00                                | 199+68 | 182+00                                | 199+68 |
| WALNUT STREET<br>NORTHBOUND LANE      |        | WALNUT STREET<br>SOUTHBOUND LANE      |        |
| A                                     | B      | C                                     | D      |
| 300+37                                | 311+00 | 300+37                                | 311+00 |

NOTE: SEE SHEETS 47 THRU 55  
FOR ADDITIONAL STRIPING.

LAYOUT: EJR 3/15/04  
 DESIGN: EJR 7/22/04  
 REVIEWED: LUK 7/21/04  
 J:\030695\03S2035B\DWG\99SHEET\0-101MARK.DWG JUL 21, 2006 10:03AM B.B

PAVEMENT MARKING  
SEC. 03-00167-04-FP  
CARDINAL HILL ROAD (C.H. 37)  
SANGAMON COUNTY

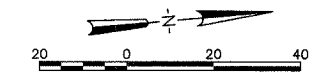
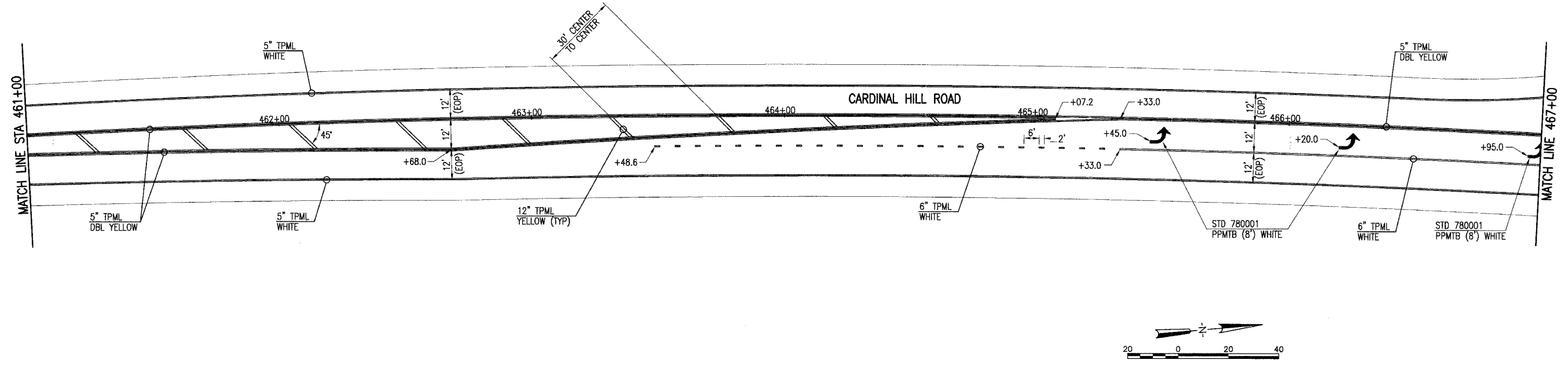
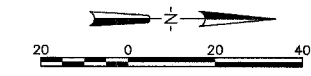
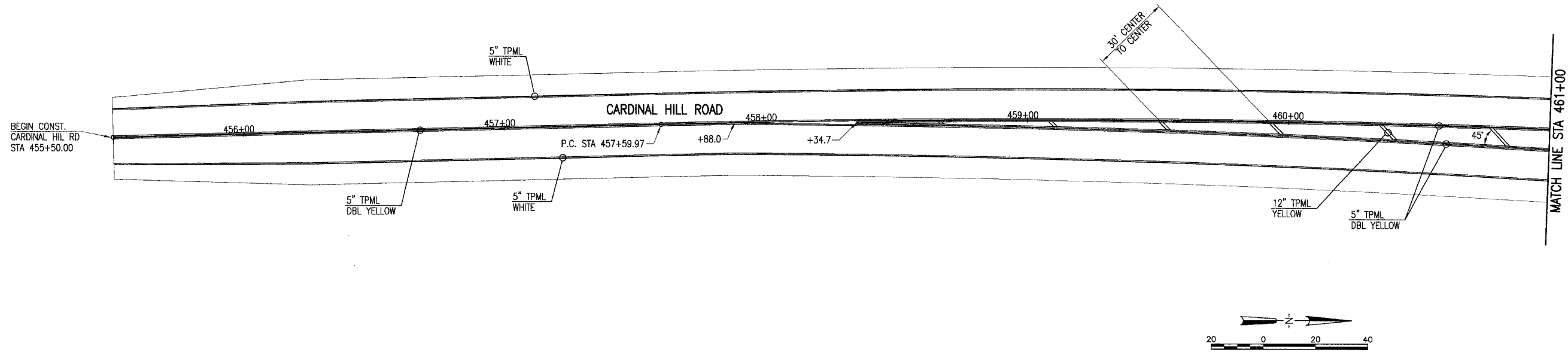


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03S2035B  
DATE  
6/21/06

Xrefs:  
PLAN-E  
TITLE-E  
C-RP

| F.A.U. RITE         | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO |
|---------------------|----------------|------------------|--------------|----------|
| 8075                | 03-00167-04-FP | SANGAMON         | 109          | 47       |
| STA.                |                | TO STA.          |              |          |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |          |



TPML = THERMOPLASTIC PAVEMENT MARKING LINE  
PPMTB = PREFORMED PLASTIC PAVEMENT MARKING, TYPE B

NOTES  
1. DIMENSIONS ARE TO CENTER OF STRIPE(S) UNLESS OTHERWISE NOTED.

**PAVEMENT MARKING**  
SEC. 03-00167-04-FP  
CARDINAL HILL ROAD (C.H. 37)  
SANGAMON COUNTY

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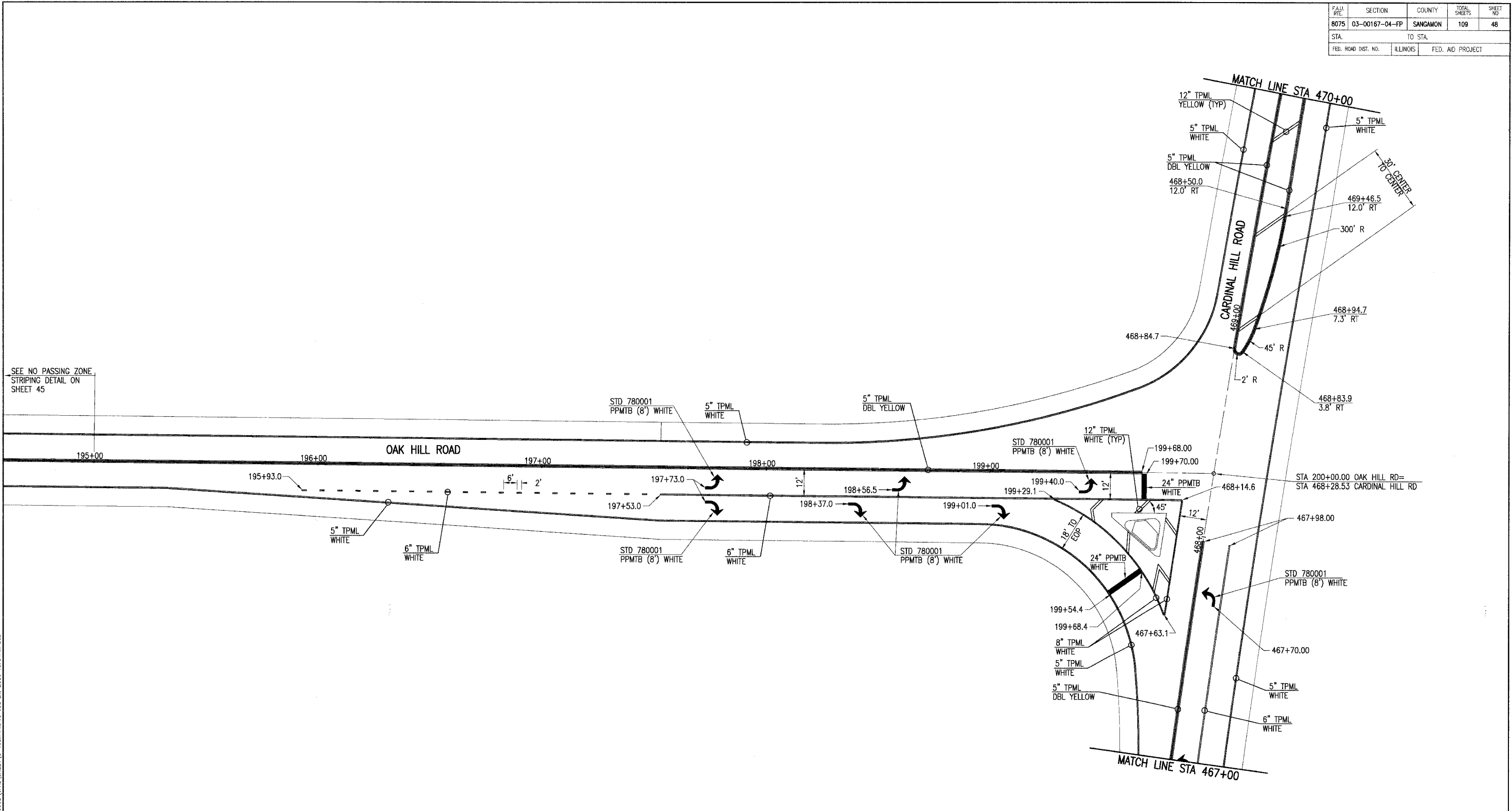
DATE: 6/21/06

JOB NO.: 03S2035B

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 CHECKED: LUK 7/21/04  
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| FAU. RTE.           | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO. |
|---------------------|----------------|------------------|--------------|-----------|
| 8075                | 03-00167-04-FP | SANGAMON         | 109          | 48        |
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| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |           |

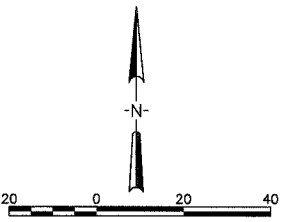
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PLAN - P  
TITLE - T  
C-REP



LAYOUT: B.B. 3/15/04  
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 REVIEWED: E.K. 1/21/05  
 \G:\30485\03S2035B\OAK HILL SHEET\03S2035B-103MKT.DWG, JUL 21, 2006 10:04AM B.B.

TPML = THERMOPLASTIC PAVEMENT MARKING LINE  
 PPMTB = PREFORMED PLASTIC PAVEMENT MARKING, TYPE B

**NOTES**  
 1. DIMENSIONS ARE TO CENTER OF STRIPE(S) UNLESS OTHERWISE NOTED.



PAVEMENT MARKING  
 SEC. 03-00167-04-FP  
 CARDINAL HILL ROAD (C.H. 37)  
 SANGAMON COUNTY

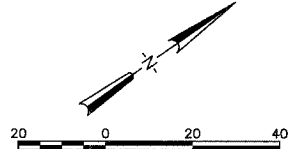
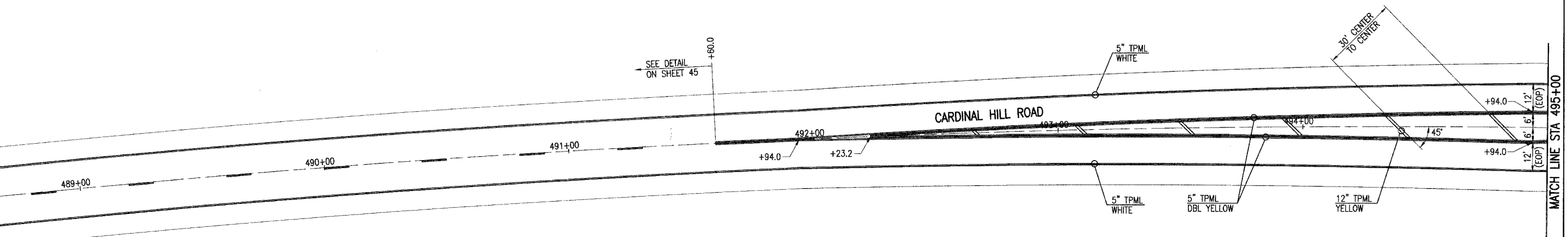
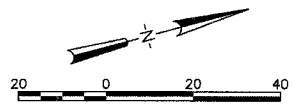
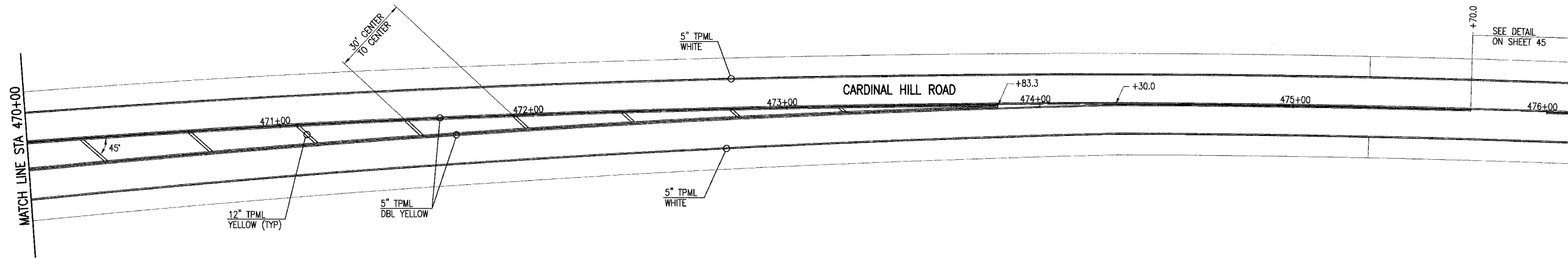
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JOB NO.  
03S2035B
DATE  
6/21/06



| FAU. REC.           | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO. |
|---------------------|----------------|------------------|--------------|-----------|
| 8075                | 03-00167-04-FP | SANGAMON         | 109          | 49        |
| STA.                |                | TO STA.          |              |           |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |           |

Xrefs:  
PLAN-F  
TITLE-F  
C-CP



TPML = THERMOPLASTIC PAVEMENT MARKING LINE

NOTES  
1. DIMENSIONS ARE TO CENTER OF STRIPE(S) UNLESS OTHERWISE NOTED.

**PAVEMENT MARKING**  
SEC. 03-00167-04-FP  
CARDINAL HILL ROAD (C.H. 37)  
SANGAMON COUNTY

JOB NO.  
03S2035B

DATE  
6/21/06

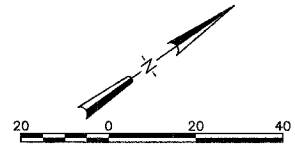
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Registration No. 154-001004  
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1. CHECKED BY: B.B. 3/7/05/04  
 2. DESIGNED BY: B.B. 7/22/04  
 3. DRAWN BY: B.B. 7/22/04  
 4. REVIEWED BY: B.B. 7/21/04  
 5. 03S2035B 03S2035B CIVIL SHEET 10-104MKT.DWG. JUL 21, 2006 10:05AM B.B.

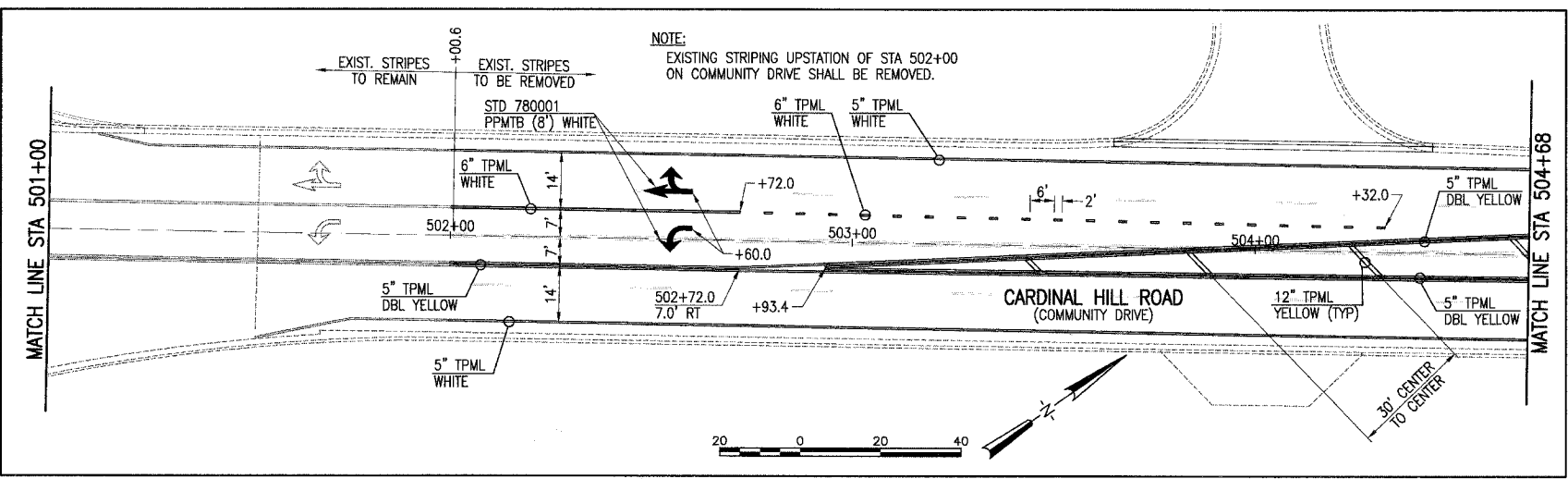
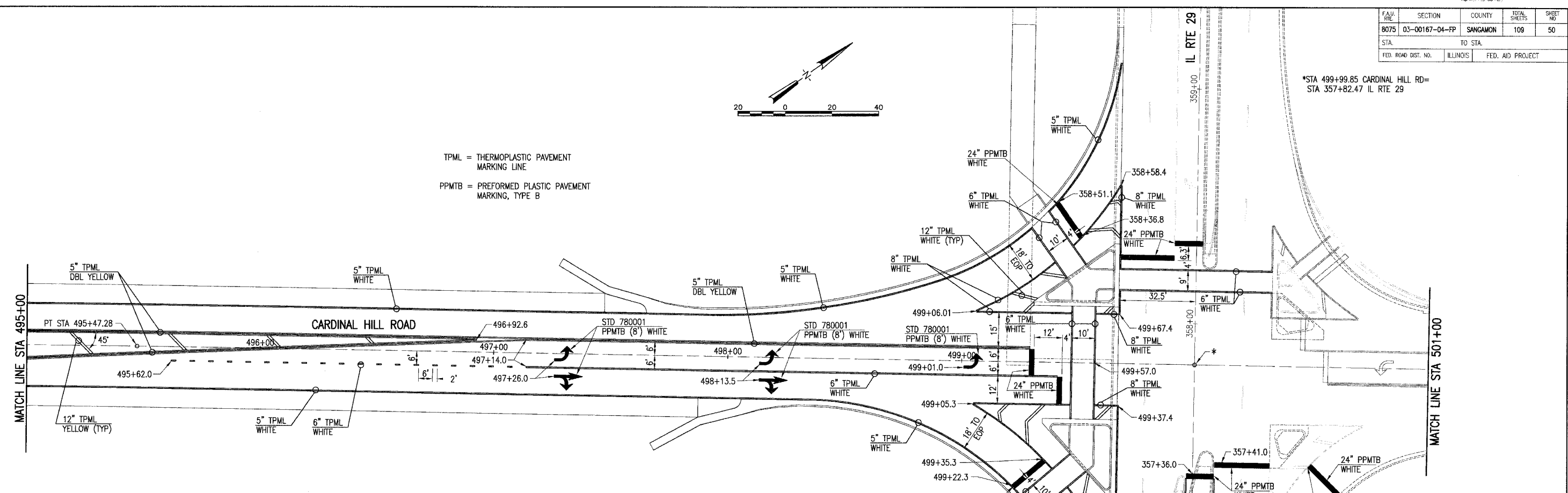
Xrefs:  
PLAN-E  
TITLE-E  
C-FP  
C-TP

|                     |                |          |                  |           |
|---------------------|----------------|----------|------------------|-----------|
| F.A.M. RTE.         | SECTION        | COUNTY   | TOTAL SHEETS     | SHEET NO. |
| B075                | 03-00167-04-FP | SANGAMON | 109              | 50        |
| STA.                |                | TO STA.  |                  |           |
| FED. ROAD DIST. NO. |                | ILLINOIS | FED. AID PROJECT |           |

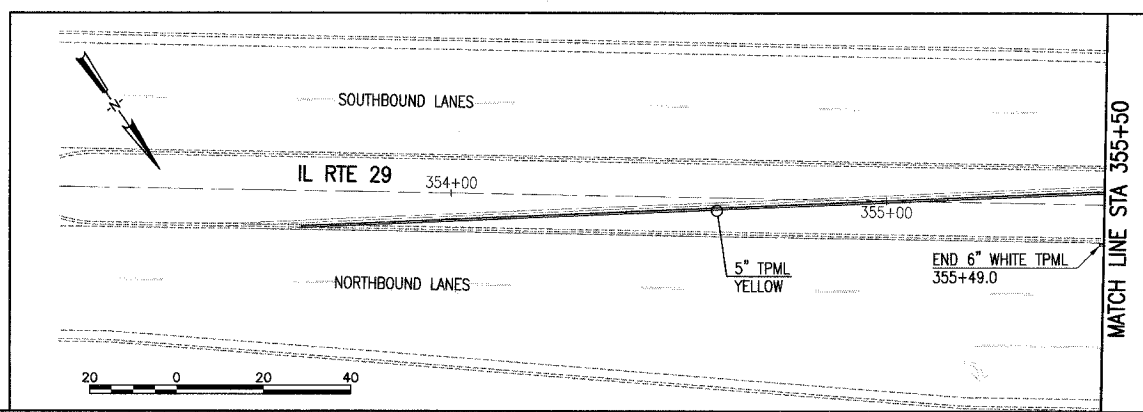
\*STA 499+99.85 CARDINAL HILL RD=  
STA 357+82.47 IL RTE 29



TPML = THERMOPLASTIC PAVEMENT MARKING LINE  
 PPMTB = PREFORMED PLASTIC PAVEMENT MARKING, TYPE B



NOTES  
 1. DIMENSIONS ARE TO CENTER OF STRIPE(S)  
 UNLESS OTHERWISE NOTED.



PAVEMENT MARKING  
 SEC. 03-00167-04-FP  
 CARDINAL HILL ROAD (C.H. 37)  
 SANGAMON COUNTY



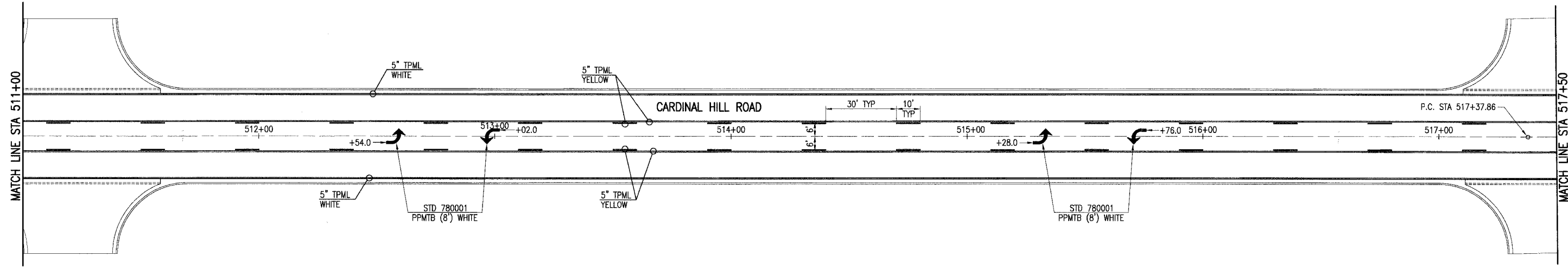
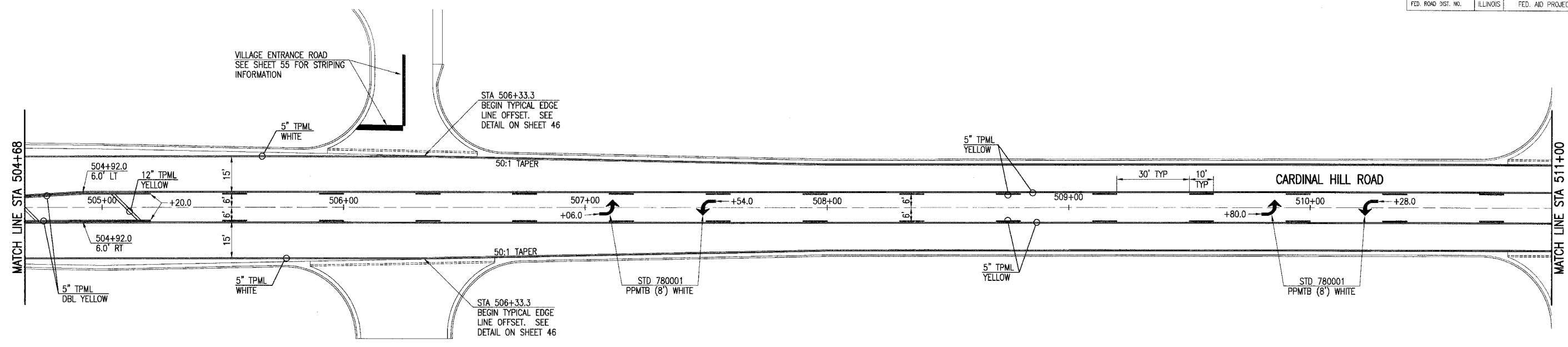
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JOB NO.  
03S20358  
 DATE  
6/21/06

LAYOUT: BJB 3/15/04  
 DRAWN: BJB 7/22/04  
 REVIEWED: LDK 1/21/06  
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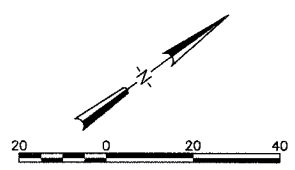
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PLAN-E  
TITLE-E  
C-RP

| F.A. DIST. NO.      | SECTION        | COUNTY   | TOTAL SHEETS     | SHEET NO. |
|---------------------|----------------|----------|------------------|-----------|
| B075                | 03-00167-04-FP | SANGAMON | 109              | 51        |
| STA.                |                | TO STA.  |                  |           |
| FED. ROAD DIST. NO. |                | ILLINOIS | FED. AID PROJECT |           |



TPML = THERMOPLASTIC PAVEMENT MARKING LINE  
 PPMTB = PREFORMED PLASTIC PAVEMENT MARKING, TYPE B

- NOTES**
- DIMENSIONS ARE TO CENTER OF STRIPE(S) UNLESS OTHERWISE NOTED.
  - SEE SHEET 46 FOR BIDIRECTIONAL TURN ARROW SPACING.



PAVEMENT MARKING  
 SEC. 03-00167-04-FP  
 CARDINAL HILL ROAD (C.H. 37)  
 SANGAMON COUNTY

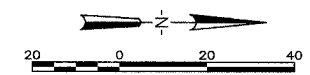
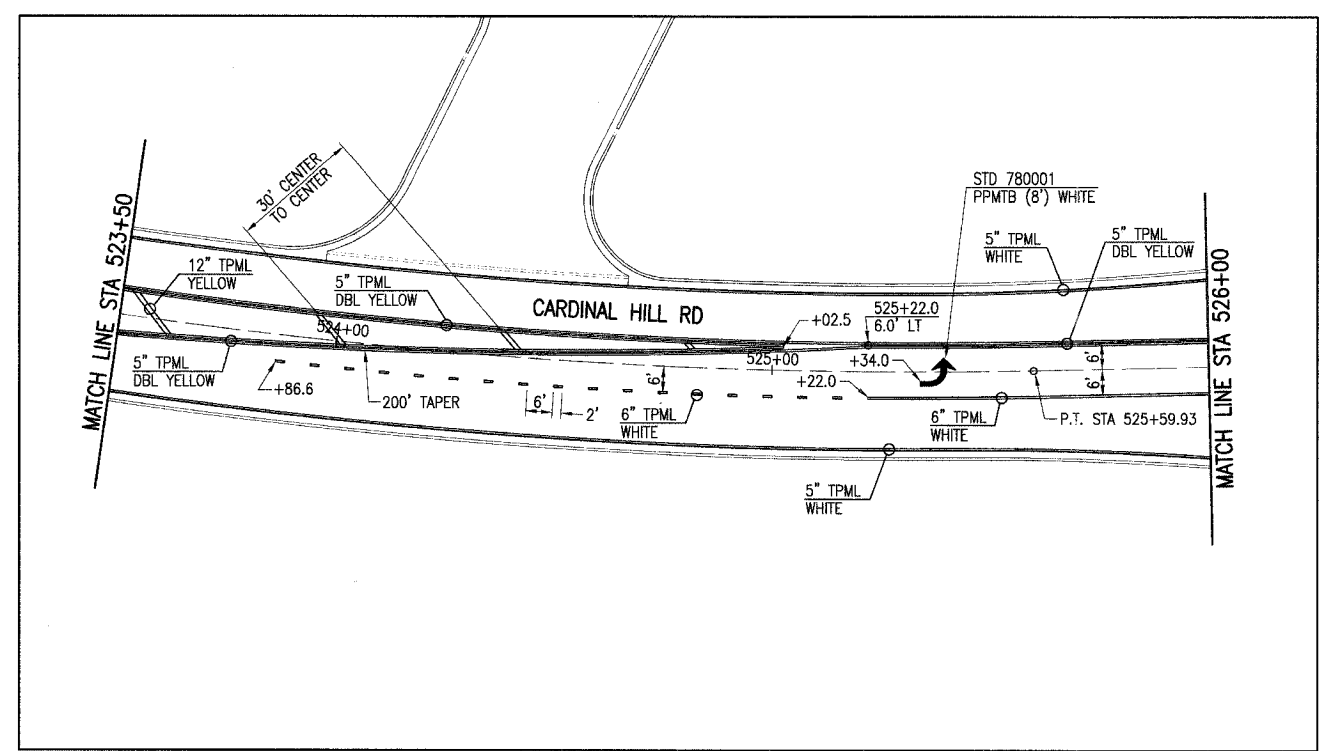
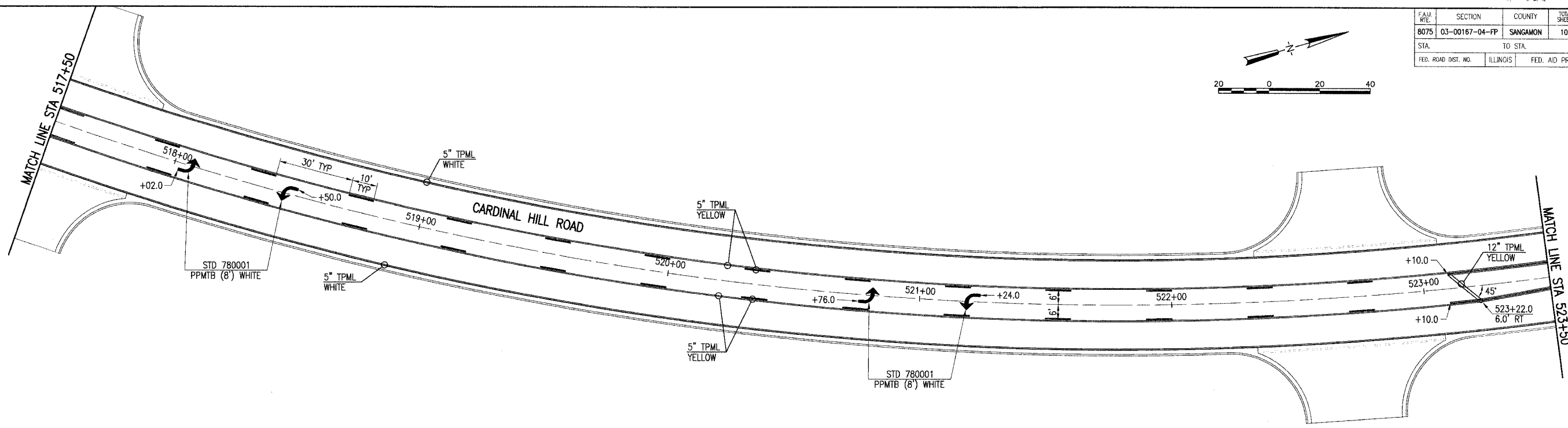
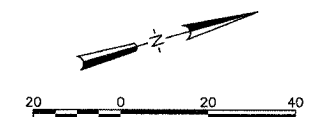
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 Registration No. 1094-01084  
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JOB NO.  
 03S2035B  
DATE  
 6/21/06

LAYOUT: B/B 3/15/04  
 DRAWN: B/B 7/22/04  
 REVIEWED: LDK 1/22/06  
 I:\03\00167\04\FP\03S2035B\CIVIL\03S2035B\03S2035B\03S2035B\03S2035B.DWG, JUL 21, 2006 10:06AM BJB

Xrefs:  
PLAN-E  
TITLE-E  
C-RP

| FAU RITE            | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO |
|---------------------|----------------|------------------|--------------|----------|
| B075                | 03-00167-04-FP | SANGAMON         | 109          | 52       |
| STA.                |                | TO STA.          |              |          |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |          |



TPML = THERMOPLASTIC PAVEMENT MARKING LINE  
PPMTB = PREFORMED PLASTIC PAVEMENT MARKING, TYPE B

- NOTES
1. DIMENSIONS ARE TO CENTER OF STRIPE(S) UNLESS OTHERWISE NOTED.
  2. SEE SHEET 46 FOR BIDIRECTIONAL TURN ARROW SPACING.

PAVEMENT MARKING  
SEC. 03-00167-04-FP  
CARDINAL HILL ROAD (C.H. 37)  
SANGAMON COUNTY

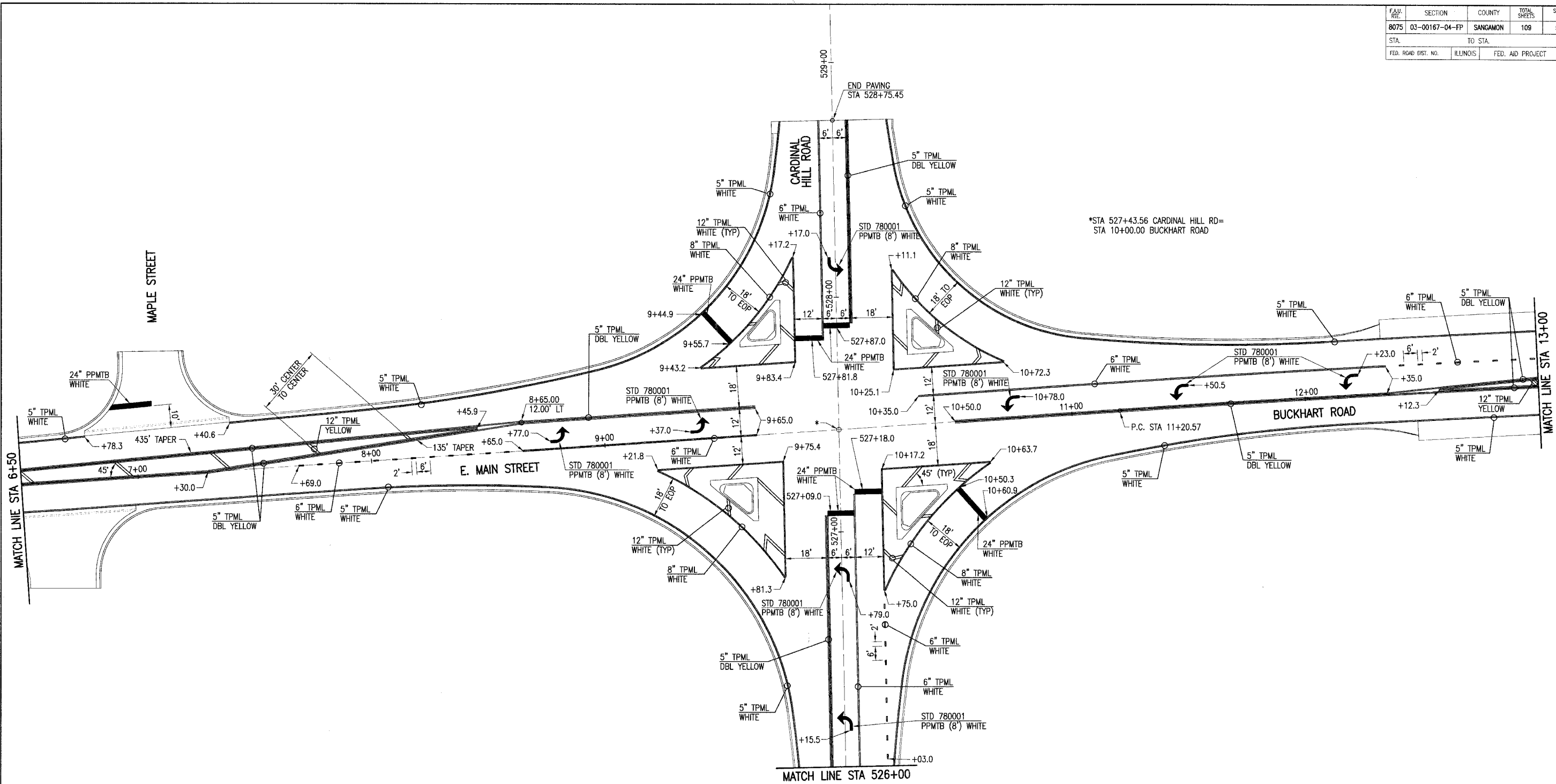


JOB NO.  
03S2035B  
DATE  
6/21/06

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 BJB 3/15/04  
 BJB 7/22/04  
 BJB 7/21/04

Xrefs:  
 PLAN-E  
 TITLE-E  
 C-RP

| FAM. NO.            | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO. |
|---------------------|----------------|------------------|--------------|-----------|
| 8075                | 03-00167-04-FP | SANGAMON         | 109          | 53        |
| STA.                |                | TO STA.          |              |           |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |           |

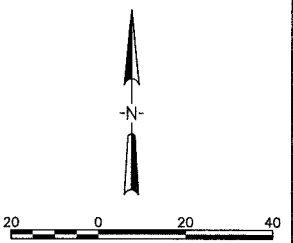


\*STA 527+43.56 CARDINAL HILL RD = STA 10+00.00 BUCKHART ROAD

LAYOUT: BJB 3/15/04  
 DRAWN: BJB 7/22/04  
 REVIEWED: LJK 7/23/04  
 J:\CADD\8075\03S2035B\DWG\SHR\PLAN\SHR\PLAN\03S2035B.DWG JUL 21 2006 10:07AM BJB

TPML = THERMOPLASTIC PAVEMENT MARKING LINE  
 PPMTB = PREFORMED PLASTIC PAVEMENT MARKING, TYPE B

NOTE: DIMENSIONS ARE TO CENTER OF STRIPE(S) UNLESS OTHERWISE NOTED.



**PAVEMENT MARKING**  
 SEC. 03-00167-04-FP  
 CARDINAL HILL ROAD (C.H. 37)  
 SANGAMON COUNTY

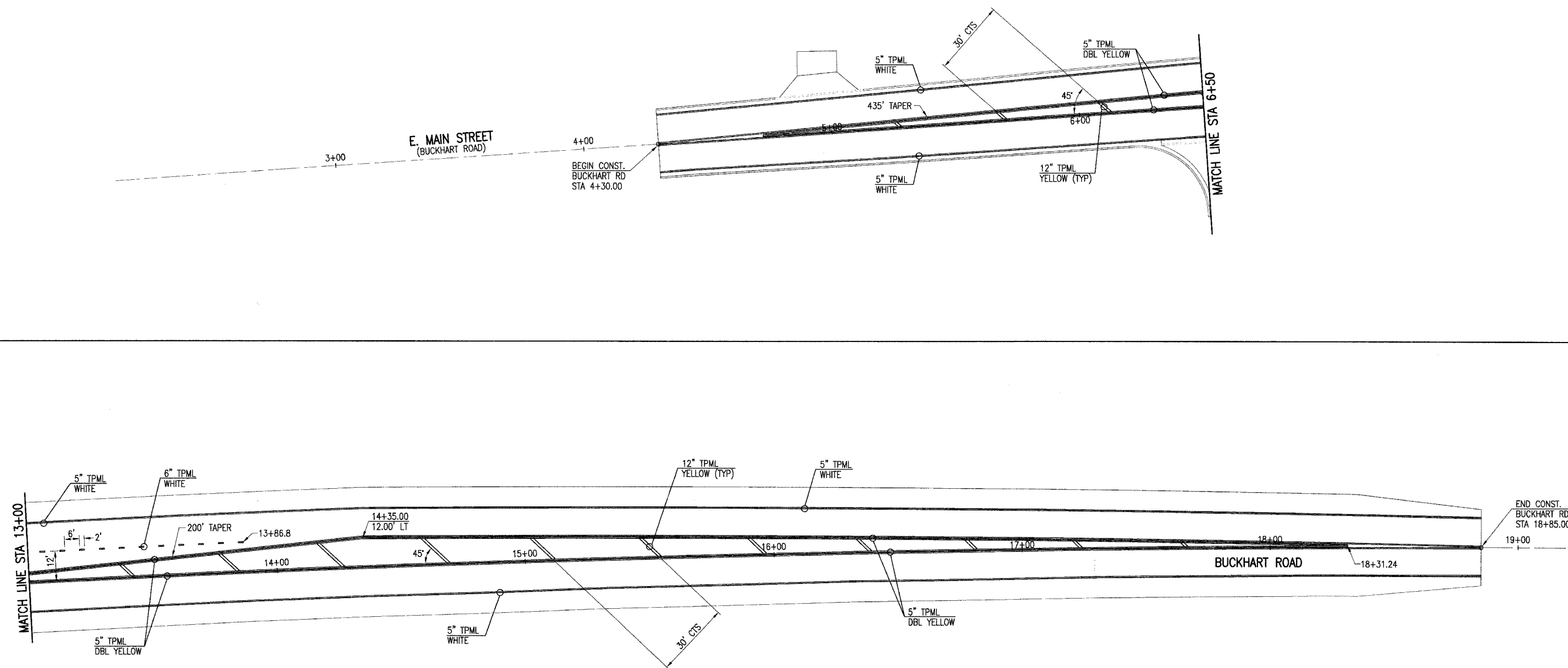
JOB NO.  
03S2035B

DATE  
6/21/06

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 Registration No. 104-001004  
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Xrefs:  
PLAN-E  
TITLE-E  
C-RP

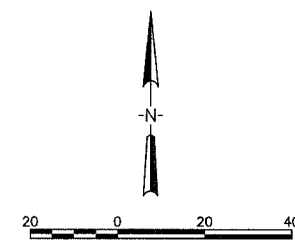
| FAU. REC.           | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO. |
|---------------------|----------------|------------------|--------------|-----------|
| 8075                | 03-00167-04-FP | SANGAMON         | 109          | 54        |
| STA.                |                | TO STA.          |              |           |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |           |



LAYOUT: RLP 3/15/04  
 DRAWN: RLP 7/27/04  
 REVIEWED: LOK 7/27/04  
 J:\03-CBS\03S2035B\CIVIL\03S2035B-04-FP\MARK.DWG - JUL 21, 2006 10:08AM B.B

TPML = THERMOPLASTIC PAVEMENT MARKING LINE

NOTE: DIMENSIONS ARE TO CENTER OF STRIPE(S) UNLESS OTHERWISE NOTED.



**PAVEMENT MARKING**  
 SEC. 03-00167-04-FP  
 CARDINAL HILL ROAD (C.H. 37)  
 SANGAMON COUNTY



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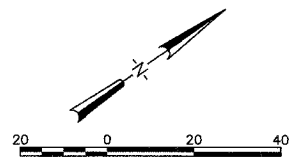
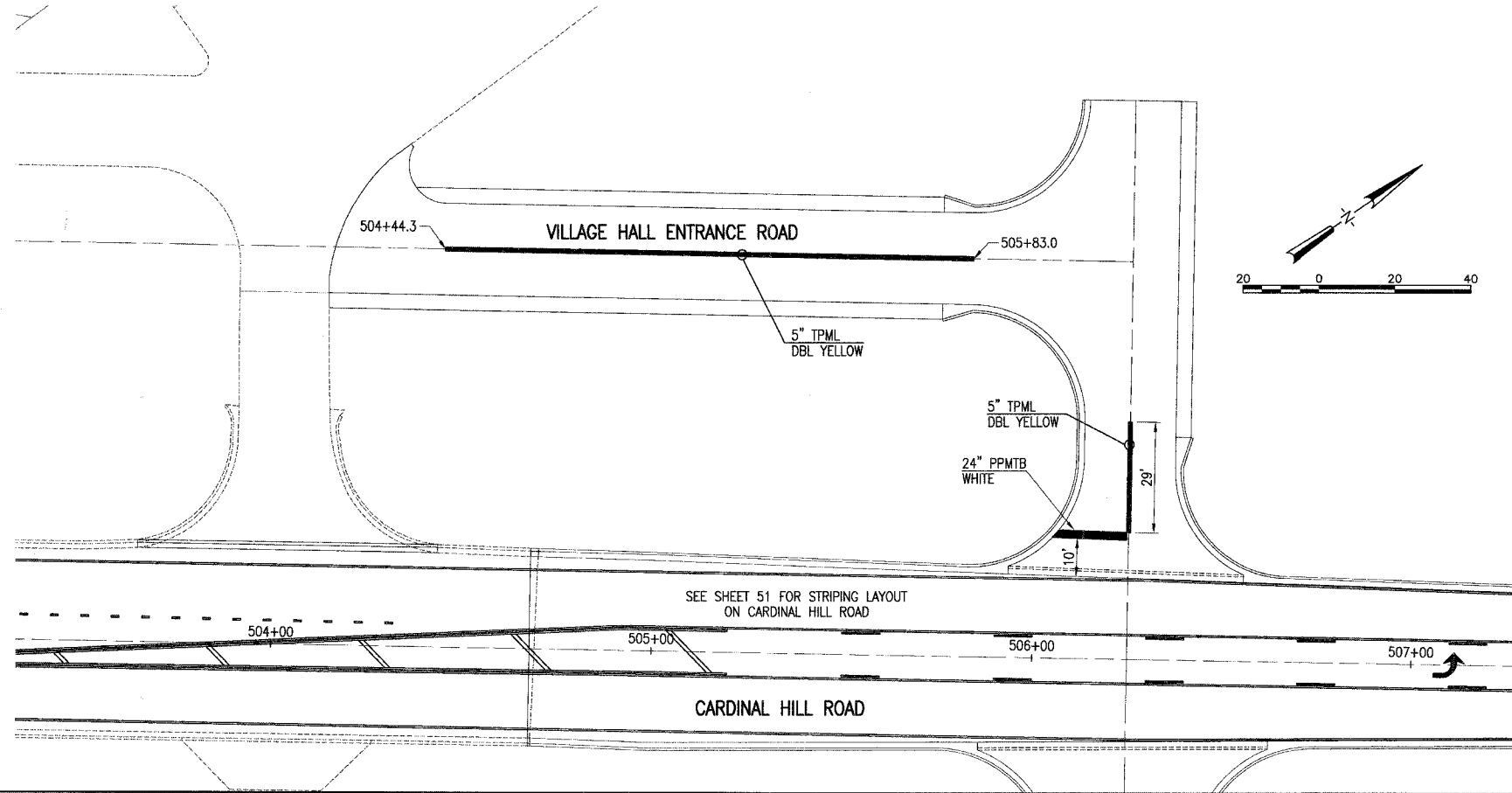
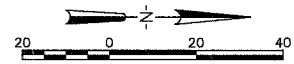
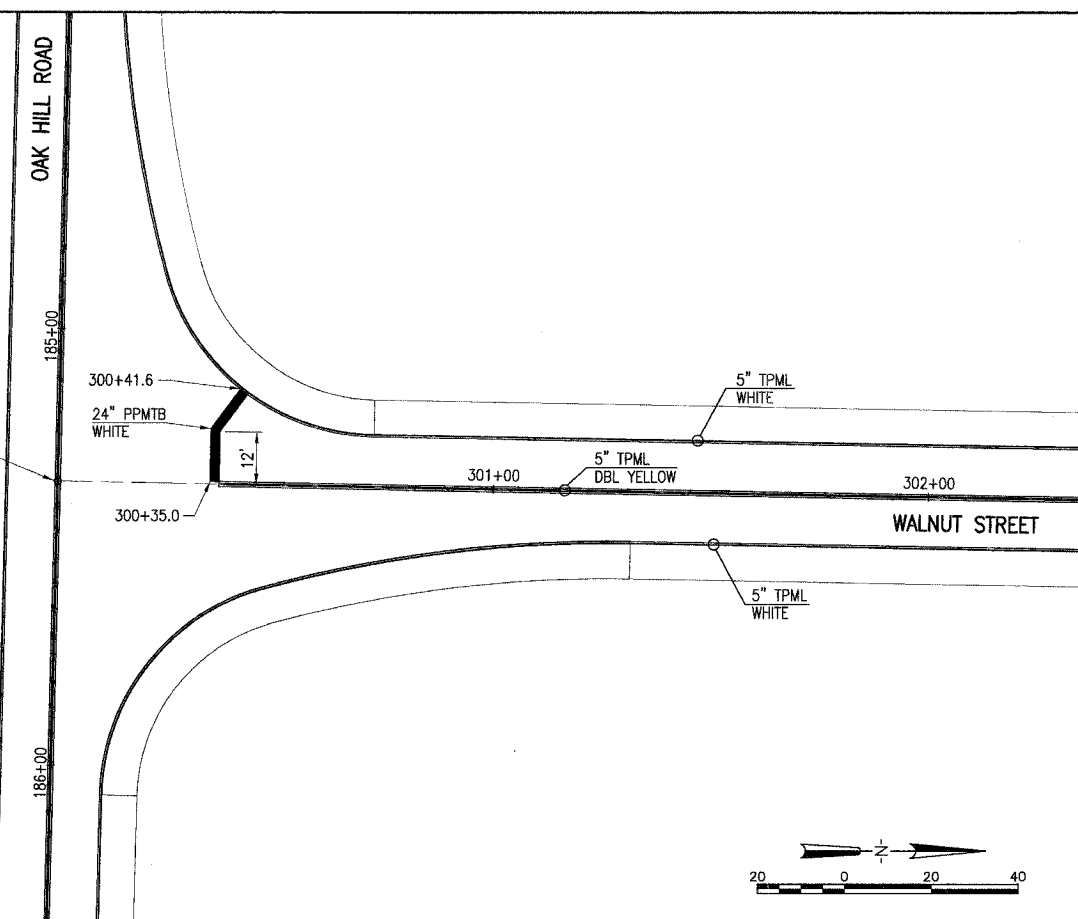
JOB NO.  
03S2035B  
DATE  
6/21/06

Xrefs:  
 PLAN-E  
 TITLE-E  
 C-PP  
 C-TP

| FAA/RFC             | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO |
|---------------------|----------------|------------------|--------------|----------|
| 8075                | 03-00167-04-FP | SANGAMON         | 109          | 55       |
| STA.                |                | TO STA.          |              |          |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |          |

STA 300+00.00 WALNUT STREET=  
 STA 185+35.00 OAK HILL ROAD

NOTE: SEE "NO-PASSING ZONE STRIPING" DETAIL ON  
 SHEET 46 FOR STRIPING ALONG OAK HILL  
 ROAD & WALNUT STREET.



SEE SHEET 51 FOR STRIPING LAYOUT  
 ON CARDINAL HILL ROAD

- NOTES**
- DIMENSIONS ARE TO CENTER OF STRIPE(S) UNLESS OTHERWISE NOTED.
- TPML = THERMOPLASTIC PAVEMENT MARKING LINE  
 PPMTB = PREFORMED PLASTIC PAVEMENT MARKING, TYPE B

PAVEMENT MARKING  
 SEC. 03-00167-04-FP  
 CARDINAL HILL ROAD (C.H. 37)  
 SANGAMON COUNTY



JOB NO.  
 03S2035B  
 DATE  
 6/21/06

LAYOUT BJB 3/15/04  
 DRAWN BJB 7/22/04  
 REVIEWED LDK 7/21/04  
 I:\034095\03S2035B\CIVIL\SHET\AC-110\MRK.DWG, JUL 21, 2006 10:08AM BJB

| EXISTING | PROPOSED | DESCRIPTION                         | EXISTING | PROPOSED | DESCRIPTION                                                                           |
|----------|----------|-------------------------------------|----------|----------|---------------------------------------------------------------------------------------|
|          |          | SIGNAL HEAD                         |          |          | 8" SIGNAL SECTION                                                                     |
|          |          | SIGNAL HEAD WITH BACKPLATE          |          |          | 12" SIGNAL SECTION                                                                    |
|          |          | TEMPORARY SIGNAL HEAD               |          |          | DIRECTIONAL SIGNAL SECTION                                                            |
|          |          | PEDESTRIAN SIGNAL HEAD              |          |          | 9" PEDESTRIAN SIGNAL FACE                                                             |
|          |          | PEDESTRIAN PUSHBUTTON DETECTOR      |          |          | 12" PEDESTRIAN SIGNAL FACE                                                            |
|          |          | DETECTOR LOOP                       |          |          | SIGNAL FACE WITH BACKPLATE                                                            |
|          |          | QUADRAPOLE DETECTOR LOOP            |          |          | PROGRAMMED SIGNAL SECTION                                                             |
|          |          | SIGNAL POST                         |          |          | SIGNAL SECTION WITH LOUVRE                                                            |
|          |          | ALUMINUM MAST ARM ASSEMBLY AND POLE |          |          | DUAL-INDICATION SIGNAL SECTION                                                        |
|          |          | STEEL MAST ARM ASSEMBLY AND POLE    |          |          | INDUCTION DETECTOR LOOP                                                               |
|          |          | WOOD POLE                           |          |          | QUADRAPOLE DETECTOR LOOP                                                              |
|          |          | WOOD POLE WITH GUY                  |          |          | DIRECT-CONNECTED LOOP LEAD-IN (TWISTED)                                               |
|          |          | SERVICE INSTALLATION                |          |          | ELECTRIC CABLE DENOTING NUMBER OF CONDUCTORS                                          |
|          |          | CONTROLLER                          |          |          | ELECTRIC CABLE TO BE REMOVED                                                          |
|          |          | HANDHOLE                            |          |          | ELECTRIC CABLE IDENTIFIER TAPE CODES (R=RED W=WHITE Y=YELLOW G=GREEN B=BLUE O=ORANGE) |
|          |          | HEAVY DUTY HANDHOLE                 |          |          | VIDEO CAMERA                                                                          |
|          |          | DOUBLE HANDHOLE                     |          |          | STEEL TWIN TENON                                                                      |
|          |          | JUNCTION BOX                        |          |          |                                                                                       |
|          |          | GULFBOX JUNCTION                    |          |          |                                                                                       |
|          |          | AERIAL CABLE                        |          |          |                                                                                       |
|          |          | CONDUIT                             |          |          |                                                                                       |
|          |          | CONDUIT SPLICE                      |          |          |                                                                                       |
|          |          | SPAN WIRE/TETHER WIRE               |          |          |                                                                                       |

LENGTH - CONSTRUCTION (T=TRENCH P=PUSHED A=AUGERED E=EXISTING)  
 SIZE - TYPE (S=STEEL P=PVC)

45'-E  
3" E

45'-T  
3" P

|    |                                           |
|----|-------------------------------------------|
| 56 | SIDEWALK REMOVAL IN SQ. FT.               |
| 40 | PCC SIDEWALK, 4 INCH IN SQ. FT.           |
| 32 | PCC SIDEWALK, 4 INCH (SPECIAL) IN SQ. FT. |

TRAFFIC SIGNAL LEGEND  
 SEC. 03-00167-04-FP  
 IL ROUTE 29 AND  
 CARDINAL HILL ROAD (C.H. 37)  
 SANGAMON COUNTY

JOB NO.  
03S20358

DATE  
6/21/06

**HANSON**  
Hanson Professional Services Inc.  
 1525 South Sixth Street, Springfield, IL 62703  
 Registration No. 184-001084  
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LAYOUT: BLW 6-10-04  
 DRAWN: BLW 6-10-04  
 REVIEWED: C.H. 6-11-04  
 07/27/2006  
 180336850482035804VLSHEET C-1207-TS.dgn



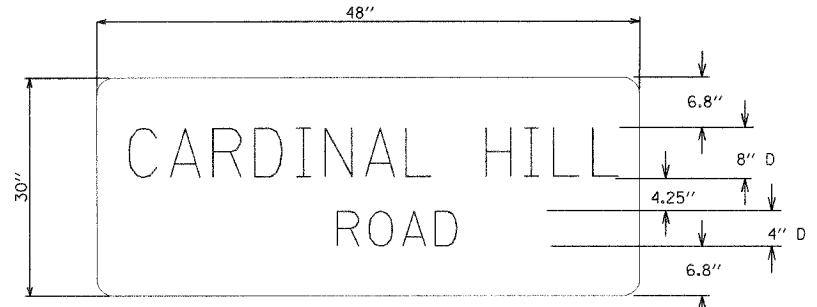
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|---------------------|----------------|----------|------------------|-----------|
| F.A.U. RTE.         | SECTION        | COUNTY   | TOTAL SHEETS     | SHEET NO. |
| 8075                | 03-00167-04-FP | SANGAMON | 109              | 57        |
| STA.                |                | TO STA.  |                  |           |
| FED. ROAD DIST. NO. |                | ILLINOIS | FED. AID PROJECT |           |

**TRAFFIC SIGNAL LEGEND**

- EXIST. HANDHOLE
- PROP. HANDHOLE
- PROP. DOUBLE HANDHOLE
- PROP. JUNCTION BOX
- PROP. SERVICE INSTALLATION
- PROP. SIGNAL CONTROLLER
- PROP. TRAFFIC SIGNAL POST
- PROP. MAST ARM ASSEMBLY AND POLE
- PROP. SIGNAL HEAD
- PROP. SIGNAL HEAD W/ BACKPLATE
- PROP. PEDESTRIAN SIGNAL HEAD
- PROP. PEDESTRIAN PUSH-BUTTON DETECTOR
- PROP. SIGN
- PROP. VIDEO DETECTION UNIT
- LUMINAIRE
- EXIST. CONDUIT
- PROP. CONDUIT

LENGTH-T (TRENCHED)  
LENGTH-A (AUGERED)  
DIAMETER-CONDUIT MATERIAL

**STREET NAME SIGN**  
(NOT TO SCALE)  
DETAIL (B)



MAST ARM MOUNTED  
2 EACH REQUIRED  
SIGN PANEL-TYPE 2

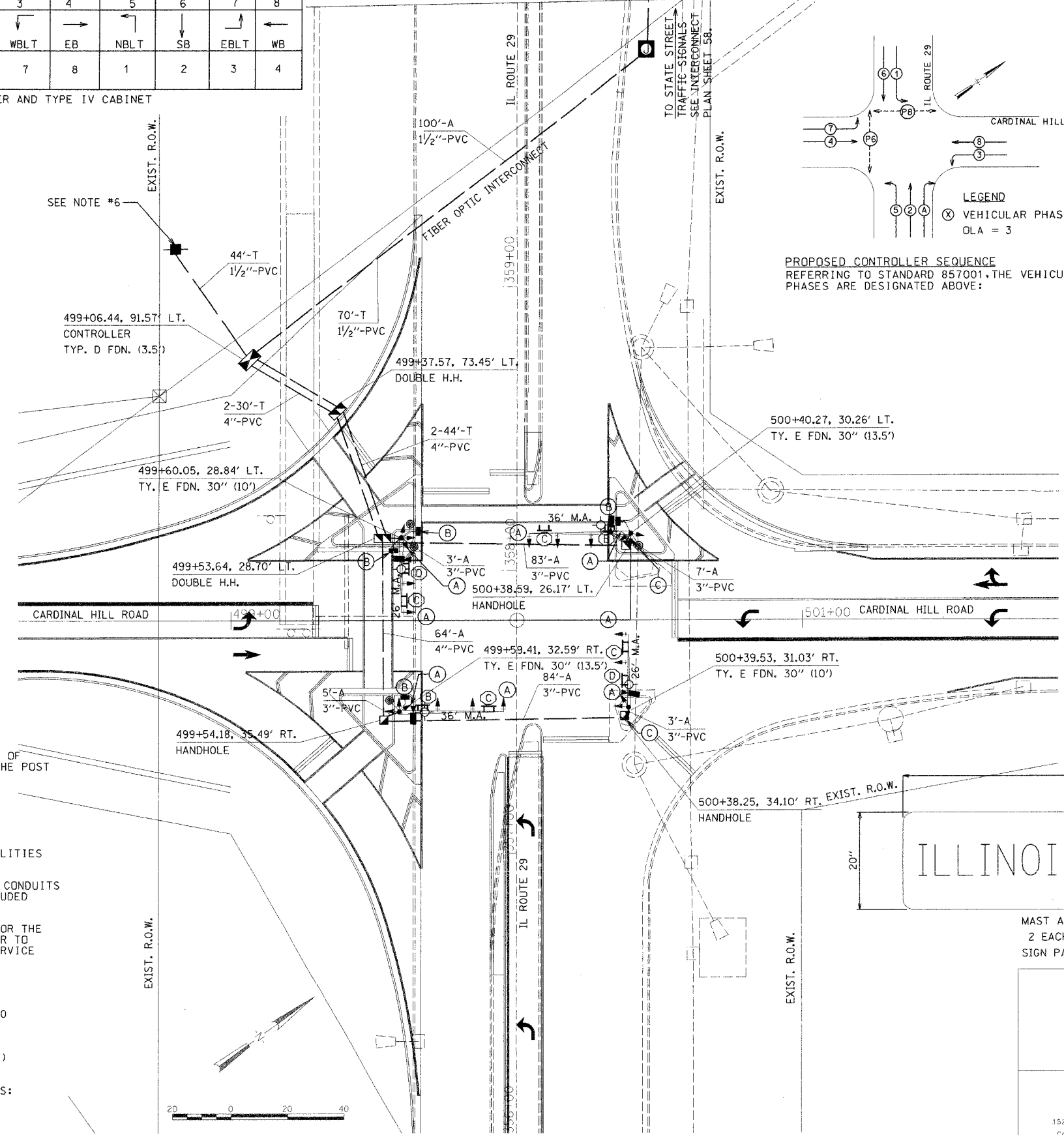
**CONTROLLER PHASING**

| PHASE Ø                       | 1    | 2  | 3    | 4  | 5    | 6  | 7    | 8  |
|-------------------------------|------|----|------|----|------|----|------|----|
| MOVEMENT                      | SBLT | NB | WBLT | EB | NBLT | SB | EBLT | WB |
| CONCURRENT MOVEMENT PERMITTED | 5    | 6  | 7    | 8  | 1    | 2  | 3    | 4  |

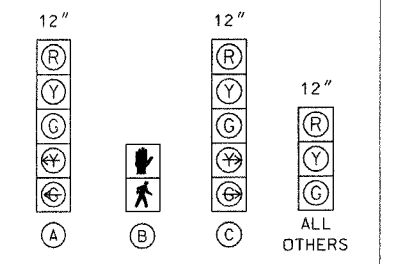
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET

- ALL TRAFFIC SIGNAL POST FOUNDATIONS SHALL BE PLACED A MINIMUM DISTANCE OF TWO (2) FEET BEHIND THE FACE OF THE CURB. IF A CURB DOES NOT EXIST, THE POST FOUNDATION SHALL BE PLACED TEN (10) FEET FROM THE EDGE OF PAVEMENT OR TWO (2) FEET FROM THE EDGE OF SHOULDER.
- SEE PAVEMENT MARKING SHEET FOR LOCATIONS OF PAVEMENT MARKINGS.
- 12" LED LENSES WILL BE USED ON ALL SIGNAL FACES.
- THE CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS OF ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING CONSTRUCTION.
- 1/2" CONTINUOUS NYLON ROPE SHALL BE FURNISHED AND LEFT IN PLACE IN ALL CONDUITS BETWEEN HANDHOLES, FOUNDATIONS AND CONTROLLER. THE ROPE SHALL BE INCLUDED IN THE COST OF THE RESPECTIVE CONDUIT PAY ITEM.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ELECTRICAL SERVICE FOR THE TRAFFIC SIGNALS. THE CONTRACTOR SHALL CONTACT THE UTILITY COMPANY PRIOR TO COMMENCEMENT OF WORK TO OBTAIN UTILITY COMPANY REQUIREMENTS FOR THE SERVICE INSTALLATION.
- THE CONTROLLER SHALL BE ORIENTED SUCH THAT INTERSECTION OPERATION AND CONTROLLER COMPONENTS CAN BE VIEWED SIMULTANEOUSLY.
- ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN CONFORMANCE WITH NFPA 70 (NATIONAL ELECTRICAL CODE-MOST CURRENT ISSUE IN FORCE), THE RESPECTIVE EQUIPMENT MANUFACTURER'S DIRECTIONS AND ALL OTHER APPLICABLE LOCAL CODES, LAWS, ORDINANCES, AND REQUIREMENTS IN FORCE. ANY INSTALLATIONS WHICH VOID THE U.L. LISTING, ETL LISTING (OR OTHER THIRD PARTY LISTING) AND/OR THE MANUFACTURER'S WARRANTY OF A DEVICE SHALL NOT BE PERMITTED.
- COLOR CODE 120V AC POWER WIRING CONDUCTOR INSULATION TO POLE LUMINAIRES:  
HOT - BLACK  
NEUTRAL - WHITE  
GROUND - GREEN

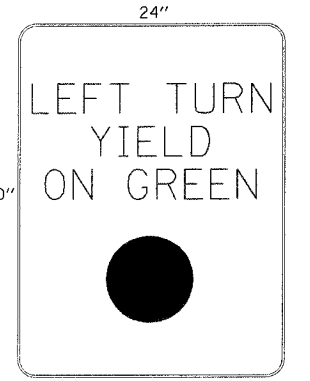
MATCHLINE STATION 360+00.00



**TRAFFIC SIGNAL FACES**

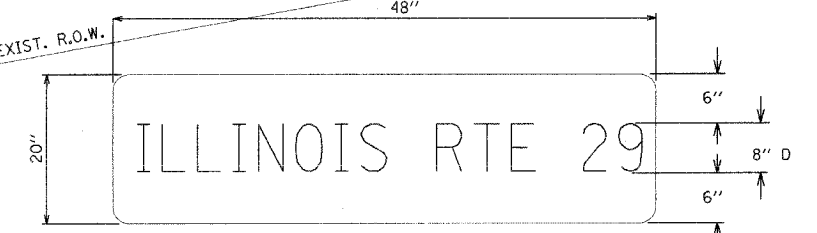


**TRAFFIC SIGN**  
(NOT TO SCALE)  
DETAIL (C)



MAST ARM MOUNTED  
R10-12  
4 EACH REQUIRED  
SIGN PANEL-TYPE 1

**STREET NAME SIGN**  
(NOT TO SCALE)  
DETAIL (D)



MAST ARM MOUNTED  
2 EACH REQUIRED  
SIGN PANEL-TYPE 2

TRAFFIC SIGNAL PLAN  
SEC. 03-00167-04-FP  
IL ROUTE 29 AND  
CARDINAL HILL ROAD (C.H. 37)  
SANGAMON COUNTY



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Registration No. 184-301084  
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JOB NO.  
03520358  
DATE  
6/21/06

LAYOUT: B.W. 6-10-04  
 DRAWN: B.W. 6-10-04  
 REVIEWED: CH 6-11-04  
 07/27/2006  
 R03500503520358/IL SHEET C-187-1.swp

|                     |                |          |                  |           |
|---------------------|----------------|----------|------------------|-----------|
| F.A.U. RE:          | SECTION        | COUNTY   | TOTAL SHEETS     | SHEET NO. |
| B075                | 03-00167-04-FP | SANGAMON | 109              | 58        |
| STA.                |                | TO STA.  |                  |           |
| FED. ROAD DIST. NO. |                | ILLINOIS | FED. AID PROJECT |           |

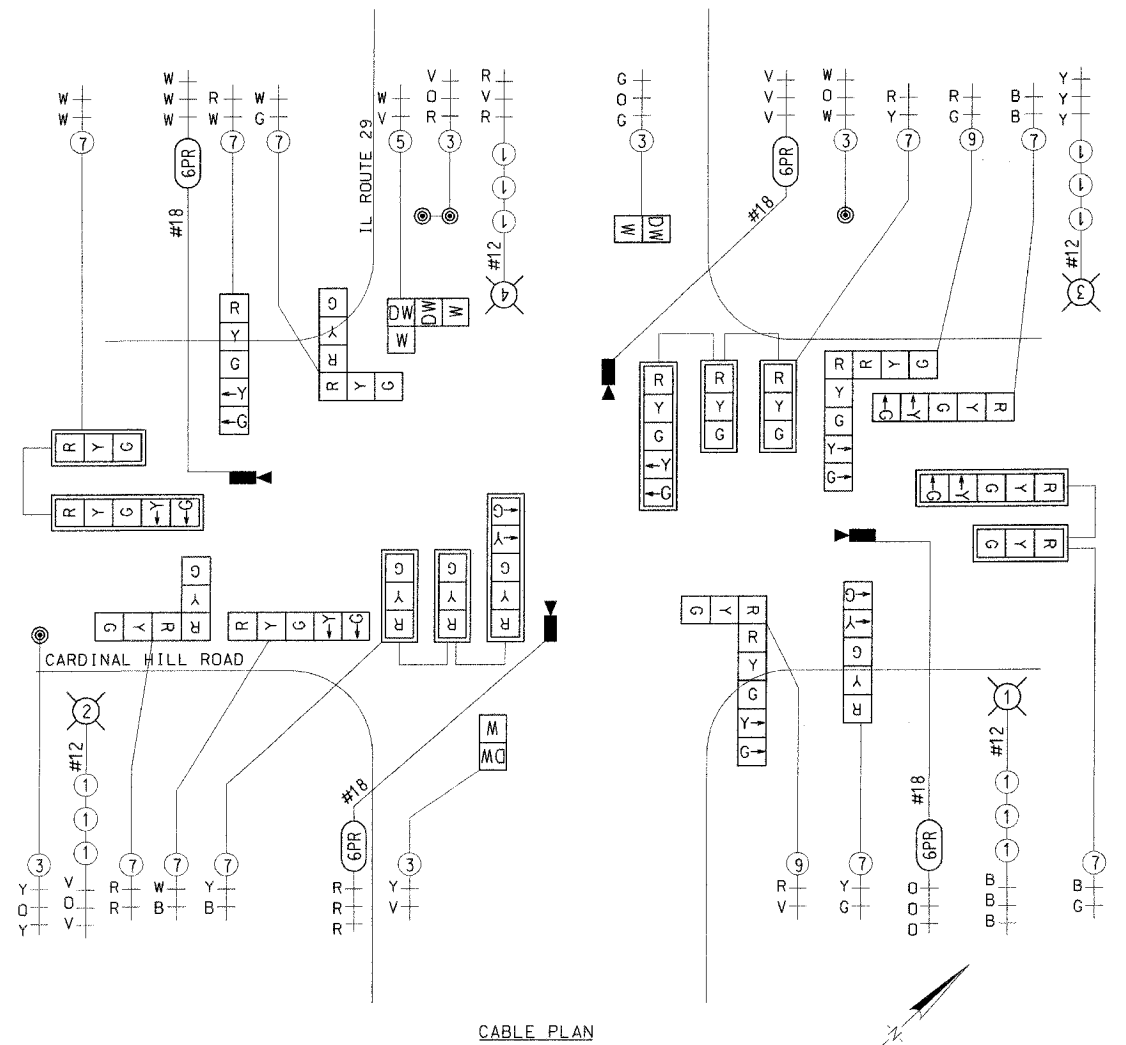
SCHEDULE OF QUANTITIES

| CODE       | DESCRIPTION                                                                        | UNIT  | MARKET |
|------------|------------------------------------------------------------------------------------|-------|--------|
| 72000100   | SIGN PANEL, TYPE 1                                                                 | SQ FT | 34     |
| 72000200   | SIGN PANEL, TYPE 2                                                                 | SQ FT | 20     |
| 80500100   | SERVICE INSTALLATION, TYPE A                                                       | EACH  | 1      |
| 80801400   | WOOD POLE, 25 FT., CLASS 4                                                         | EACH  | 1      |
| 81012500   | CONDUIT IN TRENCH, 1 1/2" DIA., PVC                                                | FOOT  | 824    |
| 81013000   | CONDUIT IN TRENCH, 4" DIA., PVC                                                    | FOOT  | 148    |
| 81021540   | CONDUIT, AUGERED 1 1/2" DIA., PVC                                                  | FOOT  | 285    |
| 81021570   | CONDUIT, AUGERED 3" DIA., PVC                                                      | FOOT  | 185    |
| 81021590   | CONDUIT, AUGERED 4" DIA., PVC                                                      | FOOT  | 64     |
| * 81306100 | JUNCTION BOX (SPECIAL)                                                             | EACH  | 4      |
| 81400400   | CONCRETE HANDHOLE                                                                  | EACH  | 3      |
| 81400600   | CONCRETE DOUBLE HANDHOLE                                                           | EACH  | 2      |
| 81500200   | TRENCH AND BACKFILL FOR ELECTRICAL WORK                                            | FOOT  | 1592   |
| 81702100   | ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1C NO. 12                           | FOOT  | 3075   |
| 82104250   | LUMINAIRE, SODIUM VAPOR, MULTI-MOUNT, PHOTO-CELL CONTROL, 250 WATT                 | EACH  | 4      |
| 85700200   | FULL-ACTUATED CONTROLLER AND TYPE IV CABINET                                       | EACH  | 1      |
| * 86400100 | TRANSCEIVER-FIBER OPTIC                                                            | EACH  | 1      |
| 87100110   | FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, 6F                                     | FOOT  | 1430   |
| 87301225   | ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C                                        | FOOT  | 909    |
| 87301245   | ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C                                        | FOOT  | 113    |
| 87301255   | ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C                                        | FOOT  | 2070   |
| 87301265   | ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 9C                                        | FOOT  | 500    |
| 87301715   | ELECTRIC CABLE IN CONDUIT, COMMUNICATION, NO. 18, 6 PAIR                           | FOOT  | 964    |
| 87301815   | ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 3C                                       | FOOT  | 51     |
| X0323153   | ELECTRIC CABLE IN CONDUIT, GROUND, NO. 6 1C (GREEN)                                | FOOT  | 464    |
| * 87702910 | STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 36 FT.                                | EACH  | 2      |
| * 87702860 | STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 26 FT.                                | EACH  | 2      |
| 87800200   | CONCRETE FOUNDATION, TYPE D                                                        | FOOT  | 3.5    |
| 87800400   | CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER                                       | FOOT  | 47     |
| 88200100   | TRAFFIC SIGNAL BACKPLATE                                                           | EACH  | 10     |
| * 88800100 | PEDESTRIAN PUSH-BUTTON                                                             | EACH  | 4      |
| * X0320872 | VIDEO VEHICLE DETECTION SYSTEM                                                     | EACH  | 1      |
| * X8801310 | SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED               | EACH  | 6      |
| * X8801400 | SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED               | EACH  | 4      |
| * X8810397 | PEDESTRIAN SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 2-SECTION, BRACKET MOUNTED     | EACH  | 2      |
| * X0324896 | PEDESTRIAN SIGNAL HEAD, POLYCARBONATE, LED, 2-FACE, 2-SECTION, BRACKET MOUNTED     | EACH  | 1      |
| * X8801465 | SIGNAL HEAD, POLYCARBONATE, LED, 3-FACE, 2-3-SECTION, 1-5-SECTION, BRACKET MOUNTED | EACH  | 2      |
| * X8801460 | SIGNAL HEAD, POLYCARBONATE, LED, 3-FACE, 1-3-SECTION, 2-5-SECTION, BRACKET MOUNTED | EACH  | 2      |

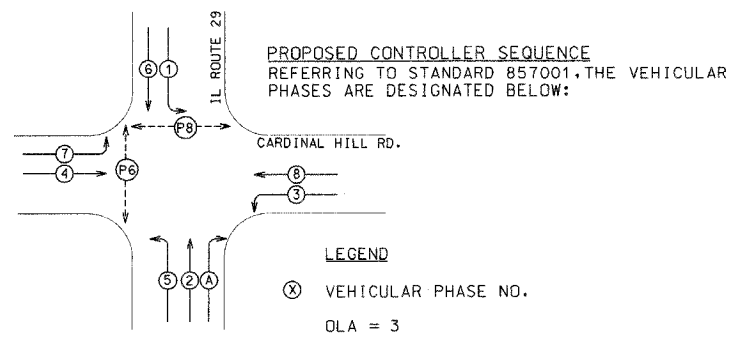
\* REQUIRES SPECIAL PROVISION

CABLE PLAN LEGEND

- SERVICE INSTALLATION
- SIGNAL FACE
- SIGNAL FACE WITH BACKPLATE
- VIDEO DETECTION UNIT
- INDICATES NUMBER OF CONDUCTORS IN CABLE. ALL CONDUCTORS TO BE NO. 14 AWG WIRE UNLESS OTHERWISE NOTED.
- GROUNDING SYSTEM CONNECTION (BARE COPPER WIRE)
- ELECTRIC CABLE DENOTING THE NO. OF PAIRS OF CONDUCTORS
- PEDESTRIAN SIGNAL FACE
- PEDESTRIAN PUSH-BUTTON DETECTOR
- LUMINAIRE

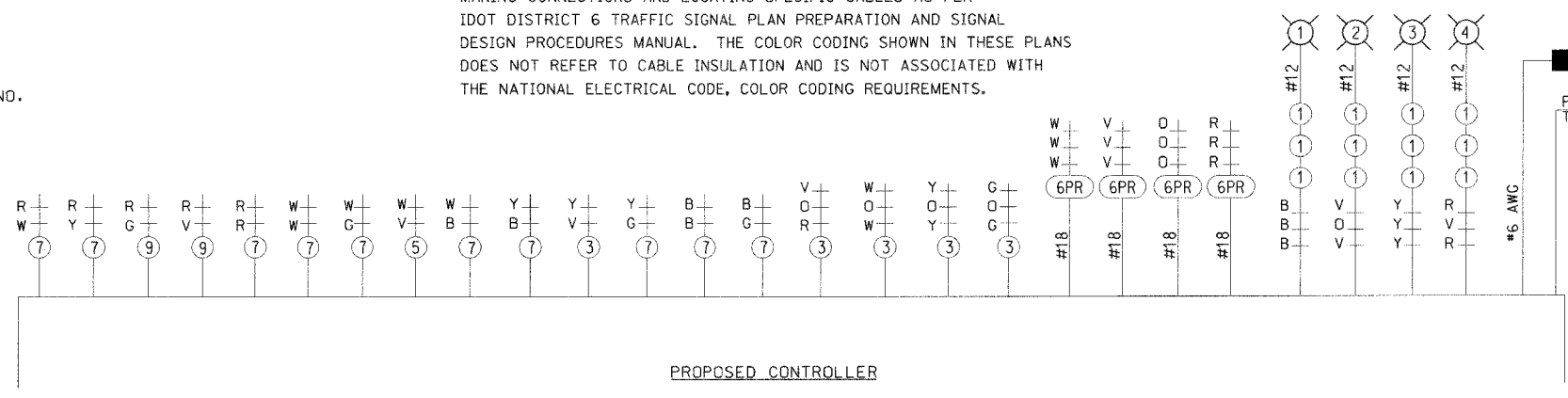


CABLE PLAN



NOTES

- ALL ELECTRIC CABLES ARE #14 AWG SOLID COPPER, UNLESS OTHERWISE SPECIFIED.
- ALL CABLES HAVE BEEN IDENTIFIED USING COLOR CODING TO ASSIST THE INSTALLATION CONTRACTOR AND MAINTENANCE PERSONNEL IN MAKING CONNECTIONS AND LOCATING SPECIFIC CABLES AS PER IDOT DISTRICT 6 TRAFFIC SIGNAL PLAN PREPARATION AND SIGNAL DESIGN PROCEDURES MANUAL. THE COLOR CODING SHOWN IN THESE PLANS DOES NOT REFER TO CABLE INSULATION AND IS NOT ASSOCIATED WITH THE NATIONAL ELECTRICAL CODE, COLOR CODING REQUIREMENTS.



PROPOSED CONTROLLER

FIBER OPTIC INTERCONNECT CABLE TO IL ROUTE 29/STATE STREET INTERSECTION

CABLE DIAGRAM  
 SEC. 03-00167-04-FP  
 IL ROUTE 29 AND  
 CARDINAL HILL ROAD (C.H. 37)  
 SANGAMON COUNTY

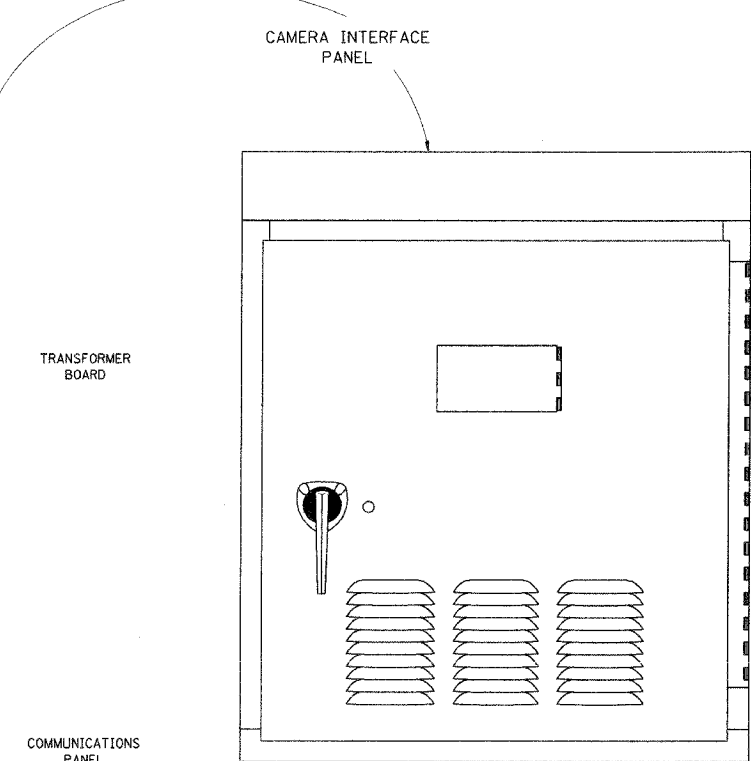
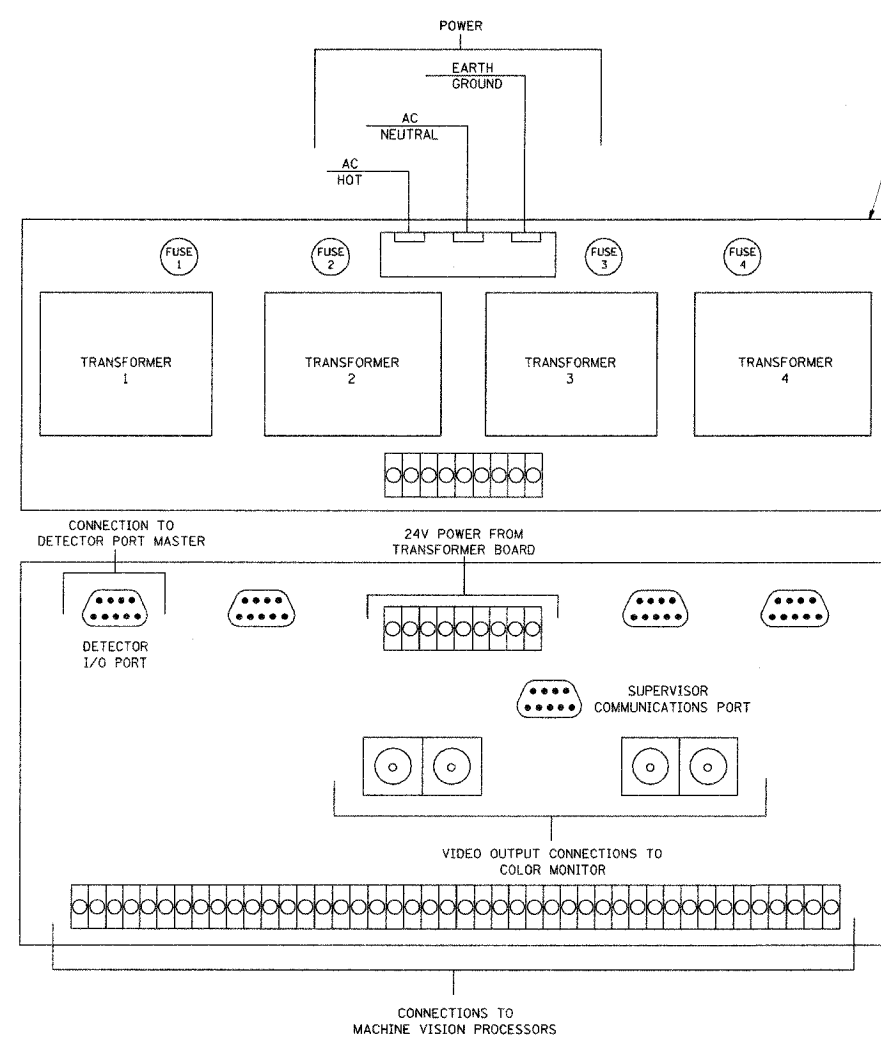
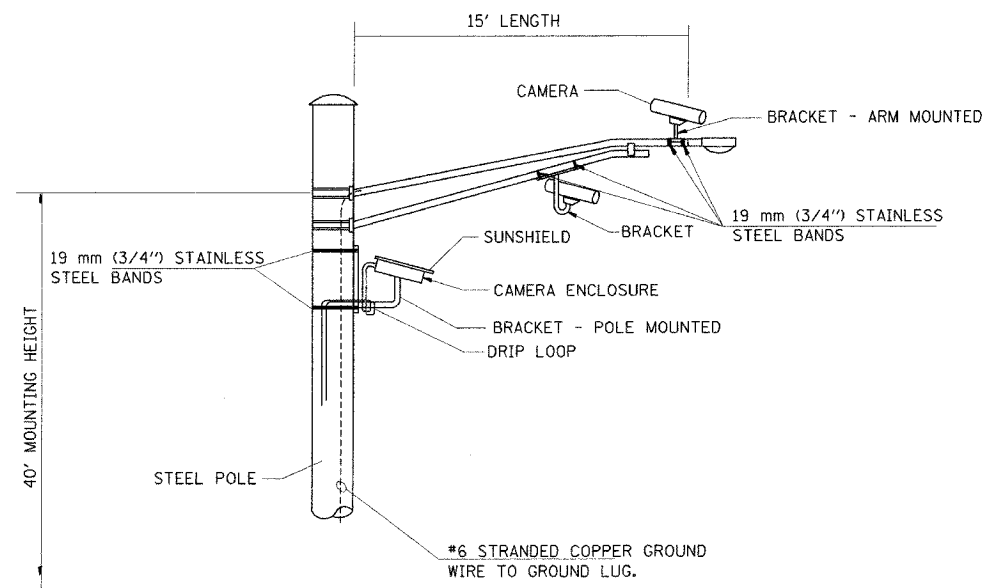
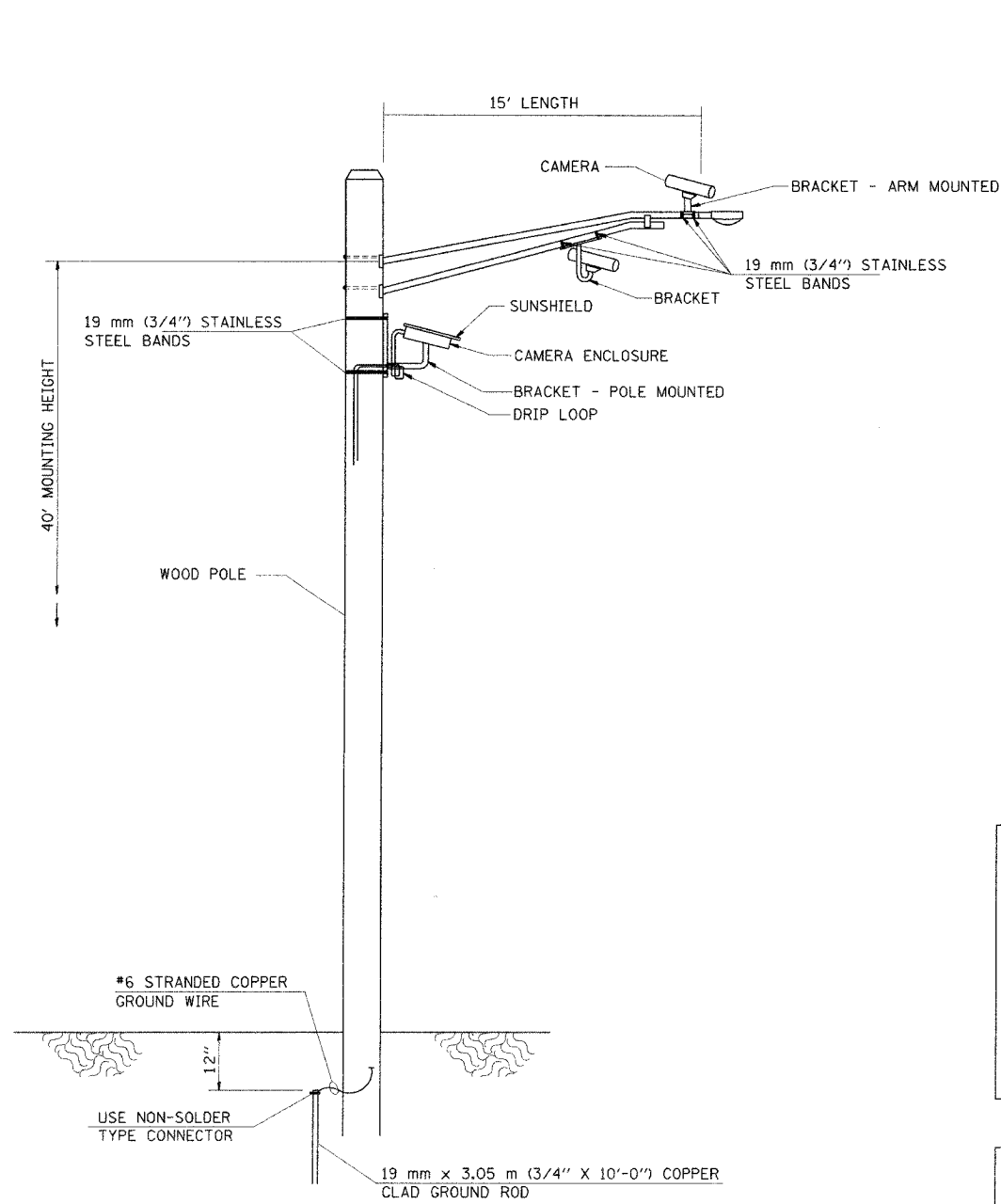


Hanson Professional Services Inc.  
 1525 South Sixth Street, Springfield, IL 62703  
 Registration No. 184-001084  
 Copyright Hanson Professional Services Inc. 2006

|         |          |
|---------|----------|
| JOB NO. | 03S2035B |
| DATE    | 6/21/06  |

LAYOUT: 6-10-04  
 DRAWN: BLW 6-10-04  
 REVIEWED: CVH 6-11-04  
 07/27/2006  
 I:\03\095\032035B\CIVIL\SHEET\C-422-T5.dgn

| F.A.U. RTE.         | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO. |
|---------------------|----------------|------------------|--------------|-----------|
| 8075                | 03-00167-04-FP | SANGAMON         | 109          | 59        |
| STA.                | TO STA.        |                  |              |           |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |           |



**VIDEO DETECTION SYSTEM INSTALLATION  
ARM MOUNTED OR POLE MOUNTED CAMERA**

**VIDEO DETECTION DETAIL  
INSTALLATION SYSTEM**  
SEC. 03-00167-04-FP  
IL ROUTE 29 AND  
CARDINAL HILL RD. (C.H. 37)  
SANGAMON COUNTY

**HANSON**  
Hanson Professional Services Inc.  
1525 South Sixth Street, Springfield, IL 62703  
Registration No. 184-901884  
Copyright Hanson Professional Services Inc. 2006

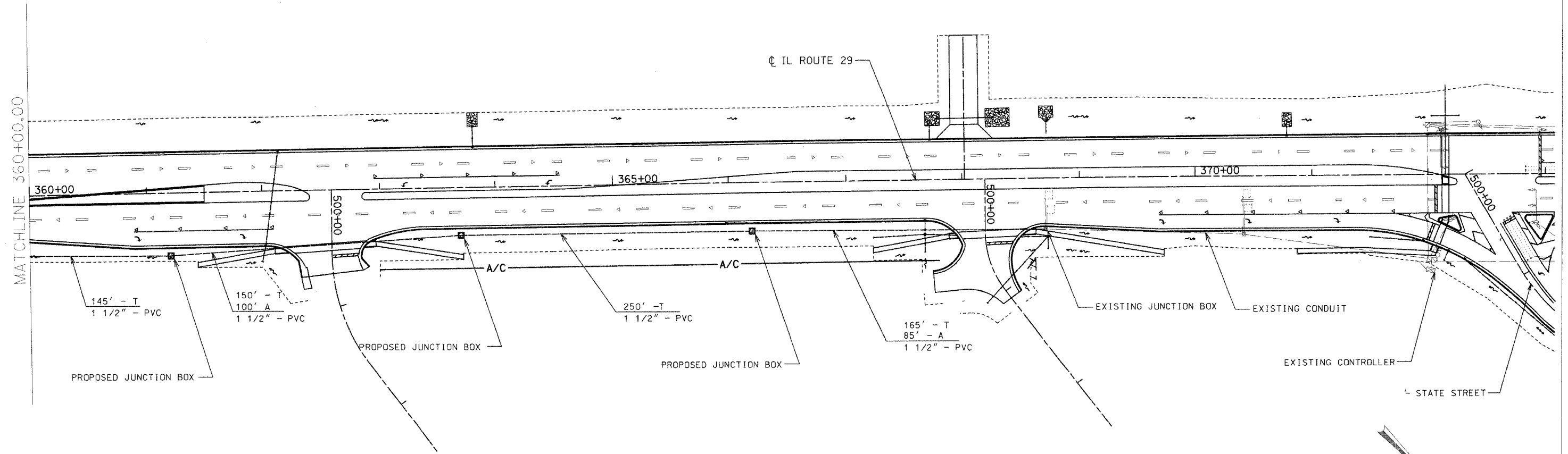
JOB NO. 03S2035B  
DATE 6/21/06

LAYOUT: BLM 6-10-04  
DRAWN: BLM 6-10-04  
REVIEWED: CHL 6-11-04

103040503203504VLSWHE7C 02/15/06

8423

| ROUTE NUMBER        | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO |
|---------------------|----------------|------------------|--------------|----------|
| C.H. 37             | 03-00167-04-FP | SANGAMON         | 109          | 60       |
| STA.                |                | TO STA.          |              |          |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |          |



**TRAFFIC SIGNAL LEGEND**

- PROP. CONDUIT
- PROP. JUNCTION BOX SPECIAL
- EXIST CONDUIT
- EXIST JUNCTION BOX



INTERCONNECT SCHEMATIC  
 SEC. 03-00167-04-FP  
 IL ROUTE 29 AND  
 CARDINAL HILL ROAD (C.H. 37)  
 SANGAMON COUNTY

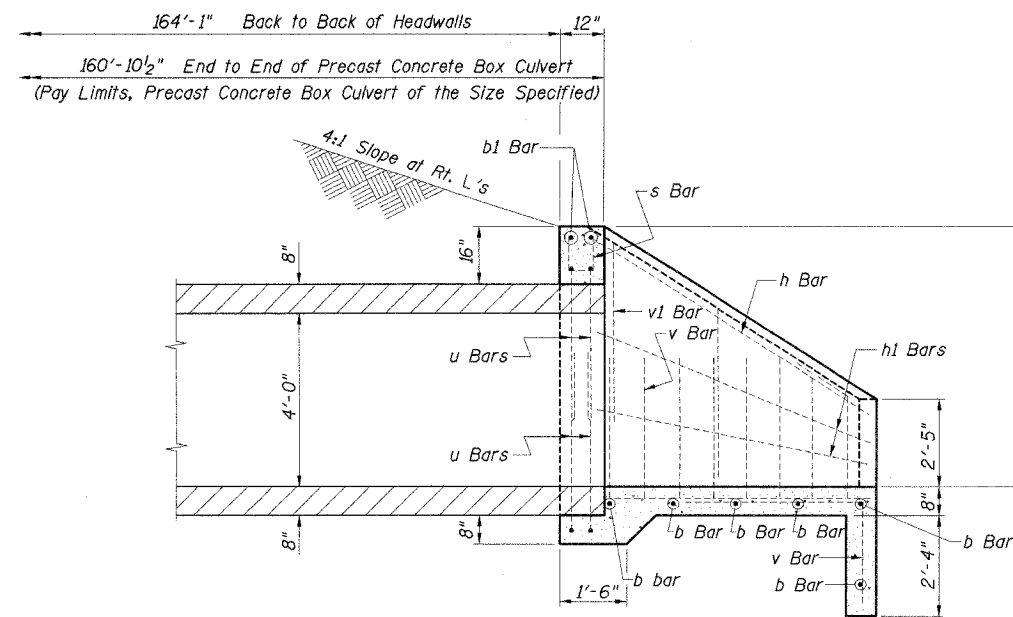


Hanson Professional Services Inc.  
 1525 South Sixth Street, Springfield, IL 62703  
 Registration No. 184-001084  
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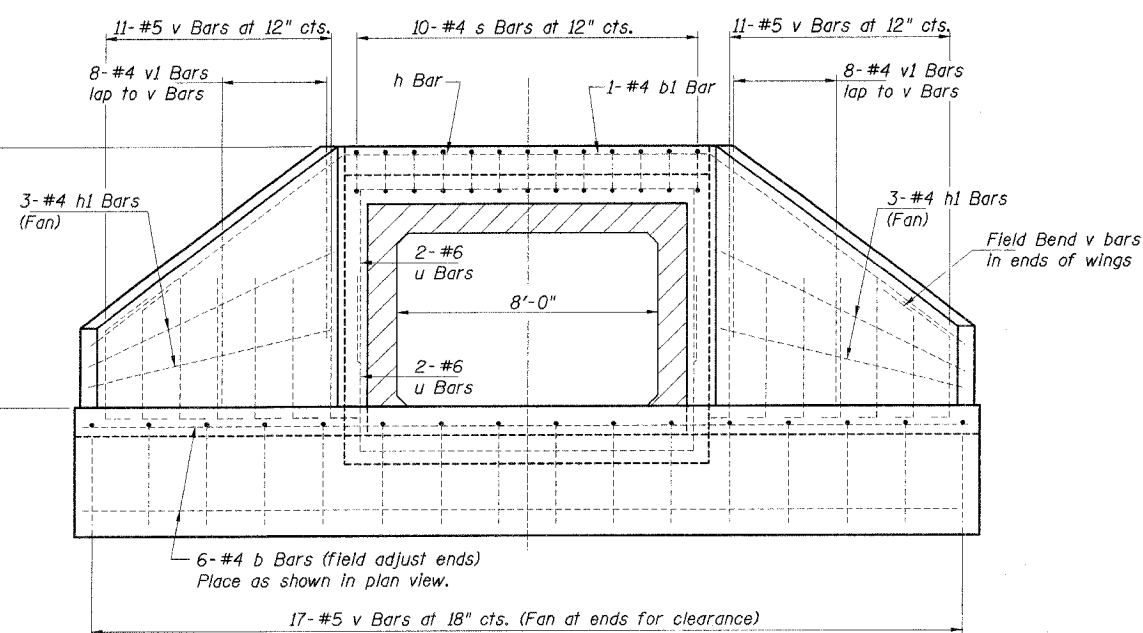
JOB NO.  
 03S20358  
 DATE  
 6/21/06

LAYOUT 6-10-04  
 DRAWN 6-10-04  
 REVISED 6-11-04  
 07/27/2006  
 R403A0503.02030504/SPECIALSHEET/CTS/INTERCONNECT.dwg

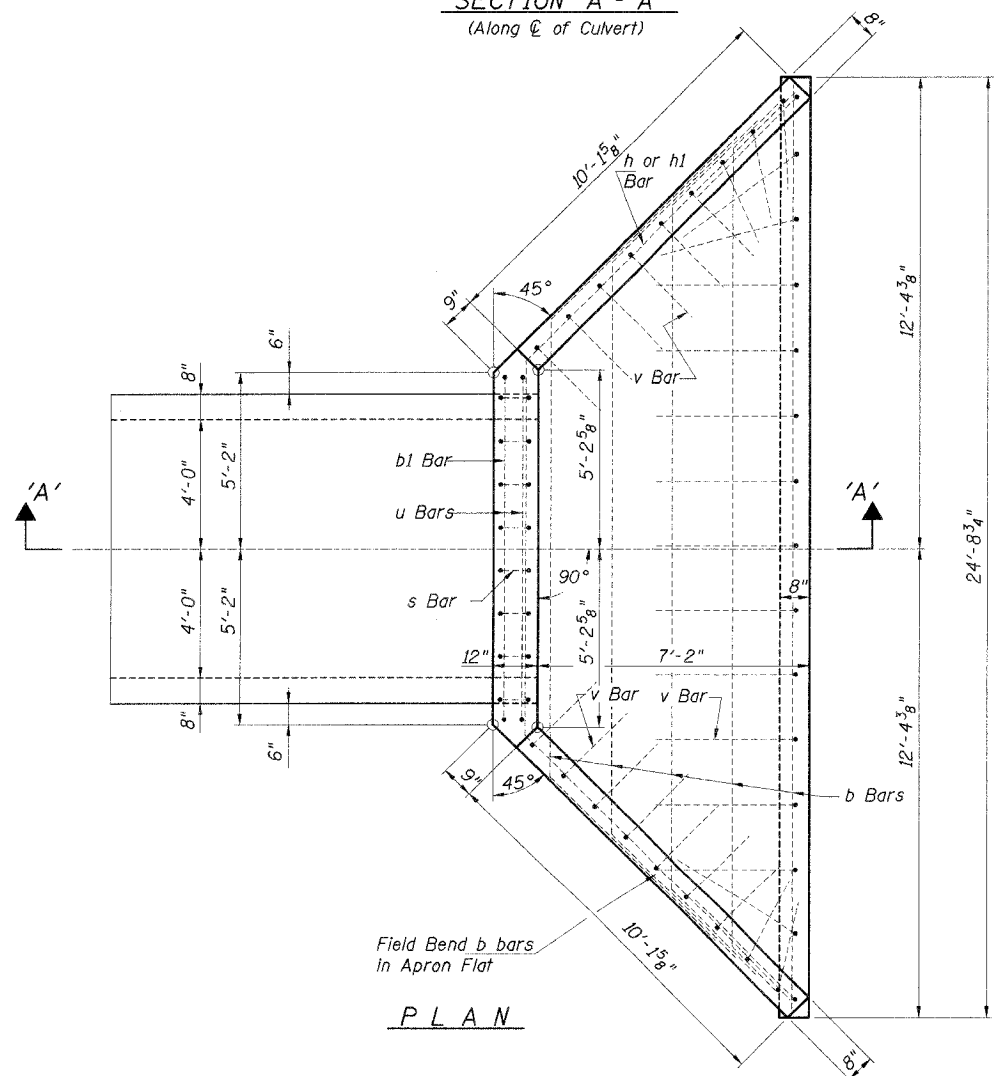
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| F.A.I. RTE.         | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO. |
| 8075                | 03-00167-04-FP | SANGAMON         | 109          | 61        |
| STA.                | TO STA.        |                  |              |           |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |           |



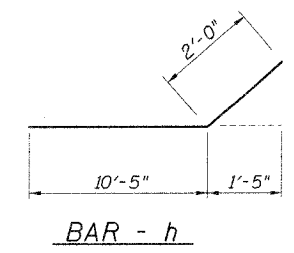
SECTION 'A'-'A'  
(Along C of Culvert)



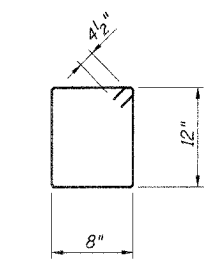
END VIEW



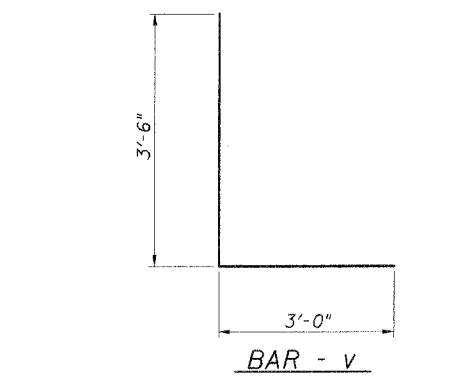
PLAN



BAR - h



BAR - s



BAR - v



BAR - u

REINFORCEMENT TABLE  
(One End Section)

| Bar | No. | Size | Length  | Shape |
|-----|-----|------|---------|-------|
| b   | 6   | #4   | 24'-3"  | —     |
| b1  | 2   | #6   | 10'-3"  | —     |
| h   | 2   | #4   | 11'-10" | ∩     |
| h1  | 6   | #4   | 10'-0"  | —     |
| u   | 4   | #6   | 18'-0"  | ⊔     |
| v   | 39  | #5   | 6'-6"   | ⊔     |
| v1  | 8   | #4   | 5'-0"   | —     |
| s   | 10  | #4   | 4'-1"   | □     |

GENERAL NOTES

Build tops of headwalls parallel to grade line.  
If embankment slope above headwall is flatter than 2:1, provide wings for 2:1 slope.  
Reinforcing shapes shown, may be either shop or field formed.  
The following quantities are for 1 (one) Concrete End Section and are for estimation purposes only. The end section shall be paid for at the unit price each for 'Box Culvert End Sections, Culvert No. 1.'  
Cubic Yards of Concrete = 8.4 Cu. Yds.  
Pounds of Reinforcement Bars = 610 Lbs.

For construction requirements, See Article 542.07 (a) of the Illinois Department of Transportation, Standard Specifications for Road and Bridge Construction.

REINFORCED CONCRETE END SECTION  
FOR PRECAST BOX CULVERT NO. 1  
48" HIGH x 96" WIDE  
STATION 468+05.77 (UPSTREAM)

Hanson Professional Services Inc.

FIG. NO. 03s2035b  
DATE 6/21/06

LAYOUT: 6/05/06  
 CHECKED: 6/07/06  
 DESIGNED: 6/02/06  
 07/27/2006  
 I:\03\0685\03s2035\Structural\BoxCulvert\Sta 46805.5.dgn

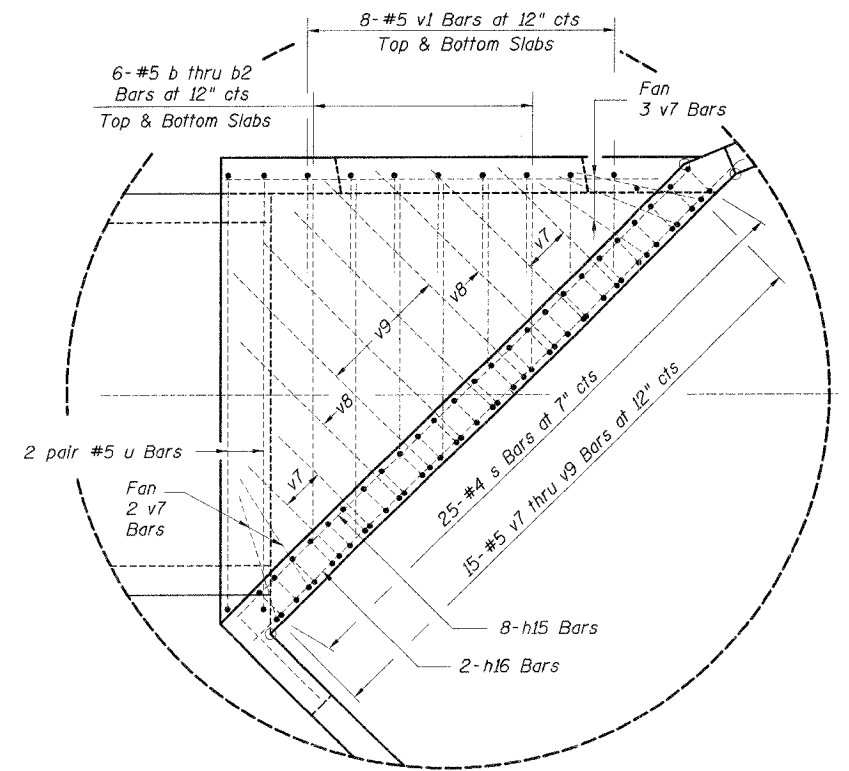
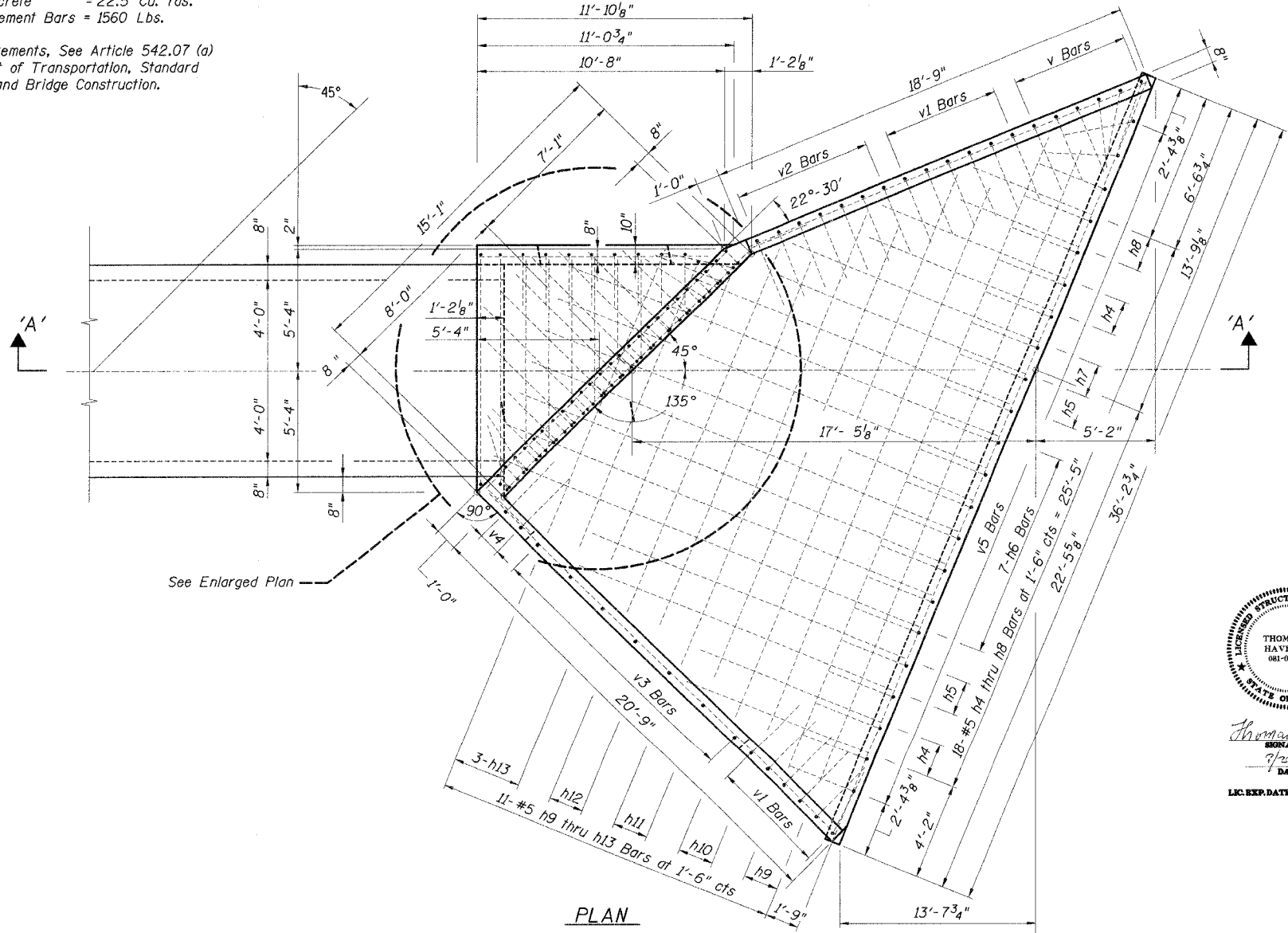
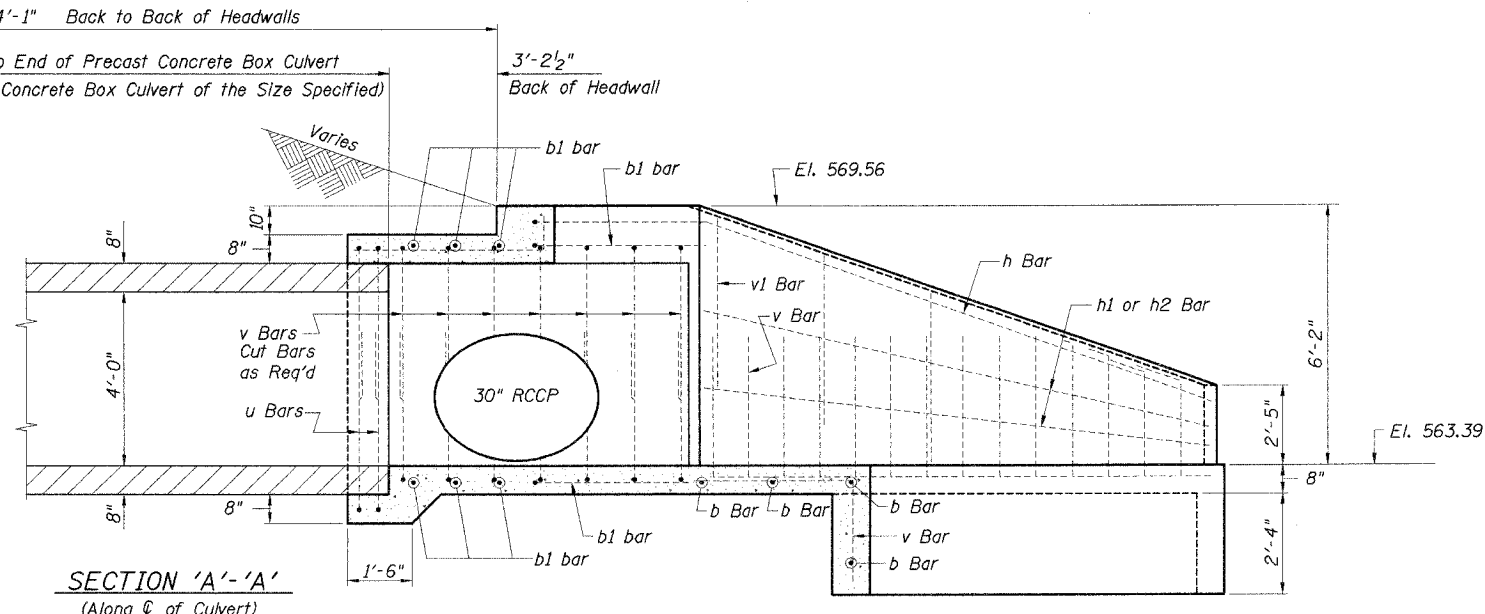
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|---------------------|----------------|---------------------------|--------------|-----------|
| F.A.U. RTE.         | SECTION        | COUNTY                    | TOTAL SHEETS | SHEET NO. |
| 8075                | 03-00167-04-FP | SANGAMON                  | 109          | 62        |
| STA.                |                | TO STA.                   |              |           |
| FED. ROAD DIST. NO. |                | ILLINOIS FED. AID PROJECT |              |           |

**GENERAL NOTES**

Build tops of headwalls parallel to grade line.  
 If embankment slope above headwall is flatter than 2:1, provide wings for 2:1 slope.  
 Reinforcing shapes shown, may be either shop or field formed.

The following quantities are for 1 (one) Concrete End Section and are for estimation purposes only. The end section shall be paid for at the unit price each for 'Box Culvert End Sections, Special' of the size specified.  
 Cubic Yards of Concrete = 22.5 Cu. Yds.  
 Pounds of Reinforcement Bars = 1560 Lbs.

For construction requirements, See Article 542.07 (a) of the Illinois Department of Transportation, Standard Specifications for Road and Bridge Construction.



Signature: Thomas E. Havenar  
 DATE: 7/27/06  
 LIC. EXP. DATE: 11/30/06

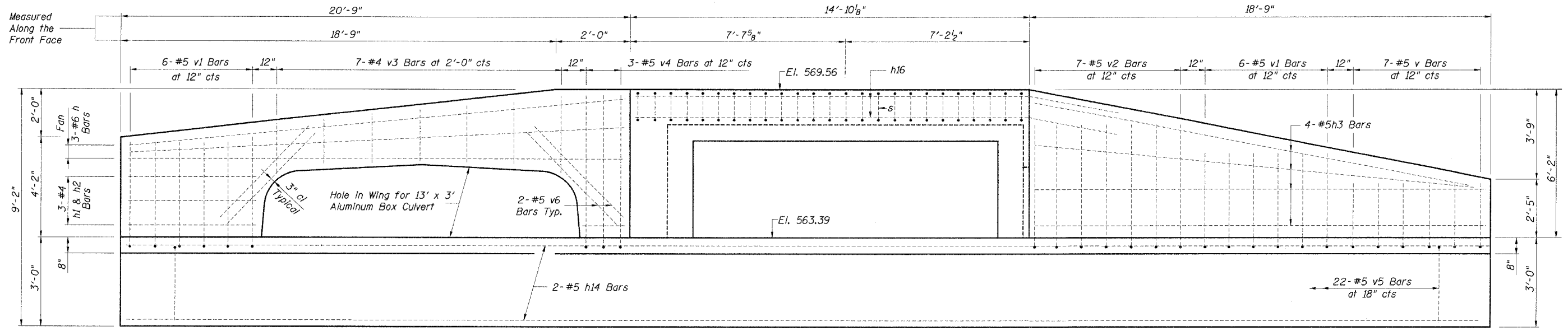
REINFORCED CONCRETE END SECTION  
 FOR PRECAST BOX CULVERT NO. 1  
 48" HIGH x 96" WIDE  
 STATION 468+05.77 (DOWNSTREAM)

**HANSON**  
 Hanson Professional Services Inc.

JOB NO. 03s2035b  
 DATE 6/21/06

LAYOUT: 5/06/06  
 C/C: 6/07/06  
 REVIEWED: VFL 6/20/06  
 07/27/2006  
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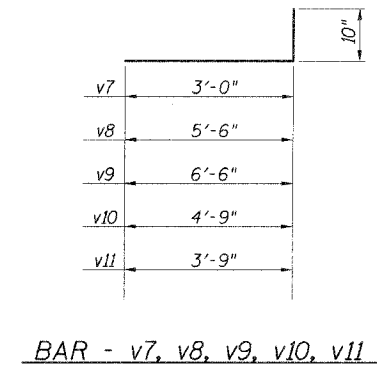
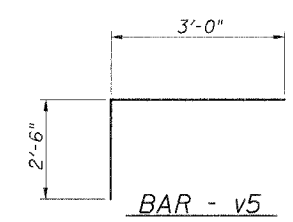
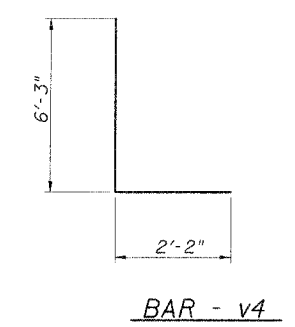
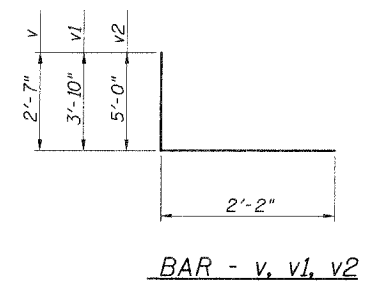
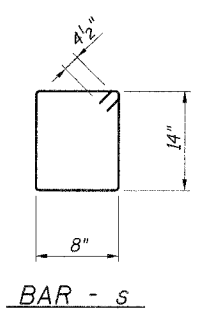
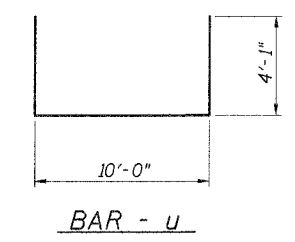
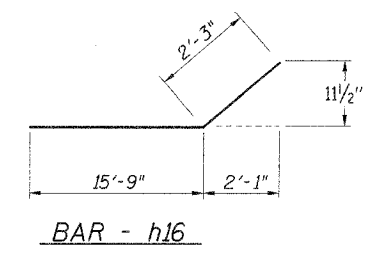
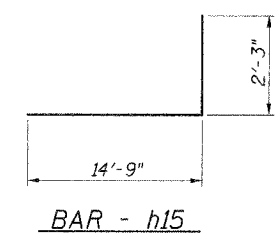
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|---------------------|----------------|------------------|--------------|-----------|
| F.A.U. RTE.         | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO. |
| 8015                | 03-00167-04-FP | SANGAMON         | 109          | 63        |
| STA.                | TO STA.        |                  |              |           |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |           |



END VIEW

REINFORCEMENT TABLE  
(One End Section)

| Bar | No. | Size | Length | Shape |
|-----|-----|------|--------|-------|
| b   | 4   | #5   | 8'-3"  | —     |
| b1  | 4   | #5   | 6'-3"  | —     |
| b2  | 4   | #5   | 4'-3"  | —     |
| h   | 3   | #6   | 20'-0" | —     |
| h1  | 3   | #4   | 5'-3"  | —     |
| h2  | 3   | #4   | 1'-9"  | —     |
| h3  | 4   | #5   | 18'-3" | —     |
| h4  | 4   | #5   | 8'-6"  | —     |
| h5  | 3   | #5   | 14'-6" | —     |
| h6  | 7   | #5   | 20'-0" | —     |
| h7  | 2   | #5   | 11'-6" | —     |
| h8  | 2   | #5   | 5'-3"  | —     |
| h9  | 2   | #5   | 30'-0" | —     |
| h10 | 2   | #5   | 25'-6" | —     |
| h11 | 2   | #5   | 21'-6" | —     |
| h12 | 2   | #5   | 17'-3" | —     |
| h13 | 3   | #5   | 13'-6" | —     |
| h14 | 2   | #5   | 35'-9" | —     |
| h15 | 2   | #6   | 17'-0" | —     |
| h16 | 2   | #6   | 18'-0" | —     |
| v   | 6   | #5   | 4'-9"  | —     |
| v1  | 20  | #5   | 6'-0"  | —     |
| v2  | 7   | #5   | 7'-2"  | —     |
| v3  | 7   | #4   | 2'-0"  | —     |
| v4  | 3   | #5   | 8'-5"  | —     |
| v5  | 22  | #5   | 5'-6"  | —     |
| v6  | 4   | #5   | 5'-3"  | —     |
| v7  | 7   | #5   | 3'-10" | —     |
| v8  | 2   | #5   | 6'-4"  | —     |
| v9  | 4   | #5   | 7'-4"  | —     |
| v10 | 1   | #5   | 5'-7"  | —     |
| v11 | 1   | #5   | 4'-7"  | —     |
| s   | 25  | #4   | 4'-5"  | □     |
| u   | 4   | #5   | 18'-2" | —     |



REINFORCED CONCRETE END SECTION  
FOR PRECAST BOX CULVERT NO. 1  
48" HIGH x 96" WIDE  
STATION 468+05.77 (DOWNSTREAM)

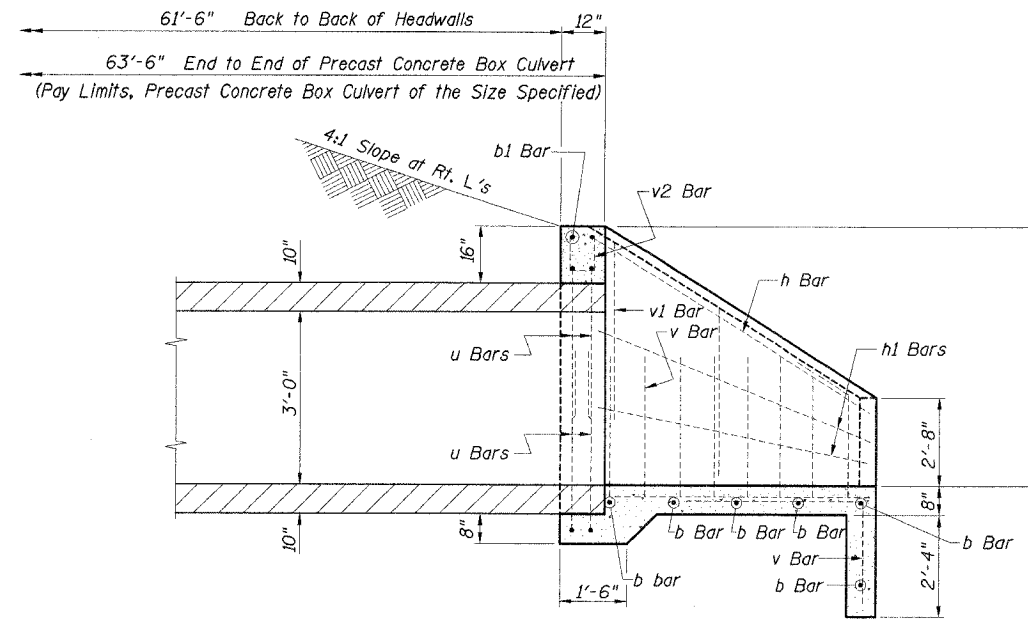
Hanson Professional Services Inc.

DATE: 6/21/06

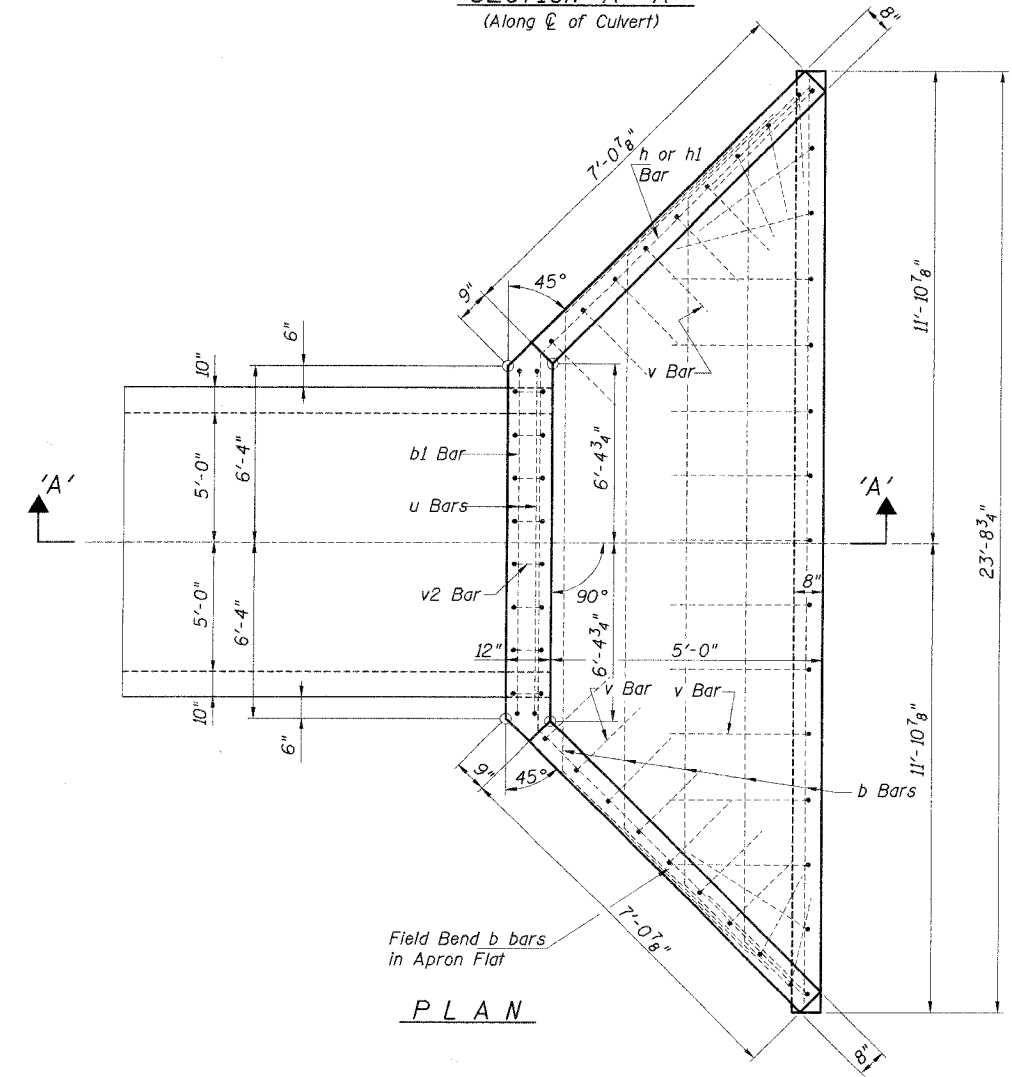
LAYOUT: TEM 6/06/06  
DRAWN: C.L.G. 6/07/06  
REVIEWED: W.P.T. 6/08/06

07/27/2005  
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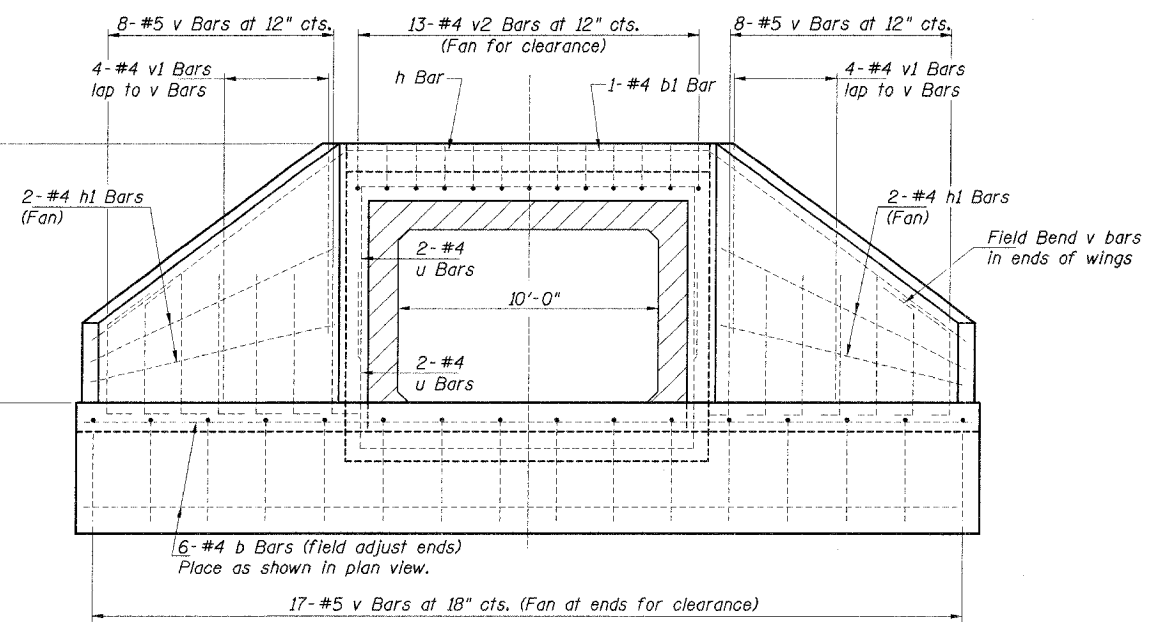
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|---------------------|---------------------------|----------|--------------|-----------|
| F.A.U. RTE.         | SECTION                   | COUNTY   | TOTAL SHEETS | SHEET NO. |
| 8075                | 03-00167-04-FP            | SANGAMON | 109          | 64        |
| STA.                | TO STA.                   |          |              |           |
| FED. ROAD DIST. NO. | ILLINOIS FED. AID PROJECT |          |              |           |



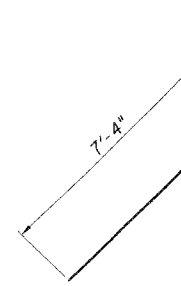
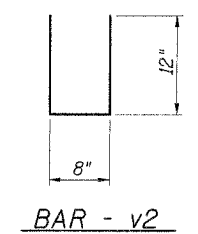
SECTION 'A'-'A'  
(Along C of Culvert)



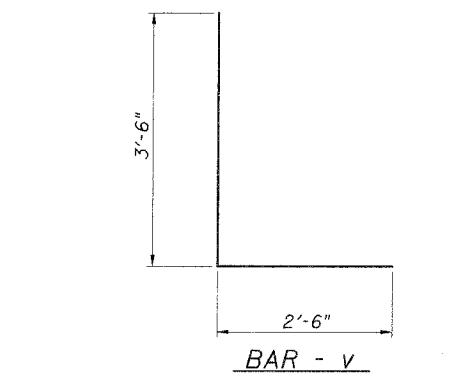
PLAN



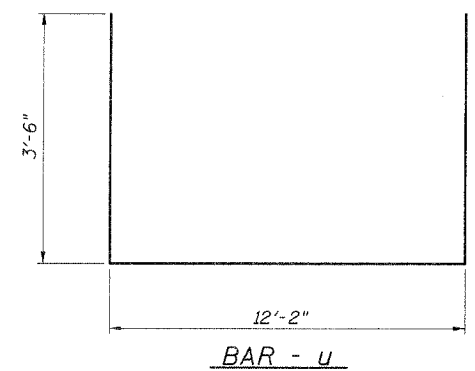
END VIEW



BAR - h



BAR - v



BAR - u

REINFORCEMENT TABLE  
(One End Section)

| Bar | No. | Size | Length | Shape |
|-----|-----|------|--------|-------|
| b   | 6   | #4   | 23'-4" | —     |
| b1  | 1   | #4   | 12'-8" | —     |
| h   | 1   | #4   | 28'-0" | —     |
| h1  | 4   | #4   | 7'-0"  | —     |
| u   | 4   | #4   | 19'-2" | —     |
| v   | 33  | #5   | 6'-0"  | —     |
| v1  | 8   | #4   | 3'-7"  | —     |
| v2  | 13  | #4   | 2'-8"  | —     |

GENERAL NOTES

Build tops of headwalls parallel to grade line.  
If embankment slope above headwall is flatter than 2:1, provide wings for 2:1 slope.  
Reinforcing shapes shown, may be either shop or field formed.  
The following quantities are for 1 (one) Concrete End Section and are for estimation purposes only. The end section shall be paid for at the unit price each for 'Box Culvert End Sections, Culvert No. 2.'  
Cubic Yards of Concrete = 6.7 Cu. Yds.  
Pounds of Reinforcement Bars = 440 Lbs.  
For construction requirements, See Article 542.07 (a) of the Illinois Department of Transportation, Standard Specifications for Road and Bridge Construction.

REINFORCED CONCRETE END SECTION  
FOR PRECAST BOX CULVERT NO. 2  
36" HIGH x 120" WIDE  
STATION 512+30.00

**HANSON**  
Hanson Professional Services Inc.

JOB NO.  
03s2035b  
DATE  
6/21/06

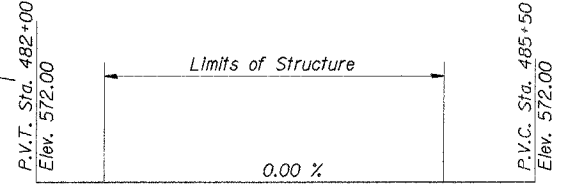
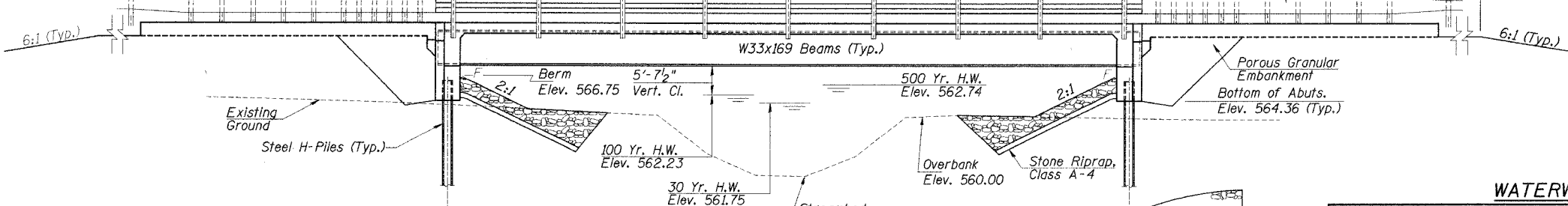
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| F.A.U. RTE.         | SECTION        | COUNTY                    | TOTAL SHEETS | SHEET NO. |
|---------------------|----------------|---------------------------|--------------|-----------|
| 8075                | 03-00167-04-FP | SANGAMON                  | 109          | 65        |
| STA.                |                | TO STA.                   |              |           |
| FED. ROAD DIST. NO. |                | ILLINOIS FED. AID PROJECT |              |           |

Sheet 1 of 11

B.M. #56: 60d Nail in East Face of 18" Tree 200' South of Black Branch Creek. Elev. 563.11 Station 482+50, 50' Rt.  
 B.M. #57: 60d Nail in West Face of 24" Maple Tree North of Black Branch Creek. Elev. 562.47 Station 484+75, 10' Rt.



**PROFILE GRADE**

**WATERWAY INFORMATION**

Drainage Area = 3.1 Sq. Mi. Low Grade Elev. - 572.00 @ Sta. - 484+47.00

| Flood       | Freq. Yr. | Q C.F.S. | Opening Sq. Ft. |       | Nat. H.W.E. | Head - Ft. |       | Headwater El. |        |
|-------------|-----------|----------|-----------------|-------|-------------|------------|-------|---------------|--------|
|             |           |          | Exist.          | Prop. |             | Exist.     | Prop. | Exist.        | Prop.  |
| Design      | 30        | 800      | N/A             | 208   | 561.75      | N/A        | 0.23  | N/A           | 561.98 |
| Base        | 100       | 1070     | N/A             | 239   | 562.22      | N/A        | 0.44  | N/A           | 562.66 |
| Overtopping | N/A       | -        | -               | -     | -           | -          | -     | -             | -      |
| Max. Calc.  | 500       | 1430     | N/A             | 274   | 562.73      | N/A        | 0.72  | N/A           | 563.45 |

**CURVE DATA**

P.I. = Sta. 477+23.91  
 $\Delta = 37^\circ 24' 48''$   
 $D = 00^\circ 59' 16''$   
 $T = 1963.94'$   
 $R = 5800.00'$   
 $L = 3787.31'$   
 $E = 323.48'$   
 P.C. Sta. 457+59.97  
 P.T. Sta. 495+47.28  
 $S.E. = 2.70\%$   
 S.E.A.  
 Sta. 456+43.00 to Sta. 458+18.00  
 Sta. 494+89.00 to Sta. 496+64.00

**DESIGN STRESSES**

**FIELD UNITS**  
 $f'_c = 3,500 \text{ psi}$   
 $f_y = 60,000 \text{ psi (reinf.)}$   
 $f_y = 50,000 \text{ psi (Beams)}$

**DESIGN SPECIFICATIONS**

AASHTO 2002 & Interims

**LOADING HS20-44**

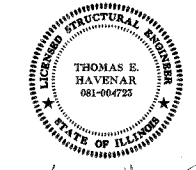
Allow 50 psf for future wearing surface.

**SEISMIC DATA**

Seismic Performance Category (SPC) = A  
 Bedrock Acceleration Coefficient (A) = 0.05g  
 Site Coefficient (S) = 1.0

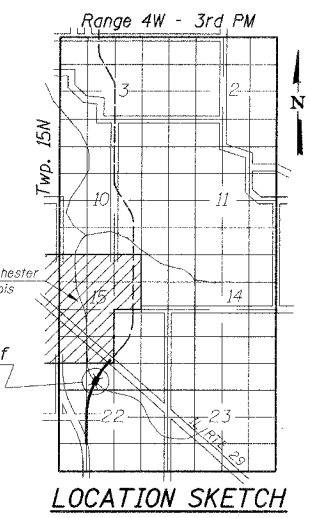
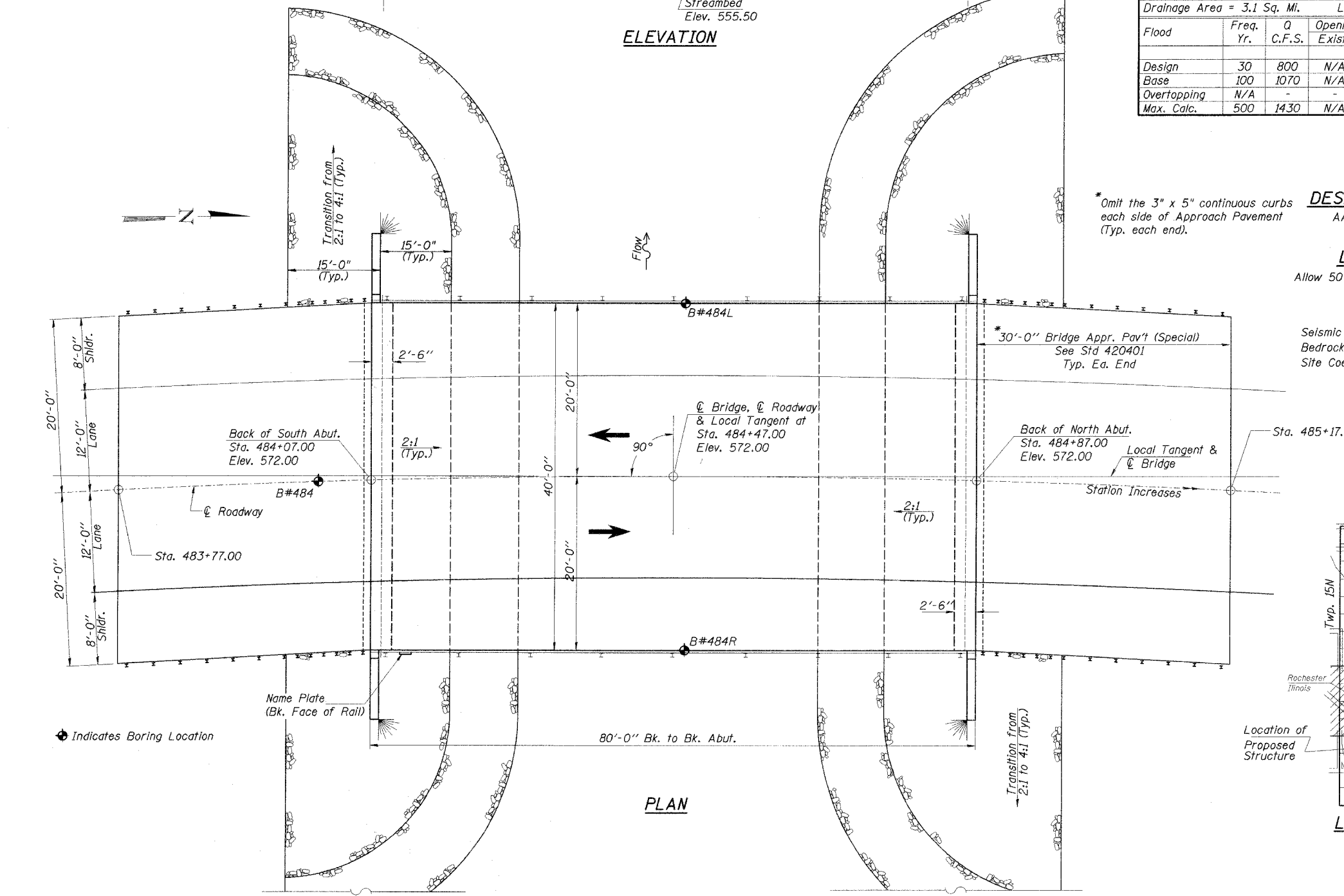
**INDEX of BRIDGE SHEETS**

- 1 of 11 - General Plan & Elevation
- 2 of 11 - General Notes & Bill of Material
- 3 of 11 - Top of Slab Elevations
- 4 of 11 - Superstructure
- 5 of 11 - Superstructure Details
- 6 of 11 - Steel Bridge Rail, Type SM (Special)
- 7 of 11 - Structural Steel Framing Details
- 8 of 11 - Abutment Details
- 9 of 11 - Anchor Bolt Details
- 10 of 11 - Bar Splicer Assembly Details
- 11 of 11 - Soil Borings



THOMAS E. HAVENAR  
 081-004723  
 7/27/06  
 DATE  
 LIC. EXPIRES: 11/30/06

"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 Standard Specifications for Highway Bridges'."



**LOCATION SKETCH**

**GENERAL PLAN & ELEVATION**  
**CARDINAL ROAD over BLACK BRANCH CREEK**  
 SECTION 03-00167-04-FP  
 SANGAMON COUNTY  
 STATION 484+47  
 STRUCTURE NO. 084-3640

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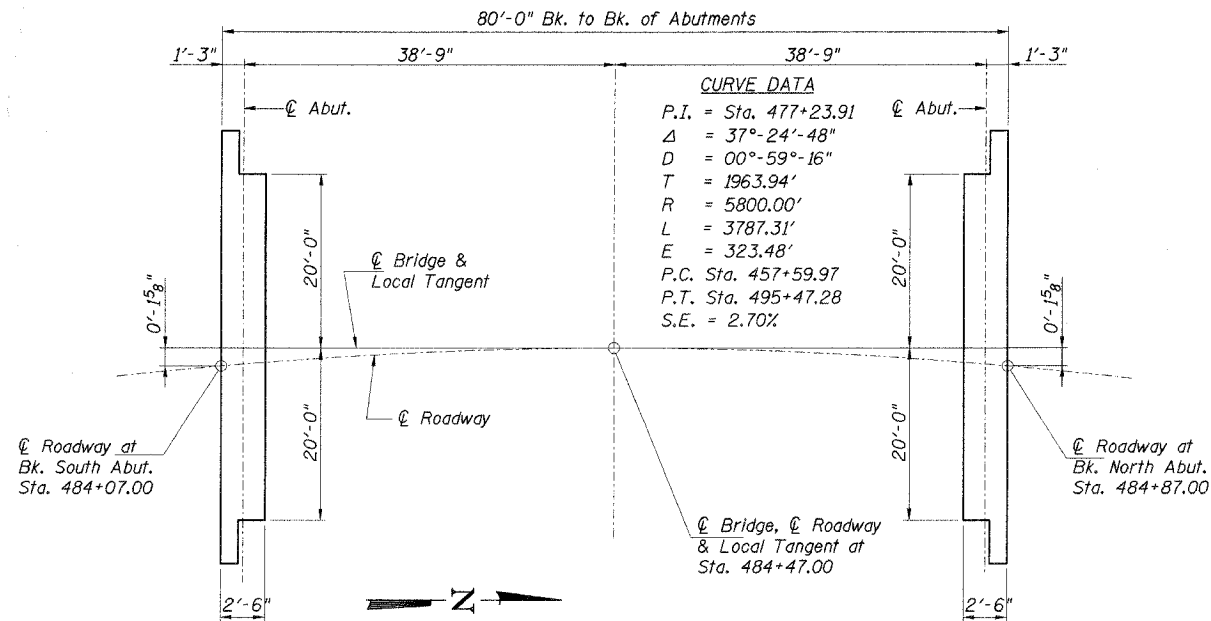
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 6/21/06

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 DRAWN: POC 3/16/04  
 REVIEWED: G.B.P. 3/20/04

|                     |                |          |                  |           |
|---------------------|----------------|----------|------------------|-----------|
| F.A.U. RTE.         | SECTION        | COUNTY   | TOTAL SHEETS     | SHEET NO. |
| 8075                | 03-00167-04-FP | SANGAMON | 109              | 66        |
| STA.                |                | TO STA.  |                  |           |
| FED. ROAD DIST. NO. |                | ILLINOIS | FED. AID PROJECT |           |

**GENERAL NOTES**

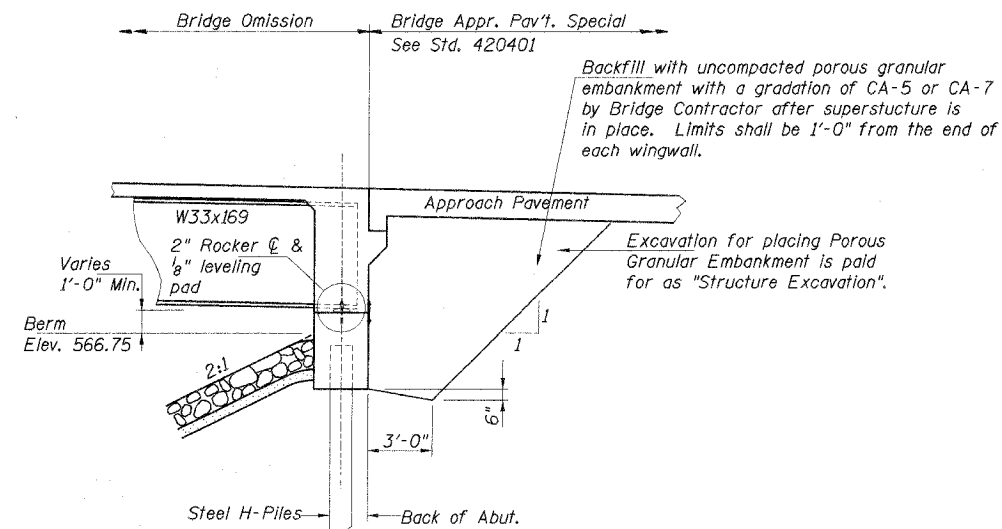
- Fasteners shall be high strength bolts AASHTO M164, Type 3 in unpainted areas and mechanically galvanized AASHTO M164, Type 1 or 2 in painted areas. Bolts 3/4"  $\phi$ , open holes 13/16"  $\phi$ , unless otherwise noted.
- Calculated weight of Structural Steel: AASHTO M270 Grade 36 = 80 lbs.  
AASHTO M270 Grade 50W = 87104 lbs.
- All Structural Steel shall be AASHTO M270 Grade 50W, Except for Anchor Bolts.
- Field welding of construction accessories will not be permitted to beams.
- Anchor bolts shall be set before bolting cross frames over supports.
- The main load carrying members shall conform to the Supplemental Requirements for Notch Toughness Zone 2.
- Reinforcement bars shall conform to the requirements of AASHTO M 31 or M 322 Grade 60.
- Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
- The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.
- Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two 1/8" adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims.
- The Contractor shall drive two HP12x53 test piles in a permanent location, one at each abutment as directed by the Engineer before ordering the remainder of piles.
- All Construction joints shall be bonded.
- The Inorganic zinc rich primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The interior surfaces of the exterior beams and the interior beams need not be painted except as noted in General Note No. 14.  
The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Gray, Munsell No. 5B 7/1. See special provisions for "Cleaning and Painting New Metal Structures".
- AASHTO M 270 Grade 50W structural steel shall only be painted, at the ends of the beams, for a distance equal to the depth of embedment into the concrete cap plus 3 inches. Those areas shall be primed in the shop with an inorganic zinc rich primer per AASHTO M 300, Type 1. No field painting shall be required. All structural steel shall be cleaned as specified in the special provision for "Surface Preparation and Painting Requirements for Weathering Steel".



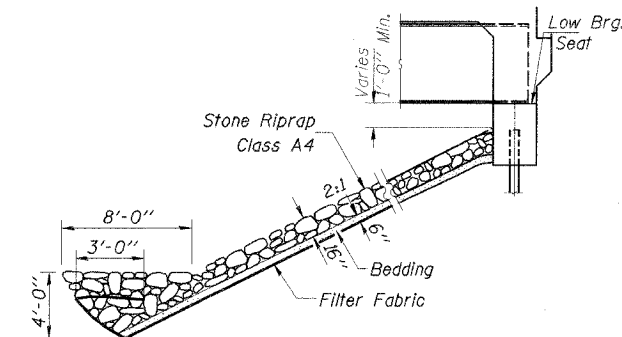
FOOTING LAYOUT

**TOTAL BILL OF MATERIAL**

| ITEM                                     | UNIT    | SUPER | SUB  | TOTAL |
|------------------------------------------|---------|-------|------|-------|
| Porous Granular Embankment               | Cu. Yd. | -     | 173  | 173   |
| Stone Riprap, Class A4                   | Tons    | -     | 595  | 595   |
| Protective Coat                          | Sq. Yd. | 377   | -    | 377   |
| Structure Excavation                     | Cu. Yd. | -     | 242  | 242   |
| Concrete Structures                      | Cu. Yd. | -     | 37.7 | 37.7  |
| Concrete Superstructure                  | Cu. Yd. | 107.9 | -    | 107.9 |
| Bridge Deck Grooving                     | Sq. Yd. | 356   | -    | 356   |
| Furnishing and Erecting Structural Steel | L.S.    | 1     | -    | 1     |
| Stud Shear Connectors                    | Each    | 1152  | -    | 1152  |
| Reinforcement Bars, Epoxy Coated         | Lbs.    | 22110 | 4790 | 26900 |
| Steel Bridge Rail, Type SM (Special)     | Ft.     | 160   | -    | 160   |
| Furnishing Steel Piles HP12x53           | Ft.     | -     | 510  | 510   |
| Driving Steel Piles                      | Ft.     | -     | 510  | 510   |
| Test Pile Steel HP12x53                  | Each    | -     | 2    | 2     |
| Name Plates                              | Each    | 1     | -    | 1     |
| Bar Splicers                             | Each    | 82    | -    | 82    |



SECTION THRU INTEGRAL ABUTMENT



STONE RIPRAP ANCHOR DETAIL

BLACK BRANCH CREEK  
BUILT 20... BY  
SANGAMON COUNTY  
FAU RTE 8075 SEC. 03-00167-04-FP  
STATION 484+47.00  
STR. NO. 084-3640 LOADING HS20-44  
**NAME PLATE**  
See Std. 515001

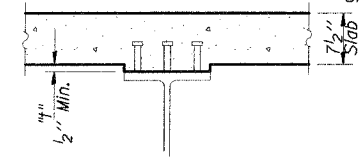
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CARDINAL ROAD over BLACK BRANCH CREEK  
SECTION 03-00167-04-FP  
SANGAMON COUNTY  
STATION 484+47  
STRUCTURE NO. 084-3640



07/27/2006 10:49:13 AM  
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 REVIEWED G.B.A. 3/20/04

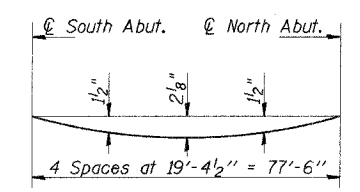
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| F.A.U. RTE.         | SECTION        | COUNTY   | TOTAL SHEETS     | SHEET NO. |
| 8075                | 03-00167-04-FP | SANGAMON | 109              | 67        |
| STA.                |                | TO STA.  |                  |           |
| FED. ROAD DIST. NO. |                | ILLINOIS | FED. AID PROJECT |           |

Sheet 3 of 11



To determine "t": After all Structural Steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown on the Diagrammatic Plan. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" minus slab thickness, equals the fillet heights "t" above top flanges of beams.

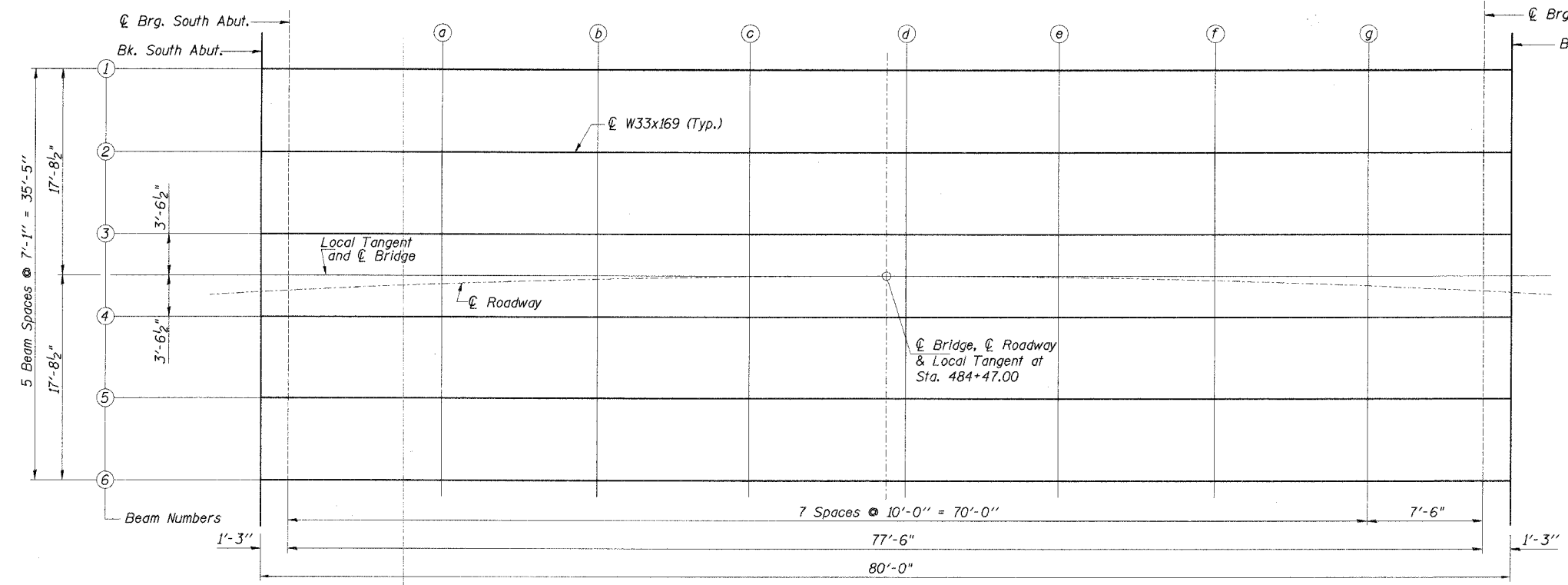
**FILLET HEIGHTS**



**DEAD LOAD DEFLECTION DIAGRAM**

(Includes weight of concrete and rail excludes weight of beams).

Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown below.



**DIAGRAMMATIC PLAN**

Offsets shown in tables below are from  $\ominus$  Bridge and Local Tangent

**BEAM #1**

| Location                 | Station   | Offset  | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|--------------------------|-----------|---------|------------------------------|----------------------------------------------------------------|
| Bk. South Abut.          | 484+07.00 | -17.708 | 572.478                      | 572.478                                                        |
| $\ominus$ Brg. So. Abut. | 484+08.25 | -17.708 | 572.478                      | 572.478                                                        |
| a                        | 484+18.25 | -17.708 | 572.478                      | 572.548                                                        |
| b                        | 484+28.25 | -17.708 | 572.478                      | 572.606                                                        |
| c                        | 484+38.25 | -17.708 | 572.478                      | 572.642                                                        |
| d                        | 484+48.25 | -17.708 | 572.478                      | 572.652                                                        |
| e                        | 484+58.25 | -17.708 | 572.478                      | 572.633                                                        |
| f                        | 484+68.25 | -17.708 | 572.478                      | 572.593                                                        |
| g                        | 484+78.25 | -17.708 | 572.478                      | 572.531                                                        |
| $\ominus$ Brg. No. Abut. | 484+85.75 | -17.708 | 572.478                      | 572.478                                                        |
| Bk. North Abut.          | 484+87.00 | -17.708 | 572.478                      | 572.478                                                        |

**BEAM #2**

| Location                 | Station   | Offset  | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|--------------------------|-----------|---------|------------------------------|----------------------------------------------------------------|
| Bk. South Abut.          | 484+07.00 | -10.625 | 572.287                      | 572.287                                                        |
| $\ominus$ Brg. So. Abut. | 484+08.25 | -10.625 | 572.287                      | 572.287                                                        |
| a                        | 484+18.25 | -10.625 | 572.287                      | 572.357                                                        |
| b                        | 484+28.25 | -10.625 | 572.287                      | 572.414                                                        |
| c                        | 484+38.25 | -10.625 | 572.287                      | 572.451                                                        |
| d                        | 484+48.25 | -10.625 | 572.287                      | 572.461                                                        |
| e                        | 484+58.25 | -10.625 | 572.287                      | 572.442                                                        |
| f                        | 484+68.25 | -10.625 | 572.287                      | 572.402                                                        |
| g                        | 484+78.25 | -10.625 | 572.287                      | 572.340                                                        |
| $\ominus$ Brg. No. Abut. | 484+85.75 | -10.625 | 572.287                      | 572.287                                                        |
| Bk. North Abut.          | 484+87.00 | -10.625 | 572.287                      | 572.287                                                        |

**BEAM #3**

| Location                 | Station   | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|--------------------------|-----------|--------|------------------------------|----------------------------------------------------------------|
| Bk. South Abut.          | 484+07.00 | -3.542 | 572.096                      | 572.096                                                        |
| $\ominus$ Brg. So. Abut. | 484+08.25 | -3.542 | 572.096                      | 572.096                                                        |
| a                        | 484+18.25 | -3.542 | 572.096                      | 572.165                                                        |
| b                        | 484+28.25 | -3.542 | 572.096                      | 572.223                                                        |
| c                        | 484+38.25 | -3.542 | 572.096                      | 572.260                                                        |
| d                        | 484+48.25 | -3.542 | 572.096                      | 572.270                                                        |
| e                        | 484+58.25 | -3.542 | 572.096                      | 572.251                                                        |
| f                        | 484+68.25 | -3.542 | 572.096                      | 572.210                                                        |
| g                        | 484+78.25 | -3.542 | 572.096                      | 572.149                                                        |
| $\ominus$ Brg. No. Abut. | 484+85.75 | -3.542 | 572.096                      | 572.096                                                        |
| Bk. North Abut.          | 484+87.00 | -3.542 | 572.096                      | 572.096                                                        |

**$\ominus$  BRIDGE and LOCAL TANGENT**

| Location                 | Station   | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|--------------------------|-----------|--------|------------------------------|----------------------------------------------------------------|
| Bk. South Abut.          | 484+07.00 | 0.000  | 572.000                      | 572.000                                                        |
| $\ominus$ Brg. So. Abut. | 484+08.25 | 0.000  | 572.000                      | 572.000                                                        |
| a                        | 484+18.25 | 0.000  | 572.000                      | 572.070                                                        |
| b                        | 484+28.25 | 0.000  | 572.000                      | 572.128                                                        |
| c                        | 484+38.25 | 0.000  | 572.000                      | 572.164                                                        |
| d                        | 484+48.25 | 0.000  | 572.000                      | 572.174                                                        |
| e                        | 484+58.25 | 0.000  | 572.000                      | 572.155                                                        |
| f                        | 484+68.25 | 0.000  | 572.000                      | 572.115                                                        |
| g                        | 484+78.25 | 0.000  | 572.000                      | 572.053                                                        |
| $\ominus$ Brg. No. Abut. | 484+85.75 | 0.000  | 572.000                      | 572.000                                                        |
| Bk. North Abut.          | 484+87.00 | 0.000  | 572.000                      | 572.000                                                        |

**BEAM #4**

| Location                 | Station   | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|--------------------------|-----------|--------|------------------------------|----------------------------------------------------------------|
| Bk. South Abut.          | 484+07.00 | 3.542  | 571.904                      | 571.904                                                        |
| $\ominus$ Brg. So. Abut. | 484+08.25 | 3.542  | 571.904                      | 571.904                                                        |
| a                        | 484+18.25 | 3.542  | 571.904                      | 571.974                                                        |
| b                        | 484+28.25 | 3.542  | 571.904                      | 572.032                                                        |
| c                        | 484+38.25 | 3.542  | 571.904                      | 572.068                                                        |
| d                        | 484+48.25 | 3.542  | 571.904                      | 572.079                                                        |
| e                        | 484+58.25 | 3.542  | 571.904                      | 572.059                                                        |
| f                        | 484+68.25 | 3.542  | 571.904                      | 572.019                                                        |
| g                        | 484+78.25 | 3.542  | 571.904                      | 571.958                                                        |
| $\ominus$ Brg. No. Abut. | 484+85.75 | 3.542  | 571.904                      | 571.904                                                        |
| Bk. North Abut.          | 484+87.00 | 3.542  | 571.904                      | 571.904                                                        |

**BEAM #5**

| Location                 | Station   | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|--------------------------|-----------|--------|------------------------------|----------------------------------------------------------------|
| Bk. South Abut.          | 484+07.00 | 10.625 | 571.713                      | 571.713                                                        |
| $\ominus$ Brg. So. Abut. | 484+08.25 | 10.625 | 571.713                      | 571.713                                                        |
| a                        | 484+18.25 | 10.625 | 571.713                      | 571.783                                                        |
| b                        | 484+28.25 | 10.625 | 571.713                      | 571.841                                                        |
| c                        | 484+38.25 | 10.625 | 571.713                      | 571.877                                                        |
| d                        | 484+48.25 | 10.625 | 571.713                      | 571.887                                                        |
| e                        | 484+58.25 | 10.625 | 571.713                      | 571.868                                                        |
| f                        | 484+68.25 | 10.625 | 571.713                      | 571.828                                                        |
| g                        | 484+78.25 | 10.625 | 571.713                      | 571.766                                                        |
| $\ominus$ Brg. No. Abut. | 484+85.75 | 10.625 | 571.713                      | 571.713                                                        |
| Bk. North Abut.          | 484+87.00 | 10.625 | 571.713                      | 571.713                                                        |

**BEAM #6**

| Location                 | Station   | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|--------------------------|-----------|--------|------------------------------|----------------------------------------------------------------|
| Bk. South Abut.          | 484+07.00 | 17.708 | 571.522                      | 571.522                                                        |
| $\ominus$ Brg. So. Abut. | 484+08.25 | 17.708 | 571.522                      | 571.522                                                        |
| a                        | 484+18.25 | 17.708 | 571.522                      | 571.592                                                        |
| b                        | 484+28.25 | 17.708 | 571.522                      | 571.649                                                        |
| c                        | 484+38.25 | 17.708 | 571.522                      | 571.686                                                        |
| d                        | 484+48.25 | 17.708 | 571.522                      | 571.696                                                        |
| e                        | 484+58.25 | 17.708 | 571.522                      | 571.677                                                        |
| f                        | 484+68.25 | 17.708 | 571.522                      | 571.637                                                        |
| g                        | 484+78.25 | 17.708 | 571.522                      | 571.575                                                        |
| $\ominus$ Brg. No. Abut. | 484+85.75 | 17.708 | 571.522                      | 571.522                                                        |
| Bk. North Abut.          | 484+87.00 | 17.708 | 571.522                      | 571.522                                                        |

TOP of SLAB ELEVATIONS  
CARDINAL ROAD over BLACK BRANCH CREEK  
SECTION 03-00167-04-FP  
SANGAMON COUNTY  
STATION 484+47  
STRUCTURE NO. 084-3640

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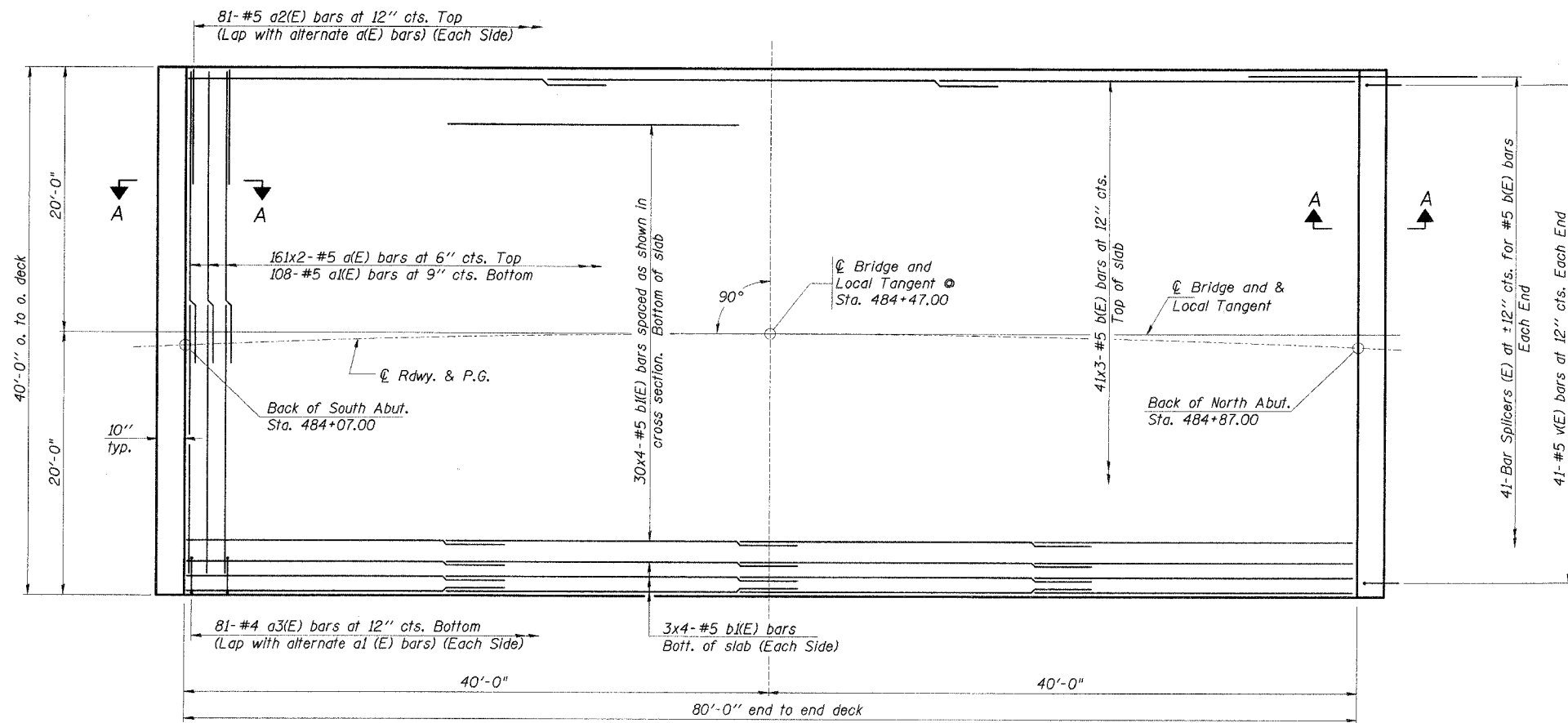
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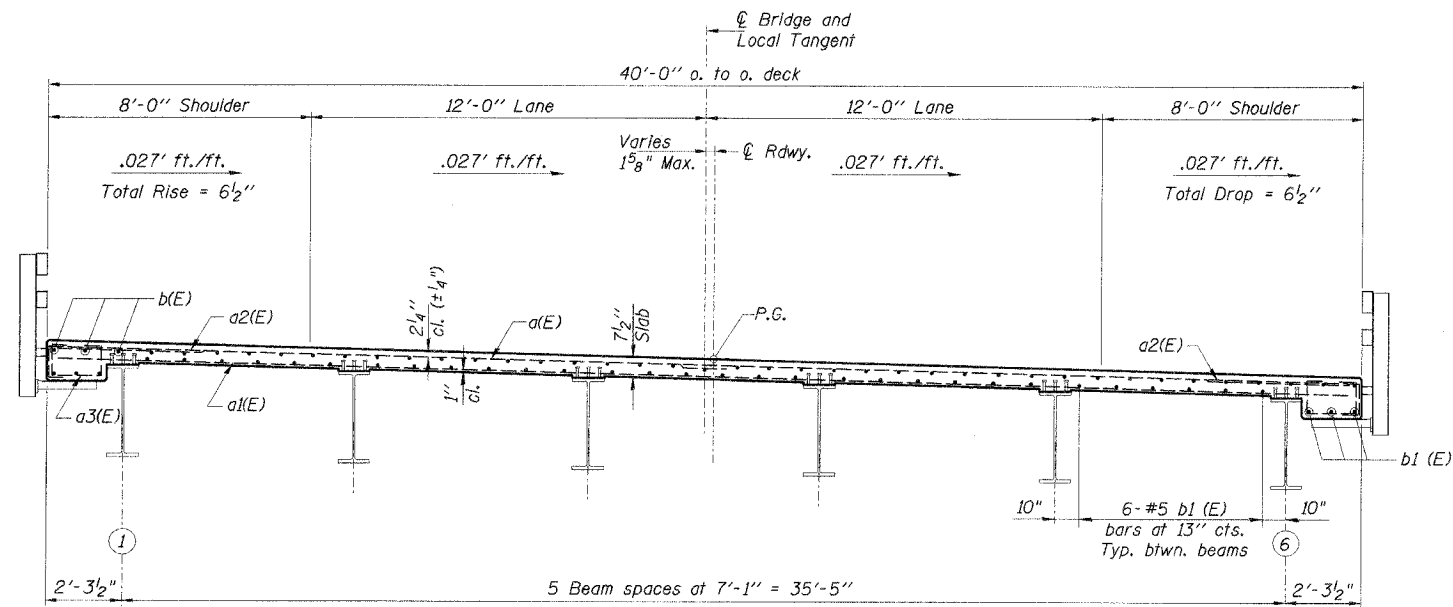
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| F.A.U. RTE.         | SECTION        | COUNTY                    | TOTAL SHEETS | SHEET NO. |
|---------------------|----------------|---------------------------|--------------|-----------|
| 8075                | 03-00167-04-FP | SANGAMON                  | 109          | 68        |
| STA.                |                | TO STA.                   |              |           |
| FED. ROAD DIST. NO. |                | ILLINOIS FED. AID PROJECT |              |           |

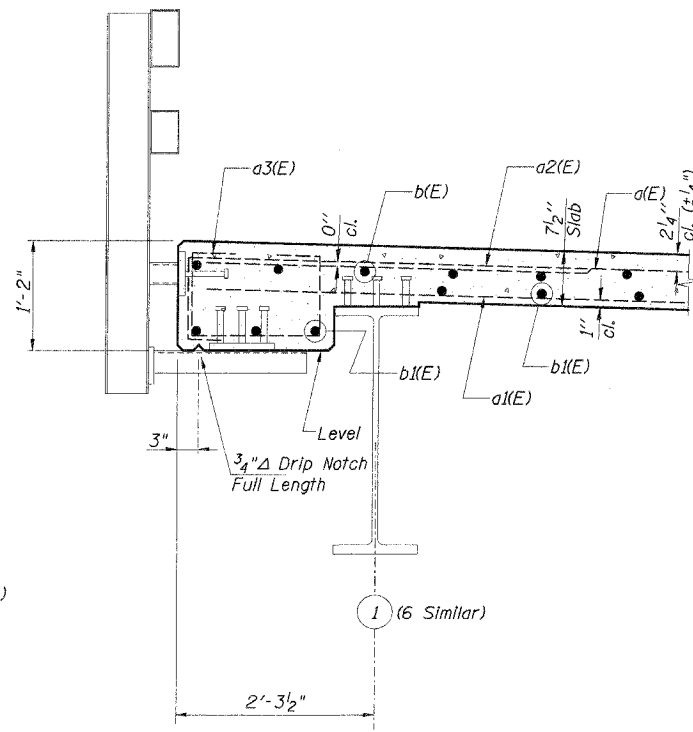
Sheet 4 of 11



PLAN



CROSS SECTION  
(Looking North)



SECTION THRU SLAB OVERHANG

Notes:  
See Sheet 5 of 11 for superstructure details and Bill of Material.  
Reinforcement bars designated (E) shall be epoxy coated.  
Bars indicated thus 3x4-#5 etc. indicates 3 lines of bars with 4 lengths per line.  
See Bar Splicer (Coupler) Details, Sheet 10 of 11.

MIN. BAR LAPS  
#5 Bar - 2'-2"

SUPERSTRUCTURE  
CARDINAL ROAD over BLACK BRANCH CREEK  
SECTION 03-00167-04-FP  
SANGAMON COUNTY  
STATION 484+47  
STRUCTURE NO. 084-3640

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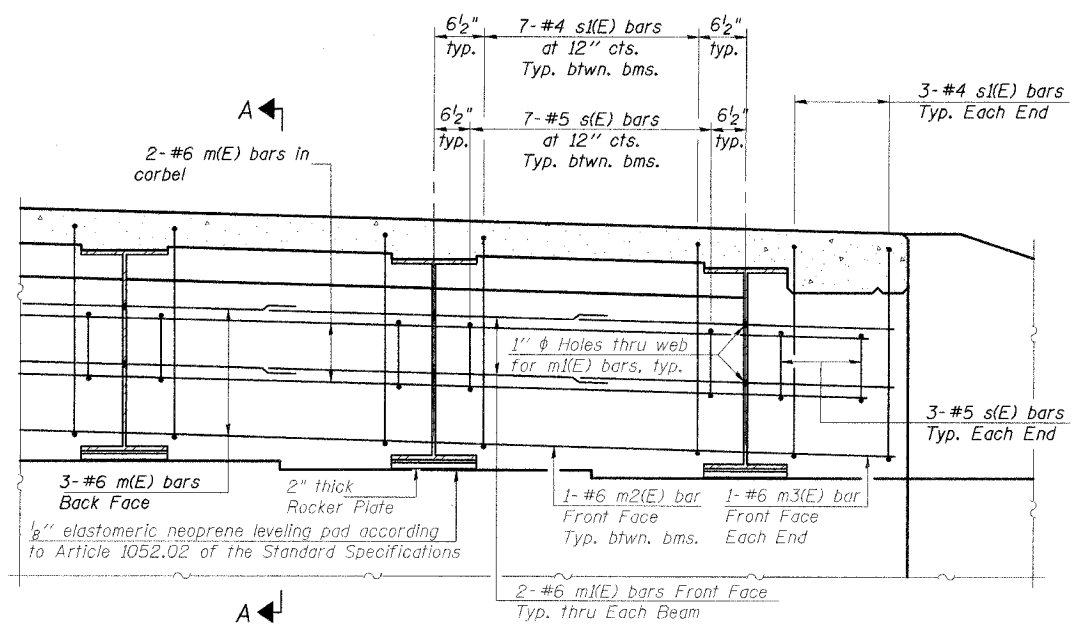


JOB NO.  
03S2035B  
DATE  
6/21/06

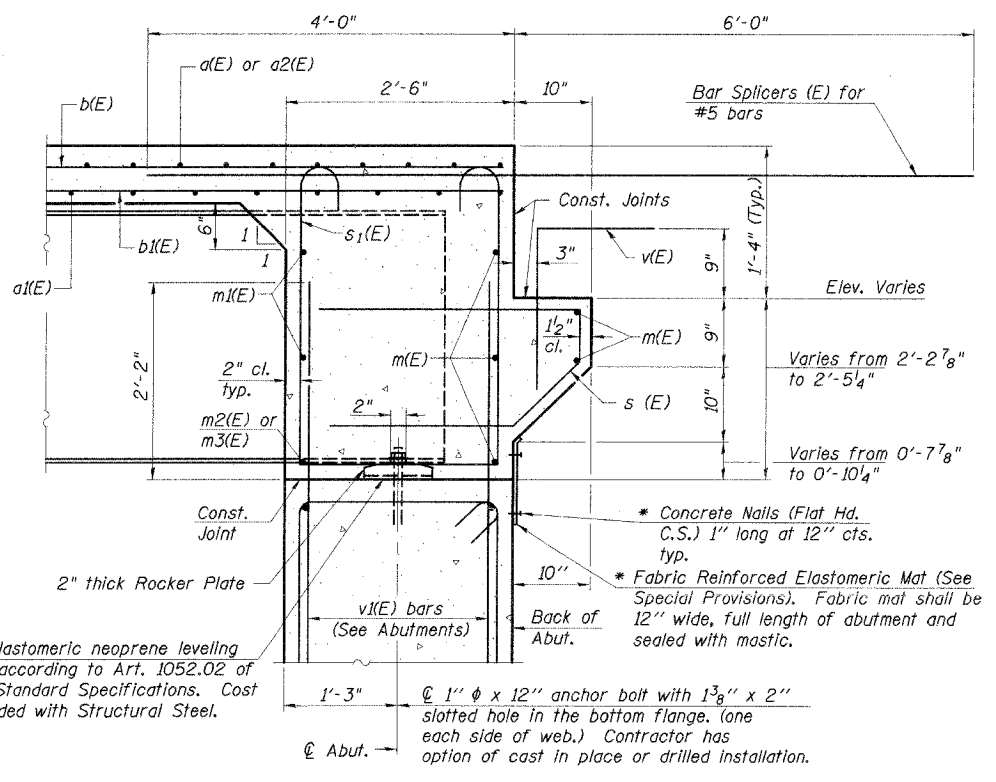
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|          |         |         |
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| LAYOUT   | M.A.M.  | 3/13/04 |
| DRAWN    | RF      | 3/16/04 |
| REVIEWED | IS.B.P. | 3/20/04 |

|                     |                |                           |              |           |
|---------------------|----------------|---------------------------|--------------|-----------|
| F.A.U. RTE.         | SECTION        | COUNTY                    | TOTAL SHEETS | SHEET NO. |
| 8075                | 03-00167-04-FP | SANGAMON                  | 109          | 69        |
| STA.                |                | TO STA.                   |              |           |
| FED. ROAD DIST. NO. |                | ILLINOIS FED. AID PROJECT |              |           |



DIAPHRAGM ELEVATION AT ABUTMENT



SECTION A-A

\*Cost included with Concrete Superstructure.

Notes:  
 Reinforcement bars in diaphragm are billed with superstructure.  
 Concrete in diaphragm is included with Concrete Superstructure.  
 For anchor bolt details see sheet 10 of 11.

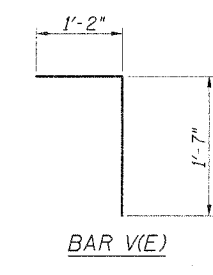
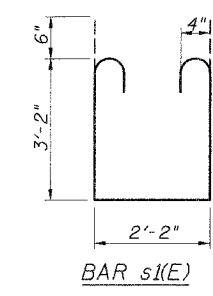
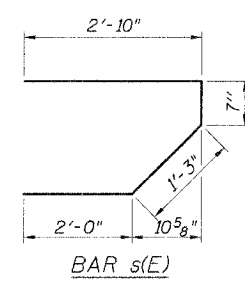
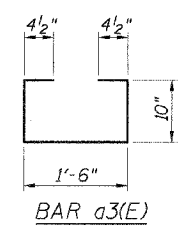
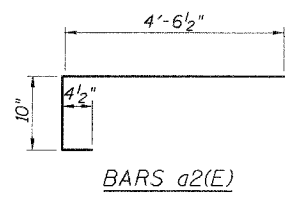
MIN. BAR LAP

- #4 bar = 1'-8"
- #5 bar = 2'-2"
- #6 bar = 2'-9"

SUPERSTRUCTURE BILL OF MATERIAL

| Bar                              | No. | Size     | Length  | Shape |
|----------------------------------|-----|----------|---------|-------|
| a(E)                             | 322 | #5       | 20'-11" | —     |
| a1(E)                            | 108 | #5       | 39'-8"  | —     |
| a2(E)                            | 162 | #5       | 5'-9"   | —     |
| a3(E)                            | 162 | #4       | 3'-11"  | —     |
| b(E)                             | 123 | #5       | 28'-0"  | —     |
| b1(E)                            | 144 | #5       | 21'-7"  | —     |
| m(E)                             | 10  | #6       | 39'-8"  | —     |
| m1(E)                            | 24  | #6       | 9'-10"  | —     |
| m2(E)                            | 10  | #6       | 6'-10"  | —     |
| m3(E)                            | 4   | #6       | 2'-0"   | —     |
| s(E)                             | 82  | #5       | 6'-8"   | —     |
| s1(E)                            | 82  | #4       | 9'-6"   | —     |
| v(E)                             | 82  | #5       | 2'-9"   | —     |
| Reinforcement Bars, Epoxy Coated |     | Pound    | 22110   |       |
| Concrete Superstructure          |     | Cu. Yds. | 107.9   |       |

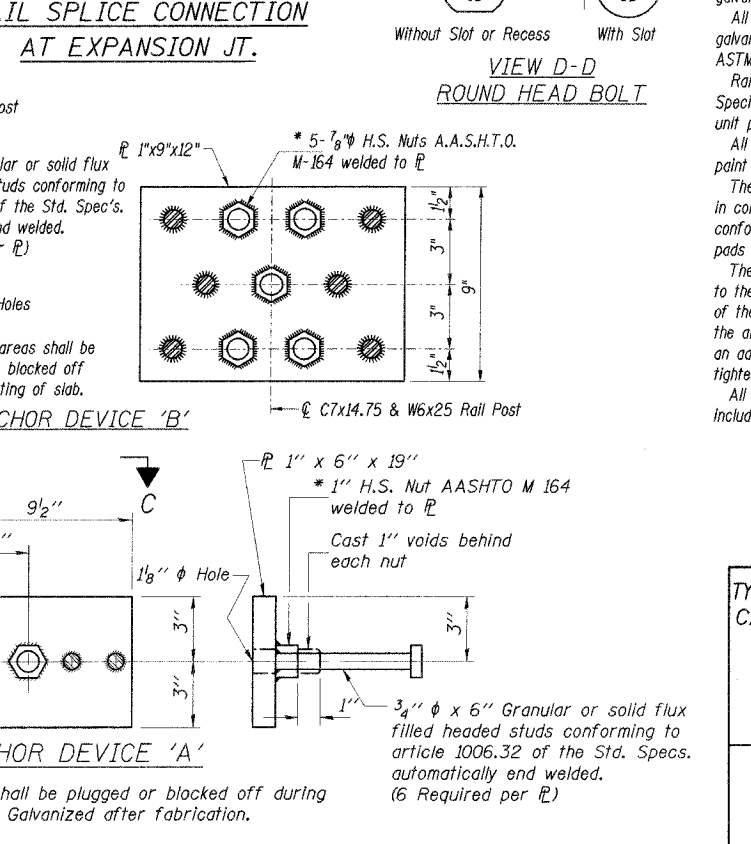
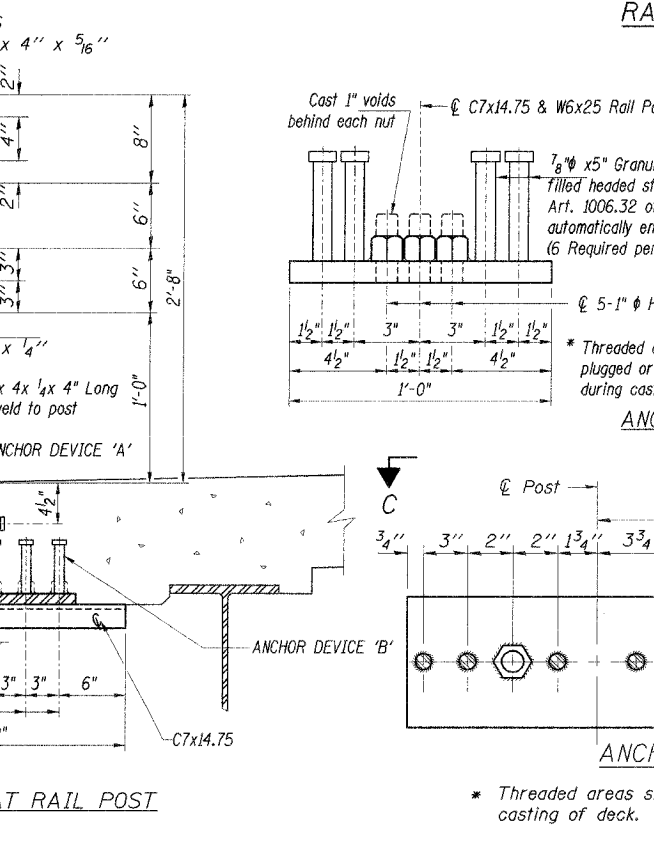
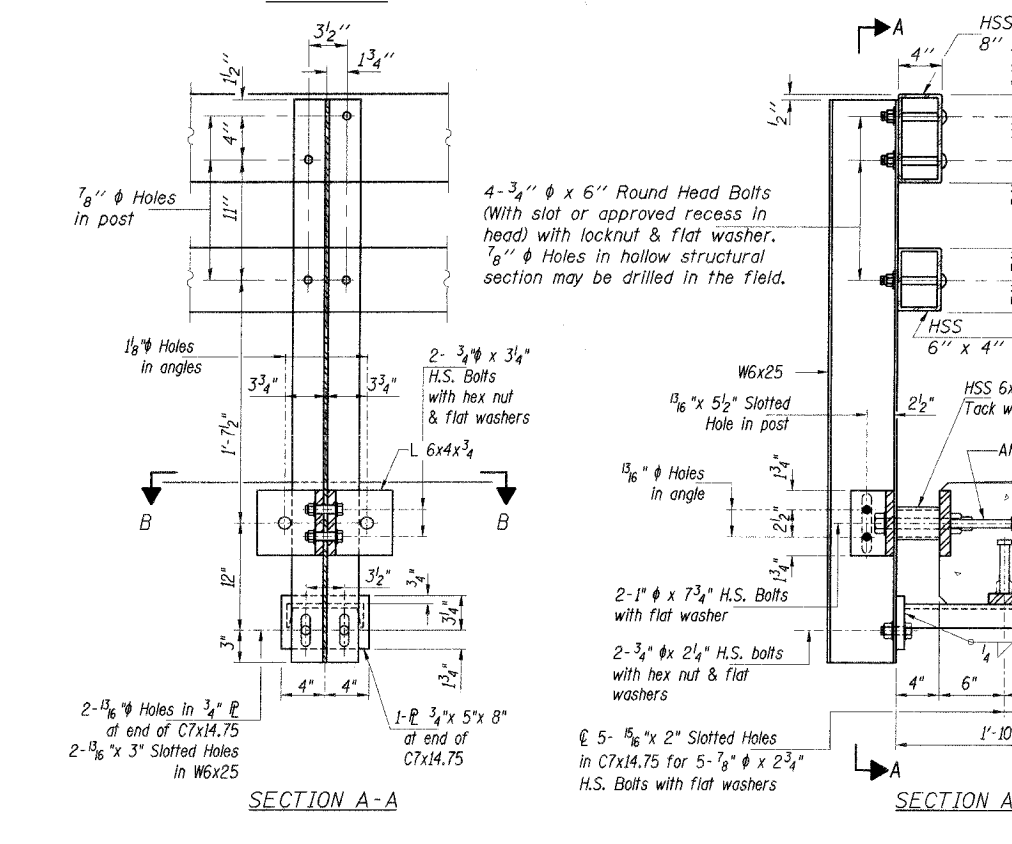
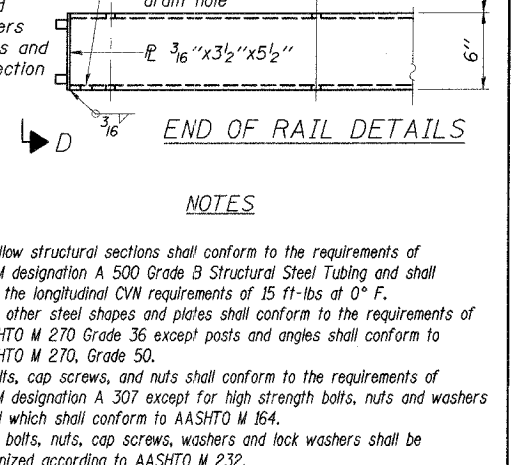
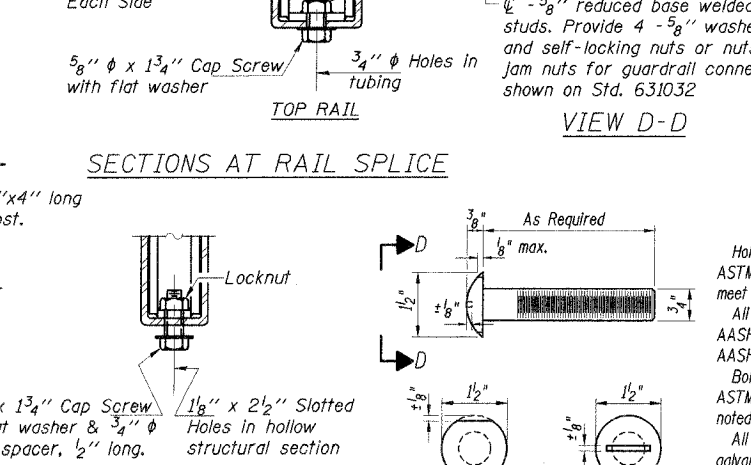
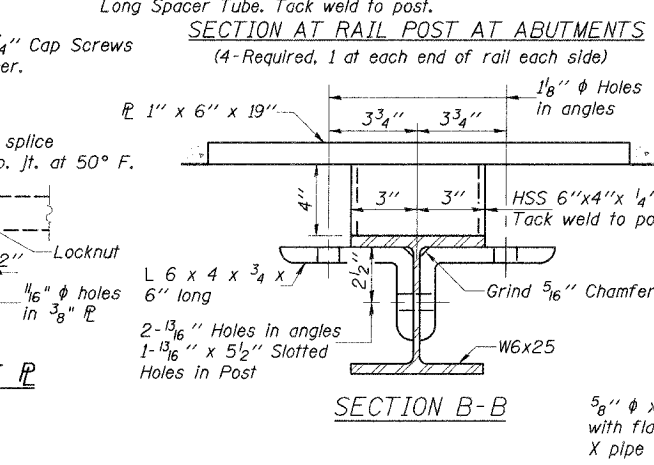
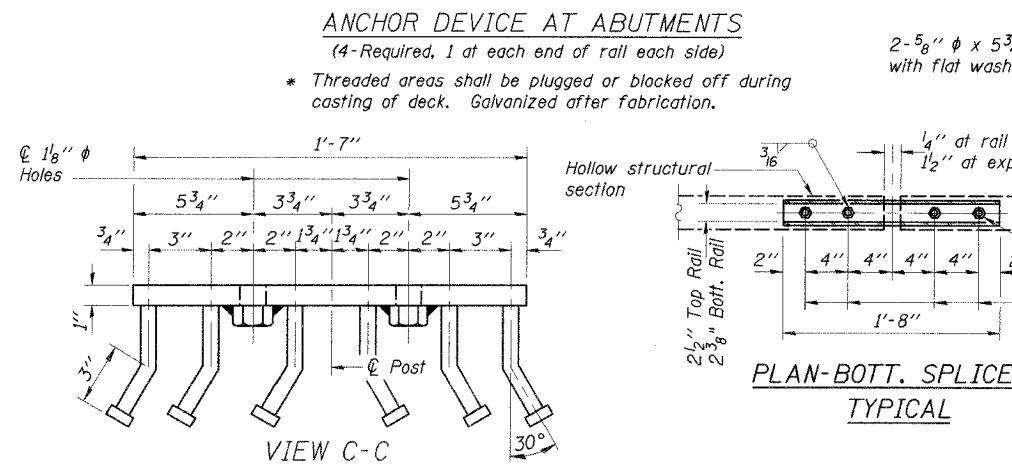
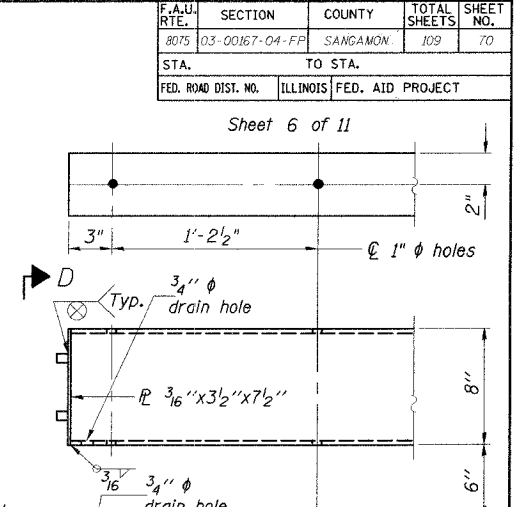
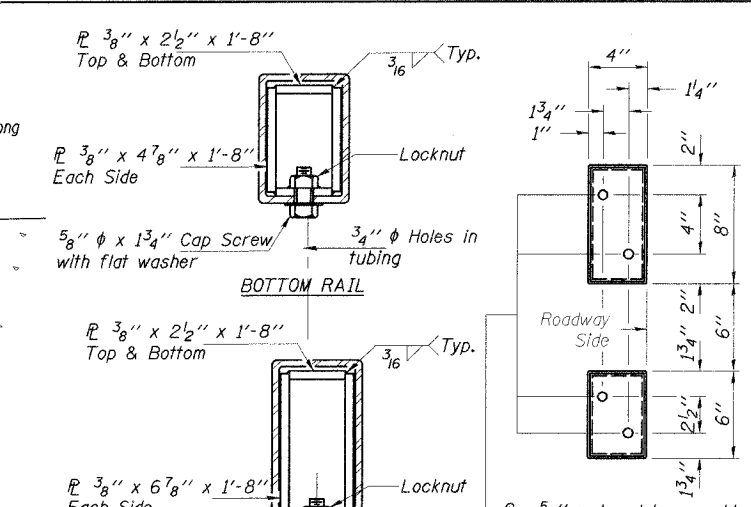
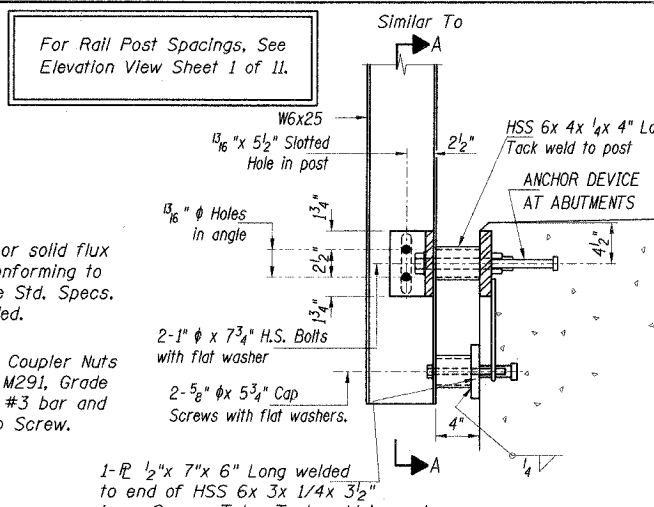
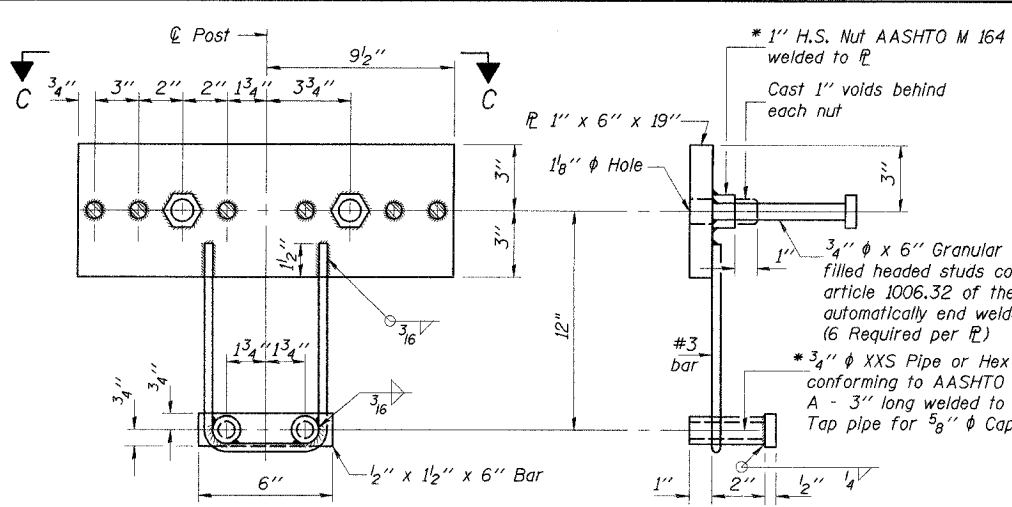
Reinforcement bars designated (E) shall be epoxy coated.



SUPERSTRUCTURE DETAILS  
 CARDINAL ROAD over BLACK BRANCH CREEK  
 SECTION 03-00167-04-FP  
 SANGAMON COUNTY  
 STATION 484+47  
 STRUCTURE NO. 084-3640

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 M.M.K. 3/13/04  
 P.M. 3/16/04  
 REVIEWED G.B.R. 3/20/04

|                     |                |                           |              |           |
|---------------------|----------------|---------------------------|--------------|-----------|
| F.A.U. RTEL.        | SECTION        | COUNTY                    | TOTAL SHEETS | SHEET NO. |
| 8075                | 03-00167-04-FP | SANGAMON                  | 109          | 70        |
| STA.                |                | TO STA.                   |              |           |
| FED. ROAD DIST. NO. |                | ILLINOIS FED. AID PROJECT |              |           |



**NOTES**

Hollow structural sections shall conform to the requirements of ASTM designation A 500 Grade B Structural Steel Tubing and shall meet the longitudinal CVN requirements of 15 ft-lbs at 0° F.

All other steel shapes and plates shall conform to the requirements of AASHTO M 270 Grade 36 except posts and angles shall conform to AASHTO M 270, Grade 50.

Bolts, cap screws, and nuts shall conform to the requirements of ASTM designation A 307 except for high strength bolts, nuts and washers noted which shall conform to AASHTO M 164.

All bolts, nuts, cap screws, washers and lock washers shall be galvanized according to AASHTO M 232.

All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM A 385. Galvanized rail shall not be painted.

Railing shall be according to Section 509 of the Standard Specifications, except as noted, and will be paid for at the contract unit price per Foot for Steel Bridge Rail, Type SM (Special).

All field drilled holes shall be coated with an approved zinc rich paint before erection.

The 1/2 inch x 7 inch x 6 inch plates and the web of the C7x14.25 that come in contact with concrete shall receive two coats of asphalt paint conforming to Section 1060.07 Type II or place 1/8 inch fabric bearing pads between the plates or C7x14.25 and the concrete.

The 3/4 inch high strength bolts used to connect the 6 x 4 x 3/4 angles to the post shall be tightened according to Article 505.04(FX2) of the Standard Specifications. The 1 inch high strength bolts connecting the angles to the concrete shall be tightened to a snug fit and given an additional 1/8 turn. The 5/8 inch cap screws in bottom of posts shall be tightened to a snug fit only.

All rail mounting members, hardware and curled end sections shall be included with the unit price for Steel Bridge Rail, Type SM (Special).

**BILL OF MATERIAL**

| Item                                 | Unit | Quantity |
|--------------------------------------|------|----------|
| Steel Bridge Rail, Type SM (Special) | Foot | 160      |

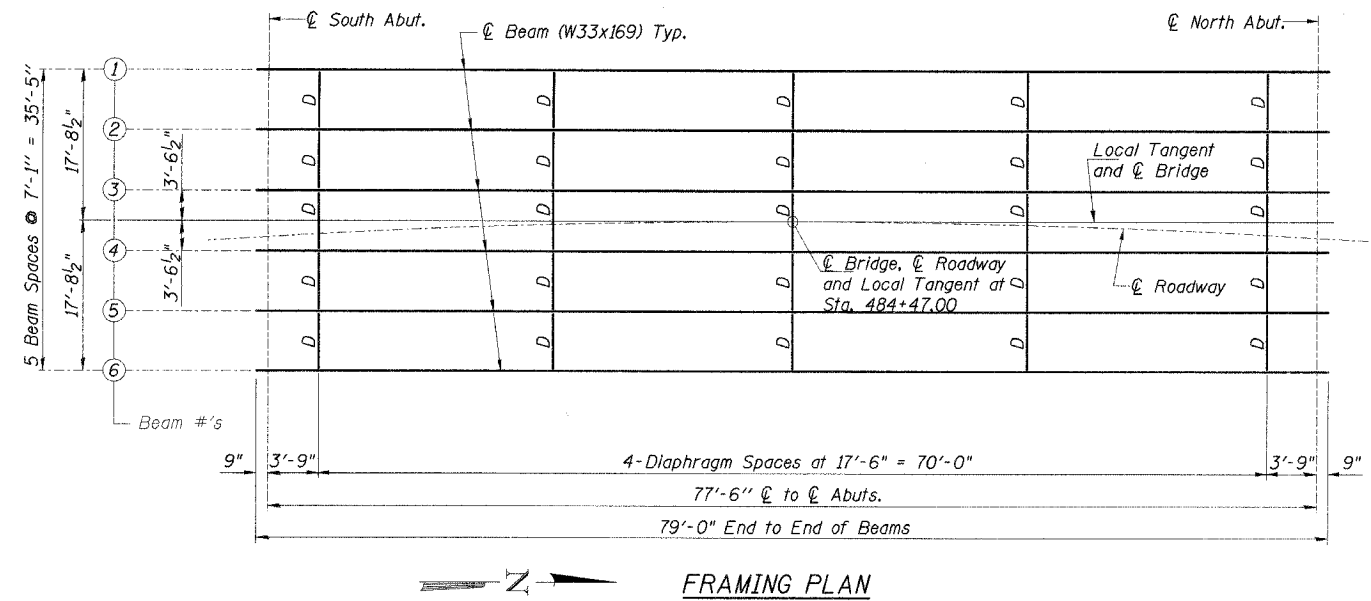
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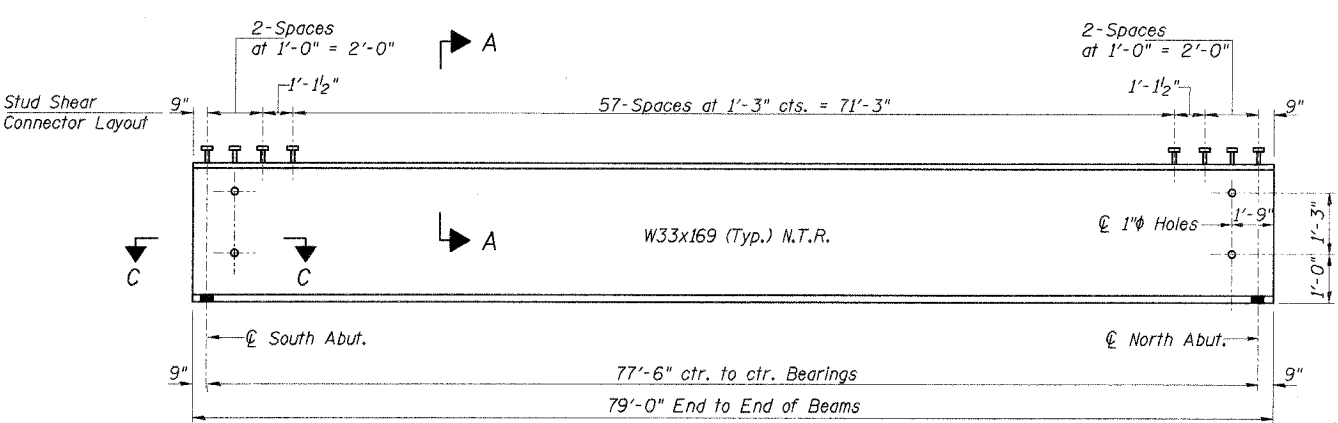
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DATE: 6/21/06

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 REVIEWED

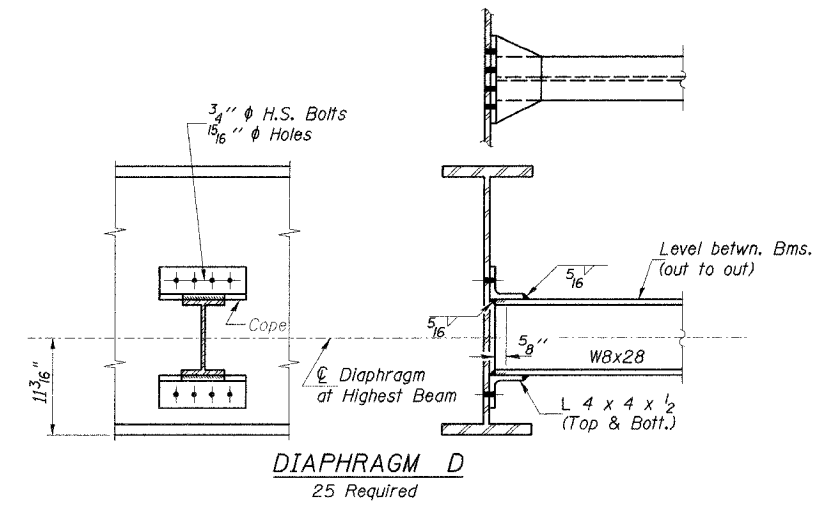


**FRAMING PLAN**

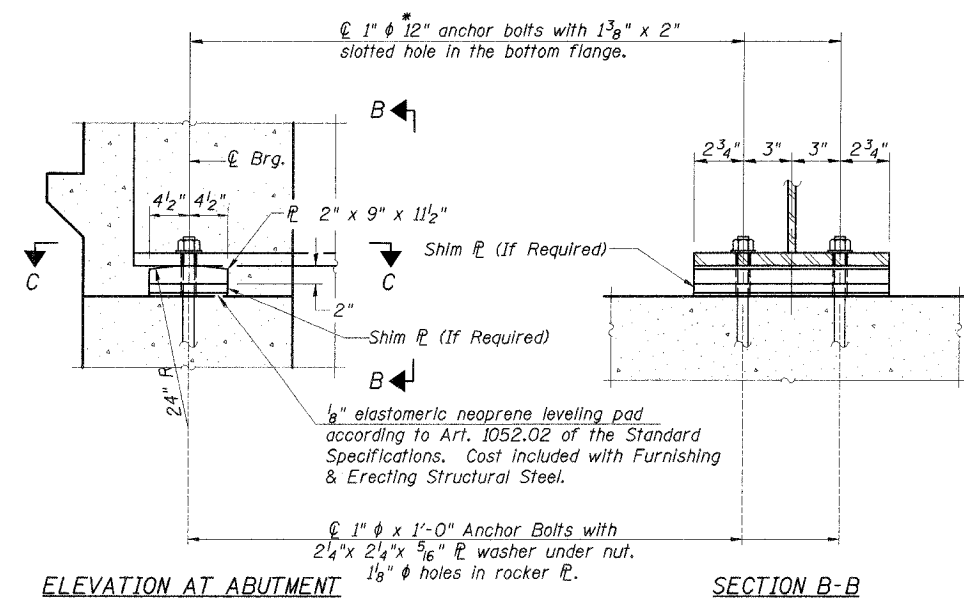


**GIRDER ELEVATION**

"NTR" denotes members to which notch toughness requirements are applicable.

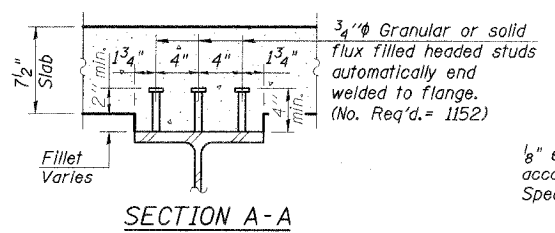


**DIAPHRAGM D**  
25 Required

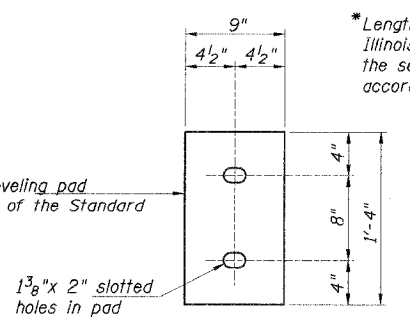


**ELEVATION AT ABUTMENT**

**SECTION B-B**

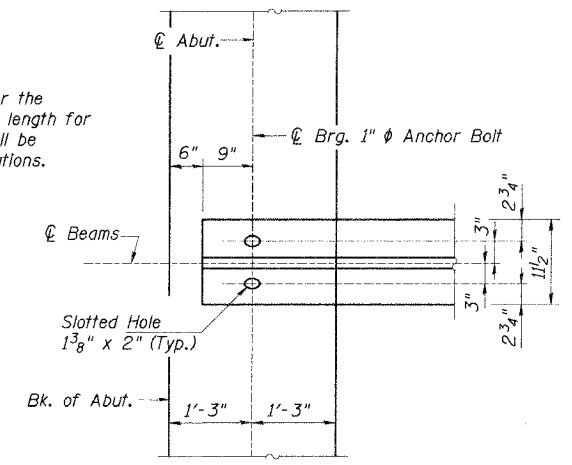


**SECTION A-A**



**PLAN-ELASTOMERIC NEOPRENE LEVELING PAD (At Abutments)**

\*Length shown is the required total length for the Illinois Coll Anchor Bolt. The required total length for the sealed capsule alternate anchor bolt shall be according to the manufacturer's recommendations.



**SECTION C-C**

|                                   |                    |       |
|-----------------------------------|--------------------|-------|
| Is                                | (in <sup>4</sup> ) | 0.5   |
| Ic n                              | (in <sup>4</sup> ) | 22053 |
| Ic 3n                             | (in <sup>4</sup> ) | 16221 |
| Ss                                | (in <sup>3</sup> ) | 549.5 |
| Sc n                              | (in <sup>3</sup> ) | 758.8 |
| Sc 3n                             | (in <sup>3</sup> ) | 688.0 |
| φ                                 | (K/ft.)            | 0.88  |
| Mφ                                | (K)                | 660   |
| sφ                                | (K/ft.)            | 0.37  |
| Msφ                               | (K)                | 281   |
| Mφ                                | (K)                | 718   |
| M (Imp)                           | (K)                | 177   |
| φ <sub>3</sub> (Mφ + I)           | (K)                | 1492  |
| Ma                                | (K)                | 3163  |
| Mu                                | (K)                | 3677  |
| Fsφ non-comp(k.s.i.)              |                    | 14.4  |
| Fsφ (comp) (k.s.i.)               |                    | 4.9   |
| Fsφ <sub>3</sub> (k + I) (k.s.i.) |                    | 23.6  |
| Fs (Overload) (k.s.i.)            |                    | 42.9  |
| VR                                | (K)                | 57.0  |

|           |       |       |
|-----------|-------|-------|
|           | Abut. |       |
| Rφ        | (K)   | 48.5  |
| Rφ        | (K)   | 45.6  |
| Imp.      | (K)   | 11.3  |
| R (Total) | (K)   | 105.4 |

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total & Overload).  
Ic and Sc are the moment of inertia and section modulus of the composite section used in computing fs (Total & Overload).  
VR is the maximum Live Load + Impact shear range in span.  
Z is the plastic section modulus used to determine the fully plastic moments in the non-composite areas.  
Ma (Applied Moment) = 1.3IMφ + Msφ + φ<sub>3</sub>(Mφ + I).  
Mu is the Full Plastic Moment Capacity for Compact, Braced section.  
Fs (Overload) is the sum of the stresses due to Mφ + Msφ + φ<sub>3</sub>(Mφ + I).

Note:  
Anchor bolts may be built into the masonry. See sheet 9 of 11 for Anchor Bolt Installation. All Bearing Plates, Pintles & Shim Plates shall be AASHTO M270 Grade 50 W.

**STRUCTURAL STEEL FRAMING DETAILS**  
CARDINAL ROAD over BLACK BRANCH CREEK  
SECTION 03-00167-04-FP  
SANGAMON COUNTY  
STATION 484+47  
STRUCTURE NO. 084-3640

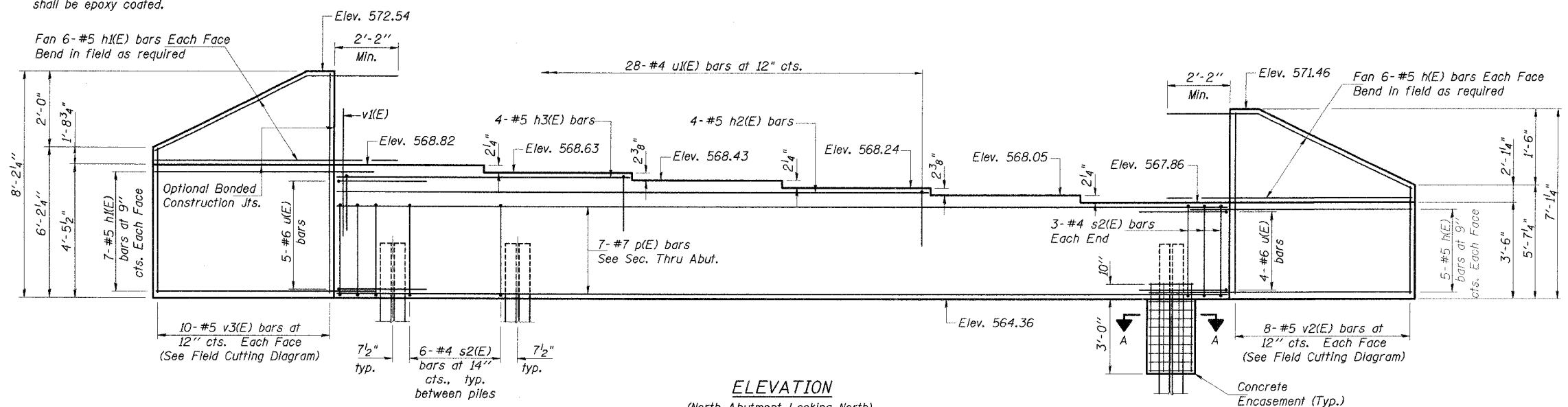


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 3/16/04  
 6/21/04

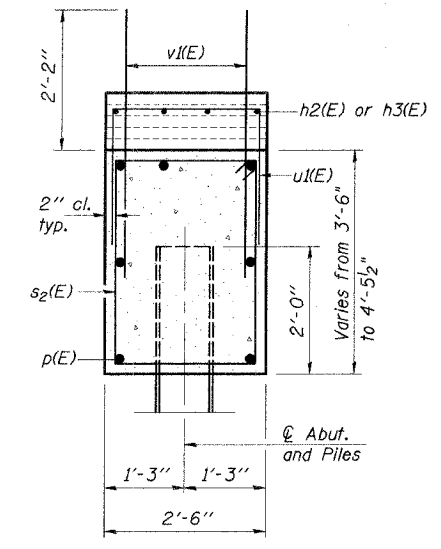
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| F.A.U. RTE.         | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO. |
| 8075                | 03-00167-04-FP | SANGAMON         | 109          | 72        |
| STA.                | TO STA.        |                  |              |           |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |           |

Sheet 8 of 11

Notes: Pour steps monolithically with cap.  
Reinforcement bars designated (E)  
shall be epoxy coated.



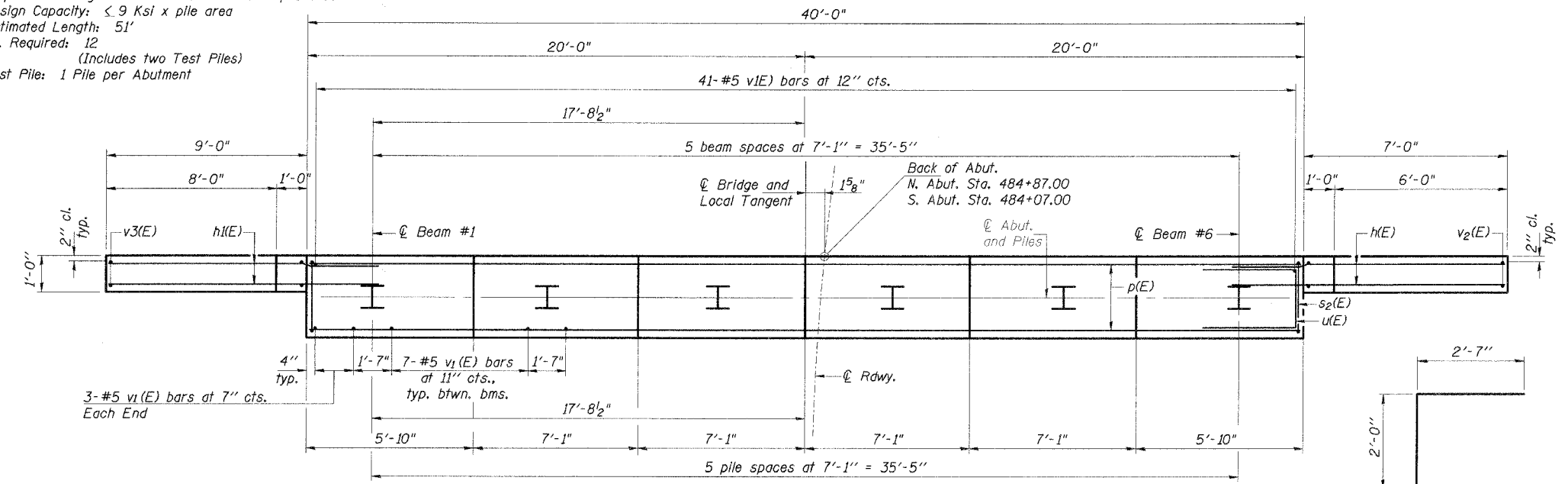
**ELEVATION**  
(North Abutment Looking North)  
(South Abutment Opposite hand)



**SEC. THRU ABUT.**

**PILE DATA**

Pile Type: HP 12x53  
Required Bearing: Refusal = 1.5 x 9 Ksi x pile area  
Design Capacity: < 9 Ksi x pile area  
Estimated Length: 51'  
No. Required: 12  
(Includes two Test Piles)  
Test Pile: 1 Pile per Abutment



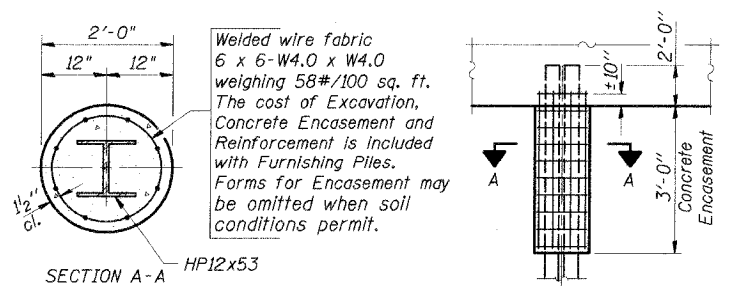
**PLAN**

**BILL OF MATERIAL - 2 ABUTS.**

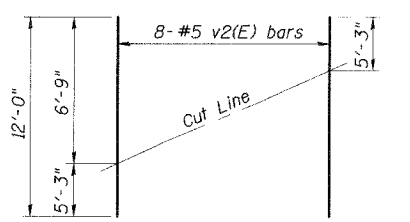
| Bar                              | No. | Size    | Length | Shape |
|----------------------------------|-----|---------|--------|-------|
| h(E)                             | 44  | #5      | 9'-4"  | —     |
| h1(E)                            | 52  | #5      | 11'-5" | —     |
| h2(E)                            | 8   | #5      | 26'-9" | —     |
| h3(E)                            | 8   | #5      | 12'-7" | —     |
| p(E)                             | 14  | #7      | 39'-8" | —     |
| s2(E)                            | 72  | #4      | 11'-5" | □     |
| u(E)                             | 18  | #6      | 7'-2"  | □     |
| u1(E)                            | 56  | #4      | 8'-2"  | □     |
| v1(E)                            | 164 | #5      | 4'-4"  | —     |
| v2(E)                            | 16  | #5      | 12'-0" | —     |
| v3(E)                            | 20  | #5      | 13'-8" | —     |
| Structure Excavation             |     | Cu. Yd. | 242    |       |
| Concrete Structures              |     | Cu. Yd. | 37.7   |       |
| Reinforcement Bars, Epoxy Coated |     | Pound   | 4790   |       |
| Furnishing Steel Piles HP12x53   |     | Ft.     | 510    |       |
| Driving Steel Piles              |     | Ft.     | 510    |       |
| Test Pile Steel HP12x53          |     | Each    | 2      |       |

**MIN. BAR LAPS**

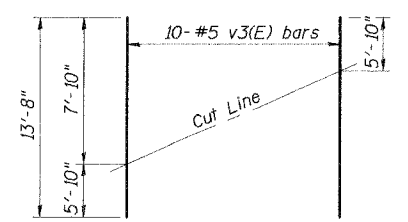
- #5 Bar - 2'-2"
- #6 Bar - 2'-7"
- #7 Bar - 3'-5"



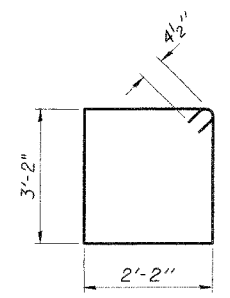
**PILE ENCASEMENT DETAIL**



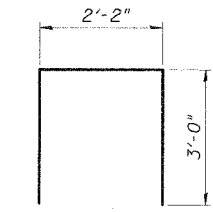
**FIELD CUTTING DIAGRAM v2(E)**  
Order v2(E) full length. Cut as shown and use remainder of bars in opposite face.



**FIELD CUTTING DIAGRAM v3(E)**  
Order v3(E) full length. Cut as shown and use remainder of bars in opposite face.



**BAR s2(E)**



**BAR u1(E)**

01/27/2006  
 10/17/07 AM  
 6/03/05/03/03/59/Structures/Black Branch Creek Bridge Plans/FP/Abutment/8075  
 LAYOUT: M.A.M. 3/13/04  
 DRAWN: R.A.D. 3/16/04  
 REVIEWED: G.B.R. 3/20/04

ABUTMENT DETAILS  
CARDINAL ROAD over BLACK BRANCH CREEK  
SECTION 03-00167-04-FP  
SANGAMON COUNTY  
STATION 484+47  
STRUCTURE NO. 084-3640

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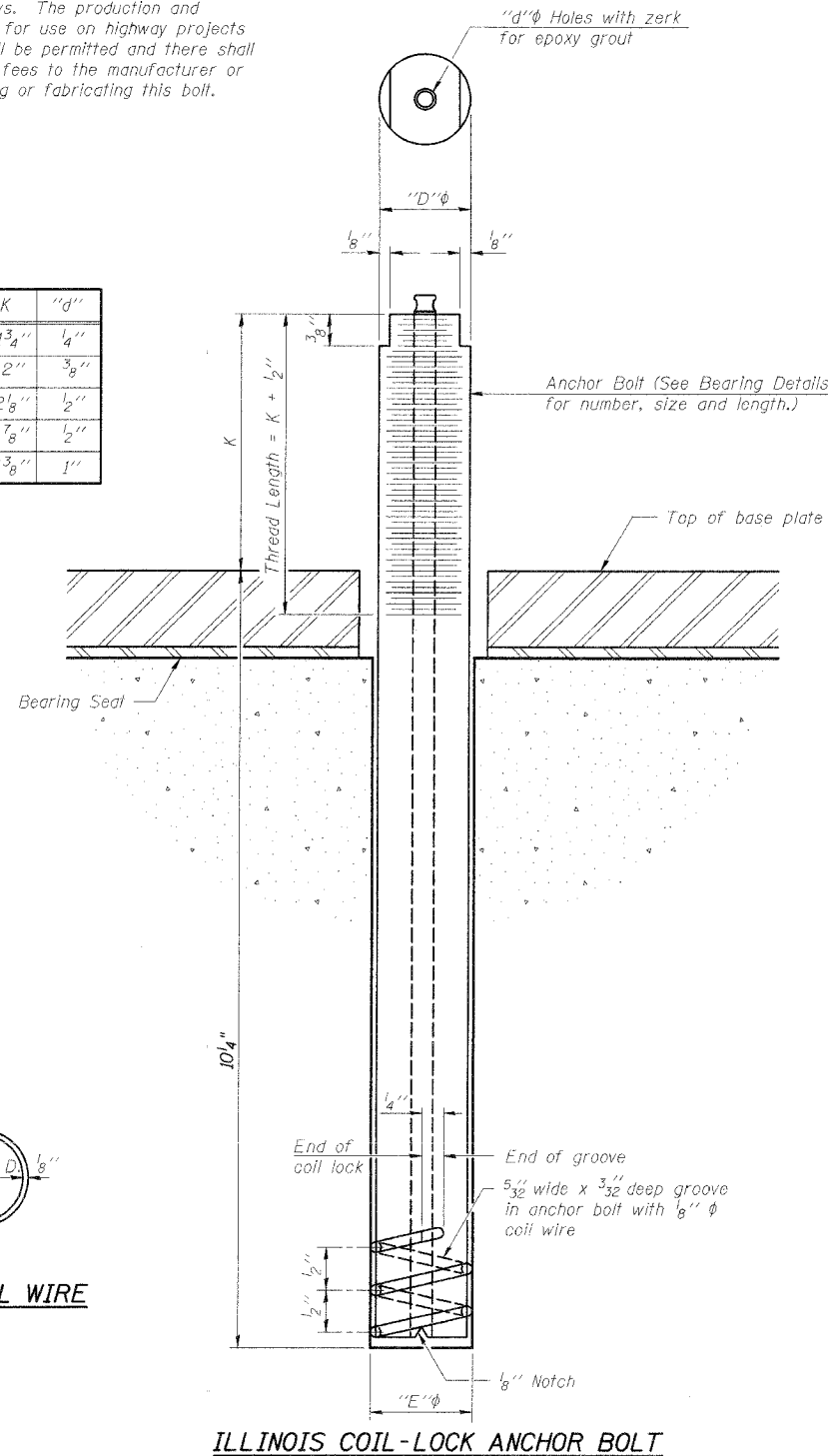
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DATE 6/21/06



| F.A.U. RTE.         | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO. |
|---------------------|----------------|------------------|--------------|-----------|
| 8075                | 03-00167-04-FP | SANGAMON         | 109          | 73        |
| STA.                |                | TO STA.          |              |           |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |           |

The Illinois Coil-Lock Anchor Bolt is a proprietary item which is the property of the Illinois Department of Transportation. Use, reproduction or disclosure without express written permission is prohibited and protected under Federal copyright laws. The production and the fabrication of this bolt for use on highway projects in the State of Illinois shall be permitted and there shall be no incurred charges or fees to the manufacturer or the fabricator for producing or fabricating this bolt.

| D      | E      | H        | K      | "d"  |
|--------|--------|----------|--------|------|
| 1"     | 1 1/8" | 3/16"    | 1 3/4" | 1/4" |
| 1 1/4" | 1 3/8" | 1/16"    | 2"     | 3/8" |
| 1 1/2" | 1 5/8" | 1 5/16"  | 2 1/8" | 1/2" |
| 2"     | 2 1/8" | 1 13/16" | 2 7/8" | 1/2" |
| 2 1/2" | 2 5/8" | 2 5/16"  | 3 3/8" | 1"   |



### MATERIALS FOR ILLINOIS COIL-LOCK ANCHOR BOLT

The anchor bolt shall be fabricated from cold drawn or hot finished seamless carbon steel mechanical tubing conforming to ASTM A 519, Grade 1026, CW and supplied with hexagonal nuts and cut washers.  
 The coil wire shall be made of any suitable soft steel wire.  
 The finished anchor bolt shall be cleaned of rust and other foreign materials and wrapped or packaged to prevent contamination until they are installed.  
 The epoxy grout shall be a two-component, epoxy resin bonding system conforming to ASTM C 881, Type I, Grade 1 and of a Class suitable for the temperature at installation.

### INSTALLATION PROCEDURE for the ILLINOIS COIL-LOCK ANCHOR BOLT

1. With the coil wire in place, the bolt shall be inserted into the hole and turned clockwise to a snug fit in the hole. Nut and washer shall be placed on the bolt. The nut shall be tensioned until the steel base plates are held securely to the concrete bearing seat.
2. Epoxy grout shall be pumped through the zerk fitting with a pressure gun. Pumping shall continue until the epoxy overflows the hole around the bolt shank. After pumping is discontinued, excess epoxy shall be immediately wiped off.

### ALTERNATE ANCHOR BOLTS

The Contractor may use, at his option, the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures.

- The capsule or the adhesive cartridge type anchor rods shall be a two part system composed of:
1. A threaded rod stud with nut and washer of the type specified.
  2. A sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amounts of the adhesive chemical.

| Location  | Type |
|-----------|------|
| Abutments | A307 |
|           |      |
|           |      |
|           |      |

ASTM F 1554 Grade 105, ASTM A 449 and AASHTO M 314 Grade 105 anchor bolts may be substituted for the anchor bolts shown above.

**ANCHOR BOLT DETAILS**  
 CARDINAL ROAD over BLACK BRANCH CREEK  
 SECTION 03-00167-04-FP  
 SANGAMON COUNTY  
 STATION 484+47  
 STRUCTURE NO. 084-3640

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|          |        |         |
|----------|--------|---------|
| DESIGNED | M.M.M. | 3/13/04 |
| CHECKED  | AW     | 3/15/04 |
| REVIEWED | CS/A   | 3/20/04 |

|                     |                |                  |              |           |
|---------------------|----------------|------------------|--------------|-----------|
| F.A.U. RTE.         | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO. |
| 8075                | 03-00167-04-FP | SANGAMON         | 109          | 74        |
| STA.                |                | TO STA.          |              |           |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |           |

The diameter of this part is the same as the diameter of the bar spliced.

The diameter of this part is equal or larger than the diameter of bar spliced.

**ROLLED THREAD DOWEL BAR**



**\*\* ONE PIECE**

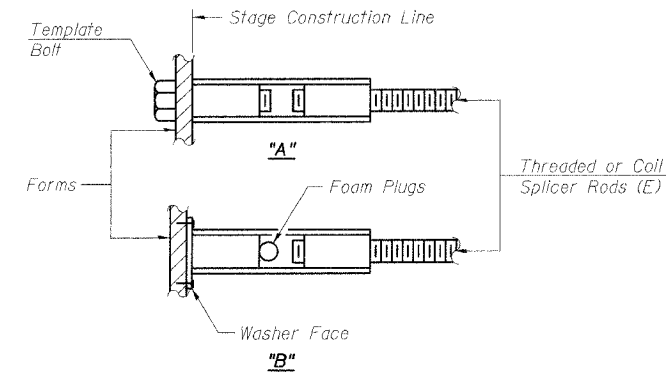
Wire Connector



**WELDED SECTIONS**

**BAR SPLICER ASSEMBLY ALTERNATIVES**

\*\* Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



**INSTALLATION AND SETTING METHODS**

"A" : Set bar splicer assembly by means of a template bolt.  
 "B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.  
 (E) : Indicates epoxy coating.

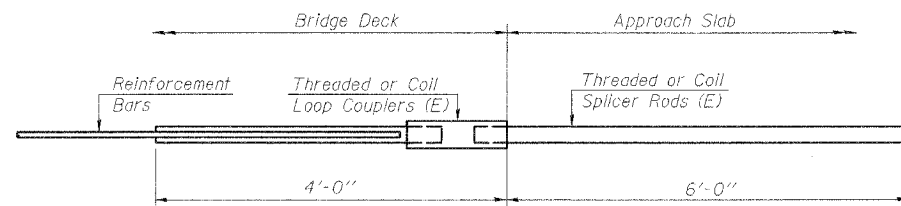
**NOTES**

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.  
 Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.  
 All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.  
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.  
 Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

- ① Minimum Capacity (Tension in kips) =  $1.25 \times f_y \times A_l$
- ② Minimum \*Pull-out Strength (Tension in kips) =  $1.25 \times f_{s_{allow}} \times A_l$

Where  $f_y$  = Yield strength of lapped reinforcement bars in ksi.  
 $f_{s_{allow}}$  = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)  
 $A_l$  = Tensile stress area of lapped reinforcement bars.  
 \* = 28 day concrete

Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."



**INTEGRAL ABUTMENT  
 BAR SPLICER ASSEMBLY DETAIL  
 FOR #5 BAR**

|                                             |
|---------------------------------------------|
| Min. Capacity = 23.0 kips - tension         |
| Min. Pull-out Strength = 9.2 kips - tension |
| No. Required = 82                           |

07/27/2006  
 10:46:22 AM  
 I:\03\BBS\03S2035B\Structures\Road\_Branch\_Creek\Bridge\_Plans\F04-Bar\_Splicer.dgn

|          |       |         |
|----------|-------|---------|
| LAYOUT   | MAN.  | 3/13/04 |
| DESN.    | FOR   | 3/15/04 |
| REVIEWED | AS.P. | 3/22/04 |

**BAR SPLICER ASSEMBLY DETAILS**  
 CARDINAL ROAD over BLACK BRANCH CREEK  
 SECTION 03-00167-04-FP  
 SANGAMON COUNTY  
 STATION 484+47  
 STRUCTURE NO. 084-3640

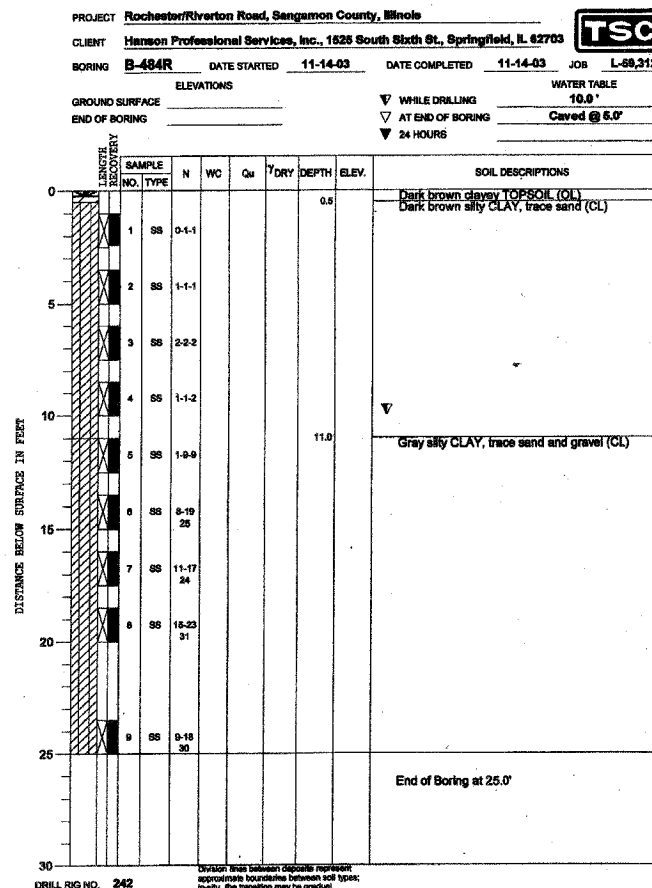
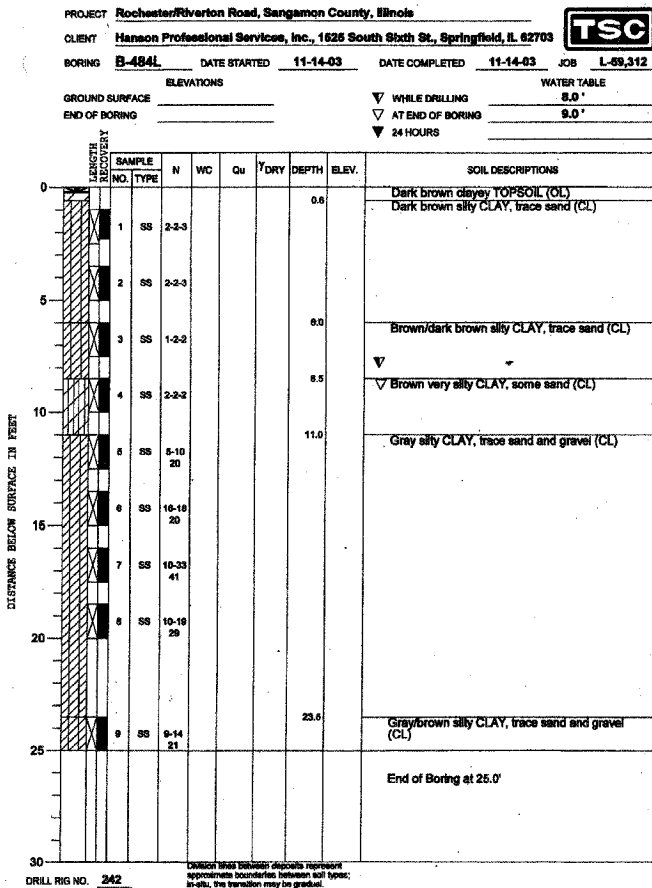
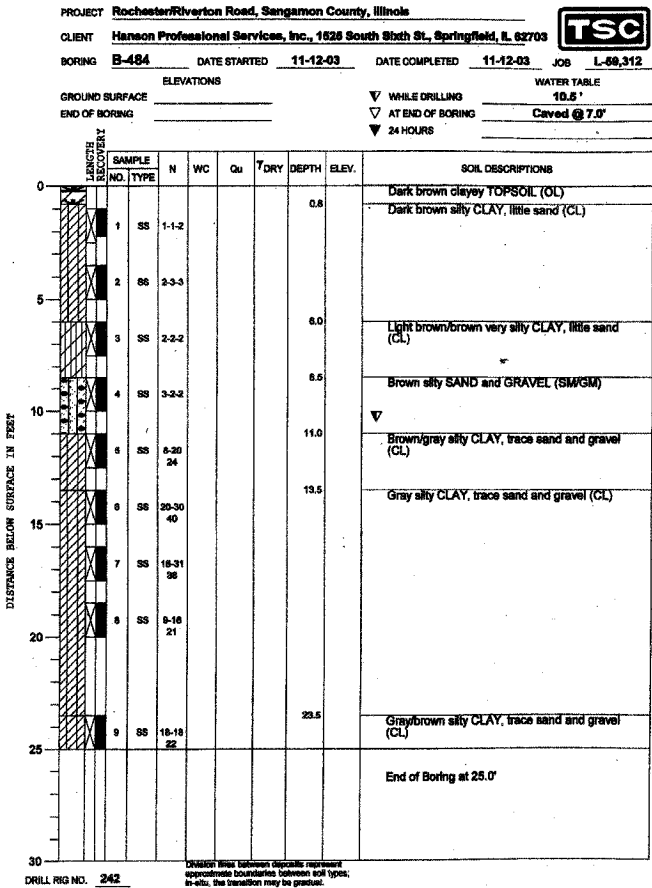
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|         |          |
|---------|----------|
| JOB NO. | 03S2035B |
| DATE    | 6/21/06  |

|                     |                |          |                  |           |
|---------------------|----------------|----------|------------------|-----------|
| F.A.U. RTE.         | SECTION        | COUNTY   | TOTAL SHEETS     | SHEET NO. |
| 8075                | 03-00167-04-FP | SANGAMON | 109              | 75        |
| STA.                |                | TO STA.  |                  |           |
| FED. ROAD DIST. NO. |                | ILLINOIS | FED. AID PROJECT |           |

Sheet 11 of 11



KEY TO SYMBOLS AND TERMS  
 LABORATORY SOIL TEST DATA

- BOR. — BORING NUMBER
- SAMP. — SAMPLE NUMBER
  - 3 (SPLIT SPOON SAMPLE)
  - 4-2 (SHELBY TUBE SAMPLE)
- DEPTH — DEPTH TO BOTTOM OF SAMPLE. DEPTH MEASURED FROM GROUND SURFACE AT BORING LOCATION.
- ELEV. — ELEVATION OF BOTTOM OF SAMPLE. ELEVATIONS BASED ON SITE DATUM GIVEN IN REPORT.
- N — STANDARD PENETRATION VALUE. DEFINED AS NUMBER OF BLOWS OF 140-LB. HAMMER DROPPED 30 INCHES REQUIRED TO DRIVE 2-IN. O.D. SPLIT SPOON SAMPLER FOR LAST 12 INCHES OF PENETRATION, OR FRACTION THEREOF.
- ROUTINE LABORATORY TESTS
  - Qu — UNCONFINED COMPRESSIVE STRENGTH IN TONS PER SQ. FT. MODE OF FAILURE (M) DESCRIBED AS SHEAR TYPE (SH), BULGE TYPE (B), OR SPLIT TYPE (SF).
  - P — ESTIMATE OF UNCONFINED COMPRESSIVE STRENGTH IN TONS PER SQ. FT. BASED ON CALIBRATED PENETROMETER.
  - W — NATURAL WATER CONTENT AS % OF DRY WEIGHT.
  - γw — WET UNIT WEIGHT IN POUNDS PER CUBIC FT.
  - γd — DRY UNIT WEIGHT IN POUNDS PER CUBIC FT.
- SPECIAL LABORATORY TESTS
  - AL — ATTERBERG LIMITS
  - GS — GRAIN SIZE DISTRIBUTION
  - SG — SPECIFIC GRAVITY
  - OC — ORGANIC CONTENT
  - US — UNRESTRAINED SWELL TEST
  - SP — SWELLING-PRESSURE TEST
  - P — PERMEABILITY TEST
  - C — CONSOLIDATION TEST
  - TS — TRIAXIAL SHEAR TEST
  - DS — DIRECT SHEAR TEST

SAMPLE DESCRIPTION  
 SAMPLE DESCRIPTIONS BY VISUAL METHODS. CLASSIFICATIONS ACCORDING TO UNIFIED SYSTEM GIVEN IN PARENTHESES.

01/27/2006 10:52:31 AM  
 R:\03\086\03\0303\ENR\Structure\Book Branch Creek\Bridg Plans\F11-Borings.dwg  
 LAYOUT: M.M.M. 3/13/04  
 DRAWN: B.C. 3/15/04  
 REVIEWED: G.B.B. 3/29/04

**SOIL BORINGS**  
 CARDINAL ROAD over BLACK BRANCH CREEK  
 SECTION 03-00167-04-FP  
 SANGAMON COUNTY  
 STATION 484+47  
 STRUCTURE NO. 084-3640

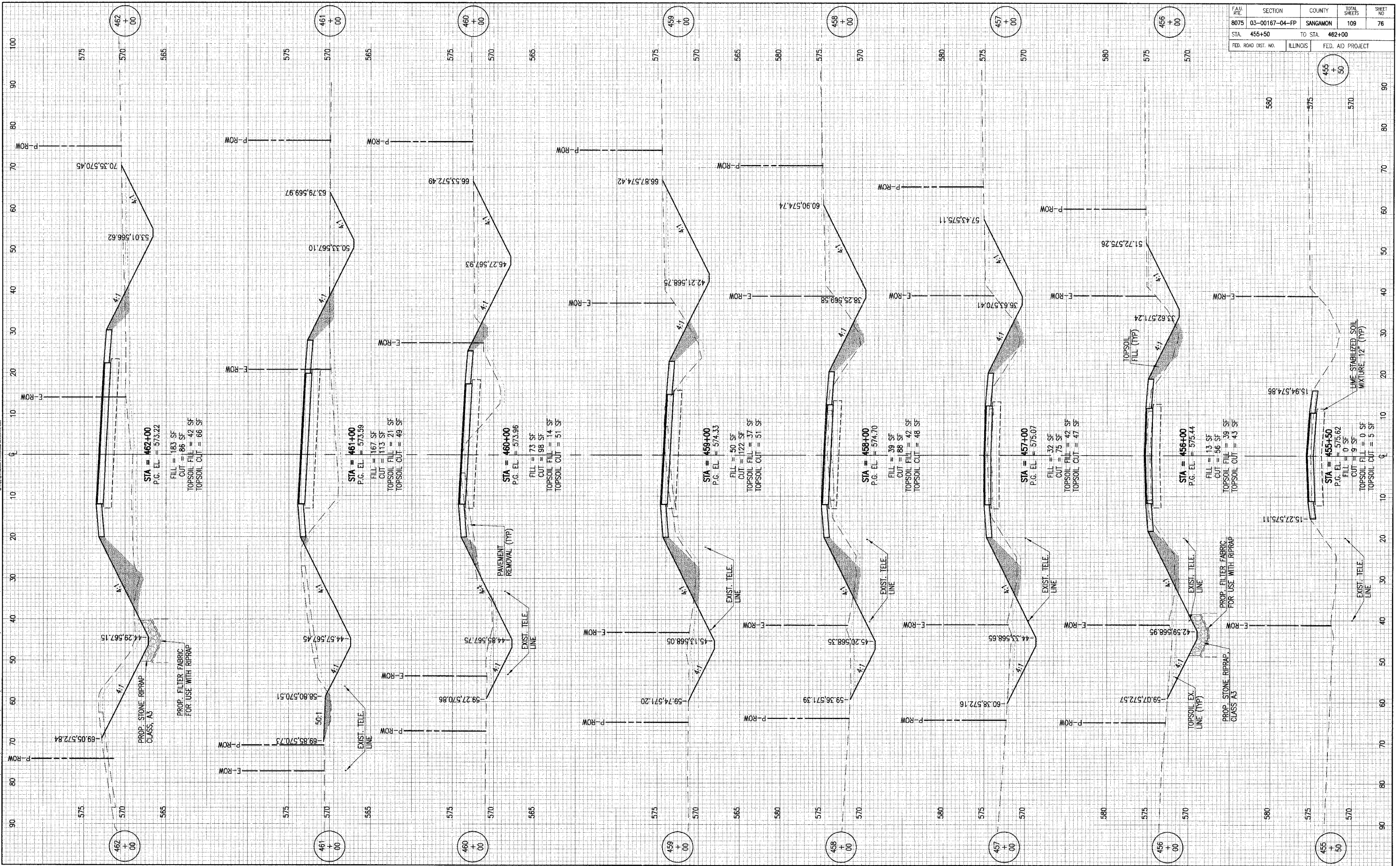
JOB NO. 0352035B  
 DATE 6/21/06

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|                     |                |                |                  |           |
|---------------------|----------------|----------------|------------------|-----------|
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| 8075                | 03-00167-04-FP | SANGAMON       | 109              | 76        |
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| FED. ROAD DIST. NO. |                | ILLINOIS       | FED. AID PROJECT |           |



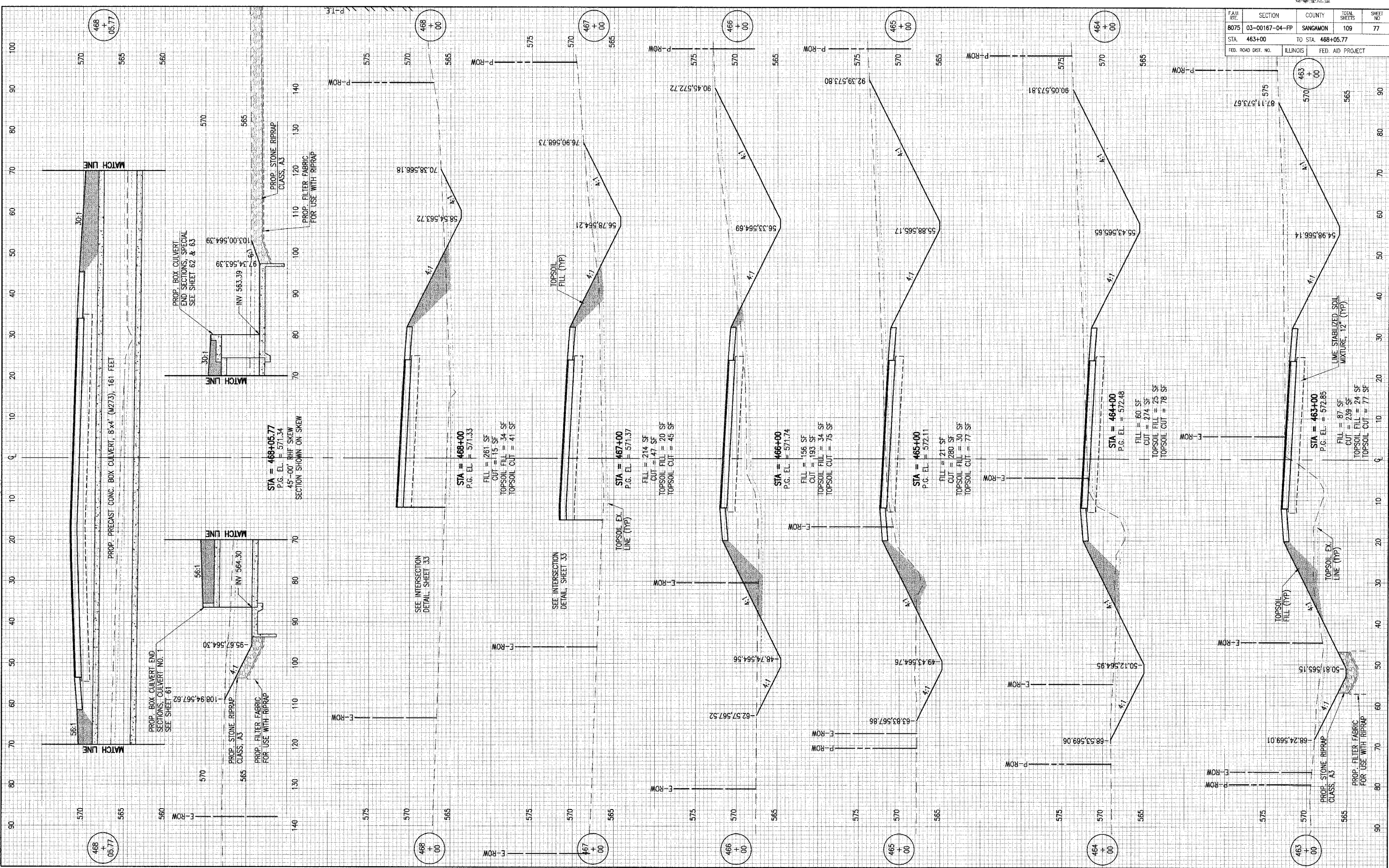
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 DRAWN SB 7/27/04  
 REVIEWED LUR 7/27/04



LAYOUT B.B. 3/15/04  
 DRAWN S.B. 7/22/04  
 REVIEWED LDK 7/22/04



11:03:0953 (05503056) CIVIL SHEET C-302001.DWG JUN 19, 2006 9:18AM BJB



|                     |                |                   |                  |           |
|---------------------|----------------|-------------------|------------------|-----------|
| FAU. RE.            | SECTION        | COUNTY            | TOTAL SHEETS     | SHEET NO. |
| 8075                | 03-00167-04-PP | SANGAMON          | 109              | 77        |
| STA. 463+00         |                | TO STA. 468+05.77 |                  |           |
| FED. ROAD DIST. NO. |                | ILLINOIS          | FED. AID PROJECT |           |

**STA = 468+05.77**  
 P.G. EL. = 571.34  
 45'-00" R/HF SKEW  
 SECTION SHOWN ON SKEW

**STA = 468+00**  
 P.G. EL. = 571.33  
 FILL = 261 SF  
 CUT = 15 SF  
 TOPSOIL FILL = 34 SF  
 TOPSOIL CUT = 41 SF

**STA = 467+00**  
 P.G. EL. = 571.37  
 FILL = 214 SF  
 CUT = 47 SF  
 TOPSOIL FILL = 20 SF  
 TOPSOIL CUT = 45 SF

**STA = 466+00**  
 P.G. EL. = 571.74  
 FILL = 156 SF  
 CUT = 193 SF  
 TOPSOIL FILL = 34 SF  
 TOPSOIL CUT = 75 SF

**STA = 465+00**  
 P.G. EL. = 572.11  
 FILL = 21 SF  
 CUT = 280 SF  
 TOPSOIL FILL = 30 SF  
 TOPSOIL CUT = 77 SF

**STA = 464+00**  
 P.G. EL. = 572.48  
 FILL = 60 SF  
 CUT = 274 SF  
 TOPSOIL FILL = 25 SF  
 TOPSOIL CUT = 78 SF

**STA = 463+00**  
 P.G. EL. = 572.85  
 FILL = 87 SF  
 CUT = 239 SF  
 TOPSOIL FILL = 24 SF  
 TOPSOIL CUT = 77 SF

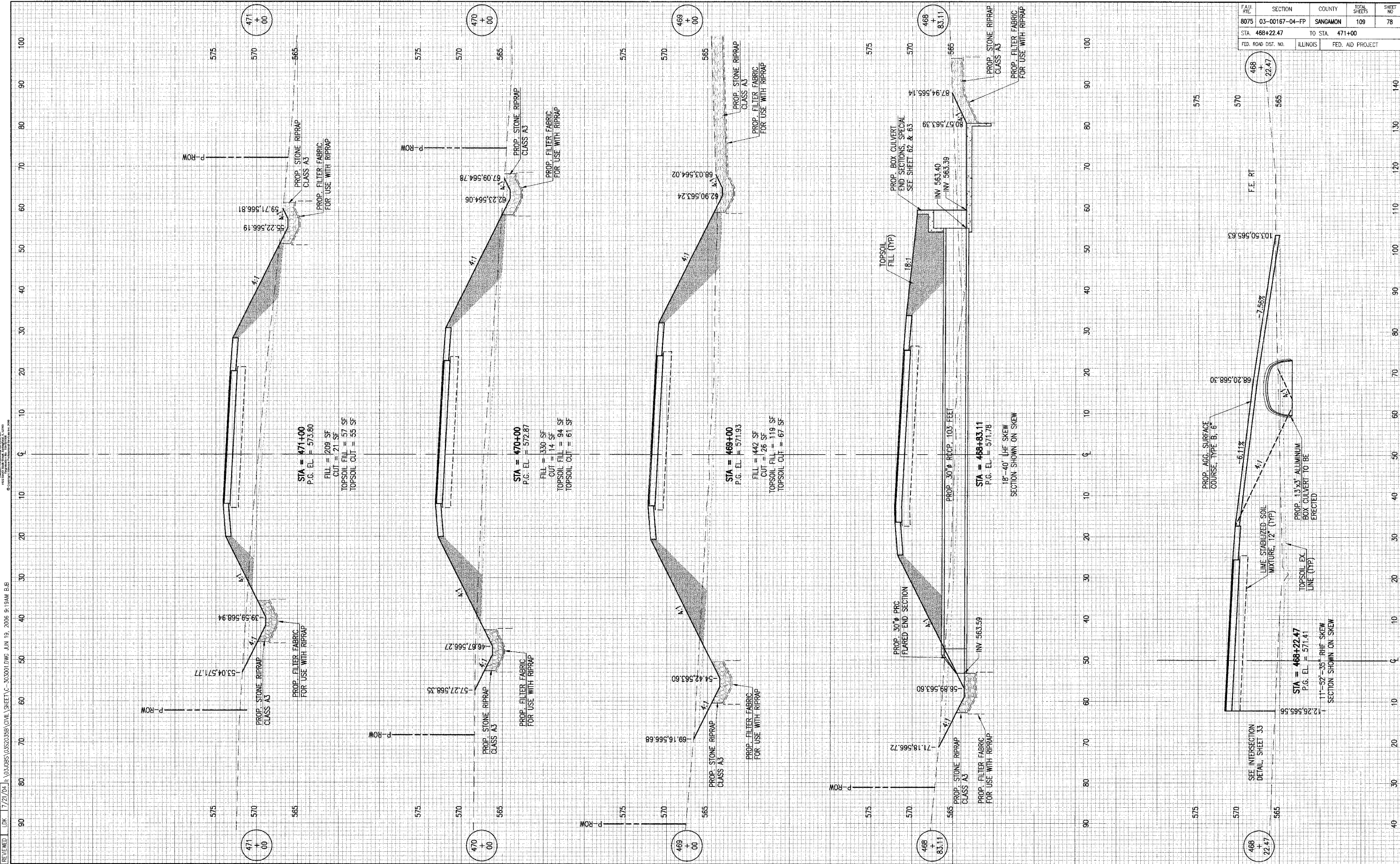
CARDINAL HILL ROAD

LAYOUT  
DRAWN  
REVIEWED

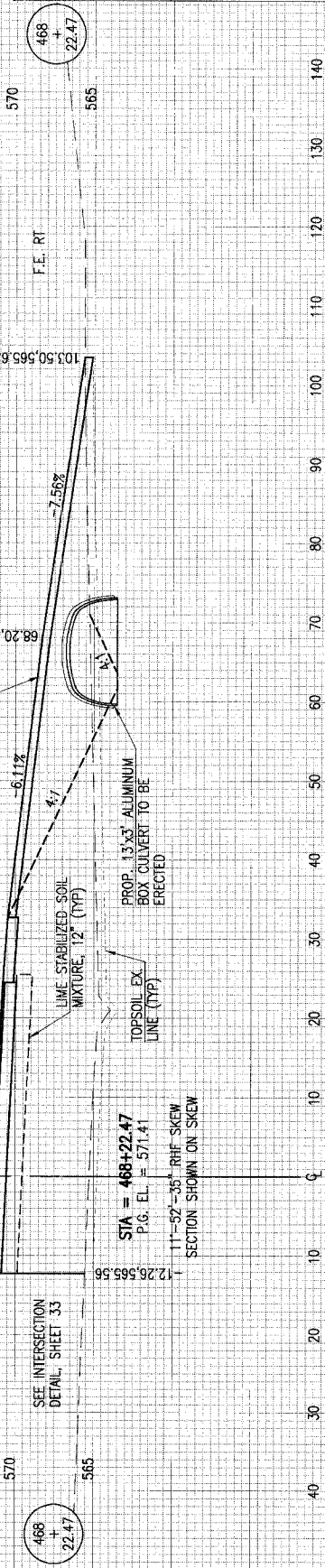
B.B. 3/15/04  
B.B. 7/22/04  
D.K. 1/21/04



03:0001 DWG JUN 19, 2006 9:19AM B.B.



| FAU No.             | SECTION        | COUNTY        | TOTAL SHEETS     | SHEET NO. |
|---------------------|----------------|---------------|------------------|-----------|
| 8075                | 03-00167-04-FP | SANGAMON      | 109              | 78        |
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| FED. ROAD DIST. NO. |                | ILLINOIS      | FED. AID PROJECT |           |



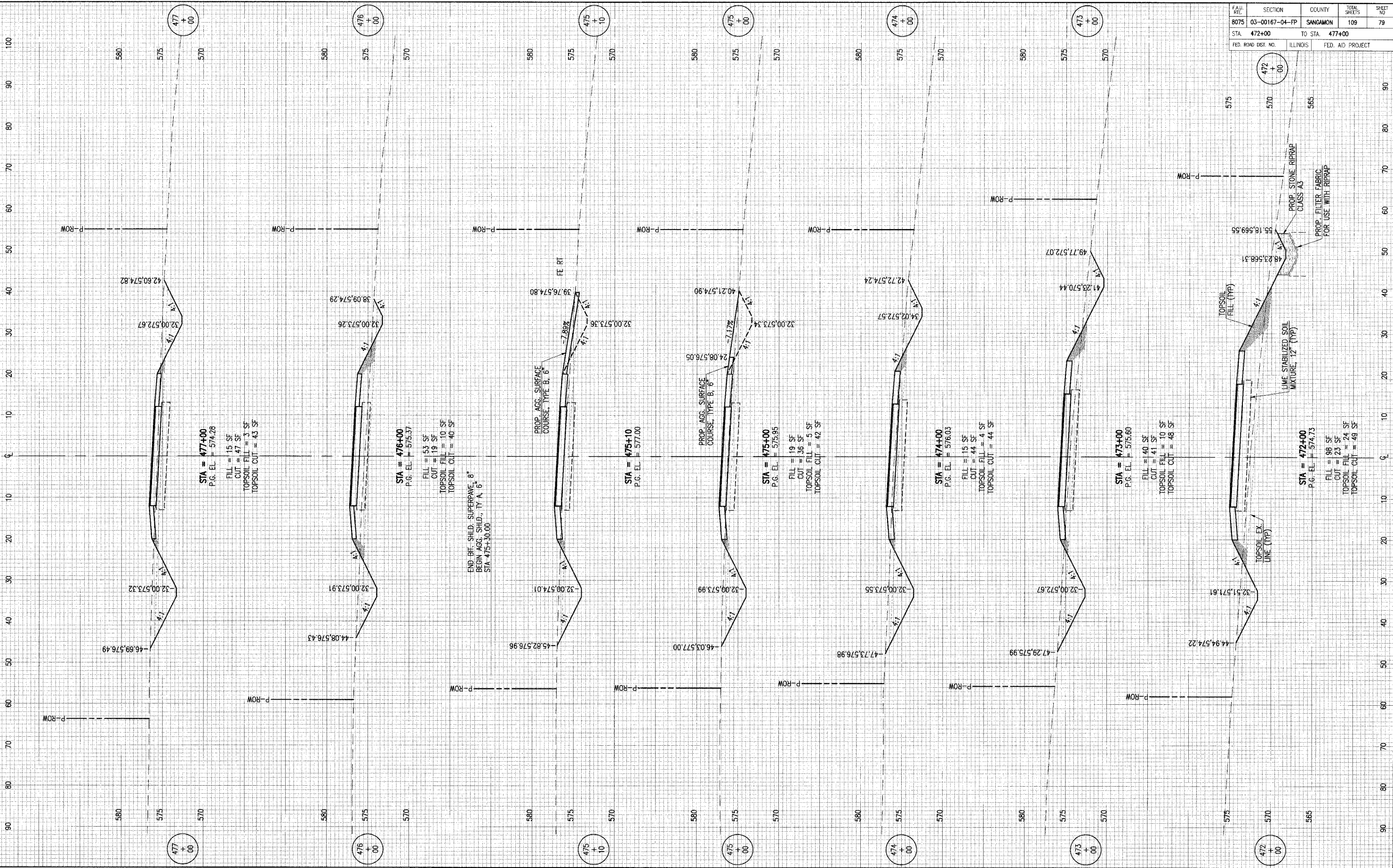
LAYOUT  
DRAWN  
REVIEWED

B.B. 3/15/04  
P.B. 7/22/04  
L.W. 1/22/04



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Hanson Engineering, Inc., 1000 North 10th Street, Suite 200, Lincoln, NE 68502

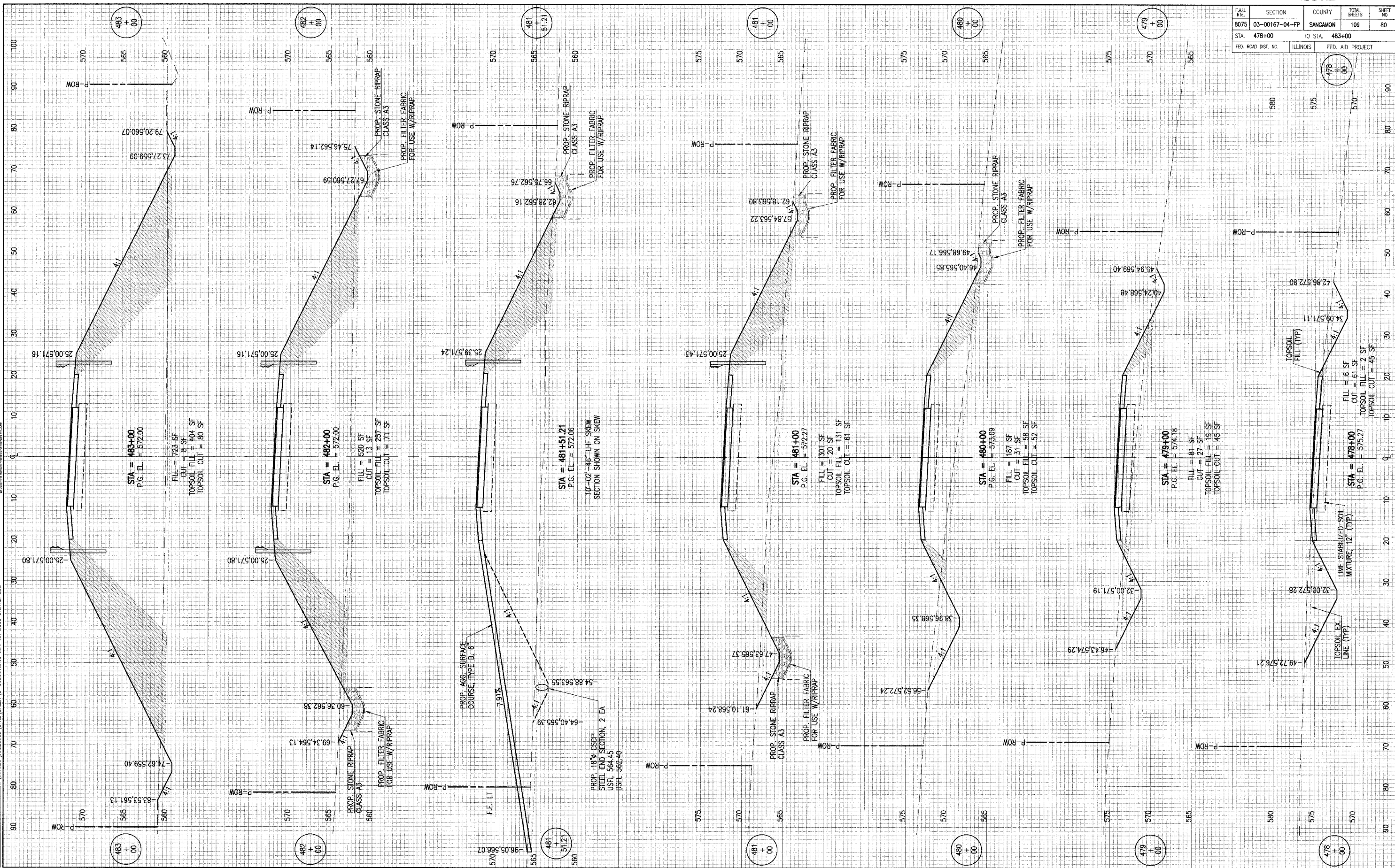
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SHEET: C-394001.DWG  
DATE: JUN 19, 2006 9:20AM B.B.



| FAU. AVE.           | SECTION        | COUNTY         | TOTAL SHEETS     | SHEET NO. |
|---------------------|----------------|----------------|------------------|-----------|
| 8075                | 03-00167-04-FP | SANGAMON       | 109              | 79        |
| STA 472+00          |                | TO STA. 477+00 |                  |           |
| FED. ROAD DIST. NO. |                | ILLINOIS       | FED. AID PROJECT |           |

LAYOUT B.B. 3/15/04  
 DRAWN B.B. 7/22/04  
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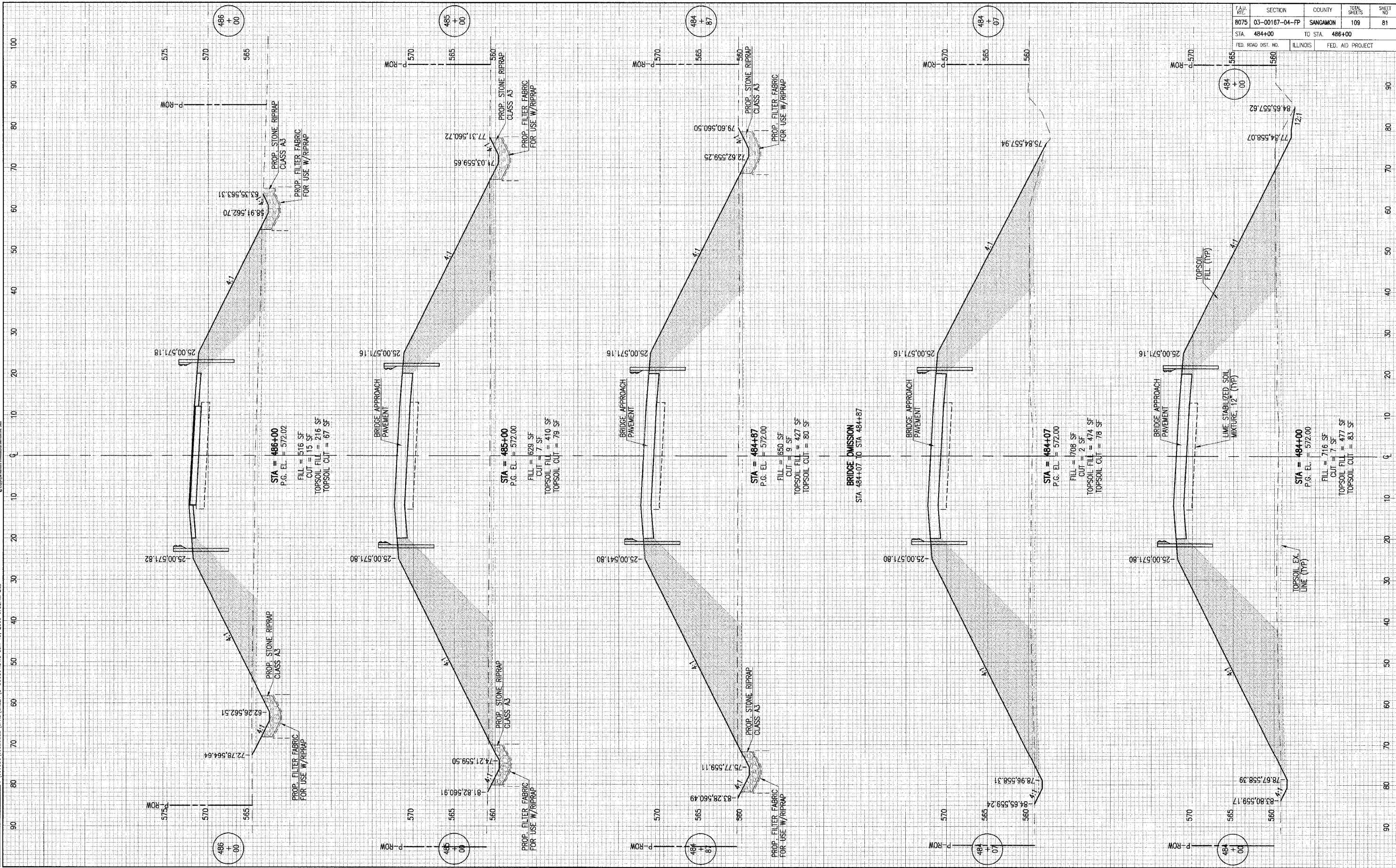


| F.A. NO.            | SECTION        | COUNTY         | TOTAL SHEETS     | SHEET NO. |
|---------------------|----------------|----------------|------------------|-----------|
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| STA. 478+00         |                | TO STA. 483+00 |                  |           |
| FED. ROAD DIST. NO. |                | ILLINOIS       | FED. AID PROJECT |           |



LAYOUT B.B. 3/15/04  
 DRAWN B.B. 7/22/04  
 REVIEWED LDK 1/27/04

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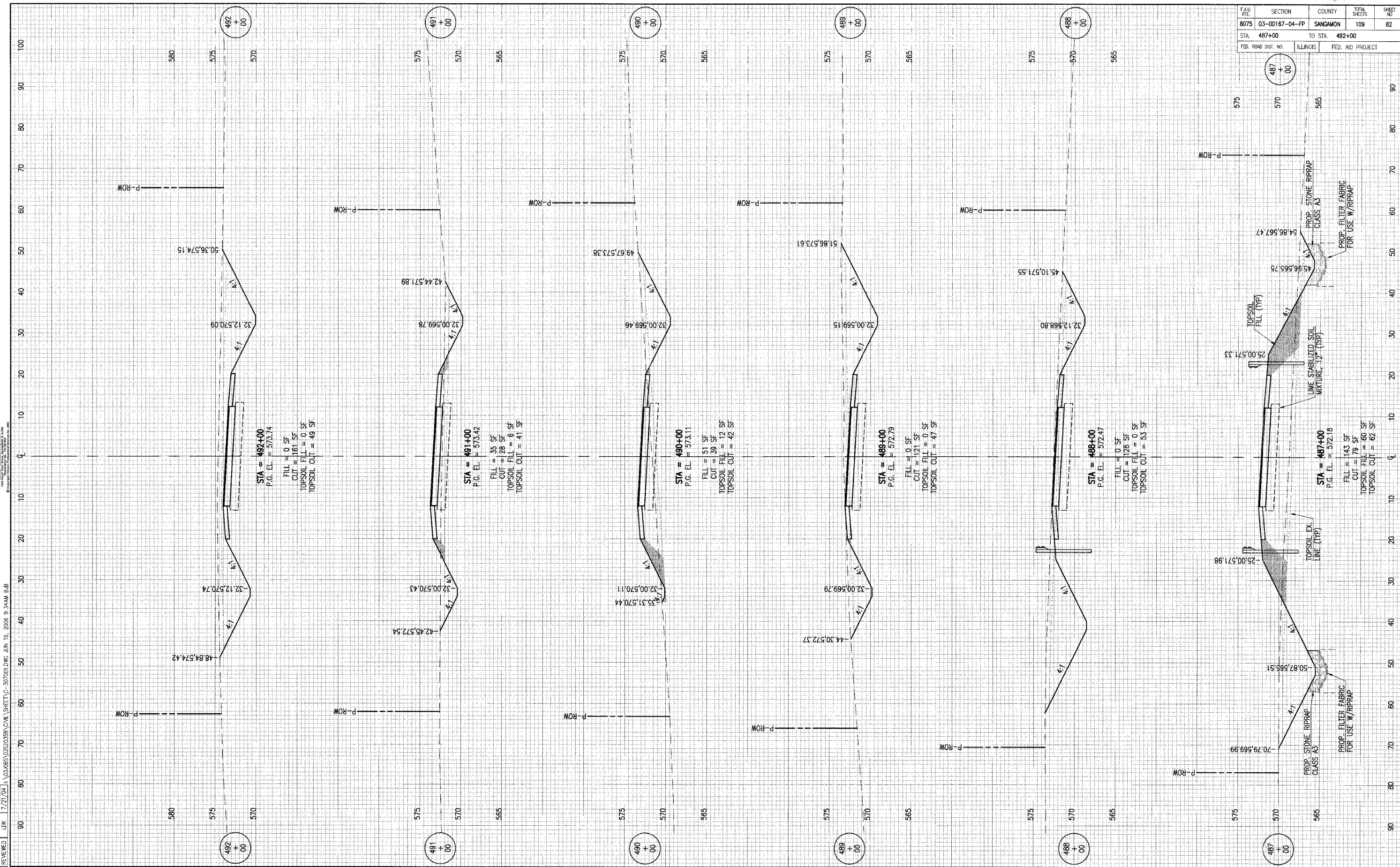


| FAU. ATE.           | SECTION        | COUNTY         | TOTAL SHEETS     | SHEET NO. |
|---------------------|----------------|----------------|------------------|-----------|
| 8075                | 03-00187-04-FP | SANGAMON       | 109              | 81        |
| STA. 484+00         |                | TO STA. 486+00 |                  |           |
| FED. ROAD DIST. NO. |                | ILLINOIS       | FED. AID PROJECT |           |

LAYOUT B.B. 3/15/04  
 DRAWN B.B. 7/22/04  
 REVIEWED LUK 7/27/04



03-00167-04-FP  
 03-00167-04-FP



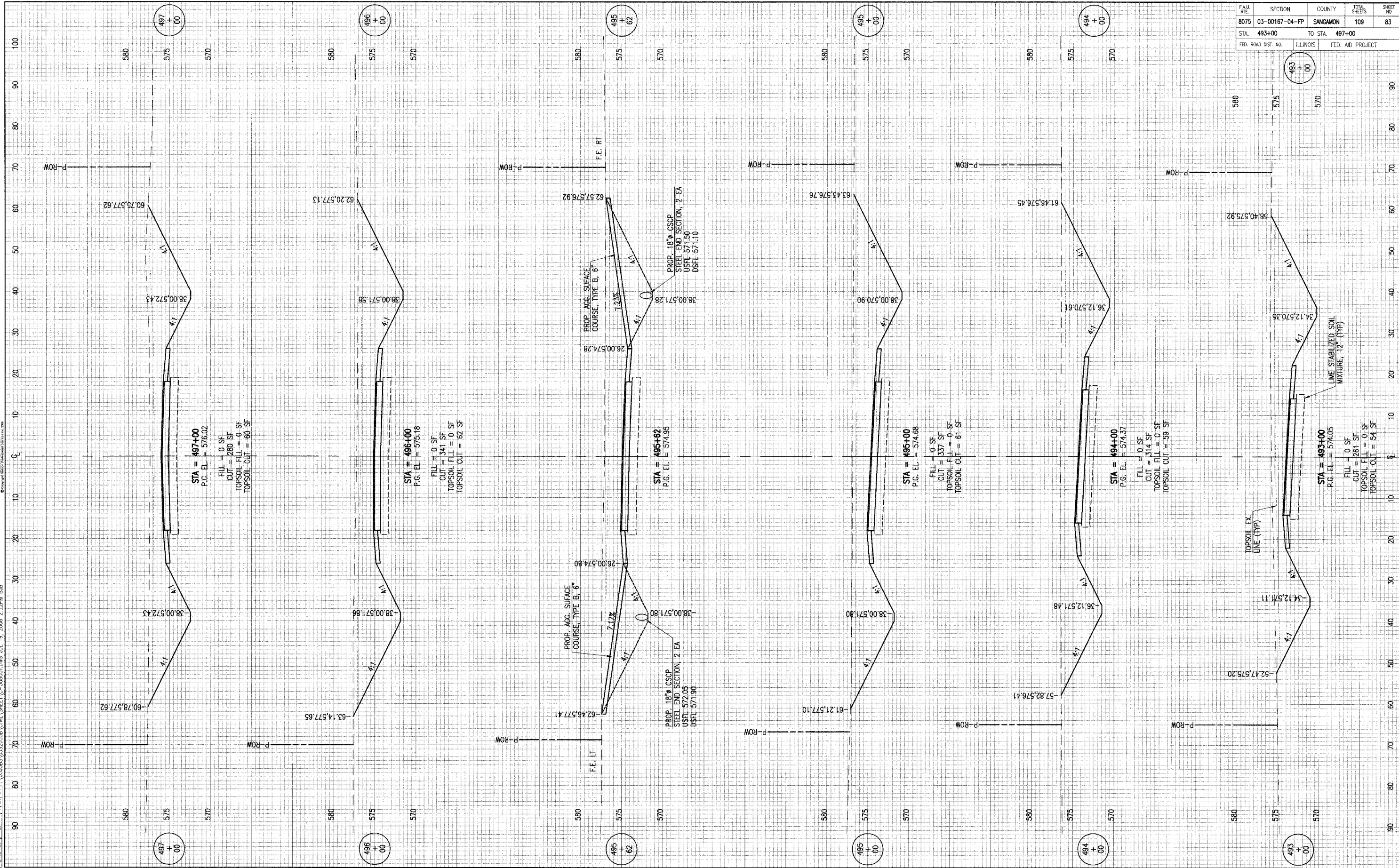
| FAU. RITE           | SECTION        | COUNTY         | TOTAL SHEETS     | SHEET NO. |
|---------------------|----------------|----------------|------------------|-----------|
| 8075                | 03-00167-04-FP | SANGAMON       | 109              | 82        |
| STA. 487+00         |                | TO STA. 492+00 |                  |           |
| FED. ROAD DIST. NO. |                | ILLINOIS       | FED. AID PROJECT |           |

LAYOUT  
DRAWN  
REVIEWED

B.B. 13/15/04  
B.B. 7/22/04  
D.K. 7/27/04



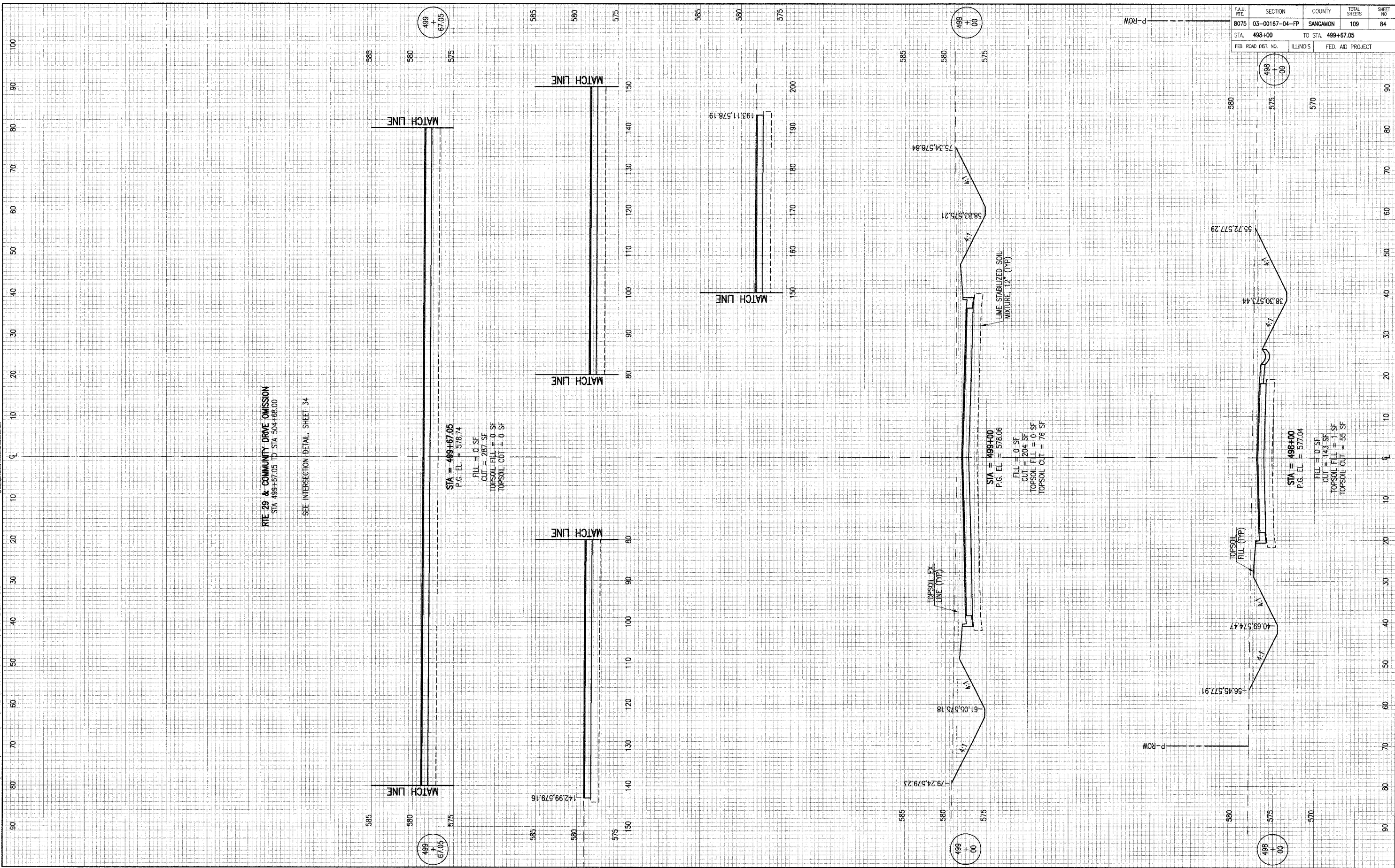
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| STA. 493+00         |                | TO STA. 497+00 |                  |           |
| FED. ROAD DIST. NO. |                | ILLINOIS       | FED. AID PROJECT |           |

LAYOUT BB 1/15/04  
 DRAWN BJS 7/27/04  
 REVIEWED CLK 7/27/04

\\03\proj\03520359\civil\sheet\C-390001.DWG JUL 19, 2006 2:23PM BJB



RTE 29 & COMMUNITY DRIVE OMISSION  
 STA 499+67.05 TO STA 504+68.00

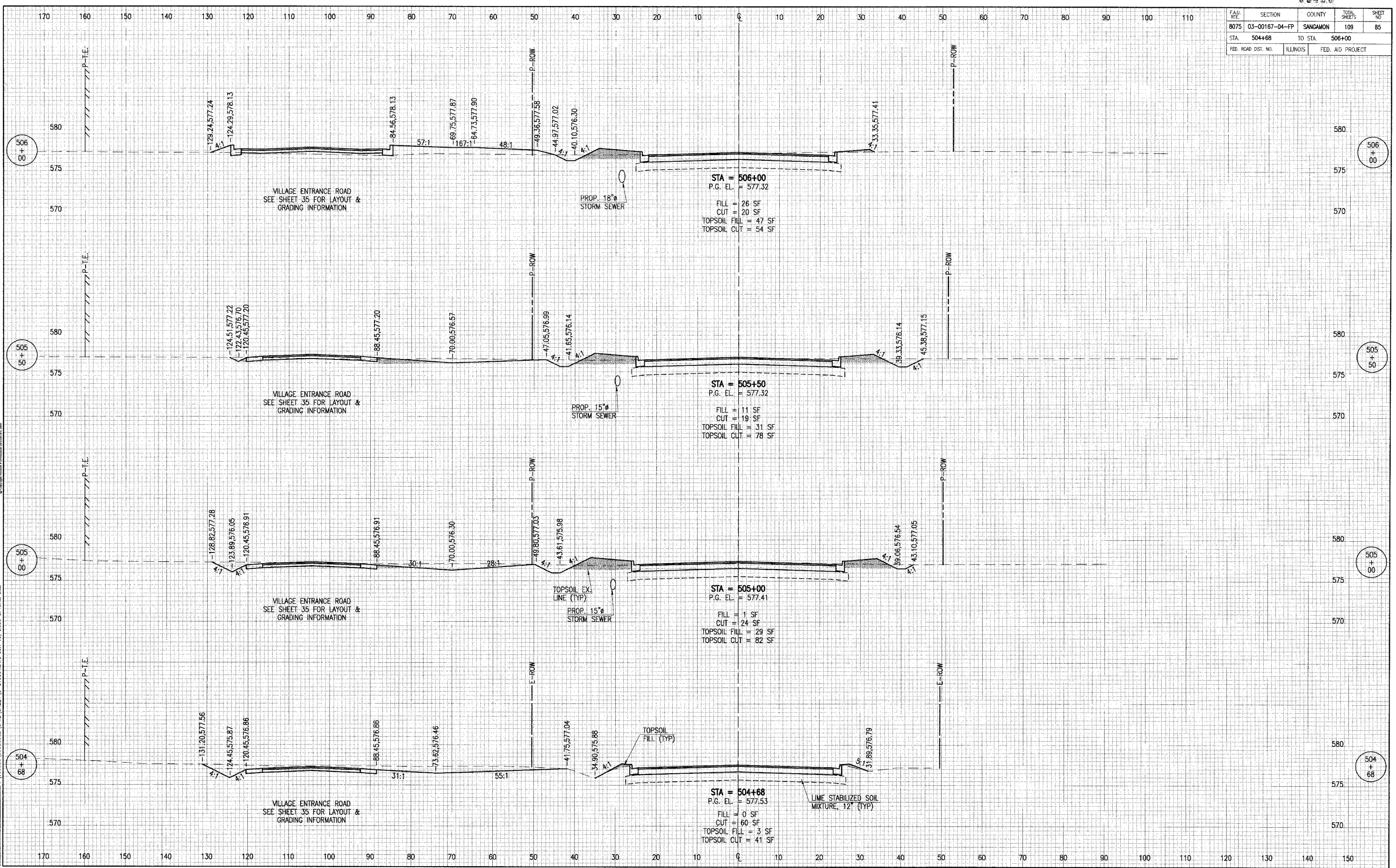
SEE INTERSECTION DETAIL, SHEET 34

| FAU. RTE.           | SECTION          | COUNTY           | TOTAL SHEETS | SHEET NO. |
|---------------------|------------------|------------------|--------------|-----------|
| 8075                | 03-00167-04-FP   | SANGAMON         | 109          | 84        |
| STA 498+00          | TO STA 499+67.05 |                  |              |           |
| FED. ROAD DIST. NO. | ILLINOIS         | FED. AID PROJECT |              |           |

| F.A.U. NO.          | SECTION        | COUNTY         | TOTAL SHEETS     | SHEET NO. |
|---------------------|----------------|----------------|------------------|-----------|
| 8075                | 03-00167-04-FP | SANGAMON       | 109              | 85        |
| STA. 504+68         |                | TO STA. 506+00 |                  |           |
| FED. ROAD DIST. NO. |                | ILLINOIS       | FED. AID PROJECT |           |



LAYOUT B.B. 3/15/04  
 DRAWN B.B. 7/22/04  
 REVIEWED LDK 7/27/04  
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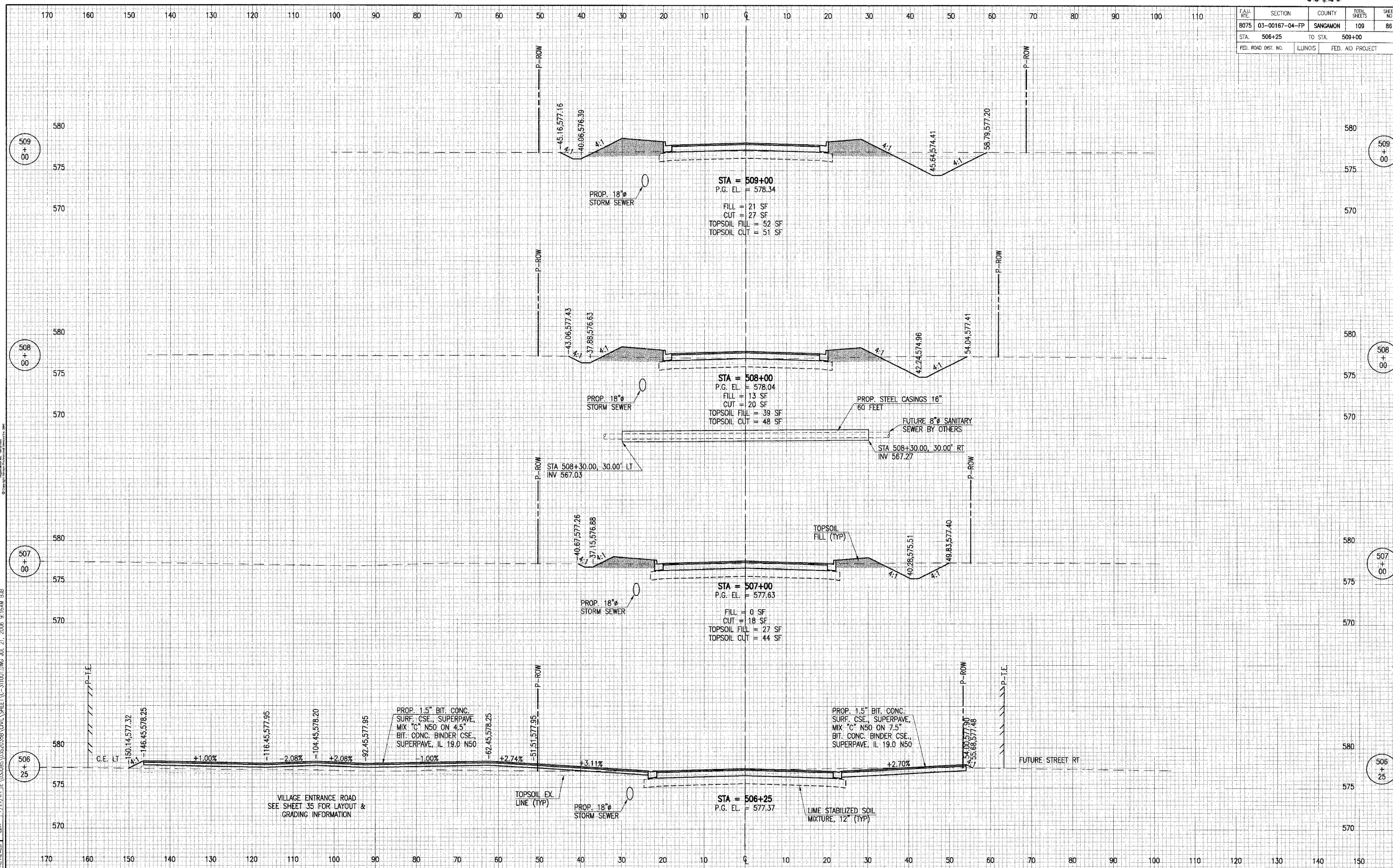
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 P.G. EL. = 577.32  
 FILL = 26 SF  
 CUT = 20 SF  
 TOPSOIL FILL = 47 SF  
 TOPSOIL CUT = 54 SF

STA = 505+50  
 P.G. EL. = 577.32  
 FILL = 11 SF  
 CUT = 19 SF  
 TOPSOIL FILL = 31 SF  
 TOPSOIL CUT = 78 SF

STA = 505+00  
 P.G. EL. = 577.41  
 FILL = 1 SF  
 CUT = 24 SF  
 TOPSOIL FILL = 29 SF  
 TOPSOIL CUT = 82 SF

STA = 504+68  
 P.G. EL. = 577.53  
 FILL = 0 SF  
 CUT = 60 SF  
 TOPSOIL FILL = 3 SF  
 TOPSOIL CUT = 41 SF

| FAU. RTIC.          | SECTION        | COUNTY         | TOTAL SHEETS     | SHEET NO. |
|---------------------|----------------|----------------|------------------|-----------|
| 8075                | 03-00167-04-FP | SANGAMON       | 109              | 86        |
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| FED. ROAD DIST. NO. |                | ILLINOIS       | FED. AID PROJECT |           |

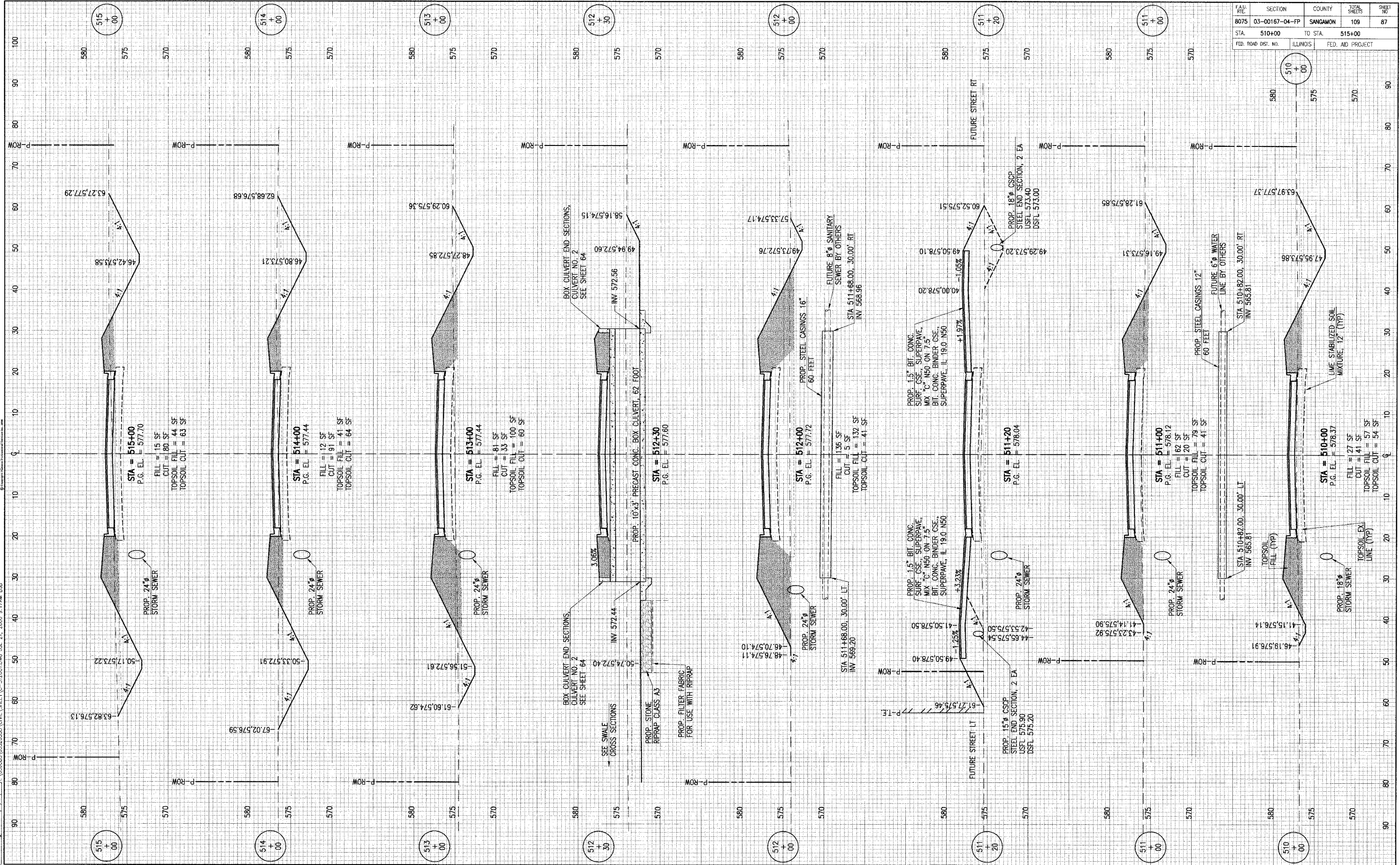


LAYOUT 3/15/04  
 DRAWN 5/18/04  
 REVIEWED 7/21/04  
 I:\03\085\03203489\CIVIL\PROJECT\311001.DWG JUL 21, 2006 9:16AM RJB

VILLAGE ENTRANCE ROAD  
 SEE SHEET 35 FOR LAYOUT &  
 GRADING INFORMATION

LAYOUT 6/6 3/15/04  
 DRAWN 6/6 7/22/04  
 REVIEWED LDK 1/27/04

\\03-c085\0332038P\Civil\Sheet\_C-372001.DWG Jul 21, 2006 9:17AM EJB



| FAU. FILE                  | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO. |
|----------------------------|----------------|------------------|--------------|-----------|
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| FED. ROAD DIST. NO.        | ILLINOIS       | FED. AID PROJECT |              |           |

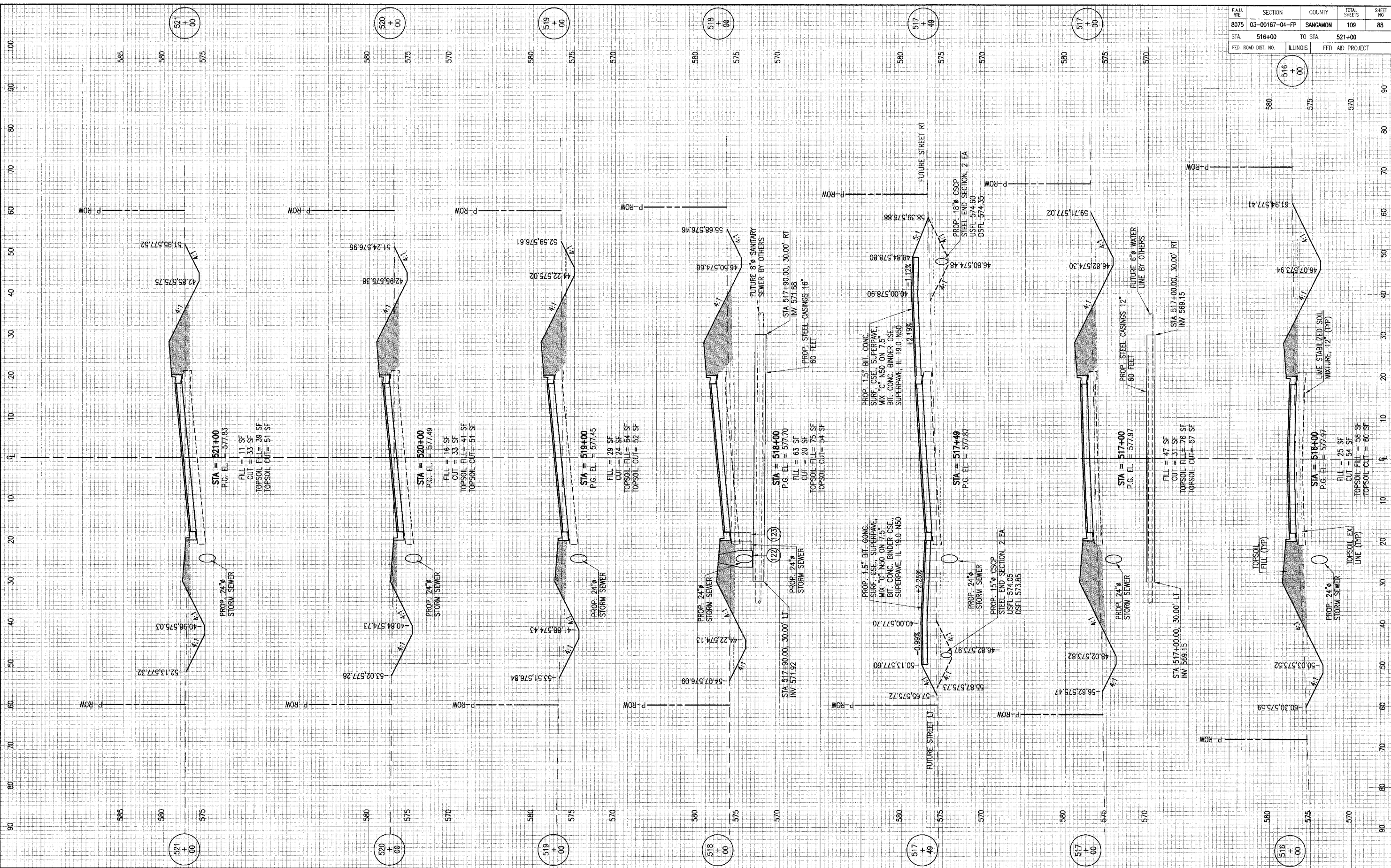
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DRAWN  
REVIEWED

BB 3/15/04  
BAB 7/22/04  
LDX 1/27/04

03-0065\0352049\CIVIL SHEET\03-31001.DWG, JUL 21, 2006 9:18AM BJB



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| FAU. NO.            | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO. |
|---------------------|----------------|------------------|--------------|-----------|
| 8075                | 03-00167-04-FP | SANGAMON         | 108          | 88        |
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| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |           |



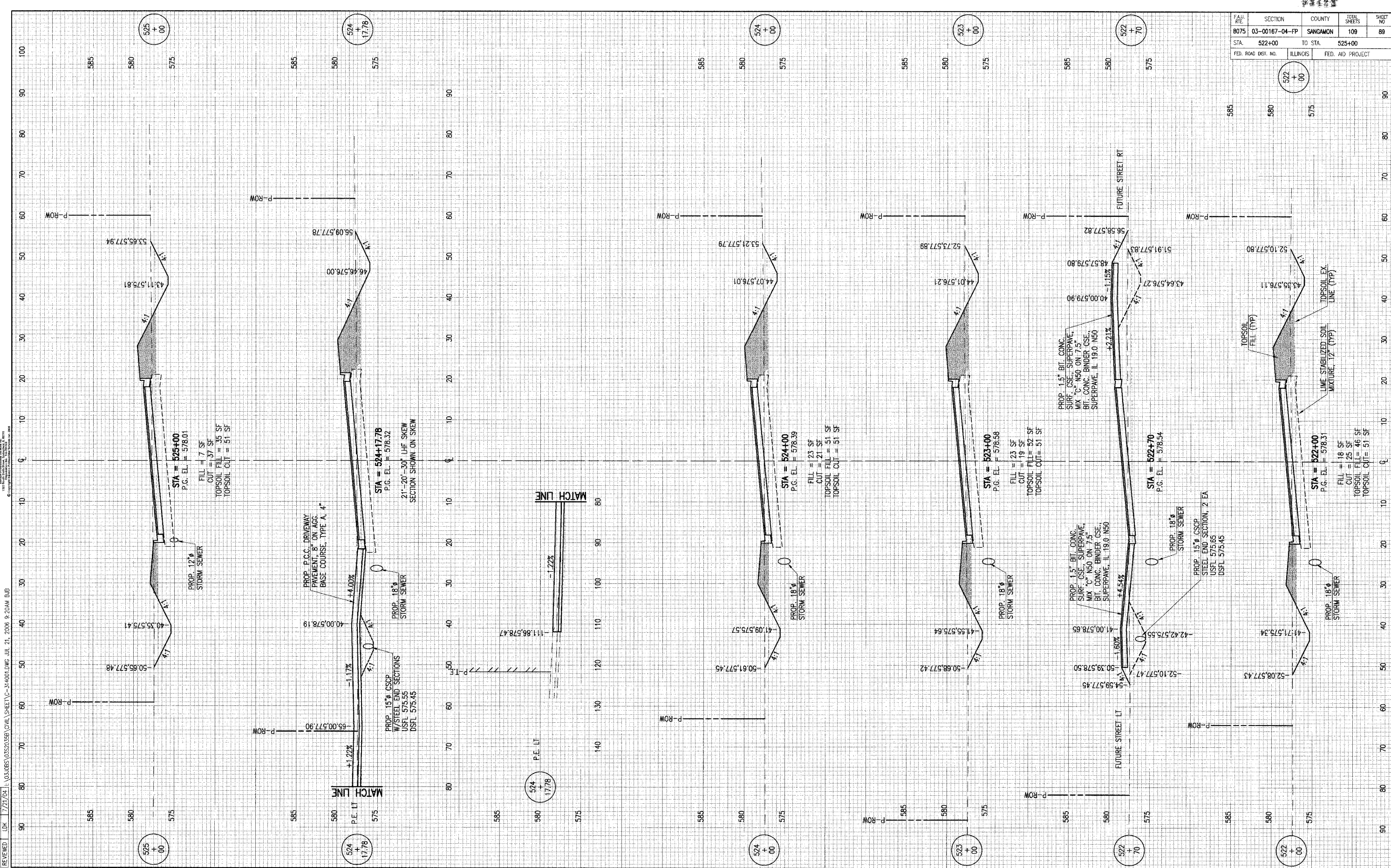
LAYOUT  
 DRAWN  
 REVIEWED

3/15/04  
 7/22/04  
 7/27/04

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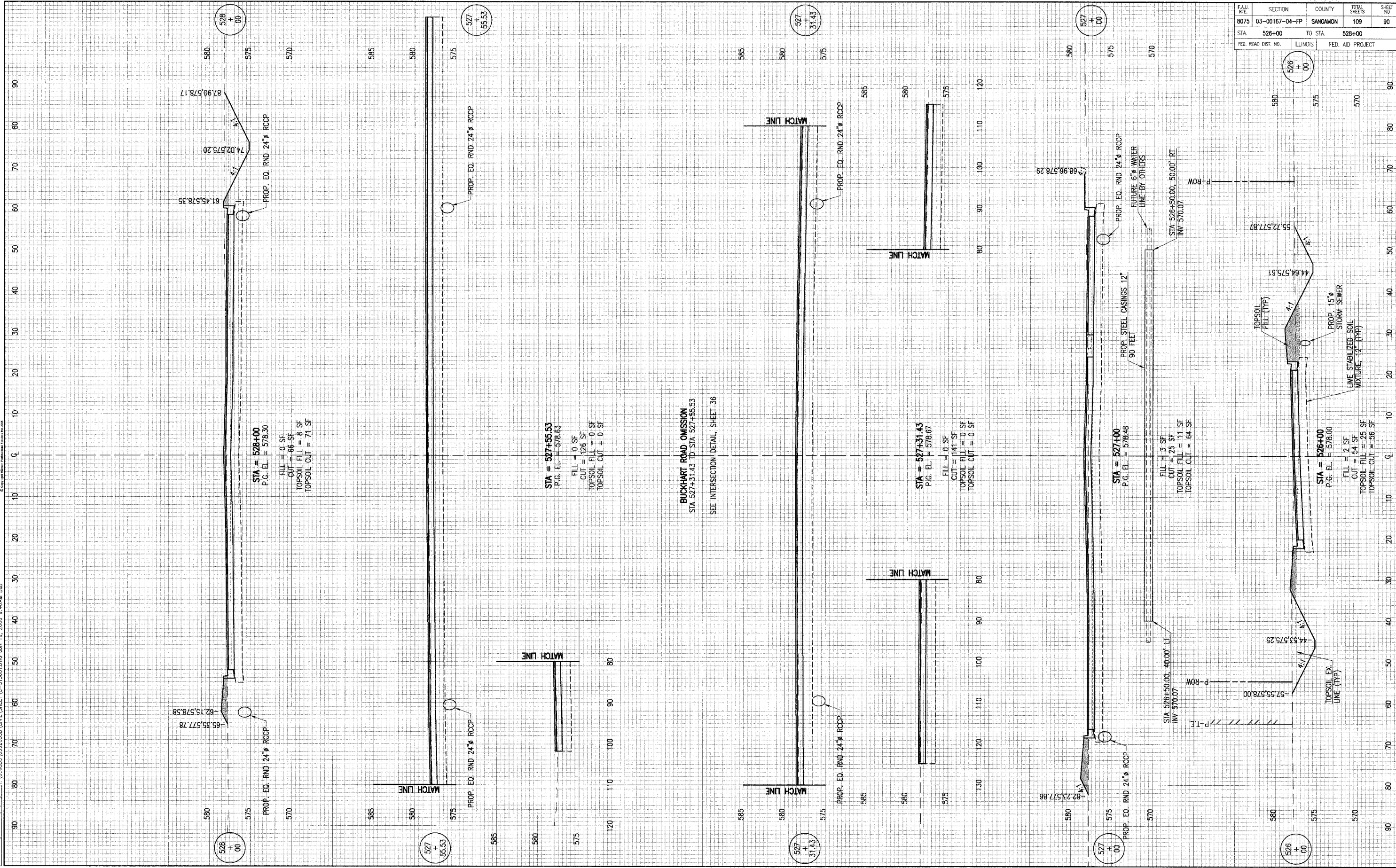
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| FAU. #              | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO. |
|---------------------|----------------|------------------|--------------|-----------|
| 8075                | 03-00167-04-FP | SANGAMON         | 109          | 89        |
| STA. 522+00         | TO STA. 525+00 |                  |              |           |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |           |

LAYOUT B.B. 3/15/04  
 DRAWN B.B. 7/22/04  
 REVIEWED D.K. 7/27/04

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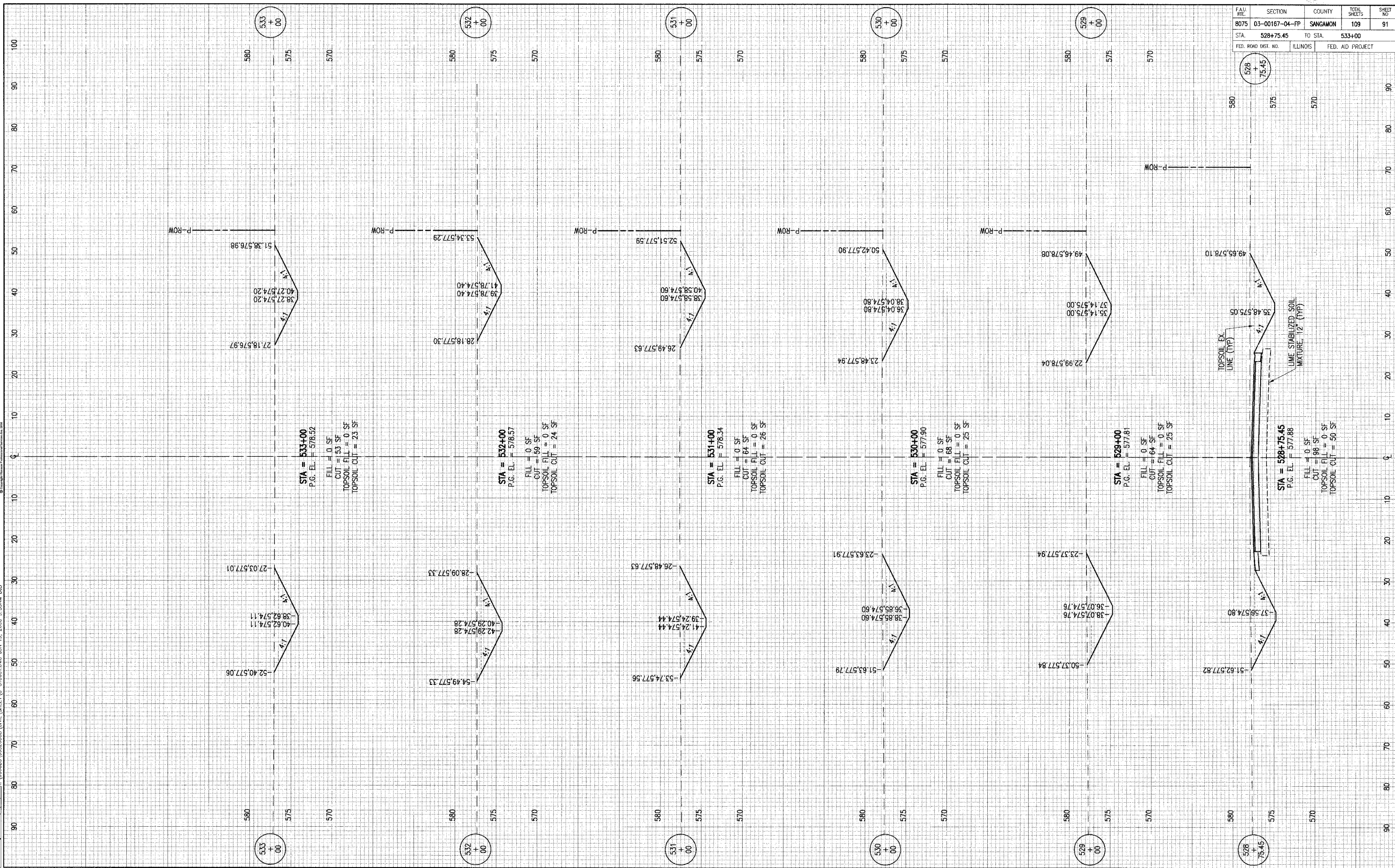
| FAU. NO.            | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO. |
|---------------------|----------------|------------------|--------------|-----------|
| 8075                | 03-00167-04-FP | SANGAMON         | 109          | 90        |
| STA                 | 526+00         | TO STA           | 528+00       |           |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |           |

LAYOUT  
DRAWN  
REVIEWED

B:BB 3/15/04  
B:BB 7/22/04  
EDK 7/27/04



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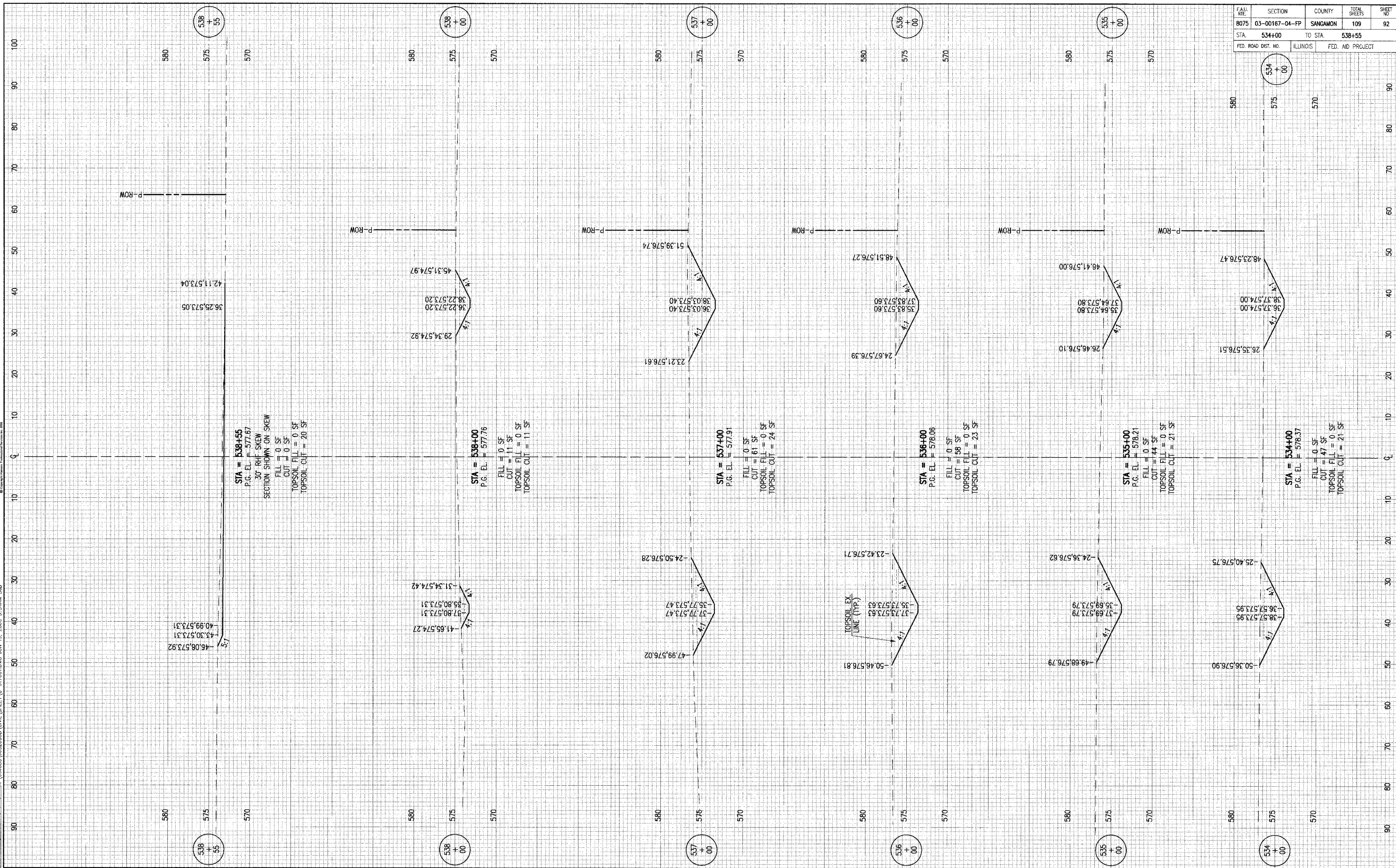


| FAU. RITE           | SECTION        | COUNTY   | TOTAL SHEETS     | SHEET NO. |
|---------------------|----------------|----------|------------------|-----------|
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| STA. 528+75.45      |                | TO STA.  | 533+00           |           |
| FED. ROAD DIST. NO. |                | ILLINOIS | FED. AID PROJECT |           |

CARDINAL HILL ROAD

LAYOUT B.B. 3/15/04  
 DRAWN S.B. 7/22/04  
 REVIEWED C.K. 7/27/04

\\03A005\03520358\CIVIL\SHET\C-317001.DWG JUN 19 2006 9:54AM B.B.



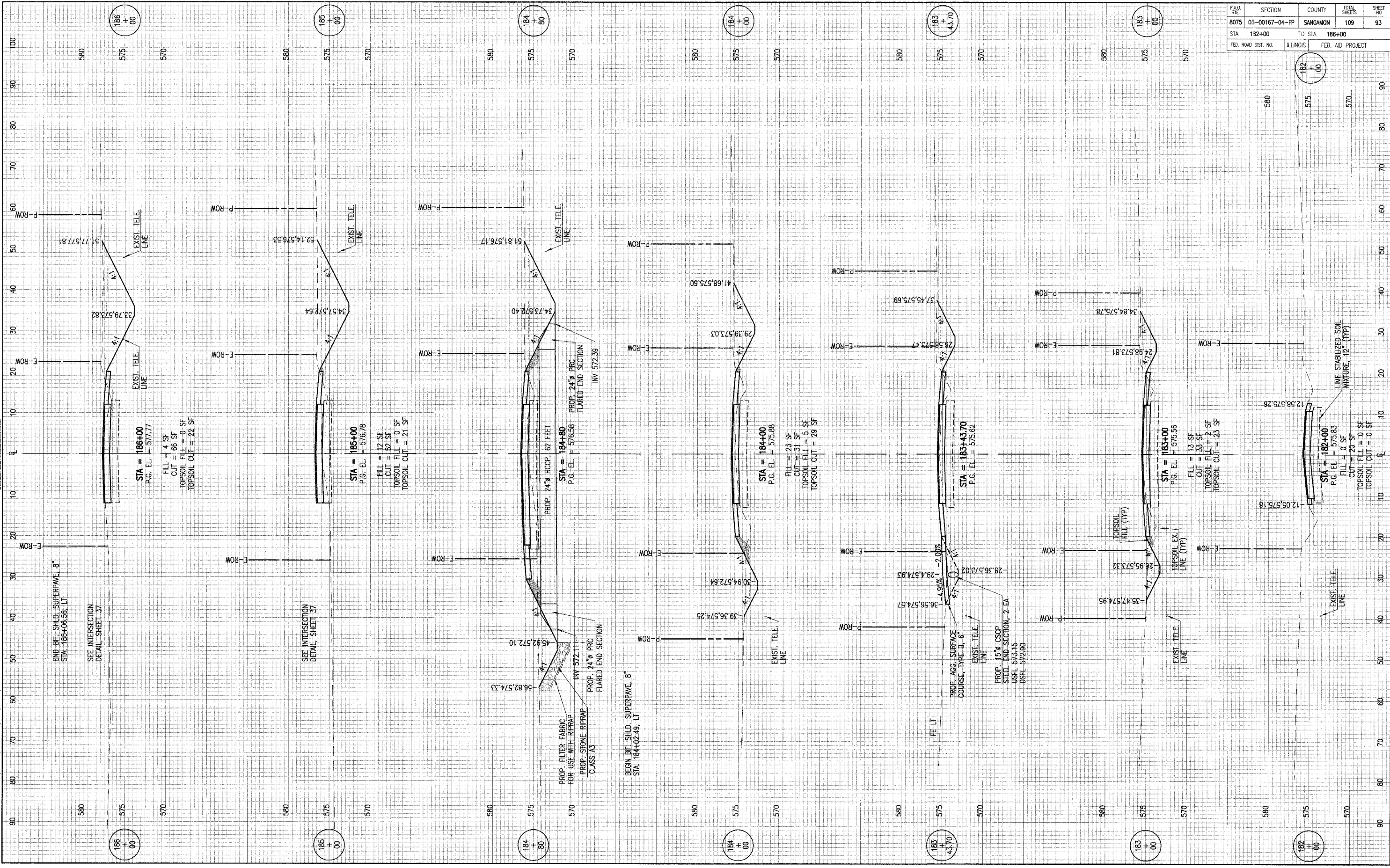
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|---------------------|----------------|------------------|--------------|-----------|
| 8075                | 03-00167-04-FP | SANGAMON         | 109          | 92        |
| STA. 534+00         |                | TO STA. 538+55   |              |           |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |           |

LAYOUT  
DRAWN  
REVIEWED

8/6 1/15/04  
8/6 7/27/04  
8/6 7/27/04



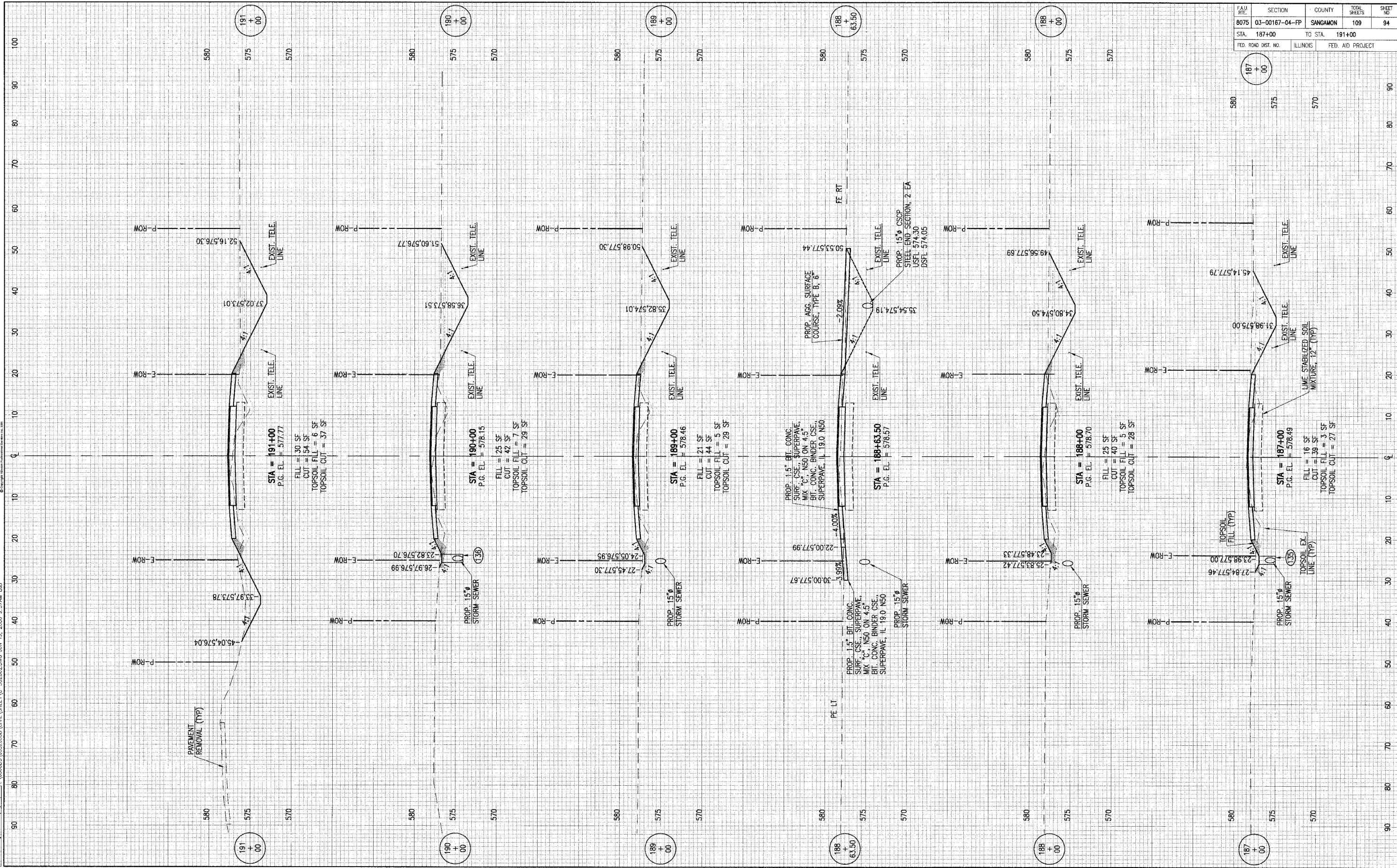
301002.DWG JUN 19, 2006 9:56AM B.LB  
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| F.A.U. NO.          | SECTION        | COUNTY   | TOTAL SHEETS     | SHEET NO. |
|---------------------|----------------|----------|------------------|-----------|
| 8075                | 03-00167-04-FP | SANGAMON | 109              | 93        |
| STA. 182+00         |                | TO STA.  | 186+00           |           |
| FED. ROAD DIST. NO. |                | ILLINOIS | FED. AID PROJECT |           |

LAYOUT BB 3/15/04  
 DRAWN BB 7/27/04  
 REVIEWED LOK 7/27/04

\\03\005\03520\049\CIVIL\SHETS\C-302002.DWG MIN. 19. 2008 9:57AM BAR



| FAU FILE            | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO. |
|---------------------|----------------|------------------|--------------|-----------|
| 8075                | 03-00167-04-FP | SANGAMON         | 109          | 94        |
| STA. 187+00         | TO STA. 191+00 |                  |              |           |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |           |

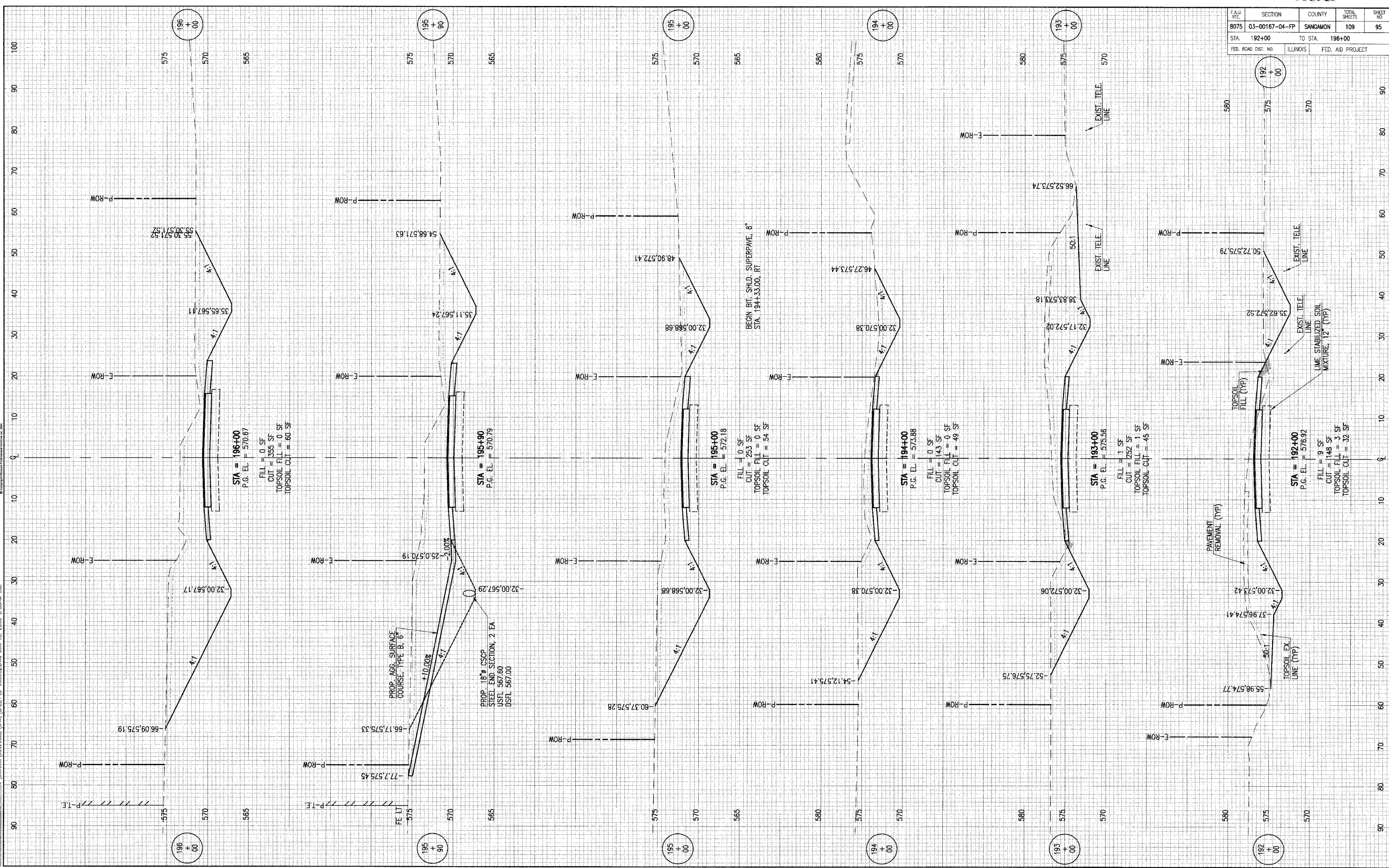
93423

LAYOUT  
DRAWN  
REVIEWED

BAB 3/15/04  
EAB 7/22/04  
LDK 7/27/04



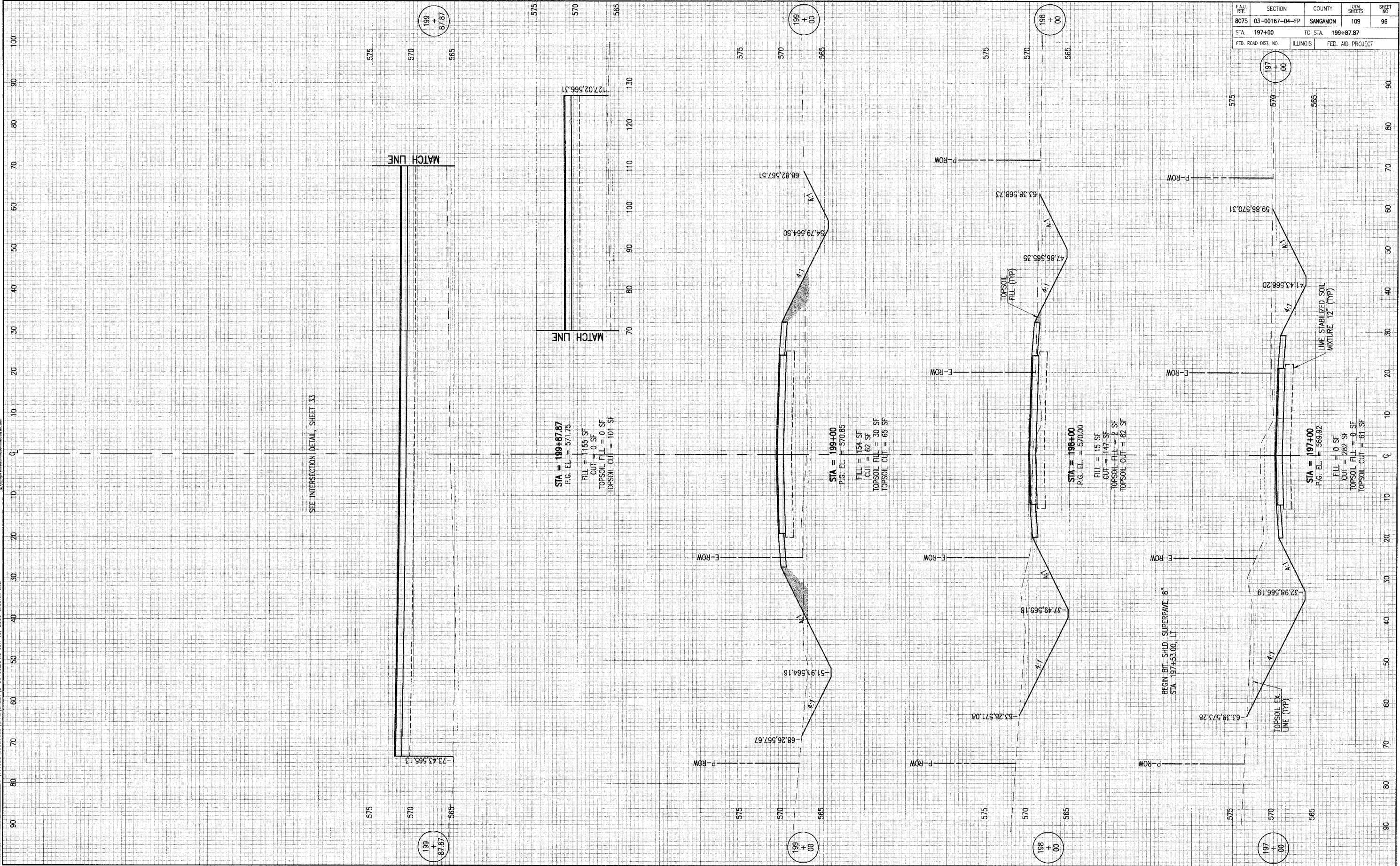
03\3025\035\20358\CVIL\SHET\1-30302.DWG JUN 19, 2006 9:58AM BJB



| FAU. SITE           | SECTION        | COUNTY         | TOTAL SHEETS     | SHEET NO. |
|---------------------|----------------|----------------|------------------|-----------|
| 8075                | 03-00167-04-FP | SANGAMON       | 109              | 95        |
| STA. 192+00         |                | TO STA. 196+00 |                  |           |
| FED. ROAD DIST. NO. |                | ILLINOIS       | FED. AID PROJECT |           |

LAYOUT B.B. 3/15/04  
 DRAWN B.B. 7/22/04  
 REVIEWED LDK 7/22/04

J:\03\BBS\03S03\BIB\CIVIL\SHET\C-30402.DWG JUN 19, 2006 9:59AM BIB



| FAU. RIE.           | SECTION        | COUNTY            | TOTAL SHEETS     | SHEET NO. |
|---------------------|----------------|-------------------|------------------|-----------|
| 8075                | 03-00167-04-FP | SANGAMON          | 109              | 96        |
| STA. 197+00         |                | TO STA. 199+87.87 |                  |           |
| FED. ROAD DIST. NO. |                | ILLINOIS          | FED. AID PROJECT |           |

SEE INTERSECTION DETAIL, SHEET 33

STA = 199+87.87  
 P.G. EL. = 571.75  
 FILL = 165 SF  
 CUT = 0 SF  
 TOPSOIL FILL = 0 SF  
 TOPSOIL CUT = 101 SF

STA = 199+00  
 P.G. EL. = 570.85  
 FILL = 154 SF  
 CUT = 62 SF  
 TOPSOIL FILL = 30 SF  
 TOPSOIL CUT = 65 SF

STA = 198+00  
 P.G. EL. = 570.00  
 FILL = 15 SF  
 CUT = 147 SF  
 TOPSOIL FILL = 2 SF  
 TOPSOIL CUT = 62 SF

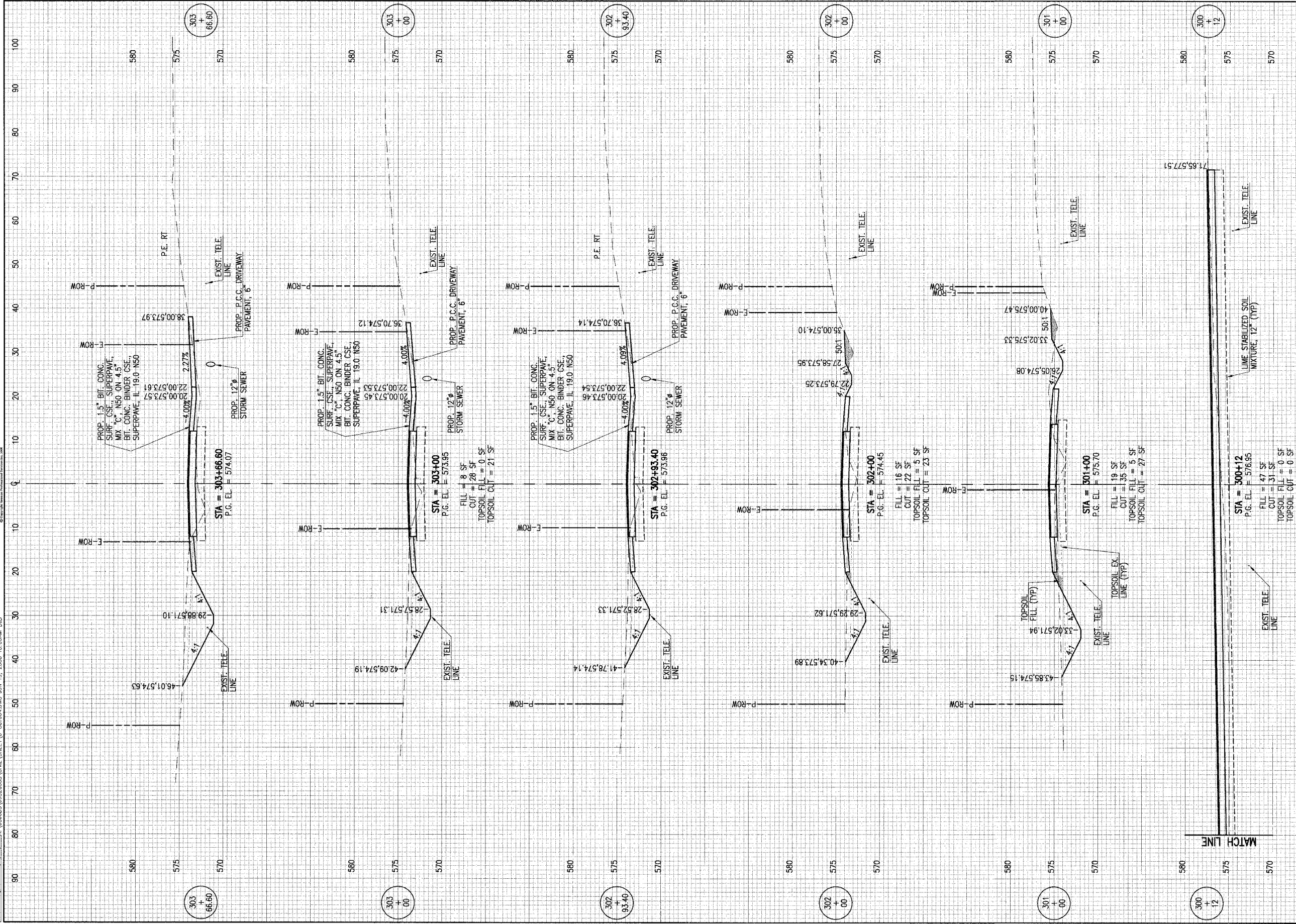
STA = 197+00  
 P.G. EL. = 569.92  
 FILL = 0 SF  
 CUT = 282 SF  
 TOPSOIL FILL = 0 SF  
 TOPSOIL CUT = 61 SF

BEGIN BIT. SHLD. SUPERPAVE 6"  
 STA. 197+53.00, LT



LAYOUT BB 3/15/04  
 DRAWN BB 7/22/04  
 REVIEWED LOK 7/23/04

03:0085\03202098\CIVIL\PROJECT\301004.DWG JUN 19, 2006 10:00AM BJB



| F.A.M. RTE.                  | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO. |
|------------------------------|----------------|------------------|--------------|-----------|
| 8075                         | 03-00167-04-FP | SANGAMON         | 109          | 97        |
| STA 300+12                   |                | TO STA 303+66.60 |              |           |
| FED. ROAD DIST. NO. ILLINOIS |                | FED. AID PROJECT |              |           |

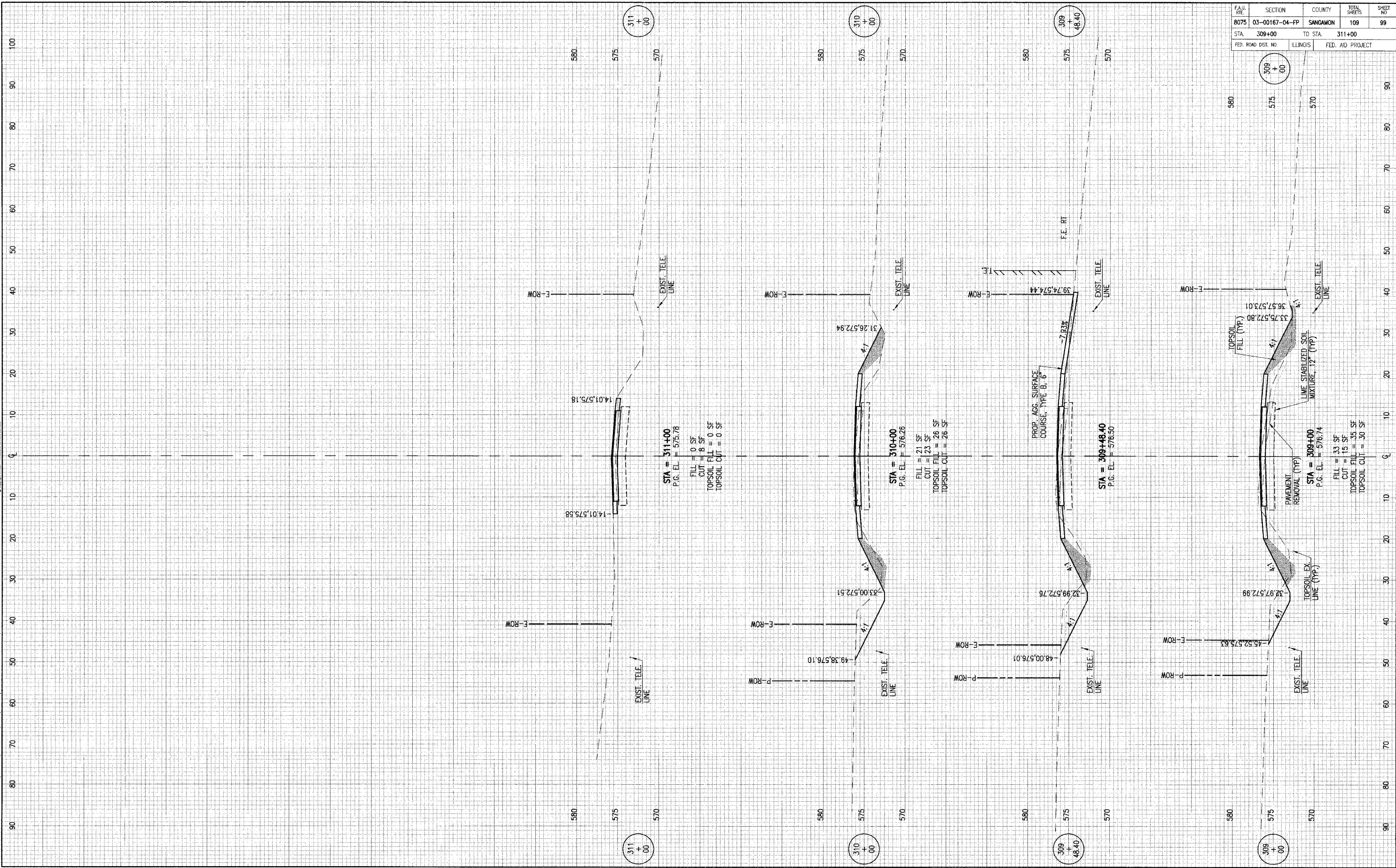
SEE INTERSECTION DETAIL SHEET 37

MATCH LINE



LAYOUT BB 3/15/04  
 DRAWN BB 7/22/04  
 REVIEWED DR 7/22/04

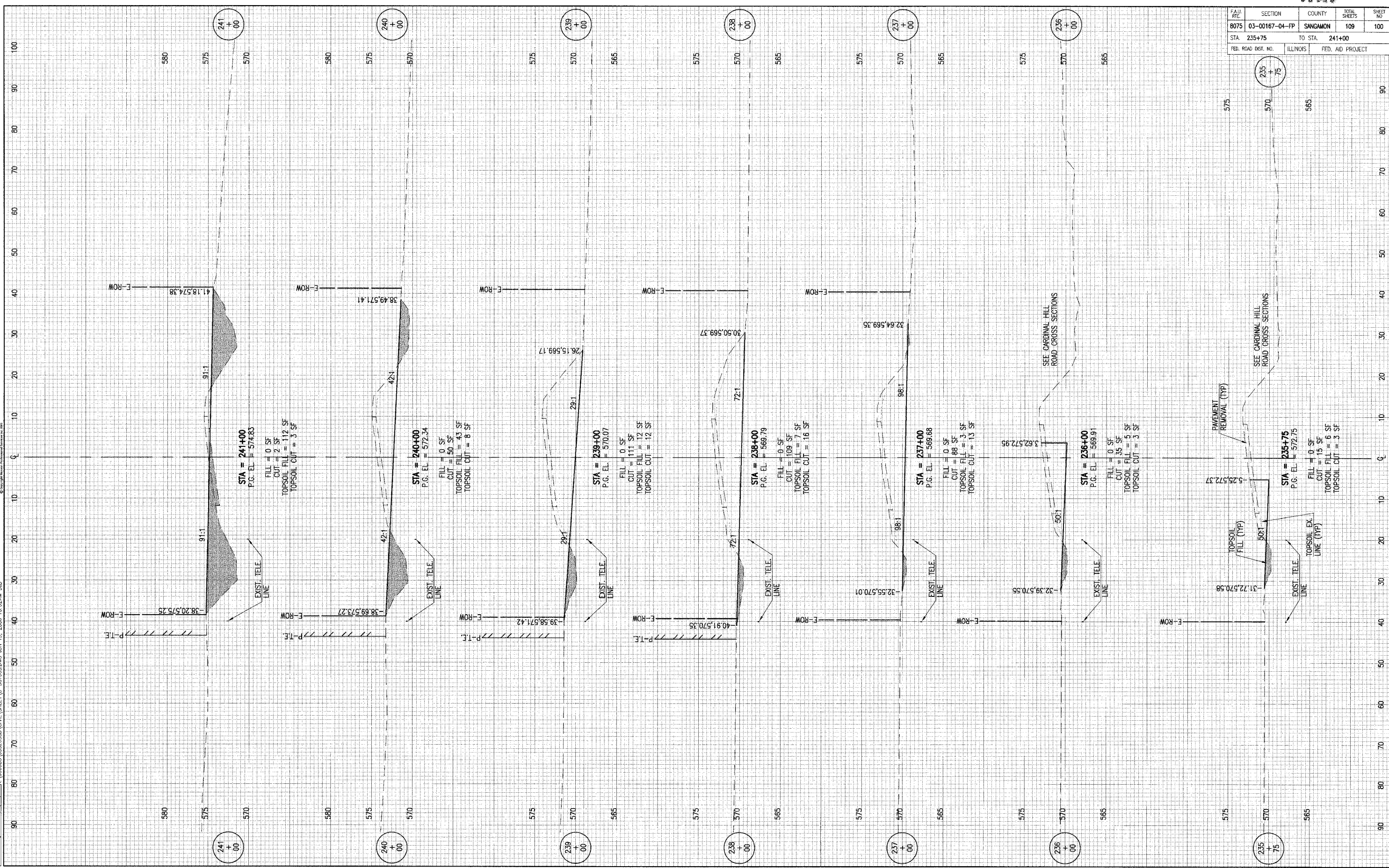
\\03jobs\03520398\Civil\Sheet\3-303004.dwg JUN 19, 2004 10:07AM BJB



| FAU. REC.           | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO. |
|---------------------|----------------|------------------|--------------|-----------|
| 8075                | 03-00167-04-FP | SANGAMON         | 109          | 99        |
| STA. 309+00         | TO STA. 311+00 |                  |              |           |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |           |

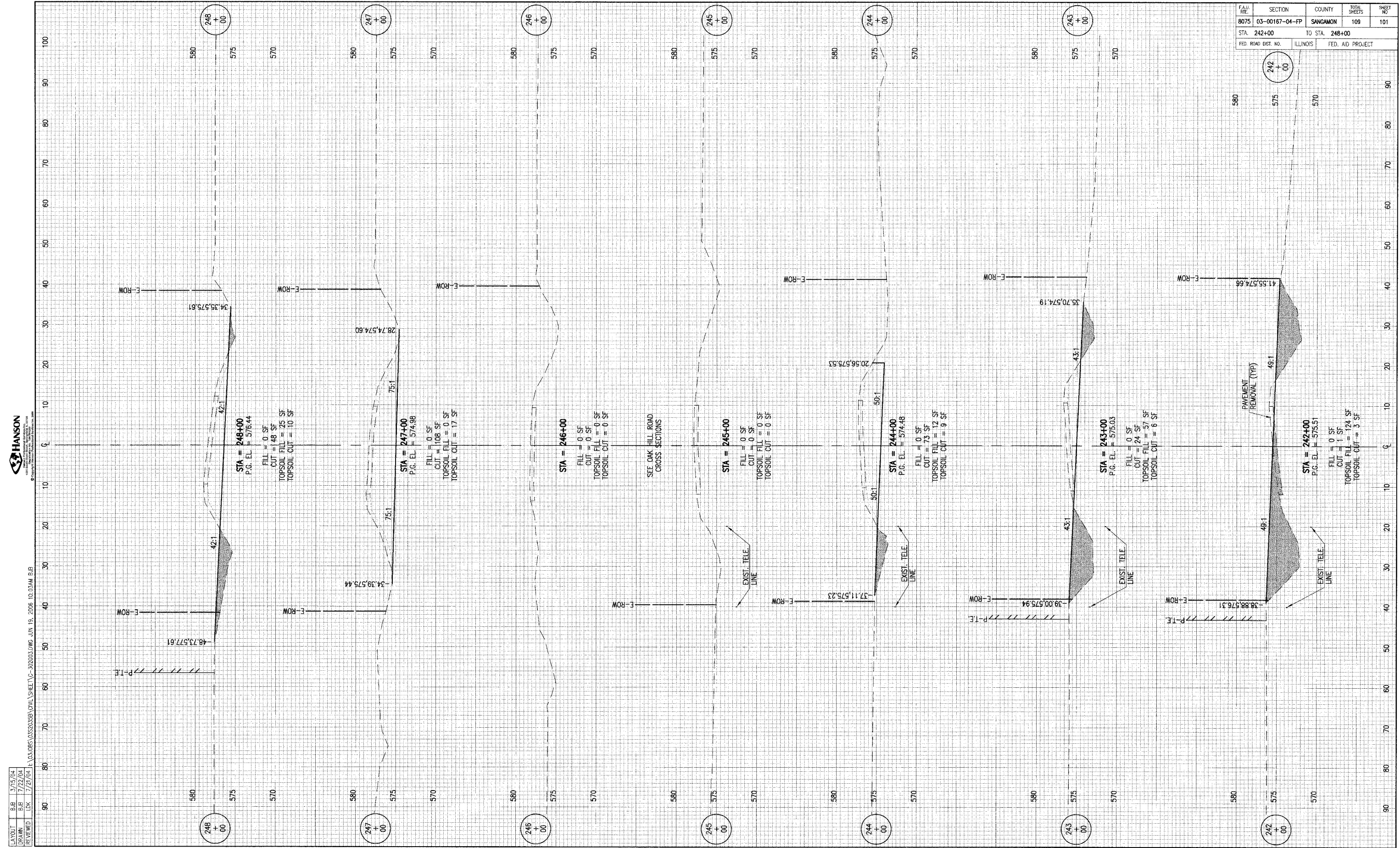


LAYOUT BAB 3/15/04  
 DRAWN BAB 7/22/04  
 REVIEWED LDK 1/27/04  
 I:\03\085\03520358\CIVIL\03520358\03520358\03520358.DWG JUN 19, 2008 10:02AM BJB



| FAU No.             | SECTION        | COUNTY        | TOTAL SHEETS     | SHEET NO. |
|---------------------|----------------|---------------|------------------|-----------|
| 8075                | 03-00167-04-FP | SANGAMON      | 109              | 100       |
| STA 235+75          |                | TO STA 241+00 |                  |           |
| FED. ROAD DIST. NO. |                | ILLINOIS      | FED. AID PROJECT |           |

| FAU. NO.            | SECTION        | COUNTY         | TOTAL SHEETS     | SHEET NO. |
|---------------------|----------------|----------------|------------------|-----------|
| 8075                | 03-00167-04-FP | SANGAMON       | 109              | 101       |
| STA. 242+00         |                | TO STA. 248+00 |                  |           |
| FED. ROAD DIST. NO. |                | ILLINOIS       | FED. AID PROJECT |           |



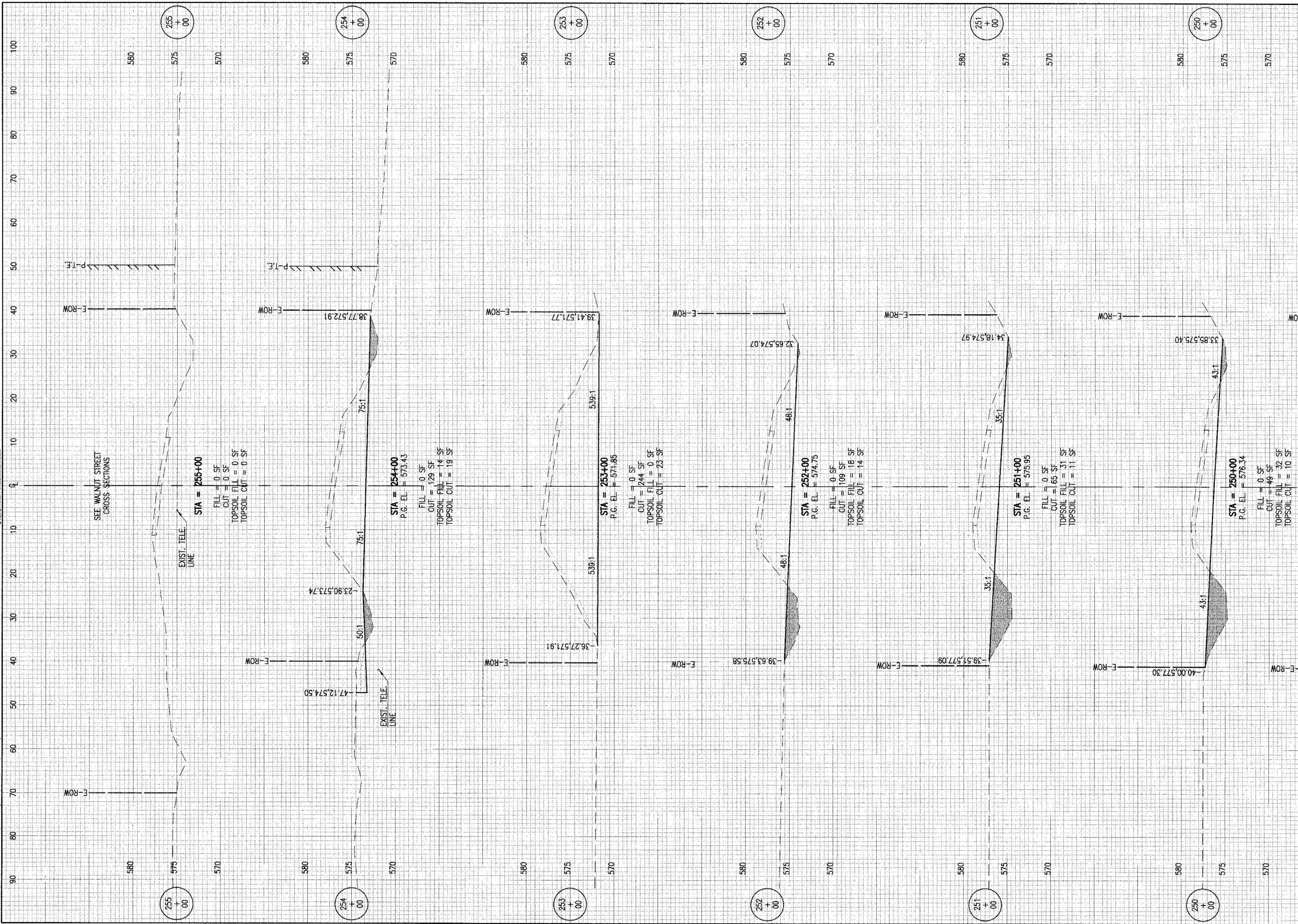
LAYOUT B/B 3/15/04  
 DRAWN B/B 7/22/04  
 REVIEWED LDK 7/27/04  
 I:\03\085\03520338\CVIL\SHET\3-302003.DWG JUN 19, 2006 10:03AM B/B

LAYOUT  
DRAWN  
REVIEWED

BB 3/15/04  
BB 7/22/04  
DKR 7/21/04



SEE WALNUT STREET  
CROSS SECTIONS

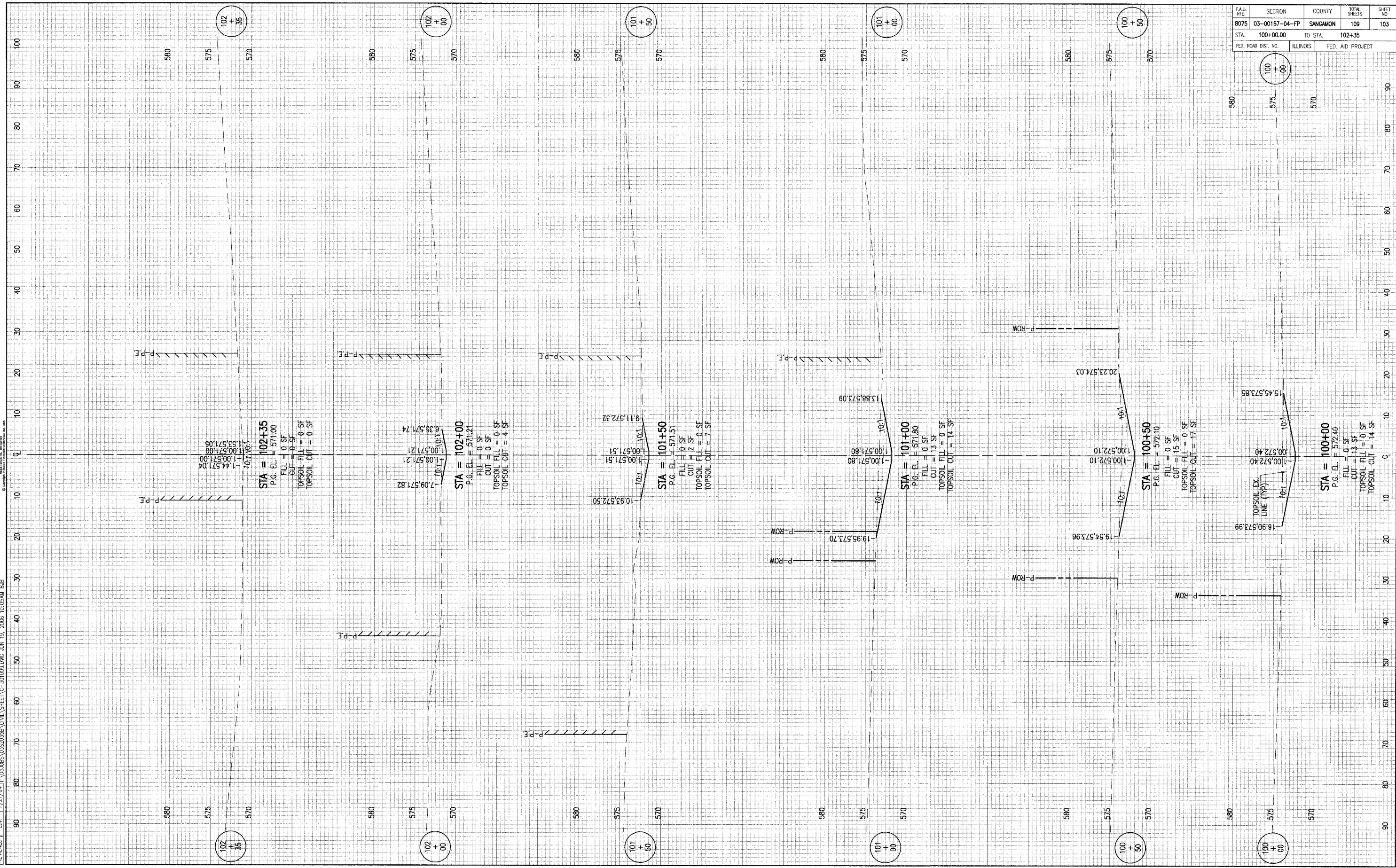


| FAU. RITE.                 | SECTION        | COUNTY   | TOTAL SHEETS     | SHEET NO. |
|----------------------------|----------------|----------|------------------|-----------|
| 8075                       | 03-00167-04-FP | SANGAMON | 109              | 102       |
| STA. 249+00 TO STA. 255+00 |                |          |                  |           |
| FED. ROAD DIST. NO.        |                | ILLINOIS | FED. AID PROJECT |           |

| FAU. RTE.           | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO. |
|---------------------|----------------|------------------|--------------|-----------|
| 8075                | 03-00167-04-FP | SANGAMON         | 109          | 103       |
| STA. 100+00.00      |                | TO STA. 102+35   |              |           |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |           |



LAYOUT BJB 3/15/04  
 DRAWN BJB 7/22/04  
 REVIEWED LDK 7/27/04  
 I:\034085\0352058A\CIVIL\0352058A.DWG JUN 19, 2006 10:56AM BJB





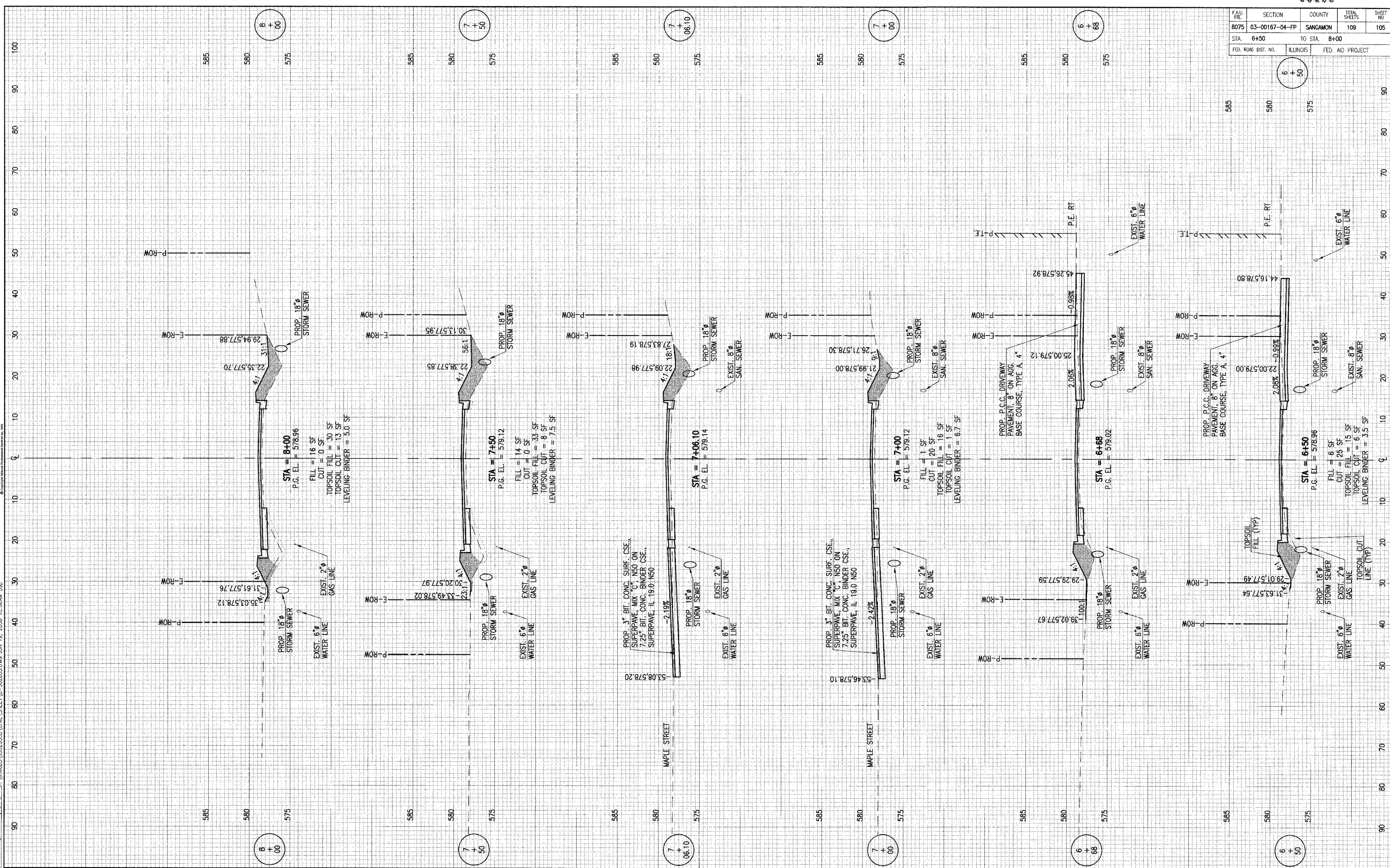


LAYOUT  
DRAWN  
REVIEWED

BMB 3/15/04  
BMB 7/22/04  
DXK 7/27/04



\\03\085\03520259\CIVIL\SH411.C-302005.DWG JUN 19, 2006 10:06AM BMB



| F.A.U. NO.             | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO. |
|------------------------|----------------|------------------|--------------|-----------|
| 8075                   | 03-00167-04-PP | SANGAMON         | 109          | 105       |
| STA. 6+50 TO STA. 8+00 |                | ILLINOIS         |              |           |
| FED. ROAD DIST. NO.    |                | FED. AID PROJECT |              |           |

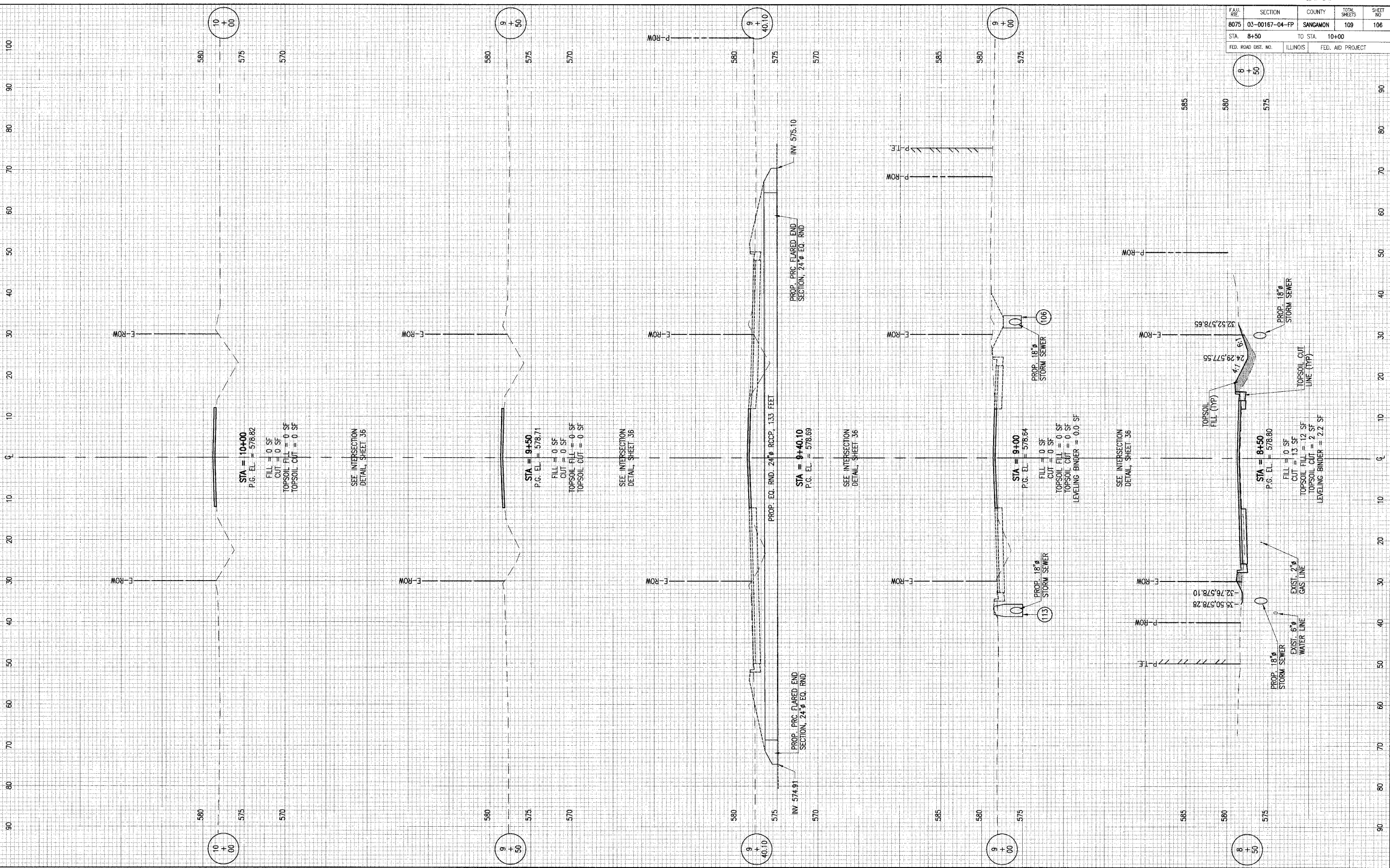
LAYOUT  
DRAWN  
REVIEWED

BB 3/15/04  
BB 7/22/04  
DKR 7/22/04



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F:\03\065\03203\58\CVI\LSHEET.C-303005.DWG JUN 19, 2006 10:07AM BJB

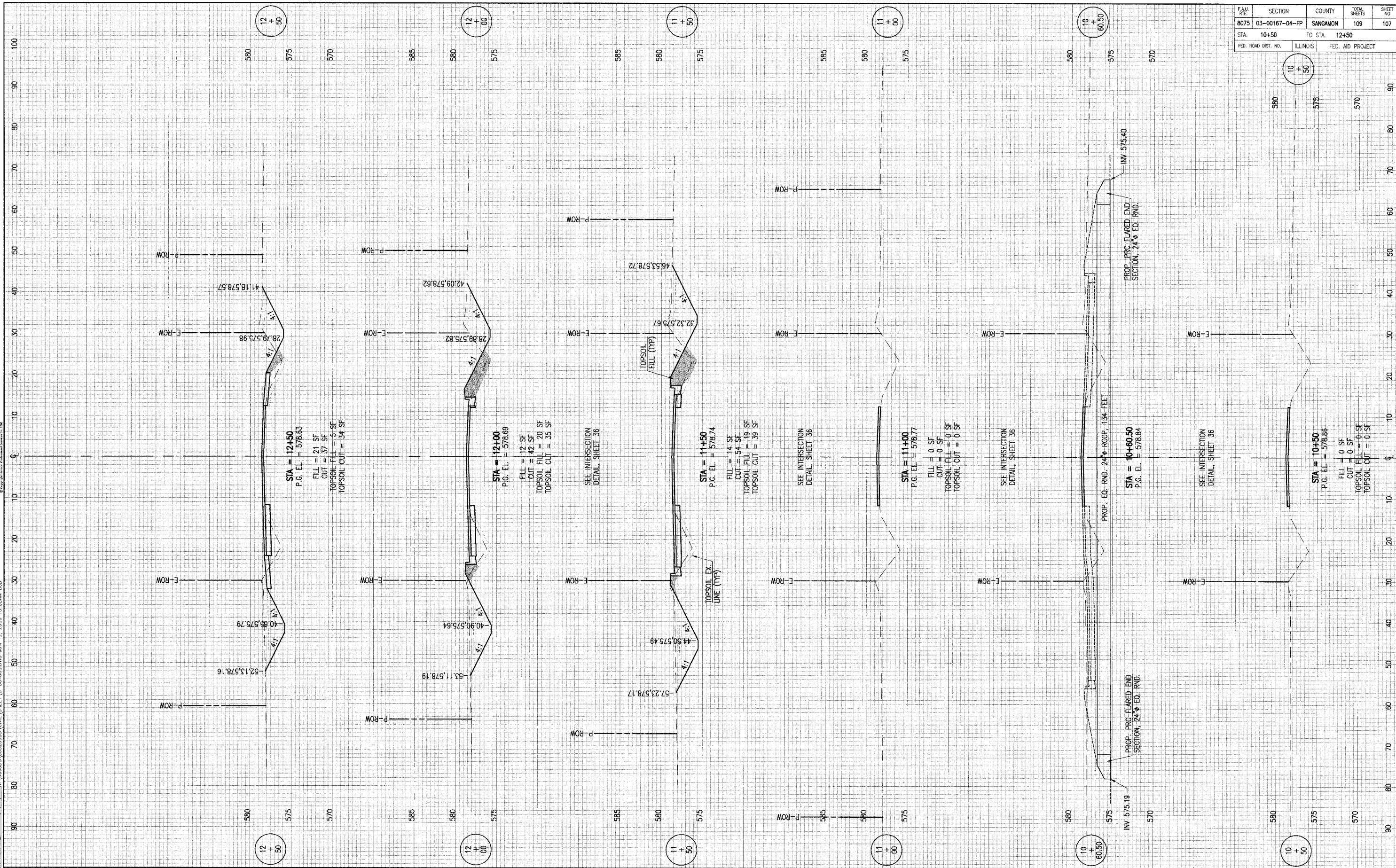


| FAUL. RE.           | SECTION        | COUNTY        | TOTAL SHEETS     | SHEET NO. |
|---------------------|----------------|---------------|------------------|-----------|
| 8075                | 03-00167-04-FP | SANGAMON      | 109              | 106       |
| STA. 8+50           |                | TO STA. 10+00 |                  |           |
| FED. ROAD DIST. NO. |                | ILLINOIS      | FED. AID PROJECT |           |

|                     |                |                  |              |           |
|---------------------|----------------|------------------|--------------|-----------|
| FAU. RFE.           | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO. |
| 8075                | 03-00167-04-PP | SANGAMON         | 109          | 107       |
| STA. 10+50          |                | TO STA. 12+50    |              |           |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |           |



LAYOUT BJB 3/15/04  
 DRAWN BJB 7/22/04  
 REVIEWED CDK 7/27/04  
 J:\03\095\0520393\CIVIL\SHET\1-C-304005.DWG JUN 19, 2006 10:09AM BJB



**STA = 12+50**  
 P.C. EL. = 576.63  
 FILL = 21 SF  
 CUT = 37 SF  
 TOPSOIL FILL = 5 SF  
 TOPSOIL CUT = 34 SF

**STA = 12+00**  
 P.C. EL. = 576.69  
 FILL = 12 SF  
 CUT = 42 SF  
 TOPSOIL FILL = 20 SF  
 TOPSOIL CUT = 35 SF

**STA = 11+50**  
 P.C. EL. = 578.74  
 FILL = 14 SF  
 CUT = 54 SF  
 TOPSOIL FILL = 19 SF  
 TOPSOIL CUT = 39 SF

**STA = 11+00**  
 P.C. EL. = 578.77  
 FILL = 0 SF  
 CUT = 0 SF  
 TOPSOIL FILL = 0 SF  
 TOPSOIL CUT = 0 SF

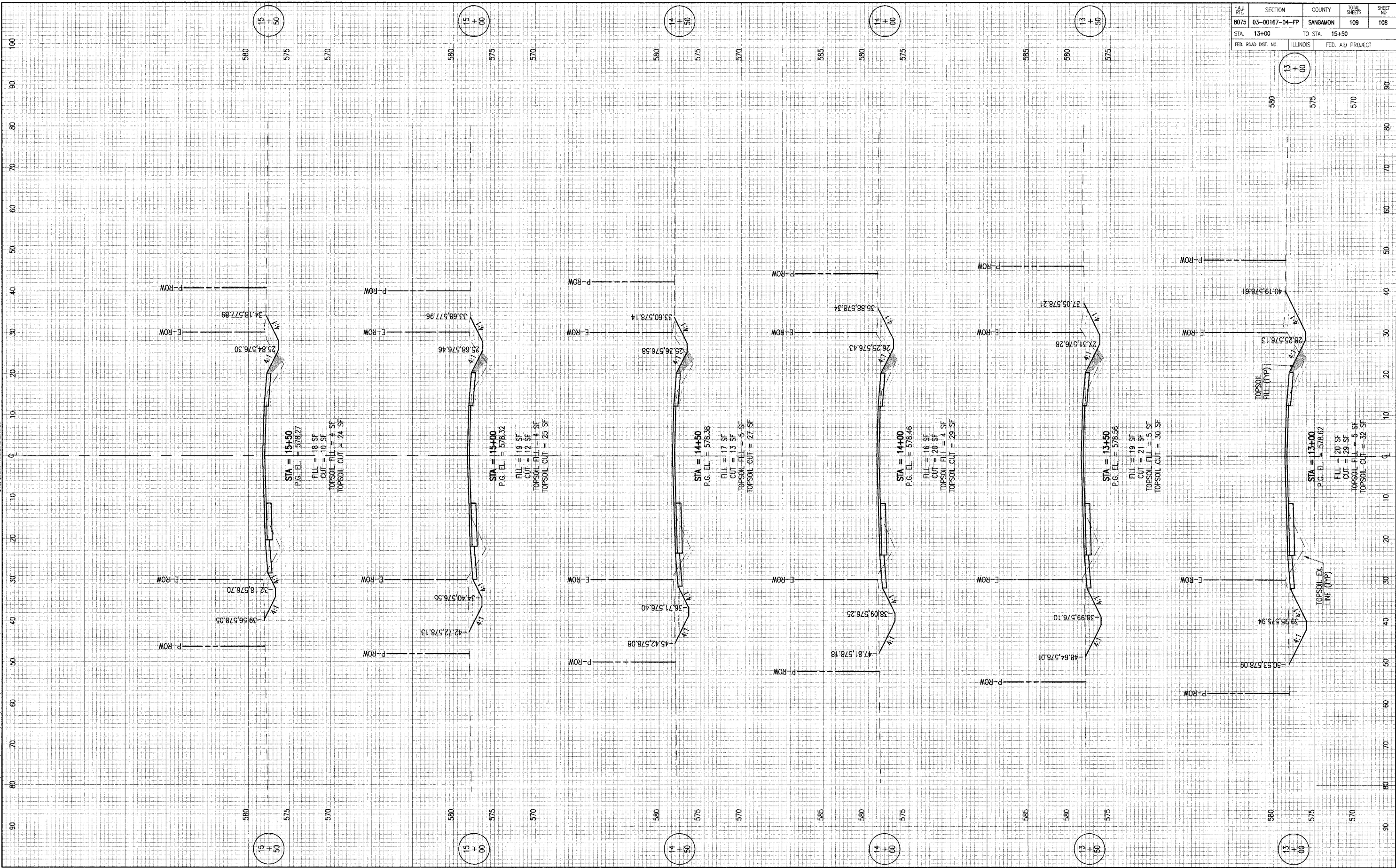
**STA = 10+50**  
 P.C. EL. = 578.84  
 FILL = 0 SF  
 CUT = 0 SF  
 TOPSOIL FILL = 0 SF  
 TOPSOIL CUT = 0 SF

**STA = 10+50**  
 P.C. EL. = 578.86  
 FILL = 0 SF  
 CUT = 0 SF  
 TOPSOIL FILL = 0 SF  
 TOPSOIL CUT = 0 SF

LAYOUT  
 DRAWN  
 CHECKED  
 REVIEWED



3/15/04  
 7/22/04  
 7/27/04  
 3655005.DWG JUN 19 2006 10:08AM BLB  
 C:\WORK\3655005\3655005R\CIVIL\3655005R\3655005R.DWG



| FAU. RITE.          | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO. |
|---------------------|----------------|------------------|--------------|-----------|
| 8075                | 03-00167-04-FP | SANGAMON         | 109          | 108       |
| STA. 13+00          |                | TO STA. 15+50    |              |           |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |           |

4342

