

V3 Companies
7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
630.724.9202 fax
www.v3co.com



FOR INDEX OF SHEETS, SEE SHEET NO. 2

DESCRIPTION OF PROJECT:

THIS IMPROVEMENT CONSISTS OF REMOVAL AND REPLACEMENT OF THE BRIDGES OVER THE KISHWAUKEE RIVER AND KISHWAUKEE RIVER OVERFLOW AND RAISING THE PROFILE TO MEET THE FREE BOARD AND VERTICAL CLEARANCE REQUIREMENTS AND ALL INCIDENTAL AND COLLATERAL WORK AS NECESSARY TO COMPLETE IMPROVEMENT SHOWN HEREIN AND AS DESCRIBED IN THE SPECIFICATIONS.

DESIGN DESIGNATION 558 (20) OTHER PRINCIPAL ARTERIAL 3.41 (FD-20)

TRAFFIC DATA:

ILLINOIS ROUTE 23
POSTED SPEED 50 MPH
DESIGN SPEED 55 MPH
ADT 7,300 (2005) 10,125 (2021)

PROJECT LOCATED IN:
CITY OF MARENGO

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

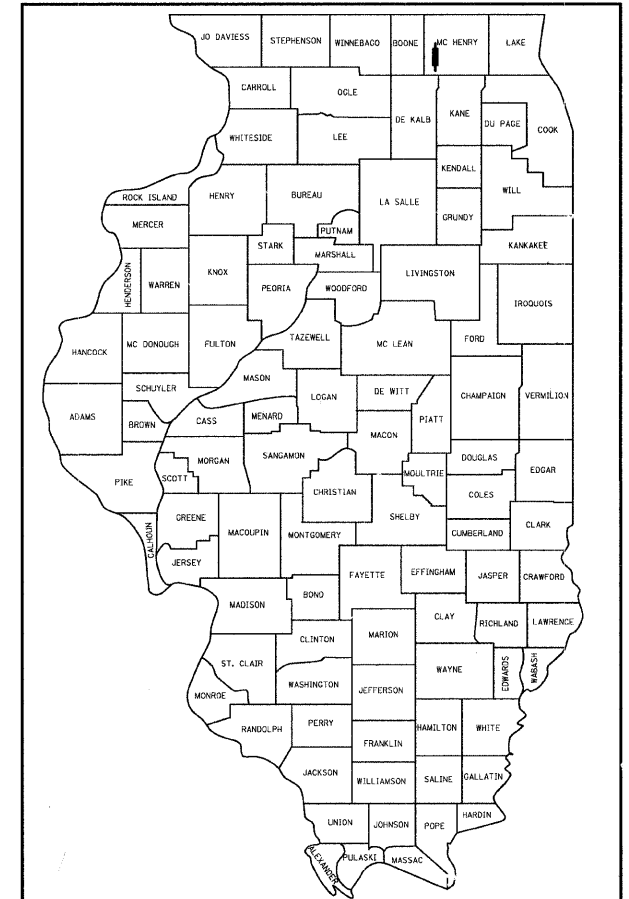
**PROPOSED
HIGHWAY PLANS**

**FAP ROUTE 324(ILLINOIS ROUTE 23)
SECTION: 23B-1
OVER KISHWAUKEE RIVER AND
KISHWAUKEE RIVER OVER FLOW
BRIDGE REMOVAL AND
REPLACEMENT AND RAISING PROFILE
PROJECT NO: BRF-0324(019)
MCHENRY COUNTY**

C-91-087-05

| | | | | |
|-----------------------|----------|--------------------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 324 | 23B-1 | MCHENRY | 97 | 1 |
| FED. ROAD DIST. NO. 1 | ILLINOIS | CONTRACT NO. 62892 | | |
| D-91-087-05 | | | | |

97+4+2=103



LOCATION OF SECTION INDICATED THUS: - [black box] -

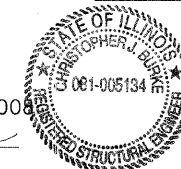
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED AUGUST 14, 2008
Diana M. O'Keefe DISTRICT ENGINEER

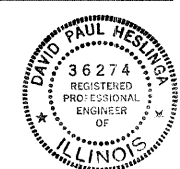
December 5, 2008
Eric E. Horn INTERIM ENGINEER OF DESIGN AND ENVIRONMENT

December 5, 2008
Christine M. Reed DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

**PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS**



August 8, 2008
Christopher J. Burke
CHRISTOPHER J. BURKE
ILLINOIS LICENSED STRUCTURAL ENGINEER
NO. 081-005134
EXPIRATION DATE: 11-30-2008



August 8, 2008
David P. Heslinga
DAVID P. HESLINGA
ILLINOIS REGISTERED PROFESSIONAL ENGINEER
NO. 062-036274
EXPIRATION DATE: 11-30-2008

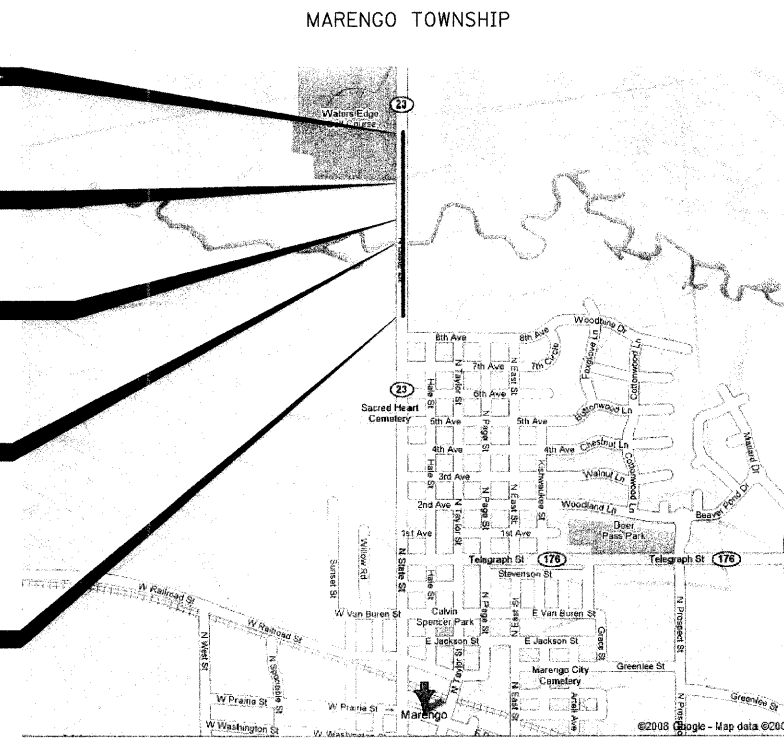
PROJECT ENDS
STATION 89+00.00
ILLINOIS ROUTE 23

PROPOSED CULVERT
LOCATION
STATION 77+62.00
SN 056-0084
PROPOSED 4-CELL
12'x4' BOX CULVERT

PROPOSED OVERFLOW
LOCATION
STATION 72+50.00
SN 056-0083
PROPOSED 3-CELL
12'x10' BOX CULVERT

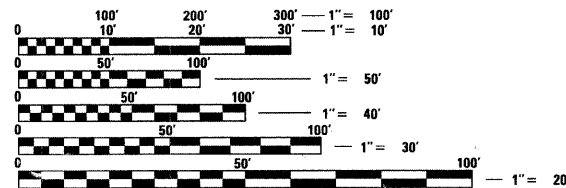
PROPOSED BRIDGE
LOCATION
STATION 69+03.00
SN 056-0001
PROPOSED 3-SPAN
STEEL GIRDER BRIDGE

PROJECT BEGINS
STATION 59+00.00
ILLINOIS ROUTE 23



R 5 E
LOCATION MAP

PROJECT NET/GROSS LENGTH 3,000 FEET (.57 MILES)



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

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

CONTRACT NO. 62892

DISTRICT ONE BUREAU OF DESIGN PROJECT MANAGER: ISAAC KWARTENG, (847) 705-4230

INDEX OF SHEETS

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STATE STANDARDS

| | |
|-----------|---|
| 000001-05 | STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS |
| 001001-01 | AREAS OF REINFORCEMENT BARS |
| 001006 | DECIMAL OF AN INCH AND OF A FOOT |
| 280001-04 | TEMPORARY EROSION CONTROL SYSTEMS |
| 406201-01 | MAILBOX TURNOUT |
| 482001-02 | HMA SHOULDER ADJACENT TO FLEXIBLE PAVEMENT |
| 515001-03 | NAME PLATE FOR BRIDGES |
| 542301-02 | PRECAST REINFORCED CONCRETE FLARED END SECTION |
| 542311-01 | GRATING FOR CONCRETE FLARED END SECTION |
| 542401-01 | METAL END SECTION FOR PIPE CULVERTS |
| 601001-03 | SUB-SURFACE DRAINS |
| 604091-02 | FRAME AND GRATE TYPE 24 |
| 606001-04 | CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER |
| 610001-04 | SHOULDER INLET WITH CURB |
| 630001-08 | STEEL PLATE BEAM GUARDRAIL |
| 631001-04 | TRAFFIC BARRIER TERMINAL, TYPE 2 |
| 631031-07 | TRAFFIC BARRIER TERMINAL, TYPE 6 |
| 635006-03 | REFLECTOR AND TERMINAL MARKER PLACEMENT |
| 635011-02 | REFLECTOR MARKER AND MOUNTING DETAILS |
| 701901-01 | TRAFFIC CONTROL DEVICES |
| 720001-01 | SIGN PANEL MOUNTING DETAILS |
| 720006-02 | SIGN PANEL ERECTION DETAILS |
| 729001-01 | APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS) |
| 780001-02 | TYPICAL PAVEMENT MARKINGS |

GENERAL NOTES

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT 1-800-892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS FACILITIES. (A 48 HOUR NOTIFICATION IS REQUIRED).

THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING THE TYPE AND LOCATIONS OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OR HER OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE HERETO.

TEN FEET TRANSITIONS SHALL BE USED TO MATCH PROPOSED WORK TO ITEMS IN THE FIELD, UNLESS OTHERWISE SHOWN. THE TRANSITIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR PROPOSED ITEM OF WORK SPECIFIED.

THE CONTRACTOR SHALL COORDINATE ACTIVITIES WITH UTILITY COMPANIES AND THE CITY OF MARENGO AND MCHENRY COUNTY.

OVERHEAD AND UNDERGROUND ELECTRICAL FACILITIES ARE LOCATED IN THE SUBJECT AREA. COMED COMPANY WIRES ARE NOT INSULATED AND EXTRA CAUTION AND VIGILANCE MUST BE ADHERED TO WHEN WORKING AROUND THEM. THE OCCUPATIONAL HEALTH AND SAFETY ORGANIZATION (OSHA) RULES REQUIRE THAT WORKERS AND EQUIPMENT SHALL NOT APPROACH WITHIN TEN (10) FEET AWAY OF OVERHEAD EQUIPMENT WITHOUT APPROPRIATE SUPPLEMENTAL PROTECTION. ALL WORKERS ON THIS PROJECT SHOULD BE TRAINED REGARDING WORKING SAFELY AROUND ELECTRICAL POWER LINES.

THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.

THE RESIDENT ENGINEER SHALL CONTACT MS. DEBBIE HANLON, AREA TRAFFIC TECHNICIAN AT 847-438-2300 A MINIMUM OF 2 WEEKS PRIOR TO PLACING PERMANENT PAVEMENT MARKINGS OR PERMANENT SIGNING.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT 847-705-4470 A MINIMUM OF 72 HOURS PRIOR TO THE PLACEMENT OF ANY TEMPORARY TRAFFIC CONTROL DEVICES.

EMBANKMENT NECESSARY TO RAISE THE PROPOSED ALIGNMENT SHALL BE COMPLETED AT THE BEGINNING OF THE PROJECT TO ALLOW FOR CONSOLIDATION OF THE UNDERLYING SOILS.

DISTRICT STANDARDS - THESE ARE INCLUDED AS PLAN SHEETS 75-84

| | |
|------|---|
| BD01 | DRIVEWAY DETAILS - DISTANCE BETWEEN R.O.W. AND FACE OF CURB / EDGE OF SHOULDER > = 4.5m (15FT.) |
| BD02 | DRIVEWAY DETAILS - DISTANCE BETWEEN R.O.W. AND FACE OF CURB < 4.5m (15FT.) |
| BD03 | OUTLET FOR CONCRETE CURB AND GUTTER |
| BD07 | DETAIL OF STORM SEWER CONNECTION TO EXISTING SEWER |
| BD32 | BUTT JOINT AND HMA TAPER DETAILS |
| BD34 | STABILIZATION AT TBT TY 1 SPL. |
| BD51 | BENCHING DETAIL FOR EMBANKMENT WIDENING |
| TC11 | TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT) |
| TC13 | DISTRICT ONE TYPICAL PAVEMENT MARKINGS |
| TC22 | TEMPORARY INFORMATION SIGNING |

COMMITMENTS

THE DEPARTMENT WILL REINSTALL THE BENCH MARK LOCATED ON THE BRIDGE AT A SUITABLE LOCATION. HOWEVER THE ELEVATION OF THE BENCH MARK WILL CHANGE.

THE DEPARTMENT WILL REINSTATE THE DRIVEWAY AT STA 73+48 (LT) TO THE CITY OF MARENGO'S PROPERTY AT A GRADE OF 12%. THE DRIVEWAY WILL BE PAVED WITH ASPHALT UP TO THE ROW LINE AND AGGREGATE THE REST OF THE DRIVEWAY. THE DRIVEWAY WILL REQUIRE A TEMPORARY EASEMENT.

| | | | | | | | | | | | |
|-------------|------------------------|------------------|---------------------|---|---|--------------------|-------------------------|--------------------------|---|-----------|--|
| FILE NAME = | USER NAME = #USER# | DESIGNED - GJM | REVISED - 5/13/2008 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | INDEX OF SHEETS, STATE STANDARDS, GENERAL NOTES, AND COMMITMENTS | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | |
| #FILE# | | DRAWN - GJM | REVISED - 7/18/2008 | | | 324 | 23B-1 | MCHENRY | 97 | 2 | |
| | PLOT SCALE = #SCALE# | CHECKED - EJL | REVISED - 9/30/2008 | | | CONTRACT NO. 62892 | | | | | |
| | PLOT DATE = 12/18/2008 | DATE - 3/11/2008 | REVISED - --- | | | SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. 59+00 TO STA. 89+00 | FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT | | |

Rev.

| S.P. | ITEM NO. | ITEMS | UNIT | URBAN | ROADWAY | BRIDGE | CULVERT | LANDSCAPING |
|------|----------|--|--------|-----------------------------------|---------|---------|---------|-------------|
| | | | | 80% FED. 20% STATE QUANTITY | I000-2A | X071-2A | X028-2A | Y007 |
| | 20100110 | TREE REMOVAL (6 TO 15 UNITS DIAMETER) | UNIT | 33 | 33 | | | |
| | 20100210 | TREE REMOVAL (OVER 15 UNITS DIAMETER) | UNIT | 8 | 8 | | | |
| | 20200100 | EARTH EXCAVATION | CU YD | 4452 | 4,452 | | | |
| | 20201200 | REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL | CU YD | 2875 | 2,875 | | | |
| | 20300100 | CHANNEL EXCAVATION | CU YD | 1592 | | 1,592 | 0 | |
| | 20400800 | FURNISHED EXCAVATION | CU YD | 10206 | 10206 | | | |
| | 20700220 | POROUS GRANULAR EMBANKMENT | CU YD | 937 | | | 937 | |
| * | 20700400 | POROUS GRANULAR EMBANKMENT, SPECIAL | CU YD | 115 | | 115 | | |
| * | 20700420 | POROUS GRANULAR EMBANKMENT, SUBGRADE | CU YD | 2875 | 2875 | | | |
| | 20800150 | TRENCH BACKFILL | CU YD | 10 | 10.00 | | | |
| | 21001000 | GEOTECHNICAL FABRIC FOR GROUND STABILIZATION | SQ YD | 2631 | 2631 | | | |
| | 21101625 | TOPSOIL FURNISH AND PLACE, 6" | SQ YD | 15167 | | | | 15167 |
| | 25000310 | SEEDING, CLASS 4 | ACRE | 3.13 | | | | 3.13 |
| | 25000400 | NITROGEN FERTILIZER NUTRIENT | POUND | 283 | | | | 283 |
| | 25000500 | PHOSPHORUS FERTILIZER NUTRIENT | POUND | 283 | | | | 283 |
| | 25000600 | POTASSIUM FERTILIZER NUTRIENT | POUND | 283 | | | | 283 |
| | 25100120 | MULCH, METHOD 2 | TON | 6.3 | | | | 6.3 |
| | 25100630 | EROSION CONTROL BLANKET | SQ YD | 15167 | | | | 15167 |
| | 28000200 | EARTH EXCAVATION FOR EROSION CONTROL | CU YD | 689 | 689 | | | |
| * | 28000255 | TEMPORARY EROSION CONTROL SEEDING | ACRE | 3.13 | 3.13 | | | |
| | 28000300 | TEMPORARY DITCH CHECKS | EACH | 30 | 30 | | | |
| | 28000400 | PERIMETER EROSION BARRIER | FOOT | 5618 | 5618 | | | |
| | 28100105 | STONE RIPRAP, CLASS A3 | SQ YD | 14 | 14 | | | |
| | 28100107 | STONE RIPRAP, CLASS A4 | SQ YD | 711 | | 447 | 264 | |
| | 28200200 | FILTER FABRIC | SQ YD | 915 | 14 | 555 | 346 | |
| | 35102000 | AGGREGATE BASE COURSE, TYPE B 8" | SQ YD | 366 | 366 | | | |
| | 35501308 | HOT-MIX ASPHALT BASE COURSE, 6" | SQ YD | 45 | 45 | | | |
| | 35501316 | HOT-MIX ASPHALT BASE COURSE, 8" | SQ YD | 658 | 658 | | | |
| | 40600895 | CONSTRUCTING TEST STRIP | EACH | 2 | 2 | | | |
| | 40603310 | HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 | TON | 123 | 123 | | | |
| | 40701941 | HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 13" | SQ YD | 7165 | 7165 | | | |
| | 40800010 | BITUMINOUS MATERIALS (PRIME COAT) | GALLON | 824 | 824 | | | |
| | 42001165 | BRIDGE APPROACH PAVEMENT | SQ YD | 294 | 294 | | | |
| | 42001300 | PROTECTIVE COAT | SQ YD | 1782 | | 1782 | 0 | |
| | 44000100 | PAVEMENT REMOVAL | SQ YD | 3853 | 3853 | | | |

FILE NAME =
#FILE#

USER NAME = #USER#
PLOT SCALE = NONE
PLOT DATE = 10/10/2008

DESIGNED - GJM
DRAWN - GJM
CHECKED - EJM
DATE - 3/11/2008

REVISED - 5/13/2008
REVISED - 7/18/2008
REVISED - 9/30/2008
REVISED - ---

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: NONE SHEET NO. 1 OF 4 SHEETS STA. 59+00 TO STA. 89+00

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---------|---------|-----------------|--------------|
| 324 | 23B-1 | MCHENRY | 97 | 3 |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |

CONTRACT NO. 62892

| S.P. | ITEM NO. | ITEMS | UNIT | URBAN 80% FED. 20% STATE QUANTITY | ROADWAY 1000-2A | BRIDGE X071-2A | CULVERT X028-2A | LANDSCAPING Y007 |
|------|----------|---|-------|--|--------------------|-------------------|--------------------|---------------------|
| | 44000200 | DRIVEWAY PAVEMENT REMOVAL | SQ YD | 1092 | 1092 | | | |
| | 44000300 | CURB REMOVAL | FOOT | 357 | 357 | | | |
| | 44000500 | COMBINATION CURB AND GUTTER REMOVAL | FOOT | 700 | 700 | | | |
| * | 44004300 | PAVEMENT BREAKING | SQ YD | 4064 | 4064 | | | |
| * | 48101500 | AGGREGATE SHOULDERS, TYPE B 6" | SQ YD | 295 | 295 | | | |
| | 48203021 | HOT-MIX ASPHALT SHOULDERS, 6" | SQ YD | 720 | 720 | | | |
| | 48203029 | HOT-MIX ASPHALT SHOULDERS, 8" | SQ YD | 4539 | 4539 | | | |
| | 50100100 | REMOVAL OF EXISTING STRUCTURES | EACH | 1 | | 1 | | |
| | 50101500 | REMOVAL OF EXISTING SUPERSTRUCTURES | EACH | 1 | | | 1 | |
| * | 50105220 | PIPE CULVERT REMOVAL | FOOT | 442 | 442 | | | |
| | 50200100 | STRUCTURE EXCAVATION | CU YD | 1296 | | 467 | 829 | |
| | 50300225 | CONCRETE STRUCTURES | CU YD | 146.9 | | 146.9 | 0 | |
| | 50300255 | CONCRETE SUPERSTRUCTURE | CU YD | 409.2 | | 409.2 | 0 | |
| | 50300260 | BRIDGE DECK GROOVING | SQ YD | 1213 | | 1213 | 0 | |
| | 50300280 | CONCRETE ENCASEMENT | CU YD | 24.8 | | 24.8 | 0 | |
| | 50500305 | ERECTING STRUCTURAL STEEL | L SUM | 1 | | 1 | 0 | |
| | 50500505 | STUD SHEAR CONNECTORS | EACH | 8112 | | 8112 | 0 | |
| | 50800105 | REINFORCEMENT BARS | POUND | 134960 | | 0 | 134960 | |
| | 50800205 | REINFORCEMENT BARS, EPOXY COATED | POUND | 103930 | | 103930 | 0 | |
| | 50800515 | BAR SPLICERS | EACH | 90 | | 90 | 0 | |
| | 51200957 | FURNISHING METAL SHELL PILES 12" x 0.250" | FOOT | 1386 | | 1386 | 0 | |
| | 51201600 | FURNISHING STEEL PILES HP12X53 | FOOT | 1375 | | 1375 | 0 | |
| | 51202305 | DRIVING PILES | FOOT | 2761 | | 2761 | 0 | |
| | 51203200 | TEST PILE METAL SHELLS | EACH | 2 | | 2 | 0 | |
| | 51203600 | TEST PILE STEEL HP12X53 | EACH | 2 | | 2 | 0 | |
| | 51204650 | PILE SHOES | EACH | 54 | | 54 | 0 | |
| | 51500100 | NAME PLATES | EACH | 3 | | 1 | 2 | |
| | 52100520 | ANCHOR BOLTS, 1" | EACH | 64 | | 64 | 0 | |
| | 54003000 | CONCRETE BOX CULVERTS | CU YD | 578.3 | | 0 | 578.3 | |
| | 54200430 | PIPE CULVERTS, TYPE 1 RCCP 15" | FOOT | 50 | 50 | | | |
| | 54200433 | PIPE CULVERTS, TYPE 1 RCCP 18" | FOOT | 573 | 573 | | | |
| | 54213660 | PRECAST REINFORCED CONCRETE FLARED END SECTIONS 15" | EACH | 2 | 2 | | | |
| | 54213663 | PRECAST REINFORCED CONCRETE FLARED END SECTIONS 18" | EACH | 16 | 16 | | | |
| | 54215547 | METAL END SECTIONS 12" | EACH | 2 | 2 | | | |
| | 550A0050 | STORM SEWERS, CLASS A, TYPE 1 12" | FOOT | 27 | 27 | | | |
| | 59100100 | GEOCOMPOSITE WALL DRAIN | SQ YD | 67 | | 67 | 0 | |

FILE NAME =
#FILE#

USER NAME = #USER#
PLOT SCALE = NONE
PLOT DATE = 10/10/2008

DESIGNED - GJM
DRAWN - GJM
CHECKED - EJL
DATE - 3/11/2008

REVISED - 5/13/2008
REVISED - 7/18/2008
REVISED - 9/30/2008
REVISED - ---

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

SCALE: NONE SHEET NO. 2 OF 4 SHEETS STA. 59+00 TO STA. 89+00

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---------|---------|-----------------|--------------|
| 324 | 23B-1 | MCHENRY | 97 | 4 |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |

| S.P. | ITEM NO. | ITEMS | UNIT | URBAN 801.FED.2008 | | | | LANDSCAPING Y007 |
|------|----------|---|--------|-----------------------|--------------------|-------------------|--------------------|---------------------|
| | | | | QUANTITY | ROADWAY I000-2A | BRIDGE X071-2A | CULVERT X020-2A | |
| | 60100060 | CONCRETE HEADWALL FOR PIPE DRAINS | EACH | 4 | 4 | | | |
| | 60100945 | PIPE DRAINS 12" | FOOT | 50 | 50 | | | |
| | 60107600 | PIPE UNDERDRAINS 4" | FOOT | 156 | 156 | | | |
| * | 60109580 | PIPE UNDERDRAINS FOR STRUCTURES 4" | FOOT | 121 | | 121 | | |
| | 60201330 | CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE 23 FRAME AND GRATE | EACH | 1 | 1 | | | |
| | 60237460 | INLETS, TYPE A, TYPE 23 FRAME AND GRATE | EACH | 1 | 1 | | | |
| | 60600605 | CONCRETE CURB, TYPE B | FOOT | 372 | 372 | | | |
| * | 60603300 | GUTTER OUTLET | EACH | 2 | 2 | | | |
| | 60605000 | COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24 | FOOT | 808 | 808 | | | |
| | 60900515 | CONCRETE THRUST BLOCKS | EACH | 2 | 2 | | | |
| | 61000225 | TYPE F INLET BOX, STANDARD 610001 | EACH | 2 | 2 | | | |
| | 63000000 | STEEL PLATE BEAM GUARD RAIL, TYPE A | FOOT | 1937.5 | 1937.5 | | | |
| | 63000025 | STEEL PLATE BEAM GUARD RAIL, ATTACHED TO STRUCTURES | FOOT | 100 | 100 | | | |
| ** | 63100045 | TRAFFIC BARRIER TERMINAL, TYPE 2 | EACH | 2 | 2 | | | |
| | 63100085 | TRAFFIC BARRIER TERMINAL, TYPE 6 | EACH | 4 | 4 | | | |
| * | 63100167 | TRAFFIC BARRIER TERMINAL, TYPE 1(SPECIAL) TANGENT | EACH | 4 | 4 | | | |
| * | 63200305 | STEEL PLATE BEAM GUARD RAIL REMOVAL | FOOT | 204 | 204 | | | |
| * | 63200307 | STEEL PLATE BEAM GUARD RAIL REMOVAL, ATTACHED TO STRUCTURE | FOOT | 742 | 742 | | | |
| * | 63304335 | TERMINAL SECTION REMOVAL AND SALVAGE | EACH | 4 | 4 | | | |
| | 67000400 | ENGINEER'S FIELD OFFICE, TYPE A | CAL MO | 11 | 11 | | | |
| | 67000600 | ENGINEER'S FIELD LABORATORY | CAL MO | 7 | 7 | | | |
| * | 67100100 | MOBILIZATION | L SUM | 1 | 1 | | | |
| * | 70102550 | TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR | EACH | 1 | 1 | | | |
| | 70103815 | TRAFFIC CONTROL SURVEILLANCE | CAL DA | 150 | 150 | | | |
| | 70106800 | CHANGEABLE MESSAGE SIGN | CAL MO | 7 | 7 | | | |
| | 72000100 | SIGN PANEL - TYPE 1 | SQ FT | 45 | 45 | | | |
| | 72400500 | RELOCATE SIGN ASSEMBLY - TYPE A | EACH | 2 | 2 | | | |
| | 72900100 | METAL POST - TYPE A | FOOT | 42 | 42 | | | |
| | 78000200 | THERMOPLASTIC PAVEMENT MARKING - LINE 4" | FOOT | 10720 | 10720 | | | |
| * | 78008210 | POLYUREA PAVEMENT MARKING TYPE I - LINE 4" | FOOT | 1280 | 1280 | | | |
| ** | 78100100 | RAISED REFLECTIVE PAVEMENT MARKER | EACH | 68 | 68 | | | |
| | 78100105 | RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE) | EACH | 8 | 8 | | | |
| * | 78200420 | GUARDRAIL MARKERS, TYPE B | EACH | 24 | 24 | | | |
| * | 78200520 | BARRIER WALL MARKERS, TYPE B | EACH | 4 | 4 | | | |
| * | 78201000 | TERMINAL MARKER - DIRECT APPLIED | EACH | 6 | 6 | | | |
| | A2006516 | TREE, QUERCUS BICOLOR (SWAMP WHITE OAK), 2" CALIPER, BALLED AND BURLAPPED | EACH | 4 | 4 | | | |

** Specialty Items

| | | | | | | | | | | | | |
|-------------|------------------------|------------------|---------------------|---|------------------------------|--|--|---|---------|---------|--------------------------|--------------|
| FILE NAME = | USER NAME = #USER# | DESIGNED - GJM | REVISED - 5/13/2008 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | SUMMARY OF QUANTITIES | | | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| #FILE# | PLOT SCALE = NONE | DRAWN - GJM | REVISED - 7/18/2008 | | | | | 324 | 23B-1 | MCHENRY | 97 | 5 |
| | PLOT DATE = 10/18/2008 | CHECKED - EJL | REVISED - 9/30/2008 | | SCALE: NONE | | | SHEET NO. 3 OF 4 SHEETS | | | STA. 59+00 TO STA. 89+00 | |
| | | DATE - 3/11/2008 | REVISED - --- | | | | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |

| S.P. | ITEM NO. | ITEMS | UNIT | URBAN | | | | | LANDSCAPING Y007 |
|------|----------|--|--------|----------|--------------------|-------------------|--------------------|-----|---------------------|
| | | | | QUANTITY | ROADWAY 1000-2A | BRIDGE X071-2A | CULVERT X020-2A | | |
| ** | A2006716 | TREE, QUERCUS MACROCARPA (BUR OAK), 2" CALIPER, BALLED AND BURLAPPED | EACH | 6 | 6 | | | | |
| * | X0322256 | TEMPORARY INFORMATION SIGNING | SQ FT | 52 | 52 | | | | |
| * | X0322323 | WEED CONTROL, TEASEL | GALLON | 0.4 | | | | 0.4 | |
| * | X0323830 | DRAINAGE SCUPPERS, DS-11 | EACH | 2 | | 2 | 0 | | |
| * | X0325737 | TEMPORARY TRAFFIC SIGNAL TIMING | EACH | 5 | 5 | | | | |
| * | X4021000 | TEMPORARY ACCESS (PRIVATE ENTRANCE) | EACH | 1 | 1 | | | | |
| * | X4022000 | TEMPORARY ACCESS (COMMERCIAL ENTRANCE) | EACH | 6 | 6 | | | | |
| * | X4024000 | TEMPORARY ACCESS (FIELD ENTRANCE) | EACH | 3 | 3 | | | | |
| * | X5020501 | UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 1 | EACH | 1 | | 1 | 0 | | |
| * | X5020502 | UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 2 | EACH | 1 | | 1 | 0 | | |
| * | XX000610 | RELOCATE EXISTING MAILBOX | EACH | 2 | 2 | | | | |
| * | XX006277 | TEMPORARY SEDIMENT TRAP | EACH | 9 | 9 | | | | |
| * | Z0001050 | AGGREGATE SUBGRADE 12" | SQ YD | 13718 | 13718 | | | | |
| * | Z0013798 | CONSTRUCTION LAYOUT | L SUM | 1 | 1 | | | | |
| * | Z0001900 | ASBESTOS BEARING PAD REMOVAL | EACH | 25 | | 23 | 2 | | |
| * | Z0038700 | PERMANENT BENCH MARKS | EACH | 3 | 3 | | | | |
| ⊙ | Z0076600 | TRAINEES | Hour | 500 | 500 | | | | |

** Specialty Items
⊙ Y080

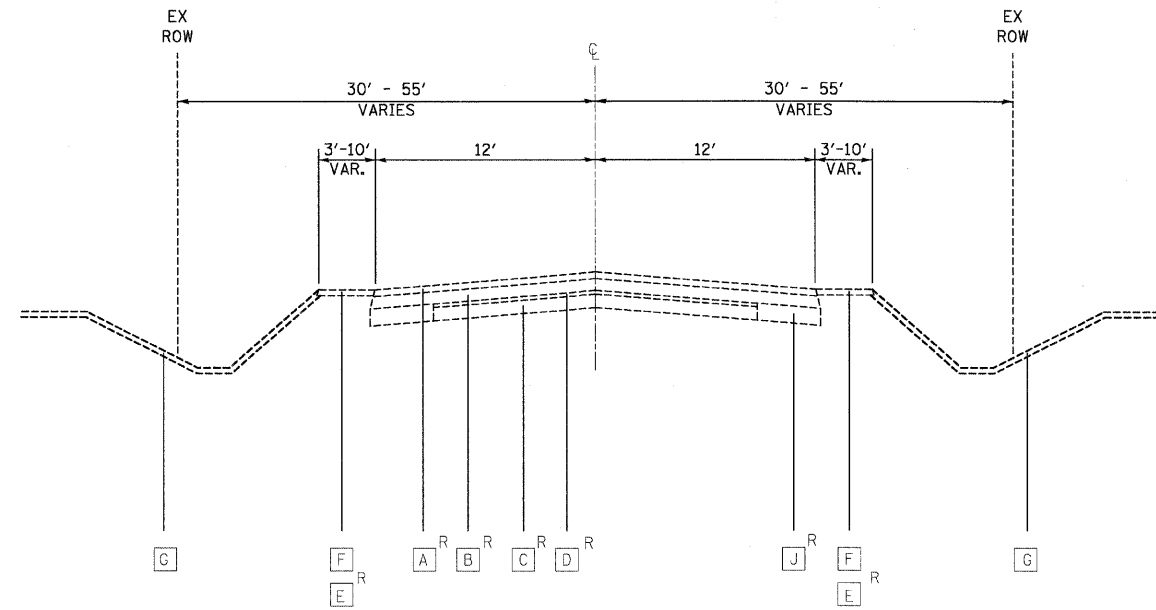
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|-------------|------------------------|------------------|---------------------|---|--|--|--|---|---------|---------|-----------------|--------------|
| FILE NAME = | USER NAME = #USER# | DESIGNED - GJM | REVISED - 5/13/2008 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | SUMMARY OF QUANTITIES | | | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| #FILEL# | PLOT SCALE = NONE | DRAWN - GJM | REVISED - 7/18/2008 | | | | | 324 | 23B-1 | MCHENRY | 97 | 6 |
| | PLOT DATE = 10/10/2008 | CHECKED - EJL | REVISED - 9/30/2008 | | SCALE: NONE SHEET NO. 4 OF 4 SHEETS STA. 59+00 TO STA. 89+00 | | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |
| | | DATE - 3/11/2008 | REVISED - --- | | | | | CONTRACT NO. 62892 | | | | |

EXISTING LEGEND

- [A] HOT MIX ASPHALT SURFACE COURSE (1-1/2")
- [B] HOT MIX ASPHALT BINDER COURSE (1-1/2")
- [C] PAVEMENT
- [D] HOT MIX ASPHALT MIX OVERLAY (1-1/2")
- [E] BITUMINOUS SHOULDER 8" (BAM)
- [F] GRAVEL SHOULDER TYPE B
- [G] EXISTING TOPSOIL
- [H] COMBINATION CONCRETE CURB & GUTTER
- [I] EARTH EXCAVATION
- [J] HOT MIX ASPHALT BASE COURSE WIDENING (9")

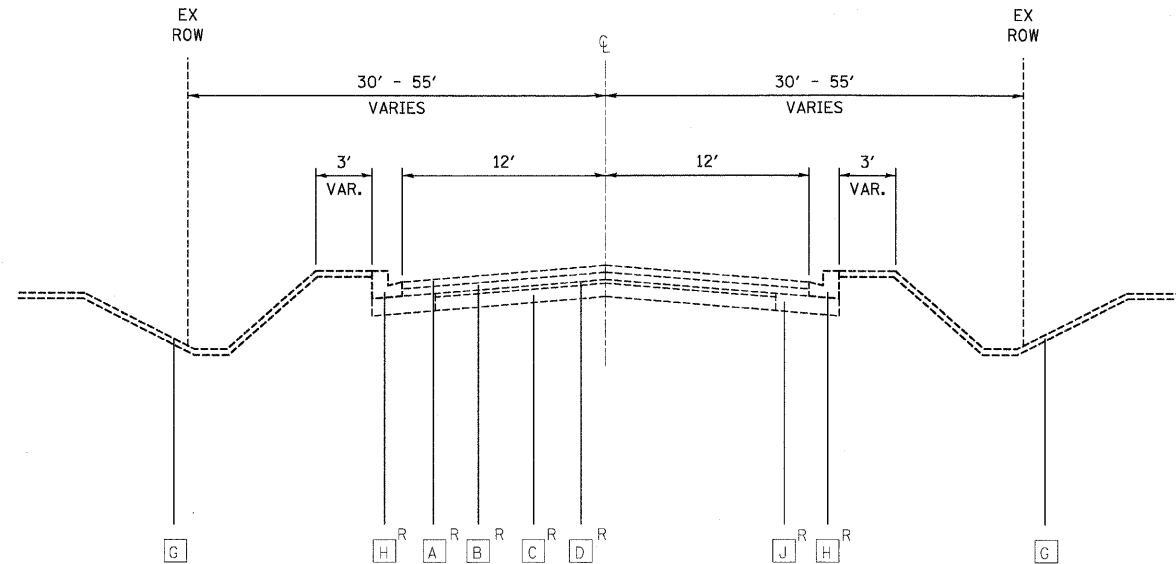
NOTES

- 1) DEPRESS CURB AND GUTTER ACCORDINGLY BASED ON STANDARDS BD0156-07 AND BD400-02
- R - DENOTES REMOVAL OR PAVEMENT BREAKING (SEE SCHEDULE FOR LOCATIONS)



EXISTING TYPICAL SECTION
ILLINOIS ROUTE 23

- [E] STA. 63+03.16 TO STA 64+37.58 (LT)
- [E] STA. 69+56.15 TO STA 72+25.31 (LT & RT)
- [E] STA. 62+41.46 TO STA 64+40.88 (RT)
- [E] STA. 72+77.29 TO STA 72+92.40 (LT)
- [F] STA. 64+37.58 TO STA 66+98.22 (LT)
- [E] STA. 72+77.29 TO STA 73+20.94 (RT)
- [F] STA. 64+40.88 TO STA 66+97.07 (RT)
- [F] STA. 72+92.40 TO STA 89+00.00 (LT)
- [E] STA. 66+98.22 TO STA 67+97.68 (LT)
- [F] STA. 73+20.94 TO STA 89+00.00 (RT)
- [E] STA. 66+97.07 TO STA 67+97.68 (RT)



EXISTING TYPICAL SECTION
ILLINOIS ROUTE 23

- STA. 59+00.00 TO STA 63+03.16 (LT)
- STA. 59+00.00 TO STA 62+41.46 (RT)

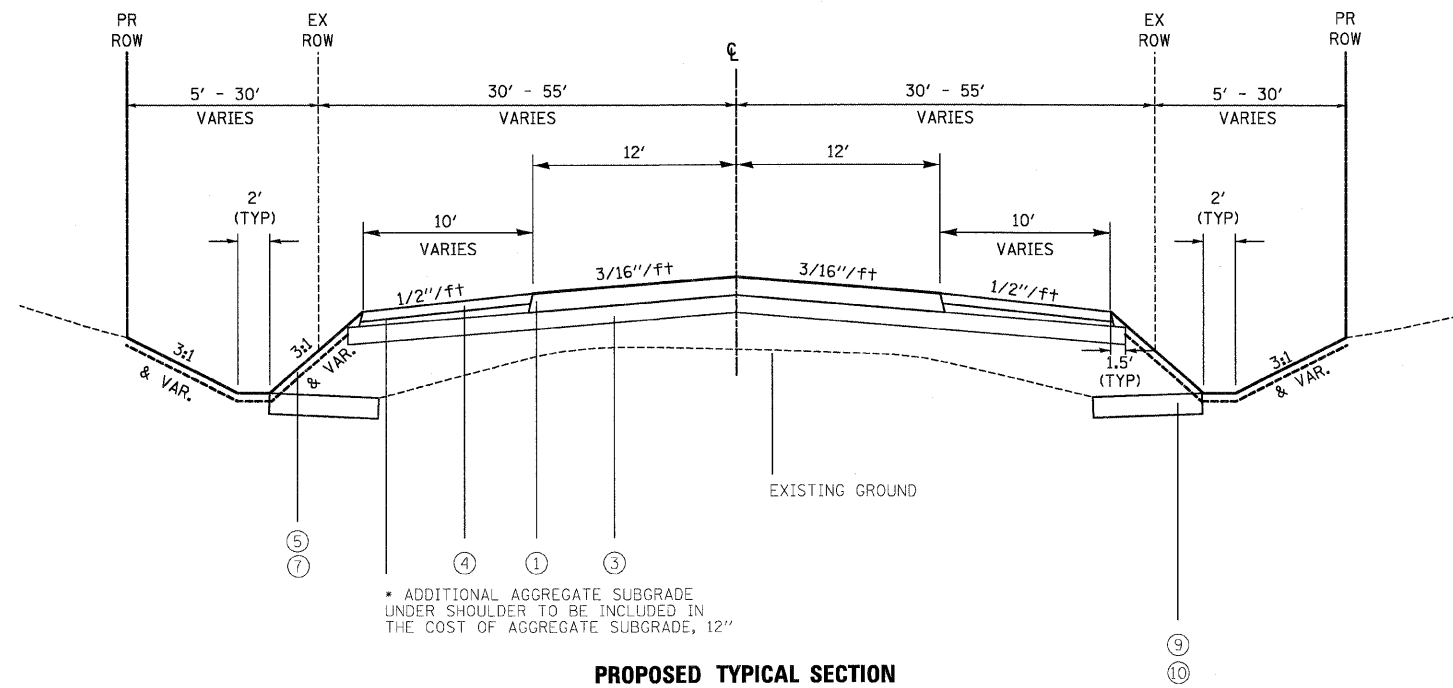
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|-----------------------|----------------------|------------------|---------------------|---|-------------------------|-------------------------|---|----------------|---------|---------|-----------------|--------------|
| FILE NAME = #FILE# | USER NAME = #USER# | DESIGNED - GJM | REVISED - 5/13/2008 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | TYPICAL SECTIONS | | | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | PLOT SCALE = #SCALE# | DRAWN - GJM | REVISED - 7/18/2008 | | SCALE: NONE | SHEET NO. 1 OF 3 SHEETS | STA. 59+00 TO STA. 89+00 | 324 | 23B-1 | MCHENRY | 97 | 7 |
| PLOT DATE = 9/30/2008 | DATE - 3/11/2008 | CHECKED - EJL | REVISED - 9/30/2008 | | | | CONTRACT NO. 62892 | | | | | |
| | | DATE - 3/11/2008 | REVISED - --- | | | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | | |

PROPOSED LEGEND

- ① 13" HOT MIX ASPHALT PAVEMENT (FULL-DEPTH)
- ② HOT MIX ASPHALT SHOULDER, 6"
- ③ AGGREGATE SUBGRADE, 12" *
- ④ HOT MIX ASPHALT SHOULDER, 8"
- ⑤ TOPSOIL FURNISH AND PLACE, 6"
- ⑥ COMBINATION CONCRETE CURB & GUTTER, TYPE B-6.24
- ⑦ SEEDING CLASS 4 (SEE LANDSCAPING PLANS FOR LIMITS)
- ⑧ AGGREGATE SHOULDER TYPE B, 6"
- ⑨ POROUS GRANULAR EMBANKMENT, SUBGRADE (AT LOCATIONS DESIGNATED BY THE ENGINEER OR AS SHOWN ON THE PLANS)
- ⑩ GEOTECHNICAL FABRIC FOR GROUND STABILIZATION (AT LOCATIONS DESIGNATED BY THE ENGINEER OR AS SHOWN ON THE PLANS)

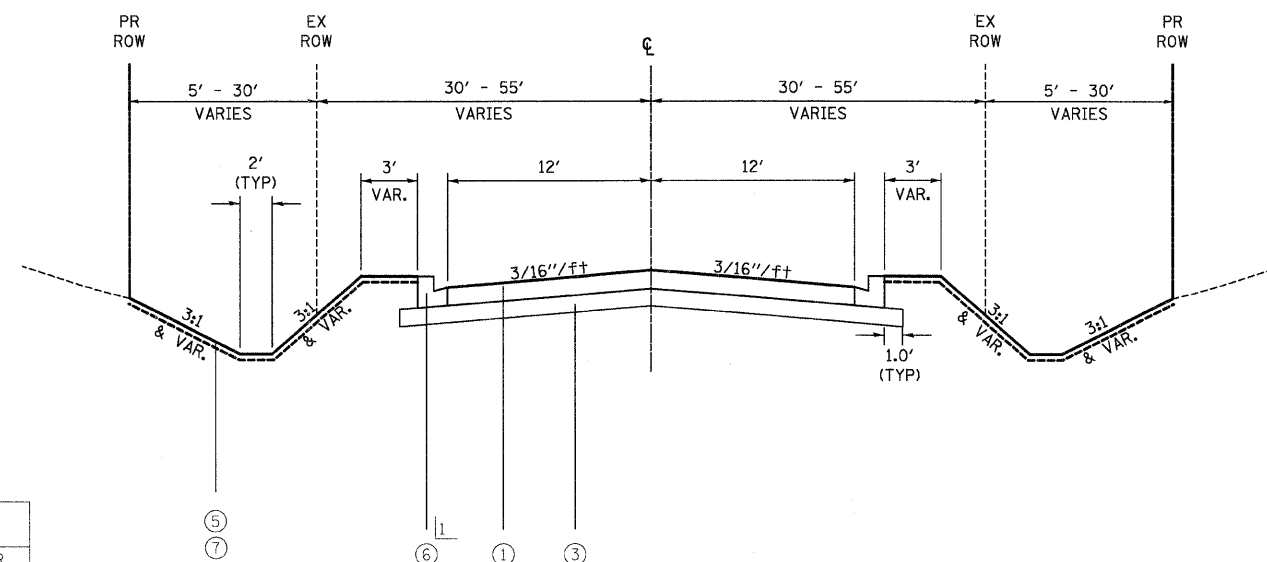
NOTES

- 1] DEPRESS CURB AND GUTTER ACCORDINGLY BASED ON STANDARDS BD0156-07 AND BD400-02
- R - DENOTES REMOVAL OR PAVEMENT BREAKING (SEE SCHEDULE FOR LOCATIONS)



PROPOSED TYPICAL SECTION ILLINOIS ROUTE 23

STA. 63+03.16 TO STA 67+42.50 (LT)
 STA. 62+41.46 TO STA 67+42.50 (RT)
 STA. 70+82.50 TO STA 72+30.33 (LT & RT)
 STA. 72+69.66 TO STA 77+36.75 (LT & RT)
 STA. 77+87.25 TO STA 88+68.44 (LT)
 STA. 77+87.25 TO STA 85+80.58 (RT)



PROPOSED TYPICAL SECTION ILLINOIS ROUTE 23

STA. 59+00.00 TO STA 63+03.16 (LT)
 STA. 59+00.00 TO STA 62+41.46 (RT)

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

| APPLICATION (SEE TYPICAL SECTIONS) | MIXTURE TYPE | AC TYPE | AIR VOIDS |
|------------------------------------|--|--------------------------------|----------------------------|
| RURAL FIELD ENTRANCE | HMA SURFACE COURSE, MIX "C", N50 (IL 9.5 mm); 2" | PG 64-22 | 4% @ 50 GYR |
| PRIVATE HMA DRIVEWAY | HMA SURFACE COURSE, MIX "C", N50 (IL 9.5 mm); 2" HMA BASE COURSE (HMA BINDER IL-19 mm); 6" | PG 64-22 PG 64-22/PG 58-22* | 4% @ 50 GYR 4% @ 50 GYR |
| COMMERCIAL HMA DRIVEWAY | HMA SURFACE COURSE, MIX "C", N50 (IL 9.5 mm); 2" HMA BASE COURSE (HMA BINDER IL-19 mm); 8" | PG 64-22 PG 64-22/PG 58-22* | 4% @ 50 GYR 4% @ 50 GYR |
| PAVED SHOULDERS | HOT-MIX ASPHALT SHOULDER, 8" | PG 64-22/PG 58-22* | 2% @ 30 GYR |
| UNDER GUARDRAIL | HOT-MIX ASPHALT SHOULDER, 6" | PG 64-22/PG 58-22* | 2% @ 30 GYR |
| FULL DEPTH PAVEMENT | HOT-MIX ASPHALT SURFACE CSE, MIX "D", N70 (IL 9.5 mm); 2" HOT-MIX ASPHALT BINDER CSE, IL-19.0, N70, 11" | PG 64-22 PG 64-22/PG 58-22* | 4% @ 70 GYR 4% @ 70 GYR |

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.
 * WHEN RAP EXCEEDS 20%, THE NEW ASPHALT BINDER IN THE MIX SHALL BE PG 58-22

| | | | | | | | | | | | | |
|-------------|--------------------|------------------|---------------------|---|---|-------------------------|--------------------------|--------------------|---------|---------|--------------|-----------|
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| #FILE# | | DRAWN - GJM | REVISED - 7/18/2008 | | SCALE: NONE | SHEET NO. 2 OF 3 SHEETS | STA. 59+00 TO STA. 89+00 | 324 | 23B-1 | MCHENRY | 97 | 8 |
| | | CHECKED - EJL | REVISED - 9/30/2008 | | | | | CONTRACT NO. 62892 | | | | |
| | | DATE - 3/11/2008 | REVISED - | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | | | | |

PROPOSED LEGEND

- ① 13" HOT MIX ASPHALT PAVEMENT (FULL-DEPTH)
- ② HOT MIX ASPHALT SHOULDER, 6"
- ③ AGGREGATE SUBGRADE, 12" •
- ④ HOT MIX ASPHALT SHOULDER, 8"
- ⑤ TOPSOIL FURNISH AND PLACE, 6"
- ⑥ COMBINATION CONCRETE CURB & GUTTER, TYPE B-6.24
- ⑦ SEEDING CLASS 4 (SEE LANDSCAPING PLANS FOR LIMITS)
- ⑧ AGGREGATE SHOULDER TYPE B, 6"
- ⑨ POROUS GRANULAR EMBANKMENT, SUBGRADE (AT LOCATIONS DESIGNATED BY THE ENGINEER OR AS SHOWN ON THE PLANS)
- ⑩ GEOTECHNICAL FABRIC FOR GROUND STABILIZATION (AT LOCATIONS DESIGNATED BY THE ENGINEER OR AS SHOWN ON THE PLANS)

NOTES

- 1] DEPRESS CURB AND GUTTER ACCORDINGLY BASED ON STANDARDS BD0156-07 AND BD400-02
- R - DENOTES REMOVAL OR PAVEMENT BREAKING (SEE SCHEDULE FOR LOCATIONS)

SOILS NOTE:

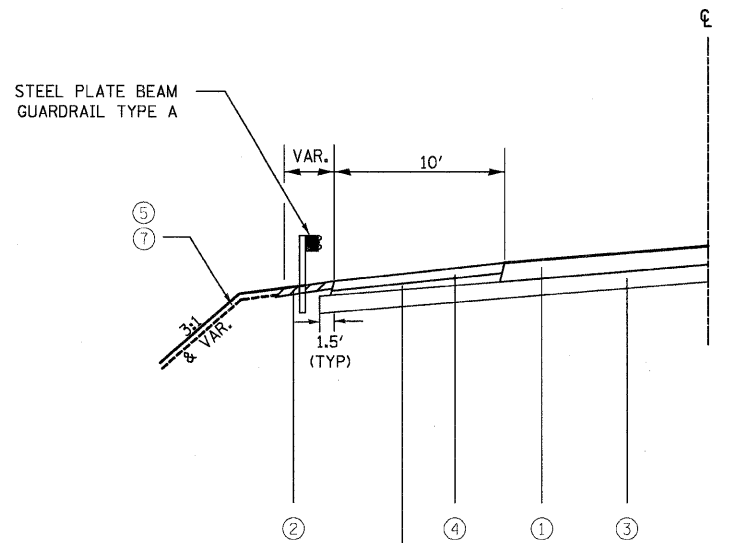
POROUS GRANULAR EMBANKMENT SUBGRADE (PGES) HAS BEEN PROVIDED AT THE LOCATIONS INDICATED FOR SOILS WHICH TEND TO BE UNSTABLE WHEN WET. THE ACTUAL NEED FOR REMOVAL AND REPLACEMENT WITH PGE WILL BE DETERMINED IN THE FIELD AT THE TIME OF CONSTRUCTION BY THE ENGINEER (BY USE OF A CONE PENETROMETER IN CONJUNCTION WITH THE IDOT SUBGRADE MANUAL). IF UNSTABLE SOILS ARE ENCOUNTERED THE SOILS SHALL BE REMOVED AND REPLACED WITH PGE. IF UNSTABLE SOIL IS NOT ENCOUNTERED, THEN THE QUANTITY WILL BE DEDUCTED AND NO ADDITIONAL COMPENSATION WILL BE DUE THE CONTRACTOR.

THE LIMITS OF UNSTABLE SOILS ARE AT THE APPROXIMATE LOCATIONS AS FOLLOWS:

| STA. TO STA. | ESTIMATED UNDERCUT DEPTH | ESTIMATED UNDERCUT |
|----------------|--------------------------|--------------------|
| 64+00 TO 69+00 | 12" LT/RT | 327 CU YD |
| 69+00 TO 72+00 | 12" (LT) / 24" (RT) | 486 CU YD |
| 72+00 TO 73+00 | 12" LT/RT | 84 CU YD |
| 73+00 TO 74+00 | 24" (LT) / 12" (RT) | 408 CU YD |
| 74+00 TO 76+00 | 24" LT/RT | 652 CU YD |
| 76+00 TO 78+00 | 12" LT/RT | 324 CU YD |

THE PLACEMENT OF 4" UNDERDRAINS ARE AT LOCATIONS AS FOLLOWS:

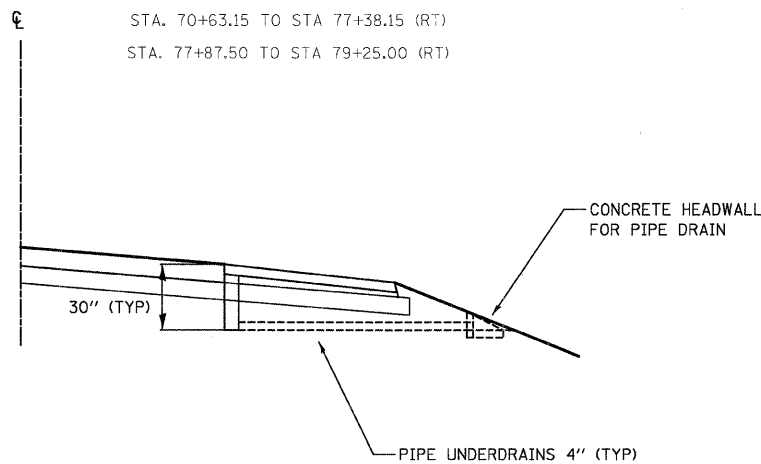
| STA. | ESTIMATED LENGTH |
|-------|------------------|
| 64+25 | 75.61' |
| 81+00 | 79.75' |



* ADDITIONAL AGGREGATE SUBGRADE UNDER SHOULDER TO BE INCLUDED IN THE COST OF AGGREGATE SUBGRADE, 12"

GUARDRAIL DETAIL
ILLINOIS ROUTE 23

- STA. 66+29.35 TO STA 67+72.50 (LT)
- STA. 70+63.15 TO STA 73+13.15 (LT)
- STA. 73+48.20 TO STA 77+35.70 (LT)
- STA. 77+85.70 TO STA 79+85.00 (LT)
- STA. 65+66.85 TO STA 67+72.50 (RT)
- STA. 70+63.15 TO STA 77+38.15 (RT)
- STA. 77+87.50 TO STA 79+25.00 (RT)



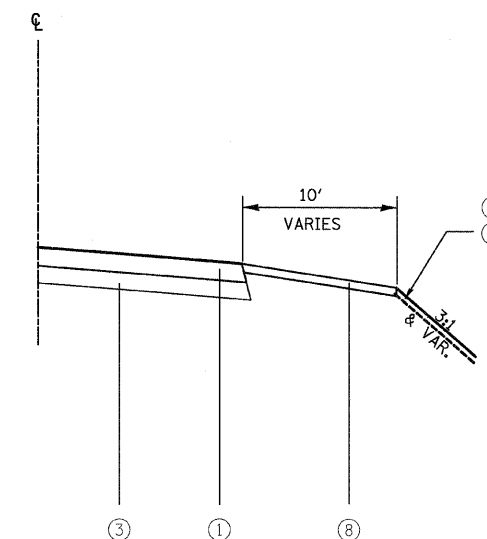
4" UNDERDRAIN DETAIL
ILLINOIS ROUTE 23

- STA. 64+25 (LT & RT)
- STA. 81+00 (LT & RT)
- (REFER TO STANDARD 601001-02)

ILLINOIS ROUTE 23
(HOT MIX ASPHALT PAVEMENT)

STATION 59+00.00 TO STATION 89+00.00

| | |
|--|--------------------------------|
| STRUCTURAL DESIGN TRAFFIC: | Year: 2017 |
| PV = 7,857 | SU = 790 MU = 651 |
| ROAD/STREET CLASSIFICATION: | Class II |
| PERCENT OF STRUCTURAL DESIGN TRAFFIC IN DESIGN LANE: | |
| P = 50% | S = 50% M = 50% |
| TRAFFIC FACTOR: Actual TF = 3.41 | |
| Minimum TF = 3.81 | |
| SUBGRADE SUPPORT RATING: | |
| SSR = POOR | (STA 59+00.00 TO STA 89+00.00) |



AGGREGATE SHOULDER DETAIL
ILLINOIS ROUTE 23

- STA. 85+43.22 TO STA 89+00.00 (RT)
- STA. 88+27.64 TO STA 89+00.00 (LT)

| | | | | | | | | | | | |
|-------------|-----------------------|------------------|---------------------|--|-------------------------|---|---------|---------|--------------|-----------|--|
| FILE NAME = | USER NAME = *USER* | DESIGNED - GJM | REVISED - 5/13/2008 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | TYPICAL SECTIONS | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | |
| #FILE# | | DRAWN - GJM | REVISED - 7/18/2008 | | | 324 | 23B-1 | MCHENRY | 97 | 9 | |
| | PLOT SCALE = #SCALE# | CHECKED - EJL | REVISED - 9/30/2008 | | | CONTRACT NO. 62892 | | | | | |
| | PLOT DATE = 9/30/2008 | DATE - 3/11/2008 | REVISED - | | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | | |
| | | | | SCALE: NONE SHEET NO. 3 OF 3 SHEETS STA. 59+00 TO STA. 89+00 | | | | | | | |

PROPOSED EARTHWORK SCHEDULE

| LOCATION | EARTH EXCAVATION | EARTH EXCAVATION | EXCAVATION TO BE USED IN EMBANKMENT ADJUSTED FOR SHRINKAGE | EMBANKMENT | EMBANKMENT | EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) (FURNISHED EXCAVATION) | PORUS GRANULAR EMBANKMENT, SUBGRADE | PORUS GRANULAR EMBANKMENT, SUBGRADE | UNSUITABLE MATERIAL | UNSUITABLE MATERIAL |
|---------------|------------------|------------------|--|--------------|---------------|--|-------------------------------------|-------------------------------------|---------------------|---------------------|
| | SQUARE FEET | CUBIC YARDS | CUBIC YARDS | SQUARE FEET | CUBIC YARDS | CUBIC YARD | SQUARE FEET | CUBIC YARDS | SQUARE FEET | CUBIC YARDS |
| 59+00.00 | 49 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| 59+50.00 | 55 | 96 | 82 | 7 | 10 | 72 | 0 | 0 | 0 | 0 |
| 60+00.00 | 61 | 107 | 91 | 0 | 6 | 85 | 0 | 0 | 0 | 0 |
| 60+50.00 | 73 | 124 | 105 | 10 | 9 | 96 | 0 | 0 | 0 | 0 |
| 61+00.00 | 74 | 136 | 116 | 24 | 31 | 85 | 0 | 0 | 0 | 0 |
| 61+50.00 | 77 | 140 | 119 | 18 | 39 | 80 | 0 | 0 | 0 | 0 |
| 62+00.00 | 49 | 117 | 99 | 0 | 17 | 82 | 0 | 0 | 0 | 0 |
| 62+15.00 | 55 | 29 | 25 | 0 | 0 | 25 | 0 | 0 | 0 | 0 |
| 62+50.00 | 64 | 77 | 65 | 34 | 22 | 43 | 0 | 0 | 0 | 0 |
| 63+00.00 | 66 | 120 | 102 | 32 | 61 | 41 | 0 | 0 | 0 | 0 |
| 63+20.00 | 58 | 46 | 39 | 26 | 21 | 18 | 0 | 0 | 0 | 0 |
| 63+50.00 | 66 | 69 | 59 | 62 | 49 | 10 | 0 | 0 | 0 | 0 |
| 64+00.00 | 51 | 108 | 92 | 51 | 105 | -13 | 16 | 15 | 16 | 15 |
| 64+50.00 | 47 | 91 | 77 | 57 | 100 | -23 | 19 | 32 | 19 | 32 |
| 65+00.00 | 37 | 78 | 66 | 101 | 146 | -80 | 23 | 39 | 23 | 39 |
| 65+50.00 | 41 | 72 | 61 | 122 | 206 | -145 | 25 | 44 | 25 | 44 |
| 66+00.00 | 47 | 81 | 69 | 153 | 255 | -186 | 26 | 47 | 26 | 47 |
| 66+50.00 | 51 | 91 | 77 | 162 | 292 | -215 | 25 | 47 | 25 | 47 |
| 67+00.00 | 59 | 102 | 87 | 185 | 321 | -234 | 27 | 48 | 27 | 48 |
| 67+50.00 | 50 | 101 | 86 | 192 | 349 | -263 | 32 | 55 | 32 | 55 |
| 70+50.00 | 68 | 0 | 0 | 277 | 0 | 0 | 23 | 306 | 23 | 306 |
| 71+00.00 | 69 | 127 | 108 | 295 | 530 | -422 | 26 | 45 | 26 | 45 |
| 71+50.00 | 62 | 121 | 103 | 314 | 564 | -461 | 36 | 57 | 36 | 57 |
| 72+00.00 | 54 | 107 | 91 | 329 | 595 | -504 | 48 | 78 | 48 | 78 |
| 72+50.00 | 0 | 50 | 43 | 23 | 326 | -283 | 201 | 184 | 0 | 44 |
| 73+00.00 | 63 | 58 | 49 | 322 | 319 | -270 | 43 | 226 | 43 | 40 |
| 73+48.22 | 30 | 83 | 71 | 582 | 807 | -736 | 167 | 188 | 167 | 188 |
| 74+00.00 | 64 | 90 | 77 | 361 | 904 | -827 | 62 | 220 | 62 | 220 |
| 74+50.00 | 50 | 106 | 90 | 393 | 698 | -608 | 92 | 143 | 92 | 143 |
| 75+00.00 | 42 | 85 | 72 | 441 | 772 | -700 | 102 | 180 | 102 | 180 |
| 75+50.00 | 52 | 87 | 74 | 401 | 780 | -706 | 77 | 166 | 77 | 166 |
| 76+00.00 | 36 | 81 | 69 | 353 | 698 | -629 | 99 | 163 | 99 | 163 |
| 76+50.00 | 34 | 65 | 55 | 329 | 631 | -576 | 47 | 135 | 47 | 135 |
| 77+00.00 | 32 | 61 | 52 | 307 | 589 | -537 | 45 | 85 | 45 | 85 |
| 77+50.00 | 0 | 30 | 26 | 10 | 294 | -268 | 68 | 105 | 0 | 42 |
| 78+00.00 | 48 | 44 | 37 | 210 | 204 | -167 | 33 | 94 | 33 | 31 |
| 78+50.00 | 71 | 110 | 94 | 245 | 421 | -327 | 0 | 31 | 0 | 31 |
| 79+00.00 | 64 | 125 | 106 | 243 | 452 | -346 | 0 | 0 | 0 | 0 |
| 79+50.00 | 63 | 118 | 100 | 226 | 434 | -334 | 0 | 0 | 0 | 0 |
| 80+00.00 | 62 | 116 | 99 | 202 | 396 | -297 | 0 | 0 | 0 | 0 |
| 80+50.00 | 62 | 115 | 98 | 180 | 354 | -256 | 0 | 0 | 0 | 0 |
| 81+00.00 | 59 | 112 | 95 | 146 | 302 | -207 | 0 | 0 | 0 | 0 |
| 81+50.00 | 68 | 118 | 100 | 115 | 242 | -142 | 0 | 0 | 0 | 0 |
| 82+00.00 | 84 | 141 | 120 | 132 | 229 | -109 | 0 | 0 | 0 | 0 |
| 82+50.00 | 84 | 156 | 133 | 125 | 238 | -105 | 0 | 0 | 0 | 0 |
| 83+00.00 | 87 | 158 | 134 | 119 | 226 | -92 | 0 | 0 | 0 | 0 |
| 83+50.00 | 26 | 105 | 89 | 58 | 164 | -75 | 0 | 0 | 0 | 0 |
| 84+00.00 | 65 | 84 | 71 | 69 | 118 | -47 | 0 | 0 | 0 | 0 |
| 84+40.00 | 11 | 56 | 48 | 22 | 67 | -19 | 0 | 0 | 0 | 0 |
| 84+50.00 | 12 | 4 | 3 | 18 | 7 | -4 | 0 | 0 | 0 | 0 |
| 85+00.00 | 45 | 53 | 45 | 13 | 29 | 16 | 0 | 0 | 0 | 0 |
| 85+20.00 | 39 | 31 | 26 | 4 | 6 | 20 | 0 | 0 | 0 | 0 |
| 85+50.00 | 76 | 64 | 54 | 27 | 17 | 37 | 0 | 0 | 0 | 0 |
| 85+70.00 | 69 | 54 | 46 | 34 | 23 | 23 | 0 | 0 | 0 | 0 |
| 86+00.00 | 32 | 56 | 48 | 25 | 33 | 15 | 0 | 0 | 0 | 0 |
| 86+50.00 | 36 | 63 | 54 | 18 | 40 | 14 | 0 | 0 | 0 | 0 |
| 87+00.00 | 42 | 72 | 61 | 14 | 30 | 31 | 0 | 0 | 0 | 0 |
| 87+50.00 | 47 | 82 | 70 | 13 | 25 | 45 | 0 | 0 | 0 | 0 |
| 88+00.00 | 37 | 78 | 66 | 11 | 22 | 44 | 0 | 0 | 0 | 0 |
| 88+50.00 | 57 | 87 | 74 | 9 | 19 | 55 | 0 | 0 | 0 | 0 |
| 89+00.00 | 50 | 99 | 84 | 6 | 14 | 70 | 0 | 0 | 0 | 0 |
| TOTALS | 3,182 | 5,237 | 4,452 | 8,261 | 14,658 | -10,206 | 1,362 | 2,733 | 1,093 | 2,281 |

SHRINKAGE FACTORS: EARTH EXCAVATION: 15% (ASSUMED) ASSUMES 12" OF TOPSOIL STRIPING

NOTE: EARTH EXCAVATION FOR STRUCTURES AT STA 72+50.00 AND STA 77+50.00 ARE COVERED BY PAY ITEMS "REMOVAL OF EXSISTING STRUCTURES" AND "STRUCTURE EXCAVATION"

| | | | | | | | | | | | | |
|-----------------------|--------------------|------------------|---------------------|---|--|--|--|--------------------|---------|---------|--------------|-----------|
| FILE NAME = | USER NAME = #USER# | DESIGNED - GJM | REVISED - 5/13/2008 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | SCHEDULE OF QUANTITIES | | | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| #FILE# | | DRAWN - GJM | REVISED - 7/18/2008 | | | | | 324 | 23B-1 | MCHENRY | 97 | 10 |
| PLOT SCALE = #SCALE# | | CHECKED - E.JL | REVISED - ---- | | SCALE: NONE SHEET NO. 1 OF 5 SHEETS STA. 59+00 TO STA. 89+00 | | | CONTRACT NO. 62892 | | | | |
| PLOT DATE = 9/30/2008 | | DATE - 3/11/2008 | REVISED - ---- | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | | | | |

PROPOSED PAVING SCHEDULE

| LOCATION | HOT-MIX ASPHALT PAVEMENT (FULL DEPTH), 13" | AGGREGATE SUBGRADE 12" | COMB CONC C&G TY B-6.24 | GUTTER OUTLET | HOT-MIX ASPHALT SHLD 8" | HOT-MIX ASPHALT SHLD 6" | AGGREGATE SHLD TYPE B 6" | BITUMINOUS MATERIALS (PRIME COAT) | BRIDGE APPROACH PAVEMENT |
|--------------------------------|--|------------------------|-------------------------|---------------|-------------------------|-------------------------|--------------------------|-----------------------------------|--------------------------|
| | TON | SQ YD | FOOT | EACH | SQ YD | SQ YD | SQ YD | GAL | SQ YD |
| IL ROUTE 23 | | | | | | | | | |
| Sta. 59+00.00 to Sta. 59+80.00 | 223 | 277 | 142.0 | | | | | | 22 |
| Sta. 59+80.00 to Sta. 67+42.50 | 2033 | 3464 | 665.7 | 2 | 907 | 153 | | | 203 |
| Sta. 70+62.50 to Sta. 88+20.00 | 4686 | 9812 | | | 3594 | 567 | 267 | | 469 |
| Sta. 88+20.00 to Sta. 89+00.00 | 221 | 164 | | | 37 | | 28 | | 22 |
| Totals | 7165 | 13718 | 808 | 2 | 4539 | 720 | 295 | | 717 |

ROADWAY REMOVAL SCHEDULE

| LOCATION | PAVEMENT REMOVAL | PAVEMENT BREAKING | COMB C & G REMOVAL | CURB REMOVAL | DRIVEWAY PVMT REMOVAL | STEEL PLATE BEAM GUARDRAIL REMOVAL, ATTACHED TO STRUCTURE | GUARDRAIL REMOVAL | TERMINAL SECTION REMOVAL AND SALVAGE | PIPE CULVERT REMOVAL |
|--------------------------------|------------------|-------------------|--------------------|--------------|-----------------------|---|-------------------|--------------------------------------|----------------------|
| | SQ YD | SQ YD | FOOT | FOOT | SQ YD | FOOT | FOOT | EACH | FEET |
| IL ROUTE 23 | | | | | | | | | |
| Sta. 59+00.00 to Sta. 67+72.50 | 2544 | | 699 | 133 | 295 | | 204 | 2 | 188 |
| Sta. 67+72.50 to Sta. 84+50.00 | | 4063 | | 67 | 337 | 742 | | 2 | 103 |
| Sta. 84+50.00 to Sta. 89+00.00 | 1309 | | | 157 | 460 | | | | 151 |
| Totals | 3853 | 4064 | 700 | 357 | 1092 | 742 | 204 | 4 | 442 |

PAVEMENT MARKING SCHEDULE

| LOCATION | THERMOPLASTIC PAVEMENT MARKING LINE | | | | | | POLYUREA PAVEMENT MARKING TYPE I LINE | | | | | | | |
|------------------------------|-------------------------------------|--------------|----------|----------|----------|----------|---------------------------------------|-------------|----------|----------|----------|----------|----------|----------|
| | 4" | | 6" | | 12" | | 4" | | 6" | | 12" | | 24" | |
| | WHITE | YELLOW | WHITE | WHITE | YELLOW | WHITE | WHITE | YELLOW | WHITE | WHITE | YELLOW | WHITE | WHITE | WHITE |
| | FOOT | | FOOT | | FOOT | | FOOT | | FOOT | | FOOT | | FOOT | |
| IL ROUTE 23 | | | | | | | | | | | | | | |
| STA 59+00 TO STA 67+42.50 | 1685 | 1685 | | | | | | | | | | | | |
| STA 67+42.50 TO STA 70+62.50 | | | | | | | 640 | 640 | | | | | | |
| STA 70+62.50 TO STA 89+00 | 3675 | 3675 | | | | | | | | | | | | |
| SUBTOTALS | 5360 | 5360 | 0 | 0 | 0 | 0 | 640 | 640 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTALS | | 10720 | 0 | | 0 | 0 | | 1280 | 0 | | 0 | | 0 | 0 |

| | | | | | | | | | | | | |
|-----------------------|--------------------|------------------|---------------------|---|---|-------------------------|--------------------------|--------------------|---------|---------|--------------|-----------|
| FILE NAME = | USER NAME = #USER# | DESIGNED - GJM | REVISED - 5/13/2008 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | SCHEDULE OF QUANTITES | | | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| #FILEL# | | DRAWN - GJM | REVISED - 7/18/2008 | | | | | 324 | 23B-1 | MCHENRY | 97 | 11 |
| PLOT SCALE = #SCALE# | | CHECKED - EJL | REVISED - --- | | SCALE: NONE | SHEET NO. 2 OF 5 SHEETS | STA. 59+00 TO STA. 89+00 | CONTRACT NO. 62892 | | | | |
| PLOT DATE = 9/30/2008 | | DATE - 3/11/2008 | REVISED - --- | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | | | | |

ROADWAY SIGNING SCHEDULE

| SIGN NUMBER | PANEL DESCRIPTION | STATION | OFFSET | EXISTING SIGNING RELOCATIONS | | | NEW SIGNING | | | | |
|-------------|-------------------|----------|--------|-------------------------------|--|---|----------------------|----------------------|----------------------|----------------------|--|
| | | | | RELOCATE SIGN PANEL-TYPE 1 | RELOCATE SIGN PANEL ASSEMBLY - TY A | RELOCATED SIGN PANEL ASSEMBLY - TY B | SIGN PANEL TYPE 1 | SIGN PANEL TYPE 2 | METAL POST TYPE A | METAL POST TYPE B | |
| | | | | SQ FT | EACH | EACH | SQ FT | SQ FT | FOOT | FOOT | |
| IL ROUTE 23 | | | | | | | | | | | |
| | SPEED LIMIT | 61+36.22 | 18.95 | | | | 7.5 | | 7 | | |
| | SPEED LIMIT | 61+36.62 | 21.07 | | | | 7.5 | | 7 | | |
| | SPEED LIMIT | 69+84.26 | 24.59 | | | | 7.5 | | 7 | | |
| | SPEED LIMIT | 70+00.83 | 25.1 | | | | 7.5 | | 7 | | |
| | SPEED LIMIT | 88+74.77 | 24.41 | | | | 7.5 | | 7 | | |
| | SPEED LIMIT | 88+82.66 | 19.44 | | | | 7.5 | | 7 | | |
| | KISHWAUKEE RIVER | | | | 1 | | | | | | |
| | KISHWAUKEE RIVER | | | | 1 | | | | | | |
| TOTALS | | | | 0 | 2 | 0 | 45 | 0 | 42 | 0 | |

DRIVEWAY SCHEDULE

| LOCATION | HOT-MIX ASPHALT SURF CSE, MIX "C" N50, 2" | HOT-MIX ASPHALT BSE CSE, 6" | HOT-MIX ASPHALT BSE CSE, 8" | AGGREGATE BASE COURSE TYPE A 8" | CURB CONC TY B | BITUMINOUS MATERIALS (PRIME COAT) | TEMPORARY ACCESS (PRIVATE ENTRANCE) | TEMPORARY ACCESS (COMMERCIAL ENTRANCE) | TEMPORARY ACCESS (FIELD ENTRANCE) |
|--------------------|---|--------------------------------|--------------------------------|------------------------------------|-------------------|---|---|--|---|
| | TONS | SQ YD | SQ YD | SQ YD | FOOT | GALLON | | | |
| IL ROUTE 23 | | | | | | | | | |
| STA. 60+00.00 (LT) | 7.2 | 0 | 0 | 63 | 64.8 | 6 | | | 1 |
| STA. 60+00.00 (RT) | 10.9 | 0 | 95 | 0 | 64.6 | 9 | | | 1 |
| STA. 62+15.00 (RT) | 9.4 | 0 | 81 | 0 | 73.8 | 8 | | | 1 |
| STA. 63+27.94 (LT) | 7.4 | 0 | 0 | 65 | 76.1 | 6 | | | 1 |
| STA. 73+48.00 (LT) | 27.4 | 0 | 0 | 238 | 0.0 | 24 | | | 1 |
| STA. 83+50.00 (RT) | 5.2 | 45 | 0 | 0 | 0.0 | 4 | 1 | | |
| STA. 84+40.00 (LT) | 21.1 | 0 | 184 | 0 | 92.4 | 18 | | | 1 |
| STA. 84+40.00 (RT) | 9.7 | 0 | 84 | 0 | 0.0 | 8 | | | 1 |
| STA. 85+20.00 (RT) | 9.7 | 0 | 85 | 0 | 0.0 | 8 | | | 1 |
| STA. 88+50.00 (LT) | 14.8 | 0 | 129 | 0 | 0.0 | 13 | | | 1 |
| Totals | 123 | 45 | 658 | 366 | 372 | 107 | 1 | 6 | 3 |

| | | | | | | | | | | | | |
|-----------------------|--------------------|------------------|---------------------|---|---|-------------------------|--------------------------|--------------------|---------|---------|-----------------|--------------|
| FILE NAME = | USER NAME = #USER# | DESIGNED - GJM | REVISED - 5/13/2008 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | SCHEDULE OF QUANTITIES | | | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| #FILEL# | | DRAWN - GJM | REVISED - 7/18/2008 | | | | | 324 | 23B-1 | MCHENRY | 97 | 12 |
| PLOT SCALE = #SCALE# | | CHECKED - EJL | REVISED - ---- | | SCALE: NONE | SHEET NO. 3 OF 5 SHEETS | STA. 59+00 TO STA. 89+00 | CONTRACT NO. 62892 | | | | |
| PLOT DATE = 9/30/2008 | | DATE - 3/11/2008 | REVISED - ---- | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | | | | |

LANDSCAPING AND EROSION CONTROL SCHEDULE

| LOCATION | TOPSOIL FURNISH AND PLACE, 6" | SEEDING, CLASS 4 | TEMPORARY DITCH CHECKS | PERIMETER EROSION BARRIER | NITROGEN FERTILIZER | PHOSPHORUS FERTILIZER | POTASSIUM FERTILIZER | EROSION CONTROL BLANKET | EARTH EXCAVATION FOR EROSION CONTROL | TEMPORARY EROSION CONTROL SEEDING | FILTER FABRIC | STONE RIPRAP CLASS A3 |
|--------------------------------------|-------------------------------|------------------|------------------------|---------------------------|---------------------|-----------------------|----------------------|-------------------------|--------------------------------------|-----------------------------------|---------------|-----------------------|
| | SQ YD | ACRE | EACH | FOOT | POUNDS | POUNDS | POUNDS | SQ YD | CU YD | ACRE | SQ YD | SQ YD |
| IL ROUTE 23 | | | | | | | | | | | | |
| Sta. 59+00.00 LT to Sta. 59+90.71 LT | 143 | 0.03 | | 100.80 | 2.7 | 2.7 | 2.7 | 143 | | 0.03 | | |
| Sta. 59+00.00 RT to Sta. 59+94.08 RT | 146 | 0.03 | | 105.88 | 2.7 | 2.7 | 2.7 | 146 | | 0.03 | | |
| Sta. 60+19.11 LT to Sta. 63+20.34 LT | 795 | 0.16 | | 321.33 | 14.8 | 14.8 | 14.8 | 795 | | 0.16 | | |
| Sta. 60+23.68 RT to Sta. 62+05.87 RT | 291 | 0.06 | | 185.63 | 5.4 | 5.4 | 5.4 | 291 | | 0.06 | | |
| Sta. 62+30.43 RT to Sta. 67+92.48 RT | 1675 | 0.35 | | 589.09 | 31.1 | 31.1 | 31.1 | 1675 | | 0.35 | | |
| Sta. 63+35.54 LT to Sta. 68+03.83 LT | 1357 | 0.28 | | 492.40 | 25.2 | 25.2 | 25.2 | 1357 | | 0.28 | | |
| Sta. 68+55.42 RT to Sta. 83+38.86 RT | 4348 | 0.90 | | 389.99 | 80.9 | 80.9 | 80.9 | 4348 | | 0.90 | | |
| Sta. 68+63.20 LT to Sta. 73+36.22 LT | 1810 | 0.37 | | 1346.90 | 33.7 | 33.7 | 33.7 | 1810 | | 0.37 | | |
| Sta. 73+60.22 LT to Sta. 84+17.73 LT | 3253 | 0.67 | | 1158.63 | 60.5 | 60.5 | 60.5 | 3253 | | 0.67 | | |
| Sta. 83+56.98 RT to Sta. 84+20.43 RT | 160 | 0.03 | | 63.45 | 3.0 | 3.0 | 3.0 | 160 | | 0.03 | | |
| Sta. 84+55.43 RT to Sta. 85+05.54 RT | 126 | 0.03 | | 391.96 | 2.3 | 2.3 | 2.3 | 126 | | 0.03 | | |
| Sta. 84+58.27 LT to Sta. 87+97.61 LT | 435 | 0.09 | | 50.11 | 8.1 | 8.1 | 8.1 | 435 | | 0.09 | | |
| Sta. 85+40.54 RT to Sta. 89+00.00 RT | 523 | 0.11 | | 374.46 | 9.7 | 9.7 | 9.7 | 523 | | 0.11 | | |
| Sta. 88+27.64 LT to Sta. 89+00.00 LT | 104 | 0.02 | | 46.59 | 1.9 | 1.9 | 1.9 | 104 | | 0.02 | | |
| Sta. 59+00.00 LT to Sta. 67+00.00 LT | | | 5 | | | | | | 66.7 | | 6.7 | 6.7 |
| Sta. 59+00.00 RT to Sta. 67+00.00 RT | | | 7 | | | | | | 155.6 | | 6.7 | 6.7 |
| Sta. 73+00.00 RT to Sta. 89+00.00 RT | | | 7 | | | | | | 111.1 | | 0 | 0 |
| Sta. 73+00.00 LT to Sta. 89+00.00 LT | | | 11 | | | | | | 355.6 | | 0 | 0 |
| Totals | 15167 | 3.13 | 30 | 5618 | 283 | 283 | 283 | 15167 | 689 | 3.13 | 14 | 14 |

GUARDRAIL SCHEDULE

| STATION | GUARDRAIL TYPE A FOOT | GUARDRAIL ATTACHED TO STRUCTURE FOOT | TBT TYPE 1, SPECIAL (TANGENT) EACH | TBT TYPE 2 EACH | TBT TYPE 6 EACH | GUARDRAIL MARKER TYPE A EACH | TERMINAL MARKER - DIRECT APPLIED EACH |
|-----------------------------------|-----------------------|--------------------------------------|------------------------------------|-----------------|-----------------|------------------------------|---------------------------------------|
| IL ROUTE 23 | | | | | | | |
| STA 65+99.85 TO STA 67+41.85 (RT) | 175 | | | | | | 3 |
| STA 66+29.35 TO STA 67+41.85 (LT) | 112.5 | | | | | | 2 |
| STA 70+63.15 TO STA 73+13.15 (LT) | 250 | | | | | | 4 |
| STA 70+63.15 TO STA 77+38.15 (RT) | 675 | | | | | | 5 |
| STA 73+48.20 TO STA 77+35.70 (LT) | 387.5 | | | | | | 5 |
| STA 77+35.70 TO 77+85.70 (LT) | | 50 | | | | | |
| STA 77+38.15 TO 77+88.15 (RT) | | 50 | | | | | |
| STA 77+85.70 TO 79+85.70 (LT) | 200 | | | | | | 3 |
| STA 77+87.50 TO 79+25 (RT) | 137.5 | | | | | | 2 |
| STA 65+16.85 (RT) | | | | | 1 | | 1 |
| STA 65+79.35 (LT) | | | | | 1 | | 1 |
| STA 80+35.70 (RT) | | | | | 1 | | 1 |
| STA 73+16.22 (CURVED) | | | | | 1 | | 1 |
| STA 73+80.22 (CURVED) | | | | | 1 | | 1 |
| STA 79+75 (LT) | | | | | 1 | | 1 |
| STA 67+72.50 (RT) | | | | | | 1 | |
| STA 67+72.50 (LT) | | | | | | 1 | |
| STA 70+32.50 (RT) | | | | | | 1 | |
| STA 70+32.50 (LT) | | | | | | 1 | |
| TOTALS | 1937.5 | 100 | 4 | 2 | 4 | | 24 |

| | | | | | | | | | | | | |
|-------------|-----------------------|------------------|---------------------|---|-------------------------------|-------------------------|--------------------------|---|---------|---------|--------------|-----------|
| FILE NAME = | USER NAME = *USER* | DESIGNED - GJM | REVISED - 7/18/2008 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | SCHEDULE OF QUANTITIES | | | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| *FILEL* | PLOT SCALE = *SCALE* | DRAWN - GJM | REVISED - 9/30/2008 | | | | | 324 | 23B-1 | MCHENRY | 97 | 13 |
| | PLOT DATE = 9/30/2008 | CHECKED - EJL | REVISED - --- | | SCALE: NONE | SHEET NO. 4 OF 5 SHEETS | STA. 59+00 TO STA. 89+00 | CONTRACT NO. 62892 | | | | |
| | | DATE - 3/11/2008 | REVISED - --- | | | | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |

RAISED REFLECTIVE PAVEMENT MARKERS

| LOCATION | TWO-WAY AMBER | ONE-WAY CRYSTAL | TWO-WAY AMBER |
|------------------|---------------|-----------------|---------------|
| | EACH | EACH | EACH |
| IL ROUTE 23 | | | |
| Sta. 59+00.00 | 1 | | 1 |
| Sta. 59+80.00 | 1 | | 1 |
| Sta. 60+60.00 | 1 | | 1 |
| Sta. 61+40.00 | 1 | | 1 |
| Sta. 62+20.00 | 1 | | 1 |
| Sta. 63+00.00 | 1 | | 1 |
| Sta. 63+80.00 | 1 | | 1 |
| Sta. 64+60.00 | 1 | | 1 |
| Sta. 65+40.00 | 1 | | 1 |
| Sta. 66+20.00 | 1 | | 1 |
| Sta. 67+00.00 | 1 | | 1 |
| Sta. 67+80.00 | 1 | | 1 |
| Sta. 68+60.00 | 1 | | 1 |
| Sta. 69+40.00 | 1 | | 1 |
| Sta. 70+20.00 | 1 | | 1 |
| Sta. 71+00.00 | 1 | | 1 |
| Sta. 71+80.00 | 1 | | 1 |
| Sta. 72+60.00 | 1 | | 1 |
| Sta. 73+40.00 | 1 | | 1 |
| Sta. 74+20.00 | 1 | | 1 |
| Sta. 75+00.00 | 1 | | 1 |
| Sta. 75+80.00 | 1 | | 1 |
| Sta. 76+60.00 | 1 | | 1 |
| Sta. 77+40.00 | 1 | | 1 |
| Sta. 78+20.00 | 1 | | 1 |
| Sta. 79+00.00 | 1 | | 1 |
| Sta. 79+80.00 | 1 | | 1 |
| Sta. 80+60.00 | 1 | | 1 |
| Sta. 81+40.00 | 1 | | 1 |
| Sta. 82+20.00 | 1 | | 1 |
| Sta. 83+00.00 | 1 | | 1 |
| Sta. 83+80.00 | 1 | | 1 |
| Sta. 84+60.00 | 1 | | 1 |
| Sta. 85+40.00 | 1 | | 1 |
| Sta. 86+20.00 | 1 | | 1 |
| Sta. 87+00.00 | 1 | | 1 |
| Sta. 87+80.00 | 1 | | 1 |
| Sta. 88+60.00 | 1 | | 1 |
| SUBTOTALS | 38 | 0 | 38 |
| TOTALS | | 76 | |

TREE REMOVAL SCHEDULE

| LOCATION | TREE REMOVAL 6-15 UNITS | TREE REMOVAL OVER 15 UNITS |
|------------------|-------------------------|----------------------------|
| | UNIT | UNIT |
| IL ROUTE 23 | | |
| Sta. 60+76.90 LT | 2 | |
| Sta. 61+78.27 LT | 2 | |
| Sta. 62+26.04 LT | 2 | |
| Sta. 62+38.86 LT | | 1 |
| Sta. 62+45.19 LT | 3 | |
| Sta. 62+49.14 LT | | 1 |
| Sta. 62+58.32 LT | 2 | |
| Sta. 62+69.23 LT | 1 | |
| Sta. 62+69.73 LT | | 1 |
| Sta. 62+84.01 LT | | 1 |
| Sta. 62+85.82 LT | 1 | |
| Sta. 63+55.72 LT | 1 | |
| Sta. 63+74.79 LT | 1 | |
| Sta. 63+85.03 LT | 1 | |
| Sta. 63+89.20 LT | 1 | |
| Sta. 64+00.26 LT | 1 | |
| Sta. 64+38.94 LT | 1 | |
| Sta. 64+94.06 LT | 1 | |
| Sta. 73+48.22 LT | | 3 |
| Sta. 74+52.41 LT | 1 | |
| Sta. 74+80.86 LT | 1 | |
| Sta. 74+81.54 LT | 1 | |
| Sta. 74+83.40 LT | 1 | |
| Sta. 74+83.83 LT | 1 | |
| Sta. 74+95.33 LT | 1 | |
| Sta. 75+10.63 LT | 1 | |
| Sta. 75+11.19 LT | 4 | |
| Sta. 75+24.88 LT | 1 | |
| Sta. 75+29.08 LT | 1 | |
| Sta. 75+51.96 LT | | 1 |
| TOTALS | 33 | 8 |

STORM SEWER SCHEDULE

| LOCATION | TRENCH BACKFILL | STORM SEWERS CLASS A, TYPE 1 12" | PIPE UNDERDRAINS, 4" |
|--|-----------------|----------------------------------|----------------------|
| | CU YARDS | LF | LF |
| IL ROUTE 23 | | | |
| Sta. 64+25.00 36.98 LT to Sta. 64+25.00 38.63 RT | | | 75.61 |
| Sta. 81+00.00 41.41 LT to Sta. 81+00.00 38.34 RT | | | 79.75 |
| Sta. 60+80.05 13.55 LT to Sta. 60+80.09 13.14 RT | 9.1 | 26.69 | |
| Totals | 10 | 27 | 156 |

DRAINAGE AND UTILITY STRUCTURE SCHEDULE

| STATION | OFFSET | RIM ELEVATION | CB TY A, 4' DIAMETER, TYPE 23 F&G | INLET TY A, 2' TYPE 23 F&G | CONCRETE HEADWALLS | TYPE F INLET BOX | METAL END SECTIONS 12" | PIPE DRAINS 12" FOOT | CONCRETE THRUST BLOCKS | |
|---------------|--------|---------------|-----------------------------------|----------------------------|--------------------|------------------|------------------------|----------------------|------------------------|---|
| | | | EACH | EACH | EACH | EACH | EACH | EACH | EACH | |
| IL ROUTE 23 | | | | | | | | | | |
| 60+80.09 | 13.14 | RT | 804.59 | | 1 | | | | | |
| 60+80.05 | 13.55 | LT | 804.58 | 1 | | | | | | |
| 64+25.00 | 36.98 | LT | | | 1 | | | | | |
| 64+25.00 | 38.63 | RT | | | 1 | | | | | |
| 67+40.54 | 15.60 | LT | | | | 1 | 1 | 25 | 1 | |
| 67+40.54 | 15.60 | RT | | | | 1 | 1 | 25 | 1 | |
| 81+00.00 | 41.41 | LT | | | 1 | | | | | |
| 81+00.00 | 38.34 | RT | | | 1 | | | | | |
| TOTALS | | | | 1 | 1 | 4 | 2 | 2 | 50 | 2 |

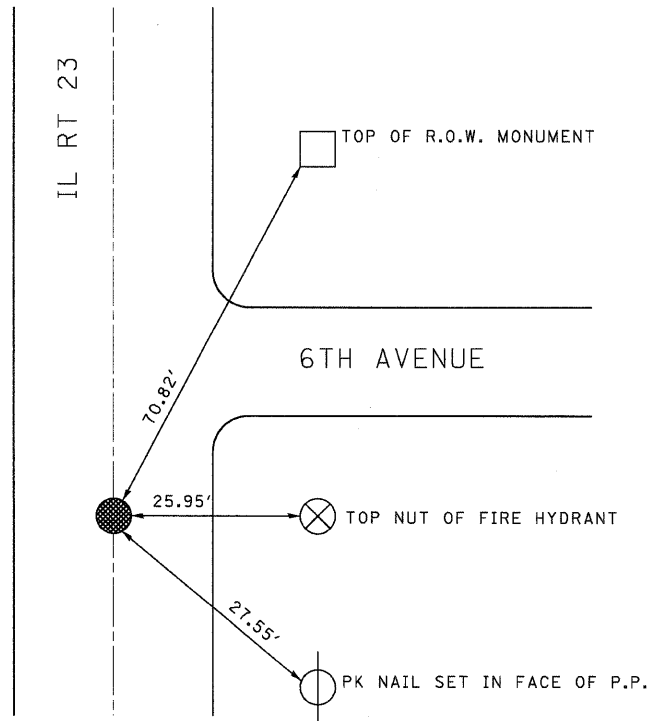
CULVERTS SCHEDULE

| LOCATION | INVERT (S) | | INVERT (N) | | SKEW DEGREES | PIPE CULVERTS, TYPE 1 RCCP 18" LENGTH (FOOT) | PIPE CULVERTS, TYPE 1 RCCP 15" LENGTH (FOOT) | PRC CONCRETE FLARED END SECTIONS, 18" LENGTH (FOOT) | PRC CONCRETE FLARED END SECTIONS, 15" LENGTH (FOOT) | TEMPORARY SEDIMENT TRAP EACH | |
|--|------------|--|------------|--|--------------|--|--|---|---|------------------------------|---|
| | ELVATION | | ELVATION | | | | | | | | |
| IL ROUTE 23 | | | | | | | | | | | |
| Sta. 59+79.72 28.27 LT to Sta. 60+29.72 28.27 LT | 802.99 | | 802.38 | | 0.00° | 50.0 | | | 2 | 1 | |
| Sta. 59+75.97 20.70 RT to Sta. 60+35.97 20.70 RT | 802.55 | | 801.97 | | 0.00° | 60.0 | | | 2 | 1 | |
| Sta. 61+95.69 22.78 RT to Sta. 62+45.69 22.78 RT | 800.81 | | 800.50 | | 0.00° | 50.0 | | | 2 | 1 | |
| Sta. 63+06.00 25.39 LT to Sta. 63+51.00 27.06 LT | 800.08 | | 799.81 | | 2.13° | 45.0 | | | 2 | 1 | |
| Sta. 73+00.00 51.70 LT to Sta. 73+97.51 51.70 LT | 795.10 | | 795.43 | | 0.00° | 97.5 | | | 2 | 1 | |
| Sta. 83+32.02 34.05 RT to Sta. 83+67.01 34.05 RT | 799.67 | | 800.40 | | 0.00° | 35.0 | | | 2 | 1 | |
| Sta. 83+95.47 24.18 LT to Sta. 84+80.48 24.18 LT | 801.22 | | 801.59 | | 0.00° | 85.0 | | | 2 | 1 | |
| Sta. 84+04.71 26.07 RT to Sta. 85+54.72 26.46 RT | 801.12 | | 801.93 | | 0.15° | 150.0 | | | 2 | 1 | |
| Sta. 87+89.11 22.74 LT to Sta. 88+39.11 22.55 LT | 804.52 | | 804.97 | | 0.22° | | 50.0 | | | 2 | 1 |
| Totals | | | | | | 573 | 50 | 16 | 2 | 9 | |

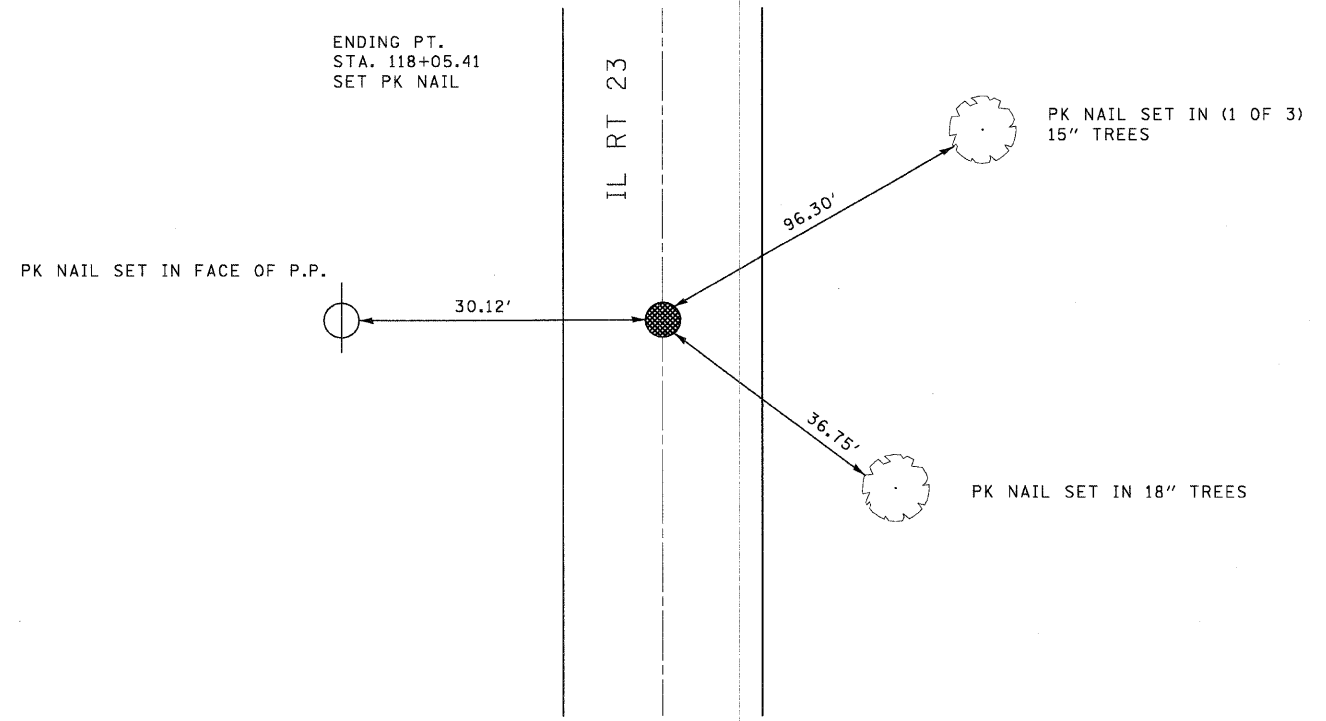
| | | | | | | | | | | | | |
|---------------------|------------------------|------------------|---------------------|---|---|-------------------------|--------------------------|--------------------|---------------|----------------|-----------------|--------------|
| FILE NAME = #FILEL# | USER NAME = #USER# | DESIGNED - GJM | REVISED - 5/13/2008 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | SCHEDULE OF QUANTITIES | | | F.A.P. RTE. 324 | SECTION 23B-1 | COUNTY MCHENRY | TOTAL SHEETS 97 | SHEET NO. 14 |
| | PLOT SCALE = #SCALE# | DRAWN - GJM | REVISED - 7/18/2008 | | SCALE: NONE | SHEET NO. 5 OF 5 SHEETS | STA. 59+00 TO STA. 89+00 | CONTRACT NO. 62892 | | | | |
| | PLOT DATE = 10/10/2008 | CHECKED - E.JL | REVISED - ---- | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | | | | |
| | | DATE - 3/11/2008 | REVISED - ---- | | | | | | | | | |



BEGINNING PT.
STA. 50+00.00
SET PK NAIL



ENDING PT.
STA. 118+05.41
SET PK NAIL



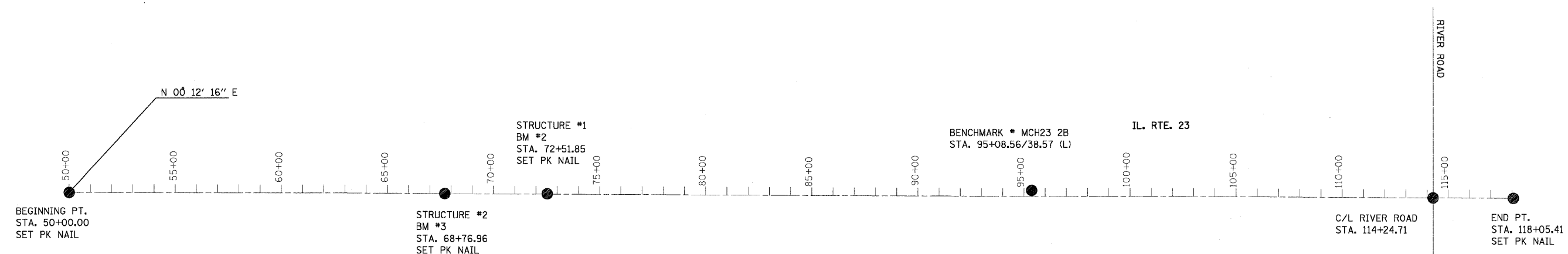
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| | PLOT SCALE = #SCALE# | CHECKED - EJM | REVISED - --- |
| | PLOT DATE = 7/17/2008 | DATE - 3/11/2008 | REVISED - --- |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

ALIGNMENT, TIES AND BENCHMARKS

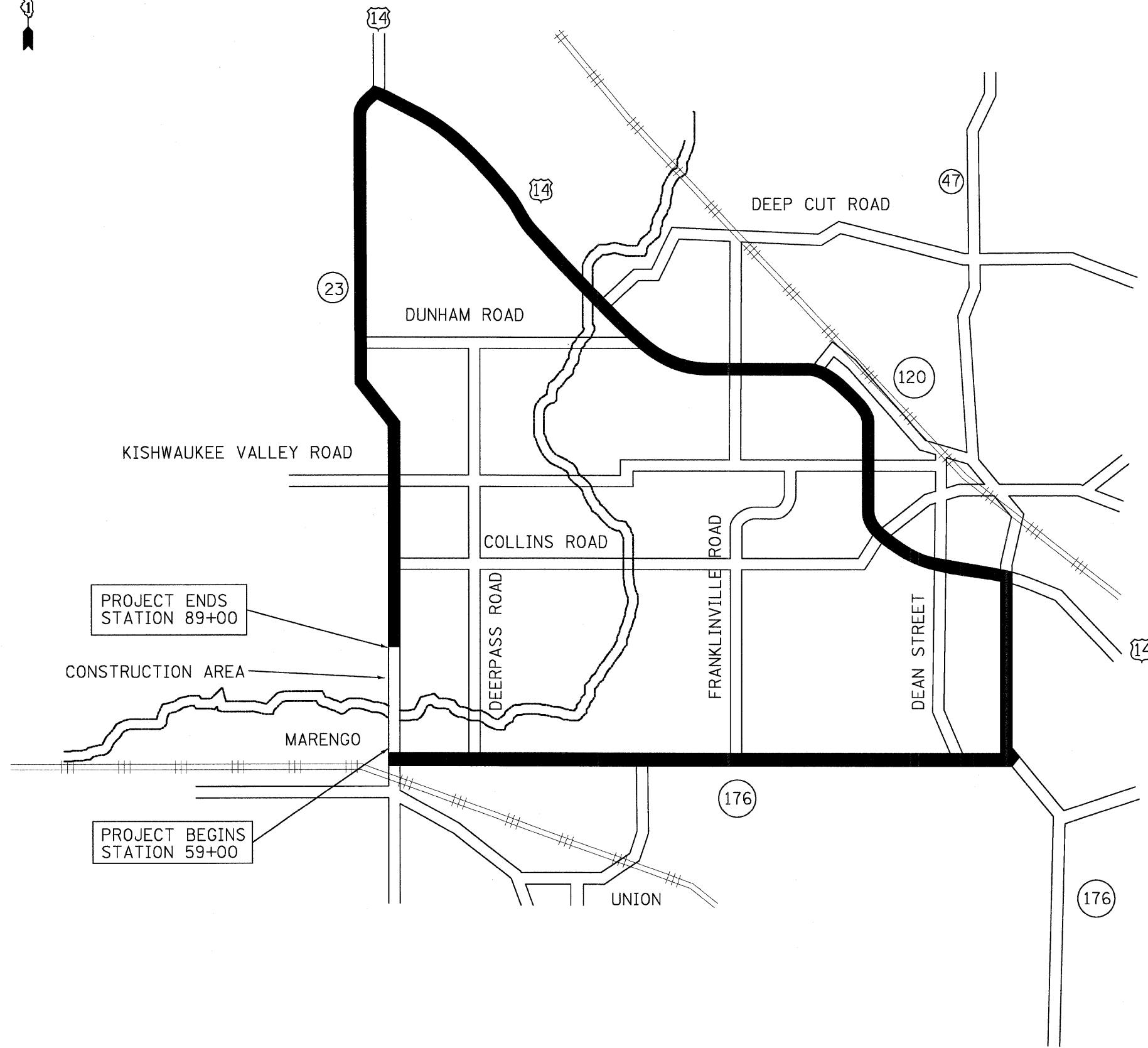
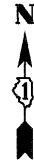
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| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---------|---------|--------------|-----------|
| 324 | 23B-1 | MCHENRY | 97 | 15 |
| CONTRACT NO. 62892 | | | | |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |



BENCHMARKS
 BENCHMARK * MCH23 2B
 HARN MONUMENT. STA. 95+08.56/38.57 (L)
 BM #2
 SQ. CUT FOUND IN TOP OF WINGWALL @ SW CORNER OF BRIDGE
 (STRUCTURE #1)
 ELEV. = 802.58
 BM #3
 FOUND USGS DISK SET IN TOP OF WINGWALL @ NW CORNER OF BRIDGE
 (STRUCTURE #2)
 ELEV. = 802.58

| | | | | | | | | | | | |
|------------------------|-----------------------|------------------|---------------------|---|---------------------------------------|---|---------|---------------------------|-----------------|--------------|--|
| FILE NAME = #FILEL# | USER NAME = #USER# | DESIGNED - GJM | REVISED - 5/13/2008 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | ALIGNMENT, TIES AND BENCHMARKS | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | |
| | PLOT SCALE = #SCALE# | DRAWN - GJM | REVISED - 7/18/2008 | | | 324 | 23B-1 | MCHENRY | 97 | 16 | |
| | PLOT DATE = 7/17/2008 | CHECKED - EJL | REVISED - --- | | | CONTRACT NO. 62892 | | | | | |
| | | DATE - 3/11/2008 | REVISED - --- | | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | | |
| | | | | SCALE: NONE | | SHEET NO. 2 OF 2 SHEETS | | STA. 50+00 TO STA. 118+05 | | | |



NOTES:

1. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.
2. THE ACTUAL FIELD LOCATIONS OF THE SIGNS ARE SUBJECT TO THE APPROVAL OF THE ENGINEER DURING CONSTRUCTION.
3. LOCATION AND TYPE OF SIGNS ARE SHOWN ON PLAN SHEETS 18 - 25 AND WILL CONFORM TO STANDARD DRAWING TC-21 (TYPICAL MARKING FOR CLOSING STATE HIGHWAYS)
4. THE CONTRACTOR WILL BE REQUIRED TO MAINTAIN INGRESS AND EGRESS TO ALL LOCAL PROPERTIES DURING CONSTRUCTION. THE CONTRACTOR WILL BE REQUIRED TO PROVIDE, ERECT AND MAINTAIN ALL TRAFFIC CONTROL DEVICES NECESSARY FOR THE PROTECTION OF THE WORK AND TO SAFEGUARD LOCAL TRAFFIC WITHIN THE CONSTRUCTION AREA. REFER TO THE SCHEDULE OF QUANTITIES FOR TEMPORARY ACCESS LOCATIONS.
5. FURNISHING, ERECTING, MAINTAINING AND REMOVING ALL SIGN PANELS & POSTS NECESSARY FOR THE MARKING OF THE DETOUR ROUTE AS SHOWN ON THIS PLAN WILL BE PAID FOR AT THE CONTRACT UNIT PRICE, LUMP SUM, FOR TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR. THE SIGNS AND SIGN POSTS WHICH ARE TO BE REMOVED SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AND THE SALVAGE VALUE SHALL BE REFLECTED IN THE BID PRICE.
6. ANY WORK INVOLVED IN MAINTENANCE OF THE DETOUR ROUTE ROADWAY, WHEN REQUIRED BY THE ENGINEER WILL BE PAID FOR SEPARATELY IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

LEGEND:

DETOUR ROUTE

ROUTE MARKERS

FOR ILLINOIS ROUTES MI-50-2424

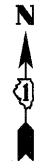
ARROW SIGNS

- M5-1L-2115
- M5-1R-2115
- M6-1L-2115
- M6-1R-2115
- M6-3-2115

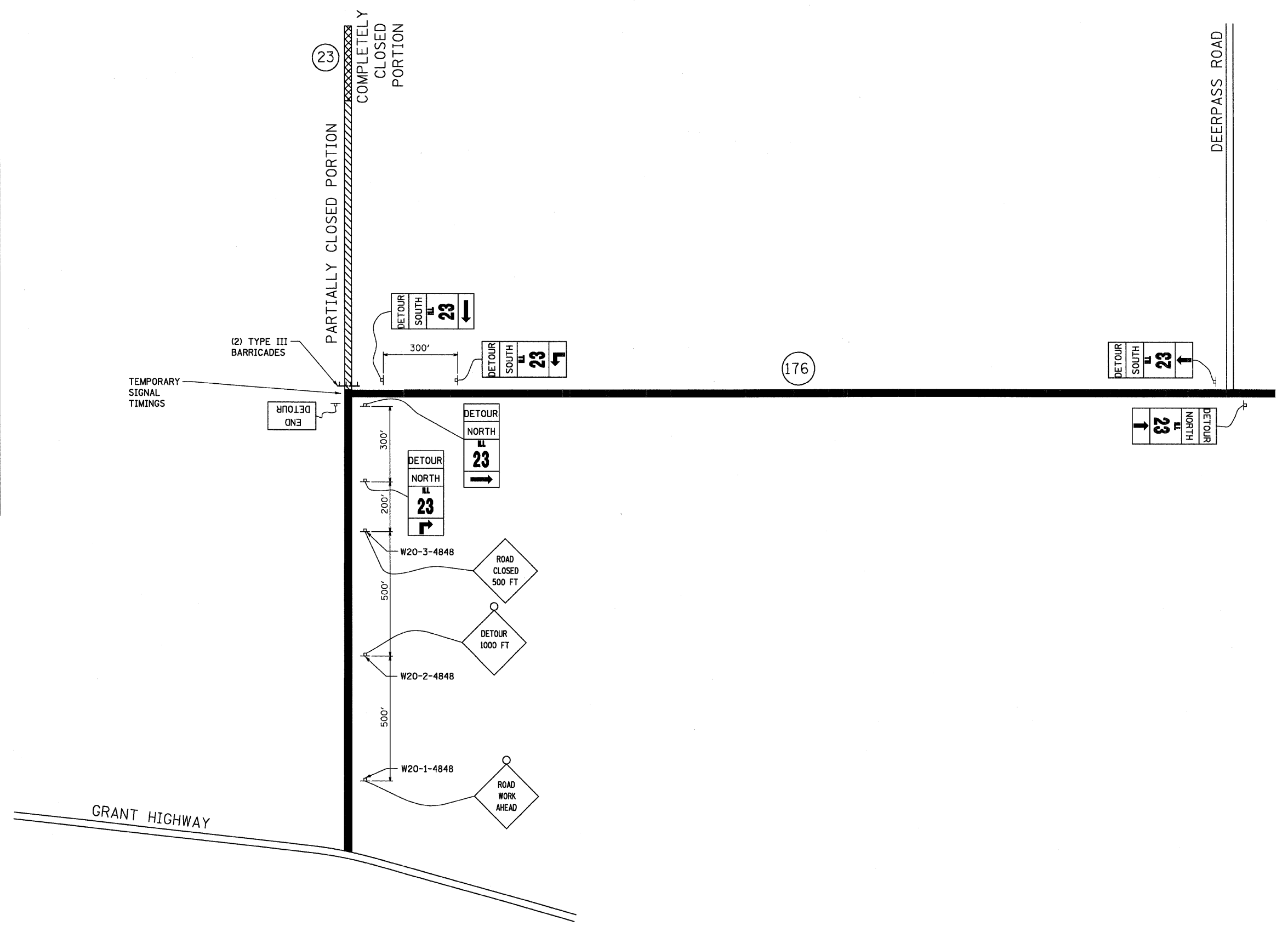
CARDINAL DIRECTION & DETOUR SIGNS

- NORTH M3-1-219
- SOUTH M3-3-219
- DETOUR M1-7-219

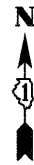
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| PLOT DATE = 9/30/2008 | CHECKED - EJL | REVISED - 9/30/2008 | SCALE: NONE SHEET NO. 1 OF 9 SHEETS STA. 59+00 TO STA. 89+00 | | CONTRACT NO. 62892 | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |
| | DATE - 3/11/2008 | REVISED - --- | | | | | | | | | |
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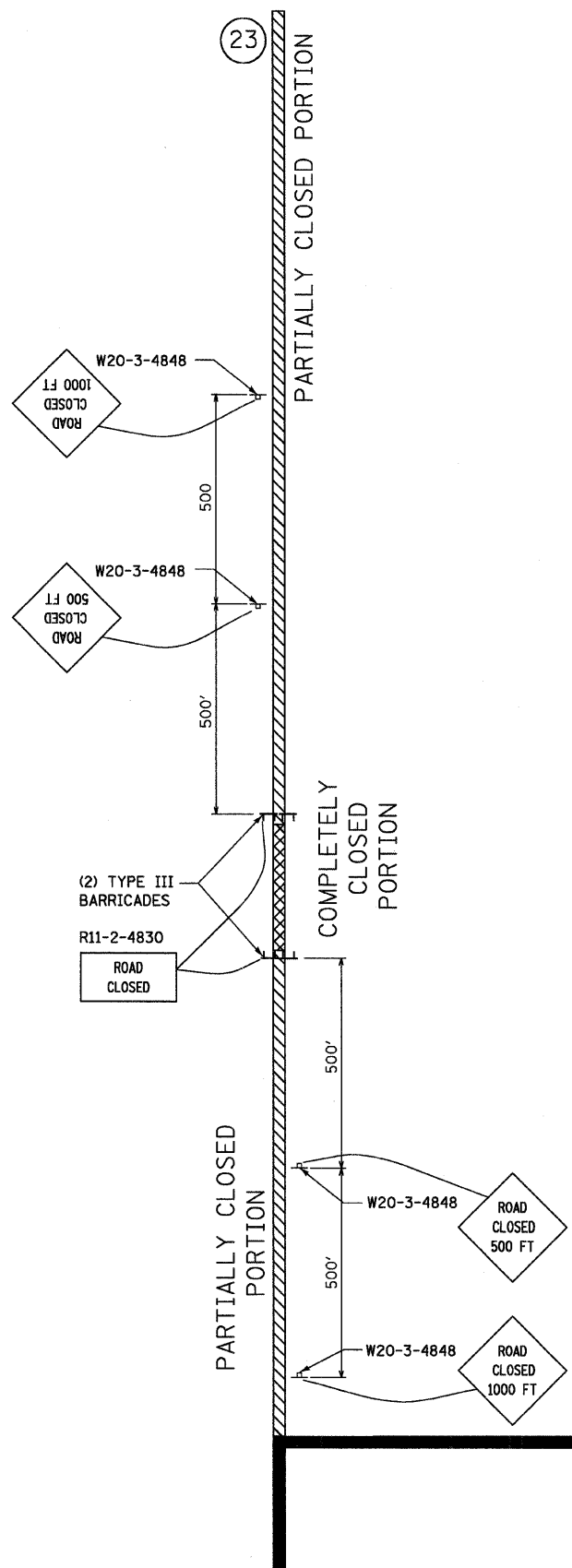
| ROUTE MARKERS | |
|----------------------------------|-----------------------------------|
| | FOR ILLINOIS ROUTES MI-50-2424 |
| ARROW SIGNS | |
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| | M5-1R-2115 |
| | M6-1L-2115 |
| | M6-1R-2115 |
| | M6-3-2115 |
| CARDINAL DIRECTION & DETOUR SIGS | |
| | M3-1-219 |
| | M3-3-219 |
| | M1-7-219 |



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| | | | | | SCALE: NONE | SHEET NO. 2 OF 9 SHEETS | STA. 59+00 TO STA. 89+00 | CONTRACT NO. 62892 | | | | |
| | | | | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | | | | |
| | | | | | | | | | | | | |



| ROUTE MARKERS | |
|-----------------------------------|-----------------------------------|
| | FOR ILLINOIS ROUTES MI-50-2424 |
| ARROW SIGNS | |
| | M5-1L-2115 |
| | M5-1R-2115 |
| | M6-1L-2115 |
| | M6-1R-2115 |
| | M6-3-2115 |
| CARDINAL DIRECTION & DETOUR SIGNS | |
| | NORTH M3-1-219 |
| | SOUTH M3-3-219 |
| | DETOUR M1-7-219 |



| | | | | | | | | | | | |
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| | | DATE - 3/11/2008 | REVISED - ---- | | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | | |
| | | | | SCALE: NONE | SHEET NO. 3 OF 9 SHEETS | STA. 59+00 TO STA. 89+00 | | | | | |



ROUTE MARKERS



FOR ILLINOIS ROUTES
MI-50-2424

ARROW SIGNS



M5-1L-2115



M5-1R-2115



M6-1L-2115



M6-1R-2115



M6-3-2115

CARDINAL DIRECTION & DETOUR SIGS



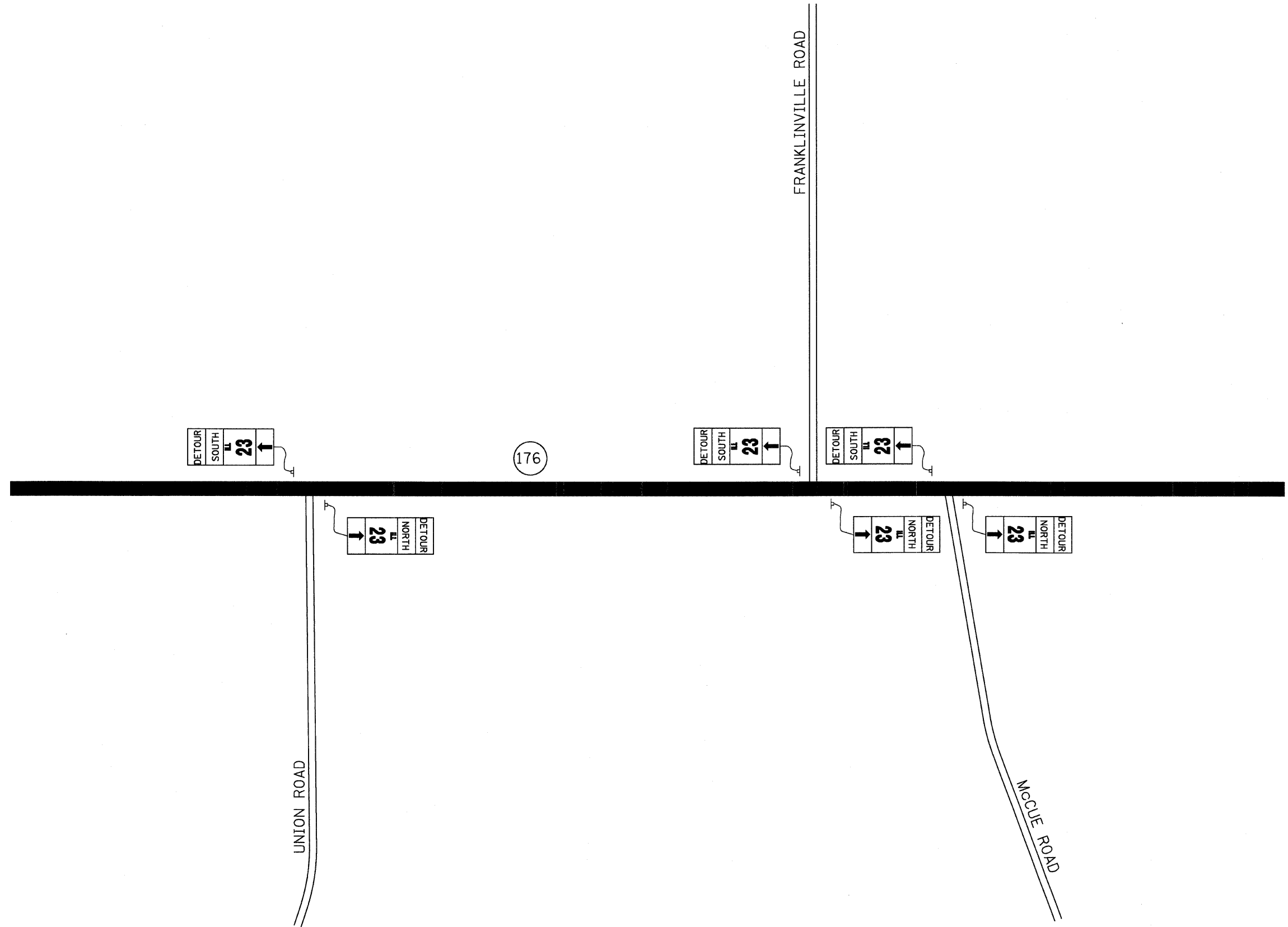
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M3-3-219



M1-7-219



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| DRAWN - GJM | REVISD - 7/18/2008 |
| CHECKED - EJL | REVISD - --- |
| DATE - 3/11/2008 | REVISD - --- |

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| DESIGNED - GJM | REVISD - 5/13/2008 |
| DRAWN - GJM | REVISD - 7/18/2008 |
| CHECKED - EJL | REVISD - --- |
| DATE - 3/11/2008 | REVISD - --- |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

| DETOUR ROUTE | | |
|--------------|-------------------------|--------------------------|
| SCALE: NONE | SHEET NO. 4 OF 9 SHEETS | STA. 59+00 TO STA. 89+00 |

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---------|---------|--------------|-----------|
| 324 | 23B-1 | MCHENRY | 97 | 20 |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |

CONTRACT NO. 62892



ROUTE MARKERS

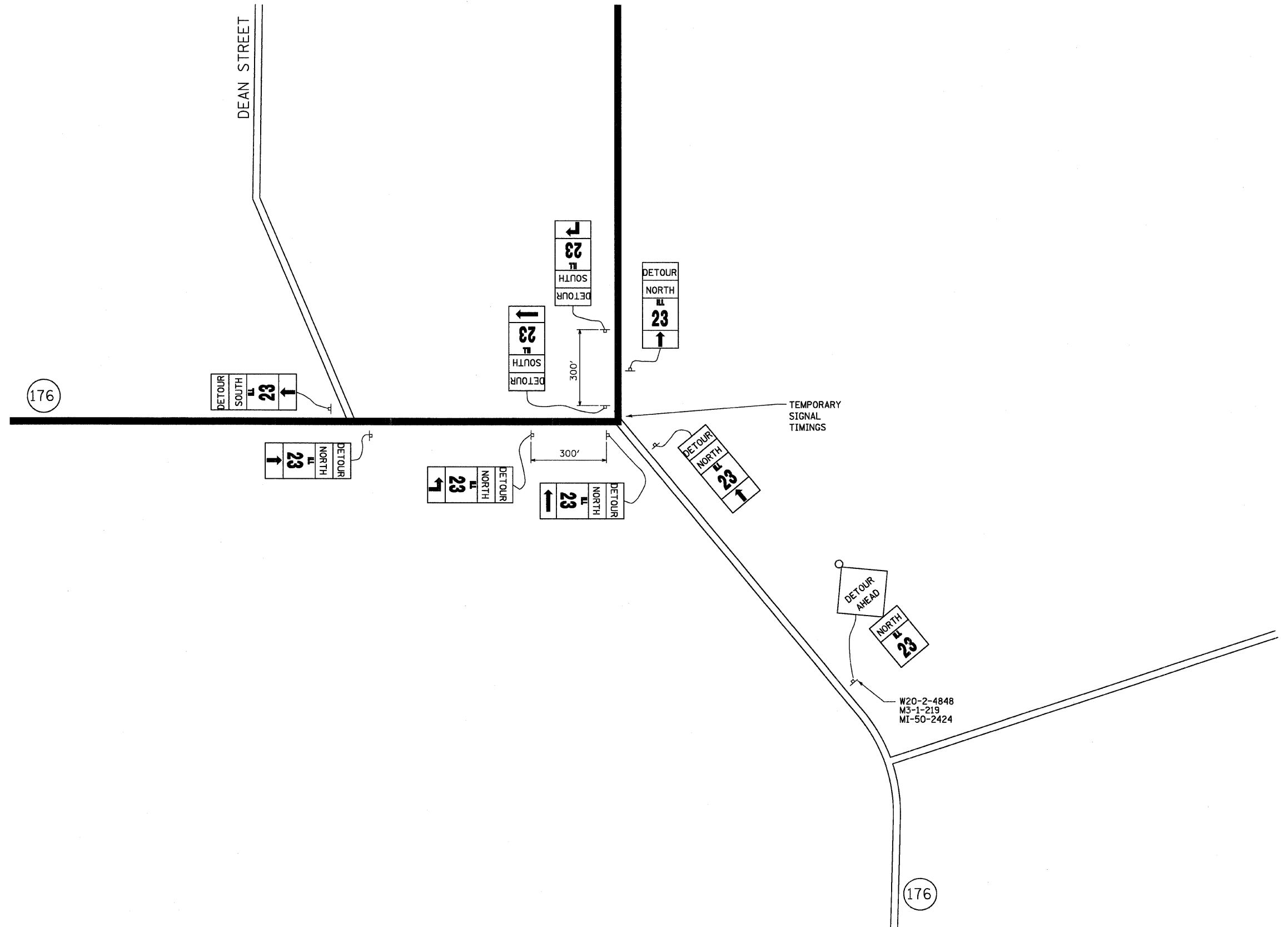
23 FOR ILLINOIS ROUTES
MI-50-2424

ARROW SIGNS

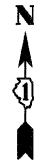
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 M6-1L-2115
 M6-1R-2115
 M6-3-2115

CARDINAL DIRECTION & DETOUR SIGNS

NORTH M3-1-219
 SOUTH M3-3-219
 DETOUR M1-7-219



| | | | | | | | | | | | | |
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| | PLOT DATE = 7/17/2008 | DATE - 3/11/2008 | REVISED - --- | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | | | | |
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KISHWAUKEE VALLEY ROAD

FRANKLINVILLE ROAD

OVERPASS

DEAN STREET

TEMPORARY SIGNAL TIMINGS

TEMPORARY SIGNAL TIMINGS

TEMPORARY SIGNAL TIMINGS

ROUTE MARKERS

FOR ILLINOIS ROUTES MI-50-2424

ARROW SIGNS

M5-1L-2115

M5-1R-2115

M6-1L-2115

M6-1R-2115

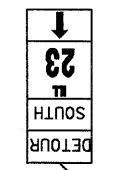
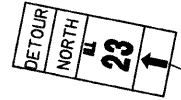
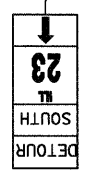
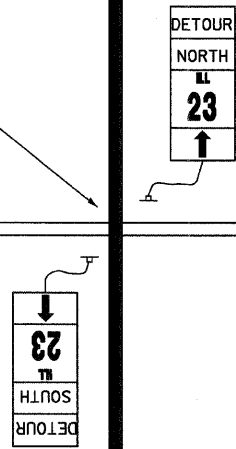
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CARDINAL DIRECTION & DETOUR SIGNS

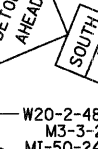
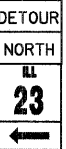
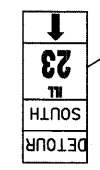
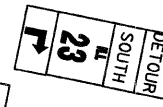
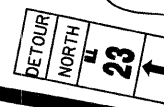
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SOUTH M3-3-219

DETOUR M1-7-219



W20-2-4848
M3-3-219
MI-50-2424



W20-2-4848
M3-3-219
MI-50-2424



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| | | CHECKED - EJL | REVISED - --- | | CONTRACT NO. 62892 | | | | | | | |
| | | DATE - 3/11/2008 | REVISED - --- | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | | | | |



ROUTE MARKERS



FOR ILLINOIS ROUTES
MI-50-2424

ARROW SIGNS



M5-1L-2115



M5-1R-2115



M6-1L-2115



M6-1R-2115



M6-3-2115

CARDINAL DIRECTION & DETOUR SIGS



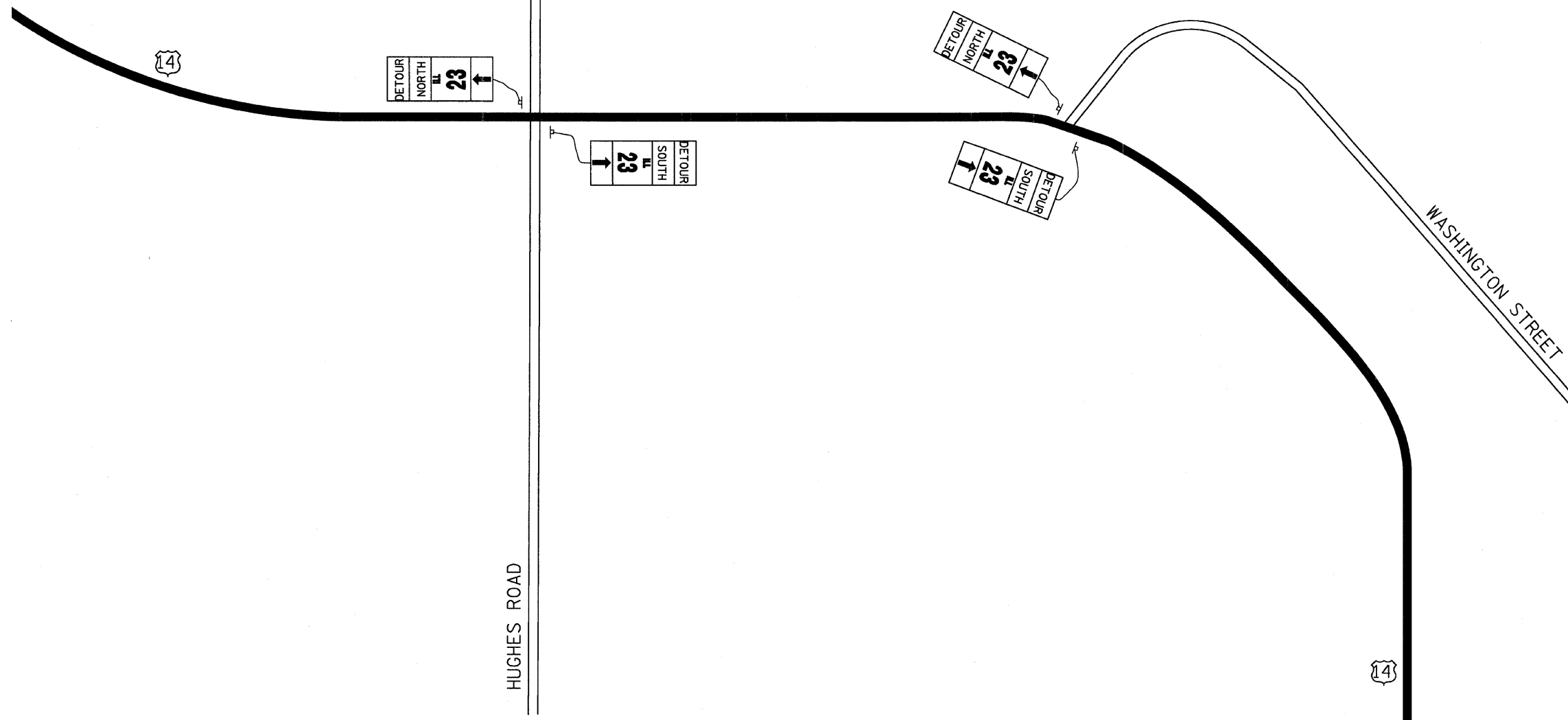
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M3-3-219



M1-7-219



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| | PLOT DATE = 7/17/2008 | DATE - 3/11/2008 | REVISED - ---- |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DETOUR ROUTE

SCALE: NONE SHEET NO. 7 OF 9 SHEETS STA. 59+00 TO STA. 89+00






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| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 324 | 23B-1 | MCHENRY | 97 | 23 |
| CONTRACT NO. 62892 | | | | |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |






ROUTE MARKERS

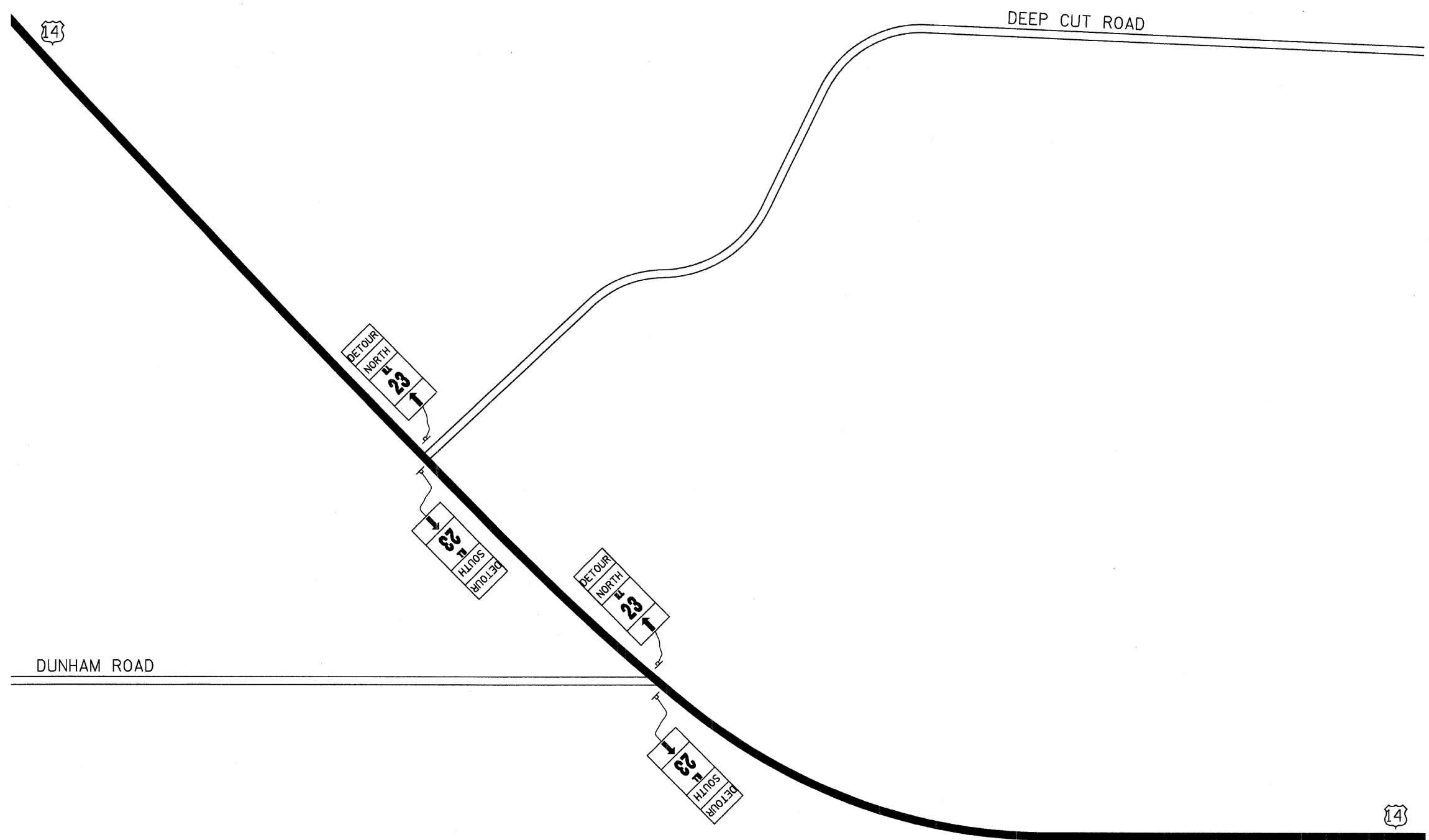
23 FOR ILLINOIS ROUTES
MI-50-2424

ARROW SIGNS

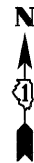
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 M5-1R-2115
 M6-1L-2115
 M6-1R-2115
 M6-3-2115

CARDINAL DIRECTION & DETOUR SIGNS

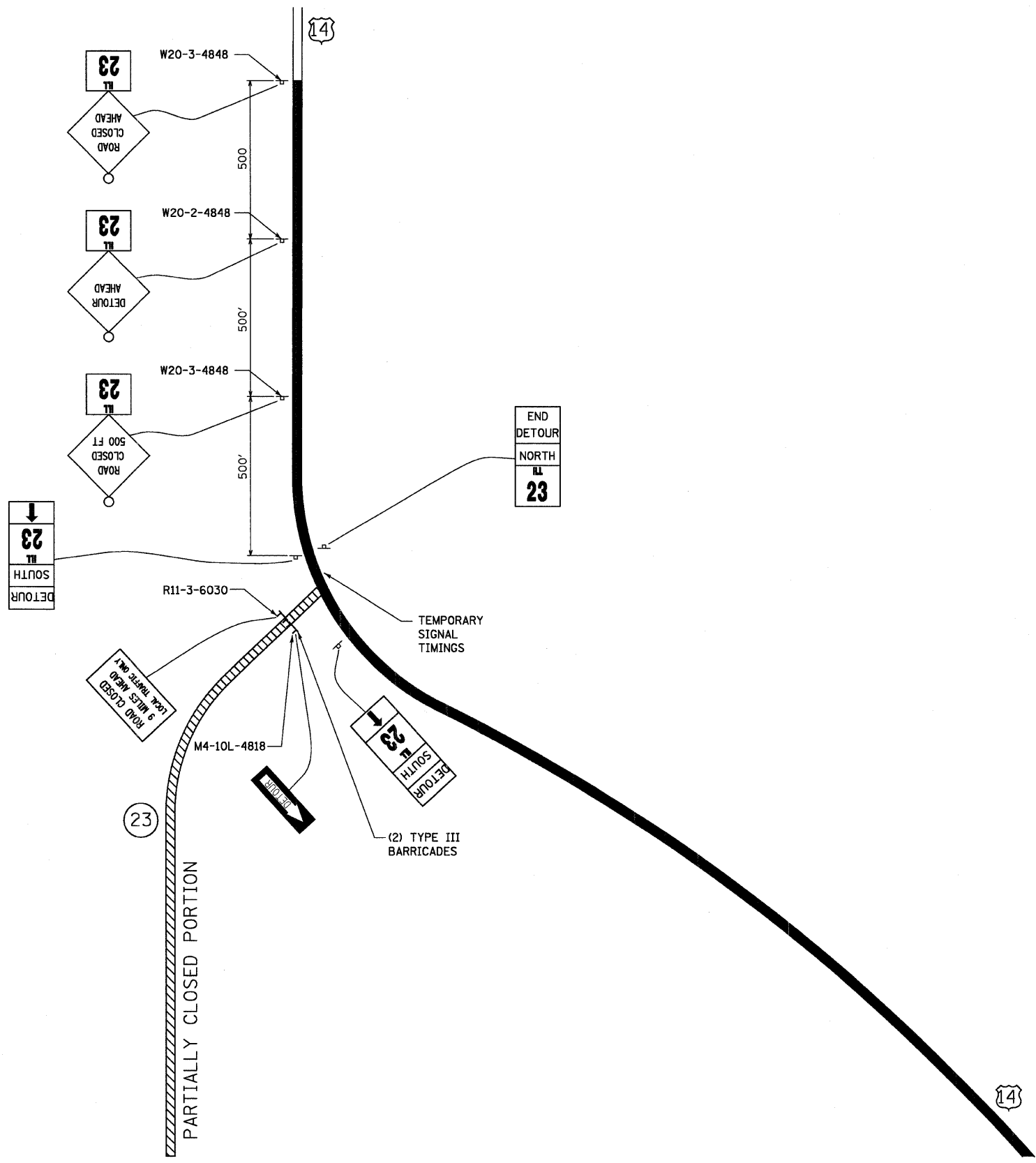
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| | | DATE - 3/11/2008 | REVISED - | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | | | | |









| ROUTE MARKERS | |
|-----------------------------------|-----------------------------------|
| | FOR ILLINOIS ROUTES MI-50-2424 |
| ARROW SIGNS | |
| | M5-1L-2115 |
| | M5-1R-2115 |
| | M6-1L-2115 |
| | M6-1R-2115 |
| | M6-3-2115 |
| CARDINAL DIRECTION & DETOUR SIGNS | |
| | M3-1-219 |
| | M3-3-219 |
| | M1-7-219 |



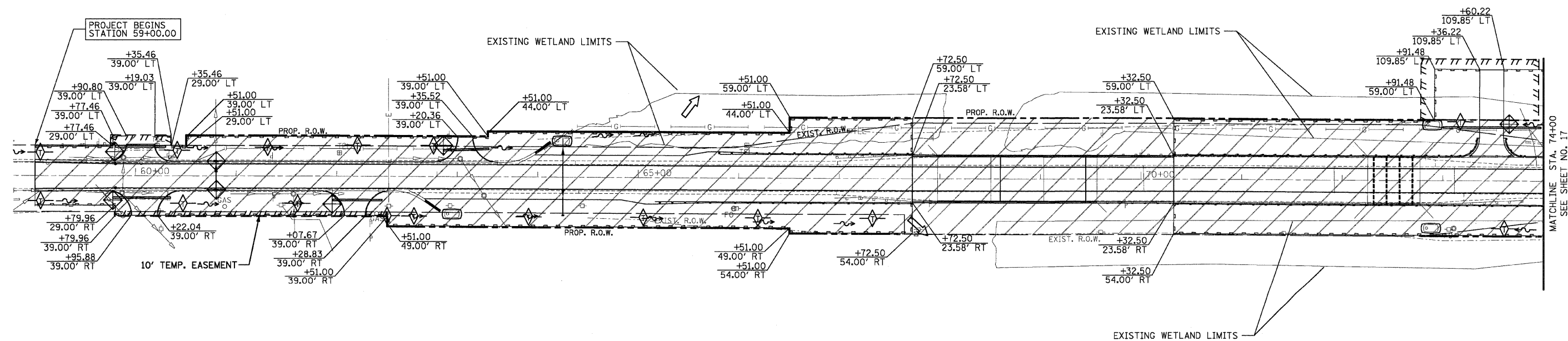
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| | PLOT DATE = 7/17/2008 | CHECKED - EJL | REVISED - --- | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | | | | |
| | | DATE - 3/11/2008 | REVISED - --- | | | | | | | | | |
| | | | | | | | | | | | | |

EROSION & SEDIMENT CONTROL ITEMS

- PERIMETER EROSION BARRIER 
- TEMPORARY DITCH CHECK 
- SEDIMENT BASIN 
- FLOW LINE 
- TEMPORARY SEDIMENT TRAP 
- CONSTRUCTION LIMITS 







TEMPORARY EROSION CONTROL NOTES

1. THE CONTRACTOR WILL BE REQUIRED TO IMPLEMENT AND MAINTAIN EROSION CONTROL MEASURES IMMEDIATELY AFTER STRIPPING OF EXISTING VEGETATION.
2. NO RUNOFF FROM STRIPPED AREAS WILL LEAVE THE SITE OTHER THAN THROUGH SEDIMENTATION/STILLING BASINS. THE CONTRACTOR WILL ADJUST HIS OPERATIONS AND IMPLEMENT EROSION CONTROL MEASURES ACCORDINGLY.
3. THE CONTRACTOR SHALL SURROUND ALL EARTH STOCKPILES WITH SEDIMENT CONTROL, SILT FENCE.
4. EROSION CONTROL MEASURES SHALL BE INSPECTED BY THE CONTRACTOR AND ENGINEER WITHIN 24 HOURS OF ANY STORM EXCEEDING 1/2" OF PRECIPITATION.
5. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO PREVENT POLLUTION OF STORM WATER AND SHALL FOLLOW IEPA & IDOT CONSTRUCTION MEMORANDUM NO. 02-60
6. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICAL, BUT NO MORE THAN 14 DAYS AFTER CONSTRUCTION ACTIVITY HAS CEASED IN AN AREA WHERE CONSTRUCTION ACTIVITY WILL NOT OCCUR FOR A PERIOD OF 21 OR MORE CALENDAR DAYS.
7. THE CONTRACTOR SHALL APPLY TEMPORARY EROSION CONTROL SEEDING AND MULCH, METHOD 2 TO ALL ERODIBLE BARE EARTH AREAS WITHIN THE CONTRACT LIMITS EACH WEEK, REGARDLESS OF WEATHER CONDITIONS OR PROGRESS OF THE WORK, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. ERODIBLE EMBANKMENT AND EXCAVATION AREAS WHERE WORK IS IN PROGRESS SHALL BE INCLUDED ON THE AREAS TO BE SEEDED.



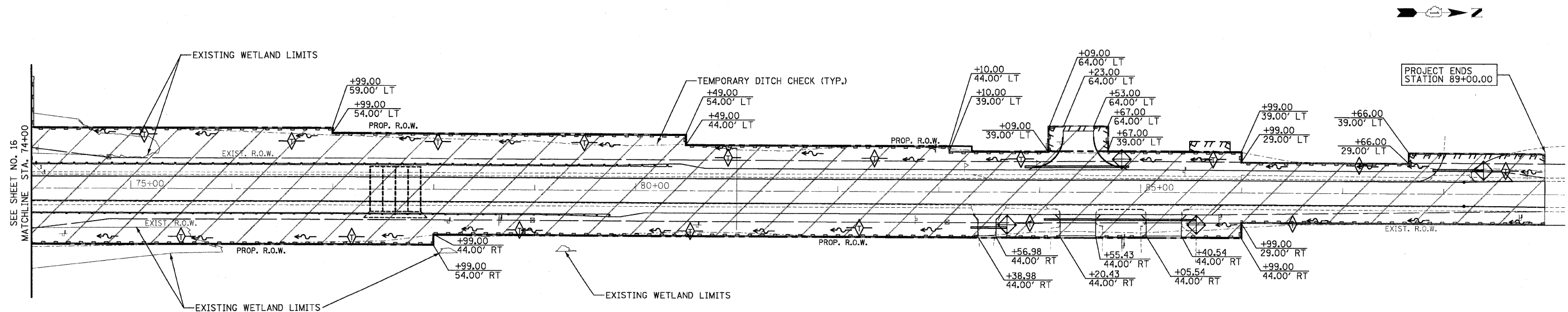
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|--|--------------------|------------------|---------------------|---|--|--|--|--|------------------|-------------------|--------------------|-----------------|
| FILE NAME = #FILEL# | USER NAME = #USER# | DESIGNED - GJM | REVISED - 5/13/2008 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | EROSION CONTROL PLAN | | | F.A.P. RTE. 324 | SECTION 23B-1 | COUNTY MCHENRY | TOTAL SHEETS 97 | SHEET NO. 26 |
| PLOT SCALE = #SCALE# | | CHECKED - E.J.L. | REVISED - 7/18/2008 | | SCALE: 1" = 50' SHEET NO. 1 OF 2 SHEETS STA. 59+00 TO STA. 74+00 | | | CONTRACT NO. 62892 | | | | |
| PLOT DATE = 7/17/2008 | | DATE - 3/11/2008 | REVISED - | | | | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |
| MATCHLINE STA. 74+00 SEE SHEET NO. 17 | | | | | | | | | | | | |

EROSION & SEDIMENT CONTROL ITEMS

- PERIMETER EROSION BARRIER 
- TEMPORARY DITCH CHECK 
- SEDIMENT BASIN 
- FLOW LINE 
- TEMPORARY SEDIMENT TRAP 
- CONSTRUCTION LIMITS 

TEMPORARY EROSION CONTROL NOTES

1. THE CONTRACTOR WILL BE REQUIRED TO IMPLEMENT AND MAINTAIN EROSION CONTROL MEASURES IMMEDIATELY AFTER STRIPPING OF EXISTING VEGETATION.
2. NO RUNOFF FROM STRIPPED AREAS WILL LEAVE THE SITE OTHER THAN THROUGH SEDIMENTATION/STILLING BASINS. THE CONTRACTOR WILL ADJUST HIS OPERATIONS AND IMPLEMENT EROSION CONTROL MEASURES ACCORDINGLY.
3. THE CONTRACTOR SHALL SURROUND ALL EARTH STOCKPILES WITH SEDIMENT CONTROL, SILT FENCE.
4. EROSION CONTROL MEASURES SHALL BE INSPECTED BY THE CONTRACTOR AND ENGINEER WITHIN 24 HOURS OF ANY STORM EXCEEDING 1/2" OF PRECIPITATION.
5. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO PREVENT POLLUTION OF STORM WATER AND SHALL FOLLOW IEPA & IDOT CONSTRUCTION MEMORANDUM NO. 02-60
6. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICAL, BUT NO MORE THAN 14 DAYS AFTER CONSTRUCTION ACTIVITY HAS CEASED IN AN AREA WHERE CONSTRUCTION ACTIVITY WILL NOT OCCUR FOR A PERIOD OF 21 OR MORE CALENDAR DAYS.
7. THE CONTRACTOR SHALL APPLY TEMPORARY EROSION CONTROL SEEDING AND MULCH, METHOD 2 TO ALL ERODIBLE BARE EARTH AREAS WITHIN THE CONTRACT LIMITS EACH WEEK, REGARDLESS OF WEATHER CONDITIONS OR PROGRESS OF THE WORK, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. ERODIBLE EMBANKMENT AND EXCAVATION AREAS WHERE WORK IS IN PROGRESS SHALL BE INCLUDED ON THE AREAS TO BE SEEDED.



| | | | | | | | | | | | | |
|-----------------------|--------------------|----------------|---------------------|---|-----------------------------|--|------------------|-------------------|--------------------|-----------------|--|--|
| FILE NAME = #FILE# | USER NAME = #USER# | DESIGNED - GJM | REVISED - 5/13/2008 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | EROSION CONTROL PLAN | F.A.P. RTE. 324 | SECTION 23B-1 | COUNTY MCHENRY | TOTAL SHEETS 97 | SHEET NO. 27 | | |
| | | | | | | SCALE: 1" = 50' SHEET NO. 2 OF 2 SHEETS STA. 59+00 TO STA. 74+00 | | | CONTRACT NO. 62892 | | | |
| | | | | | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | | | |
| | | | | | | | | | | | | |

PART OF THE NORTHWEST QUARTER OF SECTION 25, AND THE NORTHEAST QUARTER OF SECTION 26, TOWNSHIP 44 NORTH, RANGE 5 EAST OF THE THIRD PRINCIPAL MERIDIAN, McHENRY COUNTY, ILLINOIS.

| PARCEL NUMBER | OWNER | TOTAL HOLDING ACRES | PART TAKEN ACRES | REMAINDER ACRES | PREVIOUSLY DEDICATED ACRES | TEMPORARY EASEMENT ACRES | EASEMENT PURPOSE | PERMANENT TAX INDEX NUMBER | PROPERTY ACQUIRED BY |
|---------------|---|---------------------|------------------|-----------------|----------------------------|--------------------------|------------------|--------------------------------|----------------------|
| 1G90005 | McHENRY COUNTY CONSERVATION DISTRICT | 36.290 | 0.687 | 35.603 | 0.323 | | | 11-25-100-022 | |
| 1G90006 | CITY OF MARENGO | 11.850 | 0.064 | 11.786 | | | | 11-26-200-008 | |
| 1G90006TE | | | | | | 0.161 | | | |
| 1G90007 | RANDY WIRKUS & SARA WIRKUS, HUSBAND AND WIFE AS JOINT TENANTS | 45.330 | 1.587 | 43.743 | 1.027 | | | 11-23-400-014 11-26-200-003 | |
| 1G90007TE-A | | | | | | 0.034 | | | |
| 1G90007TE-B | | | | | | 0.009 (400 SQ FT) | | | |
| 1G90007TE-C | | | | | | 0.005 (215 SQ FT) | | | 11-23-400-014 |

| F.A.P. | SECTION | COUNTY | TOTAL SHEET | SHEET NO. |
|--------|---------|---------|-------------|-----------|
| 324 | 23B-1 | McHENRY | 5 | 3 |

STATION 70+00.00 TO STATION 85+00.00
FED. ROAD DIST. 1 ILLINOIS FED. AID PROJECT
Sheet No. 29

LEGEND

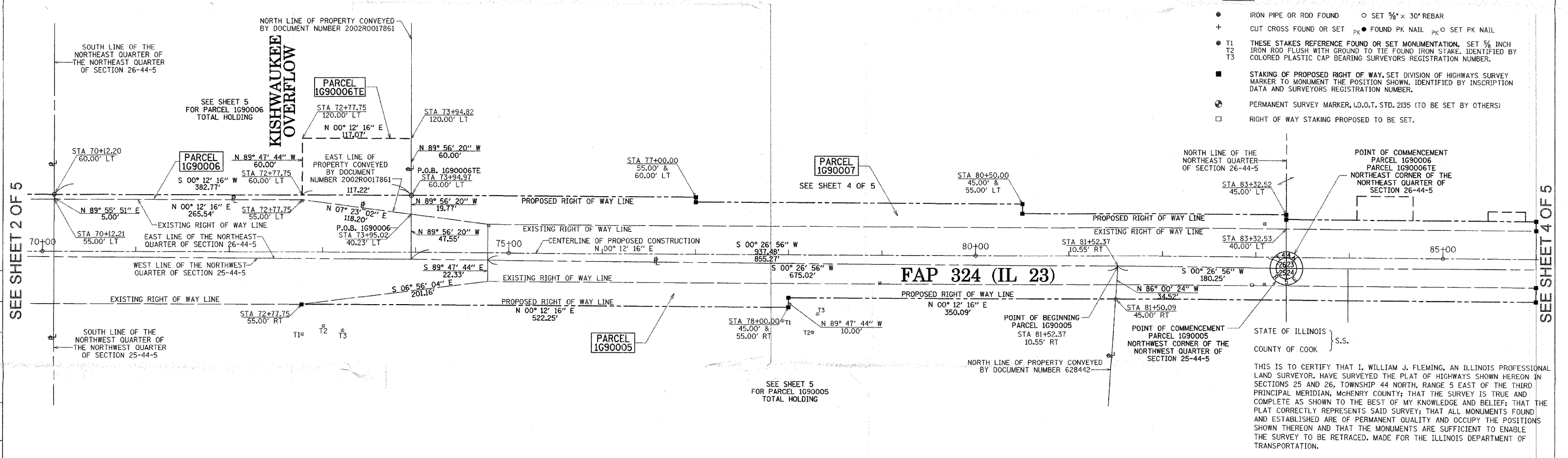
SECTION CORNER
QUARTER SECTION CORNER

SECTION LINE
QUARTER SECTION LINE
QUARTER QUARTER SECTION LINE
PLATTED LOT LINE
PROPERTY (DEED) LINE
APPARENT PROPERTY LINE
CENTERLINE
EXISTING RIGHT OF WAY LINE
PROPOSED RIGHT OF WAY LINE
PROPOSED EASEMENT
MEASURED DIMENSION
COMPUTED DIMENSION
RECORDED DATA
EXISTING BUILDING

BEARINGS ARE REFERENCED TO THE ILLINOIS STATE PLANE COORDINATE SYSTEM, NAD '83, EAST ZONE, ON THE CENTERLINE OF EXISTING AND PROPOSED CONSTRUCTION OF FAP 324 (IL 23) OF N 00° 12' 16" E

GRAPHIC SCALE - FEET

- IRON PIPE OR ROD FOUND ○ SET 5/8" x 30' REBAR
- + CUT CROSS FOUND OR SET PK ● FOUND PK NAIL PK ○ SET PK NAIL
- T1 THESE STAKES REFERENCE FOUND OR SET MONUMENTATION. SET 5/8" INCH IRON ROD FLUSH WITH GROUND TO TIE FOUND IRON STAKE. IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- STAKING OF PROPOSED RIGHT OF WAY. SET DIVISION OF HIGHWAYS SURVEY MARKER TO MONUMENT THE POSITION SHOWN. IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.
- ⊙ PERMANENT SURVEY MARKER, I.D.O.T. STD. 2135 (TO BE SET BY OTHERS)
- RIGHT OF WAY STAKING PROPOSED TO BE SET.



SEE SHEET 2 OF 5

SEE SHEET 4 OF 5

| BY | DATE |
|----|------|
| | |
| | |
| | |

MADE CHECKED PLOTTED
R.O.W. PLAT BOOK #

| POINT | TIE | DISTANCE |
|-----------|-----|----------|
| 72+77.75 | T1 | 31.10' |
| 55.00' RT | T2 | 32.42' |
| | T3 | 51.89' |
| 78+00.00 | T1 | 25.25' |
| 45.00' RT | T2 | 44.57' |
| | T3 | 35.13' |
| 78+00.00 | T1 | 15.07' |
| 55.00' RT | T2 | 37.15' |
| | T3 | 32.04' |

GRID COORDINATES ON THE CROSS OF PK NAILS SET AT THE SOUTHWEST CORNER OF THE NORTHWEST QUARTER OF SECTION 25-44-5 HAVE A VALUE OF 2,038,320.200 NORTH - 909,766.195 EAST AND ARE BASED ON THE ILLINOIS STATE PLANE COORDINATE SYSTEM, NAD '83, EAST ZONE COMBINED SCALE FACTOR = 0.9999 4828

| STATION | OFFSET | NORTH | EAST |
|----------|-----------|---------------|-------------|
| 70+12.20 | 60.00' LT | 2,039,640.441 | 909,710.852 |
| 72+77.75 | 55.00' RT | 2,039,905.563 | 909,826.793 |
| 73+94.97 | 60.00' LT | 2,040,023.193 | 909,712.216 |
| 78+00.00 | 45.00' RT | 2,040,427.820 | 909,818.657 |
| 78+00.00 | 55.00' RT | 2,040,427.785 | 909,828.657 |
| 81+50.09 | 45.00' RT | 2,040,777.885 | 909,819.906 |

ILLINOIS PROFESSIONAL LAND SURVEYOR 35-3226
EXPIRES 11/30/2008
GRAEF, ANHALT, SCHLOEMER & ASSOCIATES, INC.
ENGINEERS & LAND SURVEYORS
8501 W. Higgins Road, Suite 280
Chicago, Illinois 60631
(773) 399-0112
Illinois Professional Design Corporation 184-000938

REVISION

| DATE | DESCRIPTION |
|----------|-------------|
| 2/5/2008 | 1G90005 |

PLAT OF HIGHWAYS
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
FAP 324 (IL-23)
OVER THE KISHWAUKEE RIVER & OVERFLOW
SECTION McHENRY COUNTY
PROJECT JOB NO. R-91-027-06
STATION 70+00.00 TO STATION 85+00.00
SCALE: 1" = 50'
SHEET 3 OF 5

BUREAU OF LAND ACQUISITION
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196-1096

RECEIVED
FEB 08 2008
PLATS & LEGALS

PART OF THE SE 1/4 OF SECTION 23, THE SW 1/4 OF SECTION 24, THE NW 1/4 OF SECTION 25, THE NE 1/4 OF SECTION 26, TOWNSHIP 44 NORTH, RANGE 5 EAST OF THE 3RD P.M., McHENRY COUNTY, ILLINOIS.

GRID COORDINATES ON THE CROSS OF PK NAILS SET AT THE SOUTHWEST CORNER OF THE NORTHWEST QUARTER OF SECTION 25-44-5 HAVE A VALUE OF 2,038,320.200 NORTH - 909,766.195 EAST AND ARE BASED ON THE ILLINOIS STATE PLANE COORDINATE SYSTEM, NAD '83, EAST ZONE COMBINED SCALE FACTOR = 0.9999 4828

| STATION | OFFSET | NORTH | EAST |
|----------|-----------|---------------|-------------|
| 73+94.97 | 60.00' LT | 2,040,023.193 | 909,712.216 |
| 77+00.00 | 55.00' LT | 2,040,328.183 | 909,718.304 |
| 77+00.00 | 60.00' LT | 2,040,328.201 | 909,713.304 |
| 80+50.00 | 45.00' LT | 2,040,678.127 | 909,729.552 |
| 80+50.00 | 55.00' LT | 2,040,678.163 | 909,719.552 |
| 81+50.08 | 45.00' RT | 2,040,777.885 | 909,819.906 |
| 83+32.76 | 45.00' RT | 2,040,960.547 | 909,820.558 |
| 83+32.52 | 45.00' LT | 2,040,960.632 | 909,730.563 |
| 83+32.53 | 40.00' LT | 2,040,960.623 | 909,735.562 |
| 83+98.76 | 45.00' RT | 2,040,026.543 | 909,820.794 |
| 84+08.00 | 40.00' LT | 2,041,036.088 | 909,735.832 |
| 84+08.00 | 65.00' LT | 2,041,036.177 | 909,710.833 |
| 84+68.00 | 40.00' LT | 2,041,096.085 | 909,736.046 |
| 84+68.00 | 65.00' LT | 2,041,096.174 | 909,711.047 |
| 84+48.42 | 40.00' LT | 2,041,176.500 | 909,736.333 |
| 84+48.42 | 50.00' LT | 2,041,176.536 | 909,726.333 |
| 85+88.42 | 40.00' LT | 2,041,216.498 | 909,736.475 |
| 85+88.42 | 50.00' LT | 2,041,216.533 | 909,726.476 |
| 86+00.00 | 30.00' LT | 2,041,228.041 | 909,746.513 |
| 86+00.00 | 40.00' LT | 2,041,228.077 | 909,736.514 |
| 86+00.00 | 30.00' RT | 2,041,227.827 | 909,806.513 |
| 86+00.00 | 45.00' RT | 2,041,227.774 | 909,821.512 |
| 87+65.00 | 30.00' LT | 2,041,393.032 | 909,747.105 |
| 87+65.00 | 40.00' LT | 2,041,393.068 | 909,737.105 |
| 87+86.53 | 40.00' LT | 2,041,414.597 | 909,737.182 |
| 89+00.00 | 30.00' LT | 2,041,528.024 | 909,747.587 |
| 89+00.00 | 40.00' LT | 2,041,528.060 | 909,737.587 |

| POINT | TIE | DISTANCE |
|-----------|-----|----------|
| 77+00.00 | T1 | 31.05' |
| 55.00' LT | T2 | 64.12' |
| | T3 | 51.46' |
| 77+00.00 | T1 | 29.26' |
| 60.00' LT | T2 | 59.33' |
| | T3 | 47.05' |
| 80+50.00 | T1 | 17.85' |
| 45.00' LT | T2 | 16.20' |
| | T3 | 12.10' |
| 80+50.00 | T1 | 9.50' |
| 55.00' LT | T2 | 6.21' |
| | T3 | 8.04' |
| 83+32.52 | T1 | 19.07' |
| 45.00' LT | T2 | 3.28' |
| | T3 | 23.73' |
| 83+32.53 | T1 | 24.05' |
| 40.00' LT | T2 | 4.58' |
| | T3 | 23.85' |
| 86+00.00 | T1 | 20.50' |
| 30.00' LT | T2 | 18.41' |
| | T3 | 19.05' |
| 86+00.00 | T1 | 12.11' |
| 40.00' LT | T2 | 8.43' |
| | T3 | 11.18' |
| 86+00.00 | T1 | 21.05' |
| 30.00' RT | T2 | 20.36' |
| | T3 | 21.60' |
| 86+00.00 | T1 | 9.49' |
| 45.00' RT | T2 | 5.43' |
| | T3 | 9.88' |

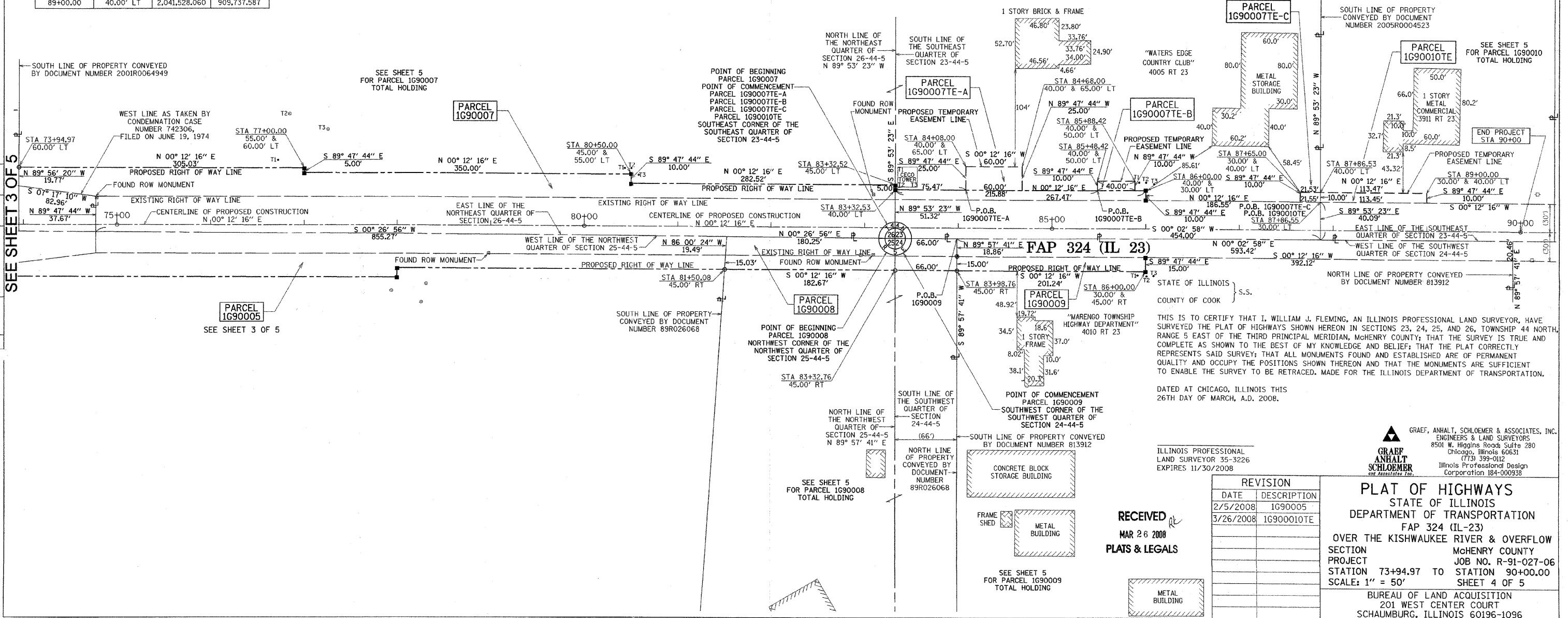
| PARCEL NUMBER | OWNER | TOTAL HOLDING ACRES | PART TAKEN ACRES | REMAINDER ACRES | PREVIOUSLY DEDICATED ACRES | TEMPORARY EASEMENT ACRES | EASEMENT PURPOSE | PERMANENT TAX INDEX NUMBER | PROPERTY ACQUIRED BY |
|---------------|---|---------------------|------------------|-----------------|----------------------------|--------------------------|------------------|----------------------------|----------------------|
| 1G90005 | McHENRY COUNTY CONSERVATION DISTRICT | 36.290 | 0.687 | 35.603 | 0.323 | | | 11-25-100-022 | |
| 1G90007 | RANDY WIRKUS & SARA WIRKUS, HUSBAND AND WIFE AS JOINT TENANTS | 45.330 | 1.760 | 43.570 | 1.200 | | | 11-23-400-014 | |
| 1G90007TE-A | | | | | | 0.034 | | | |
| 1G90007TE-B | | | | | | 0.009 (400 SQ FT) | | 11-23-400-014 | |
| 1G90007TE-C | | | | | | 0.005 (215 SQ FT) | | | |
| 1G90008 | DAVID A. & DIANE I. NELSON, & HARRIET V. ANDERSON | 3.500 | 0.193 | 3.307 | 0.108 | | | 11-25-100-001 | |
| 1G90009 | MARENGO TOWNSHIP | 6.830 | 0.337 | 6.493 | 0.268 | | | 11-24-300-018 | |
| 1G90010TE | DSK PROPERTIES, INC., AN ILLINOIS CORPORATION | 3.000 | | 3.000 | | 0.026 | | 11-23-400-013 | |

| F.A.P. | SECTION | COUNTY | TOTAL SHEET | SHEET NO. |
|--------|---------|---------|-------------|-----------|
| 324 | 23B-1 | McHENRY | 5 | 4 |

STATION 73+94.97 TO STATION 90+00.00
FED. ROAD DIST. 1 ILLINOIS FED. AID PROJECT
Sheet No. 39

LEGEND

- SECTION CORNER
 - QUARTER SECTION CORNER
 - SECTION LINE
 - QUARTER SECTION LINE
 - QUARTER QUARTER SECTION LINE
 - PLATTED LOT LINE
 - PROPERTY (DEED) LINE
 - APPARENT PROPERTY LINE
 - CENTERLINE
 - EXISTING RIGHT OF WAY LINE
 - PROPOSED RIGHT OF WAY LINE
 - PROPOSED EASEMENT
 - MEASURED DIMENSION
 - COMPUTED DIMENSION
 - RECORDED DATA
 - EXISTING BUILDING
- BEARINGS ARE REFERENCED TO THE ILLINOIS STATE PLANE COORDINATE SYSTEM, NAD '83, EAST ZONE, ON THE CENTERLINE OF EXISTING AND PROPOSED CONSTRUCTION OF FAP 324 (IL 23) OF N 00° 12' 16" E
- GRAPHIC SCALE - FEET
- IRON PIPE OR ROD FOUND
 - CUT CROSS FOUND OR SET
 - FOUND PK NAIL
 - SET 3/4" x 30" REBAR
 - FOUND PK NAIL
 - SET PK NAIL
 - THESE STAKES REFERENCE FOUND OR SET MONUMENTATION. SET 3/8" INCH IRON ROD FLUSH WITH GROUND TO THE FOUND IRON STAKE, IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
 - STAKING OF PROPOSED RIGHT OF WAY, SET DIVISION OF HIGHWAYS SURVEY MARKER TO MONUMENT THE POSITION SHOWN, IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.
 - PERMANENT SURVEY MARKER, I.D.O.T. STD. 2135 (TO BE SET BY OTHERS)
 - RIGHT OF WAY STAKING PROPOSED TO BE SET.



| REVISION | DATE | DESCRIPTION |
|----------|-----------|-------------|
| | 2/5/2008 | 1G90005 |
| | 3/26/2008 | 1G900010TE |

PLAT OF HIGHWAYS
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
FAP 324 (IL-23)
OVER THE KISHWAUKEE RIVER & OVERFLOW
SECTION McHENRY COUNTY
PROJECT JOB NO. R-91-027-06
STATION 73+94.97 TO STATION 90+00.00
SCALE: 1" = 50' SHEET 4 OF 5

BUREAU OF LAND ACQUISITION
201 WEST CENTER COURT
SCHAMBURG, ILLINOIS 60196-1096

ILLINOIS PROFESSIONAL LAND SURVEYOR 35-3226
EXPIRES 11/30/2008

GRAEF, ANHALT, SCHLOEMER & ASSOCIATES, INC.
ENGINEERS & LAND SURVEYORS
8501 W. Higgins Road, Suite 280
Chicago, Illinois 60631
(773) 399-0112
Illinois Professional Design Corporation 184-000938

RECEIVED
MAR 26 2008
PLATS & LEGALS

PART OF SECTIONS 23, 24, 25, AND 26, TOWNSHIP 44 NORTH, RANGE 5 EAST OF THE THIRD PRINCIPAL MERIDIAN, McHENRY COUNTY, ILLINOIS.

| | | | | |
|--------------------------------------|---------|----------|------------------|-----------|
| F.A.P. | SECTION | COUNTY | TOTAL SHEET | SHEET NO. |
| 324 | 23B-1 | McHENRY | 5 | 5 |
| STATION 58+00.00 TO STATION 90+00.00 | | | | |
| FED. ROAD DIST. 1 | | ILLINOIS | FED. AID PROJECT | |

Sheet No. 31

LEGEND

- SECTION CORNER
- QUARTER CORNER
- SECTION LINE
- QUARTER SECTION LINE
- QUARTER QUARTER SECTION LINE
- PLATTED LOT LINE
- PROPERTY (DEED) LINE
- APPARENT PROPERTY LINE
- CENTERLINE
- EXISTING RIGHT OF WAY LINE
- PROPOSED RIGHT OF WAY LINE
- PROPOSED EASEMENT
- MEASURED DIMENSION
- COMPUTED DIMENSION
- RECORDED DATA
- EXISTING BUILDING

200 0 200
TOTAL HOLDING DEPICTION GRAPHIC SCALE - FEET

20 0 20
TIE DIAGRAMS GRAPHIC SCALE - FEET

- IRON PIPE OR ROD FOUND ○ SET 5/8" x 30" REBAR
- + CUT CROSS FOUND OR SET PK ● FOUND PK NAIL PK ○ SET PK NAIL
- T1 THESE STAKES REFERENCE FOUND OR SET MONUMENTATION, SET 5/8" INCH IRON ROD FLUSH WITH GROUND TO TIE FOUND IRON STAKE, IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- STAKING OF PROPOSED RIGHT OF WAY, SET DIVISION OF HIGHWAYS SURVEY MARKER TO MONUMENT THE POSITION SHOWN, IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.
- ⊙ PERMANENT SURVEY MARKER, I.D.O.T. STD. 2135 (TO BE SET BY OTHERS)
- RIGHT OF WAY STAKING PROPOSED TO BE SET.

STATE OF ILLINOIS } S.S.
COUNTY OF COOK }

THIS IS TO CERTIFY THAT I, WILLIAM J. FLEMING, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON IN SECTIONS 23, 24, 25, AND 26, TOWNSHIP 44 NORTH, RANGE 5 EAST OF THE THIRD PRINCIPAL MERIDIAN, McHENRY COUNTY; THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF; THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY; THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED, MADE FOR THE ILLINOIS DEPARTMENT OF TRANSPORTATION.

DATED AT CHICAGO, ILLINOIS THIS 19TH DAY OF FEBRUARY, A.D. 2007.

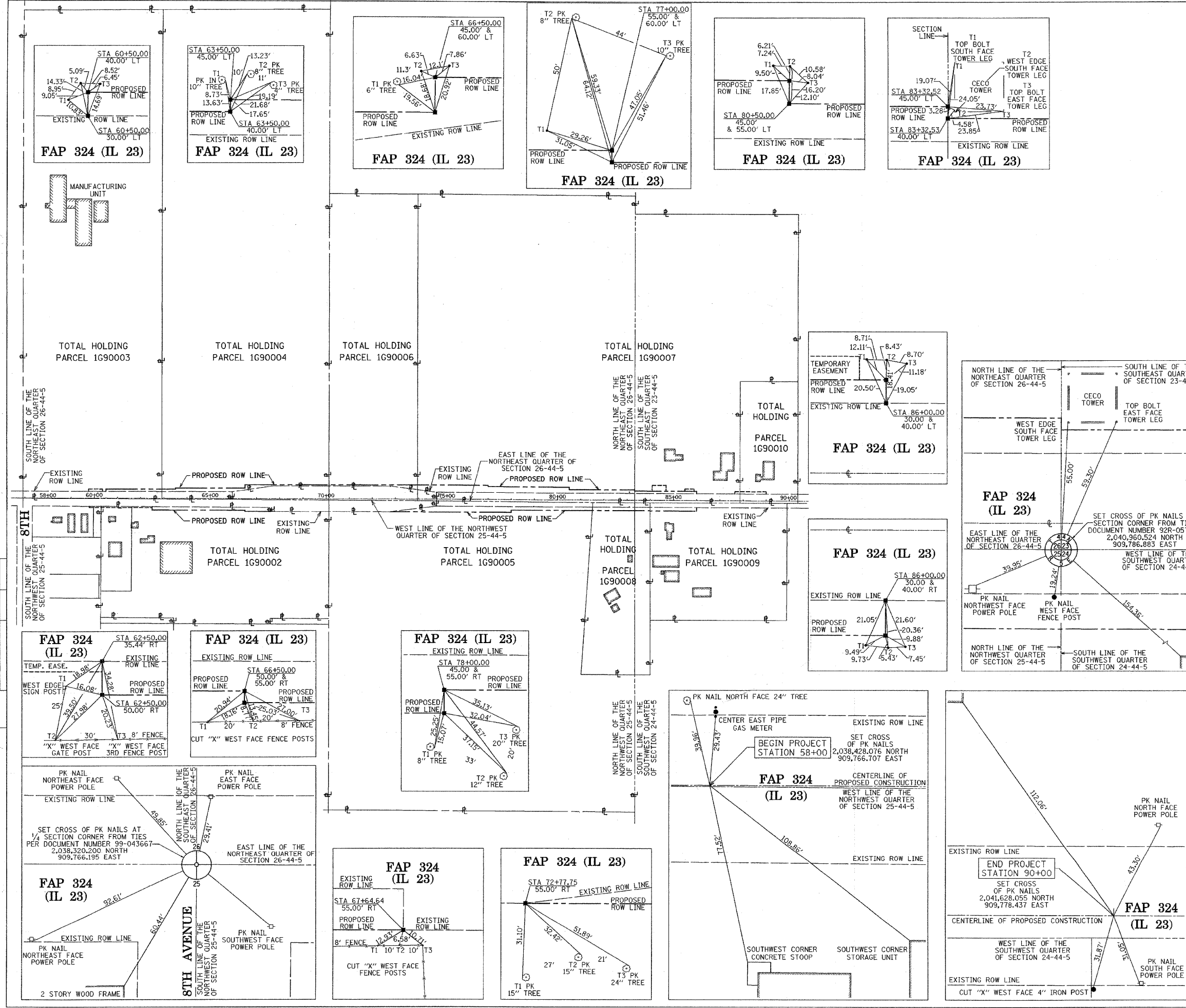
ILLINOIS PROFESSIONAL LAND SURVEYOR 35-3226
EXPIRES 11/30/2008

GRAEF ANHALT SCHLOEMER
and Associates Inc.
GRAEF, ANHALT, SCHLOEMER & ASSOCIATES, INC.
ENGINEERS & LAND SURVEYORS
8501 W. Higgins Road, Suite 280
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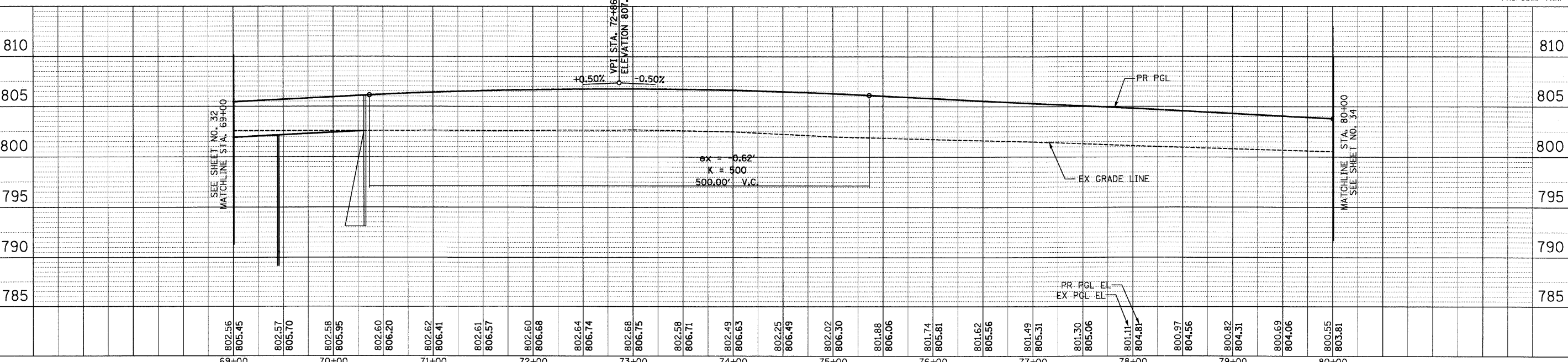
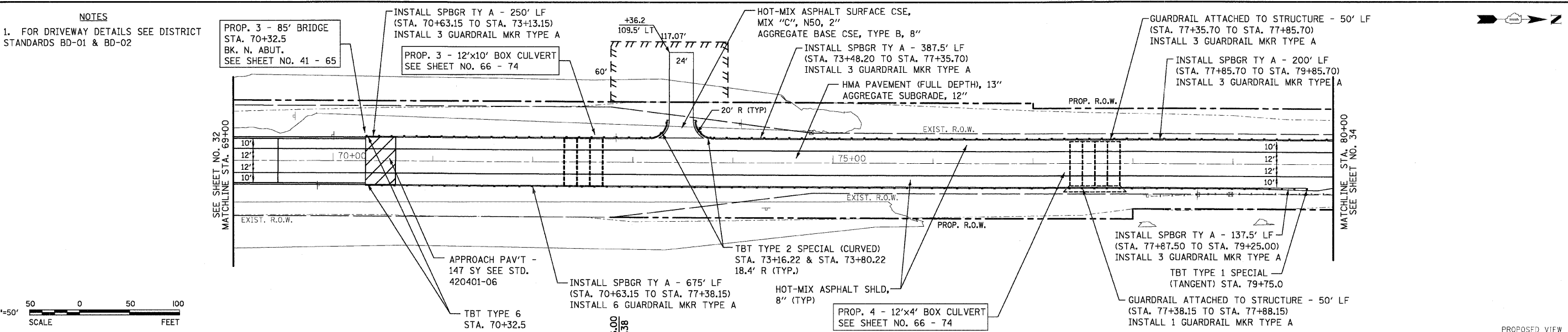
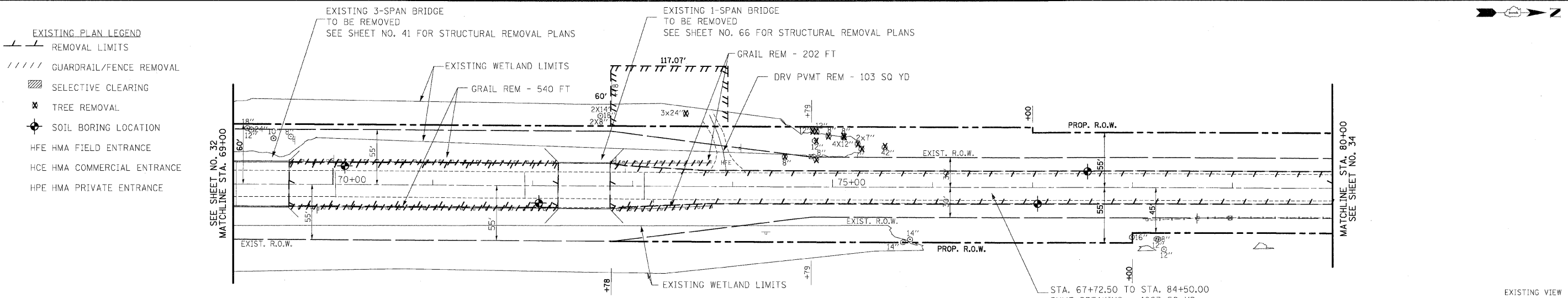
RECEIVED
FEB 21 2007
PLATS & LEGALS

| REVISION | |
|----------|-------------|
| DATE | DESCRIPTION |
| | |
| | |
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| | |

PLAT OF HIGHWAYS
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
FAP 324 (IL-23)
OVER THE KISHWAUKEE RIVER & OVERFLOW
SECTION McHENRY COUNTY
PROJECT JOB NO. R-91-027-06
STATION 58+00.00 TO STATION 90+00.00
TOTAL HOLDING SCALE: 1" = 200'
TIE DIAGRAM SCALE: 1" = 20' SHEET 5 OF 5
BUREAU OF LAND ACQUISITION
201 WEST CENTRT COURT
SCHAUMBURG, ILLINOIS 60196-1096
SHEET 1 OF 15 IS COVER SHEET AND IS NOT RECORDED
AS DOCUMENT NO.



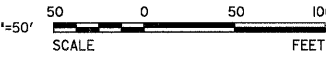
| | |
|---------|--|
| DATE | |
| BY | |
| MADE | |
| CHECKED | |
| PLAT | |
| BOOK | |

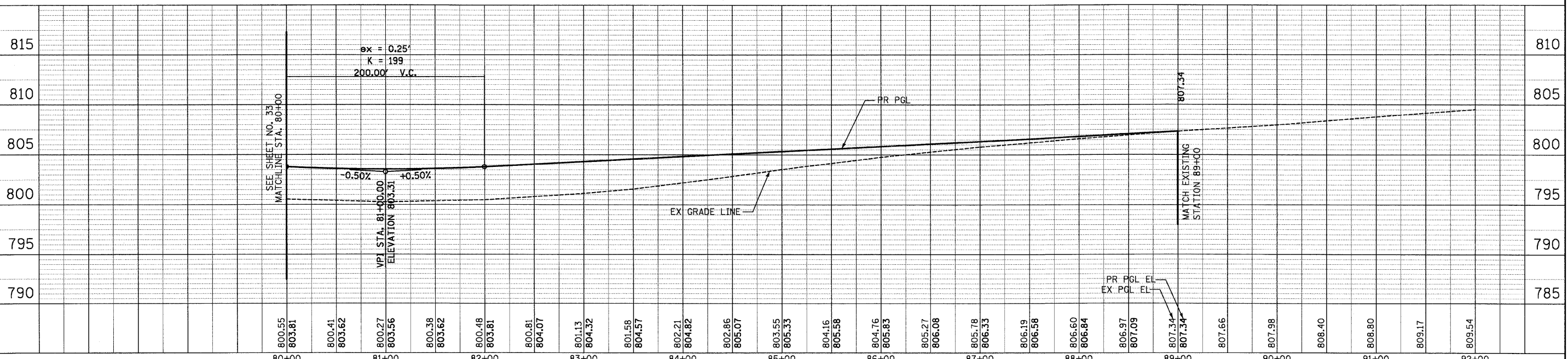
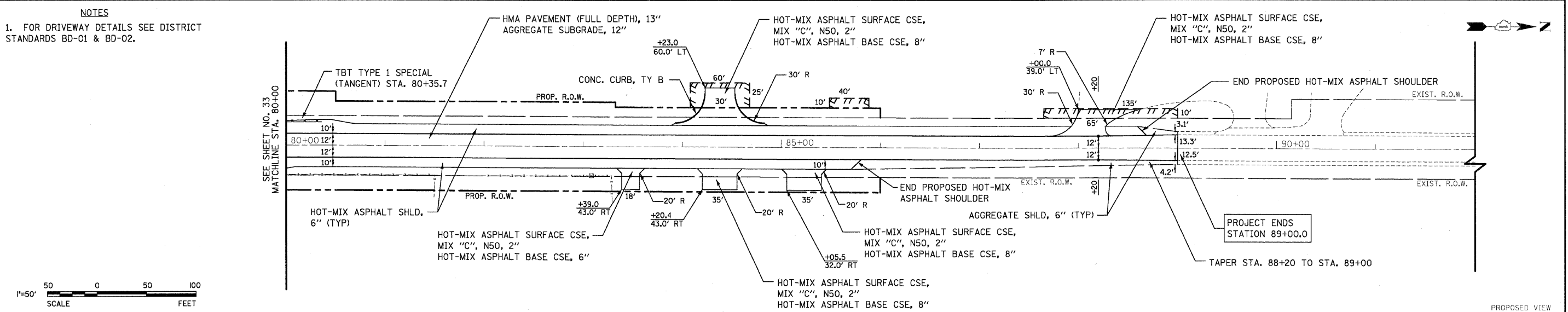
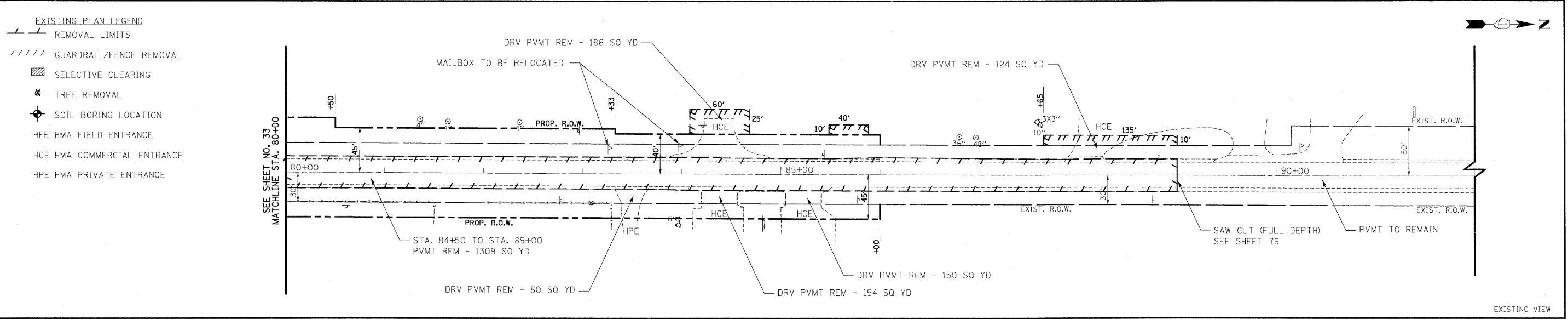


| | | | | | | | | | | | | | | | |
|-------------|-----------------------|----------------|---------------------|---|-------------------------|--|--|-----------------|-------------------------|--------------------------|--------------------|--------------|---|--|--|
| FILE NAME = | USER NAME = *USER* | DESIGNED - GJM | REVISED - 5/13/2008 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | PLAN AND PROFILE | | | F.A.P. RTE. 324 | SECTION 23B-1 | COUNTY MCHENRY | TOTAL SHEETS 97 | SHEET NO. 33 | | | |
| *FILEL# | PLOT SCALE = *SCALE* | CHECKED - EJL | REVISED - 7/11/2008 | | | | | SCALE: 1"=50' | SHEET NO. 2 OF 3 SHEETS | STA. 69+00 TO STA. 80+00 | CONTRACT NO. 62892 | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | |
| | PLOT DATE = 9/30/2008 | DRAWN - GJM | REVISED - 9/30/2008 | | | | | | | | | | | | |
| | | CHECKED - EJL | REVISED - | | | | | | | | | | | | |

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| PLAN | DATE | BY |
| REVISIONS | DATE | BY |
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| PROFILE | DATE | BY |
| REVISIONS | DATE | BY |
| NO. | | |





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| 800.55 | 803.81 | 800.41 | 803.62 | 800.27 | 803.56 | 800.38 | 803.62 | 800.48 | 803.81 | 800.81 | 804.07 | 801.13 | 804.32 | 801.58 | 804.57 | 802.21 | 804.82 | 802.86 | 805.07 | 803.55 | 805.33 | 804.16 | 805.58 | 804.76 | 805.83 | 805.27 | 806.08 | 805.78 | 806.33 | 806.19 | 806.58 | 806.60 | 806.84 | 806.97 | 807.09 | 807.34 | 807.34 | 807.66 | 807.98 | 808.40 | 808.80 | 809.17 | 809.54 |
| 80+00 | 81+00 | 82+00 | 83+00 | 84+00 | 85+00 | 86+00 | 87+00 | 88+00 | 89+00 | 90+00 | 91+00 | 92+00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

DATE: _____ BY: _____
 REVIEWED: _____
 PLAN: _____
 NOTE BOOK NO.: _____
 CHECKED: _____
 PLOTTED: _____
 DATE: _____

DATE: _____ BY: _____
 REVIEWED: _____
 PROFILE: _____
 NOTE BOOK NO.: _____
 CHECKED: _____
 PLOTTED: _____
 DATE: _____

FILE NAME = #FILEL#

USER NAME = #USER#
 DESIGNED - GJM
 CHECKED - EJM
 DRAWN - GJM
 PLOT DATE = 9/30/2008

REVISED - 5/13/2008
 REVISED - 7/11/2008
 REVISED - 9/30/2008
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
 SCALE: 1" = 50'
 SHEET NO. 3 OF 3 SHEETS
 STA. 80+00 TO STA. 89+00

| | | | | |
|--------------------|---------------|----------------|-----------------|--------------|
| F.A.P. RTE. 324 | SECTION 23B-1 | COUNTY MCHENRY | TOTAL SHEETS 97 | SHEET NO. 34 |
| CONTRACT NO. 62892 | | | | |

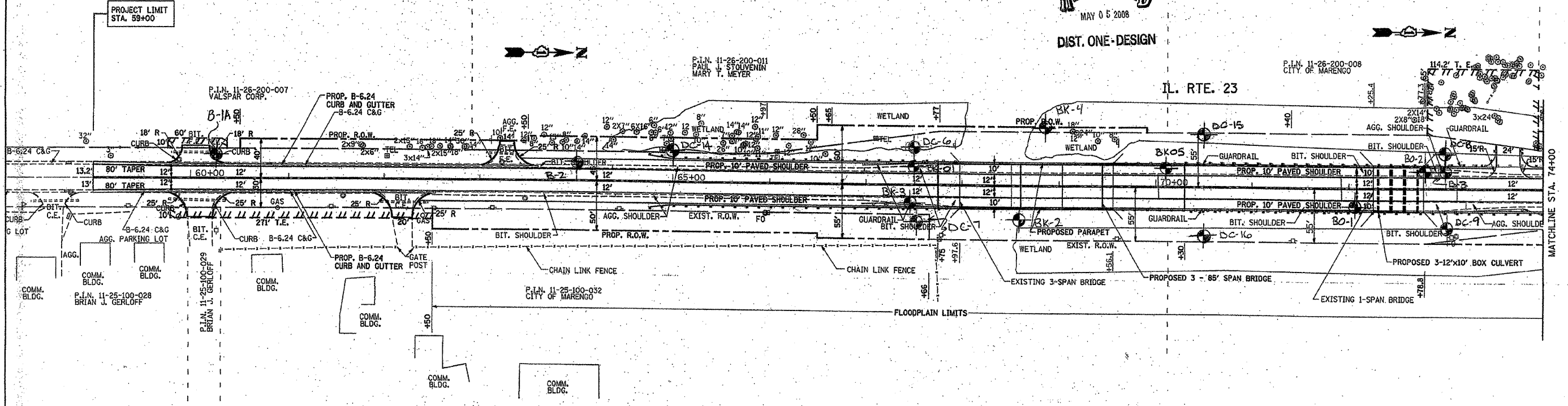
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------|---------------------------|---------------|--------------|-----------|
| 324 | 22B-1 | MCHENRY | | 34A |
| STA. 59+00 | | TO STA. 74+00 | | |
| FED. ROAD DIST. NO. | ILLINOIS FED. AID PROJECT | | | |

RECEIVED
MAY 05 2008

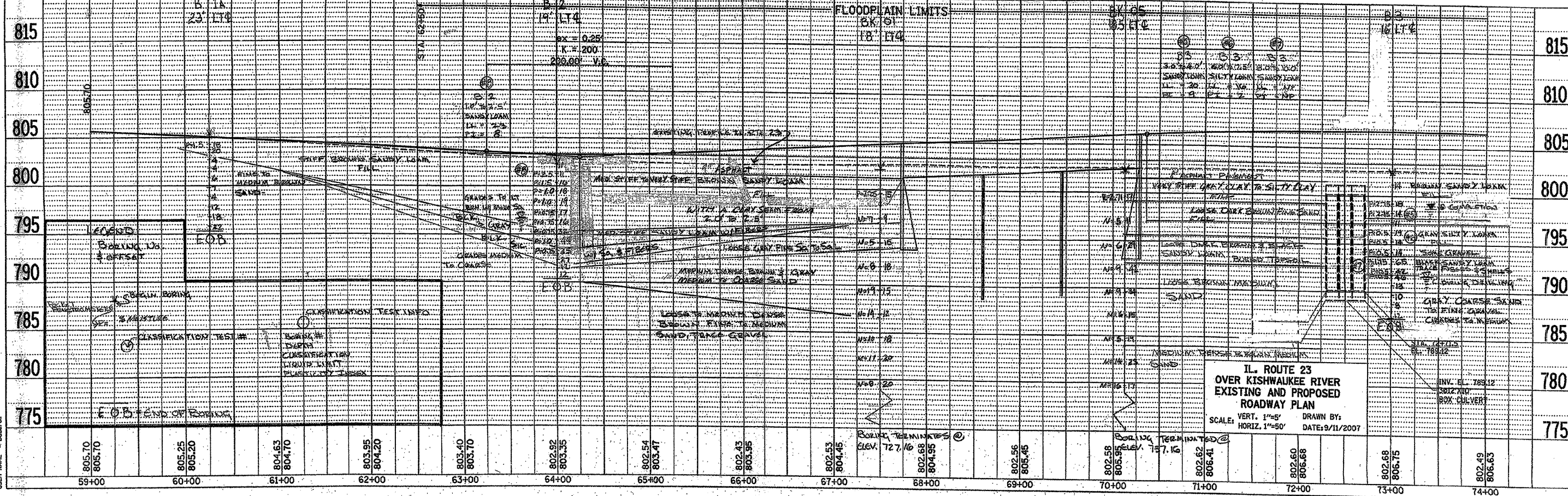
DIST. ONE-DESIGN

IL. RTE. 23

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| BY | |
| REVISIONS | |
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| NO. 99 | |
| NO. 100 | |



FOR INFORMATION ONLY

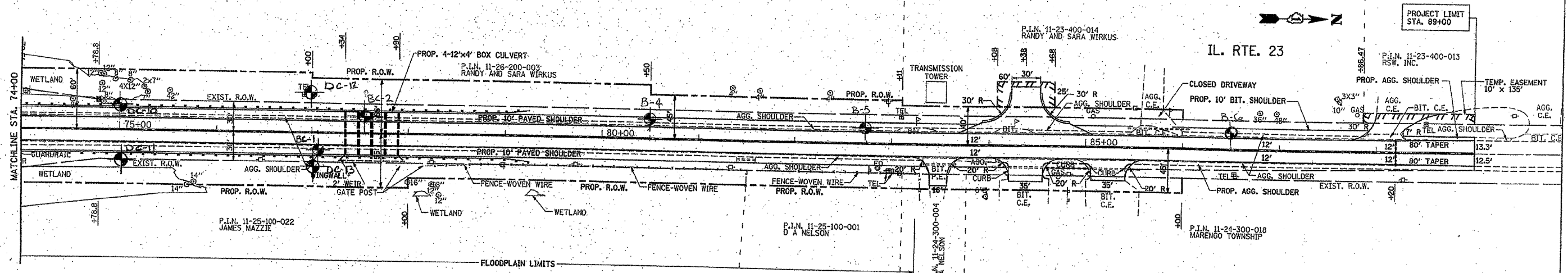


IL. ROUTE 23
OVER KISHWAUKEE RIVER
EXISTING AND PROPOSED
ROADWAY PLAN
SCALE: VERT. 1"=5'
HORIZ. 1"=50'
DRAWN BY:
DATE: 9/11/2007

08:43:39 09/11/2007

DATE = 9/11/2007
PLOT SCALE = 1"=50'
USER NAME = b...
USER ID = ...

| | | | |
|---------------------|---------------|---------------------------|------------------|
| CONTRACT NO. 62892 | | | |
| F.A.P. RTE. 324 | SECTION 23B-1 | COUNTY MCHENRY | TOTAL SHEETS 34B |
| STA. 74+00 | | TO STA. 89+00 | |
| FED. ROAD DIST. NO. | | ILLINOIS FED. AID PROJECT | |



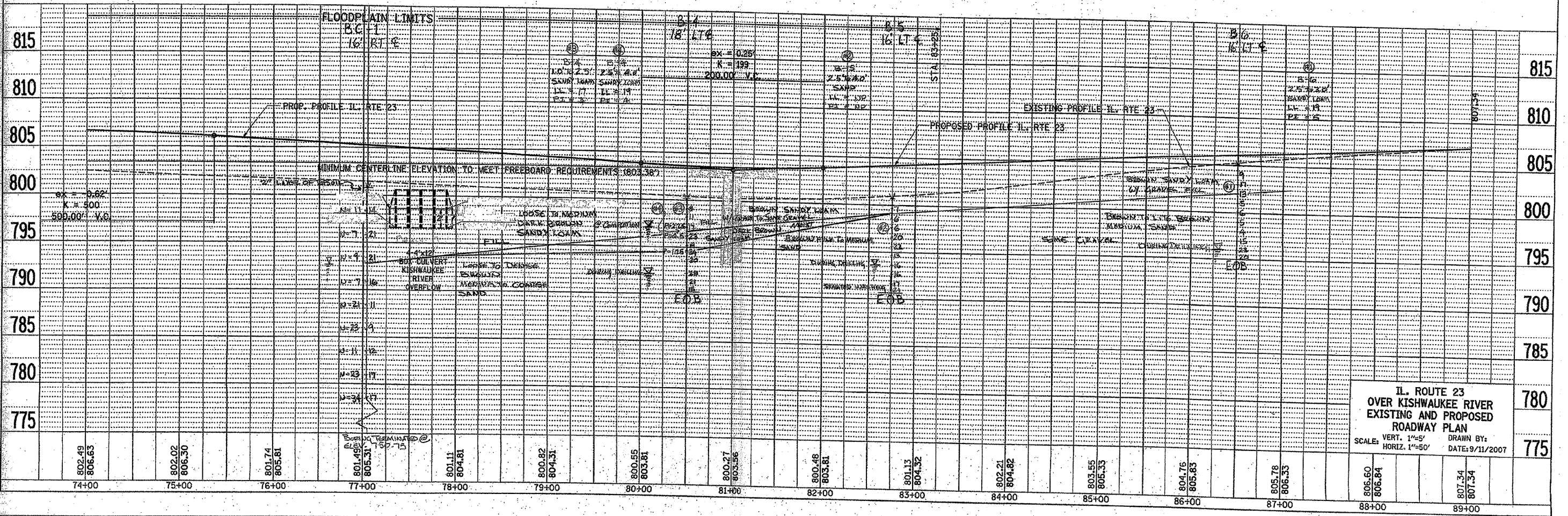
RECEIVED
MAY 05 2008

DIST. ONE-DESIGN

FOR INFORMATION ONLY

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| DATE | |
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| DATE | |



**IL. ROUTE 23
OVER KISHWAUKEE RIVER
EXISTING AND PROPOSED
ROADWAY PLAN**

SCALE: VERT. 1"=5'
HORIZ. 1"=50'

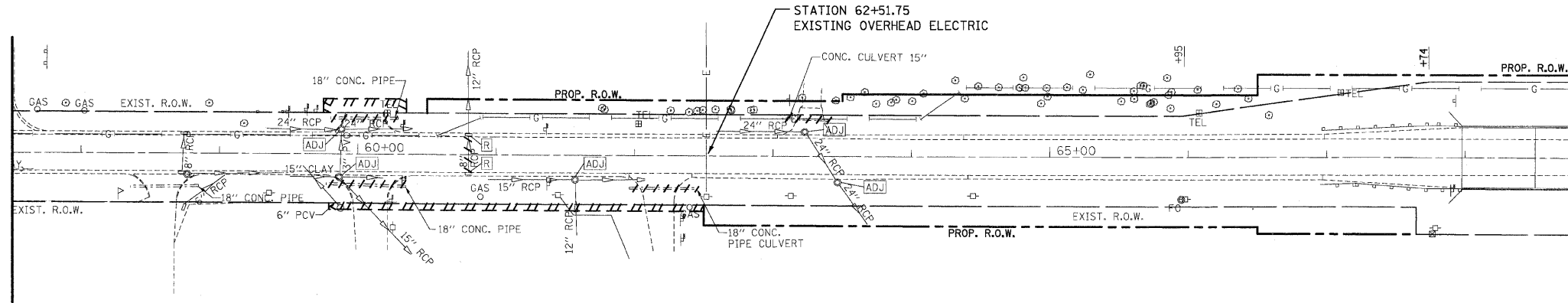
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USER NAME = ah...

LEGEND

- R STRUCTURE TO BE REMOVED & REPLACED
- ADJ STRUCTURE TO BE ADJUSTED
- REL STRUCTURE TO BE RELOCATED
- /// STORM SEWER REMOVAL



MATCHLINE STA. 69+00
SEE SHEET NO. 36

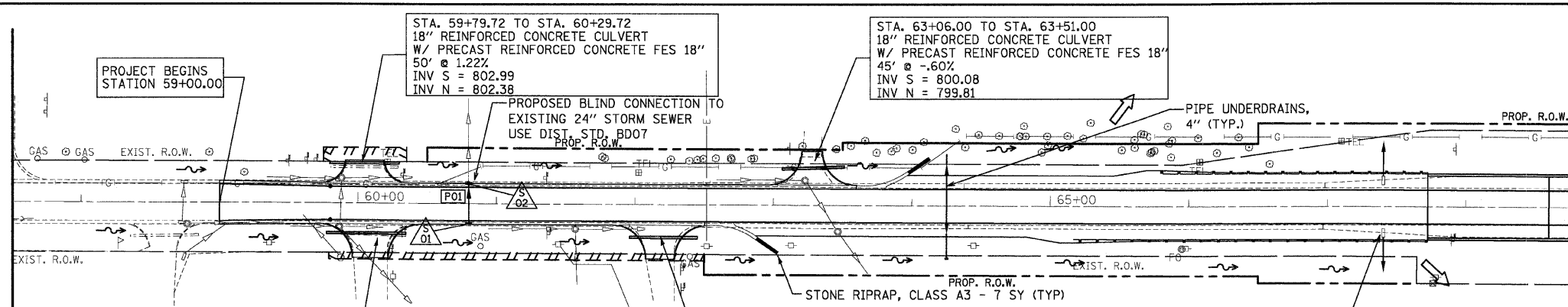
EXISTING VIEW



NOTES

1. OFFSETS OF CULVERTS AND SKEW ANGLES ARE PROVIDED ON THE SCHEDULE OF QUANTITIES

MATCHLINE STA. 69+00
SEE SHEET NO. 36



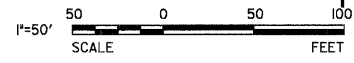
PROPOSED VIEW

MATCHLINE STA. 69+00
SEE SHEET NO. 36

STA. 68+59
EL. 794.75

STA. 68+44
EL. 791.64

STA. 68+29
EL. 792.05



| ELEVATION | LEFT SIDE DITCH PROFILE | | RIGHT SIDE DITCH PROFILE | | CULVERT DATA | | | | | | | | | | | | ELEVATION | | | | | | |
|-----------|-------------------------|------|--------------------------|------|--------------|--------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----------|--------|--------|--------|--------|--------|-----|
| | RIGHT | LEFT | RIGHT | LEFT | STATION | LENGTH | SLOPE | INVERT | NORMAL | INVERT | NORMAL | INVERT | NORMAL | INVERT | NORMAL | INVERT | | NORMAL | INVERT | NORMAL | INVERT | NORMAL | |
| 805 | | | | | | | | | | | | | | | | | | | | | | | 805 |
| 800 | | | | | | | | | | | | | | | | | | | | | | | 800 |
| 795 | | | | | | | | | | | | | | | | | | | | | | | 795 |
| 790 | | | | | | | | | | | | | | | | | | | | | | | 790 |
| 785 | | | | | | | | | | | | | | | | | | | | | | | 785 |
| 780 | | | | | | | | | | | | | | | | | | | | | | | 780 |
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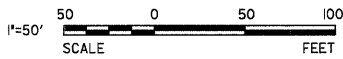
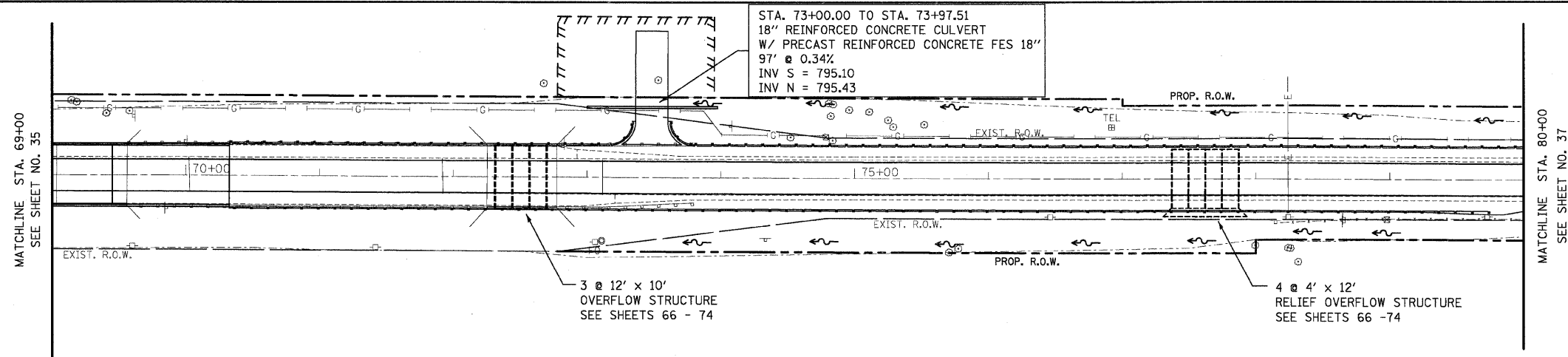
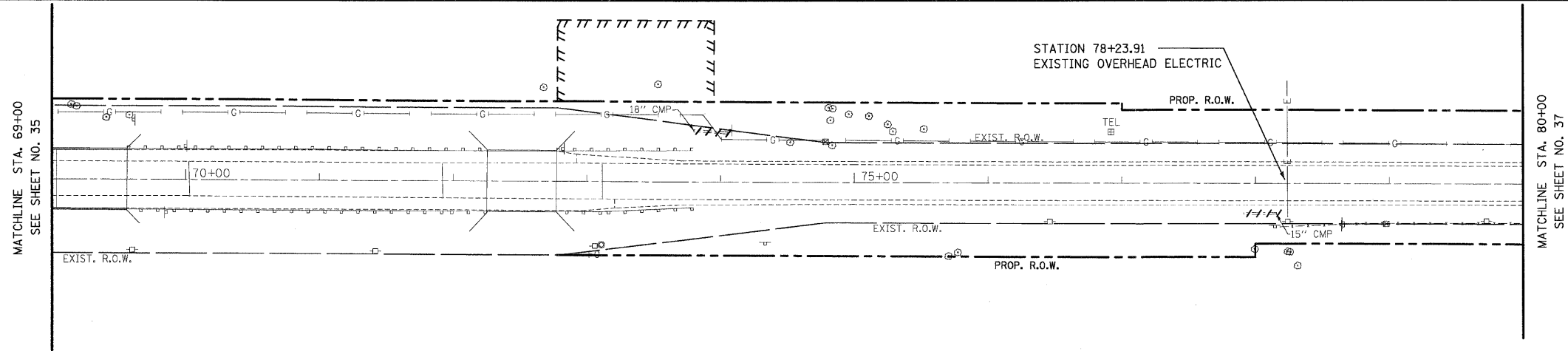
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| FILE NAME = | USER NAME = *USER* | DESIGNED - GJM | REVISED - 5/13/2008 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | DRAINAGE AND UTILITIES | | | F.A.P. RTE. 324 | SECTION 23B-1 | COUNTY MCHENRY | TOTAL SHEETS 97 | SHEET NO. 35 | |
| *FILEL* | | CHECKED - EJL | REVISED - 7/18/2008 | | SCALE: 1" = 50' | | | SHEET NO. 1 OF 3 SHEETS | | | STA. 59+00 TO STA. 69+00 | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT |
| PLOT SCALE = *SCALE* | | DRAWN - GJM | REVISED - | | | | | | | | CONTRACT NO. 62892 | | |
| PLOT DATE = 10/10/2008 | | CHECKED - EJL | REVISED - | | | | | | | | | | |

LEGEND

- [R] STRUCTURE TO BE REMOVED
- [ADJ] STRUCTURE TO BE ADJUSTED
- [REL] STRUCTURE TO BE RELOCATED
- /// STORM SEWER REMOVAL

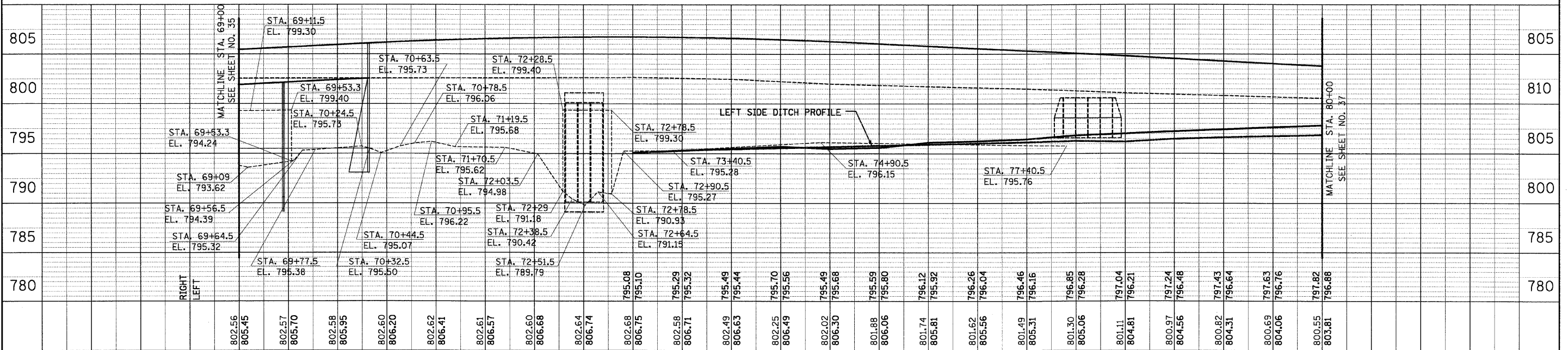
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| NO. | |



NOTES

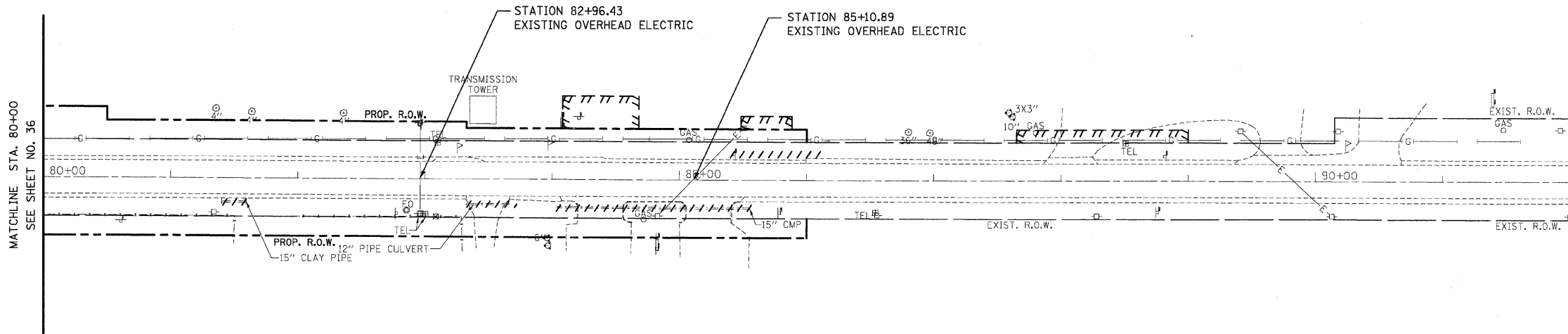
1. OFFSETS OF CULVERTS AND SKEW ANGLES ARE PROVIDED ON THE SCHEDULE OF QUANTITIES



| | | | | | | | | | | | |
|-----------------------|--------------------|------------------|---------------------|---|-------------------------------|---|---------|---------|--------------|-----------|--|
| FILE NAME = | USER NAME = #USER# | DESIGNED - GJM | REVISED - 5/13/2008 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | DRAINAGE AND UTILITIES | F.A.P. NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | |
| #FILE# | | CHECKED - E.J.L. | REVISED - 7/18/2008 | | | 324 | 23B-1 | MCHENRY | 97 | 36 | |
| PLOT SCALE = #SCALE# | | DRAWN - GJM | REVISED - | | | CONTRACT NO. 62892 | | | | | |
| PLOT DATE = 7/17/2008 | | CHECKED - E.J.L. | REVISED - | | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | | |

LEGEND

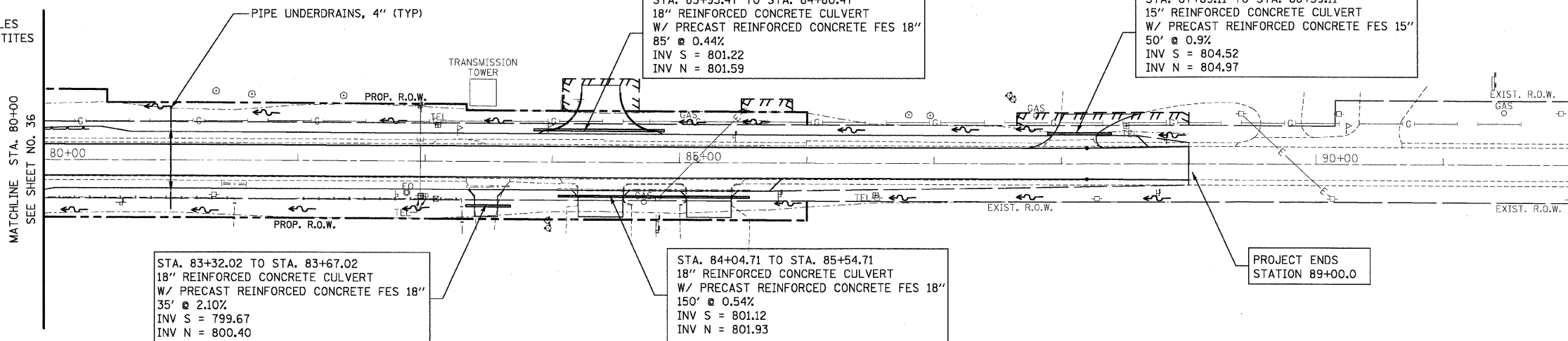
- [R] STRUCTURE TO BE REMOVED
- [ADJ] STRUCTURE TO BE ADJUSTED
- [REL] STRUCTURE TO BE RELOCATED
- /// STORM SEWER REMOVAL



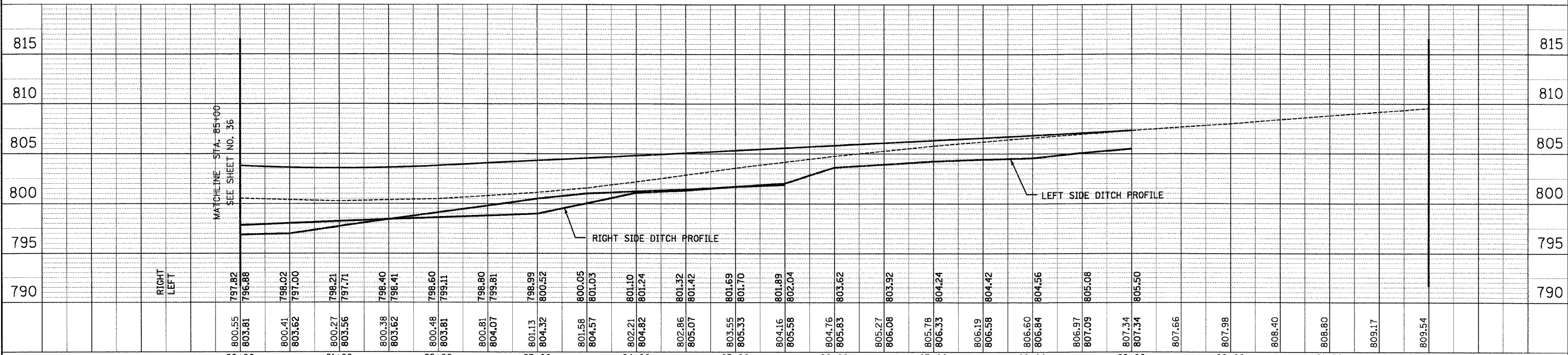
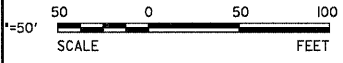
EXISTING VIEW

NOTES

1. OFFSETS OF CULVERTS AND SKEW ANGLES ARE PROVIDED ON THE SCHEDULE OF QUANTITIES



PROPOSED VIEW



| | | | | | | | | | | | | | | | | | | | | | | | |
|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|--------|--------|--------|--------|--------|--------|
| 80+00 | 81+00 | 82+00 | 83+00 | 84+00 | 85+00 | 86+00 | 87+00 | 88+00 | 89+00 | 90+00 | 91+00 | 92+00 | | | | | | | | | | | |
| 800.55 803.81 | 800.41 803.62 | 800.27 803.56 | 800.48 803.81 | 800.81 804.07 | 801.13 804.32 | 801.58 804.57 | 802.21 804.82 | 802.86 805.07 | 803.55 805.33 | 804.16 805.58 | 804.76 805.83 | 805.27 806.08 | 805.78 806.33 | 806.19 806.58 | 806.60 806.84 | 806.97 807.09 | 807.34 807.34 | 807.66 | 807.98 | 808.40 | 808.80 | 809.17 | 809.54 |

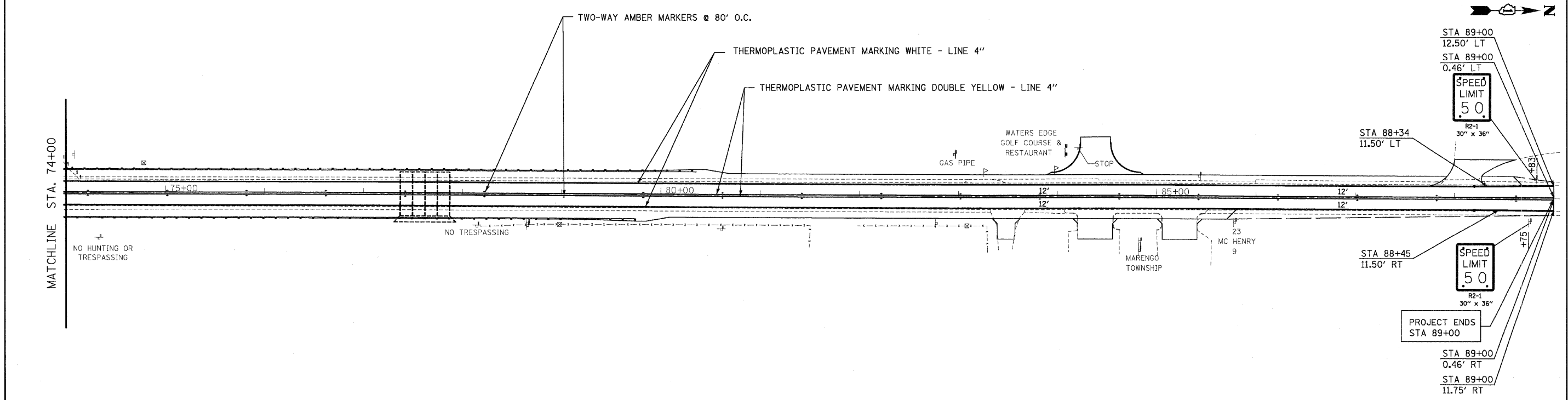
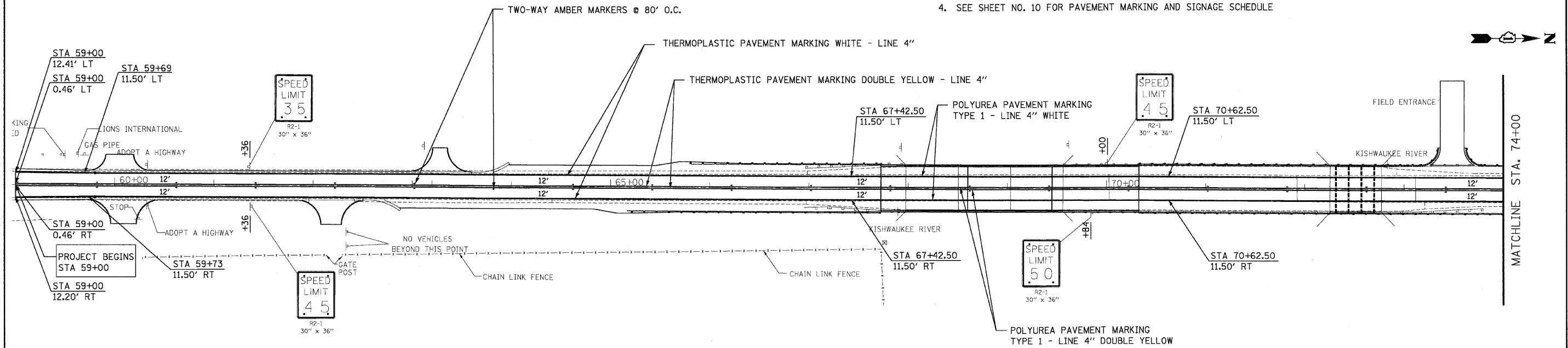
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| PLOT DATE = 7/17/2008 | | | | | | | | | SCALE: 1" = 50' | SHEET NO. 3 OF 3 SHEETS | STA. 80+00 TO STA. 92+00 | CONTRACT NO. 62892 | |

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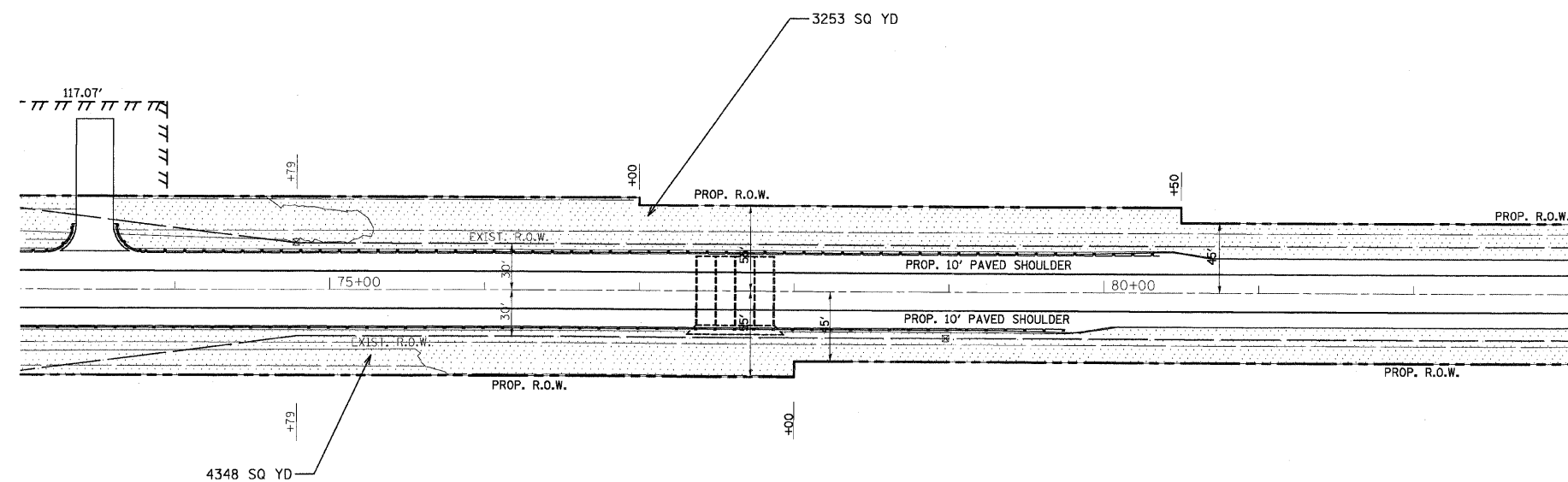
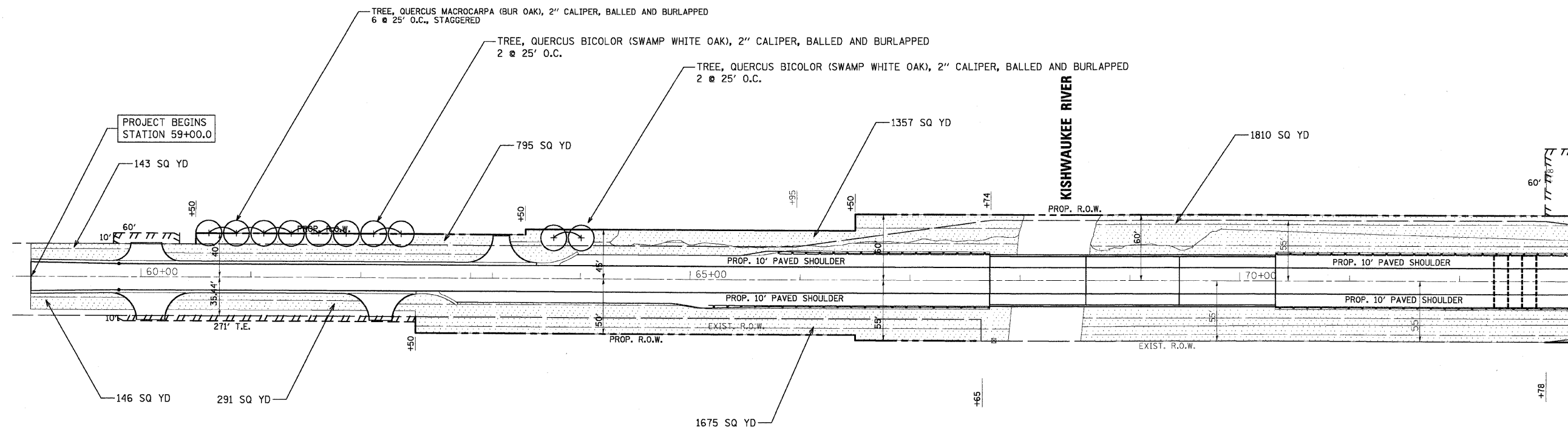
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| | | |
| DATE | BY | REVISION |
| | | |

PAVEMENT MARKING/SIGNAGE NOTES

1. PAVEMENT MARKINGS SHOULD BE PLACED IN ACCORDANCE WITH DETAIL TC-13 (DISTRICT ONE TYPICAL PAVEMENT MARKINGS).
2. RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH DETAIL TC-11 (TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS).
3. PAVEMENT MARKINGS ON CONCRETE SHALL BE POLYUREA.
4. SEE SHEET NO. 10 FOR PAVEMENT MARKING AND SIGNAGE SCHEDULE



| | | | | | | | | | | | | |
|-----------------------|-----------------------|------------------|---------------------|---|--------------------------------------|-------------------------|--------------------------|---|------------------|-------------------|------------------------|-----------------|
| FILE NAME = #FILE# | USER NAME = #USER# | DESIGNED - GJM | REVISED - 5/13/2008 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | PAVEMENT MARKING/SIGNING PLAN | | | F.A.P. RTE. 324 | SECTION 23B-1 | COUNTY MCHENRY | TOTAL SHEETS NO. 97 | SHEET NO. 38 |
| | PLOT SCALE = #SCALE# | DRAWN - GJM | REVISED - 7/18/2008 | | SCALE: 1"=50' | SHEET NO. 1 OF 1 SHEETS | STA. 59+00 TO STA. 89+00 | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | 62892 | | |
| | PLOT DATE = 7/17/2008 | CHECKED - EJL | REVISED - --- | | | | | | | | | |
| | | DATE - 3/11/2008 | REVISED - --- | | | | | | | | | |
| | | | | | | | | | | | | |



LEGEND

| | | | |
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| | SEEDLINGS TYPE 1 | | PR SHADE TREE |
| | SEEDLINGS TYPE 2 | | EX SHADE TREE |
| | SEEDING CLASS 2 | | PR EVERGREEN TREE |
| | SEEDING CLASS 2A | | EX EVERGREEN TREE |
| | SEEDING CLASS 3 | | TREE TRUNK PROTECTION |
| | SEEDING CLASS 4 | | MOWSTAKE W/SIGN |
| | SEEDING CLASS 4 & 5 COMBINED | | MOWLINE |
| | SEEDING CLASS 5 | | CONTOUR MOUNDING LINE |
| | SEEDING CLASS 7 | | SHRUBS |
| | PERENNIAL PLANTS | | |
| | SODDING | | |

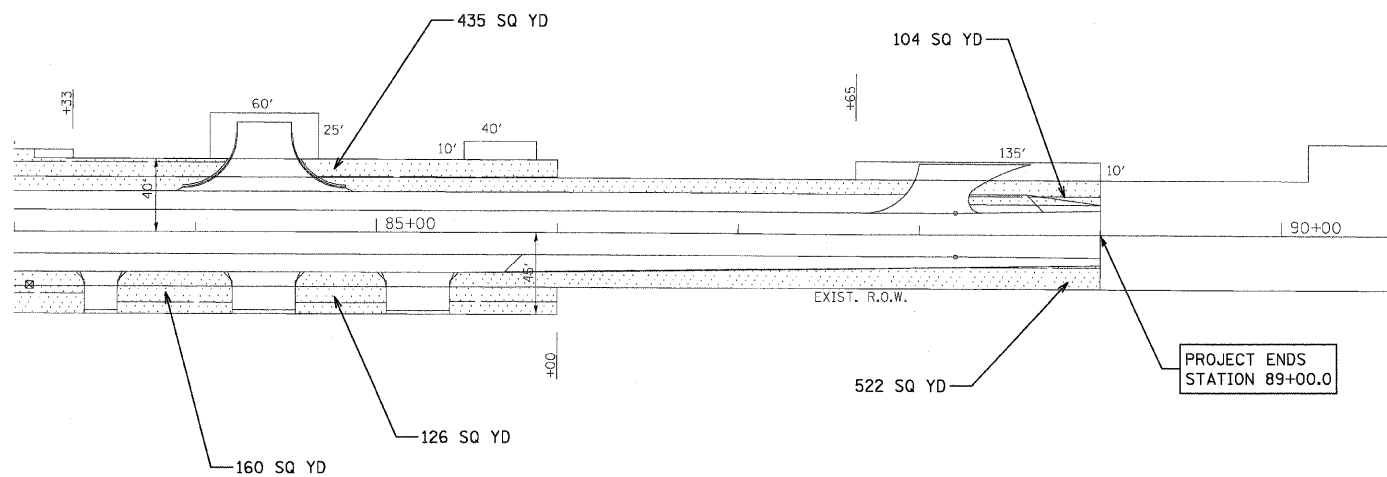
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| | | DRAWN - DSS | REVISED - 7/18/2008 |
| | | CHECKED - EJL | REVISED - --- |
| | | DATE - 3/11/2008 | REVISED - --- |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

LANDSCAPE PLAN

SCALE: 1" = 50' SHEET NO. 1 OF 2 SHEETS STA. 59+00 TO STA. 87+00

| | | | | |
|---|---------------|----------------|-----------------|--------------|
| F.A.P. RTE. 324 | SECTION 23B-1 | COUNTY MCHENRY | TOTAL SHEETS 97 | SHEET NO. 39 |
| CONTRACT NO. 62892 | | | | |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |



LEGEND

- | | | | |
|--|------------------------------|--|-----------------------|
| | SEEDLINGS TYPE 1 | | PR SHADE TREE |
| | SEEDLINGS TYPE 2 | | EX SHADE TREE |
| | SEEDING CLASS 2 | | PR EVERGREEN TREE |
| | SEEDING CLASS 2A | | EX EVERGREEN TREE |
| | SEEDING CLASS 3 | | TREE TRUNK PROTECTION |
| | SEEDING CLASS 4 | | MOWSTAKE W/SIGN |
| | SEEDING CLASS 4 & 5 COMBINED | | MOWLINE |
| | SEEDING CLASS 5 | | CONTOUR MOUNDING LINE |
| | SEEDING CLASS 7 | | SHRUBS |
| | PERENNIAL PLANTS | | |
| | SODDING | | |

| | | | |
|-------------|-----------------------|------------------|---------------------|
| FILE NAME = | USER NAME = #USER# | DESIGNED - DSS | REVISED - 5/13/2008 |
| #FILE# | | DRAWN - DSS | REVISED - 7/18/2008 |
| | PLOT SCALE = #SCALE# | CHECKED - EJL | REVISED - --- |
| | PLOT DATE = 7/17/2008 | DATE - 3/11/2008 | REVISED - --- |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

LANDSCAPE PLAN

SCALE: 1"=50' SHEET NO. 2 OF 2 SHEETS STA. 87+00 TO STA. 89+00

| | | | | |
|---|---------|---------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 324 | 23B-1 | MCHENRY | 97 | 40 |
| CONTRACT NO. 62892 | | | | |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|----------|-------------------|--------------|-----------|-------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 1 |
| F.A.P. 324 | 23B-1 | McHENRY | 97 | 41 | 25 SHEETS |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT- | | | |

Contract # 62892

INDEX OF SHEETS

- 1 GENERAL PLAN
- 2 GENERAL DATA
- 3-6 TOP OF SLAB ELEVATIONS
- 7-8 TOP OF APPROACH SLAB ELEVATIONS
- 9-11 SUPERSTRUCTURE
- 12 FRAMING PLAN
- 13 FRAMING DETAILS
- 14 ABUTMENTS
- 15 PIERS
- 16-17 PILE DETAILS
- 18 BAR SPLICER DETAILS
- 19 DRAINAGE SCUPPER, DS-II
- 20 CANTILEVER FORMING BRACKETS FOR SUPERSTRUCTURE WITH W27 BEAMS OR SMALLER
- 21-25 BORING LOGS

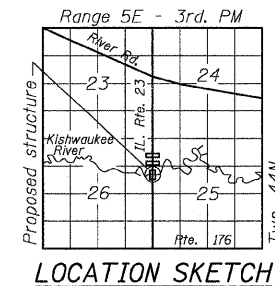
WATERWAY INFORMATION

| Flood | Freq. Yr. | Structure | Q C.F.S. | | Opening SqFt. | | Nat. H.W.E. | Head - Ft. | | Headwater El. | | |
|-------|------------|--------------|----------|-------|---------------|--------|-------------|------------|-------|---------------|--------|--|
| | | | Exist. | Prop. | Exist. | Prop. | | Exist. | Prop. | Exist. | Prop. | |
| 10 | Design | Main Channel | 3441 | 2559 | 767.0 | 1057.0 | | | | | | |
| | | Overflow 1 | 1874 | 2133 | 389.2 | 304.9 | | | | | | |
| | | Overflow 2 | n/a | 623 | n/a | 95.5 | | | | | | |
| | | Total | 5315 | 5315 | 1156.2 | 1457.4 | 798.61 | 1.13 | 0.70 | 799.74 | 799.31 | |
| 50 | Design | Main Channel | 4951 | 4328 | 875.0 | 1228.3 | | | | | | |
| | | Overflow 1 | 2679 | 2453 | 429.9 | 330.8 | | | | | | |
| | | Overflow 2 | 17* | 866 | n/a | 130.1 | | | | | | |
| | | Total | 7647 | 7647 | 1304.9 | 1689.2 | 799.33 | 1.39 | 0.77 | 800.72 | 800.10 | |
| 100 | Base | Main Channel | 5858 | 5015 | 914.0 | 1287.4 | | | | | | |
| | | Overflow 1 | 2546 | 2582 | 442.6 | 340.2 | | | | | | |
| | | Overflow 2 | 177* | 983 | n/a | 142.6 | | | | | | |
| | | Total | 8581 | 8581 | 1356.6 | 1770.2 | 799.59 | 1.71 | 0.80 | 801.32 | 800.39 | |
| 500 | Max. Calc. | Main Channel | 6944 | 6824 | 995.0 | 1402.5 | | | | | | |
| | | Overflow 1 | 3076 | 2676 | 469.1 | 359.6 | | | | | | |
| | | Overflow 2 | 699* | 1219 | n/a | 168.5 | | | | | | |
| | | Total | 10719 | 10719 | 1464.1 | 1930.7 | 800.13 | 2.03 | 0.87 | 802.16 | 801.00 | |

10 year velocity through existing bridge (main channel) = 3.76 fps
10 year velocity through proposed bridge (main channel) = 2.12 fps

Notes:

1. * Indicates flow over the road in existing condition.
2. A 2 foot berm/wall will be built at the upstream side of Overflow 2 structure, to maintain existing drainage patterns.
3. Overflow 1 is the 3-cell box culvert in the overflow channel, Overflow 2 is the 4-cell box culvert north of Overflow 1.



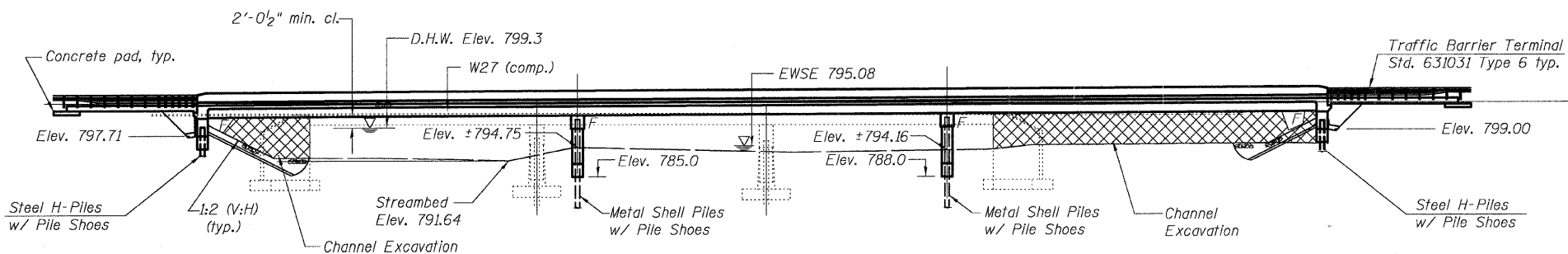
GENERAL PLAN
ILL. ROUTE 23 OVER
KISHWAUKEE RIVER
F.A.P. RT. 324
MCHENRY COUNTY
STATION 69+02.50
STRUCTURE NO. 056-0001

V3 Companies of Illinois Ltd.
7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
630.724.9202 fax
www.v3co.com

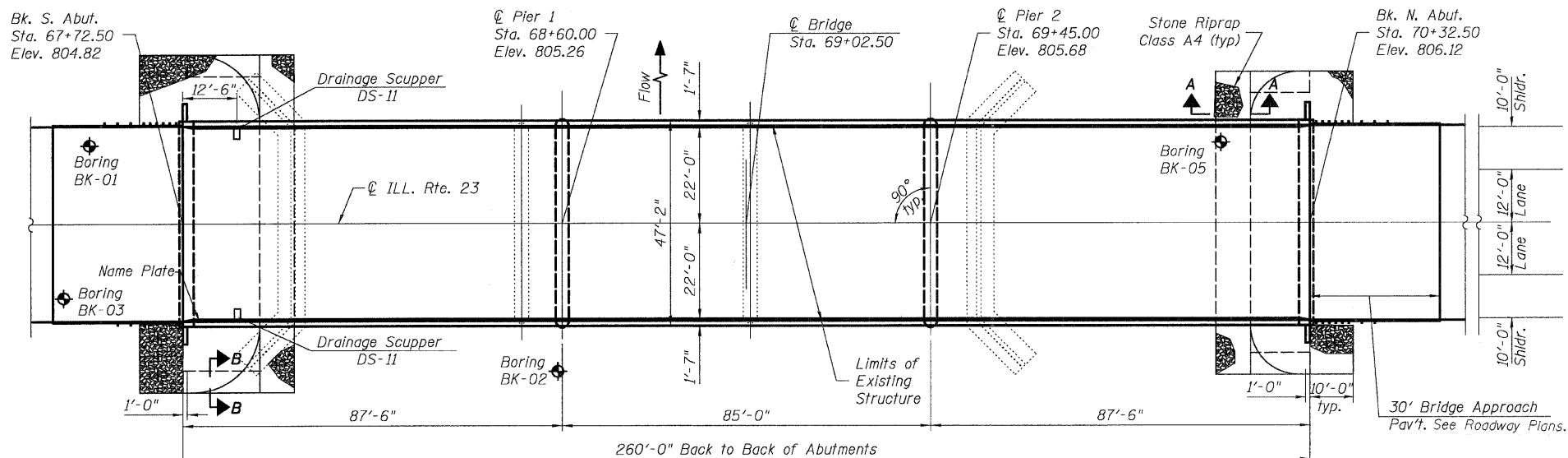
Bench Mark: BM #1 Square cut in top of wingwall SW corner of bridge S.N. 056-0009. Elevation 802.58
BM # 2 USGS Disk set in top of wingwall at NW corner of Bridge S.N. 056-0010. Elevation 802.33

Existing Structure: S.N. 056-0010 was rebuilt and widened in 1974 as F.A. Route 24 Section 23BR1. The original structure was built in 1925 as Route 23 Section 23. The structure consists of 3 simple spans using PPC box beams with closed abutments and solid piers. The back-to-back abutments is 159'-2 1/2" and the out-to-out deck is 45'-6". Existing structure to be removed and replaced. Traffic will be detoured during construction.

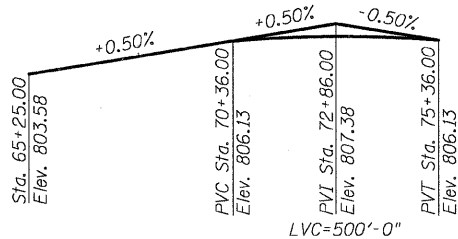
No Salvage



ELEVATION



PLAN



PROFILE GRADE
(along CL 23)

| | |
|----------|-----|
| DESIGNED | CJB |
| CHECKED | PWO |
| DRAWN | DRP |
| CHECKED | PJM |

LOADING HL-93

Allow 50#/sq. ft. for future wearing surface.

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Bedrock Acceleration Coefficient (A) = 0.034g
Site Coefficient (S) = 1.0

DESIGN SCOUR ELEVATION TABLE

| Design Scour Elevation (ft.) | S. Abut. | Pier 1 | Pier 2 | N. Abut. |
|------------------------------|----------|--------|--------|----------|
| | 795 | 785 | 788 | 796 |

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications

DESIGN STRESSES

FIELD UNITS
f_c = 3,500 psi
f_y = 60,000 psi (reinforcement)
f_y = 50,000 psi (M270 Grade 50)
f_y = 36,000 psi (M270 Grade 36)

Note:
See sheet 2 of 25 for Section A-A and B-B.
Underwater Structure Excavation Protection L1 is at Pier 1 and L2 is at Pier 2.

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

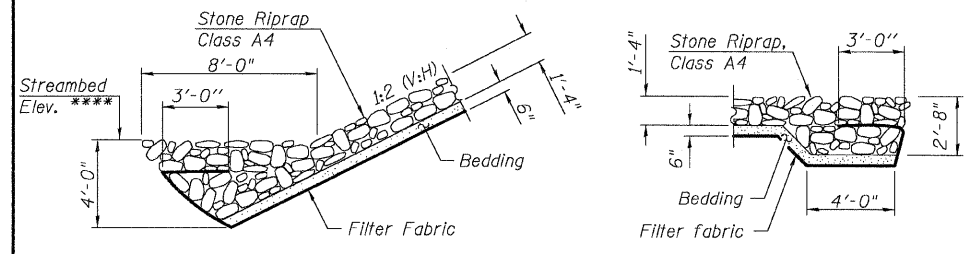


**** at N. Abutment Elev. ±795.7
at S. Abutment Elev. ±792.4

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

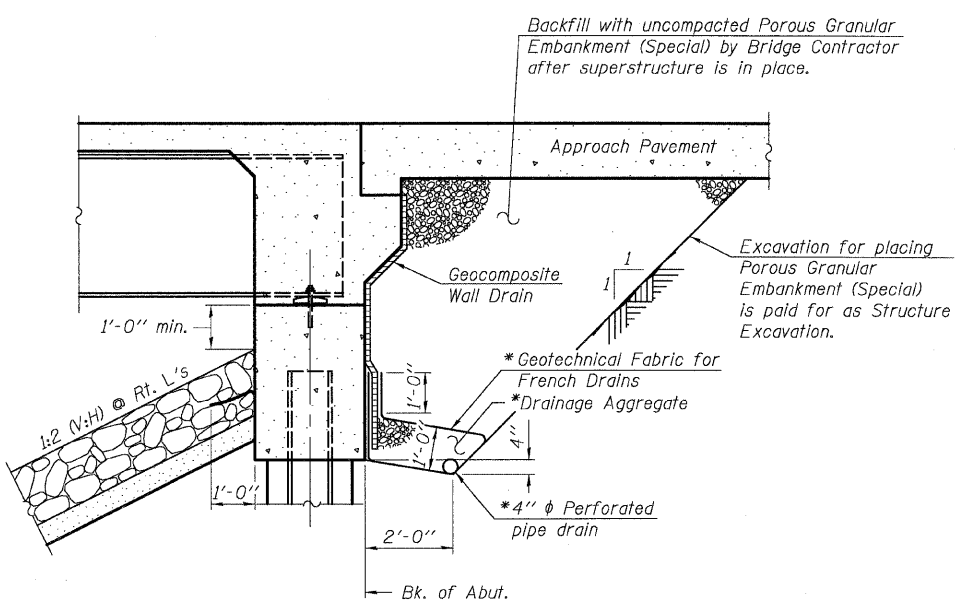
| | | | | |
|-----------------------|----------|-------------------|--------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| F.A.P. 324 | 23B-1 | McHENRY | 97 | 42 |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT- | | |

Contract # 62892



SECTION A-A
See Sheet No. 1

SECTION B-B
See Sheet No. 1



SECTION THRU INTEGRAL ABUTMENT
(Horiz. dim. @ Rt. L's)

* Included in the cost of Pipe Underdrains for Structures.

Note:
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

| | |
|----------|-----|
| DESIGNED | CJB |
| CHECKED | PWO |
| DRAWN | DRP |
| CHECKED | PJM |

GENERAL NOTES

- Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts 7/8 in. dia., holes 15/16 in. dia., unless otherwise noted.
- Calculated weight of Structural Steel = 468,200 pounds (Gr. 50), 22,370 pounds (Gr. 36).
- No field welding is permitted except as specified in the contract documents.
- Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.
- Reinforcement bars designated (E) shall be epoxy coated.
- If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.
- Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 in. (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
- The Organic Zinc Rich Primer / Epoxy / Urethane Paint System shall be used for painting of new structural steel except where otherwise noted. The entire system shall be shop applied, with the exception that masked off connection surfaces, field installed fasteners and damaged areas shall be touched up in the field. The color of the final finish coat for all interior steel surfaces shall be Gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Blue, Munsell No. 10B 3/6. See Special Provision for "Cleaning and Painting New Metal Structures".
- Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
- The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.
- The Contractor shall limit the pile hammer size selected considering the relatively high soil strengths indicated in the borings and avoid overdriving the piles beyond their normal required bearing to prevent pile damage during driving.
- The Contractor shall take special care to protect structural steel (with shop applied paint system) when handling or using to support temporary shoring.
- Slipforming of parapet is not allowed.

TOTAL BILL OF MATERIAL

| Item | Unit | Super | Sub | Total |
|---|---------|--------|--------|---------|
| Removal of Existing Structures | Each | — | — | 1 |
| Bar Splicers | Each | 90 | — | 90 |
| Concrete Superstructure | Cu. Yd. | 409.2 | — | 409.2 |
| Concrete Structure | Cu. Yd. | — | 146.9 | 146.9 |
| Reinforcement Bars, Epoxy Coated | Pound | 91,540 | 12,390 | 103,930 |
| Drainage Scuppers, DS-11 | Each | 2 | — | 2 |
| *** Erecting Structural Steel | L. Sum | 1 | — | 1 |
| Test Pile Metal Shells | Each | — | 2 | 2 |
| Furnishing Metal Shell Piles, 12" x 0.250" | Foot | — | 1386 | 1386 |
| Test Pile Steel HP12x53 | Each | — | 2 | 2 |
| Furnish Steel Piles HP12x53 | Foot | — | 1375 | 1375 |
| Driving Piles | Foot | — | 2761 | 2761 |
| Pile Shoes | Each | — | 54 | 54 |
| Protective Coat | Sq. Yd. | 1782 | — | 1782 |
| Bridge Deck Grooving | Sq. Yd. | 1213 | — | 1213 |
| Structure Excavation | Cu. Yd. | — | 467 | 467 |
| Porous Granular Embankment, Special | Cu. Yd. | — | 115 | 115 |
| Filter Fabric | Sq. Yd. | — | 555 | 555 |
| Stone Riprap, Class A4 | Sq. Yd. | — | 447 | 447 |
| Name Plates | Each | 1 | — | 1 |
| Stud Shear Connectors | Each | 8112 | — | 8112 |
| Underwater Structure Excavation Protection L1 | Each | — | 1 | 1 |
| Underwater Structure Excavation Protection L2 | Each | — | 1 | 1 |
| Concrete Encasement | Cu. Yd. | — | 24.8 | 24.8 |
| Geocomposite Wall Drain | Sq. Yd. | — | 67 | 67 |
| Pipe Underdrains for Structures 4" | Foot | — | 121 | 121 |
| Anchor Bolts, 1" | Each | — | 64 | 64 |
| Channel Excavation | Cu. Yd. | — | 1592 | 1592 |
| ** Asbestos Bearing Pad Removal | Each | 23 | — | 23 |

** Based on IDOT's PPC Deck Beam Replacement Plans, C-91-166-04.

*** Furnishing Structural Steel is being paid for under a separate contract.

STATION 69+02.5
BUILT 200 BY
STATE OF ILLINOIS
F.A.P. RT. 324 SEC. 23B-1
LOADING HI-93
STR. NO. 056-0001

LETTERING FOR NAME PLATE

See Plan View on sheet 1 of 25,
& Std 515001 for name plate location



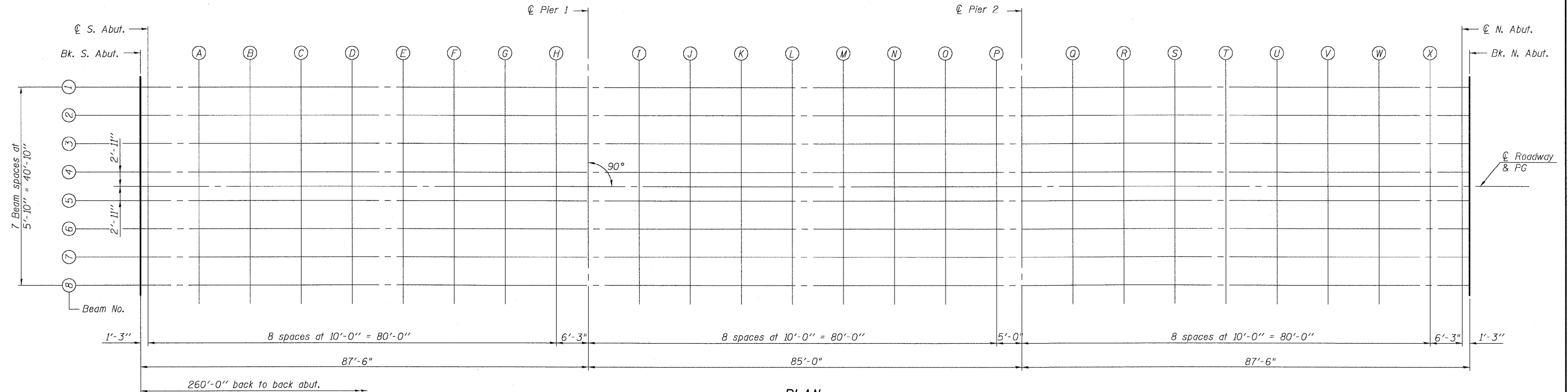
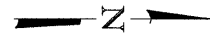
V3 Companies of Illinois Ltd.
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www.v3co.com

GENERAL DATA
ILL. ROUTE 23 OVER
KISHWAUKEE RIVER
F.A.P. RT. 324
McHENRY COUNTY
STATION 69+02.50
STRUCTURE NO. 056-0001

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|----------------------------|------------------|----------------------------|--------------------|-----------------|--------------------------|
| ROUTE NO. F.A.P. 324 | SECTION 23B-1 | COUNTY MCHENRY | TOTAL SHEETS 97 | SHEET NO. 43 | SHEET NO. 3 25 SHEETS |
| FED. ROAD DIST. NO. 1 | | ILLINOIS FED. AID PROJECT- | | | |

Contract # 62892



PLAN

| | |
|----------|-----|
| DESIGNED | CJB |
| CHECKED | PWO |
| DRAWN | DRP |
| CHECKED | PJM |



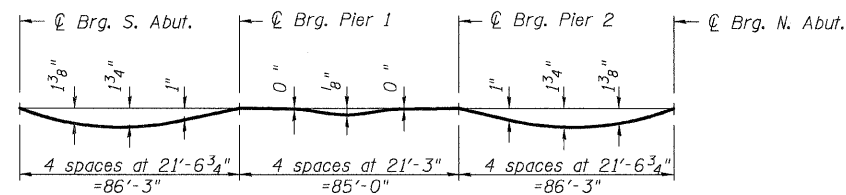
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TOP OF SLAB ELEVATIONS
ILL. ROUTE 23 OVER
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MCHENRY COUNTY
STATION 69+02.50
STRUCTURE NO. 056-0001

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|----------|------------------|--------------|-----------|-------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 4 |
| F.A.P. 324 | 23B-1 | McHENRY | 97 | 44 | 25 SHEETS |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT | | | |

Contract # 62892

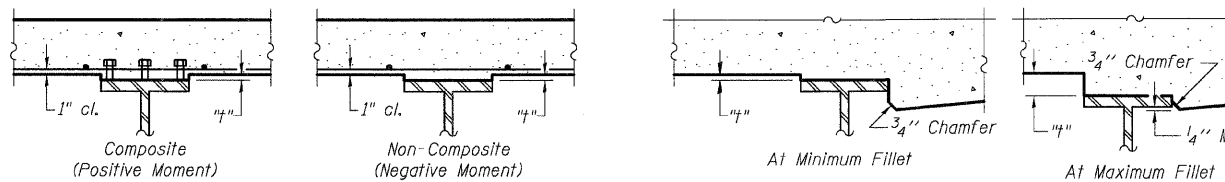


DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

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.



INTERIOR BEAMS

EXTERIOR BEAMS

To determine "f": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown, minus slab thickness, equals the fillet heights "f" above top flange of beams.

FILLET HEIGHTS

BEAM 1

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|--------------|----------|--------|------------------------------|--|
| Bk. S. Abut. | 67+72.50 | -20.42 | 804.46 | 804.46 |
| C S. Abut. | 67+73.75 | -20.42 | 804.46 | 804.46 |
| A | 67+83.75 | -20.42 | 804.51 | 804.57 |
| B | 67+93.75 | -20.42 | 804.56 | 804.67 |
| C | 68+03.75 | -20.42 | 804.61 | 804.75 |
| D | 68+13.75 | -20.42 | 804.66 | 804.81 |
| E | 68+23.75 | -20.42 | 804.71 | 804.84 |
| F | 68+33.75 | -20.42 | 804.76 | 804.86 |
| G | 68+43.75 | -20.42 | 804.81 | 804.87 |
| H | 68+53.75 | -20.42 | 804.86 | 804.88 |
| C Pier 1 | 68+60.00 | -20.42 | 804.89 | 804.89 |
| I | 68+70.00 | -20.42 | 804.94 | 804.93 |
| J | 68+80.00 | -20.42 | 804.99 | 804.99 |
| K | 68+90.00 | -20.42 | 805.04 | 805.04 |
| L | 69+00.00 | -20.42 | 805.09 | 805.10 |
| M | 69+10.00 | -20.42 | 805.14 | 805.15 |
| N | 69+20.00 | -20.42 | 805.19 | 805.19 |
| O | 69+30.00 | -20.42 | 805.24 | 805.23 |
| P | 69+40.00 | -20.42 | 805.29 | 805.28 |
| C Pier 2 | 69+45.00 | -20.42 | 805.32 | 805.32 |
| Q | 69+55.00 | -20.42 | 805.37 | 805.40 |
| R | 69+65.00 | -20.42 | 805.42 | 805.49 |
| S | 69+75.00 | -20.42 | 805.47 | 805.58 |
| T | 69+85.00 | -20.42 | 805.52 | 805.66 |
| U | 69+95.00 | -20.42 | 805.57 | 805.71 |
| V | 70+05.00 | -20.42 | 805.62 | 805.75 |
| W | 70+15.00 | -20.42 | 805.67 | 805.76 |
| X | 70+25.00 | -20.42 | 805.72 | 805.76 |
| C N. Abut. | 70+31.25 | -20.42 | 805.75 | 805.75 |
| Bk. N. Abut. | 70+32.50 | -20.42 | 805.75 | 805.75 |

BEAM 2

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|--------------|----------|--------|------------------------------|--|
| Bk. S. Abut. | 67+72.50 | -14.58 | 804.58 | 804.58 |
| C S. Abut. | 67+73.75 | -14.58 | 804.58 | 804.58 |
| A | 67+83.75 | -14.58 | 804.63 | 804.69 |
| B | 67+93.75 | -14.58 | 804.68 | 804.79 |
| C | 68+03.75 | -14.58 | 804.73 | 804.87 |
| D | 68+13.75 | -14.58 | 804.78 | 804.93 |
| E | 68+23.75 | -14.58 | 804.83 | 804.96 |
| F | 68+33.75 | -14.58 | 804.88 | 804.98 |
| G | 68+43.75 | -14.58 | 804.93 | 804.99 |
| H | 68+53.75 | -14.58 | 804.98 | 805.00 |
| C Pier 1 | 68+60.00 | -14.58 | 805.01 | 805.01 |
| I | 68+70.00 | -14.58 | 805.06 | 805.05 |
| J | 68+80.00 | -14.58 | 805.11 | 805.11 |
| K | 68+90.00 | -14.58 | 805.16 | 805.16 |
| L | 69+00.00 | -14.58 | 805.21 | 805.22 |
| M | 69+10.00 | -14.58 | 805.26 | 805.27 |
| N | 69+20.00 | -14.58 | 805.31 | 805.31 |
| O | 69+30.00 | -14.58 | 805.36 | 805.35 |
| P | 69+40.00 | -14.58 | 805.41 | 805.40 |
| C Pier 2 | 69+45.00 | -14.58 | 805.44 | 805.44 |
| Q | 69+55.00 | -14.58 | 805.49 | 805.52 |
| R | 69+65.00 | -14.58 | 805.54 | 805.61 |
| S | 69+75.00 | -14.58 | 805.59 | 805.70 |
| T | 69+85.00 | -14.58 | 805.64 | 805.78 |
| U | 69+95.00 | -14.58 | 805.69 | 805.83 |
| V | 70+05.00 | -14.58 | 805.74 | 805.87 |
| W | 70+15.00 | -14.58 | 805.79 | 805.88 |
| X | 70+25.00 | -14.58 | 805.84 | 805.88 |
| C N. Abut. | 70+31.25 | -14.58 | 805.87 | 805.87 |
| Bk. N. Abut. | 70+32.50 | -14.58 | 805.87 | 805.87 |

BEAM 3

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|--------------|----------|--------|------------------------------|--|
| Bk. S. Abut. | 67+72.50 | -8.75 | 804.68 | 804.68 |
| C S. Abut. | 67+73.75 | -8.75 | 804.68 | 804.68 |
| A | 67+83.75 | -8.75 | 804.73 | 804.79 |
| B | 67+93.75 | -8.75 | 804.78 | 804.89 |
| C | 68+03.75 | -8.75 | 804.83 | 804.97 |
| D | 68+13.75 | -8.75 | 804.88 | 805.03 |
| E | 68+23.75 | -8.75 | 804.93 | 805.06 |
| F | 68+33.75 | -8.75 | 804.98 | 805.08 |
| G | 68+43.75 | -8.75 | 805.03 | 805.09 |
| H | 68+53.75 | -8.75 | 805.08 | 805.10 |
| C Pier 1 | 68+60.00 | -8.75 | 805.11 | 805.11 |
| I | 68+70.00 | -8.75 | 805.16 | 805.15 |
| J | 68+80.00 | -8.75 | 805.21 | 805.21 |
| K | 68+90.00 | -8.75 | 805.26 | 805.26 |
| L | 69+00.00 | -8.75 | 805.31 | 805.32 |
| M | 69+10.00 | -8.75 | 805.36 | 805.37 |
| N | 69+20.00 | -8.75 | 805.41 | 805.41 |
| O | 69+30.00 | -8.75 | 805.46 | 805.45 |
| P | 69+40.00 | -8.75 | 805.51 | 805.50 |
| C Pier 2 | 69+45.00 | -8.75 | 805.54 | 805.54 |
| Q | 69+55.00 | -8.75 | 805.59 | 805.62 |
| R | 69+65.00 | -8.75 | 805.64 | 805.71 |
| S | 69+75.00 | -8.75 | 805.69 | 805.80 |
| T | 69+85.00 | -8.75 | 805.74 | 805.88 |
| U | 69+95.00 | -8.75 | 805.79 | 805.93 |
| V | 70+05.00 | -8.75 | 805.84 | 805.97 |
| W | 70+15.00 | -8.75 | 805.89 | 805.98 |
| X | 70+25.00 | -8.75 | 805.94 | 805.98 |
| C N. Abut. | 70+31.25 | -8.75 | 805.97 | 805.97 |
| Bk. N. Abut. | 70+32.50 | -8.75 | 805.97 | 805.97 |

| | |
|----------|-----|
| DESIGNED | CJB |
| CHECKED | PWO |
| DRAWN | DRP |
| CHECKED | PJM |



V3 Companies of Illinois Ltd.
7325 Janes Avenue
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TOP OF SLAB ELEVATIONS
ILL. ROUTE 23 OVER
KISHWAUKEE RIVER
F.A.P. RT. 324
McHENRY COUNTY
STATION 69+02.50
STRUCTURE NO. 056-0001

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|----------|-------------------|--------------|-----------|--------------------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 5 25 SHEETS |
| F.A.P. 324 | 23B-1 | McHENRY | 97 | 45 | |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT- | | | |

Contract # 62892

BEAM 4

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|--------------|----------|--------|------------------------------|--|
| Bk. S. Abut. | 67+72.50 | -2.92 | 804.77 | 804.77 |
| @ S. Abut. | 67+73.75 | -2.92 | 804.77 | 804.77 |
| A | 67+83.75 | -2.92 | 804.82 | 804.88 |
| B | 67+93.75 | -2.92 | 804.87 | 804.98 |
| C | 68+03.75 | -2.92 | 804.92 | 805.06 |
| D | 68+13.75 | -2.92 | 804.97 | 805.12 |
| E | 68+23.75 | -2.92 | 805.02 | 805.15 |
| F | 68+33.75 | -2.92 | 805.07 | 805.17 |
| G | 68+43.75 | -2.92 | 805.12 | 805.18 |
| H | 68+53.75 | -2.92 | 805.17 | 805.19 |
| @ Pier 1 | 68+60.00 | -2.92 | 805.20 | 805.20 |
| I | 68+70.00 | -2.92 | 805.25 | 805.24 |
| J | 68+80.00 | -2.92 | 805.30 | 805.30 |
| K | 68+90.00 | -2.92 | 805.35 | 805.35 |
| L | 69+00.00 | -2.92 | 805.40 | 805.41 |
| M | 69+10.00 | -2.92 | 805.45 | 805.46 |
| N | 69+20.00 | -2.92 | 805.50 | 805.50 |
| O | 69+30.00 | -2.92 | 805.55 | 805.54 |
| P | 69+40.00 | -2.92 | 805.60 | 805.59 |
| @ Pier 2 | 69+45.00 | -2.92 | 805.63 | 805.63 |
| Q | 69+55.00 | -2.92 | 805.68 | 805.71 |
| R | 69+65.00 | -2.92 | 805.73 | 805.80 |
| S | 69+75.00 | -2.92 | 805.78 | 805.89 |
| T | 69+85.00 | -2.92 | 805.83 | 805.97 |
| U | 69+95.00 | -2.92 | 805.88 | 806.02 |
| V | 70+05.00 | -2.92 | 805.93 | 806.06 |
| W | 70+15.00 | -2.92 | 805.98 | 806.07 |
| X | 70+25.00 | -2.92 | 806.03 | 806.07 |
| @ N. Abut. | 70+31.25 | -2.92 | 806.06 | 806.06 |
| Bk. N. Abut. | 70+32.50 | -2.92 | 806.06 | 806.06 |

BEAM 5

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|--------------|----------|--------|------------------------------|--|
| Bk. S. Abut. | 67+72.50 | 2.92 | 804.77 | 804.77 |
| @ S. Abut. | 67+73.75 | 2.92 | 804.77 | 804.77 |
| A | 67+83.75 | 2.92 | 804.82 | 804.88 |
| B | 67+93.75 | 2.92 | 804.87 | 804.98 |
| C | 68+03.75 | 2.92 | 804.92 | 805.06 |
| D | 68+13.75 | 2.92 | 804.97 | 805.12 |
| E | 68+23.75 | 2.92 | 805.02 | 805.15 |
| F | 68+33.75 | 2.92 | 805.07 | 805.17 |
| G | 68+43.75 | 2.92 | 805.12 | 805.18 |
| H | 68+53.75 | 2.92 | 805.17 | 805.19 |
| @ Pier 1 | 68+60.00 | 2.92 | 805.20 | 805.20 |
| I | 68+70.00 | 2.92 | 805.25 | 805.24 |
| J | 68+80.00 | 2.92 | 805.30 | 805.30 |
| K | 68+90.00 | 2.92 | 805.35 | 805.35 |
| L | 69+00.00 | 2.92 | 805.40 | 805.41 |
| M | 69+10.00 | 2.92 | 805.45 | 805.46 |
| N | 69+20.00 | 2.92 | 805.50 | 805.50 |
| O | 69+30.00 | 2.92 | 805.55 | 805.54 |
| P | 69+40.00 | 2.92 | 805.60 | 805.59 |
| @ Pier 2 | 69+45.00 | 2.92 | 805.63 | 805.63 |
| Q | 69+55.00 | 2.92 | 805.68 | 805.71 |
| R | 69+65.00 | 2.92 | 805.73 | 805.80 |
| S | 69+75.00 | 2.92 | 805.78 | 805.89 |
| T | 69+85.00 | 2.92 | 805.83 | 805.97 |
| U | 69+95.00 | 2.92 | 805.88 | 806.02 |
| V | 70+05.00 | 2.92 | 805.93 | 806.06 |
| W | 70+15.00 | 2.92 | 805.98 | 806.07 |
| X | 70+25.00 | 2.92 | 806.03 | 806.07 |
| @ N. Abut. | 70+31.25 | 2.92 | 806.06 | 806.06 |
| Bk. N. Abut. | 70+32.50 | 2.92 | 806.06 | 806.06 |

BEAM 6

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|--------------|----------|--------|------------------------------|--|
| Bk. S. Abut. | 67+72.50 | 8.75 | 804.68 | 804.68 |
| @ S. Abut. | 67+73.75 | 8.75 | 804.68 | 804.68 |
| A | 67+83.75 | 8.75 | 804.73 | 804.79 |
| B | 67+93.75 | 8.75 | 804.78 | 804.89 |
| C | 68+03.75 | 8.75 | 804.83 | 804.97 |
| D | 68+13.75 | 8.75 | 804.88 | 805.03 |
| E | 68+23.75 | 8.75 | 804.93 | 805.06 |
| F | 68+33.75 | 8.75 | 804.98 | 805.08 |
| G | 68+43.75 | 8.75 | 805.03 | 805.09 |
| H | 68+53.75 | 8.75 | 805.08 | 805.10 |
| @ Pier 1 | 68+60.00 | 8.75 | 805.11 | 805.11 |
| I | 68+70.00 | 8.75 | 805.16 | 805.15 |
| J | 68+80.00 | 8.75 | 805.21 | 805.21 |
| K | 68+90.00 | 8.75 | 805.26 | 805.26 |
| L | 69+00.00 | 8.75 | 805.31 | 805.32 |
| M | 69+10.00 | 8.75 | 805.36 | 805.37 |
| N | 69+20.00 | 8.75 | 805.41 | 805.41 |
| O | 69+30.00 | 8.75 | 805.46 | 805.45 |
| P | 69+40.00 | 8.75 | 805.51 | 805.50 |
| @ Pier 2 | 69+45.00 | 8.75 | 805.54 | 805.54 |
| Q | 69+55.00 | 8.75 | 805.59 | 805.62 |
| R | 69+65.00 | 8.75 | 805.64 | 805.71 |
| S | 69+75.00 | 8.75 | 805.69 | 805.80 |
| T | 69+85.00 | 8.75 | 805.74 | 805.88 |
| U | 69+95.00 | 8.75 | 805.79 | 805.93 |
| V | 70+05.00 | 8.75 | 805.84 | 805.97 |
| W | 70+15.00 | 8.75 | 805.89 | 805.98 |
| X | 70+25.00 | 8.75 | 805.94 | 805.98 |
| @ N. Abut. | 70+31.25 | 8.75 | 805.97 | 805.97 |
| Bk. N. Abut. | 70+32.50 | 8.75 | 805.97 | 805.97 |

| | |
|----------|-----|
| DESIGNED | CJB |
| CHECKED | PWO |
| DRAWN | DRP |
| CHECKED | PJM |



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TOP OF SLAB ELEVATIONS
ILL. ROUTE 23 OVER
KISHWAUKEE RIVER
F.A.P. RT. 324
McHENRY COUNTY
STATION 69+02.50
STRUCTURE NO. 056-000!

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|----------------------------|------------------|-------------------|--------------------|-----------------|--------------------------|
| ROUTE NO. F.A.P. 324 | SECTION 23B-1 | COUNTY McHENRY | TOTAL SHEETS 97 | SHEET NO. 46 | SHEET NO. 6 25 SHEETS |
| FED. ROAD DIST. NO. 1 | | ILLINOIS | FED. AID PROJECT | | |

Contract # 62892

BEAM 7

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|--------------|----------|--------|------------------------------|--|
| Bk. S. Abut. | 67+72.50 | 14.58 | 804.58 | 804.58 |
| @ S. Abut. | 67+73.75 | 14.58 | 804.58 | 804.58 |
| A | 67+83.75 | 14.58 | 804.63 | 804.69 |
| B | 67+93.75 | 14.58 | 804.68 | 804.79 |
| C | 68+03.75 | 14.58 | 804.73 | 804.87 |
| D | 68+13.75 | 14.58 | 804.78 | 804.93 |
| E | 68+23.75 | 14.58 | 804.83 | 804.96 |
| F | 68+33.75 | 14.58 | 804.88 | 804.98 |
| G | 68+43.75 | 14.58 | 804.93 | 804.99 |
| H | 68+53.75 | 14.58 | 804.98 | 805.00 |
| @ Pier 1 | 68+60.00 | 14.58 | 805.01 | 805.01 |
| I | 68+70.00 | 14.58 | 805.06 | 805.05 |
| J | 68+80.00 | 14.58 | 805.11 | 805.11 |
| K | 68+90.00 | 14.58 | 805.16 | 805.16 |
| L | 69+00.00 | 14.58 | 805.21 | 805.22 |
| M | 69+10.00 | 14.58 | 805.26 | 805.27 |
| N | 69+20.00 | 14.58 | 805.31 | 805.31 |
| O | 69+30.00 | 14.58 | 805.36 | 805.35 |
| P | 69+40.00 | 14.58 | 805.41 | 805.40 |
| @ Pier 2 | 69+45.00 | 14.58 | 805.44 | 805.44 |
| Q | 69+55.00 | 14.58 | 805.49 | 805.52 |
| R | 69+65.00 | 14.58 | 805.54 | 805.61 |
| S | 69+75.00 | 14.58 | 805.59 | 805.70 |
| T | 69+85.00 | 14.58 | 805.64 | 805.78 |
| U | 69+95.00 | 14.58 | 805.69 | 805.83 |
| V | 70+05.00 | 14.58 | 805.74 | 805.87 |
| W | 70+15.00 | 14.58 | 805.79 | 805.88 |
| X | 70+25.00 | 14.58 | 805.84 | 805.88 |
| @ N. Abut. | 70+31.25 | 14.58 | 805.87 | 805.87 |
| Bk. N. Abut. | 70+32.50 | 14.58 | 805.87 | 805.87 |

BEAM 8

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|--------------|----------|--------|------------------------------|--|
| Bk. S. Abut. | 67+72.50 | 20.42 | 804.46 | 804.46 |
| @ S. Abut. | 67+73.75 | 20.42 | 804.46 | 804.46 |
| A | 67+83.75 | 20.42 | 804.51 | 804.57 |
| B | 67+93.75 | 20.42 | 804.56 | 804.67 |
| C | 68+03.75 | 20.42 | 804.61 | 804.75 |
| D | 68+13.75 | 20.42 | 804.66 | 804.81 |
| E | 68+23.75 | 20.42 | 804.71 | 804.84 |
| F | 68+33.75 | 20.42 | 804.76 | 804.86 |
| G | 68+43.75 | 20.42 | 804.81 | 804.87 |
| H | 68+53.75 | 20.42 | 804.86 | 804.88 |
| @ Pier 1 | 68+60.00 | 20.42 | 804.89 | 804.89 |
| I | 68+70.00 | 20.42 | 804.94 | 804.93 |
| J | 68+80.00 | 20.42 | 804.99 | 804.99 |
| K | 68+90.00 | 20.42 | 805.04 | 805.04 |
| L | 69+00.00 | 20.42 | 805.09 | 805.10 |
| M | 69+10.00 | 20.42 | 805.14 | 805.15 |
| N | 69+20.00 | 20.42 | 805.19 | 805.19 |
| O | 69+30.00 | 20.42 | 805.24 | 805.23 |
| P | 69+40.00 | 20.42 | 805.29 | 805.28 |
| @ Pier 2 | 69+45.00 | 20.42 | 805.32 | 805.32 |
| Q | 69+55.00 | 20.42 | 805.37 | 805.40 |
| R | 69+65.00 | 20.42 | 805.42 | 805.49 |
| S | 69+75.00 | 20.42 | 805.47 | 805.58 |
| T | 69+85.00 | 20.42 | 805.52 | 805.66 |
| U | 69+95.00 | 20.42 | 805.57 | 805.71 |
| V | 70+05.00 | 20.42 | 805.62 | 805.75 |
| W | 70+15.00 | 20.42 | 805.67 | 805.76 |
| X | 70+25.00 | 20.42 | 805.72 | 805.76 |
| @ N. Abut. | 70+31.25 | 20.42 | 805.75 | 805.75 |
| Bk. N. Abut. | 70+32.50 | 20.42 | 805.75 | 805.75 |

CENTERLINE OF ROADWAY AND P.G.

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|--------------|----------|--------|------------------------------|--|
| Bk. S. Abut. | 67+72.50 | 0.00 | 804.82 | 804.82 |
| @ S. Abut. | 67+73.75 | 0.00 | 804.82 | 804.82 |
| A | 67+83.75 | 0.00 | 804.87 | 804.93 |
| B | 67+93.75 | 0.00 | 804.92 | 805.03 |
| C | 68+03.75 | 0.00 | 804.97 | 805.11 |
| D | 68+13.75 | 0.00 | 805.02 | 805.17 |
| E | 68+23.75 | 0.00 | 805.07 | 805.20 |
| F | 68+33.75 | 0.00 | 805.12 | 805.22 |
| G | 68+43.75 | 0.00 | 805.17 | 805.23 |
| H | 68+53.75 | 0.00 | 805.22 | 805.24 |
| @ Pier 1 | 68+60.00 | 0.00 | 805.25 | 805.25 |
| I | 68+70.00 | 0.00 | 805.30 | 805.29 |
| J | 68+80.00 | 0.00 | 805.35 | 805.35 |
| K | 68+90.00 | 0.00 | 805.40 | 805.40 |
| L | 69+00.00 | 0.00 | 805.45 | 805.46 |
| M | 69+10.00 | 0.00 | 805.50 | 805.51 |
| N | 69+20.00 | 0.00 | 805.55 | 805.55 |
| O | 69+30.00 | 0.00 | 805.60 | 805.59 |
| P | 69+40.00 | 0.00 | 805.65 | 805.64 |
| @ Pier 2 | 69+45.00 | 0.00 | 805.68 | 805.68 |
| Q | 69+55.00 | 0.00 | 805.73 | 805.76 |
| R | 69+65.00 | 0.00 | 805.78 | 805.85 |
| S | 69+75.00 | 0.00 | 805.83 | 805.94 |
| T | 69+85.00 | 0.00 | 805.88 | 806.02 |
| U | 69+95.00 | 0.00 | 805.93 | 806.07 |
| V | 70+05.00 | 0.00 | 805.98 | 806.11 |
| W | 70+15.00 | 0.00 | 806.03 | 806.12 |
| X | 70+25.00 | 0.00 | 806.08 | 806.12 |
| @ N. Abut. | 70+31.25 | 0.00 | 806.12 | 806.12 |
| Bk. N. Abut. | 70+32.50 | 0.00 | 806.12 | 806.12 |

| | |
|----------|-----|
| DESIGNED | CJB |
| CHECKED | PWO |
| DRAWN | DRP |
| CHECKED | PJM |



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TOP OF SLAB ELEVATIONS
ILL. ROUTE 23 OVER
KISHWAUKEE RIVER
F.A.P. RT. 324
McHENRY COUNTY
STATION 69+02.50
STRUCTURE NO. 056-0001

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|----------|-------------------|------------------|-----------|--------------------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 7 25 SHEETS |
| F.A.P. 324 | 23B-1 | McHENRY | 97 | 47 | |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT- | Contract # 62892 | | |

WEST CURB LINE

| Location | Station | Offset | Theoretical Grade Elevations |
|---------------------|----------|--------|------------------------------|
| End S. Appr. Pav't. | 67+42.50 | -22.42 | 804.27 |
| A | 67+52.50 | -22.42 | 804.32 |
| B | 67+62.50 | -22.42 | 804.37 |
| Bk. S. Abut. | 67+72.50 | -22.42 | 804.42 |

WEST EDGE OF PAVEMENT

| Location | Station | Offset | Theoretical Grade Elevations |
|---------------------|----------|--------|------------------------------|
| End S. Appr. Pav't. | 67+42.50 | -12.00 | 804.49 |
| A | 67+52.50 | -12.00 | 804.54 |
| B | 67+62.50 | -12.00 | 804.58 |
| Bk. S. Abut. | 67+72.50 | -12.00 | 804.63 |

℄ ROADWAY & PG

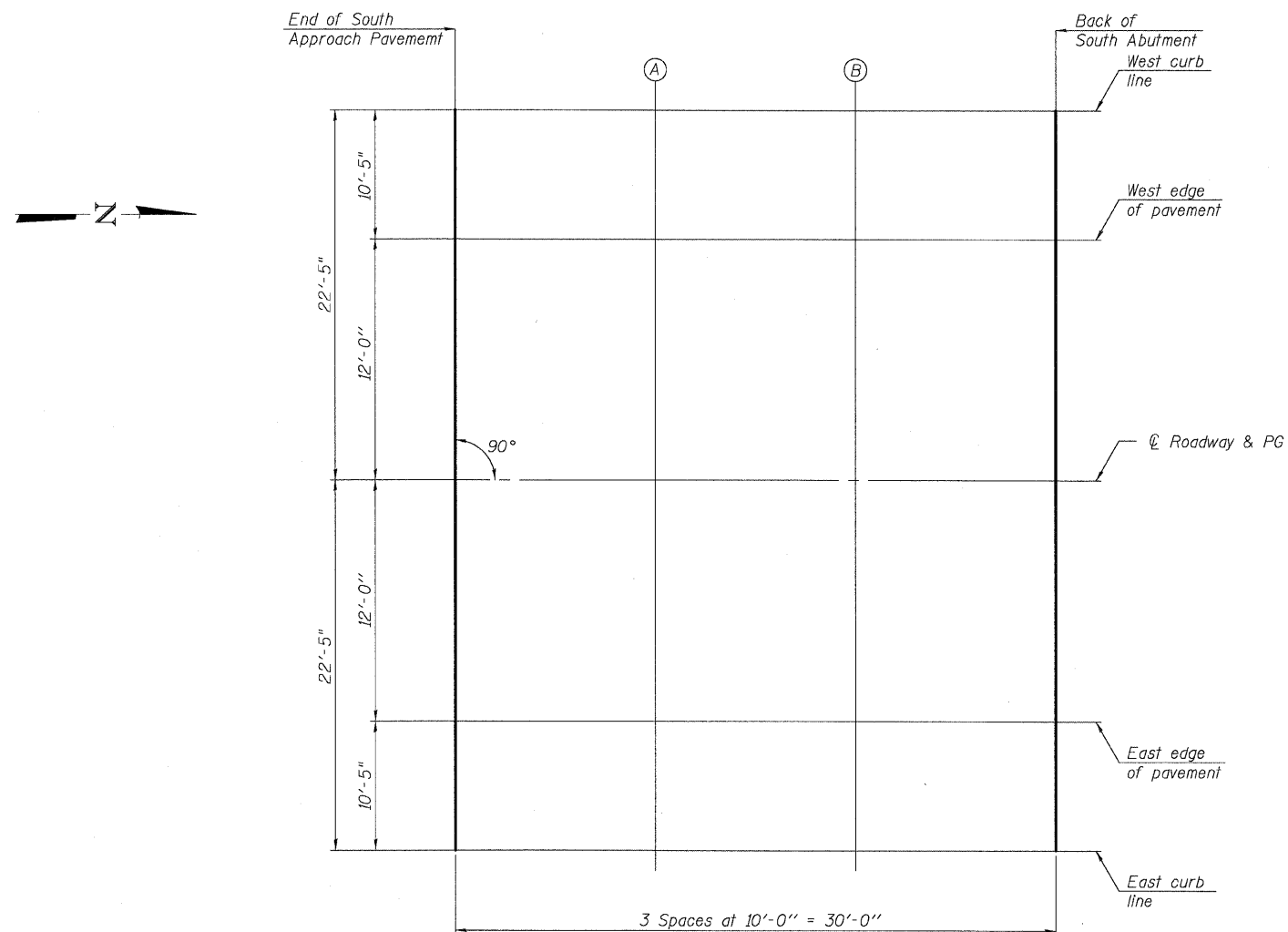
| Location | Station | Offset | Theoretical Grade Elevations |
|---------------------|----------|--------|------------------------------|
| End S. Appr. Pav't. | 67+42.50 | 0.00 | 804.67 |
| A | 67+52.50 | 0.00 | 804.72 |
| B | 67+62.50 | 0.00 | 804.77 |
| Bk. S. Abut. | 67+72.50 | 0.00 | 804.82 |

EAST EDGE OF PAVEMENT

| Location | Station | Offset | Theoretical Grade Elevations |
|---------------------|----------|--------|------------------------------|
| End S. Appr. Pav't. | 67+42.50 | 12.00 | 804.49 |
| A | 67+52.50 | 12.00 | 804.54 |
| B | 67+62.50 | 12.00 | 804.58 |
| Bk. S. Abut. | 67+72.50 | 12.00 | 804.63 |

EAST CURB LINE

| Location | Station | Offset | Theoretical Grade Elevations |
|---------------------|----------|--------|------------------------------|
| End S. Appr. Pav't. | 67+42.50 | 22.42 | 804.27 |
| A | 67+52.50 | 22.42 | 804.32 |
| B | 67+62.50 | 22.42 | 804.37 |
| Bk. S. Abut. | 67+72.50 | 22.42 | 804.42 |



PLAN

| | |
|----------|-----|
| DESIGNED | CJB |
| CHECKED | PWO |
| DRAWN | DRP |
| CHECKED | PJM |



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TOP OF SOUTH APPROACH
SLAB ELEVATIONS
ILL. ROUTE 23 OVER
KISHWAUKEE RIVER
F.A.P. RT. 324
MCHEMRY COUNTY
STATION 69+02.50
STRUCTURE NO. 056-0001

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|----------|------------------|------------------|-----------|--------------------------|
| ROUTE NO. | SECTION | COUNTY | IS/MS SHEETS | SHEET NO. | SHEET NO. 8 25 SHEETS |
| F.A.P. 324 | 23B-1 | McHENRY | 97 | 48 | |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT | Contract # 62892 | | |

WEST CURB LINE

| Location | Station | Offset | Theoretical Grade Elevations |
|---------------------|----------|--------|------------------------------|
| End N. Appr. Pav't. | 70+62.50 | -22.42 | 805.86 |
| A | 70+52.50 | -22.42 | 805.81 |
| B | 70+42.50 | -22.42 | 805.76 |
| Bk. N. Abut. | 70+32.50 | -22.42 | 805.71 |

WEST EDGE OF PAVEMENT

| Location | Station | Offset | Theoretical Grade Elevations |
|---------------------|----------|--------|------------------------------|
| End N. Appr. Pav't. | 70+62.50 | -12.00 | 806.08 |
| A | 70+52.50 | -12.00 | 806.03 |
| B | 70+42.50 | -12.00 | 805.97 |
| Bk. N. Abut. | 70+32.50 | -12.00 | 805.92 |

℄ ROADWAY & PG

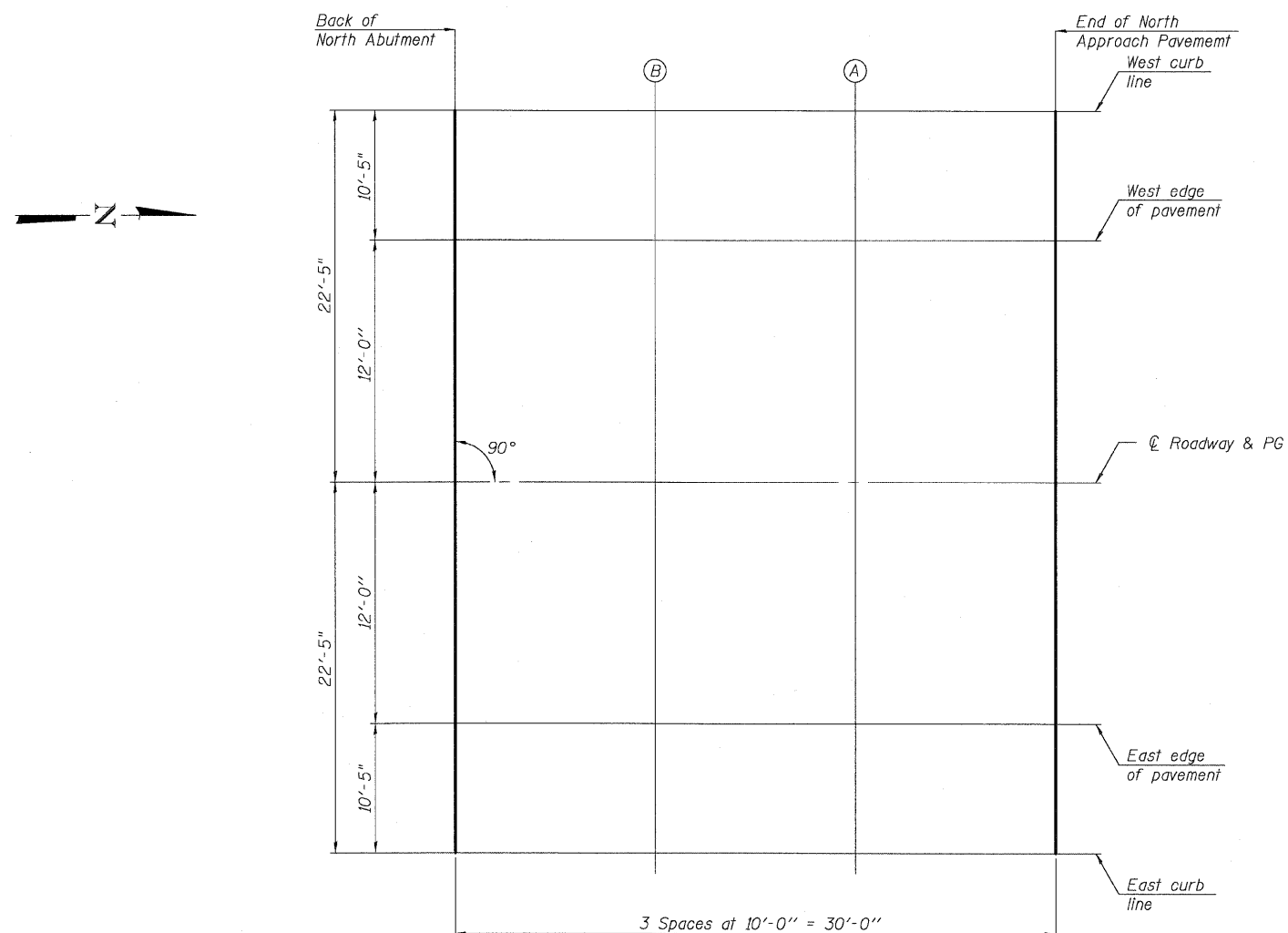
| Location | Station | Offset | Theoretical Grade Elevations |
|---------------------|----------|--------|------------------------------|
| End N. Appr. Pav't. | 70+62.50 | 0.00 | 806.26 |
| A | 70+52.50 | 0.00 | 806.21 |
| B | 70+42.50 | 0.00 | 806.16 |
| Bk. N. Abut. | 70+32.50 | 0.00 | 806.12 |

EAST EDGE OF PAVEMENT

| Location | Station | Offset | Theoretical Grade Elevations |
|---------------------|----------|--------|------------------------------|
| End N. Appr. Pav't. | 70+62.50 | 12.00 | 806.08 |
| A | 70+52.50 | 12.00 | 806.03 |
| B | 70+42.50 | 12.00 | 805.97 |
| Bk. N. Abut. | 70+32.50 | 12.00 | 805.92 |

EAST CURB LINE

| Location | Station | Offset | Theoretical Grade Elevations |
|---------------------|----------|--------|------------------------------|
| End N. Appr. Pav't. | 70+62.50 | 22.42 | 805.86 |
| A | 70+52.50 | 22.42 | 805.81 |
| B | 70+42.50 | 22.42 | 805.76 |
| Bk. N. Abut. | 70+32.50 | 22.42 | 805.71 |



PLAN

| | |
|----------|-----|
| DESIGNED | CJB |
| CHECKED | PWO |
| DRAWN | DRP |
| CHECKED | PJM |



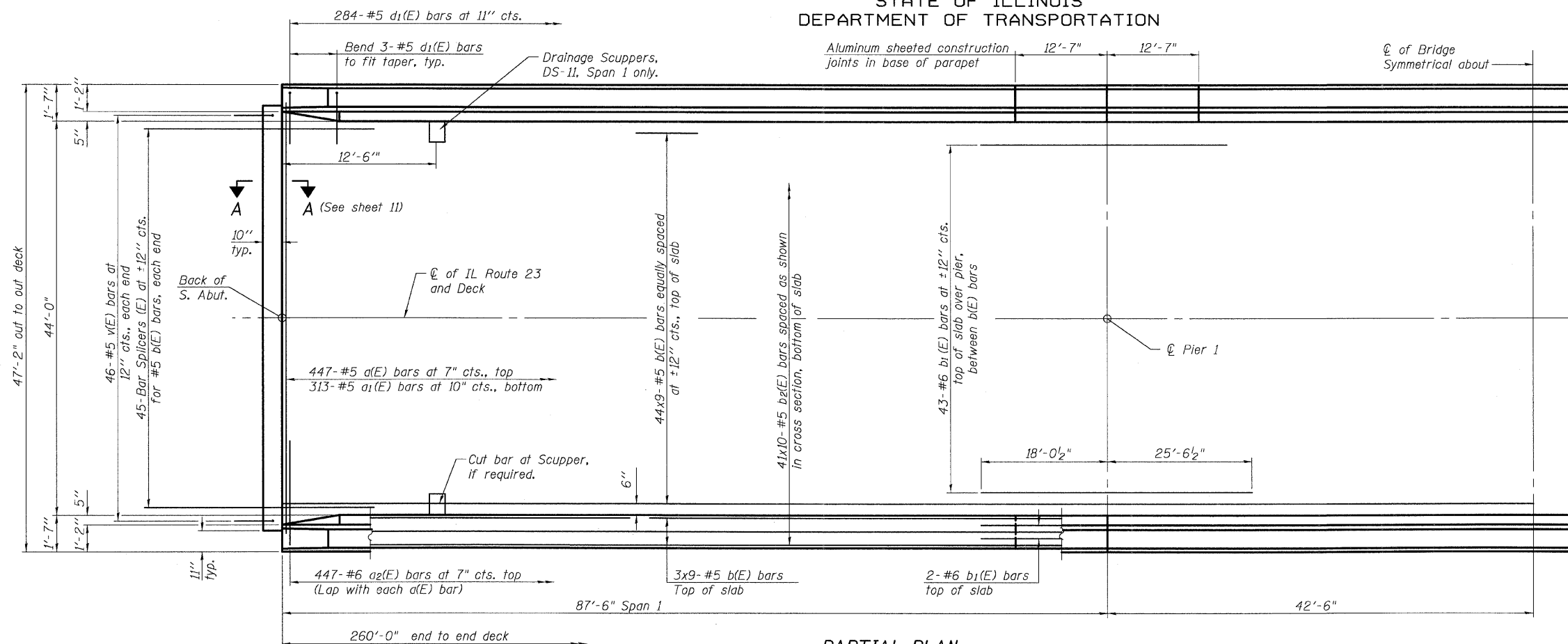
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TOP OF NORTH APPROACH
SLAB ELEVATIONS
ILL. ROUTE 23 OVER
KISHWAUKEE RIVER
F.A.P. RT. 324
MCHEMRY COUNTY
STATION 69+02.50
STRUCTURE NO. 056-0001

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|---------|----------|------------------|-------|--------------------------|
| ROUTE NO. | SECTION | COUNTY | DATE | SHEET | SHEET NO. 9 25 SHEETS |
| F.A.P. 324 | 23B-1 | MCHENRY | 97 | 49 | |
| FED. ROAD DIST. NO. 1 | | ILLINOIS | FED. AID PROJECT | | |

Contract # 62892

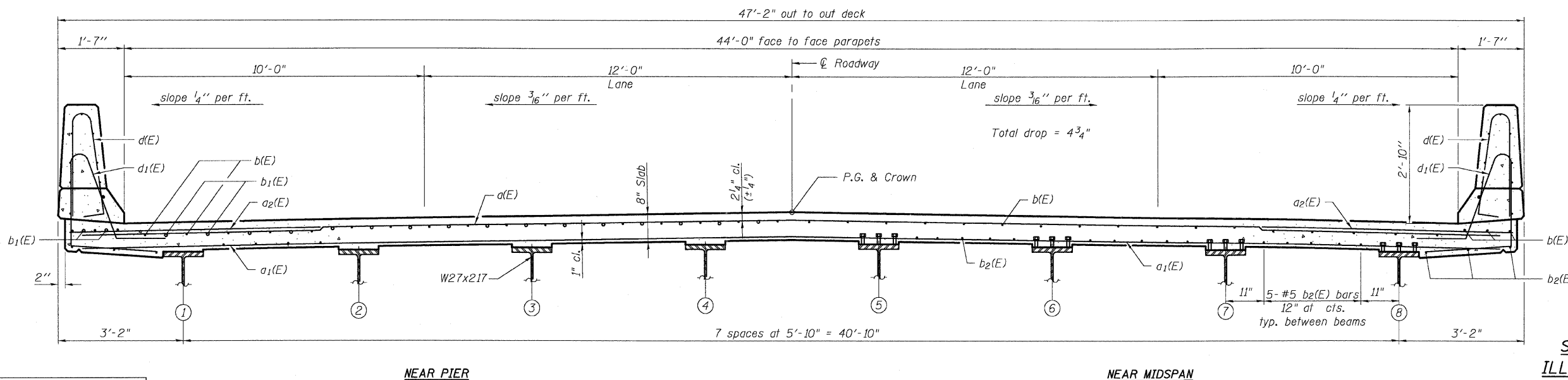
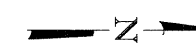


PARTIAL PLAN

Notes:
See Sheet 10 of 25 for superstructure details and Bill of Material.

Bars indicated thus 44 x 9-#5 etc. indicates 44 lines of bars with 9 lengths per line.

See Sheet 10 of 25 for parapet reinforcement.



CROSS SECTION
(Looking North)

MIN. BAR LAP
(slab)
#5 bar = 1'-8"

SUPERSTRUCTURE
ILL. ROUTE 23 OVER
KISHWAUKEE RIVER
F.A.P. RT. 324
MCHENRY COUNTY
STATION 69+02.50
STRUCTURE NO. 056-0001

| | |
|----------|-----|
| DESIGNED | CJB |
| CHECKED | PWO |
| DRAWN | DRP |
| CHECKED | PJM |

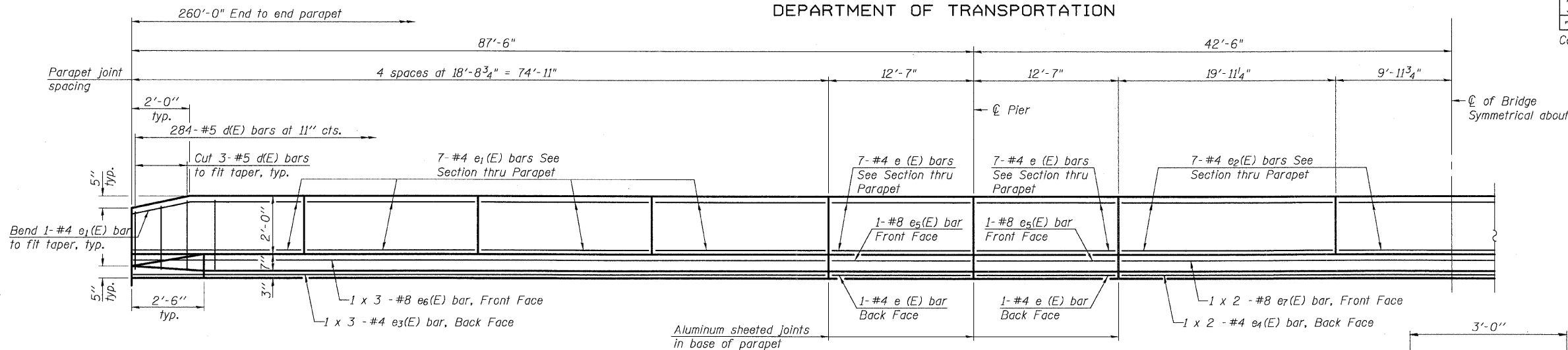


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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|----------|------------------|--------------|-----------|--------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 10 |
| F.A.P. 324 | 23B-1 | McHENRY | 97 | 50 | 25 SHEETS |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT | | | |

Contract # 62892

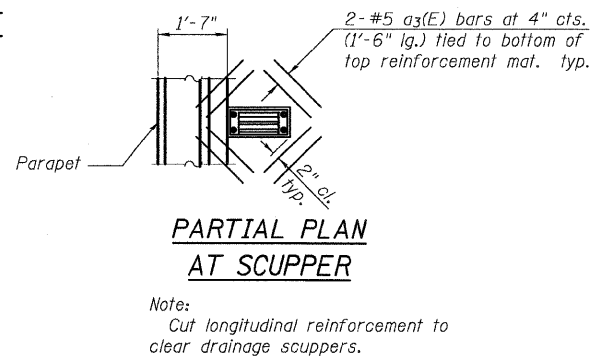
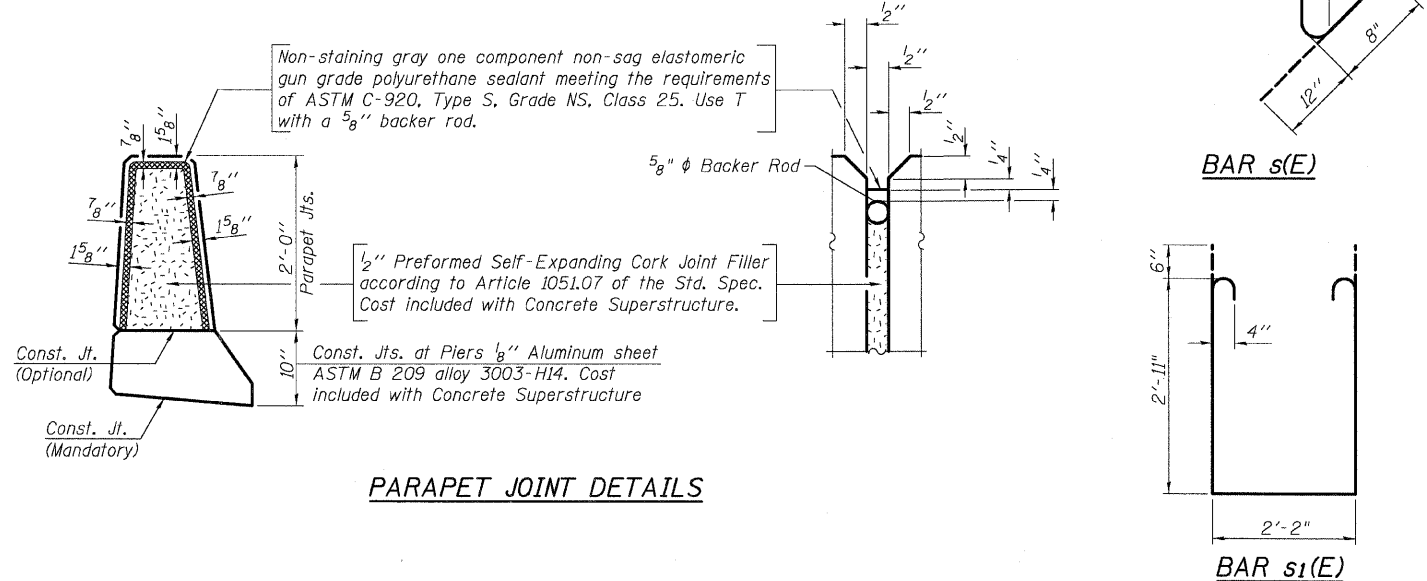
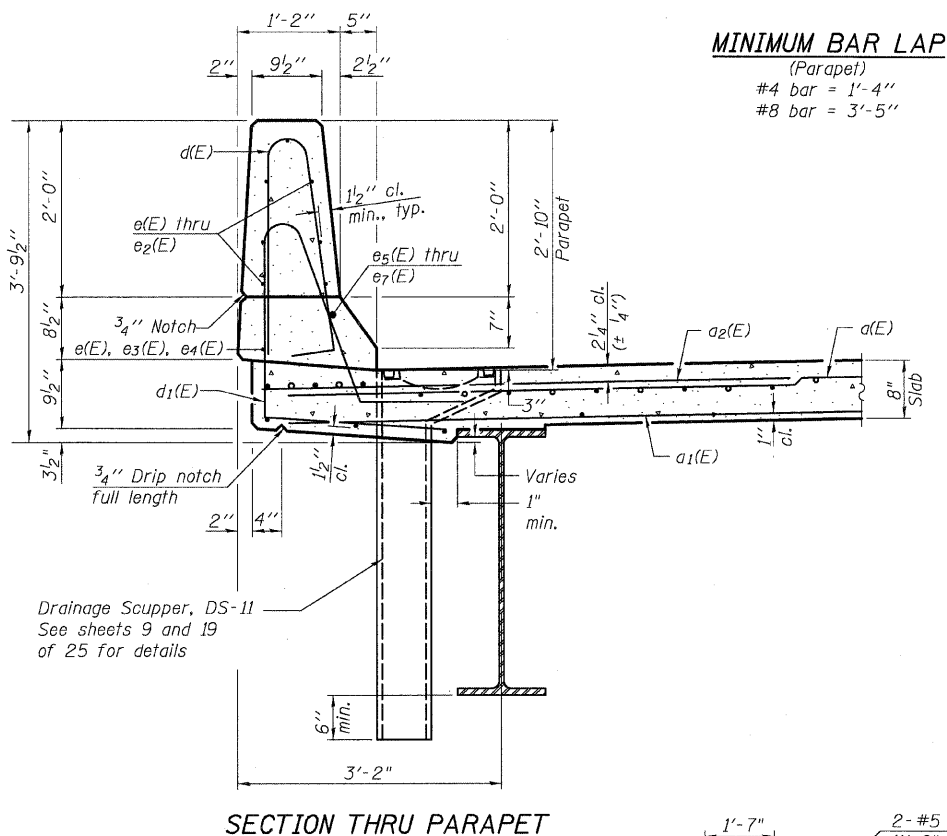


INSIDE ELEVATION OF PARAPET

SUPERSTRUCTURE
BILL OF MATERIAL

| Bar | No. | Size | Length | Shape | |
|----------------------------------|-----|------|---------|----------|--------|
| a(E) | 447 | #5 | 46'-6" | — | |
| a ₁ (E) | 313 | #5 | 45'-10" | — | |
| a ₂ (E) | 894 | #6 | 6'-0" | — | |
| a ₃ (E) | 16 | #5 | 1'-6" | — | |
| b(E) | 450 | #5 | 30'-4" | — | |
| b ₁ (E) | 94 | #6 | 43'-7" | — | |
| b ₂ (E) | 410 | #5 | 27'-5" | — | |
| d(E) | 568 | #5 | 5'-7" | ┌ | |
| d ₁ (E) | 568 | #5 | 7'-9" | ┌ | |
| e(E) | 64 | #4 | 12'-3" | — | |
| e ₁ (E) | 112 | #4 | 18'-5" | — | |
| e ₂ (E) | 42 | #4 | 19'-7" | — | |
| e ₃ (E) | 12 | #4 | 25'-11" | — | |
| e ₄ (E) | 4 | #4 | 30'-6" | — | |
| e ₅ (E) | 8 | #8 | 12'-3" | — | |
| e ₆ (E) | 12 | #8 | 27'-11" | — | |
| e ₇ (E) | 4 | #8 | 31'-11" | — | |
| m(E) | 4 | #6 | 45'-0" | — | |
| m ₁ (E) | 6 | #6 | 46'-10" | — | |
| m ₂ (E) | 8 | #6 | 24'-6" | — | |
| m ₃ (E) | 14 | #6 | 5'-6" | — | |
| m ₄ (E) | 4 | #6 | 2'-10" | — | |
| s(E) | 96 | #5 | 5'-3" | └ | |
| s ₁ (E) | 82 | #4 | 9'-0" | └ | |
| v(E) | 92 | #5 | 3'-4" | └ | |
| Reinforcement Bars, Epoxy Coated | | | | Pound | 91,540 |
| Concrete Superstructure | | | | Cu. Yds. | 409.2 |

Bars indicated thus 1 x 3-#4 etc. indicates 1 line of bars with 3 lengths per line.



MIN. BAR LAP (Parapet)
#4 bar = 1'-8"
#8 bar = 4'-6"

SUPERSTRUCTURE
ILL. ROUTE 23 OVER
KISHWAUKEE RIVER
F.A.P. RT. 324
McHENRY COUNTY
STATION 69+02.50
STRUCTURE NO. 056-0001

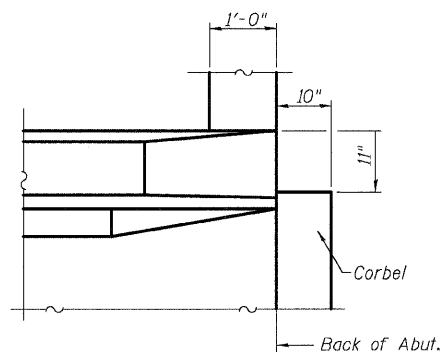


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| | |
|----------|-----|
| DESIGNED | CJB |
| CHECKED | PWO |
| DRAWN | DRP |
| CHECKED | PJM |

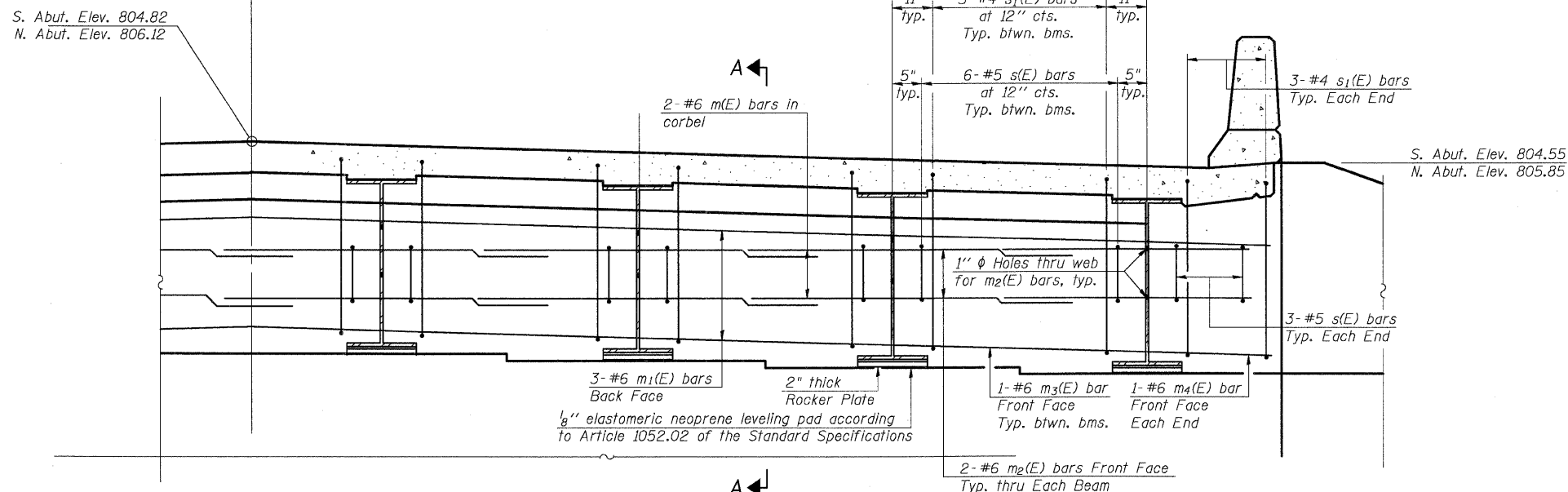
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|----------|------------------|------------------|-----------|--------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 11 |
| F.A.P. 324 | 23B-1 | McHENRY | 97 | 51 | 25 SHEETS |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT | Contract # 62892 | | |



PLAN VIEW
(Corbel Notch for Traffic Barrier)

CL IL Rte. 23
symmetrical about

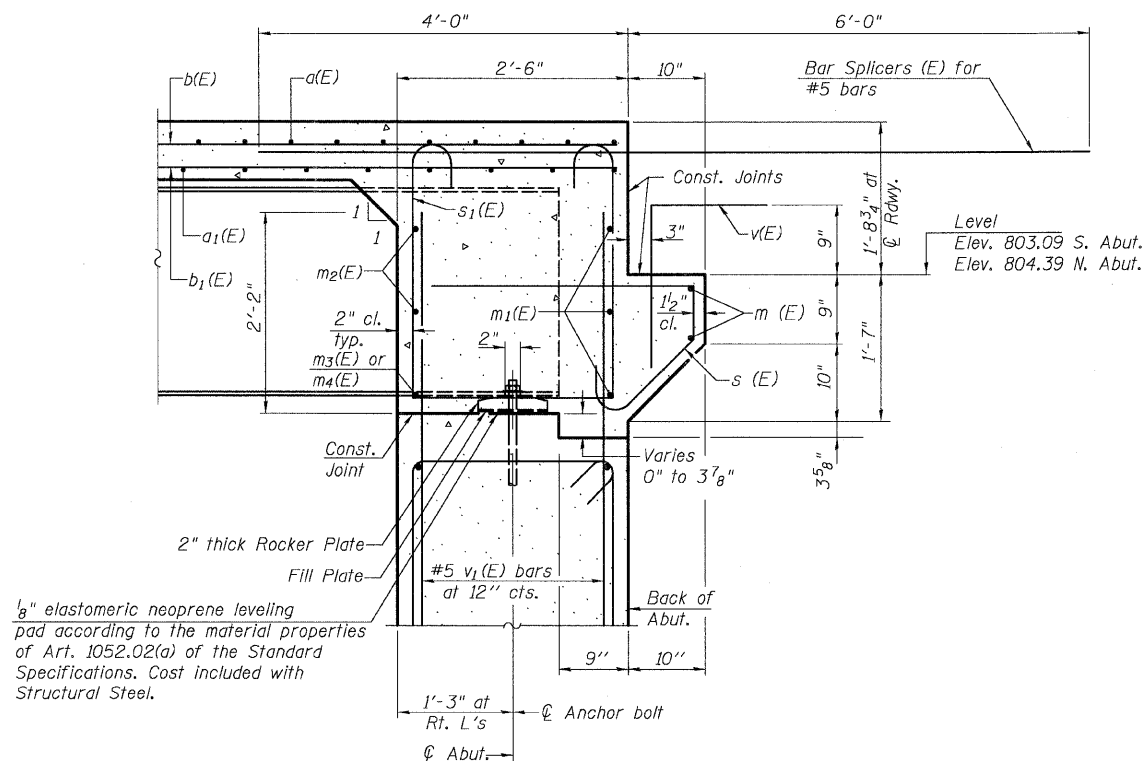


DIAPHRAGM ELEVATION AT ABUTMENT

MIN. BAR LAP
(Diaphragm)
#6 bar = 2'-7"

Notes:
Reinforcement bars in diaphragm are billed with superstructure on sheet 10 of 25.
Concrete in diaphragm is included with Concrete Superstructure on sheet 10 of 25.
For details of bars s(E) & s1(E) see sheet 10 of 25.
The s(E) and s1(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.

MIN. BAR LAP
#6 bar = 2'-9"



SECTION A-A

Dimensions at right angles to abutment, except as shown.

| | |
|----------|-----|
| DESIGNED | CJB |
| CHECKED | PWO |
| DRAWN | DRP |
| CHECKED | PJM |



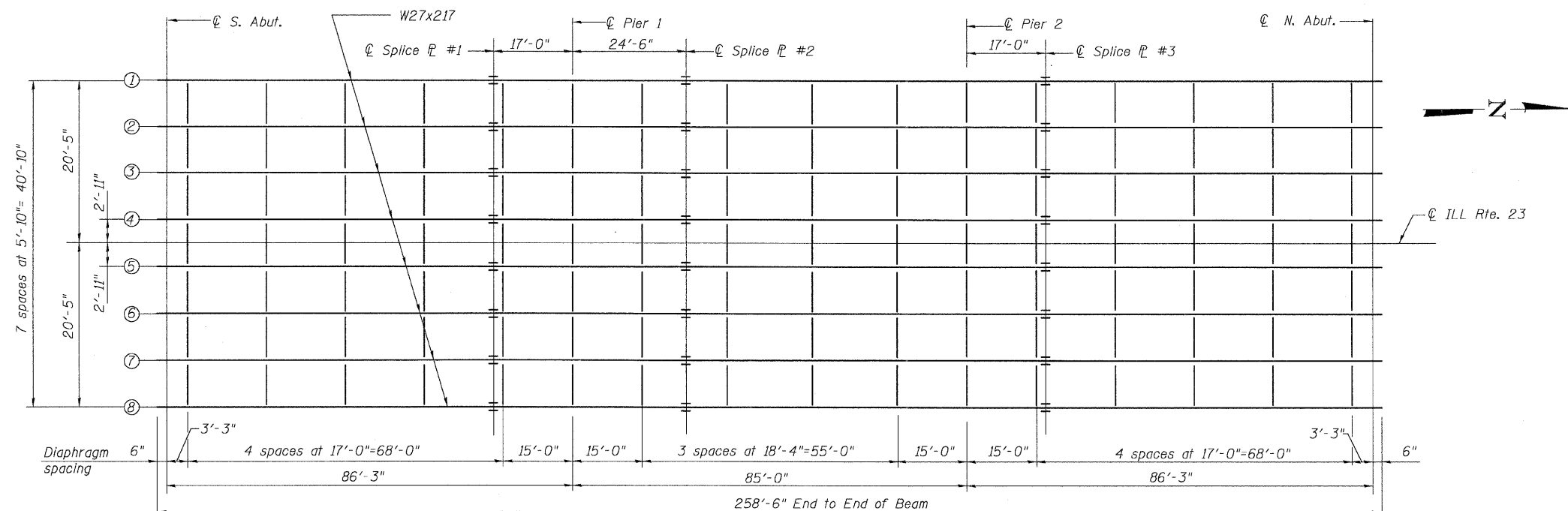
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F.A.P. RT. 324
McHENRY COUNTY
STATION 69+02.50
STRUCTURE NO. 056-0001

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|----------|-------------------|--------------|-----------|--------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 12 |
| F.A.P. 324 | 23B-1 | MCHENRY | 97 | 52 | 25 SHEETS |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT- | | | |

Contract # 62892



FRAMING PLAN

| | 0.4 Sp. 1 or 0.6 Sp. 3 | Piers | 0.5 Sp. 2 |
|-----------------------------|---------------------------|-------|-----------|
| I_s | (in ⁴) 8,910 | 8,910 | 8,910 |
| $I_c(n)$ | (in ⁴) 20,915 | 8,910 | 20,915 |
| $I_c(3n)$ | (in ⁴) 14,847 | 8,910 | 14,847 |
| S_s | (in ³) 627 | 627 | 627 |
| $S_c(n)$ | (in ³) 881 | 627 | 881 |
| $S_c(3n)$ | (in ³) 783 | 627 | 783 |
| DC1 | (k/ft) 0.844 | 0.844 | 0.844 |
| M _{DC1} | (k) 506 | 620 | 142 |
| DC2 | (k/ft) 0.113 | 0.113 | 0.113 |
| M _{DC2} | (k) 71 | 74 | 28 |
| DW | (k/ft) 0.275 | 0.275 | 0.275 |
| M _{DW} | (k) 174 | 180 | 58 |
| M _{ℓ + Imp} | (k) 1,015 | 711 | 787 |
| M _u (Strength I) | (k) 2,758 | 2,381 | 1,693 |
| $\phi_r M_n, \phi_r M_{nc}$ | (k) 3,880 | — | 3,880 |
| f_s DC1 | (ksi) 9.68 | 11.87 | 2.72 |
| f_s DC2 | (ksi) 1.09 | 1.42 | 0.43 |
| f_s DW | (ksi) 2.67 | 3.45 | 1.04 |
| f_s 1.3($\ell + I$) | (ksi) 17.97 | 17.69 | 13.94 |
| f_s (Service II) | (ksi) 31.41 | 34.43 | 18.13 |
| f_s (Total)(Strength I) | (ksi) — | 45.61 | — |
| V _r | (k) 20.11 | — | 17.14 |

| | Abut. | Pier |
|----------------------|------------|--------|
| R _{DC1} | (k) 29.99 | 79.45 |
| R _{DC2} | (k) 4.02 | 10.53 |
| R _{DW} | (k) 9.78 | 25.63 |
| R _{ℓ + Imp} | (k) 71.92 | 109.54 |
| R _{Total} | (k) 115.71 | 225.15 |

| Loc. Beam | ℄ S. Abut. | ℄ Pier 1 | ℄ Pier 2 | ℄ N. Abut. | ℄ Splice No.1 | ℄ Splice No.2 | ℄ Splice No.3 |
|-----------|------------|----------|----------|------------|---------------|---------------|---------------|
| Beam No.1 | 803.75 | 804.19 | 804.61 | 805.04 | 804.10 | 804.31 | 804.70 |
| Beam No.2 | 803.88 | 804.31 | 804.73 | 805.16 | 804.22 | 804.43 | 804.82 |
| Beam No.3 | 803.98 | 804.42 | 804.84 | 805.27 | 804.33 | 804.54 | 804.93 |
| Beam No.4 | 804.07 | 804.51 | 804.93 | 805.36 | 804.42 | 804.63 | 805.02 |
| Beam No.5 | 804.07 | 804.51 | 804.93 | 805.36 | 804.42 | 804.63 | 805.02 |
| Beam No.6 | 803.98 | 804.42 | 804.84 | 805.27 | 804.33 | 804.54 | 804.93 |
| Beam No.7 | 803.88 | 804.31 | 804.73 | 805.16 | 804.22 | 804.43 | 804.82 |
| Beam No.8 | 803.75 | 804.19 | 804.61 | 805.04 | 804.10 | 804.31 | 804.70 |

I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads (in⁴ and in³).

$I_c(n), S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) due to short-term composite live loads (in⁴ and in³).

$I_c(3n), S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I, and Service II) due to long-term composite (superimposed) dead loads (in⁴ and in³).

DC1: Un-factored non-composite dead load (kips/ft.).

M_{DC1}: Un-factored moment due to non-composite dead load (kip-ft.).

DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).

M_{DC2}: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).

DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).

M_{DW}: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

M_{ℓ + Imp}: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

M_u (Strength I): Factored design moment (kip-ft.).

$\phi_r M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 (kip-ft.).

$\phi_r M_{nc}$: Compact non-composite negative moment capacity computed according to Article A6.1.1 (kip-ft.).

f_s (Service II): Sum of stresses as computed from the moments below (ksi).

f_s (Total)(Strength I): Sum of stresses as computed from the moments below on non-compact section (ksi).

V_r: Factored shear range computed according to Article 6.10.10.

Note:

All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

| | |
|----------|-----|
| DESIGNED | WLA |
| CHECKED | CJB |
| DRAWN | DRP |
| CHECKED | PJM |

FRAMING PLAN
ILL. ROUTE 23 OVER
KISHWAUKEE RIVER
F.A.P. RT. 324
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STATION 69+02.50
STRUCTURE NO. 056-0001



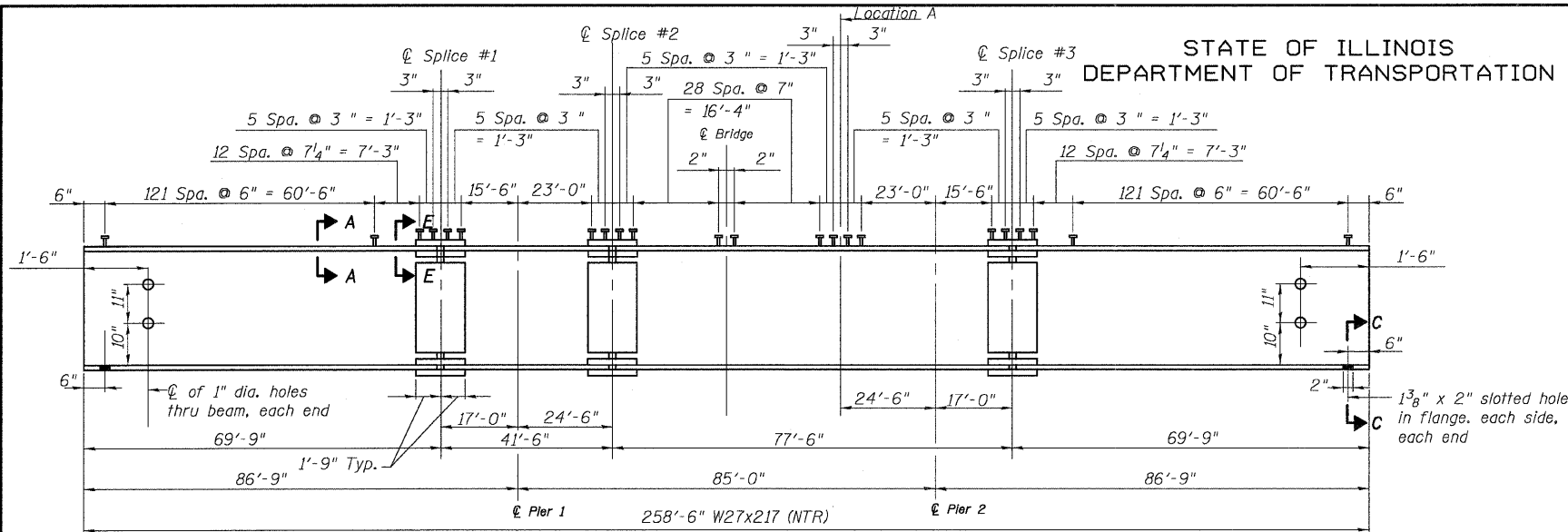
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| | | | | |
|-----------------------|----------|------------------|--------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| F.A.P. 324 | 23B-1 | MCHENRY | 97 | 53 |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT | | |

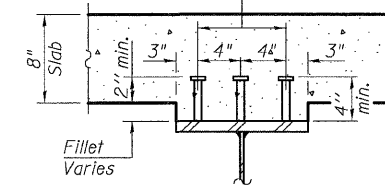
SHEET NO. 13
25 SHEETS

Contract # 62892

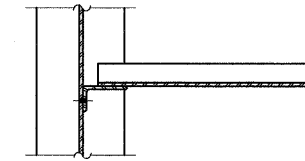


BEAM ELEVATION
Looking West

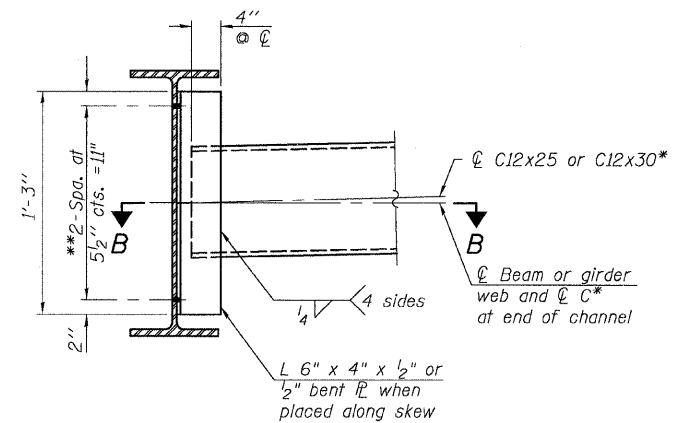
$\frac{3}{4}$ " ϕ Granular or solid flux filled headed studs, automatically end welded to flange. (B112 Required)



SECTION A-A
Typical Stud Spacing
Except at Flange Splice
Plates and Location A



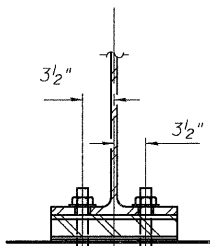
SECTION B-B



INTERIOR DIAPHRAGM

Note:
Two hardened washers required for each set of oversized holes.

* Alternate channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section.
** $\frac{3}{4}$ " ϕ HS bolts, $\frac{5}{16}$ " ϕ holes



SECTION C-C

NOTES:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineered-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts may be either cast in place or installed in holes drilled after the supported member is in place.

Drill and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

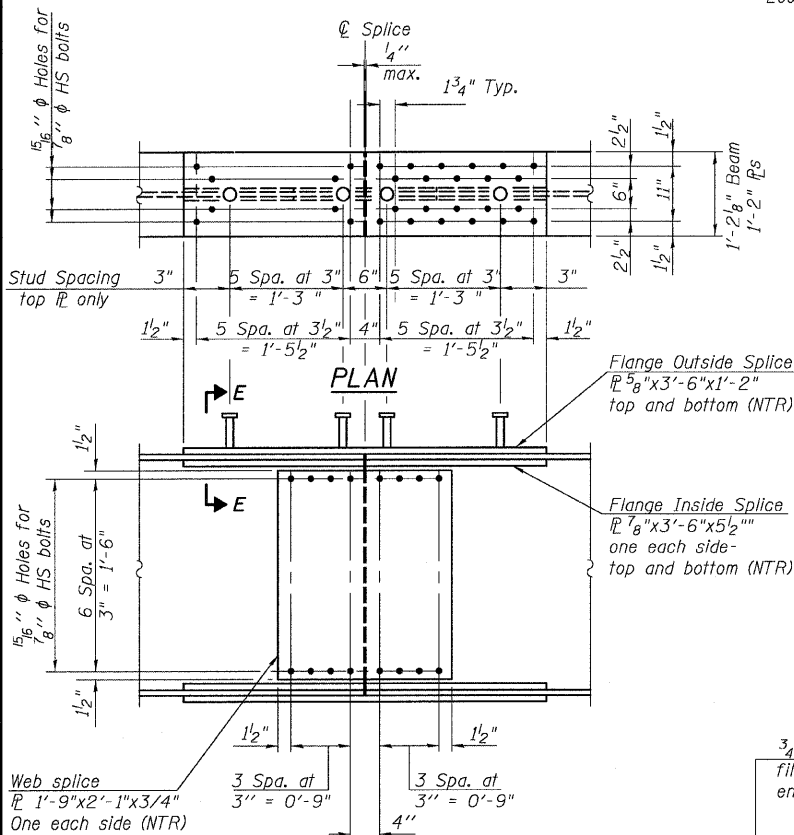
Furnishing and installing fixed steel bearings including shim plates and neoprene mat shall be included with the cost of "Erecting Structural Steel".

Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

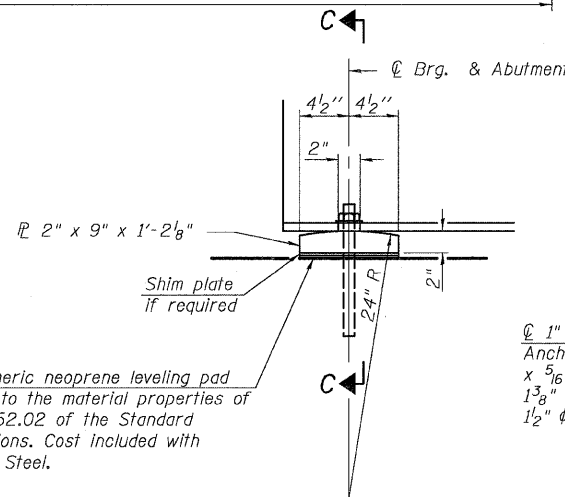
All beams, splice plates and fixed bearing plates are M270 Grade 50.

All diaphragms and angles connecting diaphragms to beams are M270 Grade 36.

HS splice bolts shall be $\frac{7}{8}$ " ϕ AASHTO M164/ ASTM A325
Two $\frac{1}{8}$ " adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.



SPlice DETAIL
(24-Required)

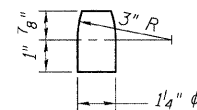


ELEVATION AT ABUTMENT

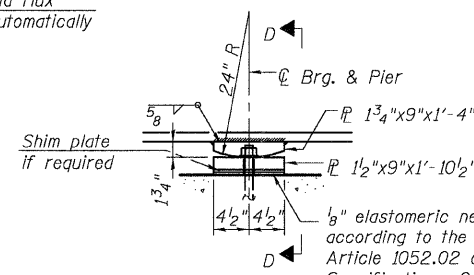
FIXED BEARING AT ABUTMENTS

$\frac{1}{8}$ " elastomeric neoprene leveling pad according to the material properties of Article 1052.02 of the Standard Specifications. Cost included with Structural Steel.

ϕ 1" ϕ x 12" ASTM F1554 Gr. 36 Anchor Bolts with $2\frac{1}{4}$ " x $2\frac{1}{4}$ " x $\frac{5}{16}$ " PL washer under nut. $1\frac{3}{8}$ " x 2" slotted hole in flange. $\frac{1}{2}$ " ϕ holes in bearing plate.



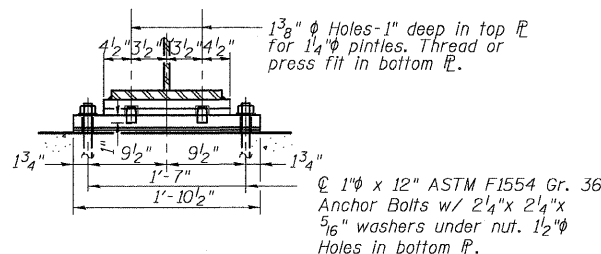
PINTLE



ELEVATION AT PIER

FIXED BEARING AT PIERS

$\frac{1}{8}$ " elastomeric neoprene leveling pad according to the material properties of Article 1052.02 of the Standard Specifications. Cost included with Structural Steel.



SECTION D-D



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FRAMING DETAILS
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STRUCTURE NO. 056-0001

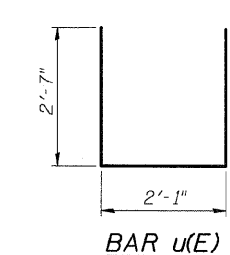
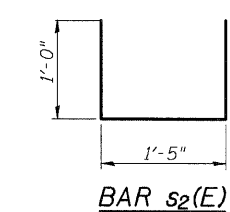
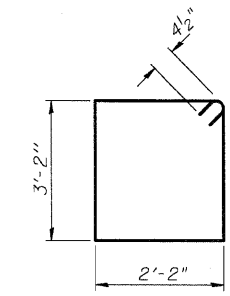
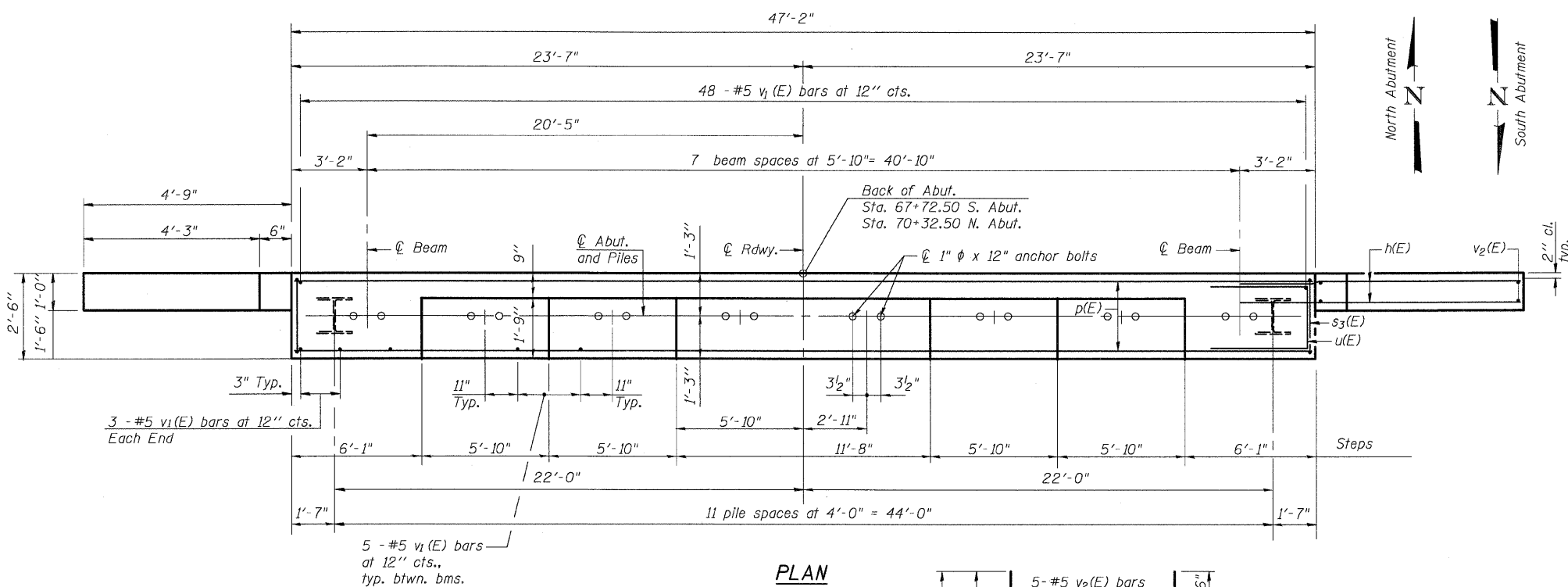
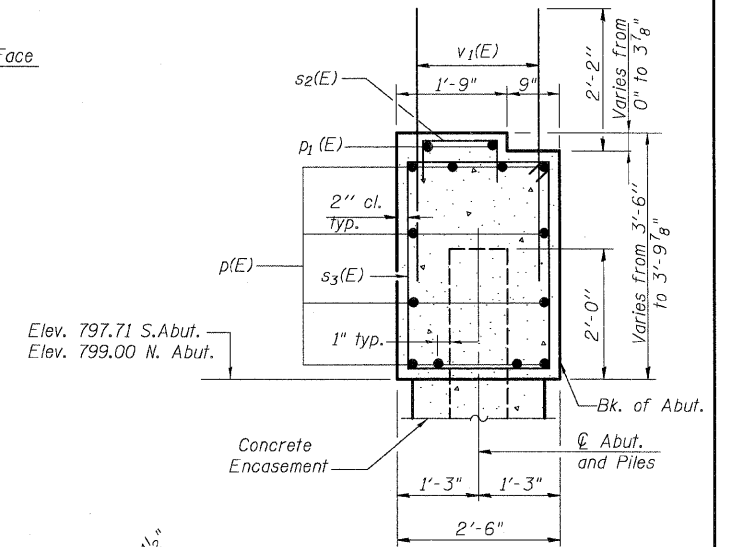
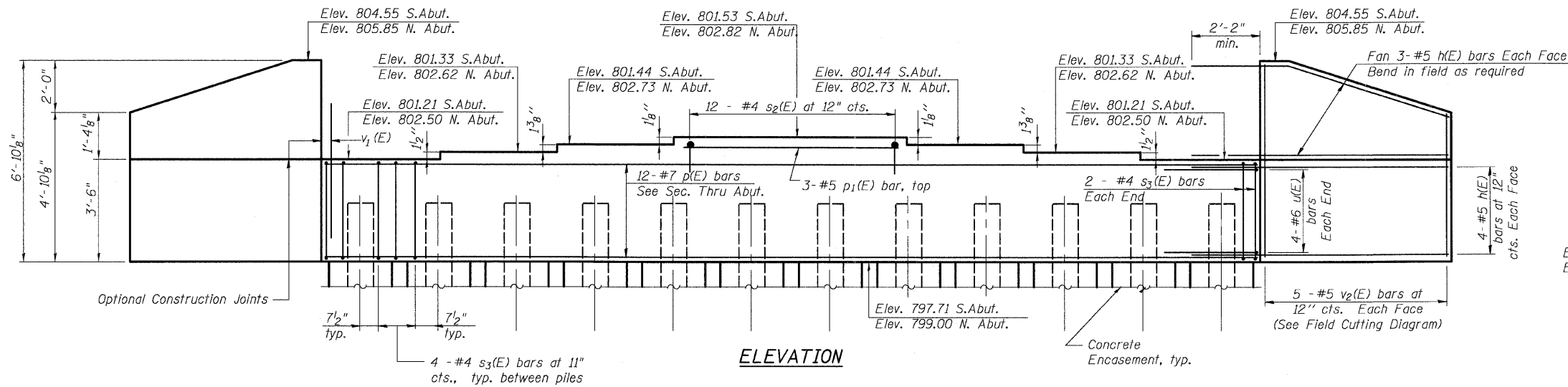
| | |
|----------|-----|
| DESIGNED | WLA |
| CHECKED | CJB |
| DRAWN | DRP |
| CHECKED | PJM |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|----------|------------------|--------------|-----------|--------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 14 |
| F.A.P. 324 | 23B-1 | McHENRY | 97 | 54 | 25 SHEETS |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT | | | |

Contract # 62892

Notes: Pour steps monolithically with cap.
Space reinforcement in cap to miss Anchor Bolts.



BILL OF MATERIAL

(South & North Abutment)

| Bar | No. | Size | Length | Shape |
|----------------------------------|-----|---------|-----------|-------|
| h(E) | 56 | #5 | 7' - 1" | — |
| p(E) | 24 | #7 | 46' - 10" | — |
| p ₁ (E) | 6 | #5 | 11' - 4" | — |
| s ₂ (E) | 24 | #4 | 3' - 5" | □ |
| s ₃ (E) | 96 | #4 | 11' - 5" | □ |
| u(E) | 16 | #6 | 7' - 3" | — |
| v ₁ (E) | 178 | #5 | 4' - 4" | — |
| v ₂ (E) | 20 | #5 | 11' - 5" | — |
| Structure Excavation | | Cu. Yd. | 272.6 | |
| Concrete Structures | | Cu. Yd. | 35.6 | |
| Reinforcement Bars, Epoxy Coated | | Pound | 4,780 | |
| Furnishing Steel | | Foot | 1375 | |
| Piles HP 12x53 | | Foot | 1375 | |
| Driving Piles | | Foot | 1375 | |
| Test Pile Steel HP12x53 | | Each | 2 | |
| Concrete Encasement | | Cu. Yd. | 8.4 | |
| Pile Shoes | | Each | 24 | |

For details of piles and Concrete Encasement, see sheet 17 of 25.

PILE DATA

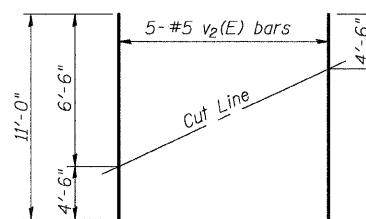
| | |
|----------|-----|
| DESIGNED | CJB |
| CHECKED | PWO |
| DRAWN | DRP |
| CHECKED | PJM |

South Abutment
Type: Steel HP12x53 with pile shoes
Nominal Required Bearing: 240 kips
Factored Resistance Available: 120 kips
Est. Length: 60'
No. Production Piles: 11
No. Test Piles: 1

North Abutment
Type: Steel HP12x53 with pile shoes
Nominal Required Bearing: 240 kips
Factored Resistance Available: 120 kips
Est. Length: 65'
No. Production Piles: 11
No. Test Piles: 1

FIELD CUTTING DIAGRAM

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



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ABUTMENTS
ILL. ROUTE 23 OVER
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F.A.P. RT. 324
McHENRY COUNTY
STATION 69+02.50
STRUCTURE NO. 056-0001

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|-----------------------|----------|-------------------|--------|-----------|
| ROUTE NO. | SECTION | COUNTY | SHEETS | SHEET NO. |
| F.A.P. 324 | 23B-1 | McHENRY | 97 | 55 |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT- | | |

SHEET NO. 15
25 SHEETS

Contract # 62892

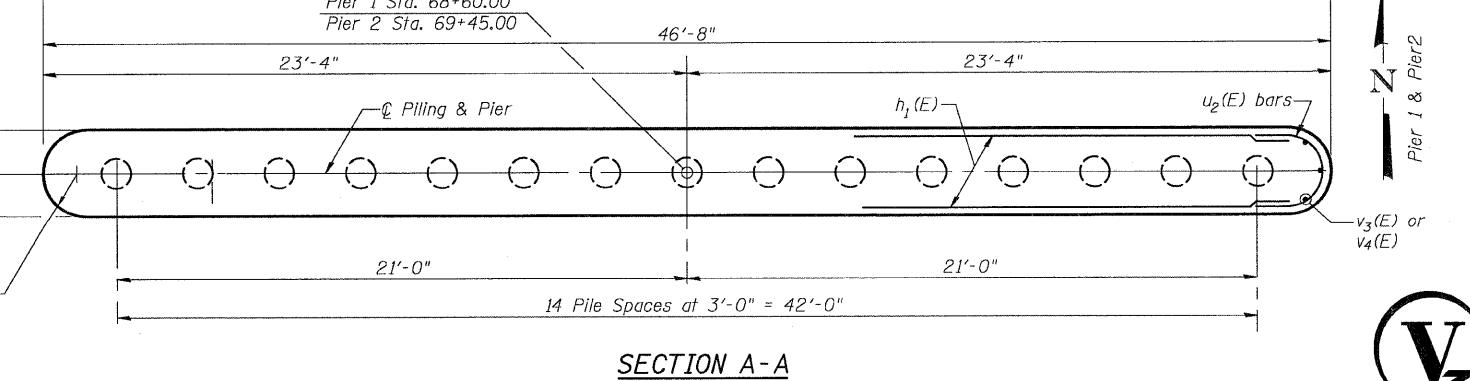
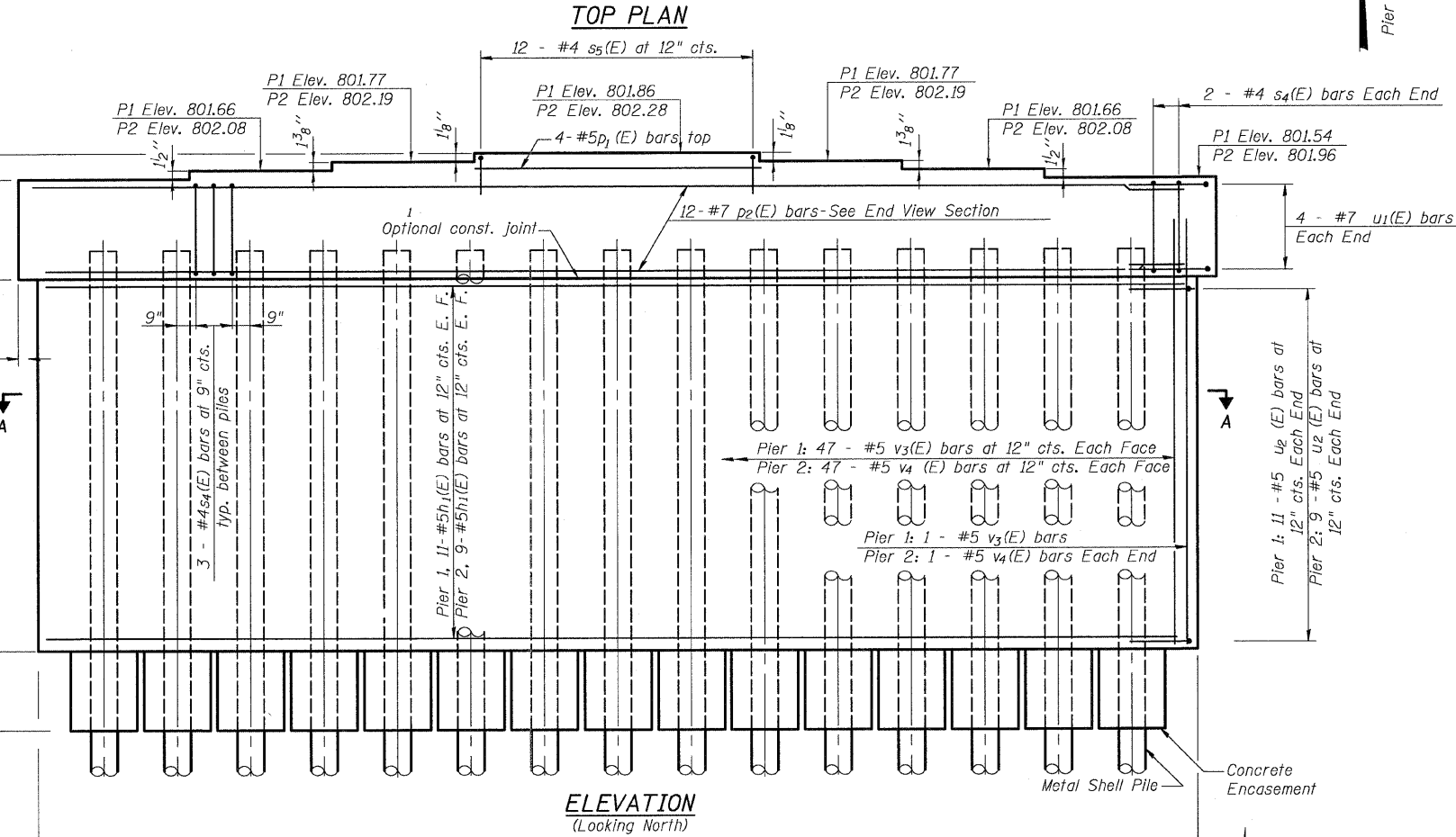
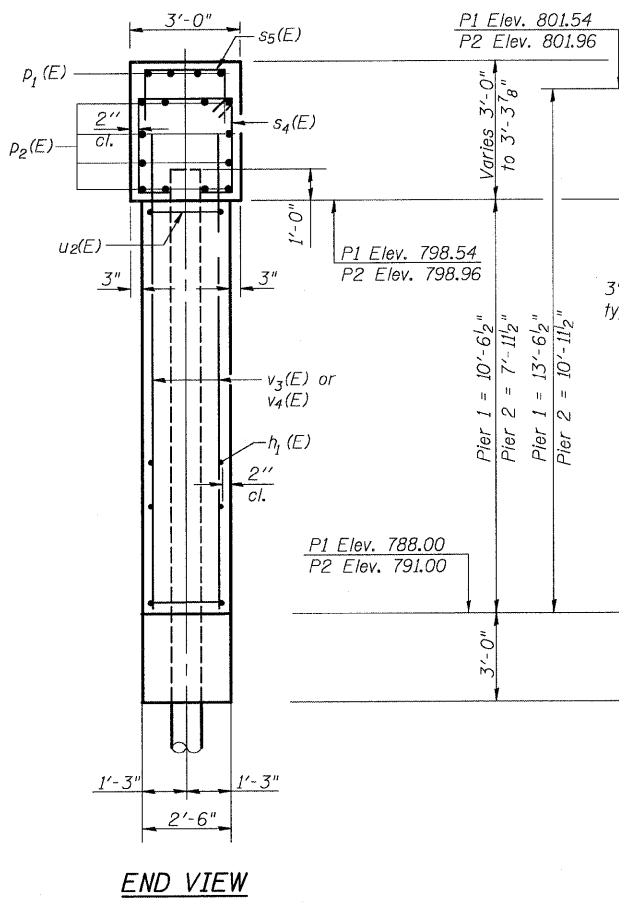
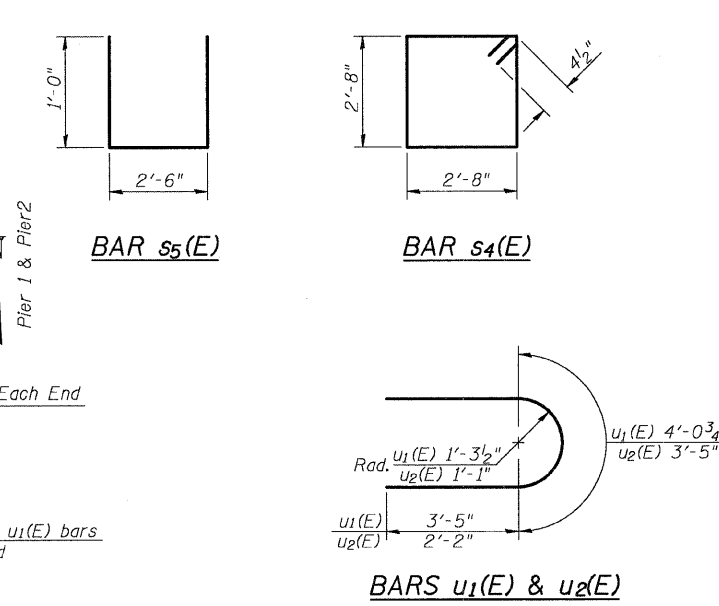
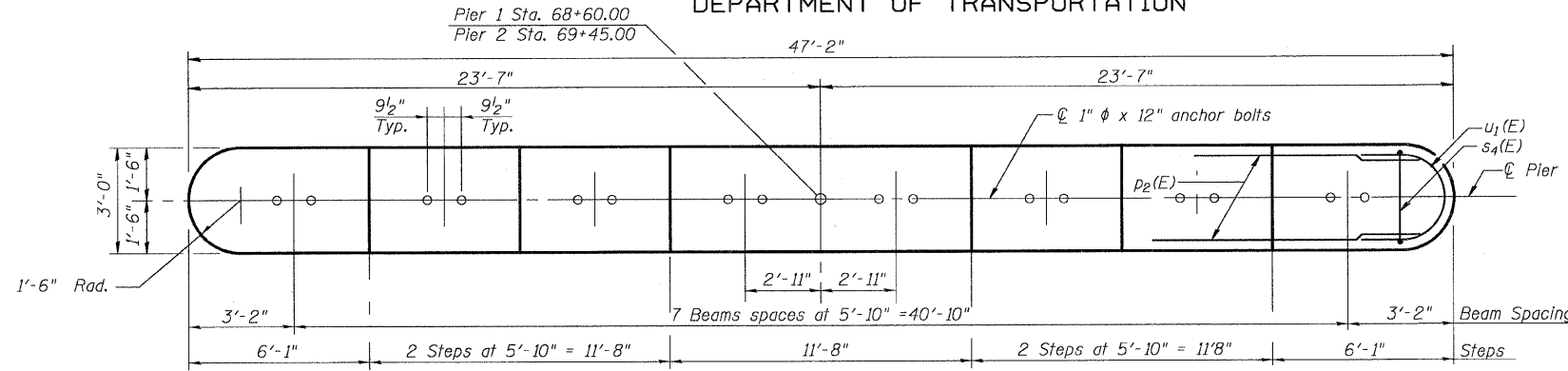
Notes:
Space reinforcement in cap to miss anchor bolts.
Four steps monolithically with cap.
For details of piles, see sheet 16 of 25.

P1 = Pier 1, P2 = Pier 2

PILE DATA

Pier 1
Type: Metal Shell- 12" dia.x0.25 in. walls with pile shoes
Nominal Required Bearing: 355 kips
Factored Resistance Available: 178 kips
Est. Length: 49'
No. Production Piles: 14
No. Test Piles: 1

Pier 2
Type: Metal Shell- 12" dia.x0.25 in. walls with pile shoes
Nominal Required Bearing: 355 kips
Factored Resistance Available: 178 kips
Est. Length: 50'
No. Production Piles: 14
No. Test Piles: 1



BILL OF MATERIAL
(Pier 1 & Pier 2)

| Bar | No. | Size | Length | Shape |
|--|-----|---------|---------|-------|
| h ₁ (E) | 40 | #5 | 44'-2" | — |
| p ₁ (E) | 8 | #5 | 11'-4" | — |
| p ₂ (E) | 24 | #7 | 43'-10" | — |
| s ₄ (E) | 92 | #4 | 11'-5" | □ |
| s ₅ (E) | 24 | #4 | 4'-6" | □ |
| u ₁ (E) | 16 | #7 | 10'-11" | U |
| u ₂ (E) | 40 | #5 | 7'-9" | U |
| v ₃ (E) | 96 | #5 | 11'-8" | — |
| v ₄ (E) | 96 | #5 | 9'-0" | — |
| Structure Excavation | | Cu. Yd. | 194.0 | |
| Concrete Structures | | Cu. Yd. | 111.3 | |
| Reinforcement Bars, Epoxy Coated | | Pound | 7,610 | |
| Furnishing Metal Shell Piles, 12"x0.250" | | Foot | 1386 | |
| Driving Piles | | Foot | 1386 | |
| Test Pile Metal Shells | | Each | 2 | |
| Concrete Encasement | | Cu. Yd. | 16.4 | |
| Pile shoes | | Each | 30 | |

PIERS
ILL. ROUTE 23 OVER
KISHWAUKEE RIVER
F.A.P. RT. 324
McHENRY COUNTY
STATION 69+02.50
STRUCTURE NO. 056-0001

| | |
|----------|-----|
| DESIGNED | CJB |
| CHECKED | PWO |
| DRAWN | DRP |
| CHECKED | PJM |

F-MS

9-3-07



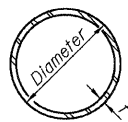
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www.v3co.com

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|-----------------------|---------|----------|------------------|-----------|
| ROUTE NO. | SECTION | COUNTY | SHEET | SHEET NO. |
| F.A.P. 324 | 23B-1 | McHENRY | 97 | 56 |
| FED. ROAD DIST. NO. 1 | | ILLINOIS | FED. AID PROJECT | |

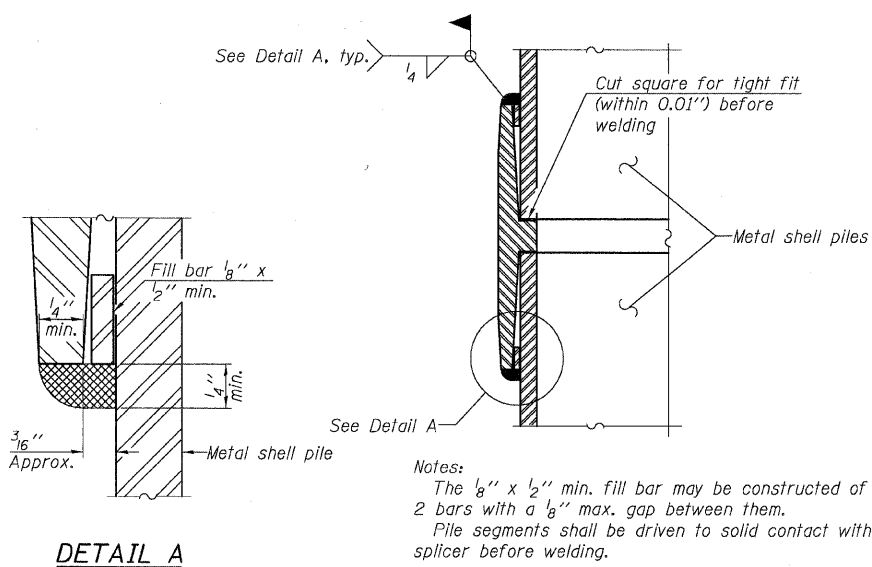
SHEET NO. 16
25 SHEETS

Contract # 62892



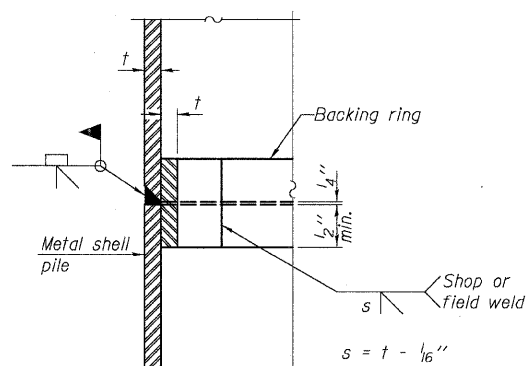
METAL SHELL PILE TABLE

| Designation and outside diameter | Wall thickness <i>t</i> | Weight per foot (Lbs./ft.) | Inside volume (yd. ³ /ft.) |
|----------------------------------|-------------------------|----------------------------|---------------------------------------|
| PP12 | 0.179" | 22.60 | 0.0274 |
| PP12 | 0.250" | 31.37 | 0.0267 |
| PP14 | 0.250" | 36.71 | 0.0368 |
| PP14 | 0.312" | 45.61 | 0.0361 |



Notes:
The 1/8" x 1/2" min. fill bar may be constructed of 2 bars with a 1/8" max. gap between them.
Pile segments shall be driven to solid contact with splicer before welding.

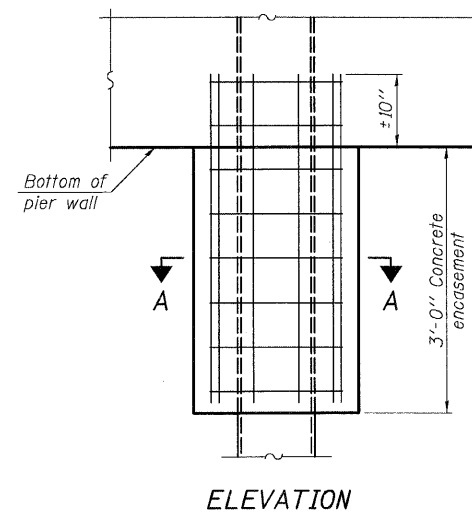
WELDED COMMERCIAL SPLICE



COMPLETE PENETRATION WELD SPLICE

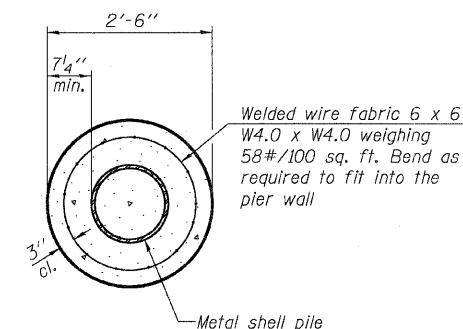
Backing ring made from pile shell. Remove segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.

Note:
The metal shell piles shall be according to ASTM A 252 Grade 3.



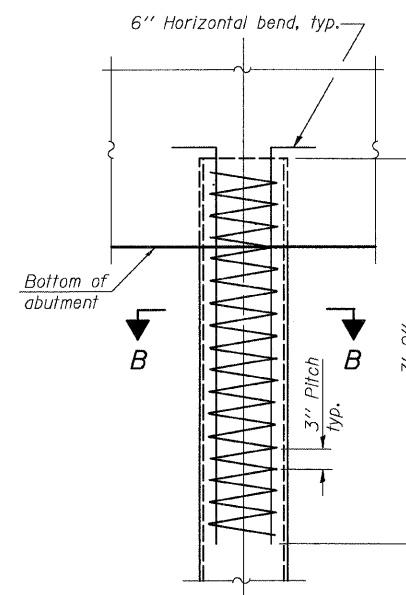
ELEVATION

CONCRETE ENCASMENT AT PIERS



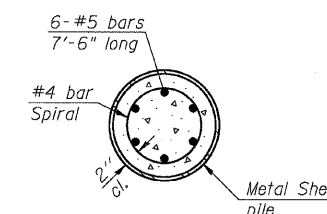
SECTION A-A

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

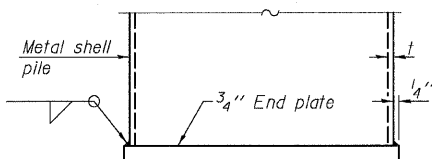


ELEVATION

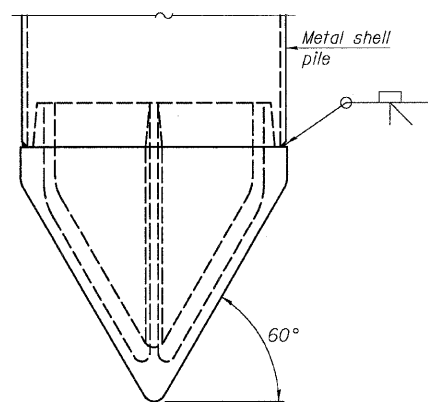
METAL SHELL REINFORCEMENT AT ABUTMENTS



SECTION B-B



END PLATE ATTACHMENT



Note A:
When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 90-60 or AASHTO M 103 Grade 65-35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld.

METAL SHELL PILE SHOE ATTACHMENT

(See Note A)

| | |
|----------|-----|
| DESIGNED | CJB |
| CHECKED | PWO |
| DRAWN | DRP |
| CHECKED | PJM |

F-MS

9-3-07



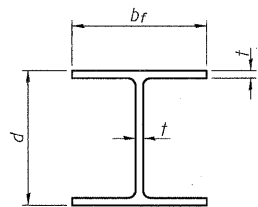
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PILE DETAILS
ILL. ROUTE 23 OVER
KISHWAUKEE RIVER
F.A.P. RT. 324
McHENRY COUNTY
STATION 69+02.50
STRUCTURE NO. 056-0001

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

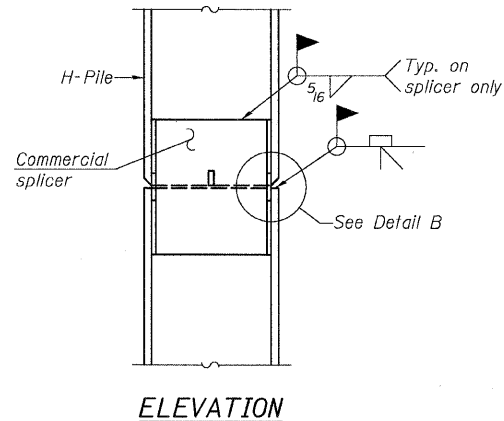
| | | | | |
|-----------------------|---------|----------|-------------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| F.A.P. 324 | 23B-1 | McHENRY | 97 | 57 |
| FED. ROAD DIST. NO. 1 | | ILLINOIS | FED. AID PROJECT- | |

SHEET NO. 17
25 SHEETS
Contract # 62892

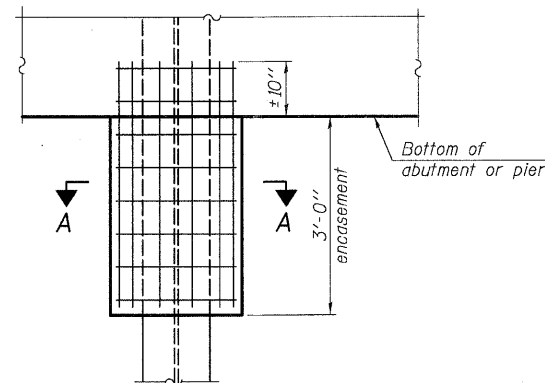


STEEL PILE TABLE

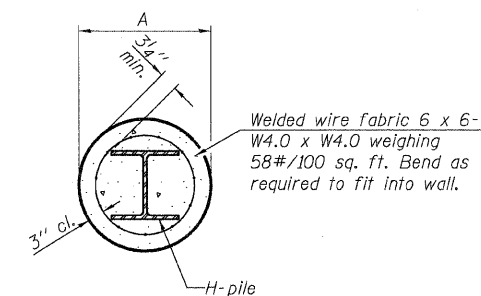
| Designation | Depth d | Flange width br | Web and Flange thickness t | Encasement diameter A |
|-------------|---------|-----------------|----------------------------|-----------------------|
| HP 14x117 | 14 1/4" | 14 7/8" | 13/16" | 30" |
| x102 | 14" | 14 3/4" | 1/16" | 30" |
| x89 | 13 7/8" | 14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



ELEVATION



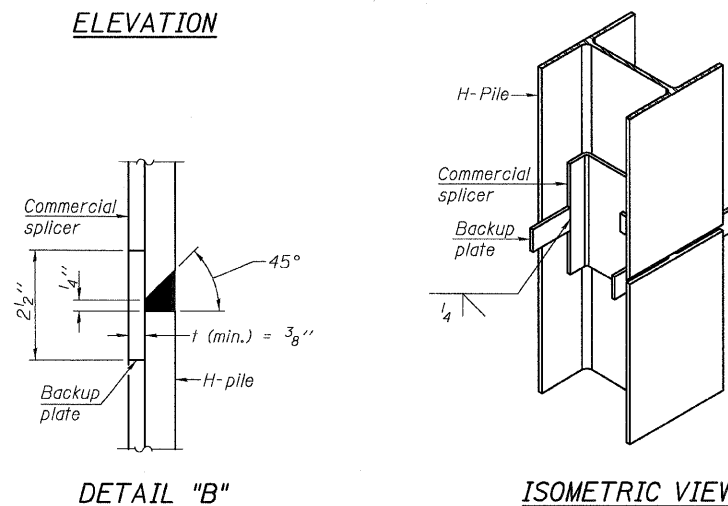
ELEVATION



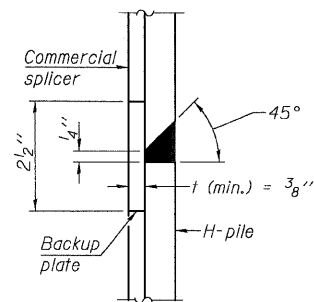
SECTION A-A

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

PILE ENCASEMENT

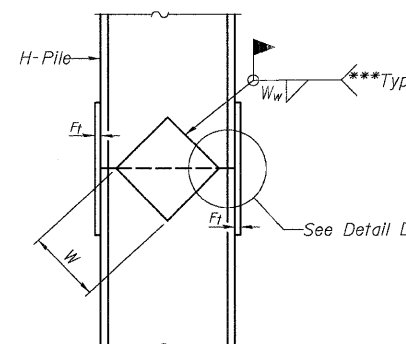


ISOMETRIC VIEW

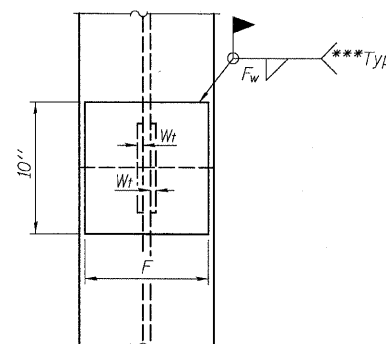


DETAIL "B"

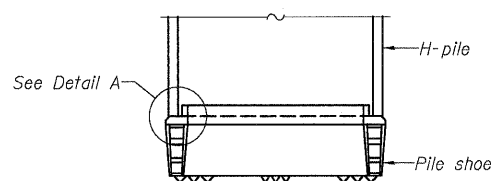
WELDED COMMERCIAL SPLICE



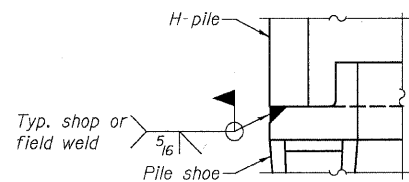
ELEVATION



END VIEW

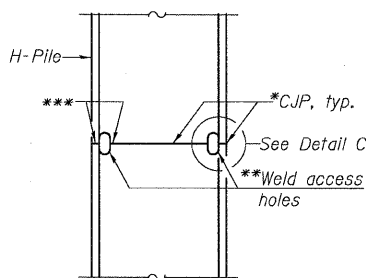


ELEVATION



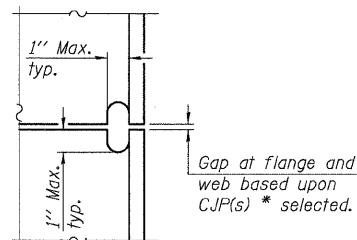
DETAIL A

H-PILE SHOE ATTACHMENT



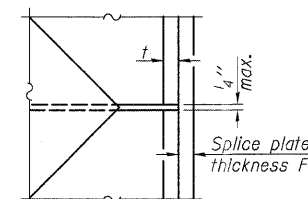
ELEVATION

COMPLETE PENETRATION WELD SPLICE



DETAIL C

WELDED PLATE FIELD SPLICE



DETAIL D

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

PILE DETAILS
ILL. ROUTE 23 OVER
KISHWAUKEE RIVER
F.A.P. RT. 324
McHENRY COUNTY
STATION 69+02.50
STRUCTURE NO. 056-0001

| | |
|----------|-----|
| DESIGNED | CJB |
| CHECKED | PWO |
| DRAWN | DRP |
| CHECKED | PJM |

*Use joint conforming to Figure 3.4 in AWS D1.1, Structure Welding Code - Steel.
**Preparation per Fig. 5.2 in AWS D1.1, Structure Welding Code - Steel.
***Interrupt welds 1/4" from end of each pile.

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



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|-----------------------|-----------|------------------|--------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| F.A.P. 324 | 23B-1 | McHENRY | 97 | 58 |
| FED. ROAD DIST. NO. 1 | ALIGNMENT | FED. AID PROJECT | | |

Contract # 62892

SHEET NO. 18
25 SHEETS

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) = $1.25 \times f_y \times A_t$
- ② Minimum *Pull-out Strength (Tension in kips) = $0.66 \times f_y \times A_t$

Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

| Bar Size to be Spliced | Splicer Rod or Dowel Bar Length | Strength Requirements | |
|------------------------|---------------------------------|------------------------------|---------------------------------------|
| | | Min. Capacity kips - tension | Min. Pull-Out Strength kips - tension |
| #4 | 1'-8" | 14.7 | 7.9 |
| #5 | 2'-2" | 23.0 | 12.3 |
| #6 | 2'-7" | 33.1 | 17.4 |
| #7 | 3'-5" | 45.1 | 23.8 |
| #8 | 4'-6" | 58.9 | 31.3 |
| #9 | 5'-9" | 75.0 | 39.6 |
| #10 | 7'-3" | 95.0 | 50.3 |
| #11 | 9'-0" | 117.4 | 61.8 |

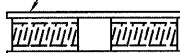
The diameter of this part is equal or larger than the diameter of bar spliced.
The diameter of this part is the same as the diameter of the bar spliced.

ROLLED THREAD DOWEL BAR



**** ONE PIECE**

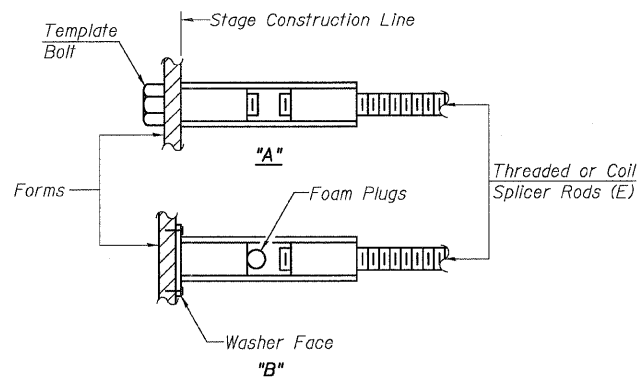
Wire Connector



WELDED SECTIONS

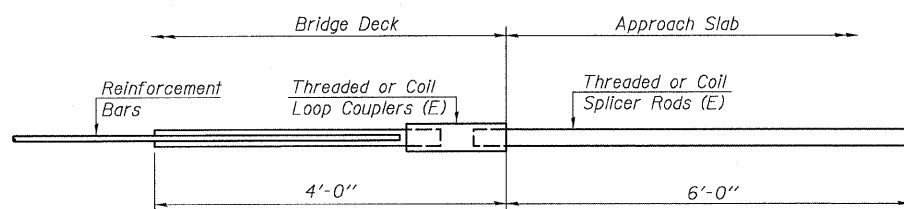
BAR SPLICER ASSEMBLY ALTERNATIVES

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



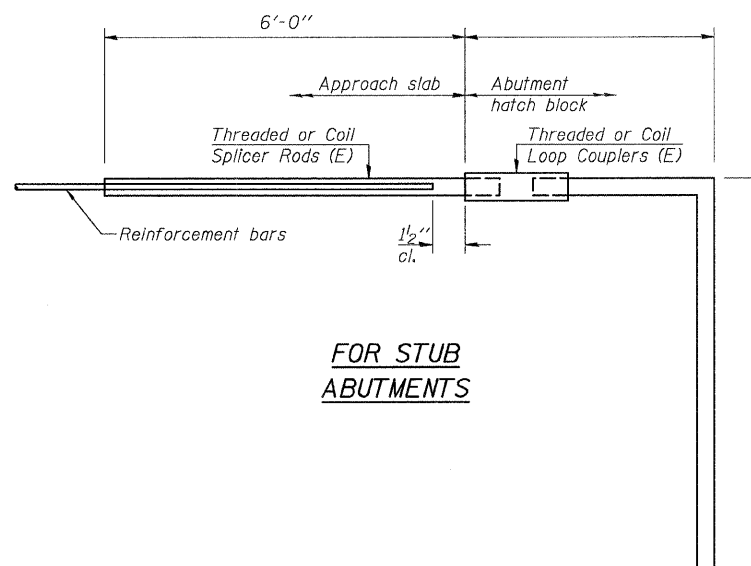
INSTALLATION AND SETTING METHODS

"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.



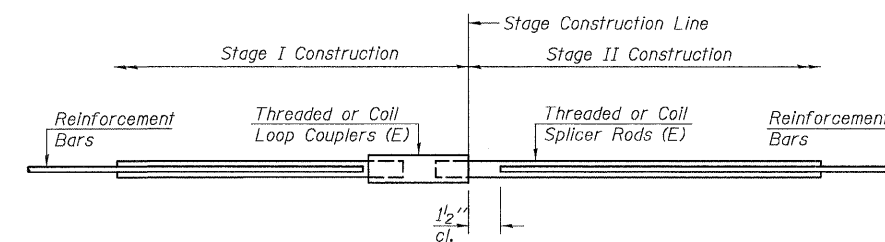
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

| |
|--|
| Bar Splicer for #5 bar |
| Min. Capacity = 23.0 kips - tension |
| Min. Pull-out Strength = 12.3 kips - tension |
| No. Required = 90 |



FOR STUB ABUTMENTS

| |
|--|
| Bar Splicer for #5 bar |
| Min. Capacity = 23.0 kips - tension |
| Min. Pull-out Strength = 12.3 kips - tension |
| No. Required = |



STANDARD

| Bar Size | No. Assemblies Required | Location |
|----------|-------------------------|----------|
| | | |
| | | |
| | | |
| | | |

| | |
|----------|-----|
| DESIGNED | CJB |
| CHECKED | PWO |
| DRAWN | DRP |
| CHECKED | PJM |



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BAR SPLICER DETAILS
ILL. ROUTE 23 OVER
KISHWAUKEE RIVER
F.A.P. RT. 324
McHENRY COUNTY
STATION 69+02.50
STRUCTURE NO. 056-0001

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|----------|------------------|--------------|-----------|--------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 19 |
| F.A.P. 324 | 23B-1 | McHENRY | 97 | 59 | 25 SHEETS |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT | | | |

Contract # 62892

Notes:

All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.
Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.

Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.

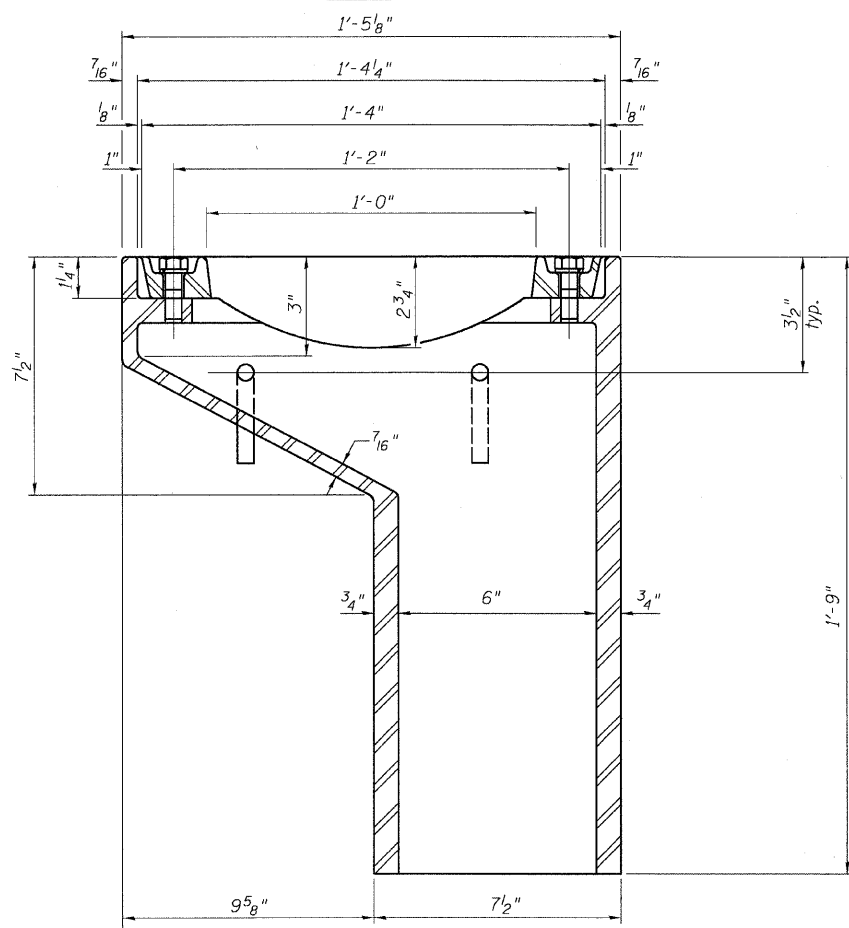
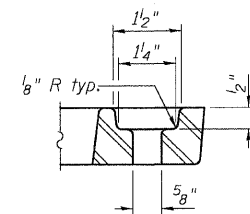
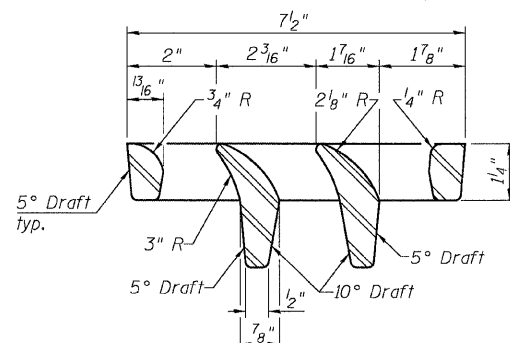
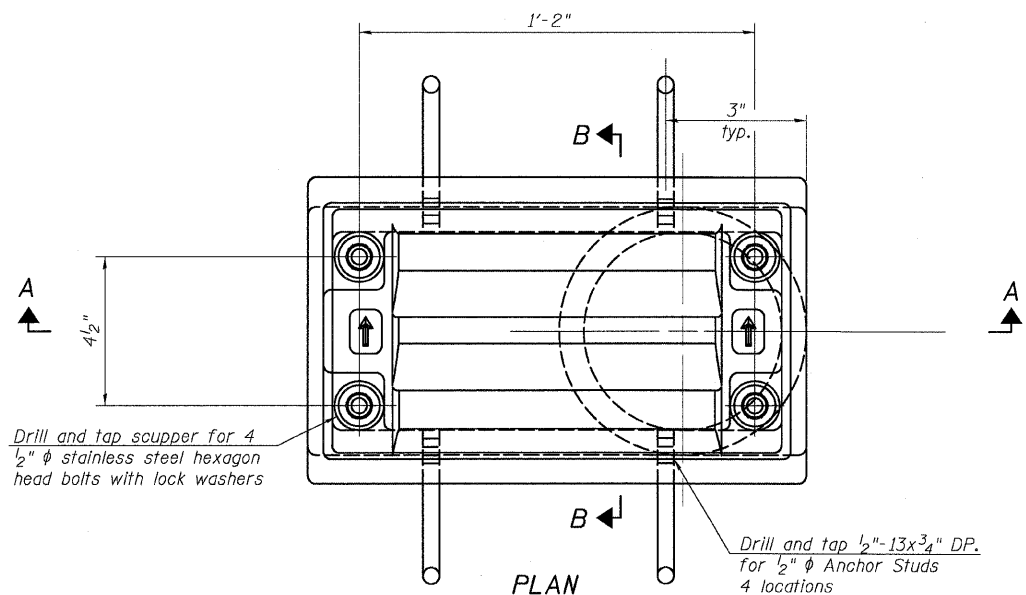
As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.

Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M111.

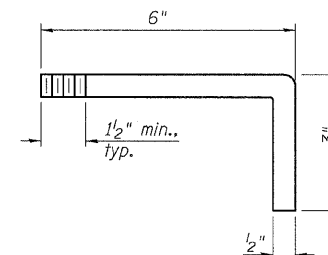
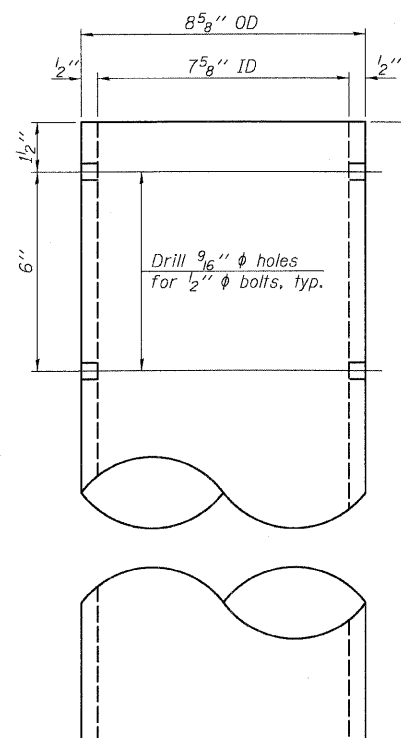
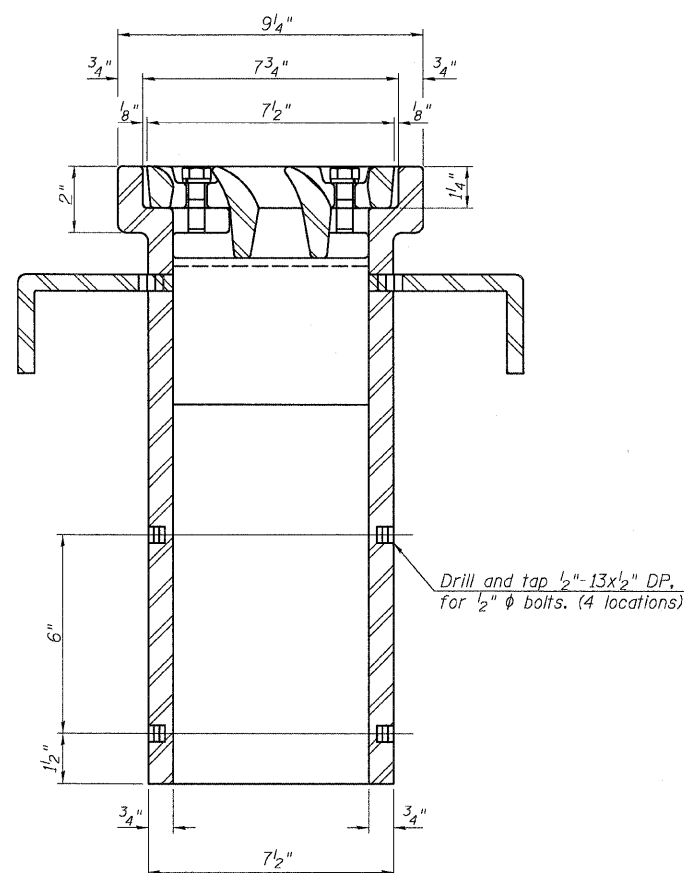
The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.

Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-11.

Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.



See sheets 9 & 10 of 26 for scupper location relative to parapet.



BILL OF MATERIAL

| ITEM | UNIT | QUANTITY |
|-------------------------|------|----------|
| Drainage Scupper, DS-11 | Each | 2 |

DRAINAGE SCUPPER, DS-11
ILL. ROUTE 23 OVER
KISHWAUKEE RIVER
F.A.P. RT. 324
McHENRY COUNTY
STATION 69+02.50
STRUCTURE NO. 056-0001

| | |
|----------|-----|
| DESIGNED | CJB |
| CHECKED | PWO |
| DRAWN | DRP |
| CHECKED | PJM |

DS-11

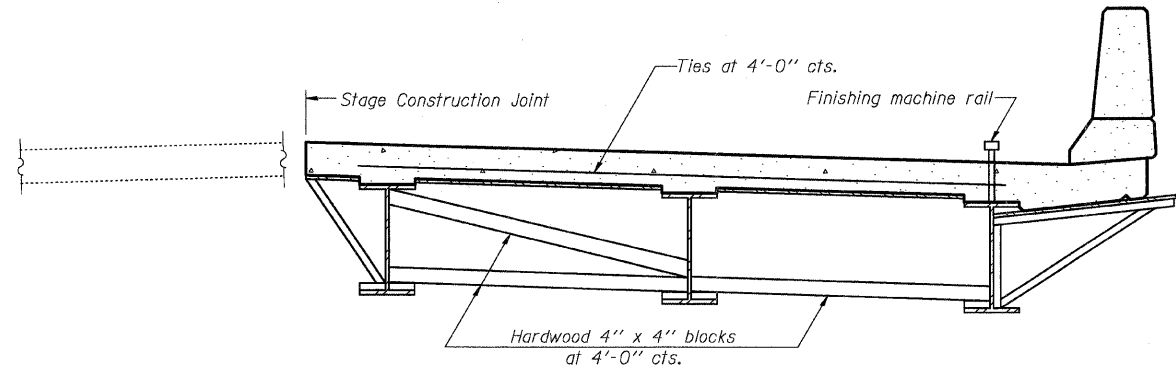
9-3-07



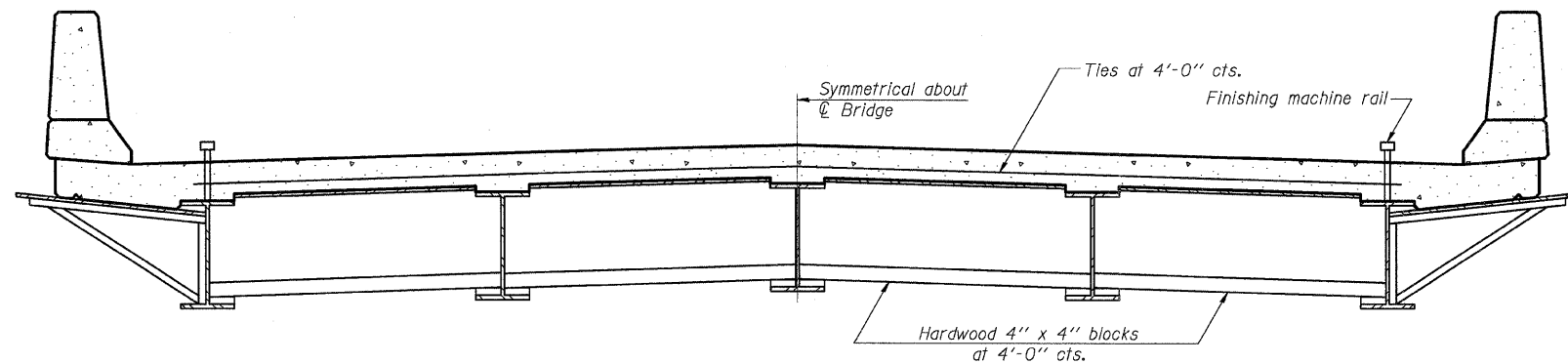
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630.724.9202 fax
www.v3co.com

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|----------|------------------|------------------|-------|--------------|
| ROUTE NO. | SECTION | COUNTY | SHEET NO. | SHEET | SHEET NO. 20 |
| F.A.P. 324 | 23B-1 | McHENRY | 97 | 60 | 25 SHEETS |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT | Contract # 62892 | | |



**FORM BRACES FOR
STAGE CONSTRUCTION**



**FORM BRACES FOR
STANDARD CONSTRUCTION**

When cantilever forming brackets are used, the work shall be done according to Article 503.06(b) of the Standard Specifications, except as modified below and in the details shown on this sheet.
The finishing machine rails shall be placed on the top flange of the exterior beams.
The beams or girders, supporting cantilever forming brackets, shall be tied together at 4 foot intervals.
For Standard construction, or Stage Construction the Hardwood bracing materials shall be placed as shown between webs of beams in each bay.

**CANTILEVER FORMING BRACKETS
FOR SUPERSTRUCTURES WITH
W27 BEAMS OR SMALLER
ILL. ROUTE 23 OVER
KISHWAUKEE RIVER
F.A.P. RT. 324
MCHEMRY COUNTY
STATION 69+02.50
STRUCTURE NO. 056-0001**

| | |
|----------|-----|
| DESIGNED | CJB |
| CHECKED | PWO |
| DRAWN | DRP |
| CHECKED | PJM |

SB-1

11-1-06



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|-----------------------|----------|------------------|--------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| F.A.P. 324 | 23B-1 | McHENRY | 97 | 61 |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT | | |

Contract # 62892

Wang Engineering, Inc.
Consulting Geotechnical and Environmental Engineers
wangeng@wangeng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG BK-01
WEI Job No.: 487-01-01
Datum: NGVD
Elevation: 802.16 ft
North: 2039379.16 ft
East: 909751.93 ft
Station: 67+51
Offset: 18 LT

Client: **V3 Companies**
Project: **U.S. Rte 23 over Kishwaukee River**
Location: **Marengo, IL**

Page 1 of 2

| Profile Elevation (ft) | SOIL AND ROCK DESCRIPTION | Depth (ft) | Sample No. | SPT Values (blows/6 in) | Cu (tsf) | Moisture Content (%) | Profile Elevation (ft) | SOIL AND ROCK DESCRIPTION | Depth (ft) | Sample No. | SPT Values (blows/6 in) | Cu (tsf) | Moisture Content (%) |
|------------------------|---|------------|------------|-------------------------|----------|----------------------|------------------------|-------------------------------------|------------|------------|-------------------------|----------|----------------------|
| 801.4 | 9-inch thick ASPHALT --PAVEMENT-- | | | | | | | | | | | | |
| 800.4 | Medium dense, brown SANDY LOAM | 1 | 4 | 19 | 2.25 | 15 | | | 11 | 7 | 8 | NP | 15 |
| 798.7 | Very stiff, gray CLAY | | | | | | | | | | | | |
| 798.7 | Loose, brown and gray, fine SAND to SANDY LOAM | 2 | 2 | 4 | NP | 9 | | | 12 | 4 | 5 | NP | 23 |
| 784.2 | Loose, gray, fine SAND to SANDY LOAM | 3 | 2 | 3 | NP | 15 | 770.4 | Loose to dense, brown GRAVELLY SAND | | | | | |
| 784.2 | Medium dense, brown and gray, medium to coarse SAND | 4 | 2 | 3 | NP | 18 | | | 13 | 8 | 7 | NP | 16 |
| 786.7 | Loose to medium dense, brown, fine to medium SAND, trace gravel | 7 | 4 | 3 | NP | 18 | | | 14 | 9 | 6 | NR | |
| | | 8 | 4 | 4 | NP | 20 | | | 15 | 5 | 4 | NP | 9 |
| | | 9 | 4 | 4 | NP | 20 | | | 16 | 9 | 14 | NP | 9 |
| | | 10 | 5 | 7 | NP | 14 | | | 16 | 9 | 14 | NP | 9 |

| | | | |
|----------------------|----------------------|---------------------------|------------|
| GENERAL NOTES | | WATER LEVEL DATA | |
| Begin Drilling | 11-30-2007 | Complete Drilling | 11-30-2007 |
| Drilling Contractor | DLZ | Drill Rig | D-120 |
| Driller | J & A | Logger | K. Jacob |
| Checked by | E. Datz | Time After Drilling | NA |
| Drilling Method | Mud rotary after 15' | Depth to Water | NA |
| | | While Drilling | |
| | | At Completion of Drilling | |
| | | Time After Drilling | |
| | | Depth to Water | |

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

Wang Engineering, Inc.
Consulting Geotechnical and Environmental Engineers
wangeng@wangeng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG BK-01
WEI Job No.: 487-01-01
Datum: NGVD
Elevation: 802.16 ft
North: 2039379.16 ft
East: 909751.93 ft
Station: 67+51
Offset: 18 LT

Client: **V3 Companies**
Project: **U.S. Rte 23 over Kishwaukee River**
Location: **Marengo, IL**

Page 2 of 2

| Profile Elevation (ft) | SOIL AND ROCK DESCRIPTION | Depth (ft) | Sample No. | SPT Values (blows/6 in) | Cu (tsf) | Moisture Content (%) | Profile Elevation (ft) | SOIL AND ROCK DESCRIPTION | Depth (ft) | Sample No. | SPT Values (blows/6 in) | Cu (tsf) | Moisture Content (%) |
|------------------------|--|------------|------------|-------------------------|----------|----------------------|------------------------|---------------------------|------------|------------|-------------------------|----------|----------------------|
| | Boring terminated at 75.00 ft | | | | | | | | | | | | |
| 745.4 | Very dense, brown SILTY LOAM | 17 | 30 | 16 | 18 | NP | | | 17 | 30 | 16 | 18 | NP |
| 735.4 | Very stiff, gray CLAY to SILTY CLAY, with thin silt lenses | 18 | 23 | 28 | 38 | NP | | | 18 | 23 | 28 | 38 | NP |
| 730.4 | Dense, brown and gray, fine SAND | 19 | 33 | 40 | 61 | NP | | | 19 | 33 | 40 | 61 | NP |
| 727.2 | | 20 | 11 | 16 | 31 | 2.50 | | | 20 | 11 | 16 | 31 | 2.50 |
| | | 21 | 22 | 22 | 27 | NP | | | 21 | 22 | 22 | 27 | NP |

| | | | |
|----------------------|----------------------|---------------------------|------------|
| GENERAL NOTES | | WATER LEVEL DATA | |
| Begin Drilling | 11-30-2007 | Complete Drilling | 11-30-2007 |
| Drilling Contractor | DLZ | Drill Rig | D-120 |
| Driller | J & A | Logger | K. Jacob |
| Checked by | E. Datz | Time After Drilling | NA |
| Drilling Method | Mud rotary after 15' | Depth to Water | NA |
| | | While Drilling | |
| | | At Completion of Drilling | |
| | | Time After Drilling | |
| | | Depth to Water | |

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

| | |
|----------|-----|
| DESIGNED | CJB |
| CHECKED | PWO |
| DRAWN | DRP |
| CHECKED | PJM |



V3 Companies of Illinois Ltd.
7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
630.724.9202 fax
www.v3co.com

BORING LOGS
ILL. ROUTE 23 OVER
KISHWAUKEE RIVER
F.A.P. RT. 324
McHENRY COUNTY
STATION 69+02.50
STRUCTURE NO. 056-0001

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|-----------------------|---------|----------|-------------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| F.A.P. 324 | 23B-1 | McHENRY | 97 | 62 |
| FED. ROAD DIST. NO. 1 | | ILLINOIS | FED. AID PROJECT- | |

Contract # 62892

BORING LOG BK-02 Page 1 of 2

Wang Engineering, Inc.
Consulting Geotechnical and Environmental Engineers
wangeng@wangeng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 487-01-01

Datum: NGVD
Elevation: 798.43 ft
North: 2039487.03 ft
East: 909784.87 ft
Station: 68+59
Offset: 34 RT

Client: **V3 Companies**
Project: **U.S. Rte 23 over Kishwaukee River**
Location: **Marengo, IL**

| Profile Elevation (ft) | SOIL AND ROCK DESCRIPTION | Depth (ft) | Sample Type | Sample No. | SPT Values (blows/6 in) | Cu (tsf) | Moisture Content (%) | Profile Elevation (ft) | SOIL AND ROCK DESCRIPTION | Depth (ft) | Sample Type | Sample No. | SPT Values (blows/6 in) | Cu (tsf) | Moisture Content (%) |
|------------------------|--|------------|-------------|------------|-------------------------|----------|----------------------|------------------------|---------------------------|------------|-------------|------------|-------------------------|----------|----------------------|
| 797.96 | 96-inch thick, black CLAY LOAM --TOPSOIL-- | | | | | | | | | | | | | | |
| | Very soft, black SANDY CLAY LOAM, with organics | 1 | X | 1 | 100 | 0.25 | 115 | | | 11 | X | 11 | 87 | NP | 11 |
| 796.4 | Very loose, black, fine SANDY LOAM, with organics | 5 | X | 2 | 100 | NP | 141 | | | 30 | X | 12 | 58 | NP | 3 |
| | | 10 | X | 3 | 101 | NP | 40 | | | 35 | X | 13 | 39 | NP | 3 |
| | | 15 | X | 4 | 242 | NP | 9 | | | 40 | X | 14 | 35 | NP | 1 |
| 787.9 | Loose to medium dense, gray, medium to coarse SAND GRAVEL=14.9% SAND=83.0% SILT+CLAY=2.1% | 20 | X | 5 | 647 | NP | 16 | | | 45 | X | 15 | 67 | NP | 5 |
| | | 25 | X | 6 | 236 | NP | 23 | | | 50 | X | 16 | 23 | NP | 7 |
| | | | X | 7 | 556 | NP | 19 | | | | | | | | |
| | | | X | 8 | 460 | NP | 16 | | | | | | | | |
| | | | X | 9 | 581 | NP | 20 | | | | | | | | |
| 775.4 | Medium dense, gray GRAVELLY SAND to GRAVEL | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |

| GENERAL NOTES | | | | WATER LEVEL DATA | | | |
|---------------------|----------------------|-------------------|------------|---|----|---------------------------|----|
| Begin Drilling | 11-21-2007 | Complete Drilling | 11-26-2007 | While Drilling | NA | At Completion of Drilling | NA |
| Drilling Contractor | DLZ | Drill Rig | D-120 | Time After Drilling | NA | Depth to Water | NA |
| Driller | J & A | Logger | Y. Shiu | Checked by E. Datz | | | |
| Drilling Method | Mud rotary after 20' | | | The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual. | | | |

BORING LOG BK-02 Page 2 of 2

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Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 487-01-01

Datum: NGVD
Elevation: 798.43 ft
North: 2039487.03 ft
East: 909784.87 ft
Station: 68+59
Offset: 34 RT

Client: **V3 Companies**
Project: **U.S. Rte 23 over Kishwaukee River**
Location: **Marengo, IL**

| Profile Elevation (ft) | SOIL AND ROCK DESCRIPTION | Depth (ft) | Sample Type | Sample No. | SPT Values (blows/6 in) | Cu (tsf) | Moisture Content (%) | Profile Elevation (ft) | SOIL AND ROCK DESCRIPTION | Depth (ft) | Sample Type | Sample No. | SPT Values (blows/6 in) | Cu (tsf) | Moisture Content (%) |
|------------------------|-------------------------------|------------|-------------|------------|-------------------------|----------|----------------------|------------------------|---------------------------|------------|-------------|------------|-------------------------|----------|----------------------|
| 746.7 | Dense, brown, fine SAND | | | | | | | | | | | | | | |
| 743.4 | Boring terminated at 55.00 ft | 55 | X | 17 | 1123 | NP | 10 | | | | | | | | |

| GENERAL NOTES | | | | WATER LEVEL DATA | | | |
|---------------------|----------------------|-------------------|------------|---|----|---------------------------|----|
| Begin Drilling | 11-21-2007 | Complete Drilling | 11-26-2007 | While Drilling | NA | At Completion of Drilling | NA |
| Drilling Contractor | DLZ | Drill Rig | D-120 | Time After Drilling | NA | Depth to Water | NA |
| Driller | J & A | Logger | Y. Shiu | Checked by E. Datz | | | |
| Drilling Method | Mud rotary after 20' | | | The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual. | | | |

| | |
|----------|-----|
| DESIGNED | CJB |
| CHECKED | PWO |
| DRAWN | DRP |
| CHECKED | PJM |



V3 Companies of Illinois Ltd.
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Woodridge, IL 60517
630.724.9200 phone
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ILL. ROUTE 23 OVER
KISHWAUKEE RIVER
F.A.P. RT. 324
McHENRY COUNTY
STATION 69+02.50
STRUCTURE NO. 056-0001

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|-----------------------|---------|----------|------------------|--------------|
| ROUTE NO. | SECTION | COUNTY | SHEET NO. | SHEET NO. 23 |
| F.A.P. 324 | 23B-1 | McHENRY | 97 | 63 |
| FED. ROAD DIST. NO. 1 | | ILLINOIS | FED. AID PROJECT | |

Contract # 62892

Wang Engineering, Inc.
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BORING LOG BK-03 Page 1 of 2
WEI Job No.: 487-01-01
Datum: NGVD
Elevation: 801.80 ft
North: 2039373.68 ft
East: 909787.98 ft
Station: 67+45
Offset: 17 RT

Client: **V3 Companies**
Project: **U.S. Rte 23 over Kishwaukee River**
Location: **Marengo, IL**

| Profile Elevation (ft) | SOIL AND ROCK DESCRIPTION | Depth (ft) | Sample Type | Sample No. | SPT Values (blows/6 in) | Qu (tsf) | Moisture Content (%) | Profile Elevation (ft) | SOIL AND ROCK DESCRIPTION | Depth (ft) | Sample Type | Sample No. | SPT Values (blows/6 in) | Qu (tsf) | Moisture Content (%) |
|------------------------|--|------------|-------------|------------|-------------------------|----------|----------------------|------------------------|---------------------------|------------|-------------|------------|-------------------------|----------|----------------------|
| 800.8 | 12-inch thick ASPHALT --SHOULDER PAVEMENT-- | | | | | | | | | | | | | | |
| | Stiff, dark brown CLAY LOAM --FILL-- | 1 | X | 1 | 9 10 11 | 1.00 | 28 | | | 11 | X | 11 | 9 10 11 | NP | 13 |
| 795.8 | Very loose, brown SANDY LOAM --FILL-- | 5 | X | 2 | 2 1 3 | NP | 18 | | | 30 | X | 12 | 10 13 14 | NP | 11 |
| | | 10 | X | 3 | 0 1 0 | NP | 12 | | | 35 | X | 13 | 7 9 8 | NP | 11 |
| 783.8 | Very loose, brown SAND | 15 | X | 4 | 1 0 0 | NP | 17 | | | 40 | X | 14 | 7 9 12 | NP | 15 |
| | | 20 | X | 5 | 1 0 1 | NP | 25 | | | 45 | X | 15 | 8 10 13 | NP | 12 |
| | | 25 | X | 6 | 1 0 0 | NP | | | | 50 | X | 16 | 7 8 11 | NP | 10 |
| | | | X | 7 | 1 0 0 | NP | | | | | X | 17 | 9 11 13 | NP | |
| 783.8 | Medium dense, brown, fine to coarse SAND, trace gravel | 20 | X | 8 | 4 4 7 | NP | 16 | | | | X | 18 | 8 12 12 | NP | |
| | | 25 | X | 9 | 8 12 10 | NP | 15 | | | | X | 19 | 11 14 16 | NP | |
| | | | X | 10 | 7 8 8 | NP | 10 | | | | X | 20 | 6 11 15 | NP | |

| GENERAL NOTES | | | | WATER LEVEL DATA | | | |
|---------------------|------------|-------------------|------------|---------------------------|----|---------|--|
| Begin Drilling | 05-09-1996 | Complete Drilling | 05-09-1996 | While Drilling | ▽ | 8.00 ft | |
| Drilling Contractor | TSC | Drill Rig | #173 | At Completion of Drilling | ▽ | NA | |
| Driller | NA | Logger | NA | Time After Drilling | NA | | |
| Drilling Method | Mud rotary | Checked by | NA | Depth to Water | ▽ | NA | |

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

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Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG BK-03 Page 2 of 2
WEI Job No.: 487-01-01
Datum: NGVD
Elevation: 801.80 ft
North: 2039373.68 ft
East: 909787.98 ft
Station: 67+45
Offset: 17 RT

Client: **V3 Companies**
Project: **U.S. Rte 23 over Kishwaukee River**
Location: **Marengo, IL**

| Profile Elevation (ft) | SOIL AND ROCK DESCRIPTION | Depth (ft) | Sample Type | Sample No. | SPT Values (blows/6 in) | Qu (tsf) | Moisture Content (%) | Profile Elevation (ft) | SOIL AND ROCK DESCRIPTION | Depth (ft) | Sample Type | Sample No. | SPT Values (blows/6 in) | Qu (tsf) | Moisture Content (%) |
|------------------------|---|------------|-------------|------------|-------------------------|----------|----------------------|------------------------|---------------------------|------------|-------------|------------|-------------------------|----------|----------------------|
| 749.8 | Dense to very dense, gray SANDY LOAM and GRAVEL | 55 | X | 21 | 18 26 30 | NP | | | | 60 | X | 22 | 37 50/2* | NP | |
| 741.8 | Boring terminated at 60.00 ft | | | | | | | | | 65 | | | | | |
| | | 70 | | | | | | | | 75 | | | | | |

| GENERAL NOTES | | | | WATER LEVEL DATA | | | |
|---------------------|------------|-------------------|------------|---------------------------|----|---------|--|
| Begin Drilling | 05-09-1996 | Complete Drilling | 05-09-1996 | While Drilling | ▽ | 8.00 ft | |
| Drilling Contractor | TSC | Drill Rig | #173 | At Completion of Drilling | ▽ | NA | |
| Driller | NA | Logger | NA | Time After Drilling | NA | | |
| Drilling Method | Mud rotary | Checked by | NA | Depth to Water | ▽ | NA | |

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

DESIGNED CJB
CHECKED PWO
DRAWN DRP
CHECKED PJM



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BORING LOGS
ILL. ROUTE 23 OVER
KISHWAUKEE RIVER
F.A.P. RT. 324
McHENRY COUNTY
STATION 69+02.50
STRUCTURE NO. 056-0001

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|-----------------------|----------|-------------------|--------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| F.A.P. 324 | 23B-1 | McHENRY | 97 | 64 |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT- | | |

Contract # 62892

SHEET NO. 24
25 SHEETS

W Wang Engineering, Inc.
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Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG BK-04
WEI Job No.: 487-01-01
Datum: NGVD
Elevation: 797.38 ft
North: 2039554.84 ft
East: 909742.51 ft
Station: 68+86
Offset: 61 LT

Client: V3 Companies
Project: U.S. Rte 23 over Kishwaukee River
Location: Marengo, IL

Page 1 of 2

| Profile Elevation (ft) | SOIL AND ROCK DESCRIPTION | Depth (ft) | Sample Type recovery | Sample No. | SPT Values (blows/ft) | Qu (tsf) | Moisture Content (%) | Profile Elevation (ft) | SOIL AND ROCK DESCRIPTION | Depth (ft) | Sample Type recovery | Sample No. | SPT Values (blows/ft) | Qu (tsf) | Moisture Content (%) |
|------------------------|--|------------|----------------------|------------|-----------------------|----------|----------------------|------------------------|--|------------|----------------------|------------|-----------------------|----------|----------------------|
| 796.4 | 12-inch thick, black SILTY CLAY with organic material --TOPSOIL-- | 1 | X | 1 | 2 | 2.71 | 60 | 771.9 | Medium dense, gray medium to coarse SAND | 11 | X | 9 | 6 | NP | 14 |
| 794.4 | Very loose, brown, fine SANDY LOAM | 2 | X | 2 | 4 | NP | 13 | | 12 | X | 4 | 5 | NP | 11 | |
| | Loose, gray, coarse SAND to GRAVELLY SAND | 3 | X | 3 | 9 | NP | 35 | | 13 | X | 5 | 6 | NP | 5 | |
| | | 4 | X | 4 | 4 | NP | 13 | | 14 | X | 8 | 7 | NP | 2 | |
| 789.4 | Medium dense, gray, medium SAND GRAVEL=5.7% SAND=93.3% SILT+CLAY=1.0% | 5 | X | 5 | 3 | NP | 19 | 769.6 | Medium dense, gray, gravelly sand | 15 | X | 5 | 7 | NP | 14 |
| | | 6 | X | 6 | 1 | NP | 12 | | 16 | X | 4 | 7 | NP | 15 | |
| | | 7 | X | 7 | 5 | NP | 14 | | 17 | X | 5 | 9 | NP | 17 | |
| | | 8 | X | 8 | 8 | NP | 12 | 750.8 | Very dense, gray GRAVEL and GRAVELLY SILT and BOULDERS | 18 | X | 4 | 7 | NP | 10 |
| | | 9 | X | 9 | 5 | NP | 17 | | 19 | X | 5 | 9 | NP | 17 | |
| 774.4 | Medium dense, gray SANDY GRAVEL | 10 | X | 10 | 3 | NP | 15 | | 20 | X | 8 | 7 | NP | 15 | |
| | | 11 | X | 11 | 5 | NP | 15 | | 21 | X | 5 | 13 | NP | 10 | |

| GENERAL NOTES | | | | WATER LEVEL DATA | | | |
|---------------------|----------------------|-------------------|------------|---------------------------|---------|--|--|
| Begin Drilling | 11-16-2007 | Complete Drilling | 11-20-2007 | While Drilling | 3.00 ft | | |
| Drilling Contractor | DLZ | Drill Rig | D-120 | At Completion of Drilling | NA | | |
| Driller | J & A | Logger | K. Jacob | Checked by | E. Datz | | |
| Drilling Method | Mud rotary after 20' | | | Time After Drilling | NA | | |
| | | | | Depth to Water | NA | | |

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

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Consulting Geotechnical and Environmental Engineers
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1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG BK-04
WEI Job No.: 487-01-01
Datum: NGVD
Elevation: 797.38 ft
North: 2039554.84 ft
East: 909742.51 ft
Station: 68+86
Offset: 61 LT

Client: V3 Companies
Project: U.S. Rte 23 over Kishwaukee River
Location: Marengo, IL

Page 2 of 2

| Profile Elevation (ft) | SOIL AND ROCK DESCRIPTION | Depth (ft) | Sample Type recovery | Sample No. | SPT Values (blows/ft) | Qu (tsf) | Moisture Content (%) | Profile Elevation (ft) | SOIL AND ROCK DESCRIPTION | Depth (ft) | Sample Type recovery | Sample No. | SPT Values (blows/ft) | Qu (tsf) | Moisture Content (%) |
|------------------------|-------------------------------|------------|----------------------|------------|-----------------------|----------|----------------------|------------------------|---------------------------|------------|----------------------|------------|-----------------------|----------|----------------------|
| | | 17 | X | 17 | 77 | NR | 9 | | | | | | | | |
| | | 18 | X | 18 | 60/52 | NP | 10 | | | | | | | | |
| | Boring terminated at 58.80 ft | | | | | | | | | | | | | | |

| GENERAL NOTES | | | | WATER LEVEL DATA | | | |
|---------------------|----------------------|-------------------|------------|---------------------------|---------|--|--|
| Begin Drilling | 11-16-2007 | Complete Drilling | 11-20-2007 | While Drilling | 3.00 ft | | |
| Drilling Contractor | DLZ | Drill Rig | D-120 | At Completion of Drilling | NA | | |
| Driller | J & A | Logger | K. Jacob | Checked by | E. Datz | | |
| Drilling Method | Mud rotary after 20' | | | Time After Drilling | NA | | |
| | | | | Depth to Water | NA | | |

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

| | |
|----------|-----|
| DESIGNED | CJB |
| CHECKED | PWO |
| DRAWN | DRP |
| CHECKED | PJM |



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7325 Janes Avenue
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BORING LOGS
ILL. ROUTE 23 OVER
KISHWAUKEE RIVER
F.A.P. RT. 324
McHENRY COUNTY
STATION 69+02.50
STRUCTURE NO. 056-0001

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|----------------------------|------------------|-------------------|------------------|-----------------|---------------------------|
| ROUTE NO. F.A.P. 324 | SECTION 23B-1 | COUNTY McHENRY | DATE 97 | SHEET NO. 65 | SHEET NO. 25 25 SHEETS |
| FED. ROAD DIST. NO. 1 | | ILLINOIS | FED. AID PROJECT | | |

Contract # 62892

Wang Engineering, Inc.
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Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG BK-05 Page 1 of 2

WEI Job No.: 487-01-01

Datum: NGVD
Elevation: 802.16 ft
North: 2039612.77 ft
East: 909789.01 ft
Station: 70+12
Offset: 18.5 LT

Client: **V3 Companies**
Project: **U.S. Rte 23 over Kishwaukee River**
Location: **Marengo, IL**

| Profile Elevation (ft) | SOIL AND ROCK DESCRIPTION | Depth (ft) | Sample Type | Sample No. | SPT Values (blows/6 in) | Qu (tsf) | Moisture Content (%) | Profile Elevation (ft) | SOIL AND ROCK DESCRIPTION | Depth (ft) | Sample Type | Sample No. | SPT Values (blows/6 in) | Qu (tsf) | Moisture Content (%) |
|------------------------|--|------------|-------------|------------|-------------------------|----------|----------------------|------------------------|--|------------|-------------|------------|-------------------------|----------|----------------------|
| 801.5 | 8-inch thick, ASPHALT --PAVEMENT-- | | | | | | | | | | | | | | |
| | Very stiff, gray CLAY to SILTY CLAY | 1 | X | 4 | 4 | 2.71 | 17 | | | 11 | X | 5 | 8 | NP | 16 |
| 799.2 | --FILL-- | | | | | | | | | | | | | | |
| | Loose, dark brown, fine SAND | 2 | X | 3 | 3 | NP | 11 | | | 12 | X | 5 | 6 | NP | 18 |
| | --FILL-- | | | | | | | | | | | | | | |
| 795.7 | Loose, dark brown and black SANDY LOAM | 3 | X | 2 | 2 | NP | 29 | | | | | | | | |
| | --BURIED TOPSOIL-- | | | | | | | | | | | | | | |
| 792.8 | Loose, brown, medium SAND | 4 | X | 1 | 1 | NP | 42 | | | 13 | X | 9 | 8 | NP | 9 |
| | --FILL-- | | | | | | | | | | | | | | |
| | | 5 | X | 3 | 3 | NP | 34 | 785.4 | Loose, brown SANDY GRAVEL | | | | | | |
| | | 6 | X | 4 | 4 | NP | 15 | | | 14 | X | 5 | 4 | NP | 13 |
| | | 7 | X | 2 | 2 | NP | 19 | 760.4 | Medium dense to dense, brown and gray SANDY GRAVEL | | | | | | |
| 784.2 | Medium dense, brown, medium SAND | 8 | X | 5 | 5 | NP | 23 | | | 15 | X | 5 | 6 | NP | 8 |
| | | 9 | X | 4 | 4 | NP | 17 | | | | | | | | |
| | | 10 | X | 6 | 6 | NP | 23 | | | 16 | X | 7 | 7 | NP | 10 |

| GENERAL NOTES | | | | WATER LEVEL DATA | | | |
|---------------------|----------------------|---|------------|---------------------------|----|----------|--|
| Begin Drilling | 11-16-2007 | Complete Drilling | 11-17-2007 | While Drilling | ▽ | 11.00 ft | |
| Drilling Contractor | DLZ | Drill Rig | D-120 | At Completion of Drilling | ▽ | NA | |
| Driller | J & A | Logger | K. Jacob | Time After Drilling | NA | | |
| Checked by | E. Datz | Depth to Water | ▽ | NA | | | |
| Drilling Method | Mud rotary after 20' | The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual. | | | | | |

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1145 Main Street
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Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG BK-05 Page 2 of 2

WEI Job No.: 487-01-01

Datum: NGVD
Elevation: 802.16 ft
North: 2039612.77 ft
East: 909789.01 ft
Station: 70+12
Offset: 18.5 LT

Client: **V3 Companies**
Project: **U.S. Rte 23 over Kishwaukee River**
Location: **Marengo, IL**

| Profile Elevation (ft) | SOIL AND ROCK DESCRIPTION | Depth (ft) | Sample Type | Sample No. | SPT Values (blows/6 in) | Qu (tsf) | Moisture Content (%) | Profile Elevation (ft) | SOIL AND ROCK DESCRIPTION | Depth (ft) | Sample Type | Sample No. | SPT Values (blows/6 in) | Qu (tsf) | Moisture Content (%) |
|------------------------|-------------------------------|------------|-------------|------------|-------------------------|----------|----------------------|------------------------|---------------------------|------------|-------------|------------|-------------------------|----------|----------------------|
| | | | | | | | | | | | | | | | |
| | | 17 | X | 17 | 17 | NP | 8 | | | | | | | | |
| | | 18 | X | 16 | 16 | NP | 6 | | | 18 | X | 17 | 21 | NP | 18 |
| | | 19 | X | 17 | 17 | NP | 18 | | | | | | | | |
| 740.4 | Very dense, brown, fine SAND | | | | | | | | | | | | | | |
| 737.2 | Boring terminated at 65.00 ft | | | | | | | | | | | | | | |

| GENERAL NOTES | | | | WATER LEVEL DATA | | | |
|---------------------|----------------------|---|------------|---------------------------|----|----------|--|
| Begin Drilling | 11-16-2007 | Complete Drilling | 11-17-2007 | While Drilling | ▽ | 11.00 ft | |
| Drilling Contractor | DLZ | Drill Rig | D-120 | At Completion of Drilling | ▽ | NA | |
| Driller | J & A | Logger | K. Jacob | Time After Drilling | NA | | |
| Checked by | E. Datz | Depth to Water | ▽ | NA | | | |
| Drilling Method | Mud rotary after 20' | The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual. | | | | | |

| | |
|----------|-----|
| DESIGNED | CJB |
| CHECKED | PWO |
| DRAWN | DRP |
| CHECKED | PJM |



V3 Companies of Illinois Ltd.
7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
630.724.9202 fax
www.v3co.com

BORING LOGS
ILL. ROUTE 23 OVER
KISHWAUKEE RIVER
F.A.P. RT. 324
McHENRY COUNTY
STATION 69+02.50
STRUCTURE NO. 056-0001

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | "SET" NO. | SHEET NO. |
|------------|---------|---------|--------------|-----------|-----------|
| F.A.P. 324 | 23B-1 | MCHENRY | 97 | 66 | 5 |

Contract # 62892

INDEX OF SHEETS

- 1 GENERAL PLAN, GENERAL NOTES AND TOTAL BILL OF MATERIAL
- 2 SLAB REINFORCEMENT PLAN
- 3 SECTIONS
- 4 BORING LOGS
- 5 BORING LOGS

GENERAL NOTES

1. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.
2. Layout of slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

TOTAL BILL OF MATERIAL

| Item | Unit | Total |
|-------------------------------------|---------|--------|
| Removal of Existing Superstructures | Each | 1 |
| Concrete Box Culverts | Cu. Yd. | 314 |
| Name Plates | Each | 1 |
| Filter Fabric | Sq. Yd. | 187 |
| Stone Riprap, Class A4 | Sq. Yd. | 131 |
| Reinforcement Bars | Pound | 76,140 |
| Asbestos Bearing Pad Removal | Each | 2 |
| Porous Granular Embankment | Cu. Yd. | 719 |

** Based on IDOT's PPC Deck Beam Replacement Plans, C-91-166-04.

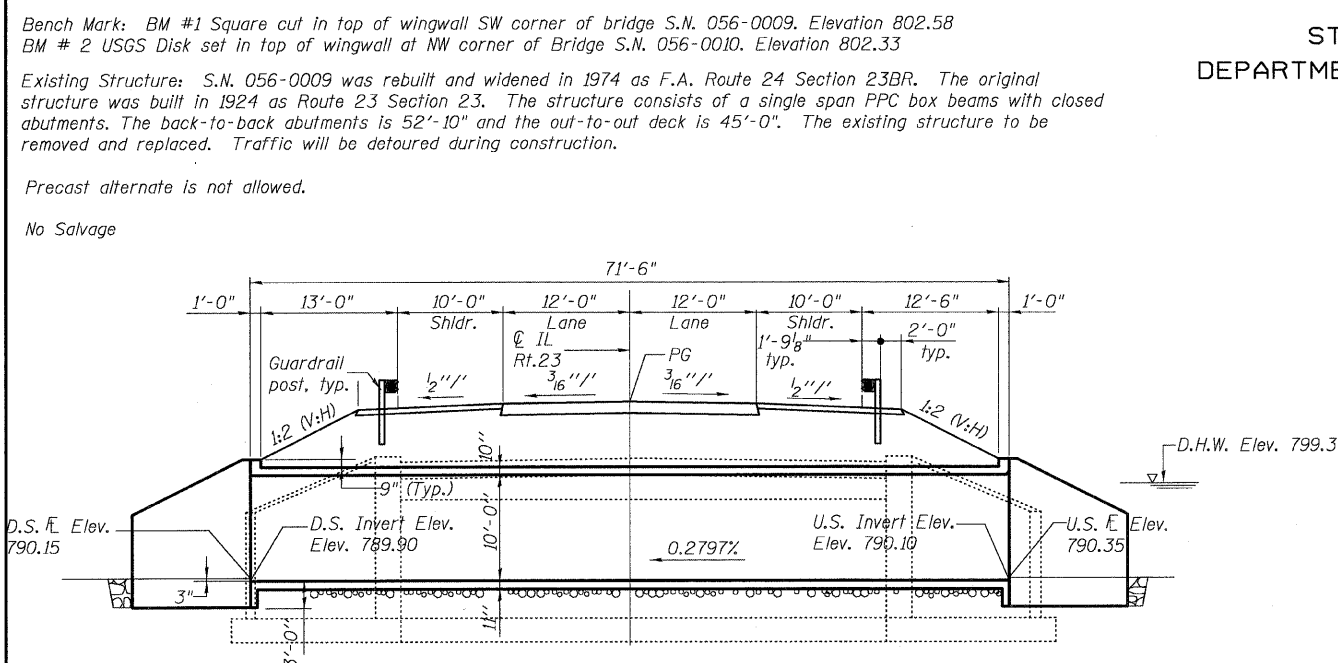
WATERWAY INFORMATION

| Flood Freq. Yr. | Structure | Q C.F.S. | | Opening SqFt. | | Nat. H.W.E. | Head - Ft. | | Headwater El. | |
|-----------------|--------------|----------|-------|---------------|--------|-------------|------------|-------|---------------|--------|
| | | Exist. | Prop. | Exist. | Prop. | | Exist. | Prop. | Exist. | Prop. |
| 10 | Main Channel | 3441 | 2559 | 767.0 | 1057.0 | | | | | |
| | Overflow 1 | 1874 | 2133 | 389.2 | 304.9 | | | | | |
| | Overflow 2 | n/a | 623 | n/a | 95.5 | | | | | |
| | Total | 5315 | 5315 | 1156.2 | 1457.4 | 798.61 | 1.13 | 0.70 | 799.74 | 799.31 |
| 50 | Main Channel | 4951 | 4328 | 875.0 | 1228.3 | | | | | |
| | Overflow 1 | 2679 | 2453 | 429.9 | 330.8 | | | | | |
| | Overflow 2 | 17* | 866 | n/a | 130.1 | | | | | |
| | Total | 7647 | 7647 | 1304.9 | 1689.2 | 799.33 | 1.39 | 0.77 | 800.72 | 800.10 |
| 100 | Main Channel | 5858 | 5015 | 914.0 | 1287.4 | | | | | |
| | Overflow 1 | 2546 | 2582 | 442.6 | 340.2 | | | | | |
| | Overflow 2 | 177* | 983 | n/a | 142.6 | | | | | |
| | Total | 8581 | 8581 | 1356.6 | 1770.2 | 799.59 | 1.71 | 0.80 | 801.32 | 800.39 |
| Max. Calc. 500 | Main Channel | 6944 | 6824 | 995.0 | 1402.5 | | | | | |
| | Overflow 1 | 3076 | 2676 | 469.1 | 359.6 | | | | | |
| | Overflow 2 | 699* | 1219 | n/a | 168.5 | | | | | |
| | Total | 10719 | 10719 | 1464.1 | 1930.7 | 800.13 | 2.03 | 0.87 | 802.16 | 801.00 |

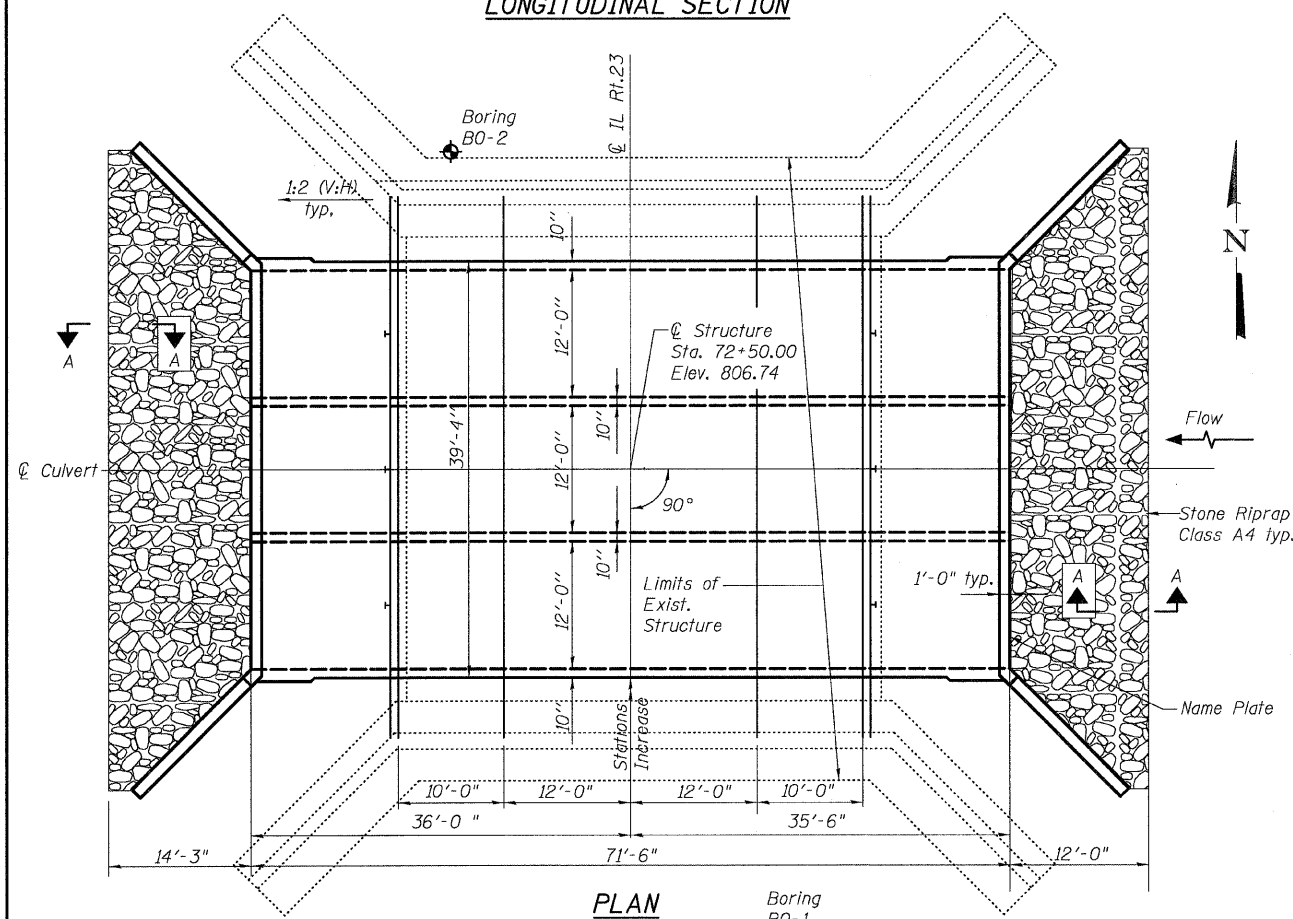
10 year velocity through existing bridge (main channel) = 3.76 fps
10 year velocity through proposed bridge (main channel) = 2.12 fps

Notes:

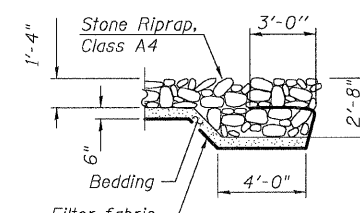
1. * Indicates flow over the road in existing condition.
2. A 2 foot berm/wall will be built at the upstream side of Overflow 2 structure, to maintain existing drainage patterns.
3. Overflow 1 is the 3-cell box culvert in the overflow channel, Overflow 2 is the 4-cell box culvert north of Overflow 1.



LONGITUDINAL SECTION



PLAN



SECTION A-A

STATION 72+50
BUILT 200 BY
STATE OF ILLINOIS
F.A.P. RT. 324 SEC. 23B-1
LOADING HS20
STR. NO. 056-0083

LETTERING FOR NAME PLATE

See Plan View & Std. 515001 for Name Plate location

LOADING HS20-44

Allow 50#/sq. ft. for future wearing surface.

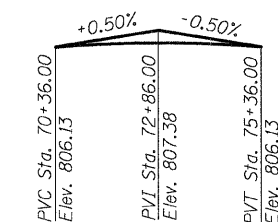
DESIGN SPECIFICATIONS

2002 AASHTO

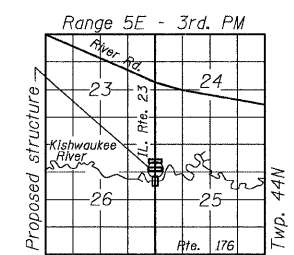
DESIGN STRESSES

FIELD UNITS

f_c = 3,500 psi
f_y = 60,000 psi (reinforcement)



PROFILE GRADE
(along C/L 23)



LOCATION SKETCH

GENERAL PLAN, GENERAL NOTES
AND TOTAL BILL OF MATERIAL,
ILL. ROUTE 23 OVER
KISHWAUKEE RIVER
OVERFLOW NO. 1
F.A.P. RT. 324
MCHENRY COUNTY
STATION 72+50.00
STRUCTURE NO. 056-0083

| | |
|----------|-----|
| DESIGNED | CJB |
| CHECKED | PWO |
| DRAWN | DRP |
| CHECKED | PJM |

DESIGN SCOUR ELEVATION TABLE

| Design Scour Elevation (ft.) | D.S. Invert | U.S. Invert |
|------------------------------|-------------|-------------|
| | 786.90 | 787.10 |

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

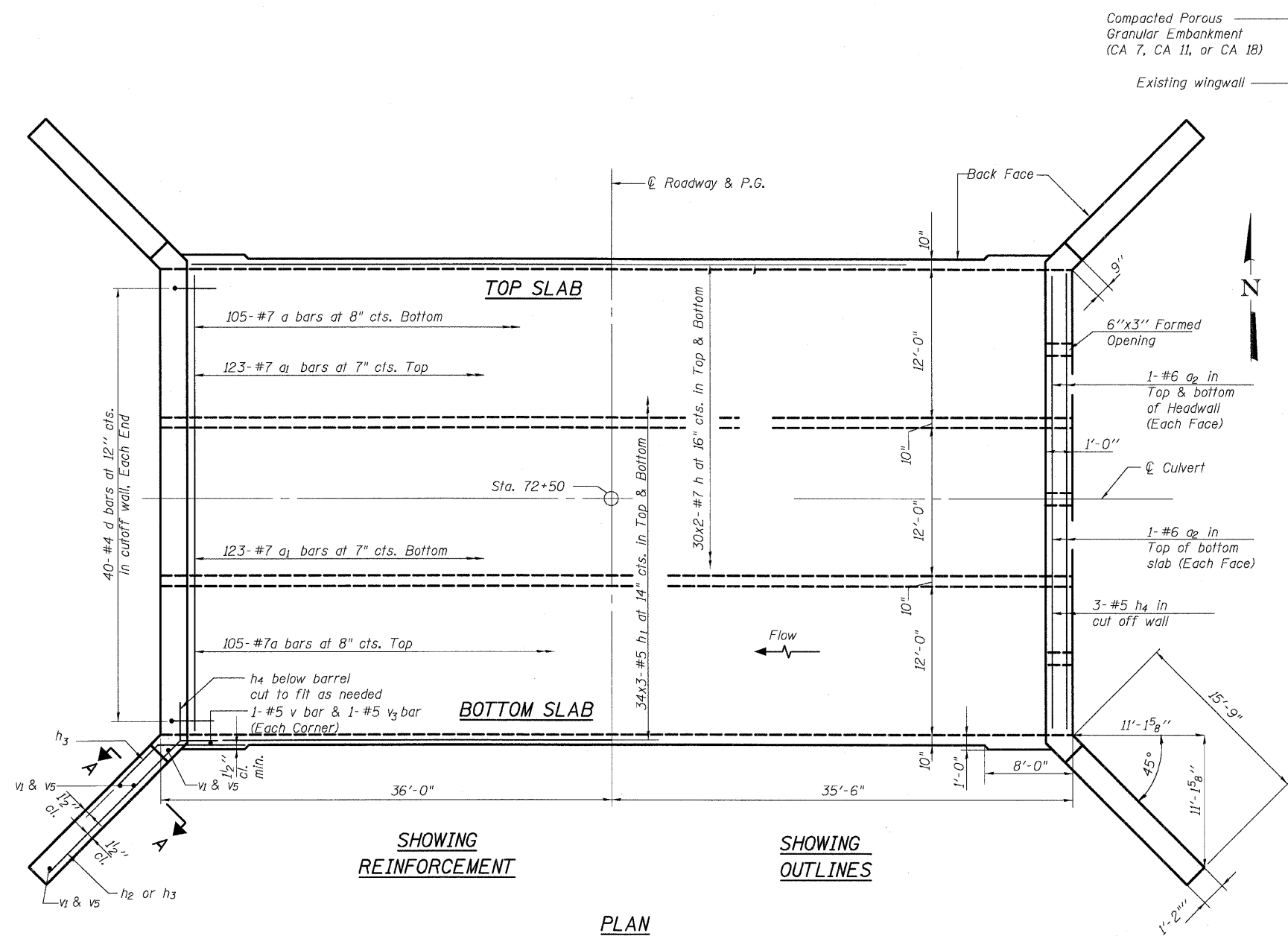


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630.724.9202 fax
www.v3co.com

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|-----------------------|----------|------------------|--------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| F.A.P. 324 | 23B-1 | McHENRY | 97 | 67 |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT | | |

Contract # 62892



SHOWING REINFORCEMENT

SHOWING OUTLINES

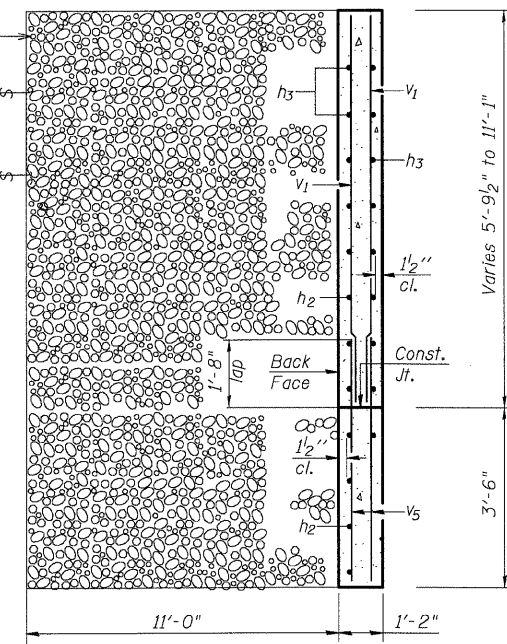
PLAN

Notes:

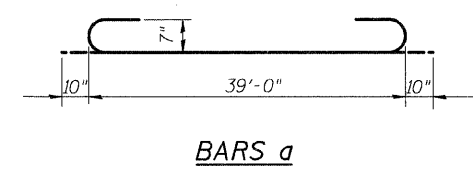
1. Bars indicated thus 34x3-#5 etc. indicates 34 lines of bars with 3 lengths per line.
2. A distance of half the length of the wingwall but not less than six feet of the barrel shall be poured monolithically with the wingwalls.

Bar Laps Barrels:
Min. #5 bar = 1'-8"
Min. #7 bar = 2'-9"

| | |
|----------|-----|
| DESIGNED | CJB |
| CHECKED | PWO |
| DRAWN | DRP |
| CHECKED | PJM |



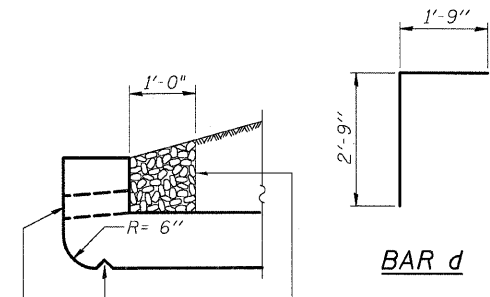
SECTION A-A



BARS a

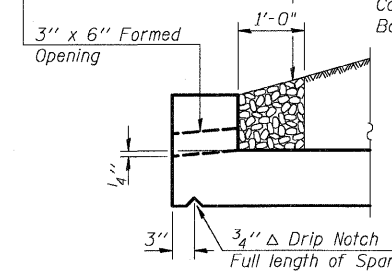
BILL OF MATERIAL

| Bar | No. | Size | Length | Shape |
|-----------------------|-----|------|---------|--------|
| a | 210 | #7 | 40'-8" | U |
| a1 | 246 | #7 | 39'-0" | — |
| a2 | 12 | #6 | 39'-0" | — |
| d | 80 | #4 | 4'-6" | L |
| h | 164 | #7 | 37'-0" | — |
| h1 | 270 | #5 | 24'-10" | — |
| h2 | 72 | #9 | 18'-6" | — |
| h3 | 92 | #9 | 8'-0" | — |
| h4 | 6 | #5 | 39'-0" | — |
| v | 220 | #5 | 10'-2" | — |
| v1 | 16 | #4 | 11'-0" | — |
| v2 | 286 | #7 | 10'-2" | — |
| v3 | 220 | #5 | 2'-11" | — |
| v4 | 286 | #7 | 4'-0" | — |
| v5 | 16 | #4 | 5'-0" | — |
| Concrete Box Culverts | | | Cu. Yd. | 314 |
| Reinforcement Bars | | | Pound | 76,140 |



BAR d

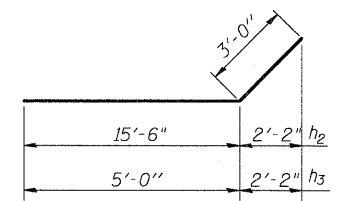
AT UPSTREAM END



AT DOWNSTREAM END

DRAIN DETAIL

Coarse aggregate full length of both headwalls. To be placed by Grading Contractor. Cost included with Concrete Box Culverts.



BARS h2 & h3

SLAB REINFORCEMENT PLAN
ILL. ROUTE 23 OVER
KISHWAUKEE RIVER
OVERFLOW NO. 1
F.A.P. RT. 324
McHENRY COUNTY
STATION 72+50.00
STRUCTURE NO. 056-0083



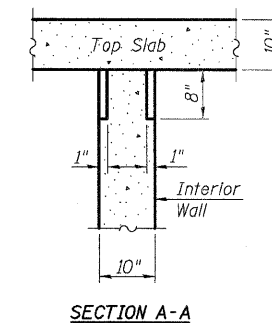
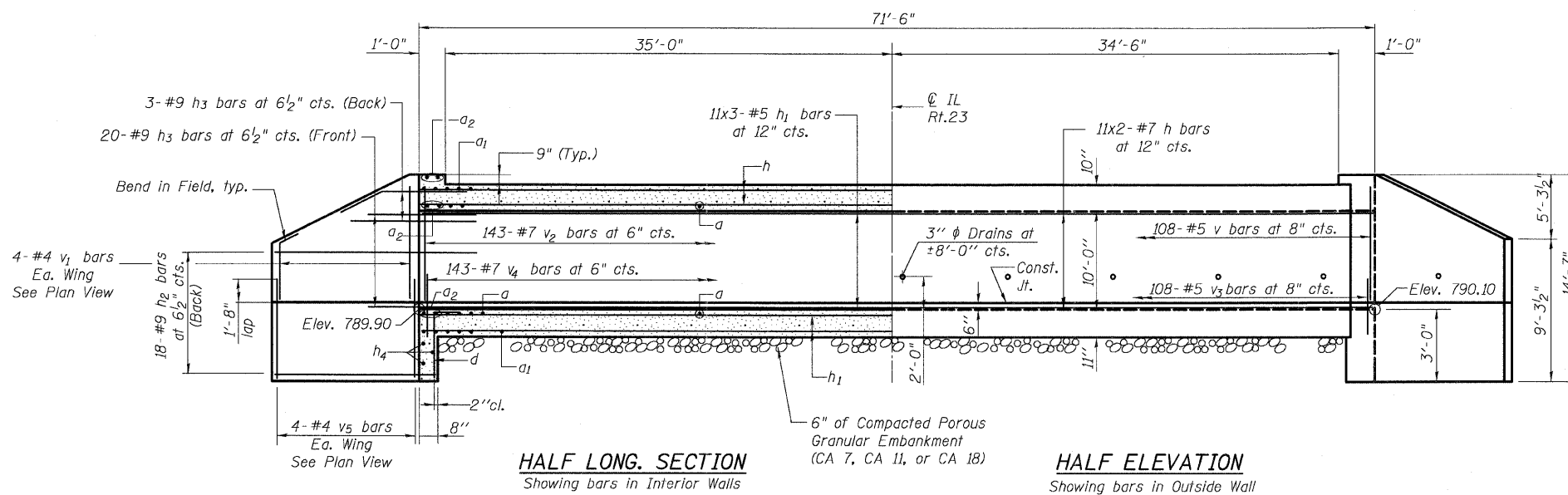
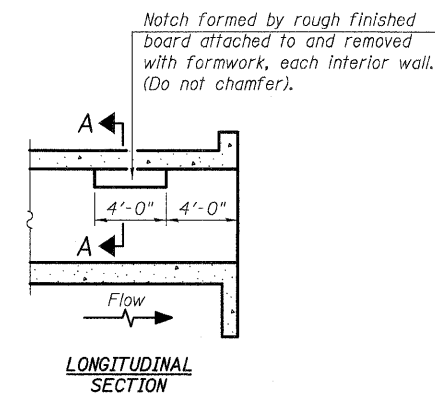
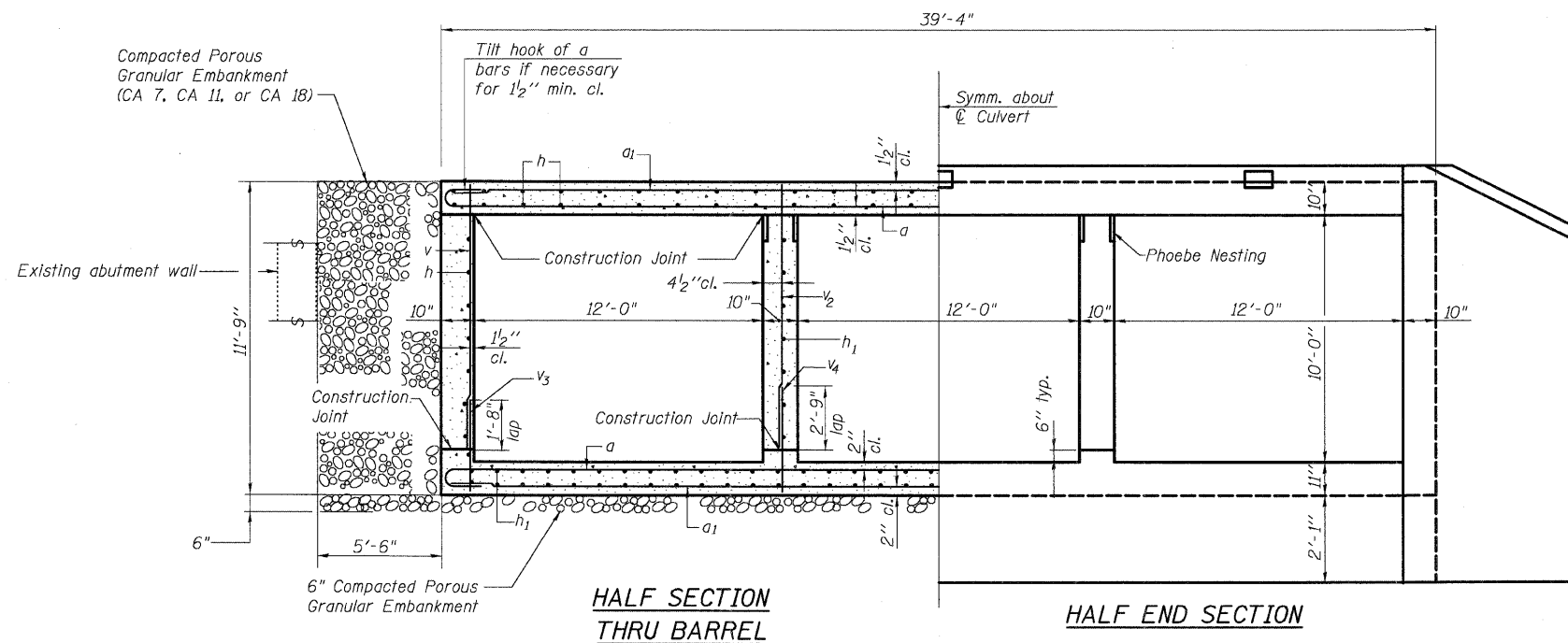
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www.v3co.com

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|-----------------------|----------|------------------|-------------|-----------|
| ROUTE NO. | SECTION | COUNTY | DATE SHEETS | SHEET NO. |
| F.A.P. 324 | 23B-1 | McHENRY | 97 | 68 |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT | | |

SHEET NO. 3
5 SHEETS

Contract # 62892



**PHOEBE NESTING
SITE DETAILS**
(Downstream End Only)

SECTIONS
ILL. ROUTE 23 OVER
KISHWAUKEE RIVER
OVERFLOW NO. 1
F.A.P. RT. 324
McHENRY COUNTY
STATION 72+50.00
STRUCTURE NO. 056-0083

| | |
|----------|-----|
| DESIGNED | CJB |
| CHECKED | PWO |
| DRAWN | DRP |
| CHECKED | PJM |

Notes: Bars indicated thus 11x3-#7 etc. indicates 11 lines of bars with 3 lengths per line.

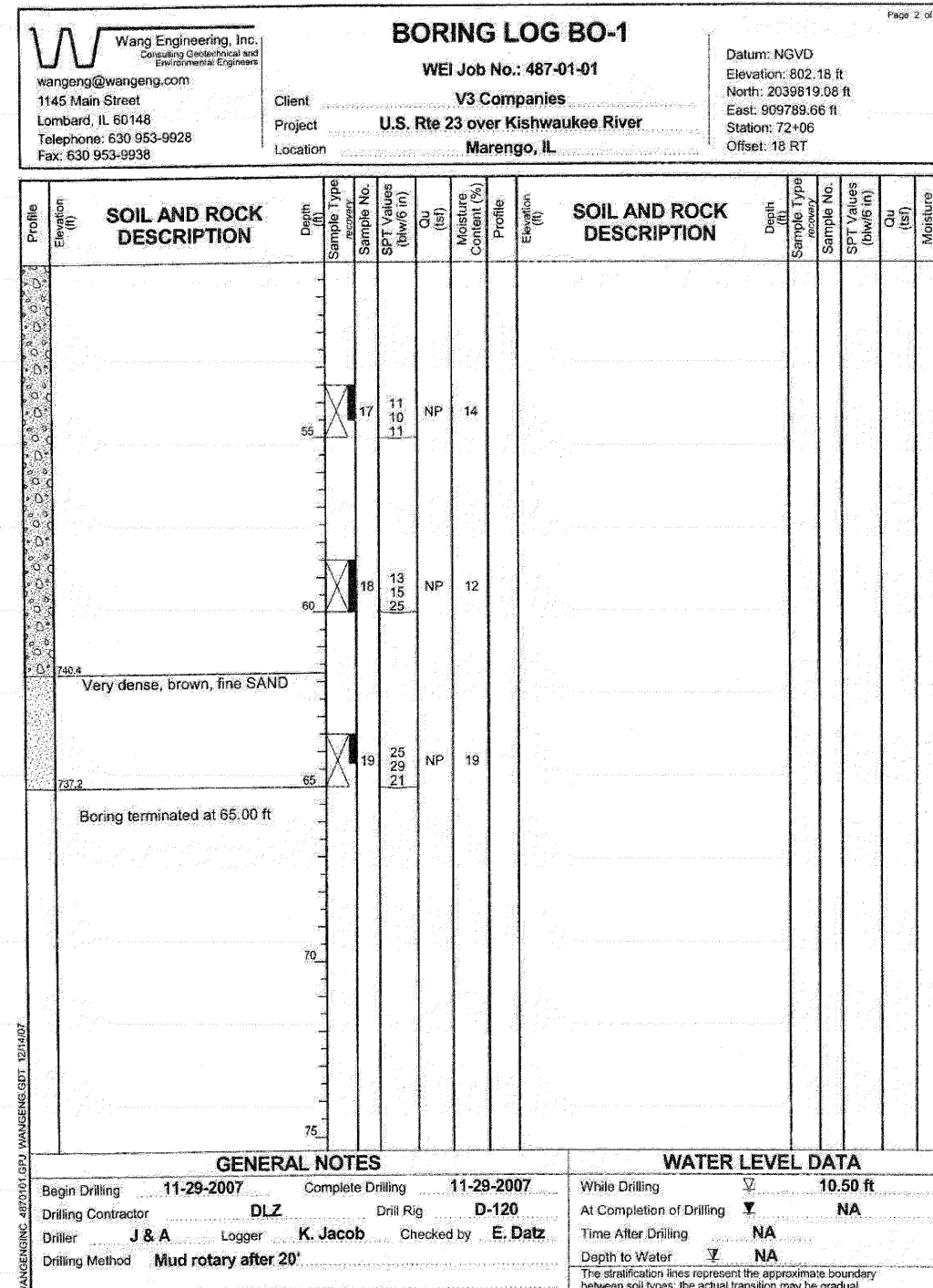
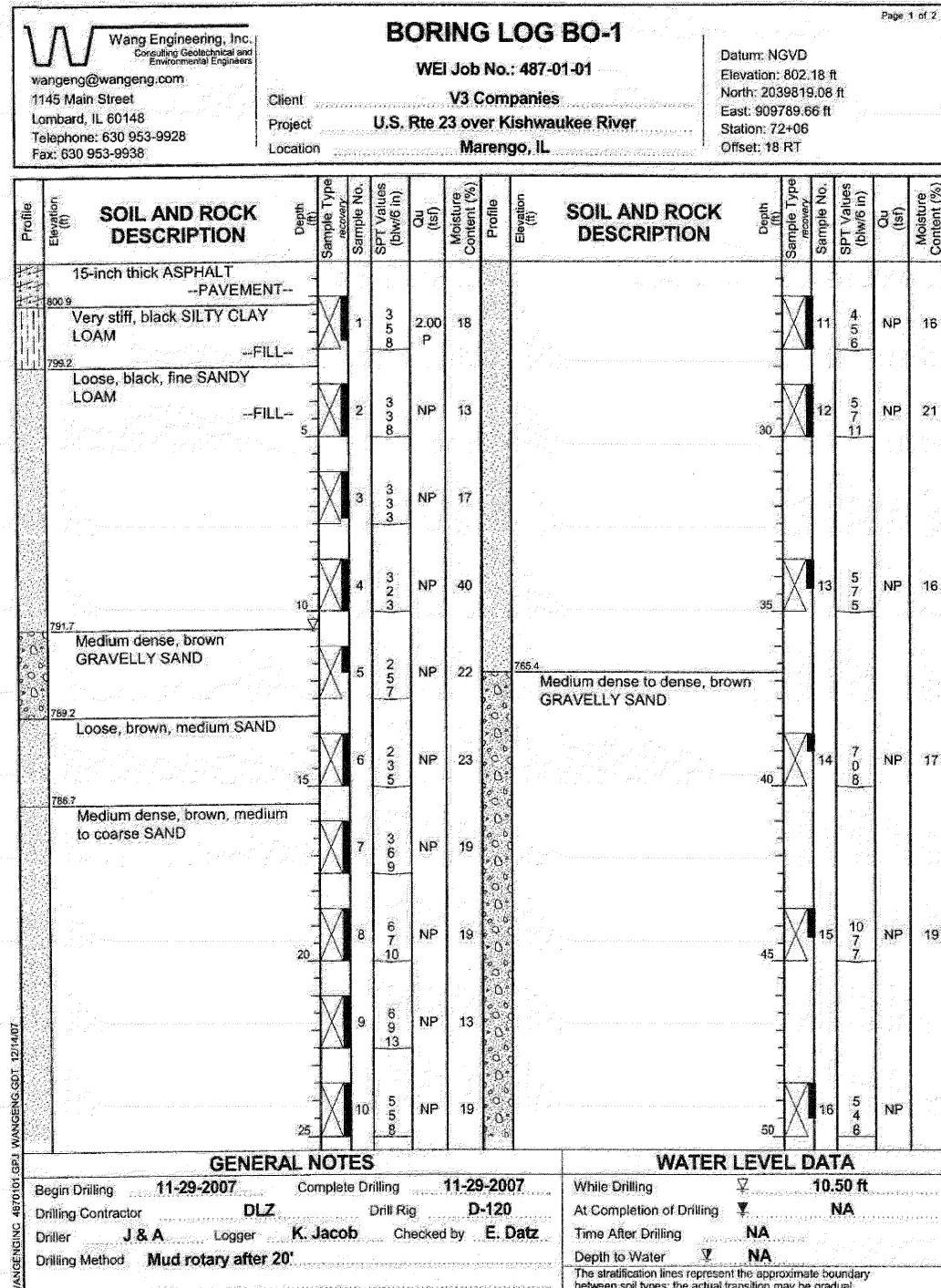


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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|---------|----------|------------------|-----------|-------------------------|
| ROUTE NO. | SECTION | COUNTY | STATES | SHEET NO. | SHEET NO. 4 5 SHEETS |
| F.A.P. 324 | 23B-1 | McHENRY | 97 | 69 | |
| FED. ROAD DIST. NO. 7 | | ILLINOIS | FED. AID PROJECT | | |

Contract # 62892



| | |
|----------|-----|
| DESIGNED | CJB |
| CHECKED | PWO |
| DRAWN | DRP |
| CHECKED | PJM |



V3 Companies of Illinois Ltd.
7325 Janes Avenue
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BORING LOGS
ILL. ROUTE 23 OVER
KISHWAUKEE RIVER
OVERFLOW NO. 1
F.A.P. RT. 324
MCHEMRY COUNTY
STATION 72+50.00
STRUCTURE NO. 056-0083

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|-----------------------|----------|-------------------|-----------|-----------|
| ROUTE NO. | SECTION | COUNTY | SHEET NO. | SHEET NO. |
| F.A.P. 324 | 23B-1 | MCHENRY | 97 | 70 |
| FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT- | | |

Contract # 62892

Wang Engineering, Inc.
Consulting Geotechnical and Environmental Engineers
wangeng@wangeng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG BO-2 Page 1 of 2
WEI Job No.: 487-01-01
Datum: NGVD
Elevation: 802.00 ft
North: 2039907.98 ft
East: 909753.30 ft
Station: 72+80
Offset: 17 LT

Client: **V3 Companies**
Project: **U.S. Rte 23 over Kishwaukee River**
Location: **Marengo, IL**

| Profile Elevation (ft) | SOIL AND ROCK DESCRIPTION | Depth (ft) | Sample Type | Sample No. | SPT Values (blows/in) | Qu (tsf) | Moisture Content (%) | Profile Elevation (ft) | SOIL AND ROCK DESCRIPTION | Depth (ft) | Sample Type | Sample No. | SPT Values (blows/in) | Qu (tsf) | Moisture Content (%) | |
|------------------------|--|------------|-------------|------------|-----------------------|----------|----------------------|------------------------|---------------------------|------------|-------------|------------|-----------------------|----------|----------------------|----|
| 801.4 | 7-inch thick ASPHALT -PAVEMENT- | | | | | | | | | | | | | | | |
| | Loose, sand and gravel | 0 | | 1 | 3 4 7 | NP | 16 | | | 11 | | 3 | 9 | 4 | NP | 4 |
| 799.5 | Medium dense to very loose, brown and gray mixed CLAY, SAND and GRAVEL | 5 | | 2 | 1 2 7 | NP | 15 | | | 12 | | 6 | 9 | 6 | NP | 7 |
| | | 10 | | 3 | 1 0 1 | NP | 17 | | | 13 | | 7 | 12 | 13 | NP | 8 |
| 794.0 | Very loose, dark gray fine SAND | 15 | | 4 | 0 0 0 | NP | 16 | | | 14 | | 6 | 8 | 7 | NP | 14 |
| | | 20 | | 5 | 0 0 0 | NP | 17 | | | 15 | | 4 | 5 | 7 | NP | 21 |
| | | 25 | | 6 | 0 0 0 | NP | 22 | | | 16 | | 3 | 4 | 5 | NP | 8 |
| | | 30 | | 7 | 1 0 0 | NP | 14 | | | 17 | | 5 | 9 | 15 | NP | 14 |
| 784.0 | Loose to medium dense, gray fine to coarse SAND and GRAVEL | 35 | | 8 | 2 2 5 | NP | 13 | | | 18 | | 6 | 7 | 7 | NP | 11 |
| | | 40 | | 9 | 3 5 7 | NP | 9 | | | 19 | | 5 | 7 | 11 | NP | 9 |
| | | 45 | | 10 | 4 6 8 | NP | 5 | | | 20 | | 4 | 5 | 6 | NP | 8 |

| GENERAL NOTES | | | | WATER LEVEL DATA | | | |
|---------------------|------------|-------------------|------------|---------------------|----|---|----|
| Begin Drilling | 07-30-1996 | Complete Drilling | 07-30-1996 | While Drilling | NA | At Completion of Drilling | NA |
| Drilling Contractor | IDOT | Drill Rig | NA | Time After Drilling | NA | Depth to Water | NA |
| Driller | NA | Logger | B.P. | Checked by | NA | The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual. | |
| Drilling Method | NA | | | | | | |

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wangeng@wangeng.com
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Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG BO-2 Page 2 of 2
WEI Job No.: 487-01-01
Datum: NGVD
Elevation: 802.00 ft
North: 2039907.98 ft
East: 909753.30 ft
Station: 72+80
Offset: 17 LT

Client: **V3 Companies**
Project: **U.S. Rte 23 over Kishwaukee River**
Location: **Marengo, IL**

| Profile Elevation (ft) | SOIL AND ROCK DESCRIPTION | Depth (ft) | Sample Type | Sample No. | SPT Values (blows/in) | Qu (tsf) | Moisture Content (%) | Profile Elevation (ft) | SOIL AND ROCK DESCRIPTION | Depth (ft) | Sample Type | Sample No. | SPT Values (blows/in) | Qu (tsf) | Moisture Content (%) | | |
|------------------------|---|------------|-------------|------------|-----------------------|----------|----------------------|------------------------|---------------------------|------------|-------------|------------|-----------------------|----------|----------------------|----|---|
| | Boring terminated at 75.00 ft | | | | | | | | | | | | | | | | |
| 748.0 | Dense to very dense, light gray, medium to coarse SAND and GRAVEL, some cobbles | 55 | | 21 | 8 15 25 | NP | 5 | | | 55 | | 21 | 8 | 15 | 25 | NP | 5 |
| | | 60 | | 22 | 15 27 28 | NP | 4 | | | 60 | | 22 | 15 | 27 | 28 | NP | 4 |
| | | 65 | | 23 | 12 20 30 | NP | 8 | | | 65 | | 23 | 12 | 20 | 30 | NP | 8 |
| | | 70 | | 24 | 24 18 18 | NP | 5 | | | 70 | | 24 | 18 | 18 | NP | 5 | |
| 727.0 | | 75 | | 25 | 23 14 18 | NP | 6 | | | 75 | | 25 | 23 | 14 | 18 | NP | 6 |

| GENERAL NOTES | | | | WATER LEVEL DATA | | | |
|---------------------|------------|-------------------|------------|---------------------|----|---|----|
| Begin Drilling | 07-30-1996 | Complete Drilling | 07-30-1996 | While Drilling | NA | At Completion of Drilling | NA |
| Drilling Contractor | IDOT | Drill Rig | NA | Time After Drilling | NA | Depth to Water | NA |
| Driller | NA | Logger | B.P. | Checked by | NA | The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual. | |
| Drilling Method | NA | | | | | | |

| | |
|----------|-----|
| DESIGNED | CJB |
| CHECKED | PWO |
| DRAWN | DRP |
| CHECKED | PJM |



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BORING LOGS
ILL. ROUTE 23 OVER
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MCHENRY COUNTY
STATION 72+50.00
STRUCTURE NO. 056-0083

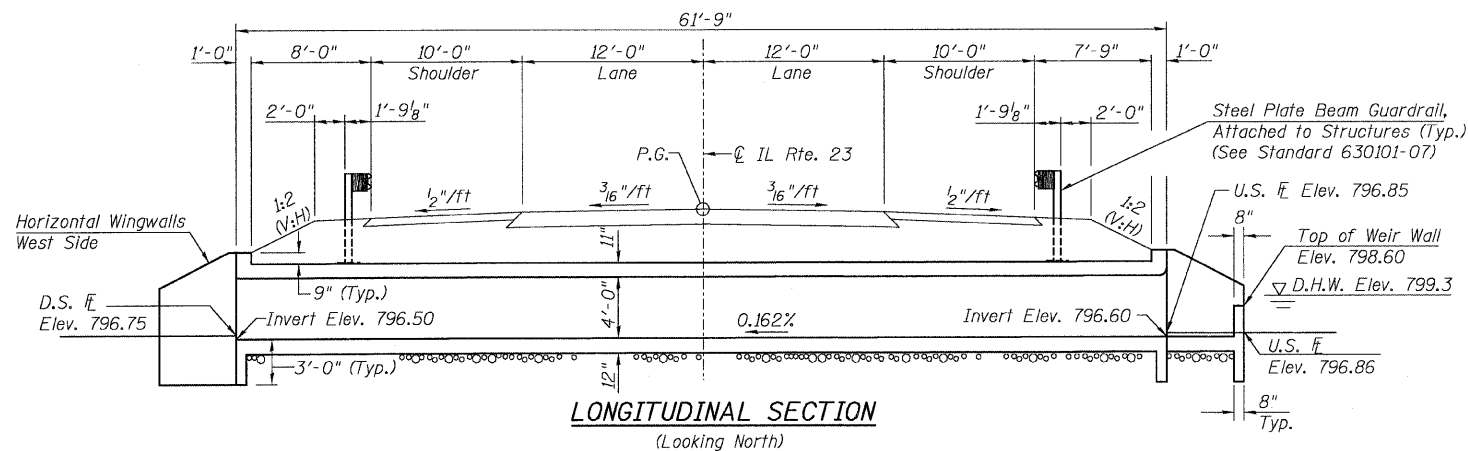
Bench Mark: #1 - Square cut in top of wingwall at southwest corner of existing S.N. 056-0009, Elevation 802.58

Existing Structure: None; Road is to be closed during construction. Precast alternate is not allowed.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|----------|------------------|------|-------|-----------|
| ROUTE NO. | SECTION | COUNTY | DATE | SHEET | SHEET NO. |
| F.A.P. 324 | 23B-1 | MCHENRY | 97 | 71 | 4 SHEETS |
| FED. ROAD DIST. NO. 1 | BILLINGS | FED. AID PROJECT | | | |

Contract # 62892



WATERWAY INFORMATION

Drainage Area = 174.5 mi² Exist. Low Grade Elev. 800.30 @ Sta. 81+00
Prop. Low Grade Elev. 803.60 @ Sta. 81+00

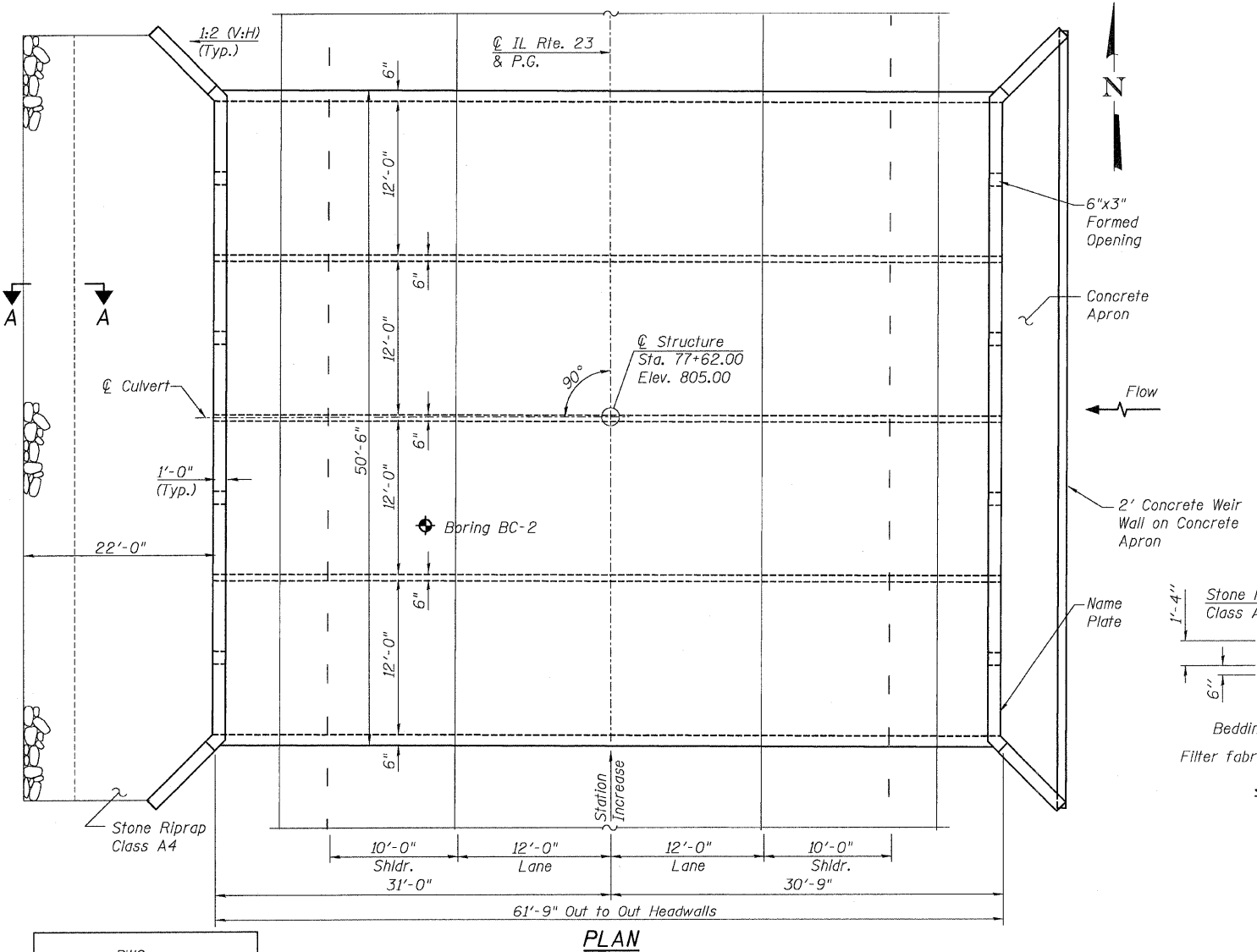
| Flood Freq. Yr. | Structure | Q C.F.S. | | Opening SqFt. | | Nat. H.W.E. | Head - Ft. | | Headwater El. | |
|-----------------|--------------|----------|-------|---------------|--------|-------------|------------|-------|---------------|--------|
| | | Exist. | Prop. | Exist. | Prop. | | Exist. | Prop. | Exist. | Prop. |
| 10 | Main Channel | 3441 | 2559 | 767.0 | 1057.0 | | | | | |
| | Overflow 1 | 1874 | 2133 | 389.2 | 304.9 | | | | | |
| | Overflow 2 | n/a | 623 | n/a | 95.5 | | | | | |
| | Total | 5315 | 5315 | 1156.2 | 1457.4 | 798.61 | 1.13 | 0.70 | 799.74 | 799.31 |
| Design 50 | Main Channel | 4951 | 4328 | 875.0 | 1228.3 | | | | | |
| | Overflow 1 | 2679 | 2453 | 429.9 | 330.8 | | | | | |
| | Overflow 2 | 17* | 866 | n/a | 130.1 | | | | | |
| | Total | 7647 | 7647 | 1304.9 | 1689.2 | 799.33 | 1.39 | 0.77 | 800.72 | 800.10 |
| Base 100 | Main Channel | 5858 | 5015 | 914.0 | 1287.4 | | | | | |
| | Overflow 1 | 2546 | 2582 | 442.6 | 340.2 | | | | | |
| | Overflow 2 | 177* | 983 | n/a | 142.6 | | | | | |
| | Total | 8581 | 8581 | 1356.6 | 1770.2 | 799.59 | 1.71 | 0.80 | 801.32 | 800.39 |
| Max. Calc. 500 | Main Channel | 6944 | 6824 | 995.0 | 1402.5 | | | | | |
| | Overflow 1 | 3076 | 2676 | 469.1 | 359.6 | | | | | |
| | Overflow 2 | 699* | 1219 | n/a | 168.5 | | | | | |
| | Total | 10719 | 10719 | 1464.1 | 1930.7 | 800.13 | 2.03 | 0.87 | 802.16 | 801.00 |

INDEX OF SHEETS

- GENERAL PLAN, GENERAL NOTES AND TOTAL BILL OF MATERIAL,
- SLAB REINFORCEMENT PLAN
- SECTIONS AND DETAILS
- BORING LOGS

GENERAL NOTES

- Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.
- Layout of slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.



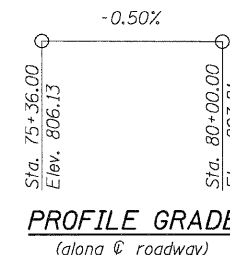
10 year velocity through existing bridge (main channel) = 3.76 fps
10 year velocity through proposed bridge (main channel) = 2.12 fps

Notes:

- * Indicates flow over the road in existing condition.
- A 2 foot berm/wall will be built at the upstream side of Overflow 2 structure, to maintain existing drainage patterns.
- Overflow 1 is the 3-cell box culvert in the overflow channel, Overflow 2 is the 4-cell box culvert north of Overflow 1.

TOTAL BILL OF MATERIAL

| Item | Unit | Total |
|----------------------------|---------|--------|
| Concrete Box Culverts | Cu. Yd. | 264.3 |
| Name Plates | Each | 1 |
| Filter Fabric | Sq. Yd. | 159 |
| Stone Riprap, Class A4 | Sq. Yd. | 133 |
| Reinforcement Bars | Pound | 58,820 |
| Structure Excavation | Cu. Yd. | 829 |
| Porous Granular Embankment | Cu. Yd. | 218 |



STATION 77+62
BUILT 200 BY
STATE OF ILLINOIS
F.A.P. RT. 324 SEC. 23B-1
LOADING HS20
STR. NO. 056-0084

LETTERING FOR NAME PLATE

See Plan View & Std 515001 for name plate location

LOADING HS20-44

Allow 50#/sq. ft. for future wearing surface.

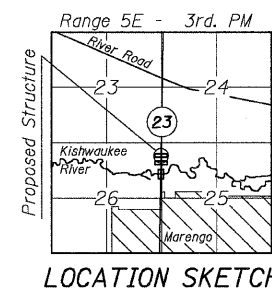
DESIGN SPECIFICATIONS

2002 AASHTO

DESIGN STRESSES

FIELD UNITS

f_c = 3,500 psi
f_y = 60,000 psi (Reinforcement)



| | |
|----------|-----|
| DESIGNED | PWO |
| CHECKED | CJB |
| DRAWN | DRP |
| CHECKED | PJM |

DESIGN SCOUR ELEVATION TABLE

| Design Scour Elevation (ft.) | D.S. Invert | U.S. Invert |
|------------------------------|-------------|-------------|
| | 793.5 | 793.6 |

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Robert E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES



V3 Companies of Illinois Ltd.
7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
630.724.9202 fax
www.v3co.com

GENERAL PLAN, GENERAL NOTES
AND TOTAL BILL OF MATERIAL,
ILLINOIS ROUTE 23 OVER
KISHWAUKEE RIVER OVERFLOW NO. 2

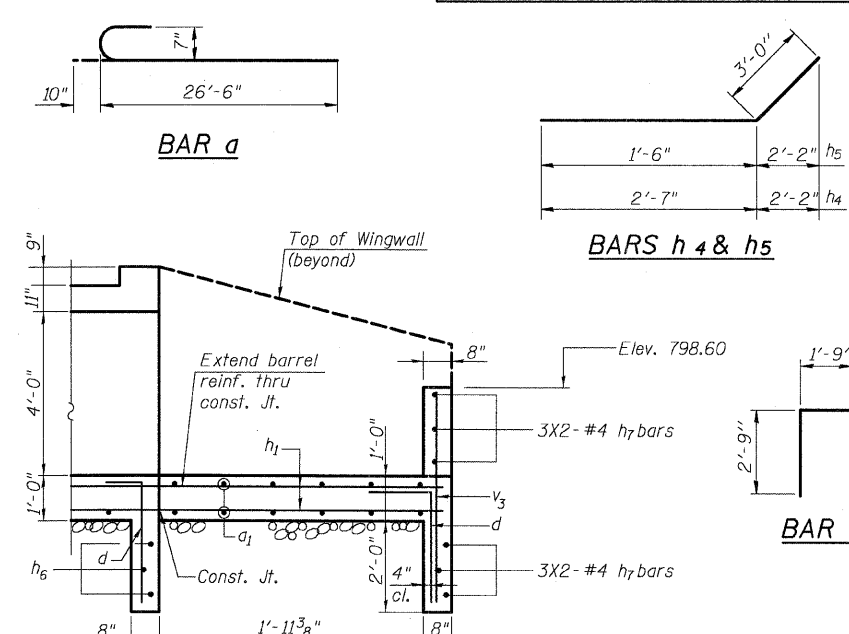
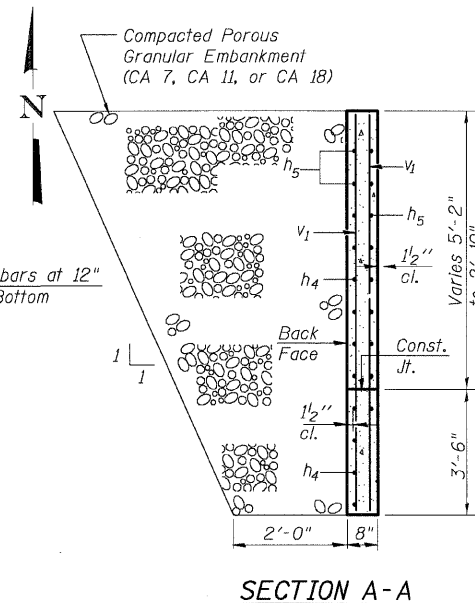
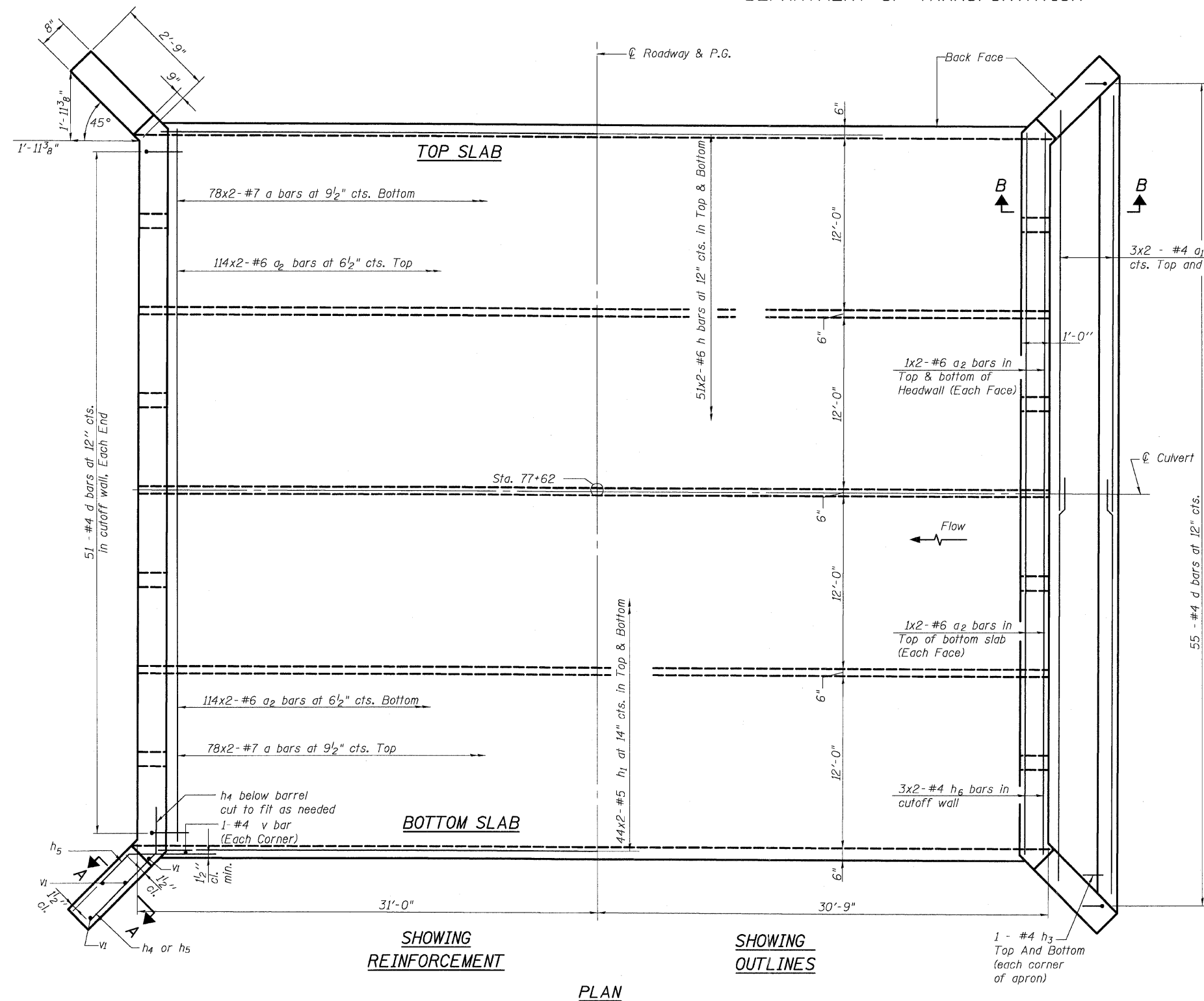
F.A.P. ROUTE 324
MCHENRY COUNTY
STA. 77+62.00
STRUCTURE NO. 056-0084

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|-----------------------|----------|-------------------|--------|-----------|
| ROUTE NO. | SECTION | COUNTY | SHEETS | SHEET NO. |
| F.A.P. 324 | 23B-1 | MCHENRY | 97 | 72 |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT- | | |

Contract # 62892

4 SHEETS



BILL OF MATERIAL

| Bar | No. | Size | Length | Shape |
|-----------------------|-----|------|---------|--------|
| a | 312 | #7 | 27'-4" | C |
| a1 | 12 | #4 | 27'-8" | — |
| a2 | 480 | #6 | 26'-1" | — |
| d | 157 | #4 | 4'-6" | — |
| h | 204 | #6 | 32'-9" | — |
| h1 | 176 | #5 | 32'-10" | — |
| h2 | 40 | #5 | 31'-7" | — |
| h3 | 4 | #4 | 1'-8" | — |
| h4 | 28 | #4 | 5'-7" | — |
| h5 | 28 | #4 | 4'-6" | — |
| h6 | 12 | #4 | 25'-9" | — |
| h7 | 12 | #4 | 27'-8" | — |
| v | 170 | #4 | 5'-8" | — |
| v1 | 16 | #4 | 8'-6" | — |
| v2 | 249 | #7 | 5'-8" | — |
| v3 | 55 | #5 | 4'-8" | — |
| Concrete Box Culverts | | | Cu. Yd. | 264.3 |
| Reinforcement Bars | | | Pound | 58,820 |

| | |
|----------|-----|
| DESIGNED | PWO |
| CHECKED | CJB |
| DRAWN | DRP |
| CHECKED | PJM |

Notes: A distance of half the length of the wingwall but not less than six feet of the barrel shall be poured monolithically with the wingwalls. Bars indicated thus 44x2 #5 etc. indicates 44 lines of bars with 2 lengths per line.

Bar Laps Barrels:
Min. #4 bar = 1'-4"
Min. #5 bar = 1'-8"
Min. #6 bar = 2'-0"
Min. #7 bar = 2'-9"



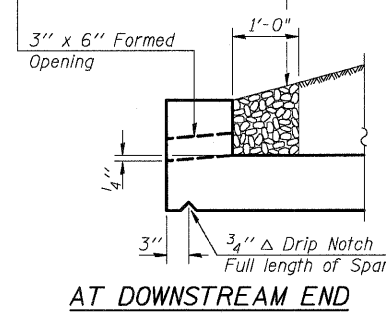
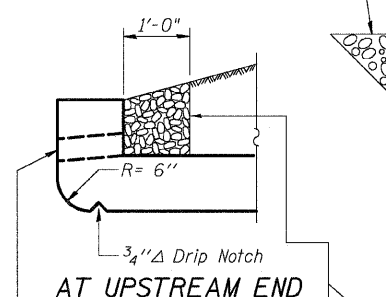
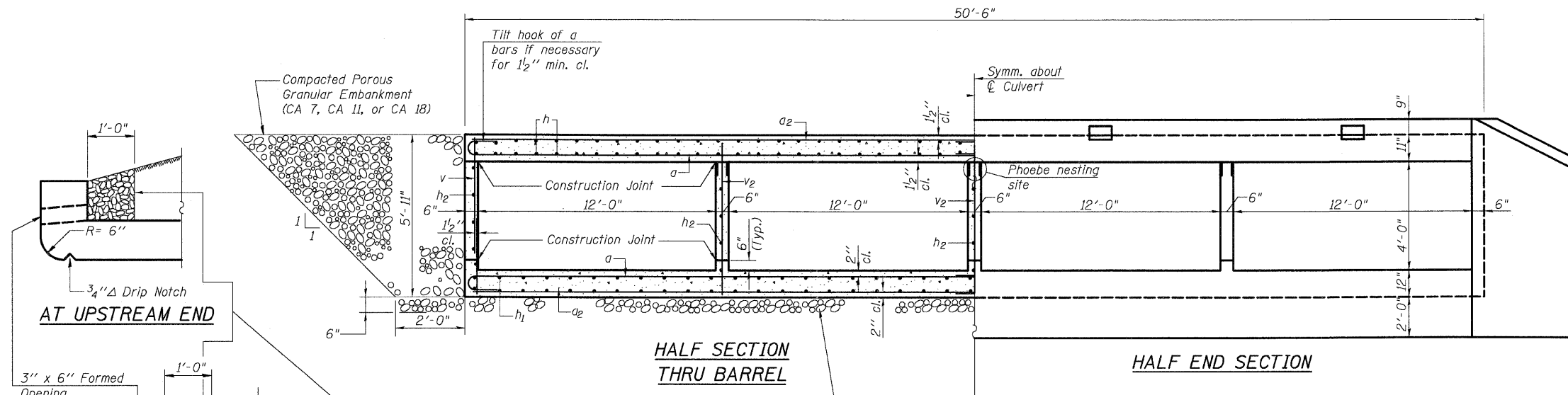
V3 Companies of Illinois Ltd.
7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
630.724.9202 fax
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SLAB REINFORCEMENT PLAN
ILLINOIS ROUTE 23 OVER
KISHWAUKEE RIVER OVERFLOW NO. 2
F.A.P. ROUTE 324
MCHENRY COUNTY
STA. 77+62.00
STRUCTURE NO. 056-0084

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

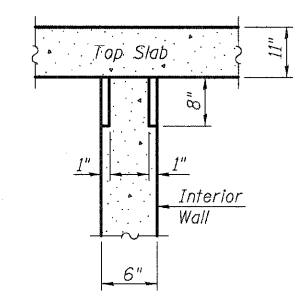
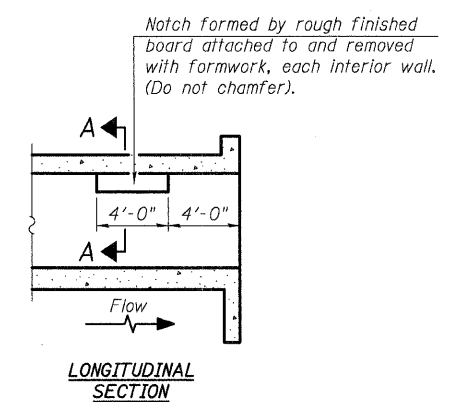
| | | | | |
|-----------------------|----------|-------------------|-------------|-----------|
| ROUTE NO. | SECTION | COUNTY | DATE SHEETS | SHEET NO. |
| F.A.P. 324 | 23B-1 | McHENRY | 97 73 | 4 SHEETS |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT- | | |

Contract # 62892

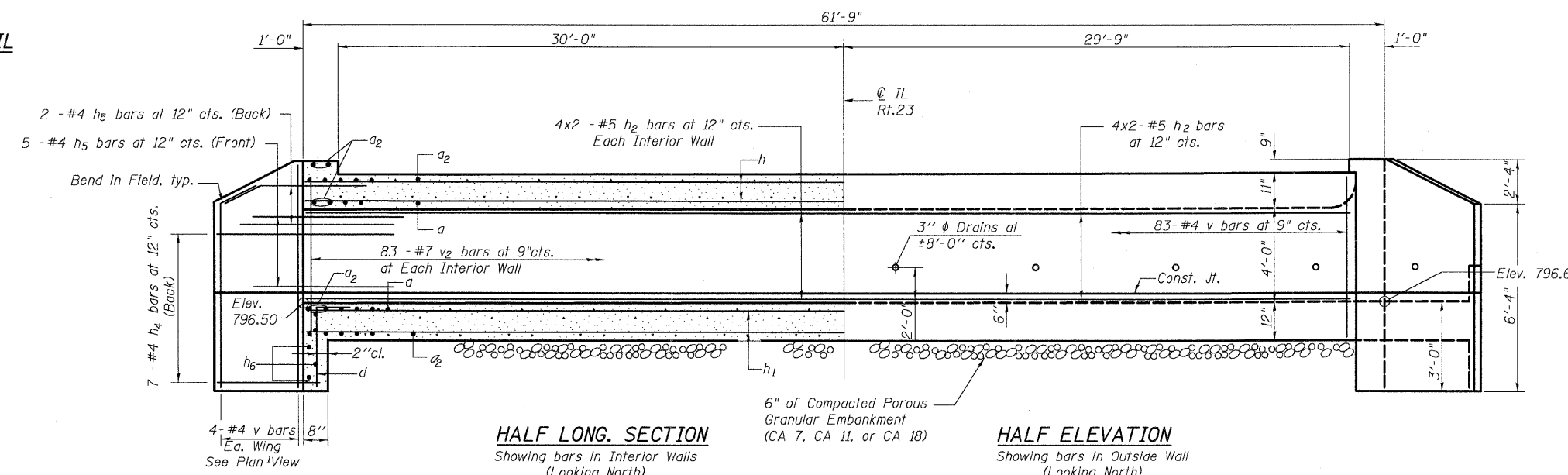


DRAIN DETAIL

Coarse aggregate full length of both headwalls. To be placed by Grading Contractor. Cost included with Concrete Box Culverts.



PHOEBE NESTING SITE DETAILS
(Downstream End Only)



HALF LONG. SECTION
Showing bars in Interior Walls (Looking North)

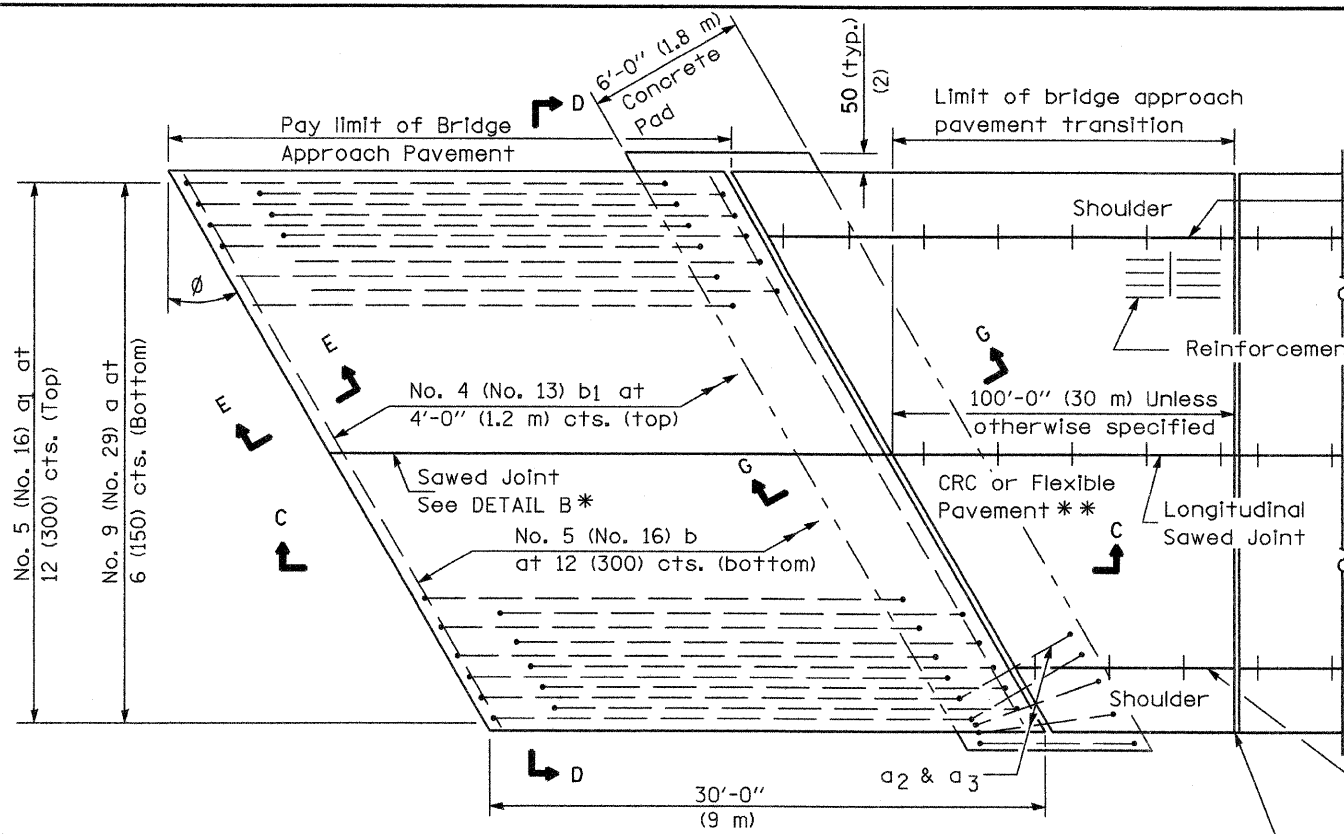
HALF ELEVATION
Showing bars in Outside Wall (Looking North)

| | |
|----------|-----|
| DESIGNED | PWO |
| CHECKED | CJB |
| DRAWN | DRP |
| CHECKED | PJM |

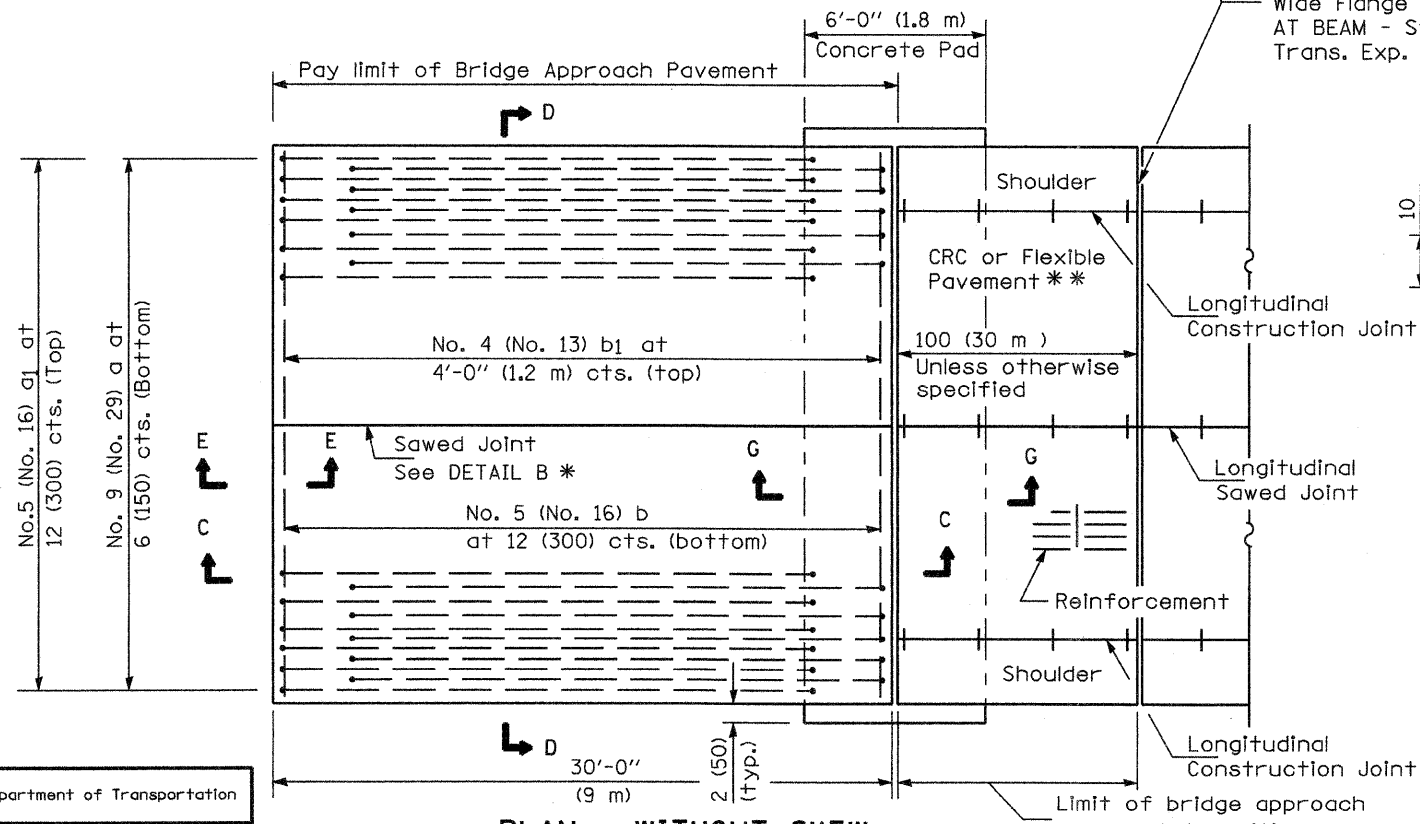


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SECTIONS AND DETAILS
ILLINOIS ROUTE 23 OVER
KISHWAUKEE RIVER OVERFLOW NO. 2
F.A.P. ROUTE 324
McHENRY COUNTY
STA. 77+62.00
STRUCTURE NO. 056-0084

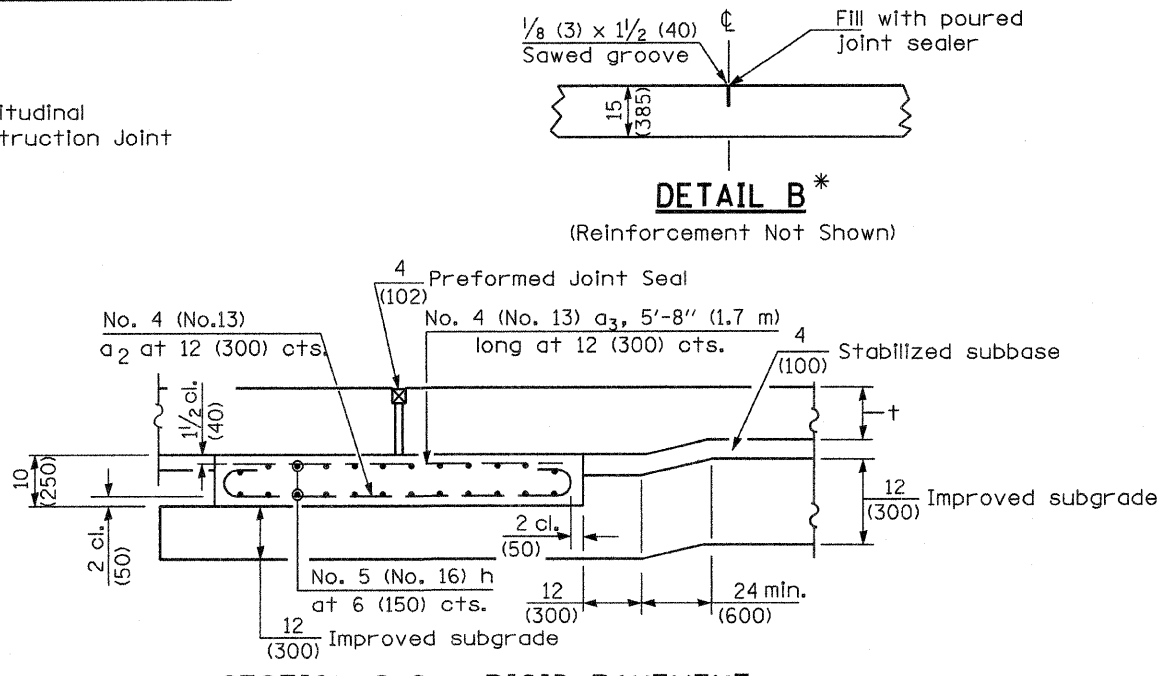


PLAN - WITH SKEW



PLAN - WITHOUT SKEW

NEW CONSTRUCTION

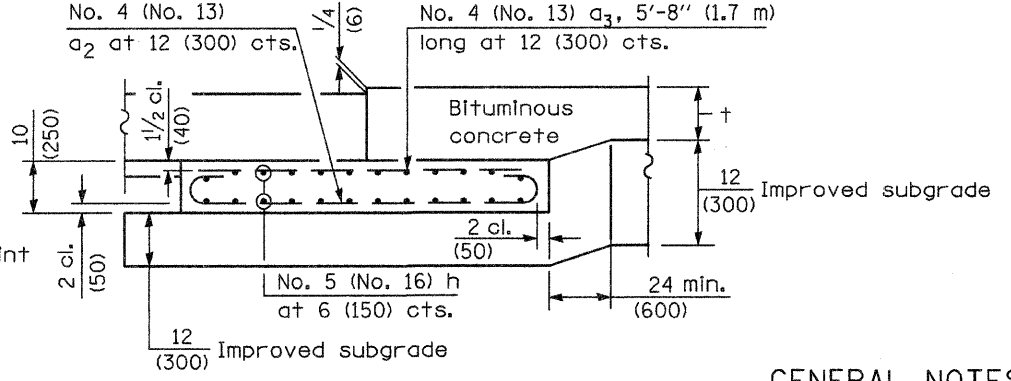


SECTION G-G - RIGID PAVEMENT

(Showing reinforcement)

Rigid Pavement only:

Wide Flange Beam Terminal Joint (See DETAIL AT BEAM - Standard 421101 or 421106) or 2 (50) Trans. Exp. Joint as detailed on Standard 420001.



SECTION G-G - FLEXIBLE PAVEMENT

(Showing reinforcement)

GENERAL NOTES

- THICKNESS--"t"--Thickness of Pavement.
- See Standard 421001 for reinforcement details not shown.
- See Standard 420001 for joint details not shown.
- All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation

APPROVED January 1, 2008
Robert E. Anderson
 ENGINEER OF BRIDGES AND STRUCTURES

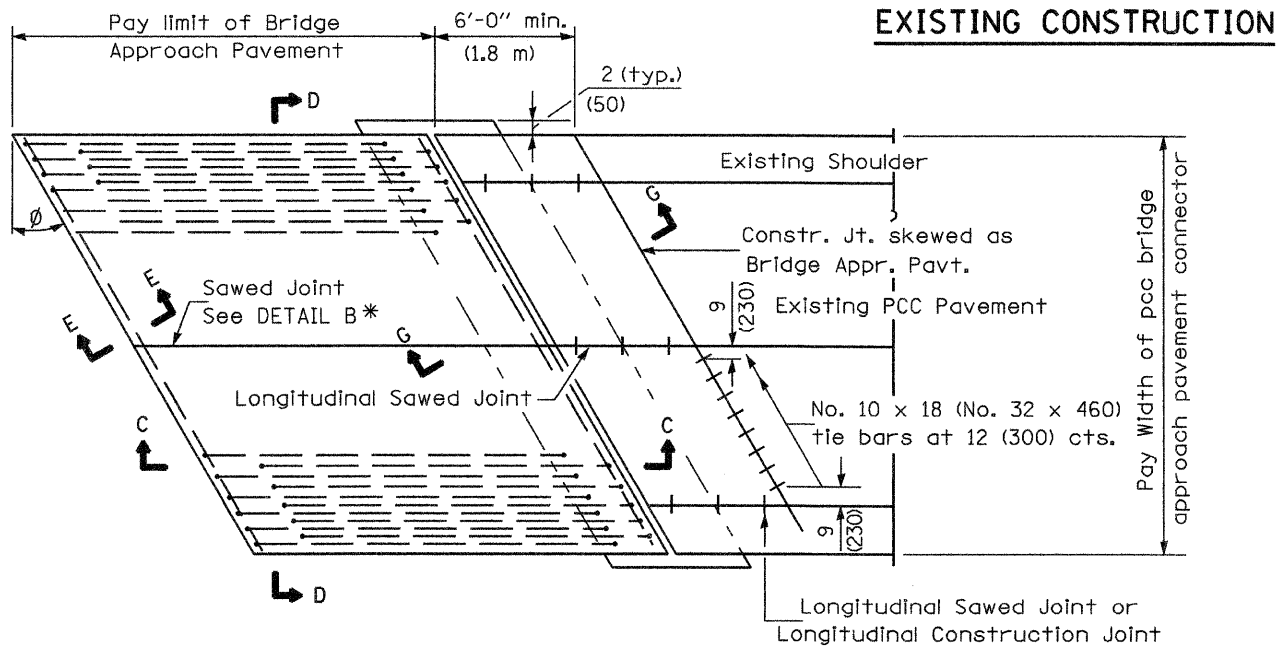
ISSUED 1-1-97

APPROVED January 1, 2008
Ken E. Han
 ENGINEER OF DESIGN AND ENVIRONMENT

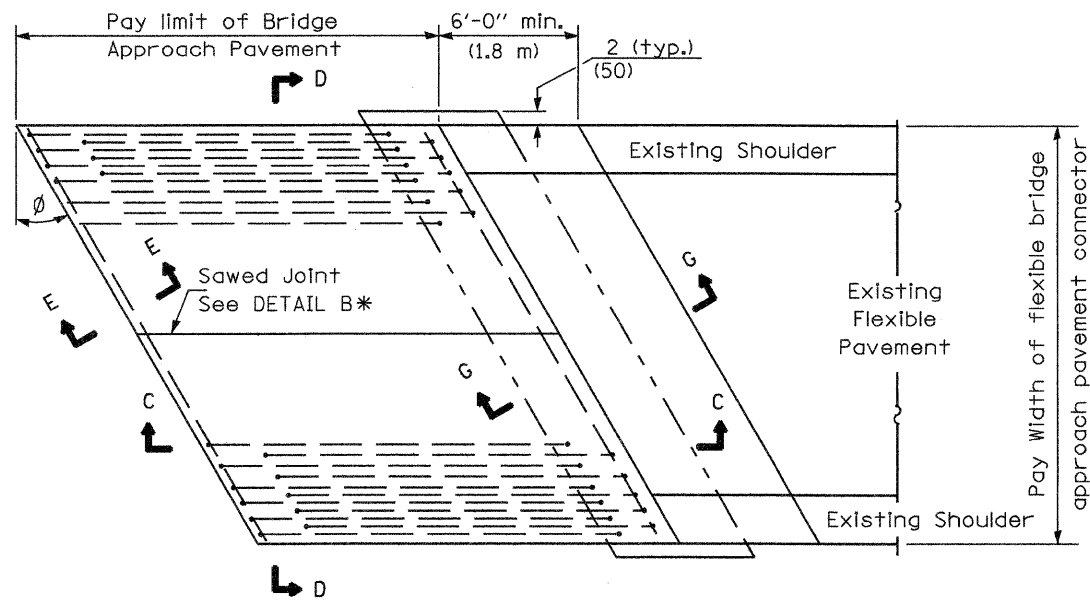
* Saw ϕ or lane edge if poured two or more lane widths at a time.
 ** Omit Reinforcement, tie bars and Long. sawed Jt. for Flexible Pavement.

| DATE | REVISIONS |
|--------|---|
| 1-1-08 | Switched units to English (metric). Moved rebar epoxy coat note to Standard Spec. |
| 1-1-04 | Rev. size of Trans. Exp. Jt. and soft converted metric reinf. |

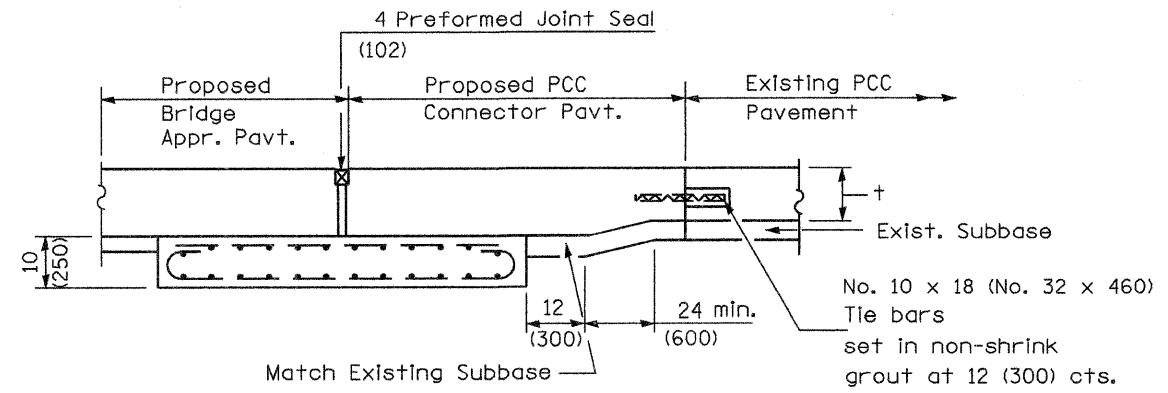
BRIDGE APPROACH PAVEMENT
 (Sheet 1 of 4)



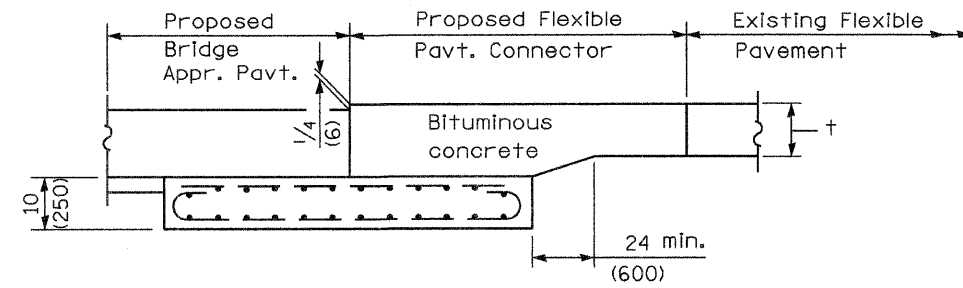
BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)



BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)



SECTION G-G - RIGID PAVEMENT



SECTION G-G - FLEXIBLE PAVEMENT

Illinois Department of Transportation
 APPROVED January 1, 2008
Ralph E. Anderson
 ENGINEER OF BRIDGES AND STRUCTURES
 APPROVED January 1, 2008
Ken E. Han
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

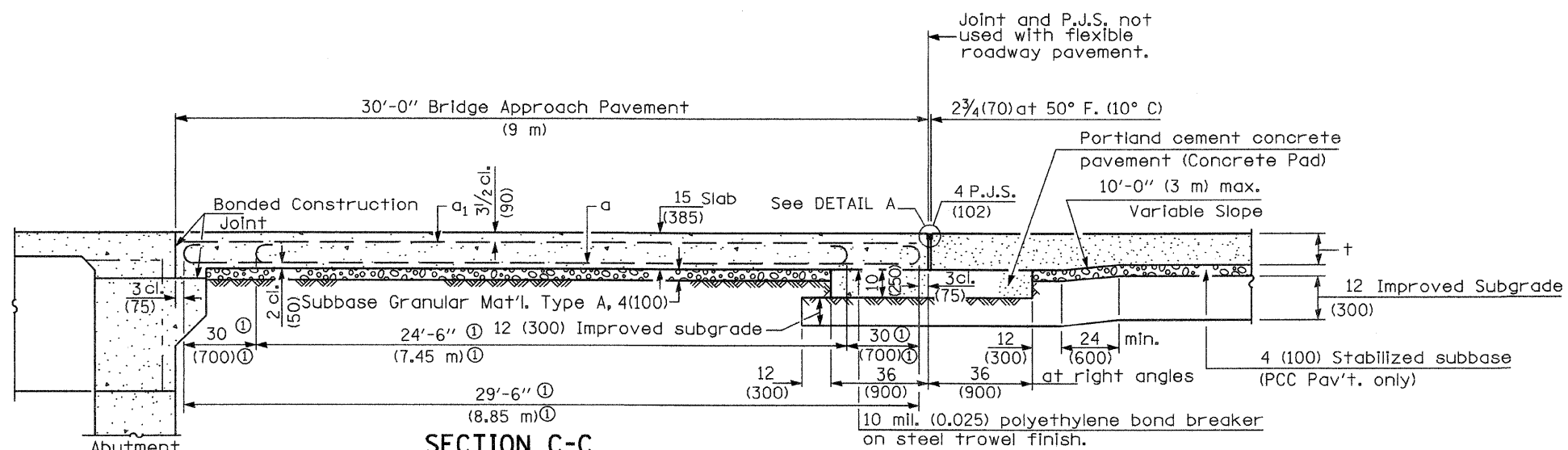
BRIDGE APPROACH PAVEMENT

(Sheet 2 of 4)

CONTRACT 62892

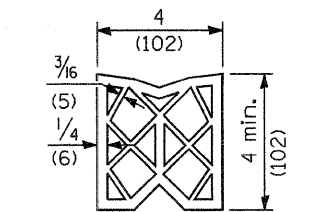
Sheet 73B

138-111

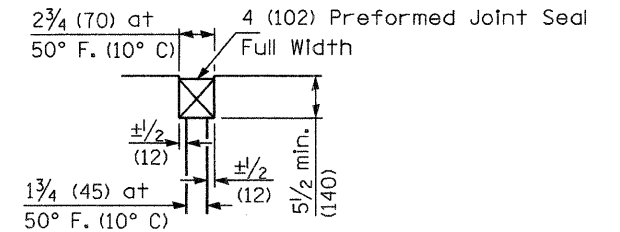


SECTION C-C

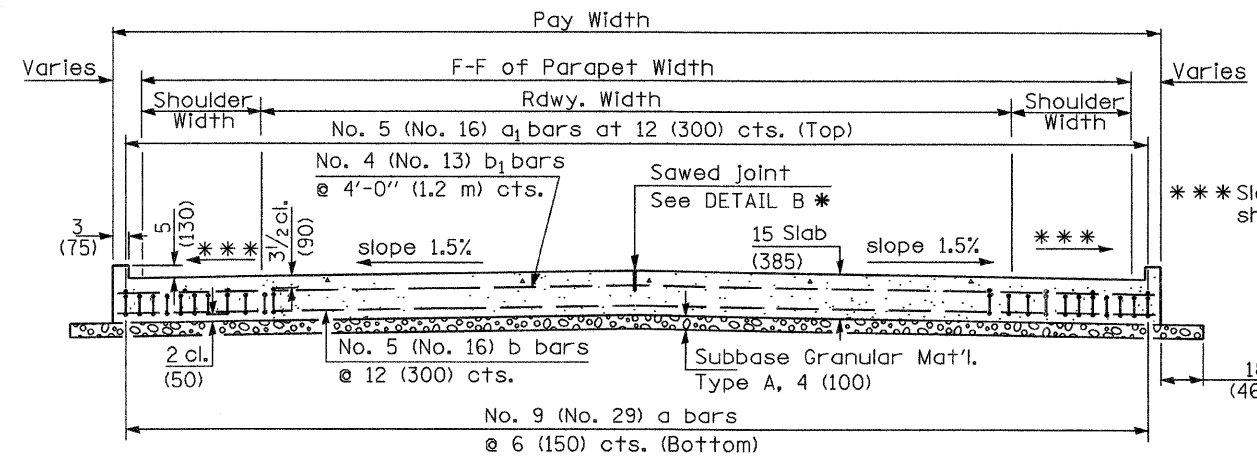
① Stagger No. 9 (No. 29) a bars as shown on plan - full width



PREFORMED JOINT SEAL



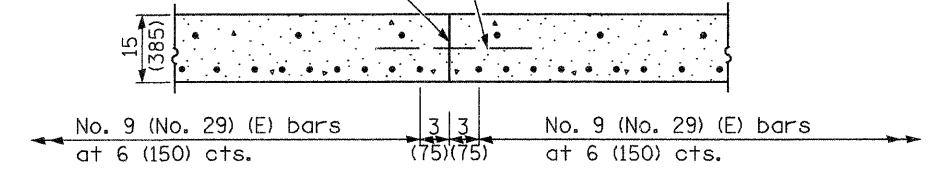
DETAIL A



SECTION D-D

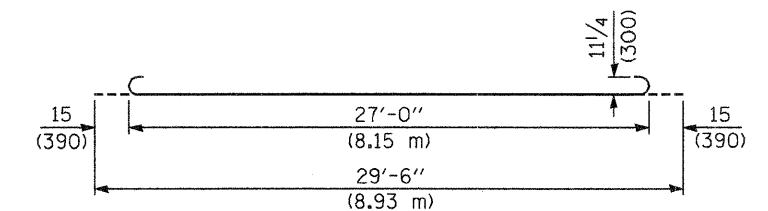
(See Plan for Dimensions not shown)

Longitudinal Construction Joint in accordance with details shown on Standard 420001.

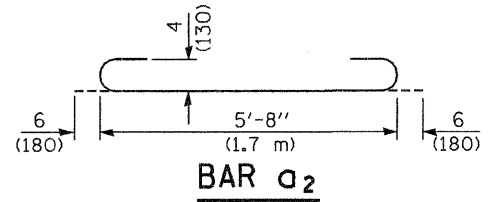


OPTIONAL LONGITUDINAL CONSTRUCTION JOINT

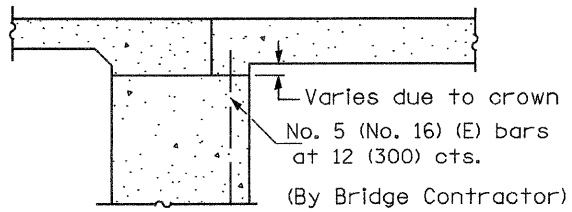
As approved by the Engineer, the Contractor may elect to reduce the widths of pour by use of the Optional Longitudinal Construction Joint shown. Joints shall be located at the edge of a traffic lane.



BAR a

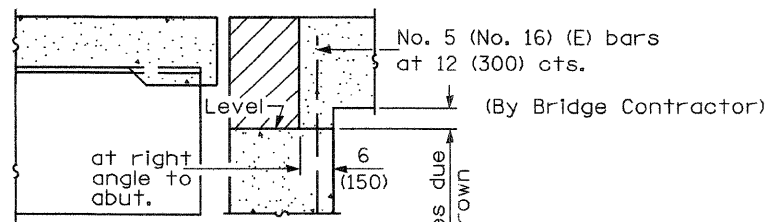


BAR a2



SECTION E-E

(Integral Abutments)



SECTION E-E

(Jointed Abutments)

DESIGN STRESSES

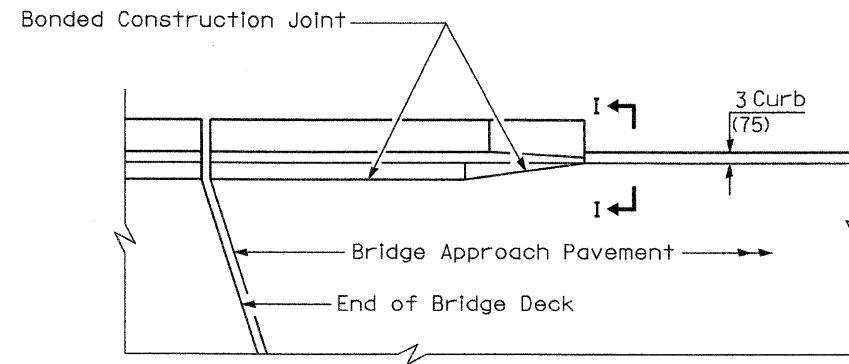
$f_y = 60,000$ p.s.i. (400 MPa)
 $f'_c = 3,500$ p.s.i. (24 MPa)
 $n = 8.5$

BRIDGE APPROACH PAVEMENT

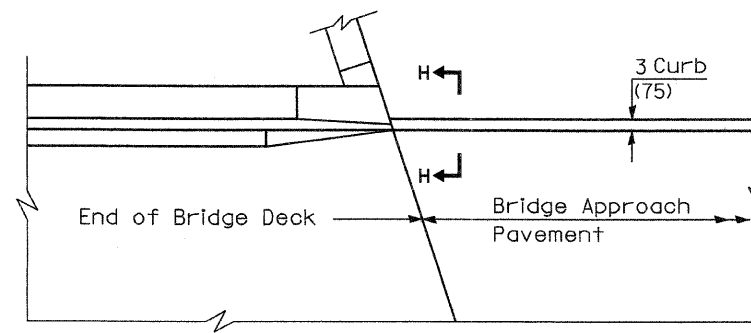
(Sheet 3 of 4)

Illinois Department of Transportation
 APPROVED January 1, 2008
Ralph E. Anderson
 ENGINEER OF BRIDGES AND STRUCTURES
 APPROVED January 1, 2008
Ken E. Han
 ENGINEER OF DESIGN AND ENVIRONMENT
 ISSUED 1-1-97

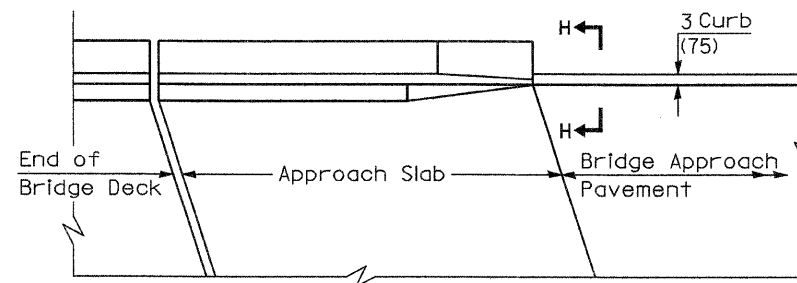
CONTRACT 62092 Sheet 73C.



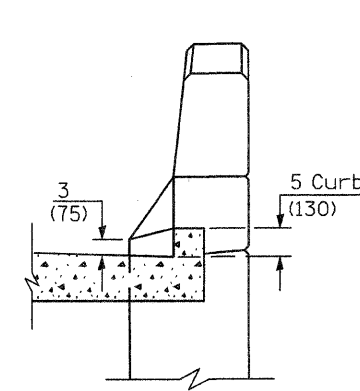
**PARAPET TO CURB TRANSITION
PILE BENT ABUTMENT**



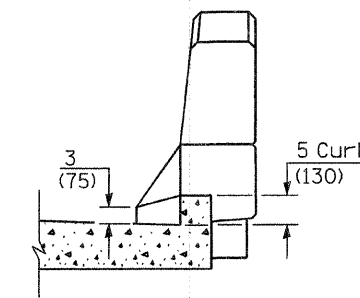
**PARAPET TO CURB TRANSITION
INTEGRAL ABUTMENT**



**PARAPET TO CURB TRANSITION
VAULTED ABUTMENT**



SECTION I - I



SECTION H - H

Illinois Department of Transportation
 APPROVED January 1, 2008
Ralph E. Anderson
 ENGINEER OF BRIDGES AND STRUCTURES
 APPROVED January 1, 2008
Van E. Han
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

BRIDGE APPROACH PAVEMENT


(Sheet 4 of 4)

CONTRACT 02092 Sheet 130

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|-----------------------|----------|------------------|--------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| F.A.P. 324 | 23B-1 | McHENRY | 97 | 74 |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT | | |

Contract # 62892

| | | | |
|---|---|--------------------|----------------------|
|  Wang Engineering, Inc. Consulting Geotechnical and Environmental Engineers wangeng@wangeng.com 1145 Main Street Lombard, IL 60148 Telephone: 630 953-9928 Fax: 630 953-9938 | BORING LOG BC-2 | | Page 1 of 1 |
| | WEI Job No.: 487-01-01 | | Datum: NGVD |
| | Client: V3 Companies | | Elevation: 800.58 ft |
| | Project: U.S. Rte 23 over Kishwaukee River | | North: 2040368.14 ft |
| Location: Marengo, IL | | East: 909757.90 ft | Station: 77+55 |
| | | Offset: 16 LT | |

| Profile Elevation (ft) | SOIL AND ROCK DESCRIPTION | Depth (ft) | Sample Type | Sample No. | SPT Values (blows/6 in) | Qu (tsf) | Moisture Content (%) | Profile Elevation (ft) | SOIL AND ROCK DESCRIPTION | Depth (ft) | Sample Type | Sample No. | SPT Values (blows/6 in) | Qu (tsf) | Moisture Content (%) |
|------------------------|--|------------|-------------|----------------|-------------------------|----------|----------------------|------------------------|---------------------------|------------|----------------|------------|-------------------------|----------|----------------------|
| 800.58 | 2-inch thick, brown SANDY LOAM --TOPSOIL-- Loose, brown to dark brown SANDY LOAM to SILTY LOAM --FILL-- | 0-1 | 1 | 7 4 3 | NP | 7 | | 772.6 | Dense, brown, coarse SAND | 11 | 14 23 14 | NP | 13 | | |
| | | 1-5 | 2 | 2 2 4 | NP | 27 | | 770.6 | | 12 | 18 30 13 | NP | 15 | | |
| 793.6 | Medium dense, brown SAND, with gravel | 7-10 | 3 | 4 7 10 | NP | 12 | | | | | | | | | |
| 792.6 | Medium dense, brown, fine SAND | 10-15 | 4 | 4 6 10 | NP | 20 | | | | | | | | | |
| | | 15-19 | 5 | 11 8 9 | NP | 19 | | | | | | | | | |
| 787.6 | Medium dense to dense, brown, medium to coarse SAND | 19-20 | 6 | 13 7 10 | NP | 12 | | | | | | | | | |
| | | 20-24 | 7 | 12 19 14 | NP | 13 | | | | | | | | | |
| 782.6 | Dense, brown, fine SAND | 24-25 | 8 | 12 24 10 | NP | 16 | | | | | | | | | |
| | | 25-26 | 9 | 13 20 10 | NP | 17 | | | | | | | | | |
| | | 26-28 | 10 | 13 26 15 | NP | 18 | | | | | | | | | |

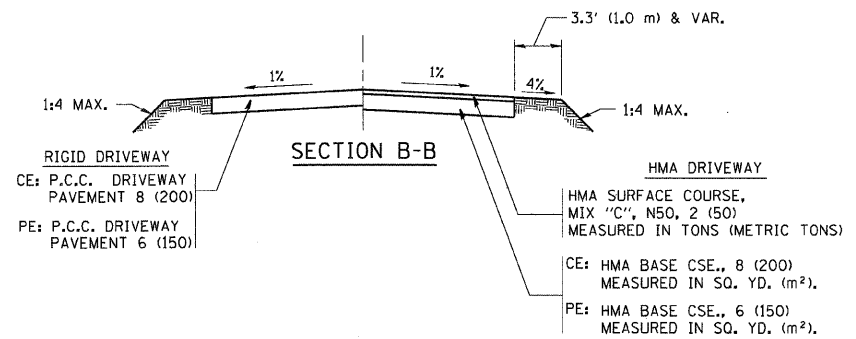
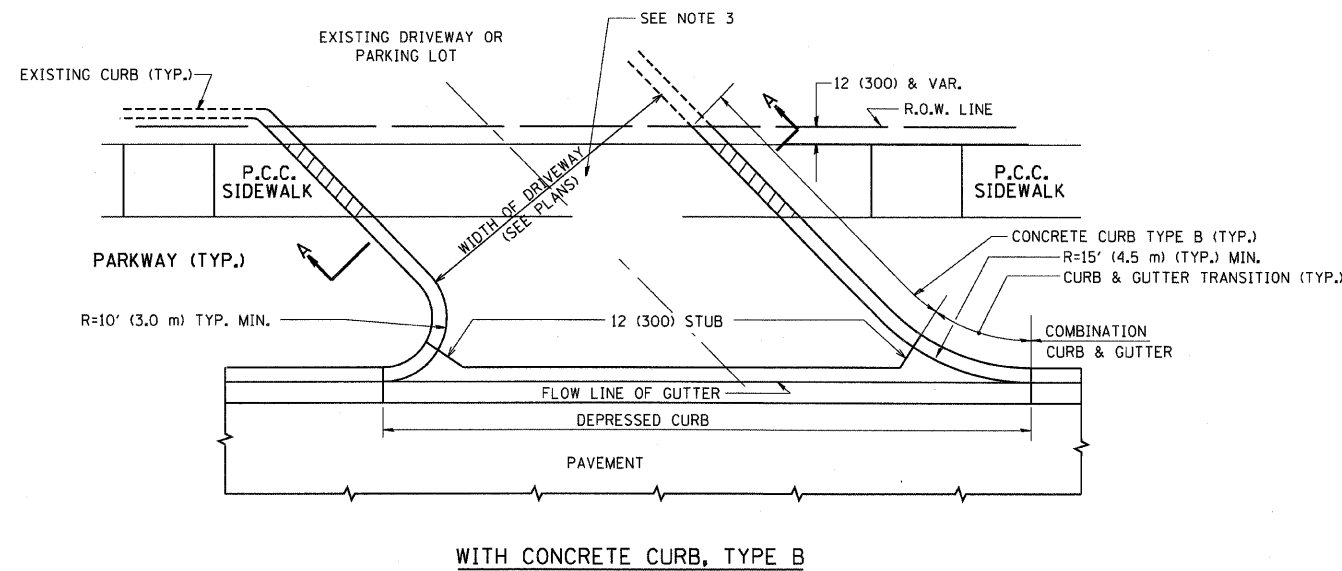
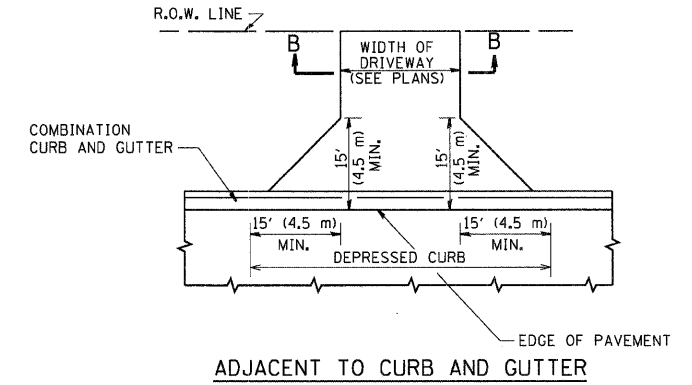
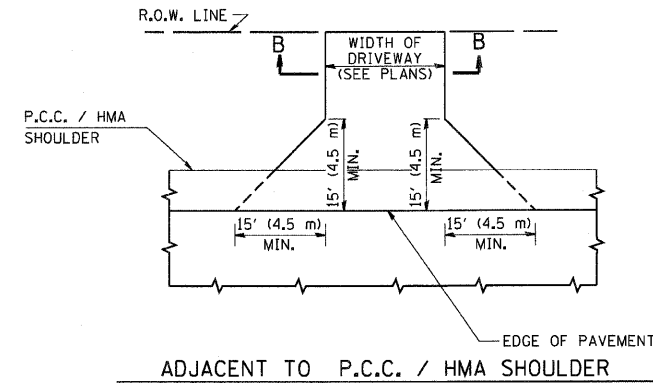
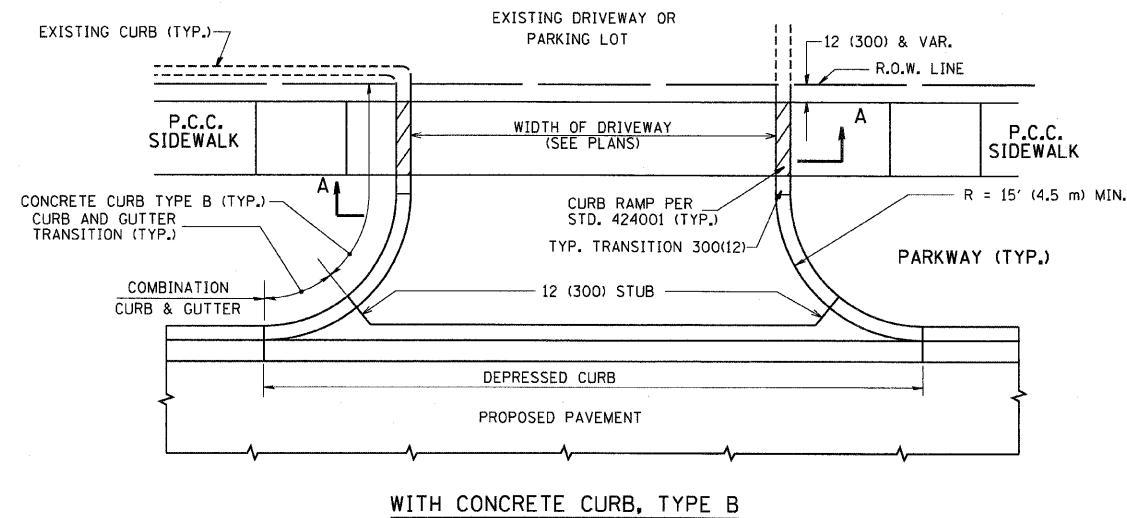
| GENERAL NOTES | | WATER LEVEL DATA | |
|---------------------|---|---------------------------|--------------|
| Begin Drilling | 12-03-2007 | Complete Drilling | 12-03-2007 |
| Drilling Contractor | DLZ | Drill Rig | D-50 Cathead |
| Driller | J & A | Logger | W. Wang |
| Checked by | E. Datz | Depth to Water | NA |
| Drilling Method | 3.25-inch HSA; backfill upon completion | Time After Drilling | NA |
| | | While Drilling | 6.70 ft |
| | | At Completion of Drilling | NA |
| | | At Completion of Drilling | NA |
| | | Depth to Water | NA |

| | |
|----------|-----|
| DESIGNED | PWO |
| CHECKED | CJB |
| DRAWN | DRP |
| CHECKED | PJM |



V3 Companies of Illinois Ltd.
7325 Janes Avenue
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www.v3co.com

BORING LOGS
ILLINOIS ROUTE 23 OVER
KISHWAUKEE RIVER OVERFLOW NO. 2
F.A.P. ROUTE 324
McHENRY COUNTY
STA. 77+62.00
STRUCTURE NO. 056-0084



RURAL FIELD ENTRANCE (FE)

HMA SURFACE COURSE, MIX "C", N50, 2 (50) MEASURED IN TONS (METRIC TONS)

AGGREGATE BASE CSE., TYPE B, 8 (200) MEASURED IN SQ. YD. (m²).

GENERAL NOTES:

DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS". FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATIONS IN THE PERMIT HANDBOOK. DRIVEWAYS SHALL BE REPLACED IN KIND, UNLESS OTHERWISE NOTED ON THE PLANS.

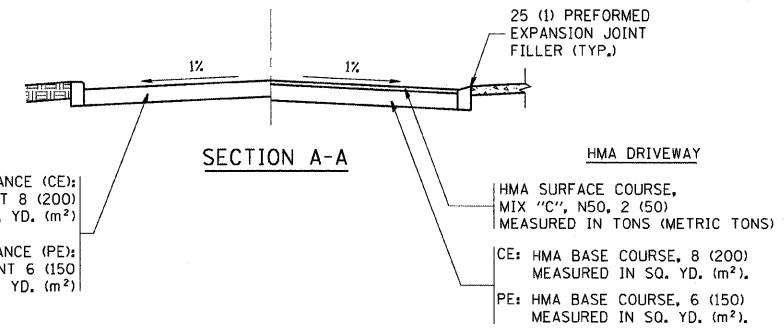
COMMERCIAL DRIVEWAYS SHALL BE CONSTRUCTED WITH CONCRETE CURB, TYPE B RETURNS EXCEPT WHEN THE SIDEWALK EDGE IS 4 FEET (1.2 METERS) OR LESS FROM THE BACK OF CURB, CONSTRUCT A FLARE DRIVEWAY WITHOUT CURB.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC PERMIT OFFICE AT 847/ 705-4131 FOR ANY QUESTIONS ON DRIVEWAYS SHOWN IN THE PLANS; SPECIFICALLY IN REFERENCE TO ADDITIONAL AND/OR RELOCATION/REMOVAL OF A DRIVEWAY.

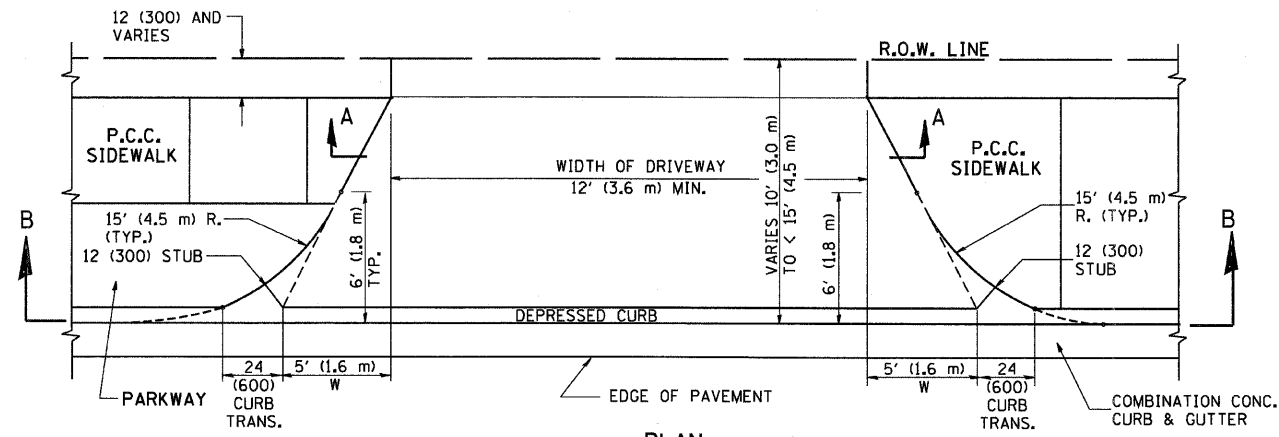
COMBINATION CONCRETE CURB & GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE CURB & GUTTER TRANSITION.

1 (25) PREFORMED EXPANSION JOINT FILLER WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE P.C.C. DRIVEWAY PAVEMENT OR P.C.C. SIDEWALK.

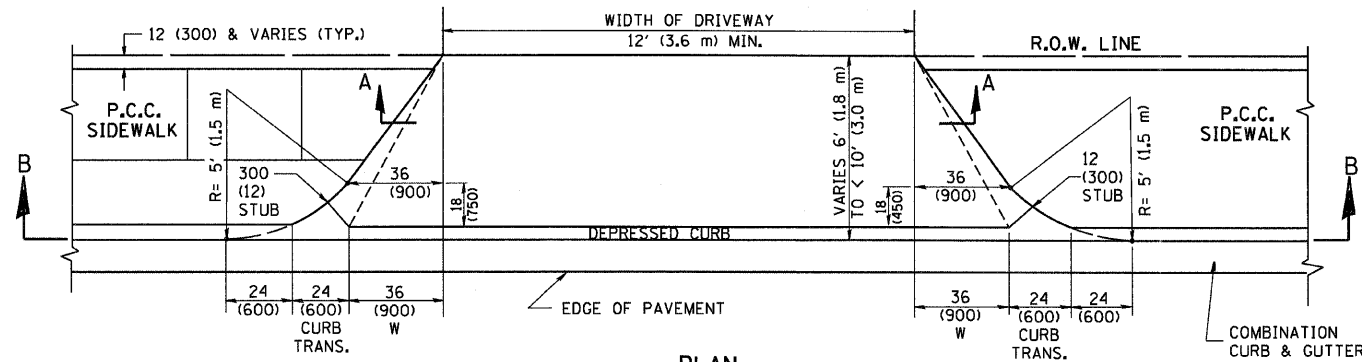
WHEN THE P.C.C. SIDEWALK EXTENDS THROUGH THE DRIVEWAY, THE THICKNESS OF THE SIDEWALK IN THE DRIVEWAY AREA SHALL BE THE SAME AS THE DRIVEWAY THICKNESS. SIDEWALK WILL BE PAID FOR AS P.C.C. SIDEWALK OF THE THICKNESS SPECIFIED. SIDEWALK CROSS SLOPE THRU DRIVEWAY AREA TO BE A MAXIMUM OF 1:50.



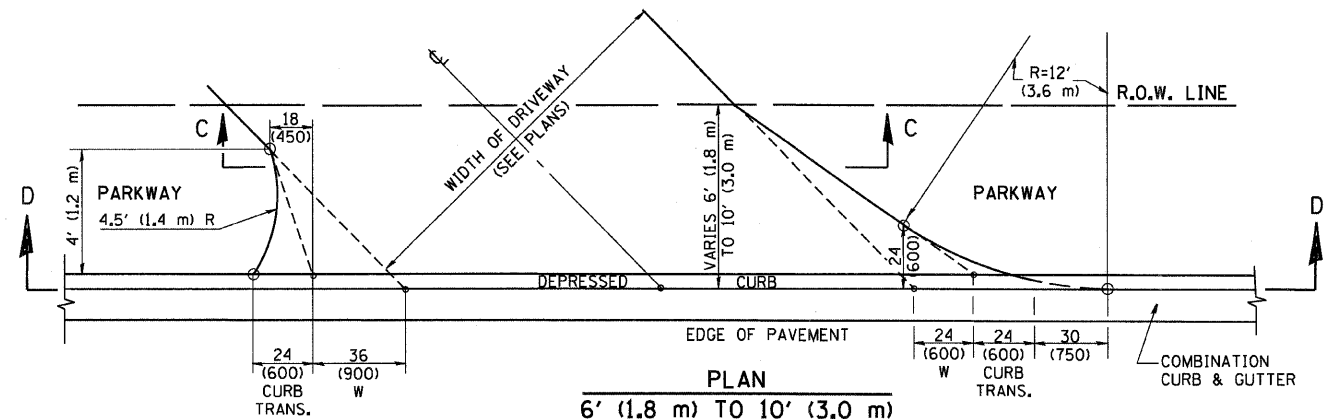
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|------------------------------------|-----------------------------|----------------------------|-------------------------------|---|---|--------------------------|-------------------------|---------------------------|---|-----------|
| FILE NAME = | USER NAME = bauerdl | DESIGNED - R. SHAH | REVISED - M. GOMEZ 04-06-01 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | DRIVEWAY DETAILS - DISTANCE BETWEEN R.O.W. AND FACE OF CURB & EDGE OF SHOULDER >= 15' (4.5 m) | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| ct:\projects\diststd22x34\bd01.dgn | PLOT SCALE = 49,9999' / IN. | DRAWN - | REVISED - P. LOFLUER 04-15-03 | | | 324 | 23B-1 | McHENRY | 97 | 75 |
| PLOT DATE = 6/12/2008 | CHECKED - | REVISOR - R. BORO 01-01-07 | REVISED - R. BORO 06-11-08 | | | BD0156-07 (BD-01) | | CONTRACT NO. 62892 | | |
| | DATE - 11-04-95 | | | | | SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. 59+00 TO STA. 89+00 | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | |



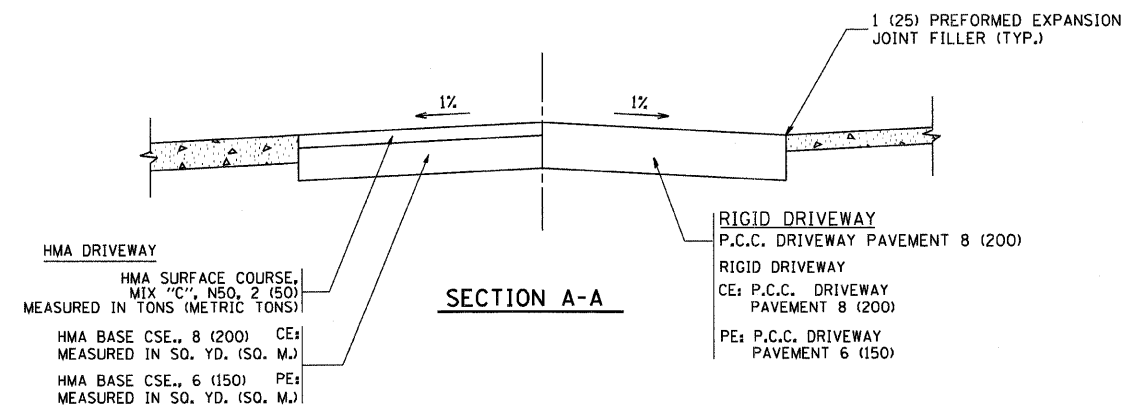
PLAN
10' (3.0 m) TO < 15' (4.5 m)



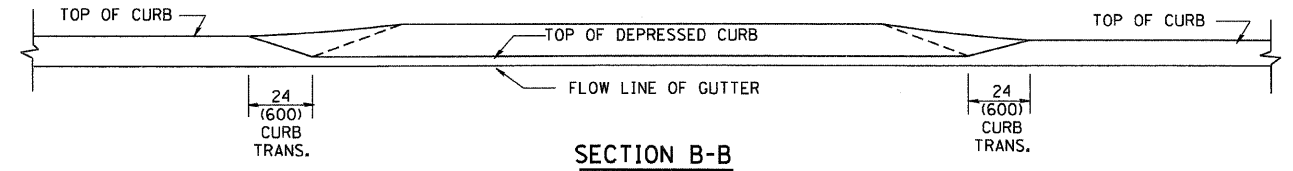
PLAN
6' (1.8 m) TO < 10' (3.0 m)



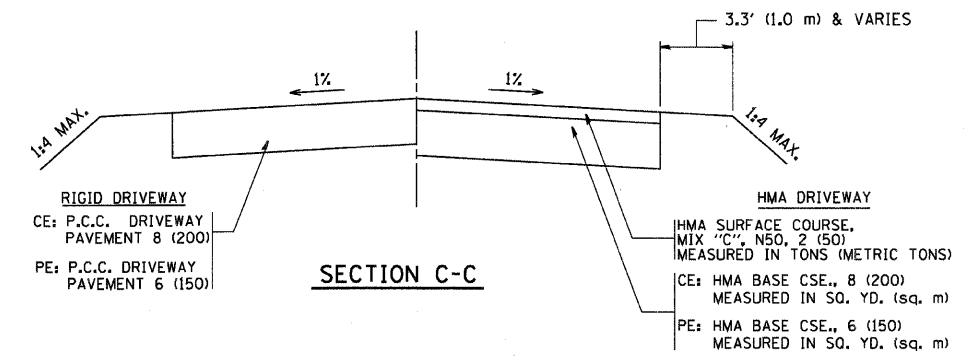
PLAN
6' (1.8 m) TO 10' (3.0 m)



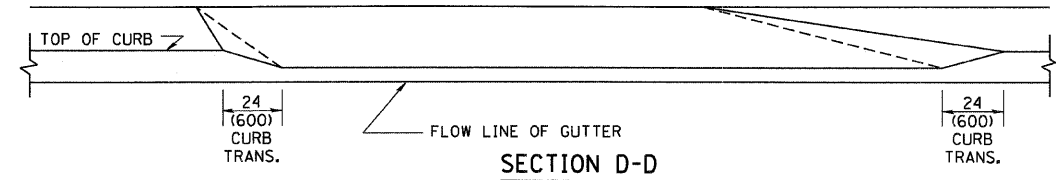
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

GENERAL NOTES

DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS". FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATION 10 IN THE PERMIT HANDBOOK. WHERE SIDEWALKS EXIST, DRIVEWAYS SHALL BE REPLACED WITH RIGID PAVEMENT. WHERE NO SIDEWALKS EXIST, DRIVEWAYS SHALL BE REPLACED IN KIND. SIDEWALK CROSS SLOPE THRU DRIVEWAY AREA TO BE A MAXIMUM OF 1:50.

WHEN THE DISTANCE BETWEEN R.O.W. AND THE BACK OF CURB IS EQUAL TO OR LESS THAN 8' (2.4 m), THE P.C.C. SIDEWALK SHALL EXTEND TO THE BACK OF CURB.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC PERMIT OFFICE AT 847/705-4131 FOR ANY QUESTIONS ON DRIVEWAYS SHOWN IN THE PLANS; SPECIFICALLY IN REFERENCE TO ADDITIONAL AND/OR RELOCATION/REMOVAL OF A DRIVEWAY.

COMBINATION CONCRETE CURB & GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE CURB & GUTTER TRANSITION.

THE 1 (25) PREFORMED EXPANSION JOINT FILLER WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE P.C.C. DRIVEWAY PAVEMENT OR P.C.C. SIDEWALK.

"W" VARIES FROM 36 (900) TO 5' (1.5 m) PROPORTIONAL TO THE LENGTH (L), FROM 6' (1.8 m) TO 10' (3 m).

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE NOTED.

FILE NAME =
W:\diststd\22\34\bd02.dgn

USER NAME = gaglianob
PLOT SCALE = 50.0000' / IN.
PLOT DATE = 1/4/2008

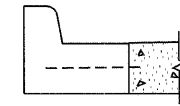
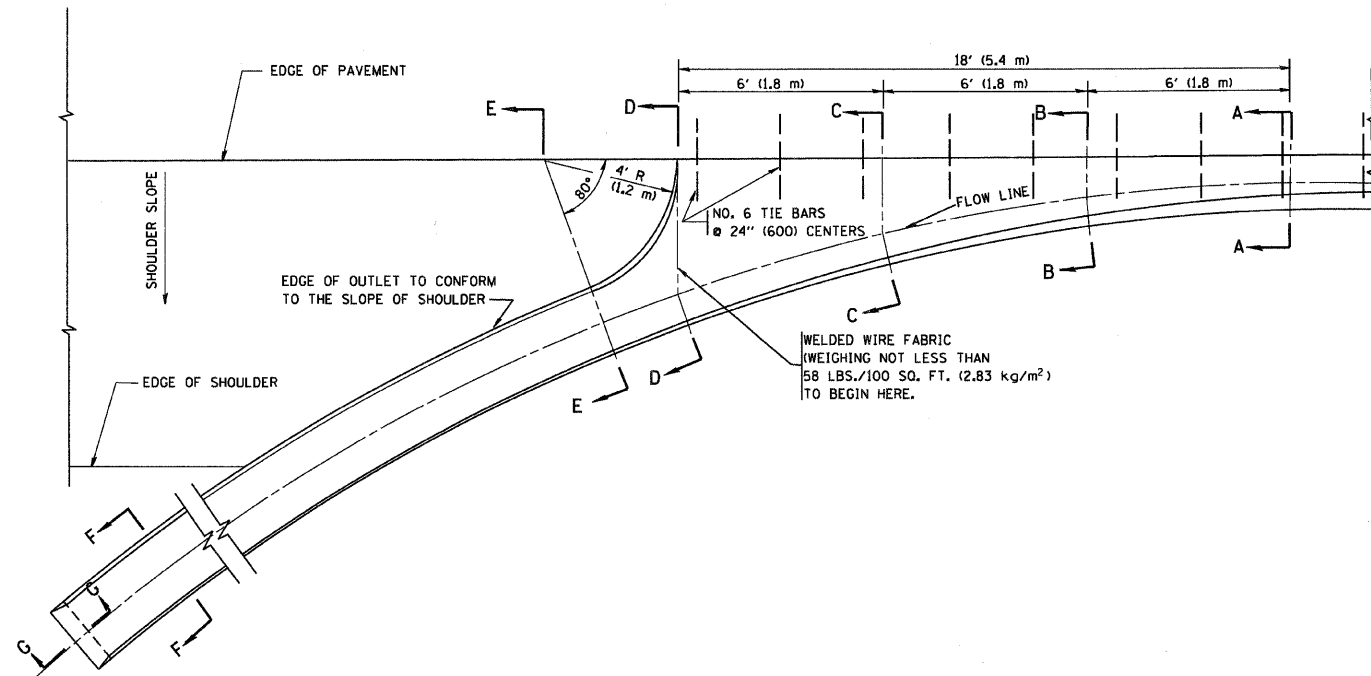
DESIGNED - R. SHAH
DRAWN -
CHECKED -
DATE - 11-06-95

REVISED - T. HOLTZ 04-08-97
REVISED - M. GOMEZ 04-06-01
REVISED - P. LOFLEUR 04-15-03
REVISED - R. BORO 01-01-07

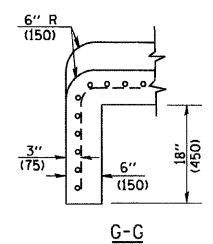
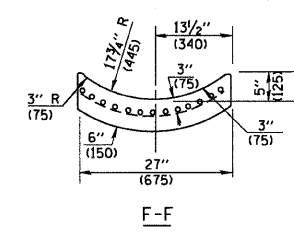
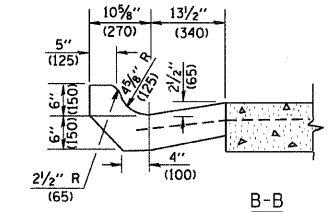
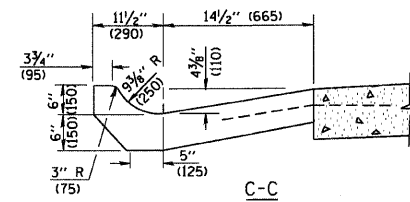
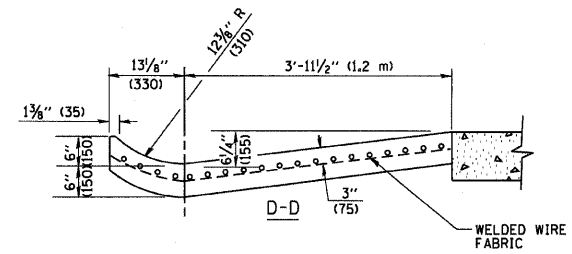
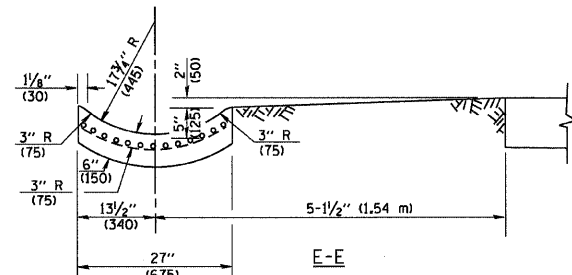
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

| DRIVEWAY DETAILS | |
|---|-------------------------|
| DISTANCE BETWEEN ROW AND FACE OF CURB < 15' (4.5 m) | |
| SCALE: NONE | SHEET NO. 1 OF 1 SHEETS |
| STA. 59+00 | TO STA. 89+00 |

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---------|---------|--------------------|-----------|
| 324 | 23B-1 | McHENRY | 97 | 76 |
| BD400-02 (BD-02) | | | CONTRACT NO. 62892 | |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |



* DIMENSIONS OF THE CURB & GUTTER AT SECTION A-A ARE SHOWN ON STATE STANDARD 606001. FOR DETAILS OF OUTLET FOR CONCRETE CURB & GUTTER, TYPE B-6.24 (B-15.60) SEE STATE STANDARD 606006.



GENERAL NOTES

GUTTER OUTLET SHALL BE TIED TO THE PAVEMENT IN ACCORDANCE WITH DETAILS FOR LONGITUDINAL CONSTRUCTION JOINT SHOWN ON STANDARD 420001.

TIE BARS SHALL BE NO. 20 (NO.6) AT 24" (600) CENTERS UNLESS OTHERWISE SHOWN.

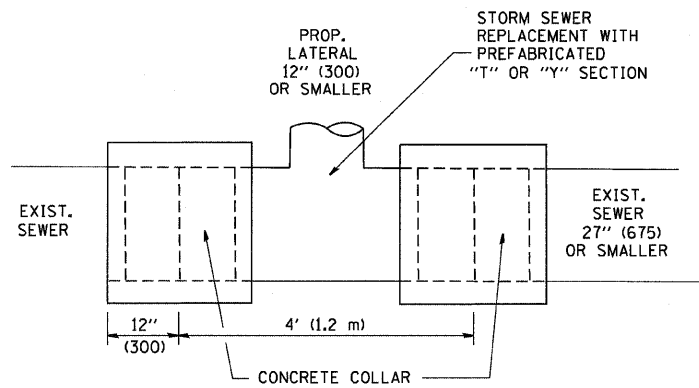
IF THE AVERAGE GRADE OF PAVEMENT FOR THE DISTANCE FROM SECTION A-A TO D-D EXCEEDS 2%, THIS DISTANCE SHALL BE INCREASED 6' (1.8 m) FOR EACH 1% INCREASE IN GRADE.

QUANTITIES

FOR SECTION A-A TO E-E AND CURTAIN WALL = 1.25 CU. YDS. (0.96 m³) CLASS S1 CONCRETE (OUTLET) FOR 9" (225) PAV'T.
 1.27 CU. YDS. (0.96 m³) CLASS S1 CONCRETE (OUTLET) FOR 10" (250) PAV'T.
 FOR SECTION F-F = 0.045 CU. YDS. (0.03 m³) CLASS S1 CONCRETE PER FT. (M).

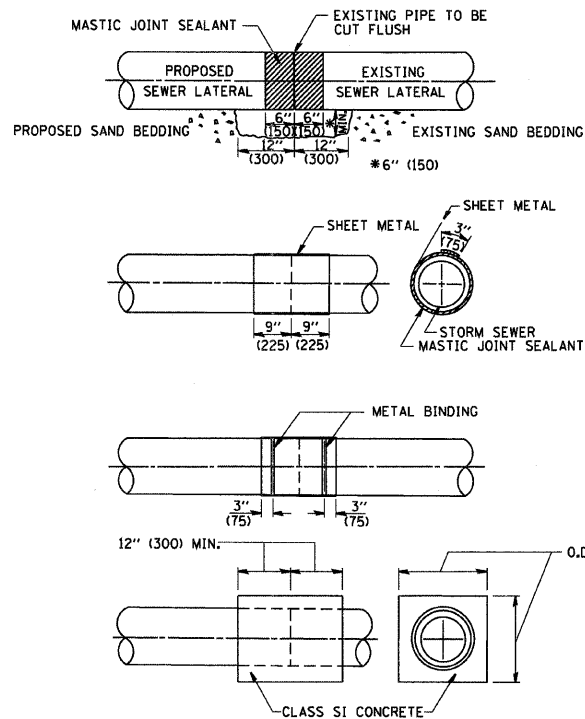
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

| | | | | | | | | | | | | | |
|--|-----------------------------|-----------------------|-----------------------------|---|--|--|--|------------------|---------|-------------------------|--------------|--------------------------|--|
| FILE NAME = M:\distatd\22x34\bd03.dgn | USER NAME = goglianobt | DESIGNED - M. DE YONG | REVISED - R. SHAH 09-09-94 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | OUTLET FOR CONCRETE CURB AND GUTTER | | | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | |
| | PLOT SCALE = 50.0000' / IN. | CHECKED - | REVISED - R. SHAH 10-25-94 | | | | | 324 | 23B-1 | McHENRY | 97 | 77 | |
| | PLOT DATE = 1/4/2008 | DATE - 08-04-86 | REVISED - E. GOMEZ 12-21-00 | | | | | BD600-01 (BD-03) | | CONTRACT NO. 62892 | | | |
| | | | REVISED - | | | | | SCALE: NONE | | SHEET NO. 1 OF 1 SHEETS | | STA. 59+00 TO STA. 89+00 | |



DETAIL "A"

LATERAL CONNECTION TO EXISTING SEWER OF 27" (675) OR SMALLER

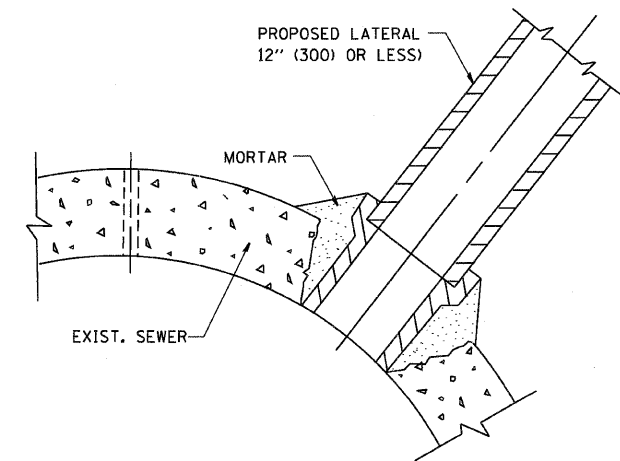


DETAIL "B"

CLASS SI CONCRETE COLLAR

CONSTRUCTION SEQUENCE

- CUT THE EXISTING END OF THE PIPE SO AS TO PRESENT A FLUSH BUTT JOINT. BRUSH AND CLEAN ALL PIPES.
- APPLY THE MASTIC JOINT SEALANT TO THE FIRST 6" (150) OF EACH PIPE.
- BUTT THE PIPES TOGETHER LEAVING A MINIMUM OF 12" x 6" (300 x 150) DEEP EXCAVATION UNDER AND AROUND EACH PIPE END.
- CUT A PIECE OF SHEET METAL GAGE NO. 19 1.1 (0.0418) 18" (450) WIDE BY THE OUTSIDE CIRCUMFERENCE OF THE PIPE PLUS 3" (75) LONG.
- WRAP THE SHEET METAL AROUND THE PIPES, 9" (225) ON EACH SIDE OF THE JOINT, STARTING AT THE TOP OF THE PIPE.
- LAP THE SHEET METAL AT LEAST 3" (75) AT THE TOP OF THE PIPE AND PLACE THE MASTIC JOINT SEALANT BETWEEN THE LAP.
- PLACE TWO METAL BANDS AROUND THE SHEET METAL AND TIGHTEN.
- WIPE OFF ANY EXCESS MASTIC JOINT SEALANT THAT OZZES OUT FROM BETWEEN THE SHEET METAL AND THE PIPES.
- PLACE CLASS SI CONCRETE AROUND THE JOINT.



DETAIL "C"

PROPOSED LATERAL CONNECTION TO EXISTING SEWER OF 30" (750) OR LARGER

NOTES

MATERIAL

MATERIAL USED FOR THE TEE OR WYE SECTION SHALL BE COMPATIBLE WITH THE EXISTING STORM SEWER OR THE PROPOSED STORM SEWER.

CONSTRUCTION METHODS

- THIS WORK SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE APPLICABLE PORTIONS OF SECTION 550 OF THE STANDARD SPECIFICATIONS.
- CONNECTION TO AN EXISTING STORM SEWER SHALL BE BY EITHER OF THE FOLLOWING METHODS:
 - PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 27" (675) OR SMALLER SEE DETAIL "A" AND "B".
 - PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 30" (750) OR LARGER SEE DETAIL "C".

IF THE EXISTING SEWER PIPE IS CRACKED, BROKEN OR OTHERWISE DAMAGED BY THE CONTRACTOR IN MAKING THE CIRCULAR OPENING, THE CONTRACTOR SHALL REPLACE THAT SECTION OF PIPE WITH PIPE EQUAL AND SIMILAR IN ALL RESPECTS TO THE PIPE IN THE EXISTING SEWER, IN A CAREFUL WORKMANLIKE MANNER, WITHOUT EXTRA COMPENSATION.

GENERAL

CARE MUST BE TAKEN TO PREVENT DEBRIS FROM ENTERING THE SEWER. ALL DEBRIS WHICH ENTERS THE SEWER MUST BE REMOVED. THE SEWER MUST BE LEFT CLEAN AND UNOBSTRUCTED UPON COMPLETION OF THE CONTRACT.

CARE MUST BE TAKEN TO PREVENT ANY PART OF THE NEW PIPE CONNECTION FROM PROJECTING INTO THE EXISTING SEWER.

BASIS OF PAYMENT

TEE OR WYE CONNECTIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR STORM SEWER TEE OR WYE OF THE TYPE AND SIZE SPECIFIED IN THE PLANS, THIS PRICE SHALL INCLUDE ALL EXCAVATION OF THE TRENCH, REMOVAL OF THE EXISTING STORM SEWER, FURNISHING AND INSTALLING THE SPECIFIED TEE OR WYE SECTION, FURNISHING AND INSTALLING THE REQUIRED CONCRETE COLLAR, AND ALL OTHER MATERIAL NECESSARY TO COMPLETE THIS WORK AS SHOWN AND SPECIFIED.

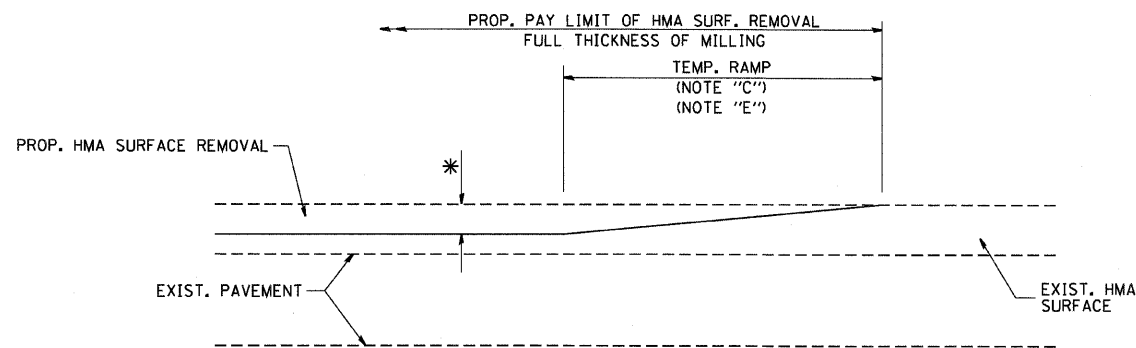
REMOVAL AND REINSTALLATION OF EXISTING STORM SEWER ADJACENT TO THE PROPOSED TEE OR WYE SECTION, FOR THE PURPOSE OF FACILITATING THE INSTALLATION OF THE TEE OR WYE SECTION, WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE WORK.

TRENCH BACKFILL, EXCAVATION IN ROCK AND REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIAL BELOW PLAN BEDDING GRADE WILL BE PAID FOR SEPARATELY.

CONCRETE COLLAR FOR CONNECTING A PROPOSED STORM SEWER TO AN EXISTING STORM SEWER WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE PROPOSED STORM SEWER.

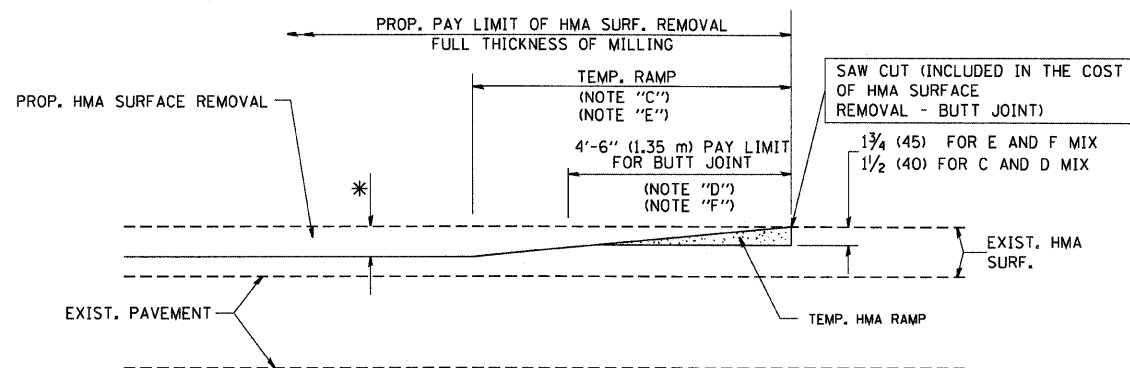
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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|--|----------------------------|-----------------------|-------------------------------|---|---|-------------------------|------------|-----------------|------------------------------------|------------------|-------------------|----------------|
| FILE NAME = M:\diststd\22x34\bd07.dgn | USER NAME = gegl1enobt | DESIGNED - M. DE YONG | REVISED - M. DE YONG 05-08-92 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | DETAIL OF STORM SEWER CONNECTION TO EXISTING SEWER | | | F.A. RTE. = 324 | SECTION = 23B-1 | COUNTY = McHENRY | TOTAL SHEETS = 97 | SHEET NO. = 78 |
| | PLOT SCALE = 50.000' / IN. | DRAWN - | REVISED - R. SHAH 09-09-94 | | SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. 59+00 | TO STA. 89+00 | BD500-01 (BD-7) CONTRACT NO. 62892 | | | |
| | PLOT DATE = 1/4/2008 | CHECKED - | REVISED - R. SHAH 10-25-94 | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | | | | |
| | | DATE = 07-25-90 | REVISED - R. SHAH 06-12-96 | | | | | | | | | |



MILLED TEMPORARY RAMP
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

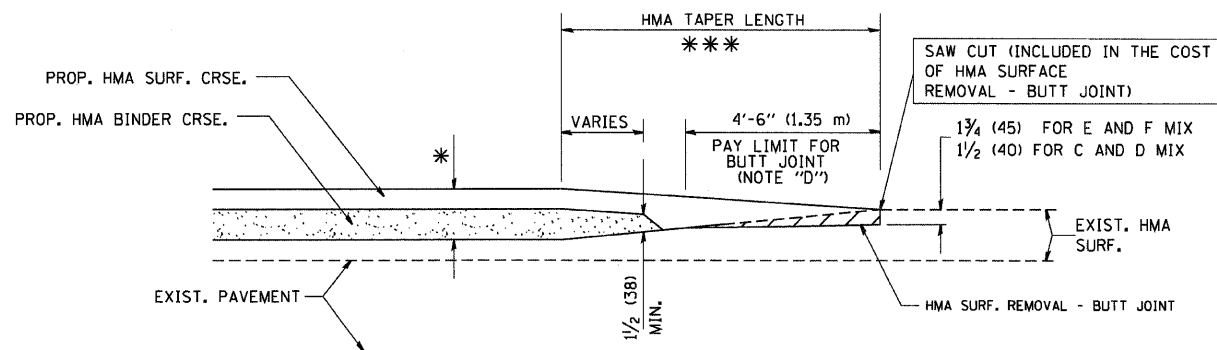
OPTION 1



HMA CONSTRUCTED TEMPORARY RAMP
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

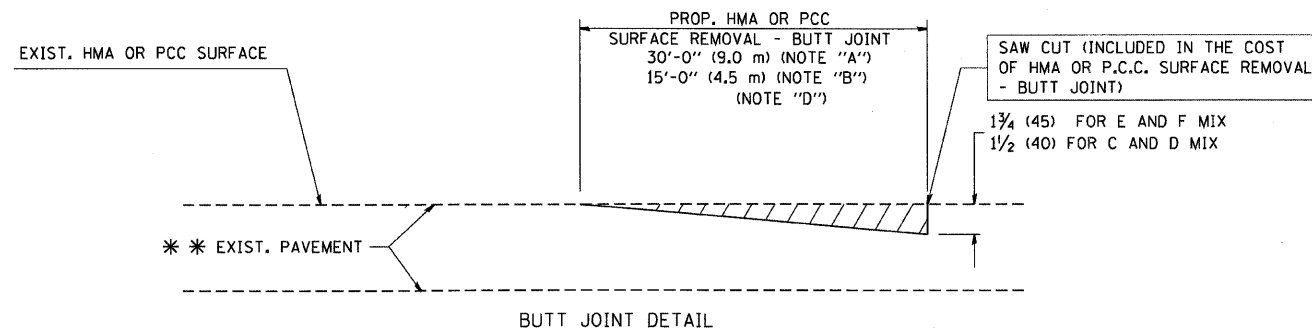
OPTION 2

TYPICAL TEMPORARY RAMP

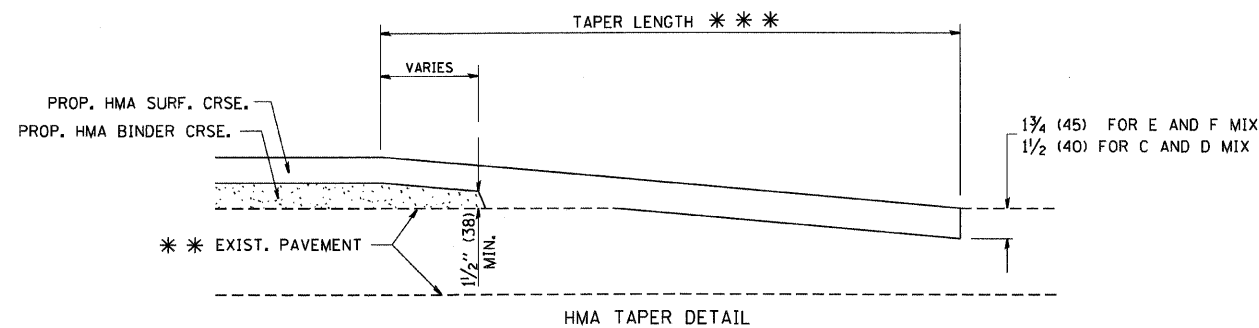


BUTT JOINT AND
HMA TAPER

**TYPICAL BUTT JOINT AND HMA TAPER
FOR MILLING AND RESURFACING**



BUTT JOINT DETAIL



HMA TAPER DETAIL

**TYPICAL BUTT JOINT AND HMA TAPER
FOR RESURFACING ONLY**

*** PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

NOTES

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
 - B: MINOR SIDE ROADS.
 - C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
 - D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
 - E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
 - F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
 - G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- * SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- *** 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

BASIS OF PAYMENT:

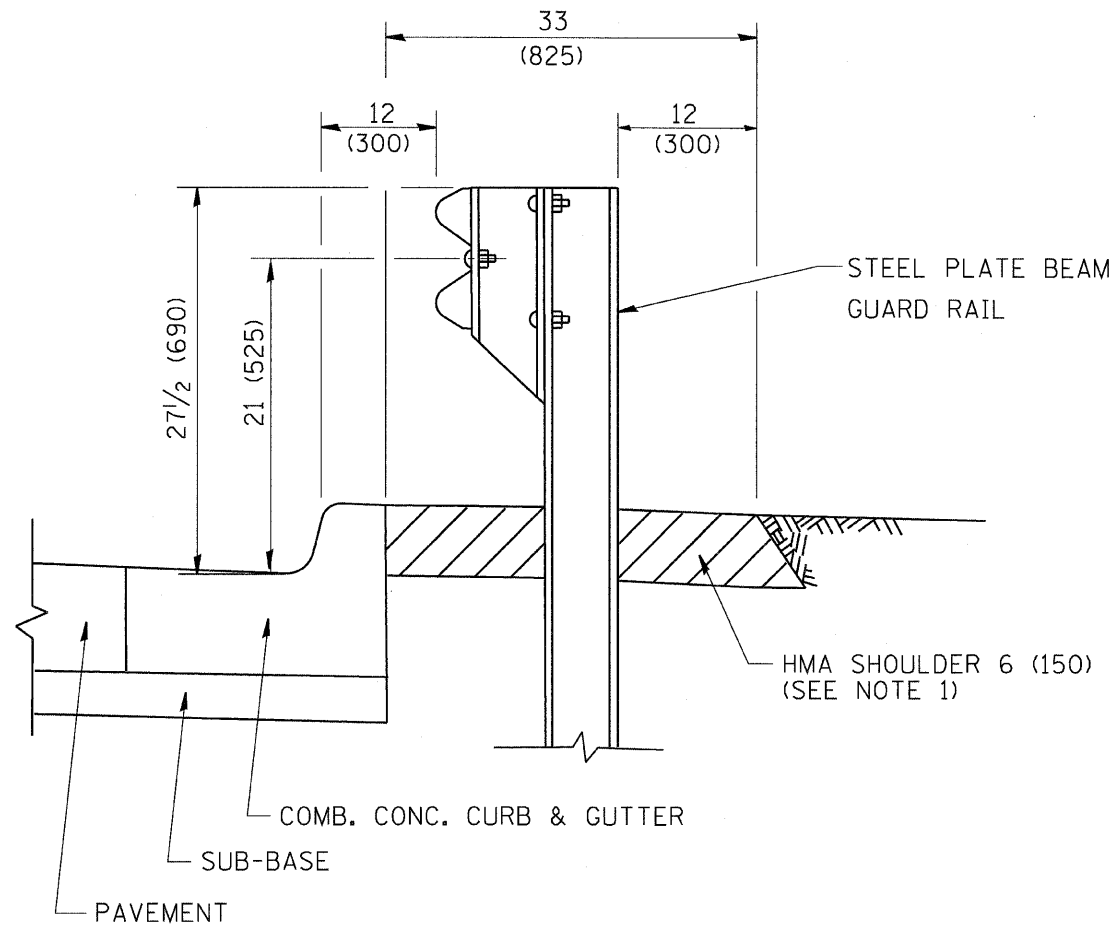
THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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|--|-----------------------------|-----------------------|-----------------------------|
| FILE NAME = M:\diststd\22x34\bd32.dgn | USER NAME = goglianob | DESIGNED - M. DE YONG | REVISED - R. SHAH 10-25-94 |
| | | DRAWN - | REVISED - A. ABBAS 03-21-97 |
| | PLOT SCALE = 50.0000' / IN. | CHECKED - | REVISED - M. GOMEZ 04-06-01 |
| | PLOT DATE = 1/4/2008 | DATE - 06-13-90 | REVISED - R. BORO 01-01-07 |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

| | | | | | | |
|---|-------------------------|----------------------|---------|--------------------|--------------|-----------|
| BUTT JOINT AND HMA TAPER DETAILS | | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | 324 | 23B-1 | McHENRY | 97 | 79 |
| STA. 59+00 | TO STA. 89+00 | BD400-05 BD32 | | CONTRACT NO. 62692 | | |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | | | |

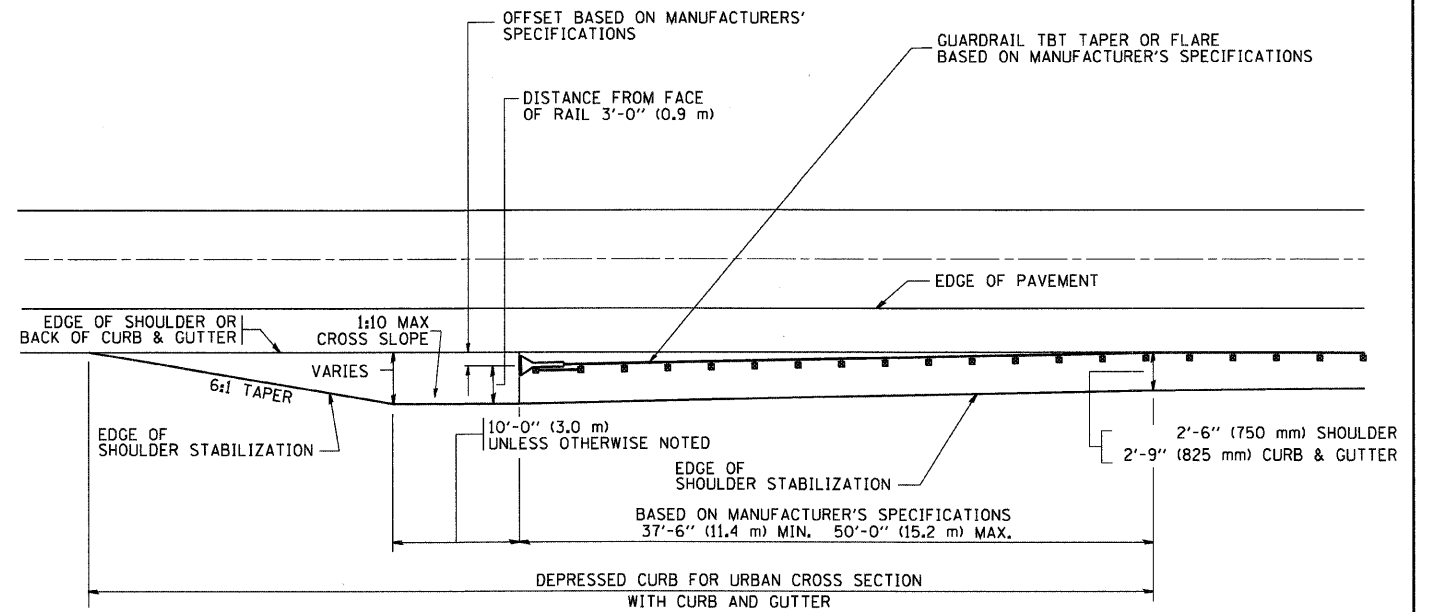


- NOTES: 1. THE HMA SHOULDER SHALL EXTEND UNDER THE TRAFFIC BARRIER TERMINAL
2. GUARD RAIL MAY BE PLACED AT THE BACK OF CURB WHEN DIRECTED BY THE ENGINEER.

BASIS OF PAYMENT: HMA SHOULDER 6 (150) WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SHOULDER 6" (150 mm)".

STEEL PLATE BEAM GUARD RAIL AND TRAFFIC BARRIER TERMINAL, OF THE TYPE SPECIFIED WILL BE PAID FOR SEPARATELY.

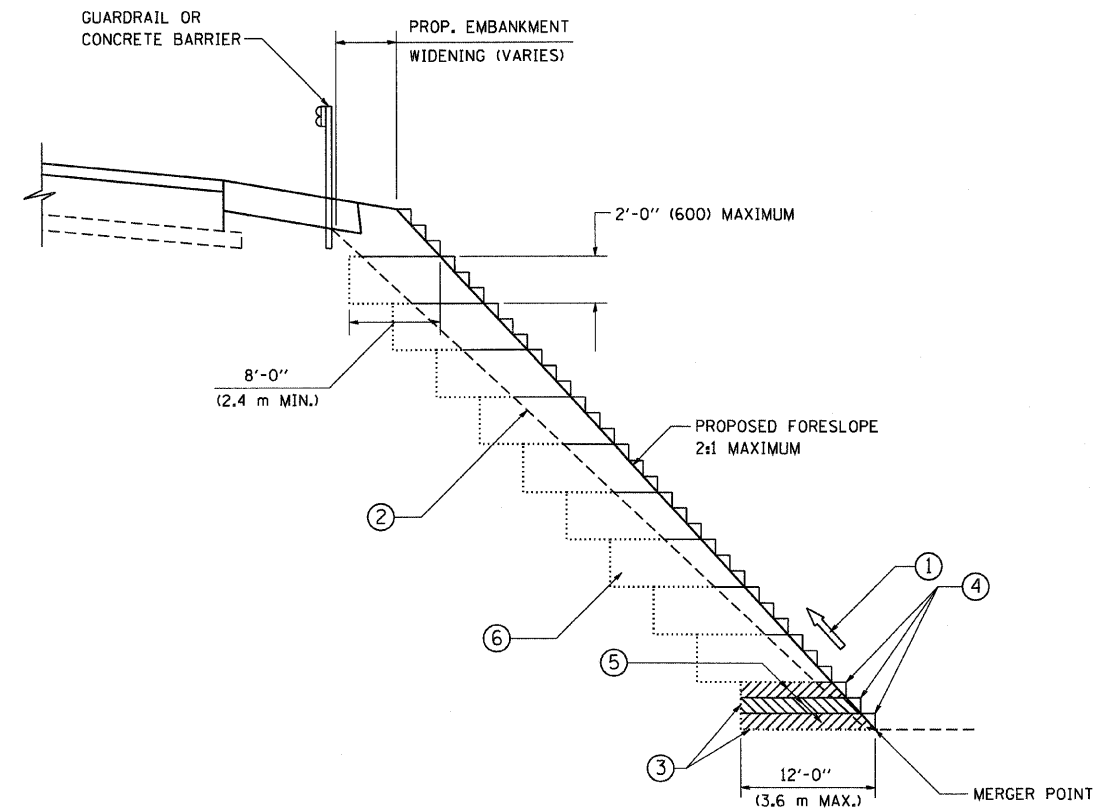
DETAILS FOR STEEL PLATE BEAM GUARD RAIL ADJACENT TO CURB AND GUTTER [FOR ROADWAY SPEED 35 MPH (60 kmh) TO 45 MPH (70 kmh)]



STABILIZATION AT TBT TY. 1 SPL.

TBT = TRAFFIC BARRIER TERMINAL
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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|--|------------------------------|-----------------------------|-----------------------------|---|---|-----------|--------------------------|---------|---|-----------|
| FILE NAME = M:\distatd\22x34\bd34.dgn | USER NAME = gaglianobt | DESIGNED - M. DE YONG | REVISED - R. SHAH 02-23-95 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | DETAILS FOR STEEL PLATE BEAM GUARD RAIL ADJACENT TO CURB AND GUTTER STABILIZATION AT TBT TY 1 SPL. | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | PLOT SCALE = 50.0000 ' / IN. | DRAWN - | REVISED - A. ABBAS 03-21-97 | | | 324 | 23B-1 | McHENRY | 97 | 90 |
| PLOT DATE = 1/4/2008 | CHECKED - | REVISED - E. GOMEZ 08-28-00 | BD600-10 (BD 34) | | CONTRACT NO. 62892 | | | | | |
| | DATE - 09-22-90 | REVISED - R. BORO 01-01-07 | SCALE: NONE | | SHEET NO. 1 OF 1 SHEETS | | STA. 59+00 TO STA. 89+00 | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | |



TYPICAL BENCHING DETAIL
FOR EMBANKMENT

NOTES:

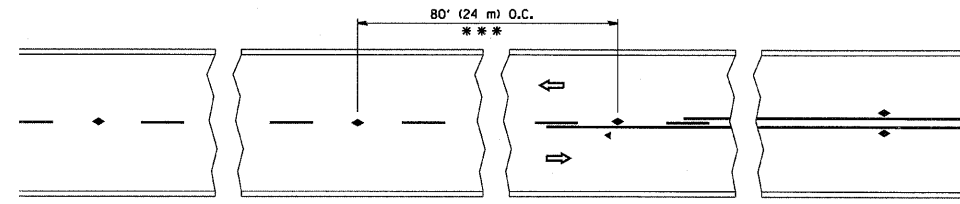
- ① CONSTRUCT SUCCEEDING BENCH CUTS AND EMBANKMENT PLACEMENT AND COMPACTION FROM BOTTOM TO TOP IN STAIRSTEP FASHION.
- ② EXISTING FORESLOPE PREPARED IN ACCORDANCE WITH ARTICLE 205.03 OF THE STANDARD SPECIFICATIONS.
- ③ BENCH CUT EXISTING SLOPE TYPICAL FOR EACH STEP.
- ④ TRIM TO FINAL SLOPE.
- ⑤ EQUAL 8-INCH (200) LIFTS OF EMBANKMENT COMPACTED IN ACCORDANCE WITH ARTICLE 205.05 OF THE STANDARD SPECIFICATIONS.
- ⑥ EXCAVATION OF BENCH CUTS WITHIN EXISTING EMBANKMENT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC METER OR CUBIC YARD FOR "EARTH EXCAVATION". THIS PRICE WILL INCLUDE ALL LABOR AND MATERIAL, NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- ⑦ SLOPES SHALL BE BENCHED ACCORDING TO THIS DETAIL WHEN THE SLOPE IS STEEPER THAN 4:1 AND THE HEIGHT IS GREATER THAN 5' (1.5 m).

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

| | | | |
|--|------------------------|------------------|-----------|
| FILE NAME = W:\disto\22\34\bd51.dgn | USER NAME = geglionobt | DESIGNED - | REVISED - |
| | | DRAWN - CADD | REVISED - |
| | | CHECKED - S.E.B. | REVISED - |
| | | DATE - 06-16-04 | REVISED - |

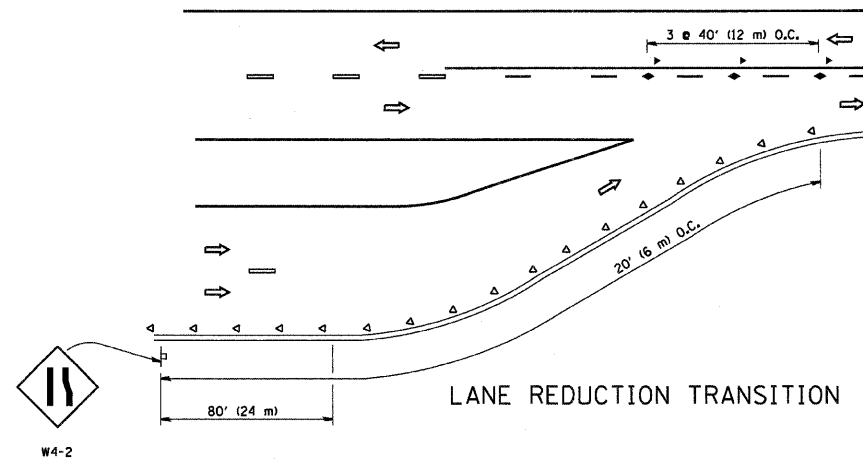
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | | | | | |
|---|--|-------------------------|--|--------------------------|--|-------------------------|--|--------------|----|
| SCALE: NONE | | SHEET NO. 1 OF 1 SHEETS | | STA. 89+00 TO STA. 89+00 | | BENCHING DETAIL | | TOTAL SHEETS | |
| | | | | | | FOR EMBANKMENT WIDENING | | 97 | 81 |
| F.A. RTE. 324 | | SECTION 23B-1 | | COUNTY McHENRY | | CONTRACT NO. 62892 | | SHEET NO. | |
| | | | | BD-51 | | | | | |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | | | | | | |

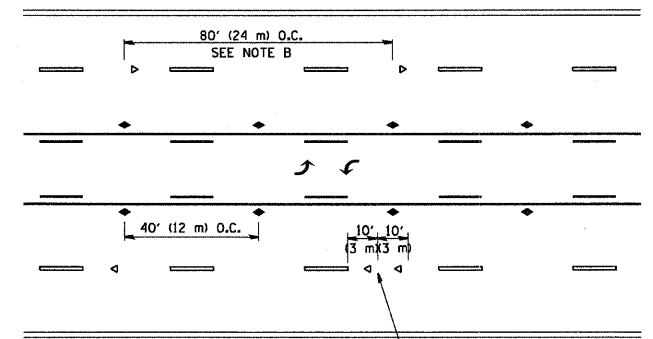


*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

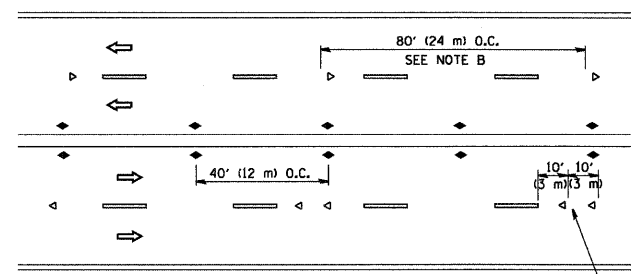
TWO-LANE/TWO-WAY



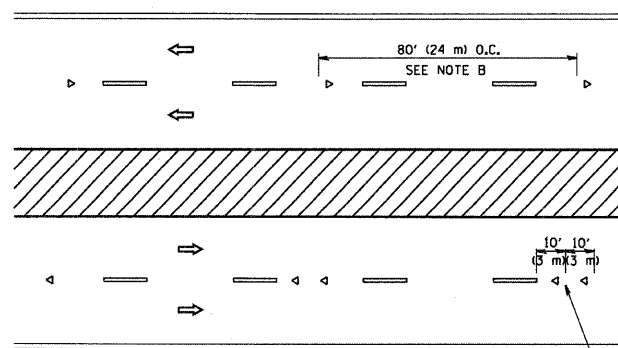
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

SYMBOLS

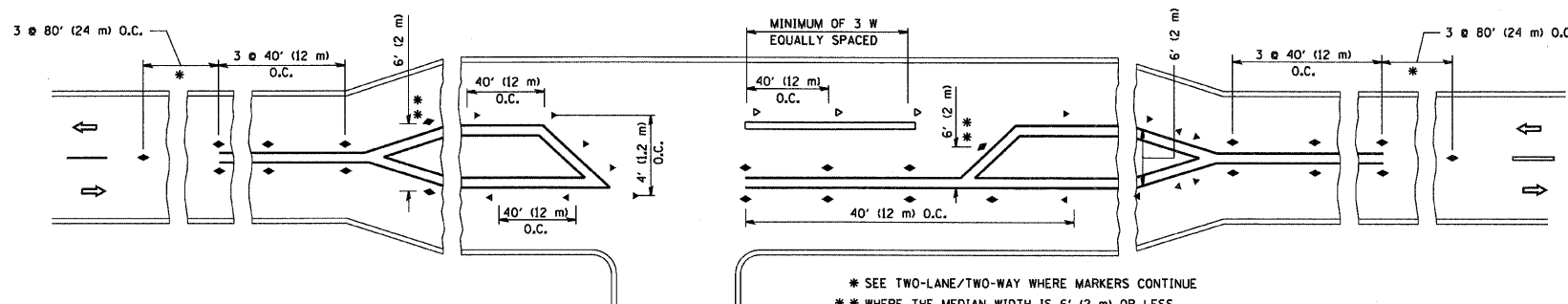
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◀ ONE-WAY CRYSTAL MARKER (W/O)
- ◀ TWO-WAY AMBER MARKER

LANE MARKER NOTES

- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H. (20 km/h) LOWER THAN POSTED SPEEDS.
- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.

DESIGN NOTES

1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHOULD BE INCLUDED IN THE PLANS.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.

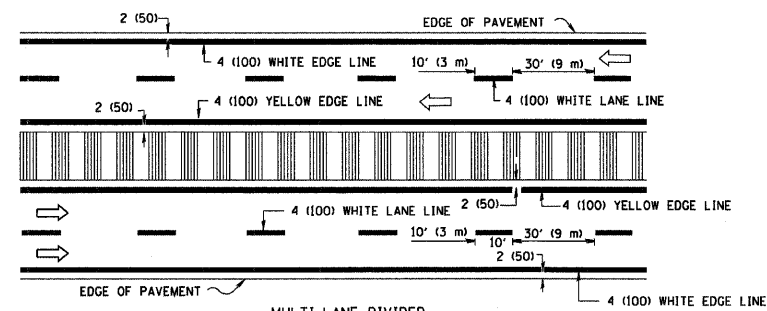
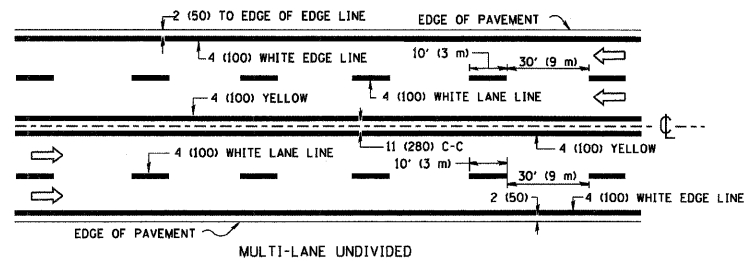
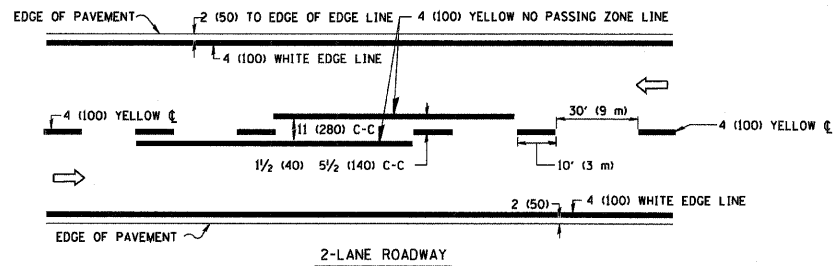


LEFT TURN

* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE
 ** WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

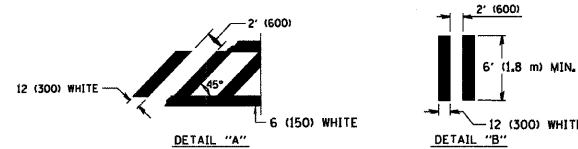
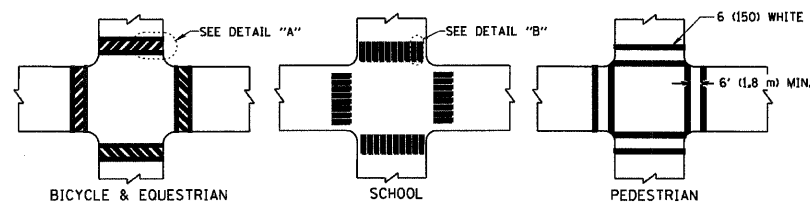
All dimensions are in inches (millimeters) unless otherwise shown.

| | | | | | | | | | | | |
|--|----------------------------|------------|---------------------------------|---|--|-------------------------|---|-----------------|------------------|--------------------|----------------|
| FILE NAME = W:\diststd\22x34\t011.dgn | USER NAME = gag11onobt | DESIGNED - | REVISED - T. RAMMACHER 09-19-94 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT) | | F.A. RTE. = 324 | SECTION = 23B-1 | COUNTY = McHENRY | TOTAL SHEETS = 97 | SHEET NO. = 82 |
| | PLOT SCALE = 50.000' / IN. | CHECKED - | REVISED - T. RAMMACHER 03-12-99 | | SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. 59+00 TO STA. 89+00 | TC-11 | | CONTRACT NO. 62892 | |
| PLOT DATE = 1/4/2008 | DATE - | REVISED - | REVISED - | | | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |

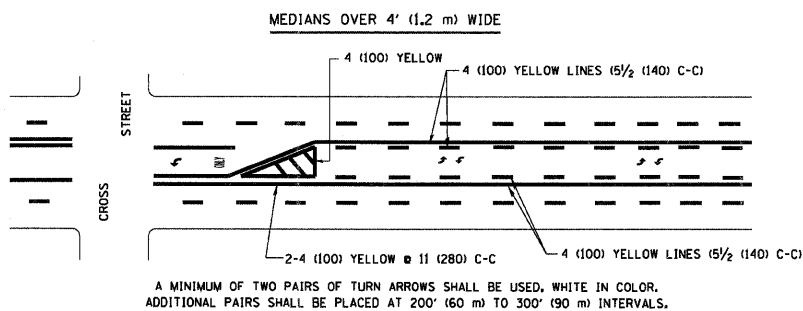
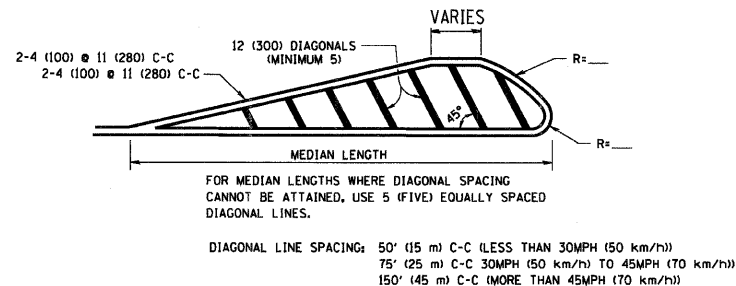
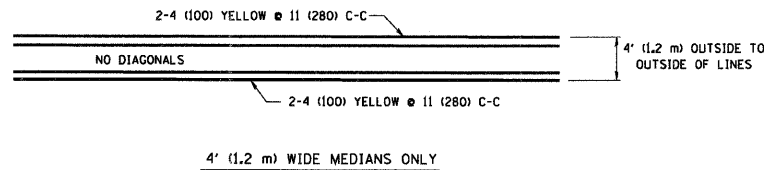


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

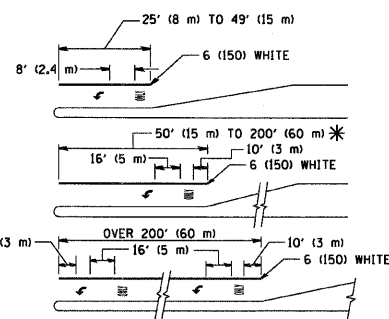
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING



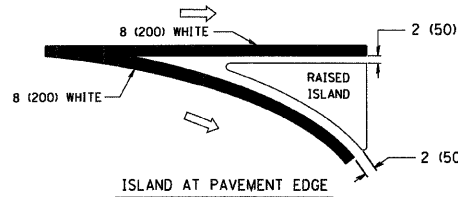
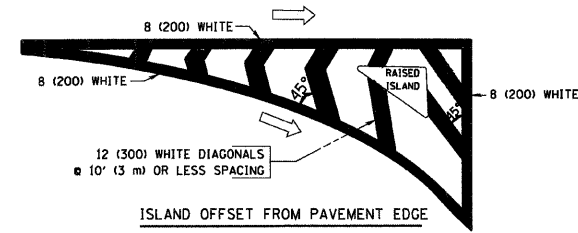
TYPICAL PAINTED MEDIAN MARKING



FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
 * TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



TYPICAL ISLAND MARKING

| TYPE OF MARKING | WIDTH OF LINE | PATTERN | COLOR | SPACING / REMARKS |
|---|--|---------------------------------|---|--|
| CENTERLINE ON 2 LANE PAVEMENT | 4 (100) | SKIP-DASH | YELLOW | 10' (3 m) LINE WITH 30' (9 m) SPACE |
| CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT | 2 @ 4 (100) | SOLID | YELLOW | 11 (280) C-C |
| NO PASSING ZONE LINES FOR ONE DIRECTION FOR BOTH DIRECTIONS | 4 (100) 2 @ 4 (100) | SOLID SOLID | YELLOW YELLOW | 5/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN |
| LANE LINES | 4 (100) 5 (125) | SKIP-DASH SKIP-DASH | WHITE WHITE | 10' (3 m) LINE WITH 30' (9 m) SPACE |
| DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS) | SAME AS LINE BEING EXTENDED | SKIP-DASH | SAME AS LINE BEING EXTENDED | 2' (600) LINE WITH 6' (1.8 m) SPACE |
| EDGE LINES | 4 (100) | SOLID | YELLOW-LEFT WHITE-RIGHT | OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB |
| TURN LANE MARKINGS | 6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m)) | SOLID | WHITE | SEE TYPICAL TURN LANE MARKING DETAIL |
| TWO WAY LEFT TURN MARKING | 2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW | SKIP-DASH AND SOLID IN PAIRS | YELLOW WHITE | 10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL |
| CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL) | 2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90° | SOLID SOLID SOLID | WHITE WHITE WHITE | NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS. |
| STOP LINES | 24 (600) | SOLID | WHITE | PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT, OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE |
| PAINTED MEDIANS | 2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS | SOLID | YELLOW; TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC | 11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING. |
| GOPE MARKING AND CHANNELIZING LINES | 8 (200) WITH 12 (300) DIAGONALS @ 45° | SOLID | WHITE | DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h) 30' (9 m) C-C (OVER 45MPH (70 km/h)) |
| RAILROAD CROSSING | 24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X" | SOLID | WHITE | SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m ²) EACH "X"=54.0 SQ. FT. (5.0 m ²) |
| SHOULDER DIAGONALS | 12 (300) @ 45° | SOLID | WHITE - RIGHT YELLOW - LEFT | 50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h)) |

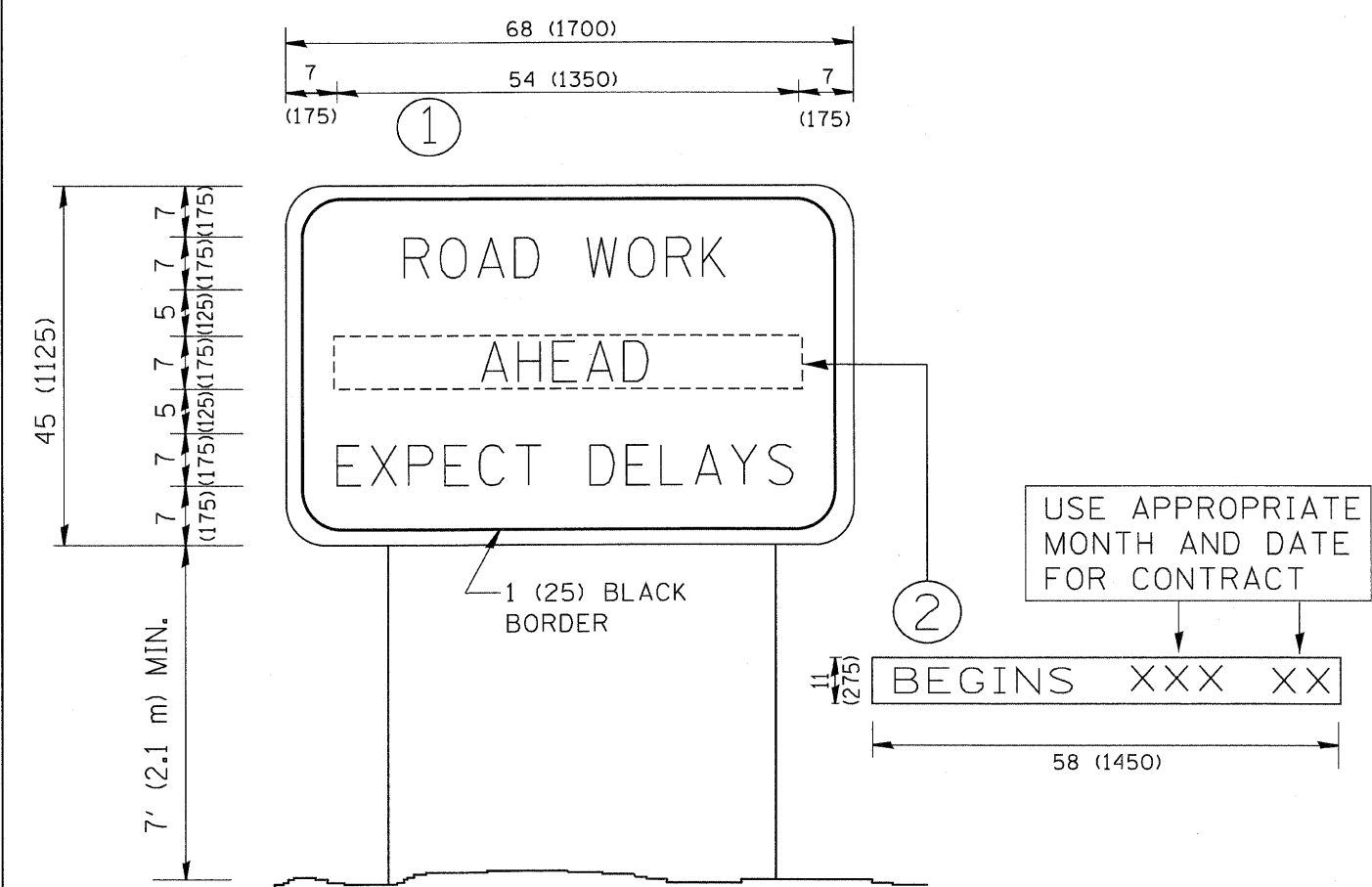
FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

All dimensions are in inches (millimeters) unless otherwise shown.

| | | | |
|--|---------------------------------|---------------------|------------------------------------|
| FILE NAME = W:\diststd\22x34\tc13.dgn | USER NAME = gaglianobt | DESIGNED - EVERS | REVISED - T. RAMMACHER 10-27-94 |
| | | DRAWN - | REVISED - A. HOUSEH 10-09-96 |
| | PLOT SCALE = 50.000 1/16 IN. | CHECKED - | REVISED - A. HOUSEH 10-17-96 |
| | PLOT DATE = 1/4/2008 | DATE - 03-19-90 | REVISED - T. RAMMACHER 01-06-00 |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

| | | | | | | |
|---------------------------|--|--------------------------|---------|---|--------------|-----------|
| DISTRICT ONE | | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| TYPICAL PAVEMENT MARKINGS | | 324 | 23B-1 | McHENRY | 37 | 83 |
| SCALE: NONE | | TC-13 | | CONTRACT NO. 62892 | | |
| SHEET NO. 1 OF 1 SHEETS | | STA. 59+00 TO STA. 89+00 | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | |



NOTES:

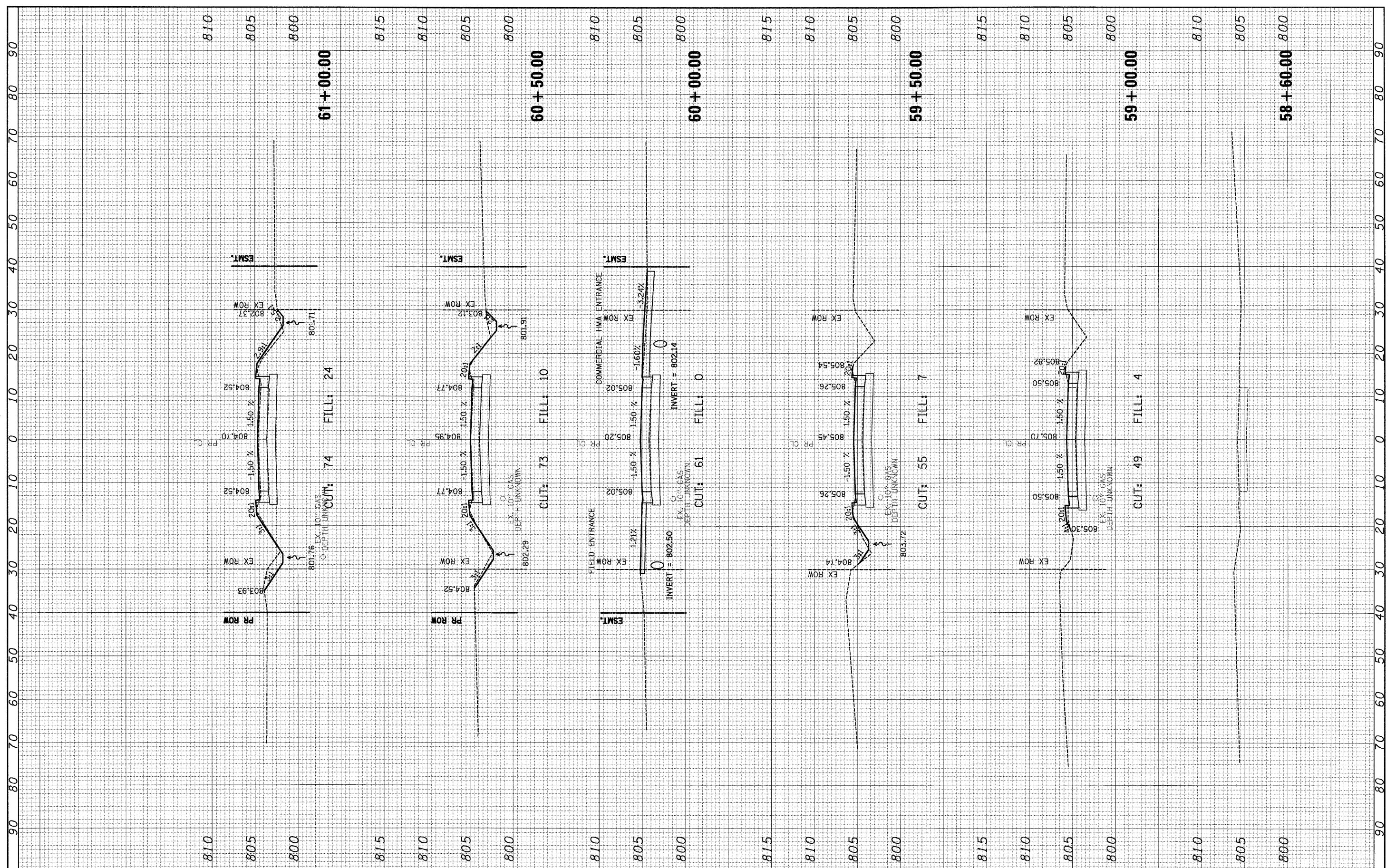
1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

| | | | | | | | | | | | | |
|--|------------------------|------------|---------------------------------|---|---|-------------------------|--------------------------|------------------|------------------|--------------------|--------------------|-----------------|
| FILE NAME = W:\diststd\22x34\tc22.dgn | USER NAME = geglianobt | DESIGNED - | REVISED - R. MIRS 09-15-97 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | ARTERIAL ROAD INFORMATION SIGN | | | F.A. RTE. 324 | SECTION 23B-1 | COUNTY McHENRY | TOTAL SHEETS 97 | SHEET NO. 84 |
| | | DRAWN - | REVISED - R. MIRS 12-11-97 | | SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. 59+00 TO STA. 89+00 | TC-22 | | CONTRACT NO. 62892 | | |
| | | CHECKED - | REVISED - T. RAMMACHER 02-02-99 | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | | | | |
| | | DATE - | REVISED - C. JUCLIS 01-31-07 | | | | | | | | | |

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

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



FILE NAME = *FILE*
 USER NAME = *USER*

DESIGNED - GJM
 CHECKED - EUL
 DRAWN - GJM
 CHECKED - EUL

REVISIONS:
 5/13/2008
 7/18/2008

REVISIONS:
 5/13/2008
 7/18/2008

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS

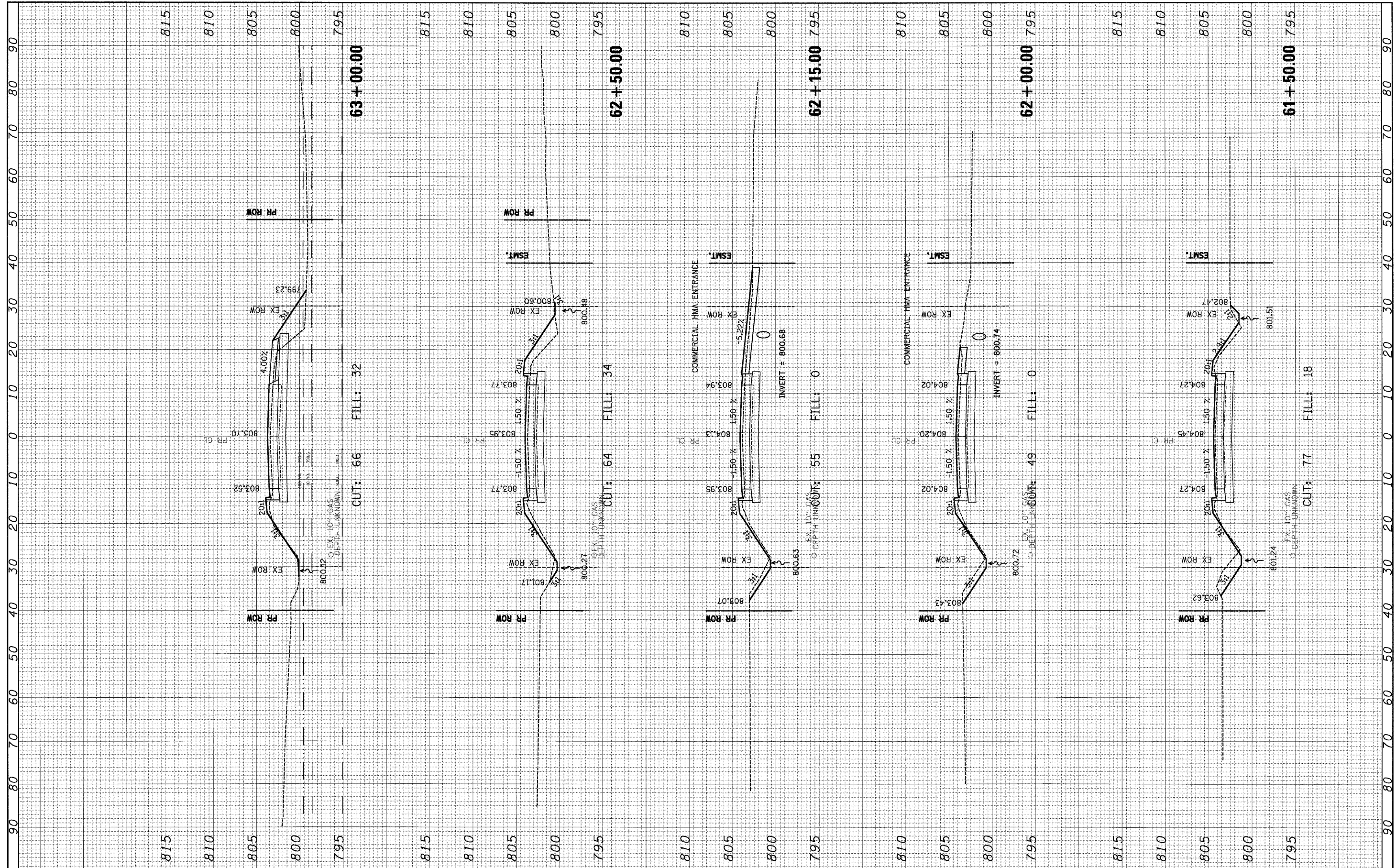
SCALE: 1"=10' H
 1"=35' V

SHEET NO. 1 OF 13 SHEETS STA. 58+60.00 TO STA. 61+00.00

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|---|---------------|----------------|-----------------|--------------|
| F.A.P. RTE. 324 | SECTION 23B-1 | COUNTY MCHENRY | TOTAL SHEETS 97 | SHEET NO. 85 |
| CONTRACT NO. 62892 | | | | |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |

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| FINAL SURVEY | BY | DATE |
| NO. _____ | | |
| REVISIONS | BY | DATE |
| PLOTTED | | |
| TEMPLATE | | |
| AREAS CHECKED | | |

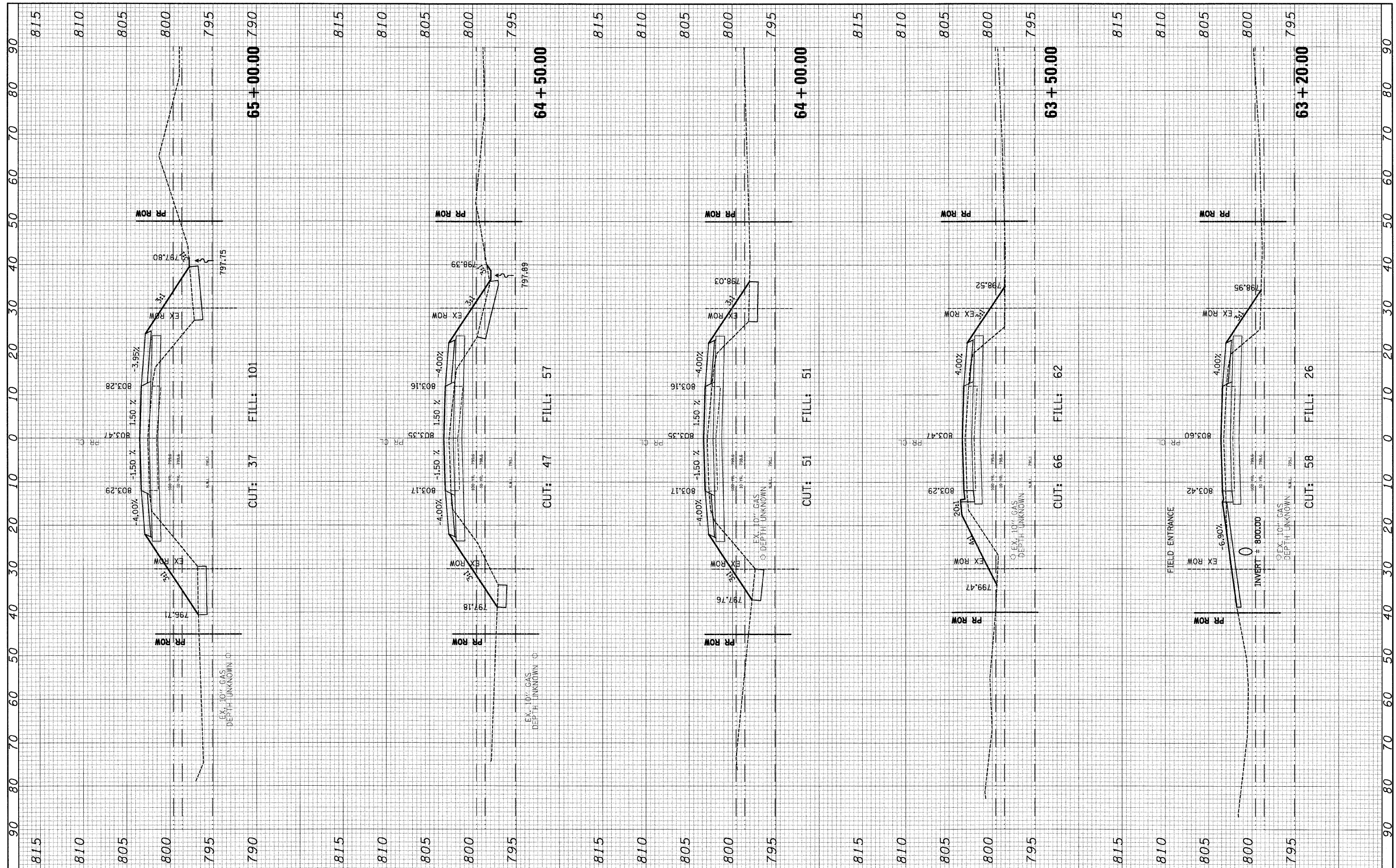
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| ORIGINAL SURVEY | BY | DATE |
| NO. _____ | | |
| REVISIONS | BY | DATE |
| PLOTTED | | |
| TEMPLATE | | |
| AREAS CHECKED | | |



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|-------------|--------------------|----------------|---------------------|---|-----------------------------|--------------------------|--------------------------------|--------------------|----------------|---|--------------|
| FILE NAME = | USER NAME = *USER* | DESIGNED - GJM | REVISED - 5/13/2008 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | CROSS SECTIONS | | F.A.P. RTE. 324 | SECTION 23B-1 | COUNTY MCHENRY | TOTAL SHEETS 97 | SHEET NO. 86 |
| *FILE# | | CHECKED - EUL | REVISED - 7/18/2008 | | SCALE: 1"=10' H 1"=30' V | SHEET NO. 2 OF 13 SHEETS | STA. 61+50.00 TO STA. 63+00.00 | CONTRACT NO. 62892 | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | |
| | | DRAWN - GJM | REVISED - | | | | | | | | |
| | | CHECKED - EUL | REVISED - | | | | | | | | |

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| FINAL SURVEY | CHECKED | BY | DATE |
| NOTE BOOK | PLOTTED | | |
| AREAS CHECKED | TEMPLATE | | |
| | AREAS CHECKED | | |

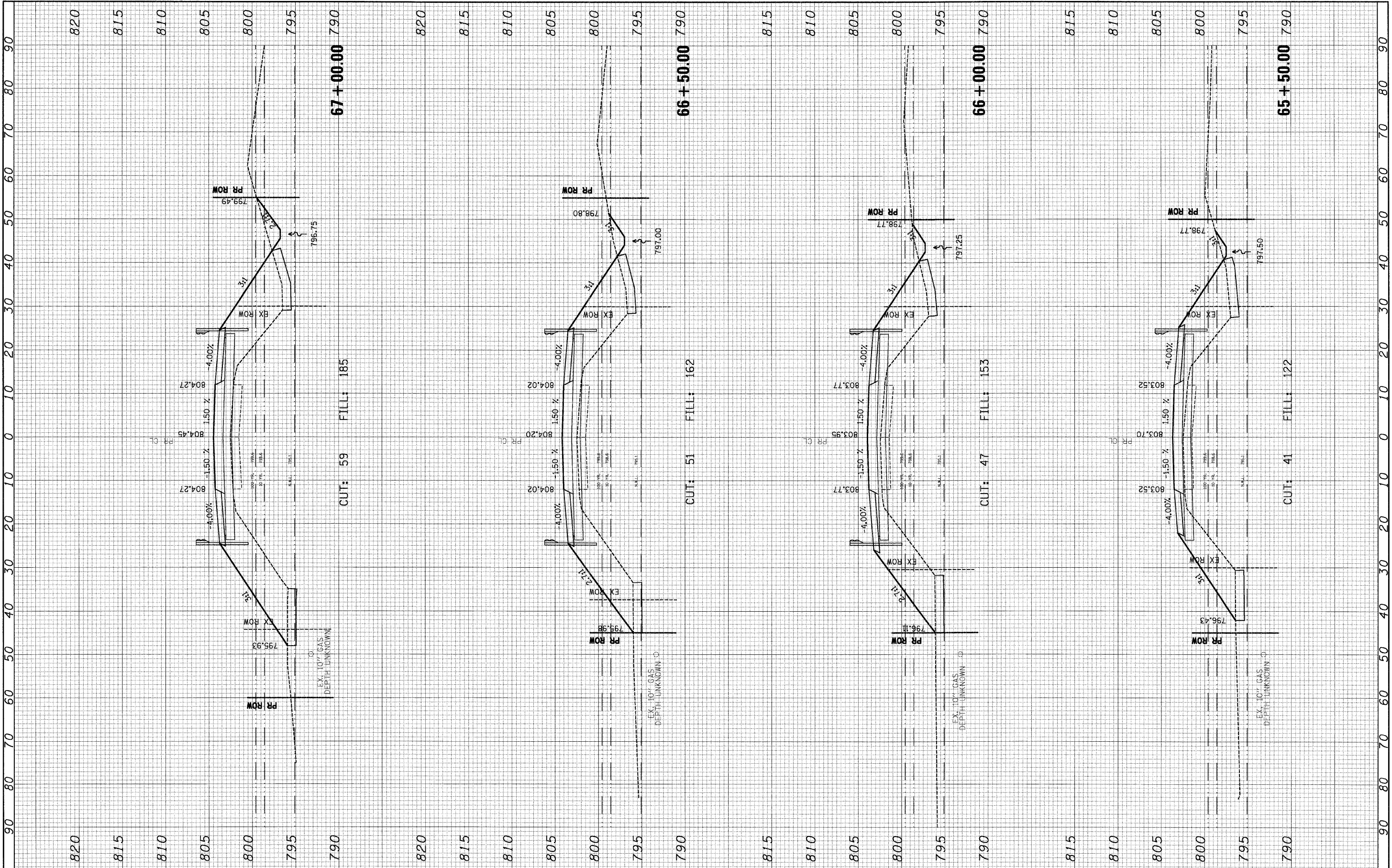
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| ORIGINAL SURVEY | CHECKED | BY | DATE |
| NOTE BOOK | PLOTTED | | |
| AREAS CHECKED | TEMPLATE | | |
| | AREAS CHECKED | | |



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|-------------|-----------------------|----------------|---------------------|---|-----------------------|---|--------------------------|----------------|------------------|--------------------|--|
| FILE NAME = | USER NAME = #USER# | DESIGNED - GJM | REVISED - 5/13/2008 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | CROSS SECTIONS | F.A.P. RT. 324 | SECTION 23B-1 | COUNTY MCHENRY | TOTAL SHEETS 97 | SHEET NO. 87 | |
| *FILEL* | PLOT SCALE = #SCALE# | CHECKED - EJL | REVISED - 7/18/2008 | | | SCALE: 1"=10' H 1"=50' V | SHEET NO. 3 OF 13 SHEETS | STA. 63+20.00 | TO STA. 65+00.00 | CONTRACT NO. 62892 | |
| | PLOT DATE = 7/17/2008 | DRAWN - GJM | REVISED - | | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | | |
| | | CHECKED - EJL | REVISED - | | | | | | | | |

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| PLOTTED | | |
| TEMPLATE | | |
| AREAS | | |
| CHECKED | | |
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| DESIGNED | BY | DATE |
| PLOTTED | | |
| TEMPLATE | | |
| AREAS | | |
| CHECKED | | |
| NO. | | |



FILE NAME =
 FILEL

USER NAME = *USER*
 PLOT SCALE = *SCALE*
 PLOT DATE = 7/17/2008

| | |
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| DESIGNED - GJM | REVISED - 5/13/2008 |
| CHECKED - EJM | REVISED - 7/18/2008 |
| DRAWN - GJM | REVISED - |
| CHECKED - EJM | REVISED - |

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

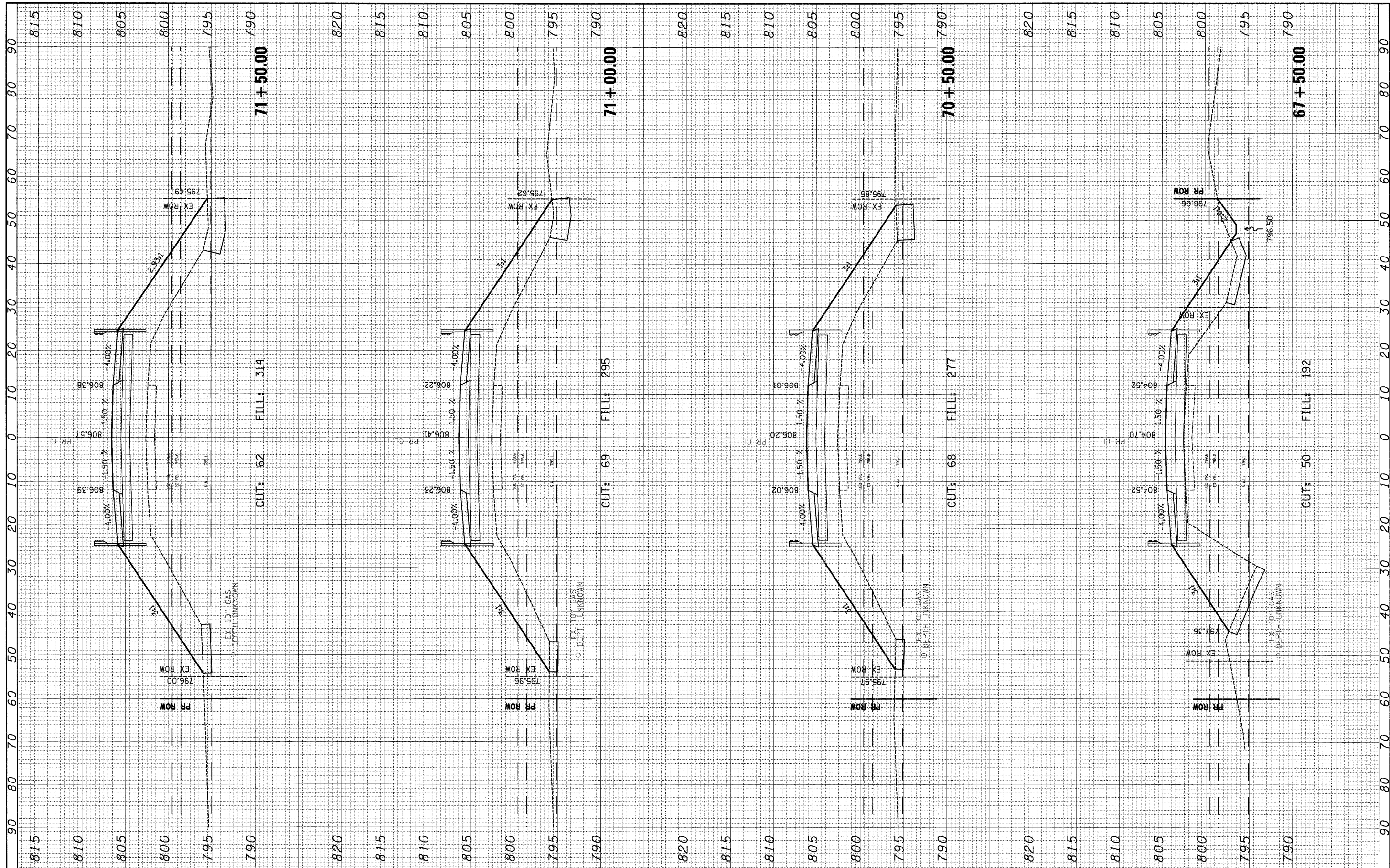
CROSS SECTIONS

SCALE: 1"=10' H
 1"=50' V
 SHEET NO. 4 OF 13 SHEETS
 STA. 65+50.00 TO STA. 67+00.00

| F.A.P. RATE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---------|---------|--------------------|-----------|
| 324 | 23B-1 | MCHENRY | 97 | 88 |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | CONTRACT NO. 62892 | |

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| FINAL SURVEY NOTE BOOK NO. | DESIGNED / CHECKED | DATE |
| | PLOTTED / TEMPLATE AREAS CHECKED | |
| | BY | |

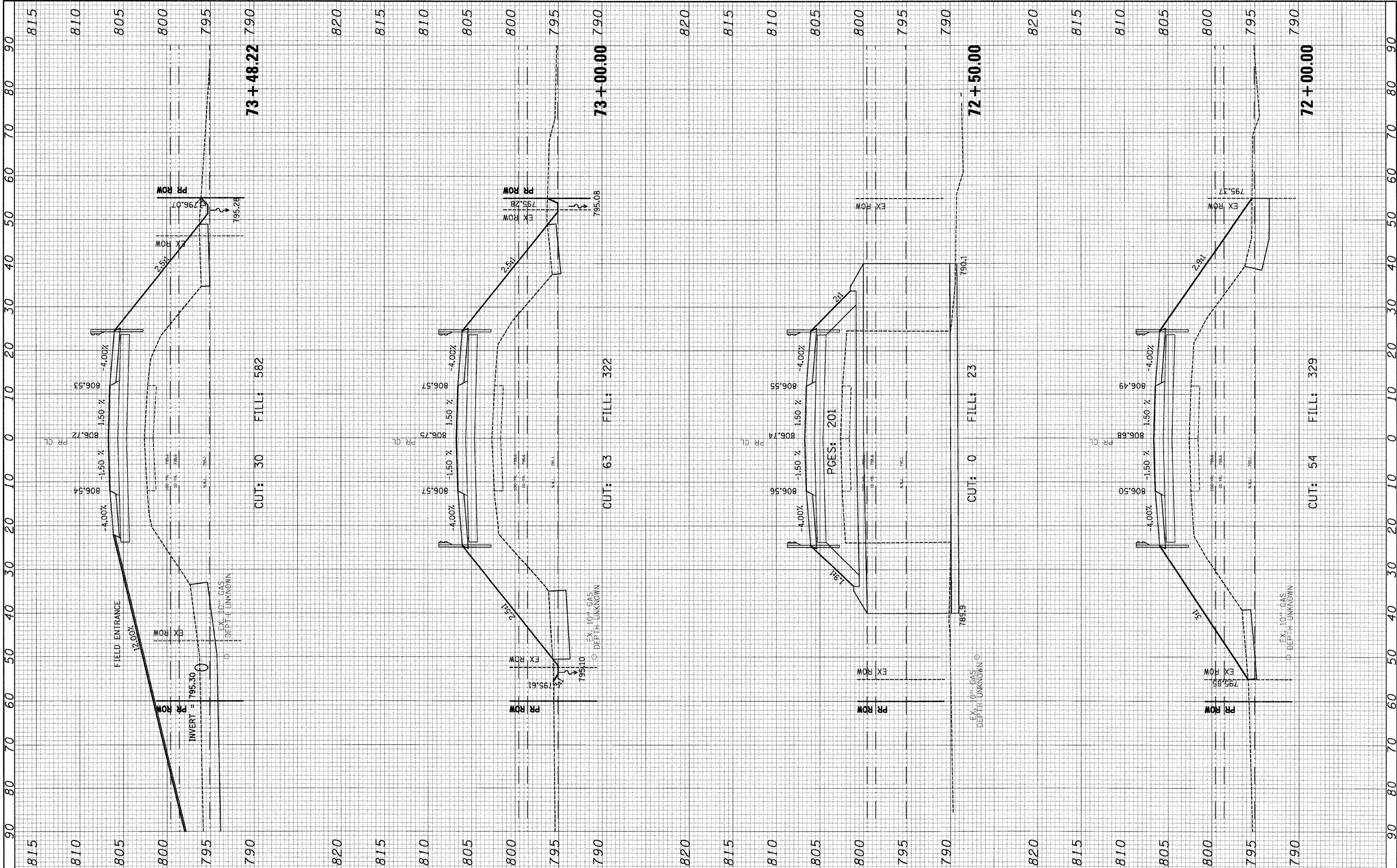
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| ORIGINAL SURVEY NOTE BOOK NO. | DESIGNED / CHECKED | DATE |
| | PLOTTED / TEMPLATE AREAS CHECKED | |
| | BY | |



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|-------------|------------------------|----------------|---------------------|---|---|--------------------------|--------------------------------|--------------------|----------------|-----------------|--------------|--|
| FILE NAME = | USER NAME = #USER# | DESIGNED - GJM | REVISED - 5/13/2008 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | CROSS SECTIONS | | F.A.P. RTE. 324 | SECTION 23B-1 | COUNTY MCHENRY | TOTAL SHEETS 97 | SHEET NO. 89 | |
| #FILEL# | PLLOT SCALE = #SCALE# | CHECKED - EJL | REVISED - 7/18/2008 | | SCALE: 1"=10' H 1"=30' V | SHEET NO. 5 OF 13 SHEETS | STA. 67+50.00 TO STA. 71+50.00 | CONTRACT NO. 62892 | | | | |
| | PLLOT DATE = 7/17/2008 | DRAWN - GJM | REVISED - | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | | | | |
| | | CHECKED - EJL | REVISED - | | | | | | | | | |

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| FINAL SURVEY | DATE |
| ISSUED | BY |
| PLOTTED | |
| TEMPLATE | |
| AREAS CHECKED | |
| NO. | |

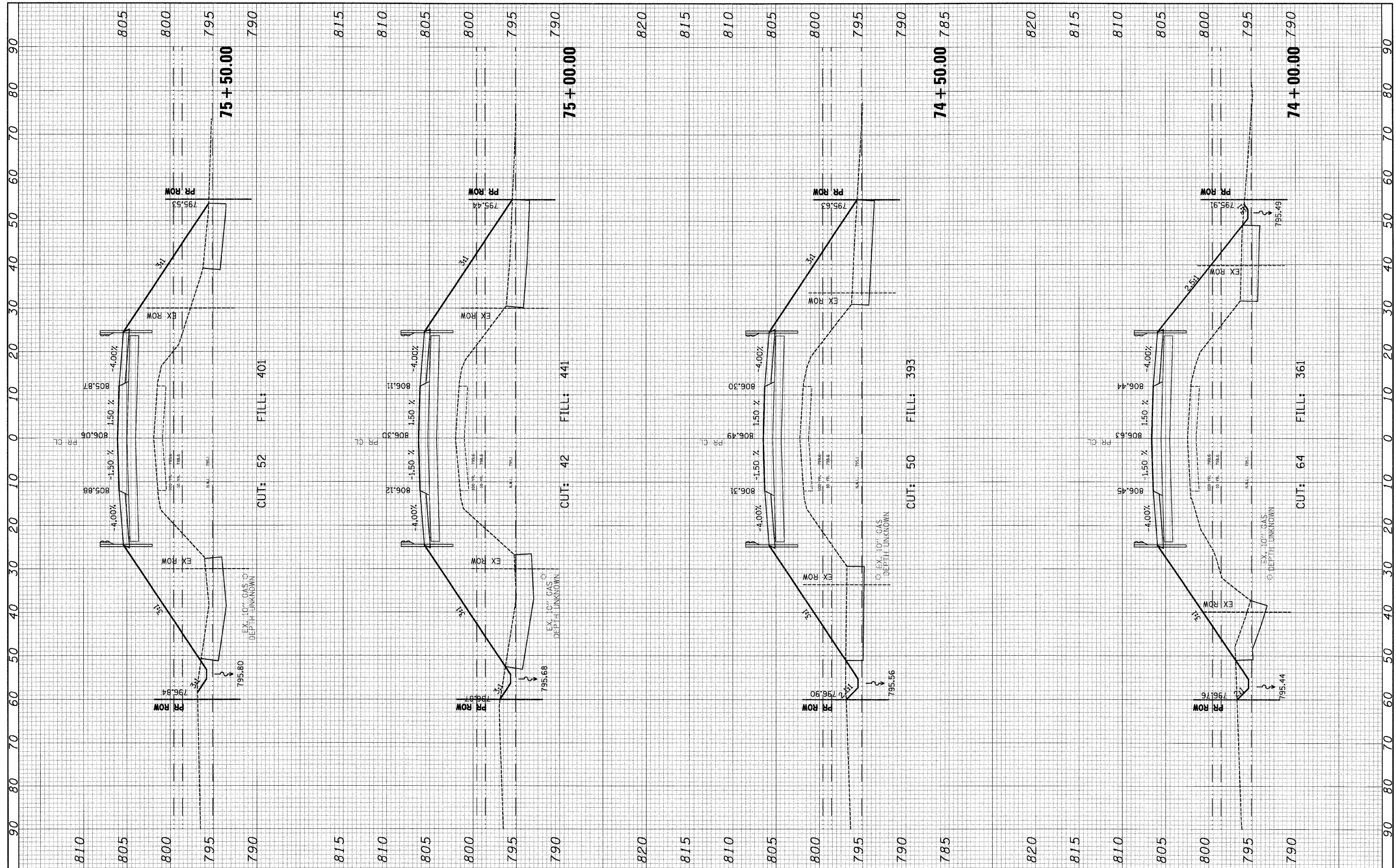
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| ORIGINAL SURVEY | DATE |
| ISSUED | BY |
| PLOTTED | |
| TEMPLATE | |
| AREAS CHECKED | |
| NO. | |



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| FILE NAME = | USER NAME = #USER# | DESIGNED - GJM | REVISED - 5/13/2008 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | CROSS SECTIONS | | F.A. R/F | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| #FILE# | | CHECKED - E.J.L. | REVISED - 7/18/2008 | | 324 | 23B-1 | MCHENRY | 97 | 90 | | |
| PLOT SCALE = #SCALE# | | DRAWN - GJM | REVISED - | | CONTRACT NO. 62892 | | | | | | |
| PLOT DATE = 7/17/2008 | | CHECKED - E.J.L. | REVISED - | | FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | | | |
| | | | | SCALE: 1"=20' H 1"=25' V | SHEET NO. 6 OF 13 SHEETS | STA. 72+00.00 TO STA. 73+48.22 | | | | | |

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| FINN | SURVEY | BY | DATE |
| NO. | NO. | | |
| AREAS CHECKED | AREAS CHECKED | | |

| | |
|---------------|---------------|
| ORIGINAL | DATE |
| NO. | |
| AREAS CHECKED | AREAS CHECKED |



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| FILE NAME = | USER NAME = #USER# | DESIGNED - GJM | REVISED - 5/13/2008 |
| *FILEL* | | CHECKED - EJM | REVISED - 7/18/2008 |
| | PLOT SCALE = #SCALE# | DRAWN - GJM | REVISED - |
| | PLOT DATE = 7/17/2008 | CHECKED - EJM | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS

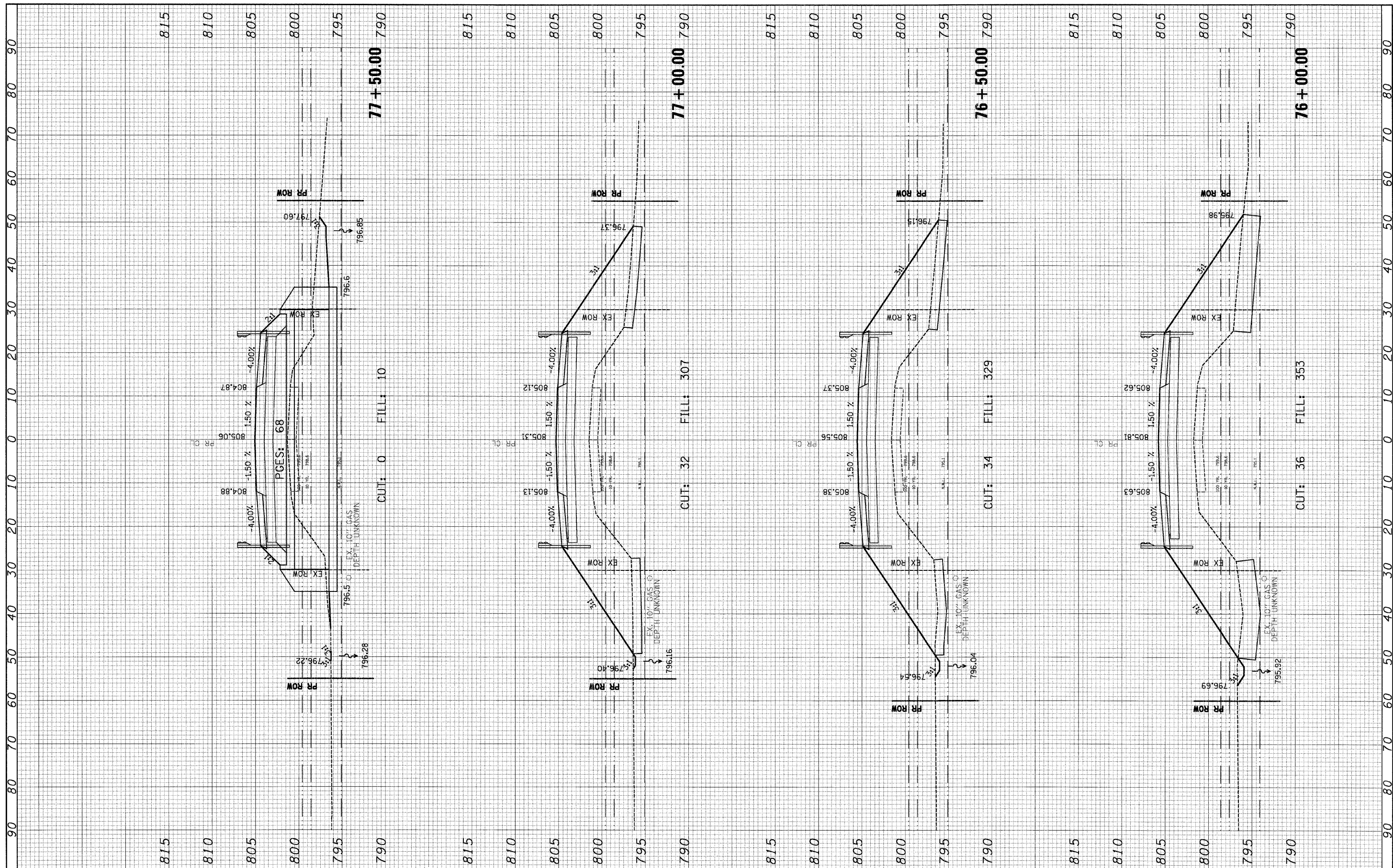
SCALE: 1"=10' H
1/8"=10' V

SHEET NO. 7 OF 13 SHEETS STA. 74+00.00 TO STA. 75+50.00

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|---|---------------|----------------|-----------------|--------------|
| F.A.P. RTE. 324 | SECTION 23B-1 | COUNTY MCHENRY | TOTAL SHEETS 97 | SHEET NO. 91 |
| CONTRACT NO. 62892 | | | | |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |

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

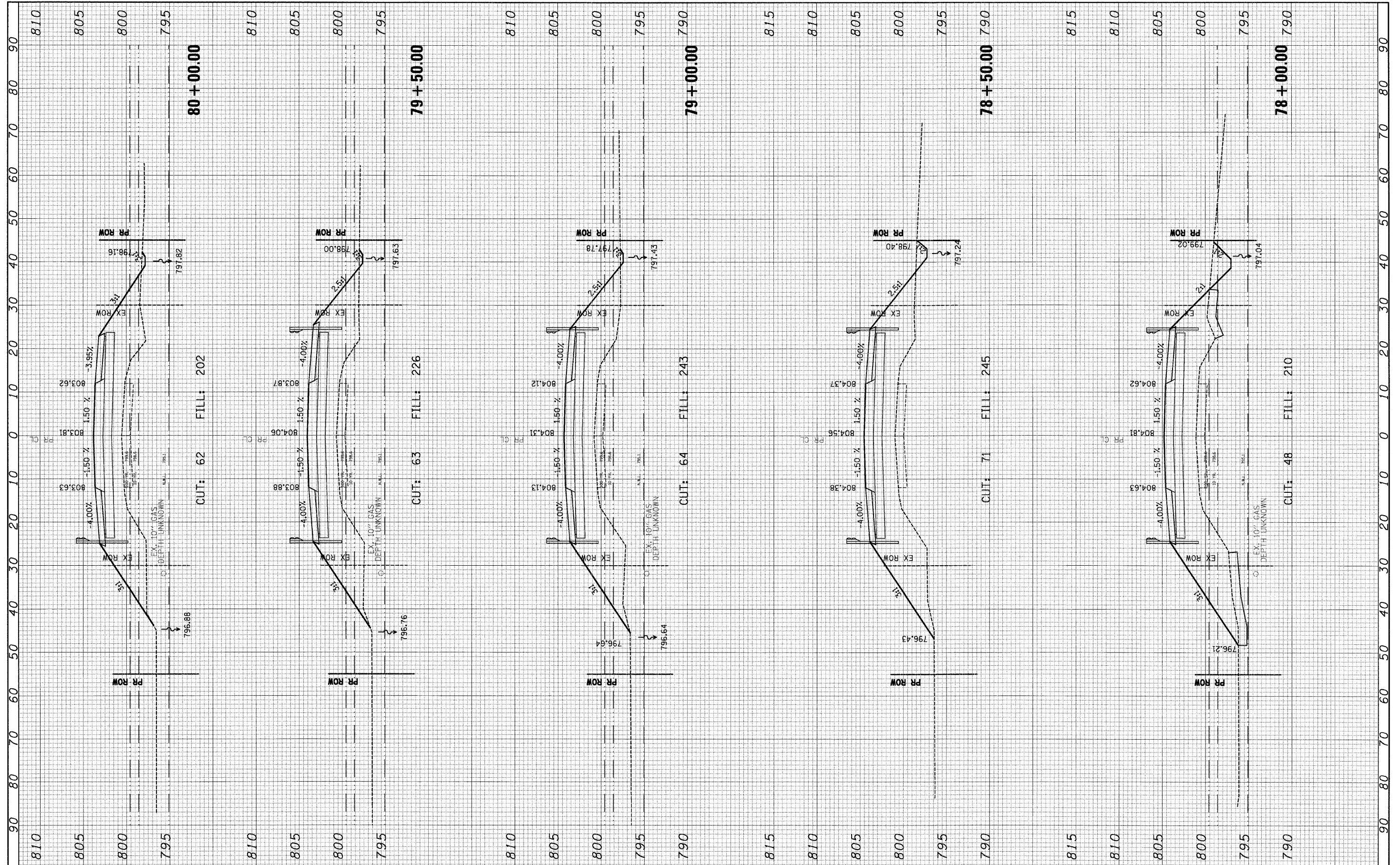
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| FINAL SURVEY | DATE |
| REVISIONS | BY |
| PLOTTED | |
| NOTE BOOK | |
| AREAS CHECKED | |
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|-------------|--------------------|----------------|---------------------|---|-----------------------------|--------------------------|--------------------------------|---|---------------|----------------|-----------------|--------------|
| FILE NAME = | USER NAME = #USER# | DESIGNED - GJM | REVISED - 5/13/2008 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | CROSS SECTIONS | | | F.A.P. R.T.E. 324 | SECTION 23B-1 | COUNTY MCHENRY | TOTAL SHEETS 97 | SHEET NO. 92 |
| #FILEL# | | CHECKED - EJL | REVISED - 7/18/2008 | | SCALE: 1"=20' H 1"=30' V | SHEET NO. 8 OF 13 SHEETS | STA. 76+00.00 TO STA. 77+50.00 | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |
| | | DRAWN - GJM | REVISED - | | | | | | | | | |
| | | CHECKED - EJL | REVISED - | | | | | | | | | |

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| ORIGINAL SURVEY | DESIGNED | BY | DATE |
| SURVEY | CHECKED | | |
| NOTE BOOK | DRAWN | | |
| NO. | CHECKED | | |

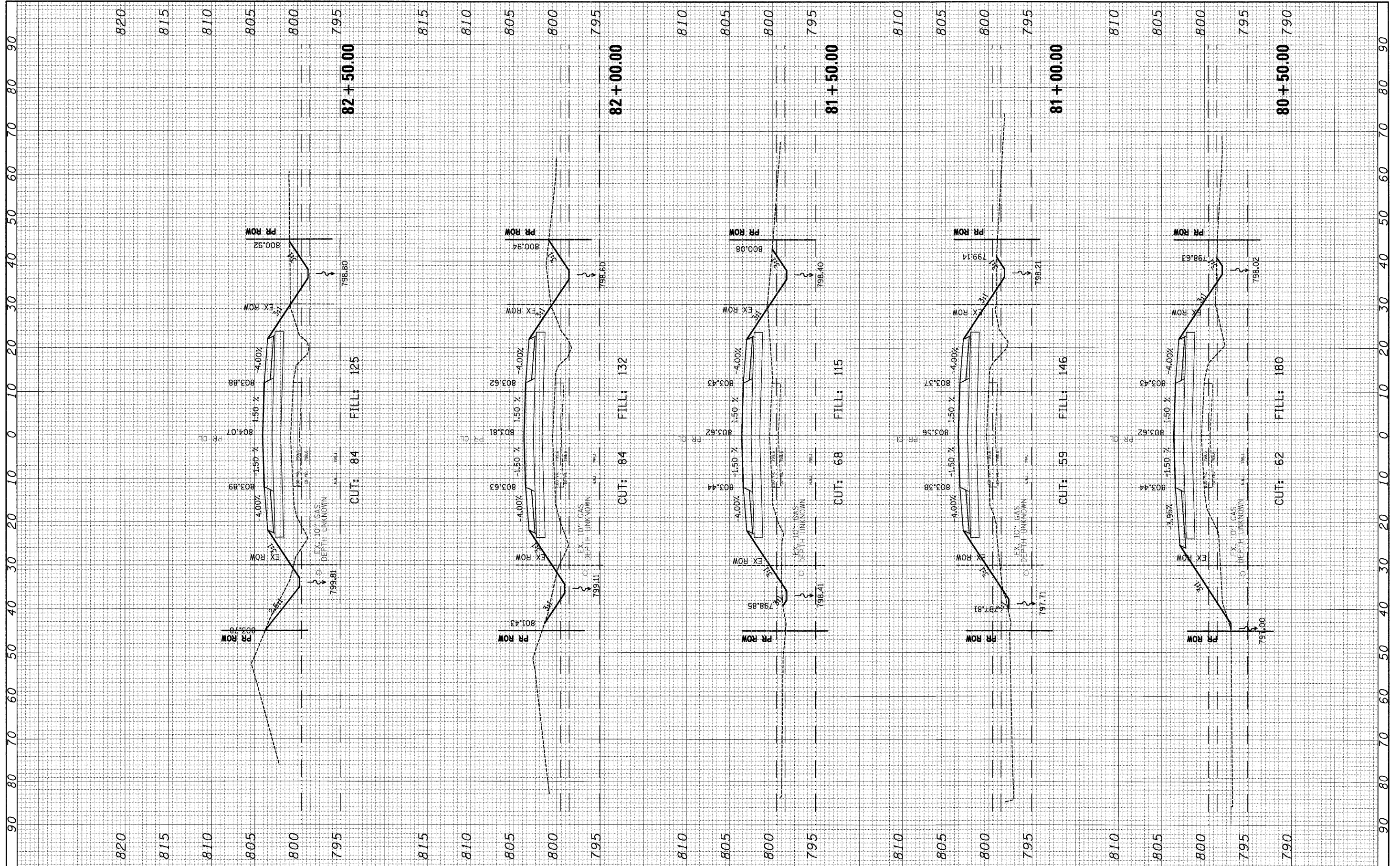
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| FINAL SURVEY | DESIGNED | BY | DATE |
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| NOTE BOOK | DRAWN | | |
| NO. | CHECKED | | |



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| FILE NAME = | USER NAME = *USER* | DESIGNED - GJM | REVISED - 5/13/2008 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | CROSS SECTIONS | | F.A.P. RTE. 324 | SECTION 23B-1 | COUNTY MCHENRY | TOTAL SHEETS 97 | SHEET NO. 93 | |
| *FILEL* | PLOT SCALE = *SCALE* | CHECKED - EJL | REVISED - 7/18/2008 | | SCALE: 1"=10' | SHEET NO. 9 OF 13 SHEETS | STA. 78+00.00 TO STA. 80+00.00 | CONTRACT NO. 62892 | | | | |
| | PLOT DATE = 7/17/2008 | DRAWN - GJM | REVISED - | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | | | | |
| | | CHECKED - EJL | REVISED - | | | | | | | | | |

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

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



FILE NAME = #FILE#

USER NAME = #USER#
 PLOT SCALE = #SCALE#
 PLOT DATE = 7/17/2008

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| DESIGNED - GJM | REVISED - 5/13/2008 |
| CHECKED - EUL | REVISED - 7/18/2008 |
| DRAWN - GJM | REVISED - |
| CHECKED - EUL | REVISED - |

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS

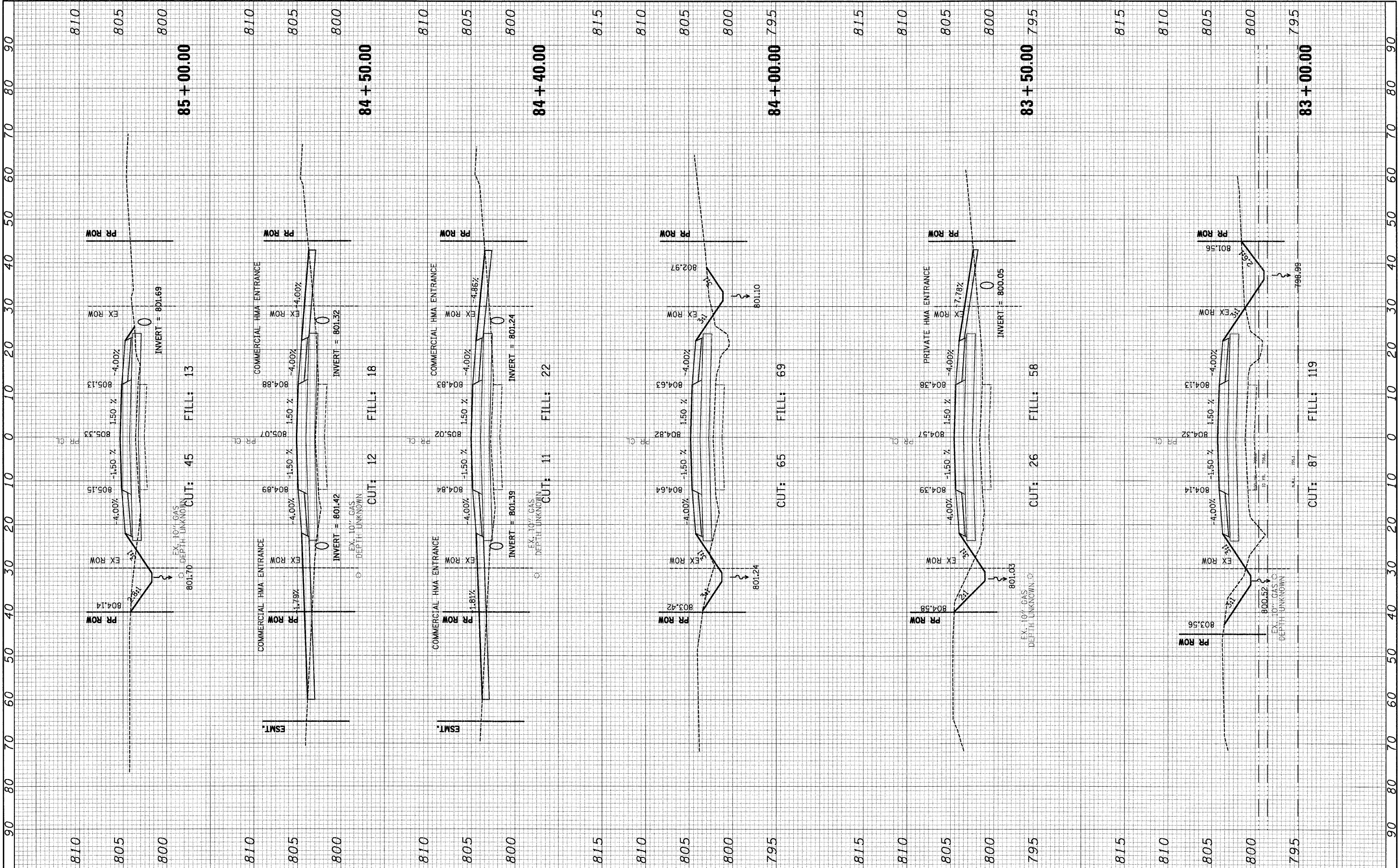
SCALE: 1"=10' H
 1"=50' V

SHEET NO. 10 OF 13 SHEETS STA. 80+50.00 TO STA. 82+50.00

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---------|---------|--------------------|-----------|
| 324 | 23B-1 | MCHENRY | 97 | 94 |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | CONTRACT NO. 62892 | |

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| ORIGINAL SURVEY | REVISIONS | BY | DATE |
| NOTE BOOK | PLOTTED | | |
| AREAS CHECKED | TEMPLATE | | |
| | AREAS CHECKED | | |

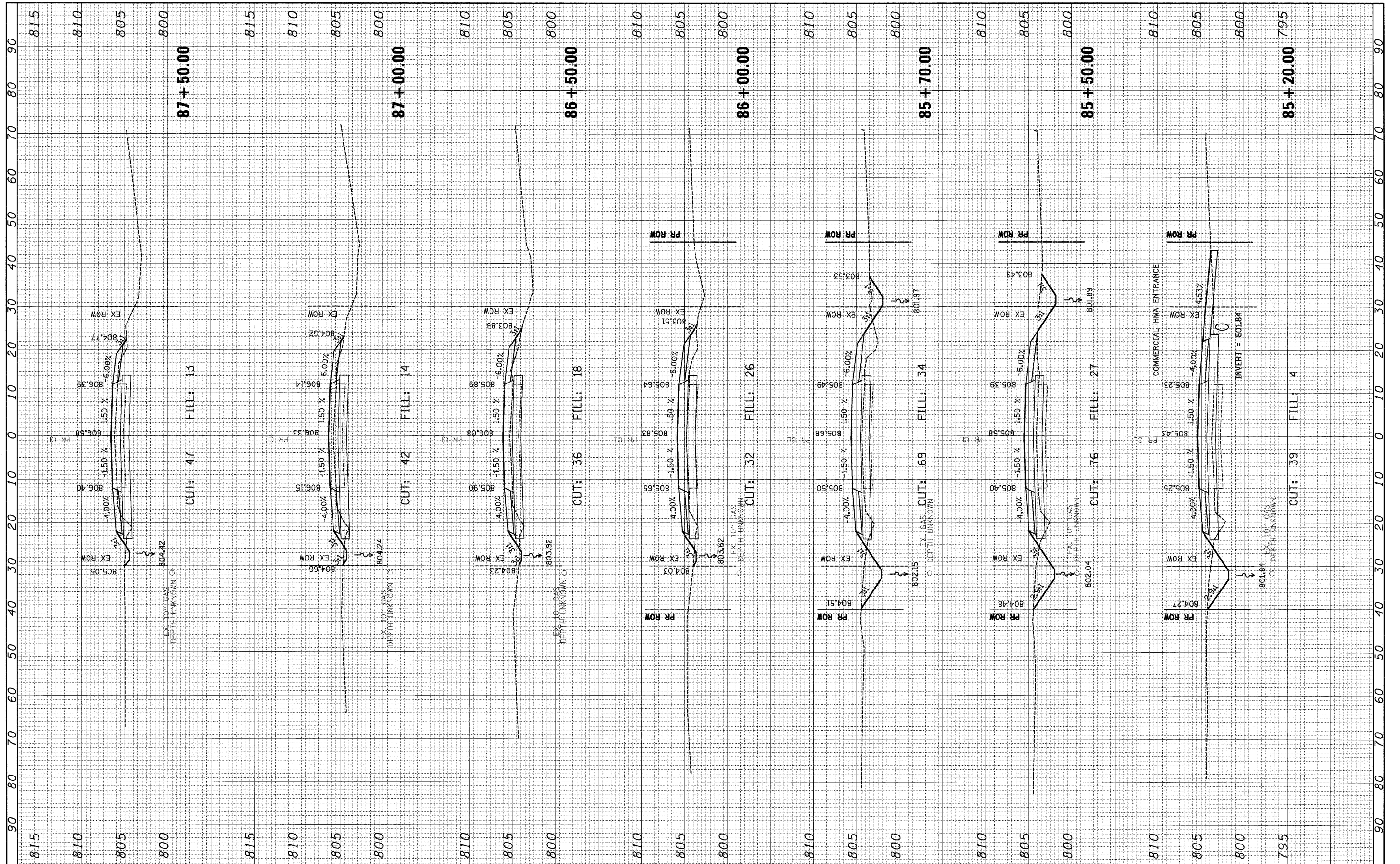
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| ORIGINAL SURVEY | REVISIONS | BY | DATE |
| NOTE BOOK | PLOTTED | | |
| AREAS CHECKED | TEMPLATE | | |
| | AREAS CHECKED | | |



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| FILE NAME = | USER NAME = *USER* | DESIGNED - GJM | REVISED - 5/13/2008 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | CROSS SECTIONS | | F.A.P. RTE. 324 | SECTION 23B-1 | COUNTY MCHENRY | TOTAL SHEETS 97 | SHEET NO. 95 |
| *FILEL* | PLLOT SCALE = *SCALE* | CHECKED - E.JL | REVISED - 7/18/2008 | | SCALE: 1"=10' H 1"=25' V | SHEET NO. 11 OF 13 SHEETS | STA. 83+00.00 TO STA. 85+00.00 | CONTRACT NO. 62892 | | ILLINOIS FED. AID PROJECT | |
| | PLLOT DATE = 7/17/2008 | DRAWN - GJM | REVISED - | | | | | | | | |
| | | CHECKED - E.JL | REVISED - | | | | | | | | |

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



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| FILE NAME = | USER NAME = #USER# |
| *FILEL* | |

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| DESIGNED - GJM | REvised - 5/13/2008 |
| CHECKED - E.JL | REvised - 7/18/2008 |
| DRAWN - GJM | REvised - |
| CHECKED - E.JL | REvised - |

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| PLLOT SCALE = #SCALE* |
| PLLOT DATE = 7/17/2008 |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

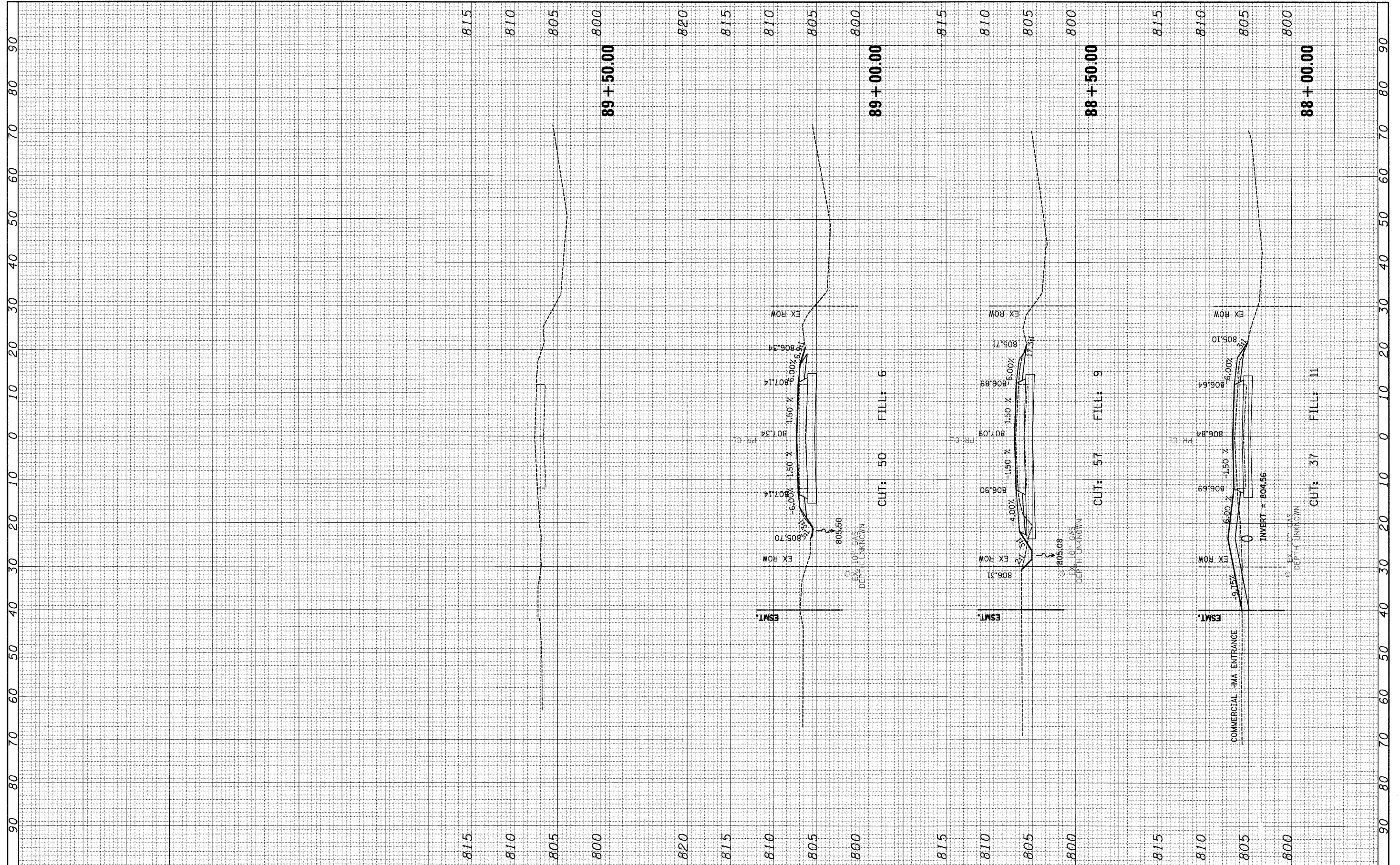
CROSS SECTIONS

SCALE: 1"=10' H / 1"=32' V
SHEET NO. 12 OF 13 SHEETS
STA. 85+20.00 TO STA. 87+50.00

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---------|---------|--------------|-----------|
| 324 | 238-1 | MCHENRY | 97 | 96 |
| CONTRACT NO. 62892 | | | | |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |

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| SURVEY | | |
| NOTE BOOK | | |
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| AREAS | | |
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| ORIGINAL | BY | DATE |
| SURVEY | | |
| NOTE BOOK | | |
| NO. | | |
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| TEMP. DATE | | |
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|-------------|-----------------------|----------------|---------------------|---|---|---------------------------|--------------------------------|--------------------|----------------|-----------------|--------------|--|
| FILE NAME = | USER NAME = #USER# | DESIGNED - GJM | REVISED - 5/13/2008 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | CROSS SECTIONS | | F.A.P. RTE. 324 | SECTION 23B-1 | COUNTY MCHENRY | TOTAL SHEETS 97 | SHEET NO. 97 | |
| #FILE# | PLOT SCALE = #SCALE# | CHECKED - E.JL | REVISED - 7/18/2008 | | SCALE: 1"=100' | SHEET NO. 13 OF 13 SHEETS | STA. 88+00.00 TO STA. 89+50.00 | CONTRACT NO. 62892 | | | | |
| | PLOT DATE = 7/17/2008 | DRAWN - GJM | REVISED - | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | | | | |
| | | CHECKED - E.JL | REVISED - | | | | | | | | | |