

LEGEND FOR EXISTING TOPOGRAPHIC SYMBOLS

| | | | |
|---|---|------------------------------------|---|
| TRAFFIC SIGNAL HANDHOLE | ⊠ | DRAINAGE FLOW LINE | |
| TRAFFIC SIGNAL GULFBOX | ○ | RIP RAP | |
| TRAFFIC SIGNAL SIGNAL POST | ⊠ | HEADWALL | |
| TRAFFIC SIGNAL STEEL MAST ARM | ○ | CULVERT END SECTION | |
| TRAFFIC SIGNAL COMBINED MAST ARM | ○ | DRAINAGE MANHOLE | ⊙ |
| TRAFFIC SIGNAL PEDESTRIAN PUSH BUTTON | ● | INLET | ⊖ |
| TRAFFIC SIGNAL WOODEN POLE | ⊗ | ROADWAY DITCH FLOW | |
| TRAFFIC SIGNAL VEHICLE DETECTION PRIORITY | ⊠ | VEGETATION LINE | |
| TRAFFIC SIGNAL VEHICLE DETECTION MAGNET | ⊠ | STUMP | ⊠ |
| TRAFFIC SIGNAL JUNCTION BOX | ⊠ | SHRUB | ⊙ |
| TRAFFIC SIGNAL CONTROLLER | ⊠ | EVERGREEN TREE | ⊙ |
| TRAFFIC SIGNAL HEAVY DUTY HANDHOLE | ⊠ | DECIDUOUS TREE | ⊙ |
| RAILROAD CANTILEVER MAST ARM | | WOODS/BUSH PATTERN | |
| RAILROAD CROSSBUCK | | TRAFFIC SIGN | |
| RAILROAD TRACK PATTERN | | GAURDRAIL POST | |
| RAILROAD ABANDON PATTERN | | GAURDRAIL PATTERN | |
| RAILROAD CROSSGATE | | FIELD LINE | |
| RAILROAD CONTROL BOX | ⊠ | LEVEE/NOISE BARRIER | |
| RAILROAD FLASHING SIGNAL | | FENCE PATTERN | |
| TELEPHONE SPLICE BOX ABOVE GROUND | ⊠ | MAIL BOX | |
| UTILITY POWER POLE | ⊠ | ADVERTISING SIGN | |
| TELEPHONE POLE | ⊠ | MARSH | |
| UTILITY TRAFFIC SIGNAL | ⊠ | LIGHTING HANDHOLE | ⊠ |
| UTILITY LIGHT POLE | ⊠ | LIGHTING POWER POLE | ⊠ |
| FIRE HYDRANT | ⊠ | LIGHTING JUNCTION BOX | ⊠ |
| UTILITY MANHOLE | ⊠ | LIGHTING HEAVYDUTY HANDHOLE | ⊠ |
| UTILITY TELEPHONE POLE | ⊠ | LIGHTING CONTROLLER | ⊠ |
| UTILITY GUY POLE | ⊠ | LIGHTING PULL POINT | ⊠ |
| PIPELINE WARNING SIGN | ⊠ | HIGHWAY LIGHTING ELECTRICAL GROUND | ⊠ |
| UTILITY HANDHOLE | ⊠ | HIGHWAY LIGHTING SINGLE UNIT | ⊠ |
| UTILITY SPLICE ABOVE GROUND | ⊠ | HIGHWAY LIGHTING DOUBLE UNIT | ⊠ |
| UTILITY JUNCTION BOX | ⊠ | EXISTING CONCRETE BARRIER | |
| UTILITY HEAVY DUTY HANDHOLE | ⊠ | EXISTING CREEK OR DITCH | |
| UTILITY DOUBLE HANDHOLE | ⊠ | EXISTING EDGE OF PAVEMENT | |
| UTILITY CONTROLLER | ⊠ | | |
| UTILITY WATER METER | ⊠ | | |

* Coordinate System:

The Mississippi River Crossing (MRC) coordinate system is based on a modified Universal Transverse Mecator (TYMI) system. The MCR coordinate system has converted from UTM Zone 15 North by an average projection factor and also converted from meters to U.S. Survey feet. The MCR coordinate system is a surface coordinate system to be used on all projects related to the Mississippi River Crossing.

Horizontal Datum:

All projects related to the Mississippi River Crossing shall use the MRC coordinate system. A listing of the monuments, location, and coordinate values are in Appendix "A".

The MRC coordinates have been transformed from UTM by using an average projection factor in the project area.

Average grid factor = 1.000339495 Projection factor = grid = 0.999660620

The base point that all utm coordinates were scaled from was the centrally located monument number 30. Each vector from monument number 10 to all other monuments was multiplied by the projection factor to calculate a surface vector and then this surface vector was used to calculate the surface coordinate (MRC). (Note: 1 meter equals 3.28083333 U.S. Survey foot).

UTM Zone 15 North (meters) = projected grid coordinates MRC (feet) = project surface coordinates

RIGHT OF WAY LEGEND

| | | | |
|--|--|--|---|
| | SECTION CORNERS | | QUARTER SECTION CORNERS |
| | EXISTING CENTERLINE | | EXISTING RIGHT OF WAY LINE |
| | FORMER RIGHT OF WAY LINE | | EXISTING IDOT EASEMENT LINE |
| | EXISTING EASEMENT LINE | | EXISTING EASEMENT LINE |
| | EXISTING ACCESS CONTROL LINE | | EXISTING RIGHT OF WAY & PROPOSED ACCESS CONTROL LINE |
| | PROPOSED ACCESS CONTROL LINE | | PROPOSED CENTERLINE |
| | PROPOSED RIGHT OF WAY LINE | | PROPOSED TEMPORARY EASEMENT LINE |
| | PROPOSED PERMANENT EASEMENT LINE | | SECTION LINE |
| | QUARTER SECTION LINE | | QUARTER QUARTER SECTION LINE |
| | PROPERTY (DEED) LINE | | APPARENT PROPERTY LINE |
| | MEASURED DIMENSION | | RECORDED DIMENSION |
| | FOUND STONE | | FOUND IRON PIPE OR IRON ROD AT CORNER UNLESS OTHERWISE NOTED |
| | SET 5/8 INCH IRON ROD WITH PLASTIC CAP IDENTIFIED BY SURVEYORS LICENSE NUMBER AT CORNER UNLESS OTHERWISE NOTED | | PERMANENT SURVEY MONUMENT, I.D.O.T. STD. 667101 (TO BE SET BY OTHERS) |
| | SET 5/8 INCH IRON ROD AS SURVEY CONTROL UNLESS OTHERWISE NOTED | | FOUND CUT CROSS |
| | SET CUT CROSS | | SAME OWNERSHIP |
| | EXISTING BUILDING | | |

■ STAKING OF PROPOSED RIGHT OF WAY CORNERS. SET 5/8 INCH METAL ROD WITH DIVISION OF HIGHWAY SURVEY ALUMINUM CAP TO MONUMENT THE POSITION SHOWN. IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS LICENSE NUMBER. (PROPOSED RIGHT OF WAY CORNERS SET IN CULTIVATED AREAS SHALL BE A MINIMUM OF 20 INCHES BELOW THE GROUND SURFACE).

LEGEND FOR ABBREVIATIONS

| | |
|--------|-----------------------------|
| A/C | ACCESS CONTROL |
| AC | ACRE |
| AVE | AVENUE |
| BK | BOOK |
| BLVD | BOULEVARD |
| CL | CENTERLINE |
| CH | COUNTY HIGHWAY |
| Ch | CHAIN |
| DB | DEED BOOK |
| E | EAST |
| EX | EXISTING |
| FA | FEDERAL AID |
| FAI | FEDERAL AID INTERSTATE |
| FAP | FEDERAL AID PRIMARY |
| FAS | FEDERAL AID SECONDARY |
| FAUS | FEDERAL AID URBAN SECONDARY |
| FND | FOUND |
| ha | HECTARE |
| IP | IRON PIPE |
| IR | IRON ROD |
| LT | LEFT |
| m | METER |
| m² | SQUARE METERS |
| N | NORTH |
| N & BC | NAIL AND BOTTLE CAP |
| N & C | NAIL AND CAP |
| N & W | NAIL AND WASHER |
| NE | NORTHEAST |
| NW | NORTHWEST |
| PB | PLAT BOOK |
| PG | PAGE |
| POB | POINT OF BEGINNING |
| POC | POINT OF COMMENCEMENT |
| POT | POINT OF TANGENT |
| PL | PROPERTY LINE |
| PR | PROPOSED |
| RD | ROAD |
| ROW | RIGHT OF WAY |
| RR | RAILROAD |
| RRS | RAILROAD SPIKE |
| RT | RIGHT |
| RTE | ROUTE |
| S | SOUTH |
| SBI | STATE BOND ISSUE |
| SE | SOUTHEAST |
| SO FT | SQUARE FEET |
| SR | STATE ROUTE |
| ST | STREET |
| STA | STATION |
| SMK | SURVEY MARKER |
| SW | SOUTHWEST |
| TWP | TOWNSHIP |
| TR | TOWNSHIP ROAD |
| USGS | U.S. GEOLOGICAL SURVEY |
| W | WEST |

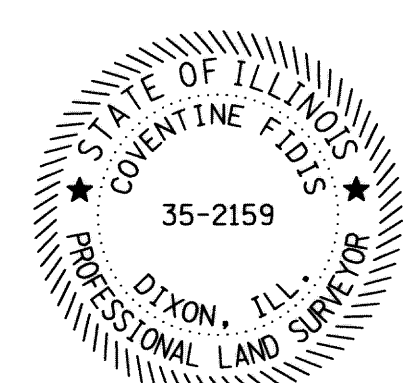
PROPOSED PARCEL NUMBER LEGEND

| | |
|------------|---------------------------------|
| 8001001 | PROPOSED FEE SIMPLE ACQUISITION |
| 8001001PE | PROPOSED PERMANENT EASEMENT |
| 8001001TE | PROPOSED TEMPORARY EASEMENT |
| 8001001DED | PROPOSED DEDICATION |
| 8001001AC | PROPOSED ACCESS CONTROL LINE |

CURVE ABBREVIATIONS

| | |
|-----|-------------------------|
| PC | POINT OF CURVATURE |
| PI | POINT OF INTERSECTION |
| PT | POINT OF TANGENCY |
| PRC | POINT OF REVERSE CURVE |
| PCC | POINT OF COMPOUND CURVE |
| R | RADIUS OF CURVE |
| L | CURVE LENGTH |
| CB | CHORD BEARING |
| CH | CHORD LENGTH |
| D | DEGREE OF CURVE |
| e | EXTERNAL |
| Δ | CENTRAL ANGLE |

PREPARED BY: **AMERICAN**
SURVEYING & ENGINEERING, P.C.
841 N. Galena Ave. Dixon, IL 61021
815-288-6231
ILLINOIS PROFESSIONAL DESIGN
FIRM NO. 184-003192



COVENTINE FIDIS, PLS NO. 35-2159
LICENSE EXPIRATION DATE: 11/30/2018
5/5/17

TOTAL HOLDING AREA SOURCE TABLE

| | |
|---|--|
| 1 | AREA ACCORDING TO THE SURVEY PERFORMED BY THE CONSULTANT. |
| 2 | AREA LISTED IN RECORDED DEED. |
| 3 | AREA ACCORDING TO A RECORDED SUBDIVISION PLAT. |
| 4 | AREA ACCORDING TO A PLAT OF SURVEY. |
| 5 | AREA CALCULATED FROM RECORDED DEEDS OR TITLE COMMITMENTS - NOT SURVEYED. |
| 6 | AREA ACCORDING TO COUNTY TAX MAPS AND COUNTY ASSESSMENT RECORDS. |
| 7 | AREA ACCORDING TO OTHER RECORDS, SEE NOTE ON THE PLAT OF HIGHWAYS. |

TOPOGRAPHIC STATEMENT

THE TOPOGRAPHY SHOWN HEREON WAS PROVIDED TO THE SURVEYOR BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION. THE SURVEYOR VISUALLY FIELD VERIFIED THE EXISTENCE OF THE TOPOGRAPHY SHOWN HEREON. IN ADDITION THE SURVEYOR PHYSICALLY LOCATED IN THE FIELD THE FOLLOWING ITEMS ON LAND SURVEY: 6/15/2010:

- BUILDINGS, MISC. TOPO, ROADS, SIGNS
-
-

BASIS OF COORDINATE & BEARING STATEMENT

* See Note

ILLINOIS DEPARTMENT OF TRANSPORTATION
PLAT OF HIGHWAYS
FAP ROUTE 799 (MLK RAMP)
SECTION 1BR-1-1
ST. CLAIR COUNTY
JOB NO. R-98-009-14

SCALE: N/A SHEET 2 OF 4

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS/REGION 5/DISTRICT 8
1102 EASTPORT PLAZA DRIVE
COLLINSVILLE, ILLINOIS 62234-6198

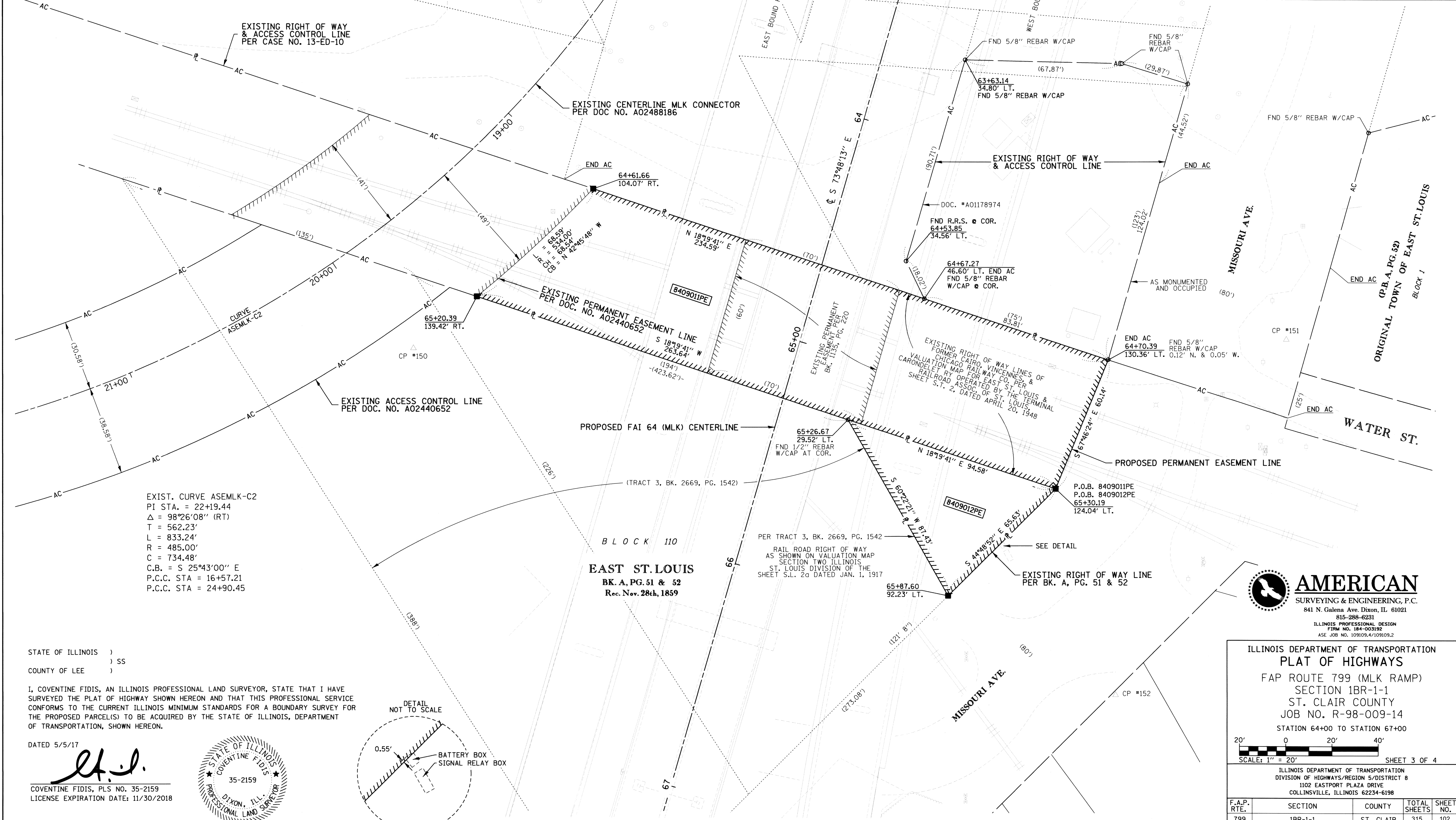
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-------------|---------|-----------|--------------|-----------|
| 799 | 1BR-1-1 | ST. CLAIR | 315 | 101 |

CONTRACT NO. 76G39
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

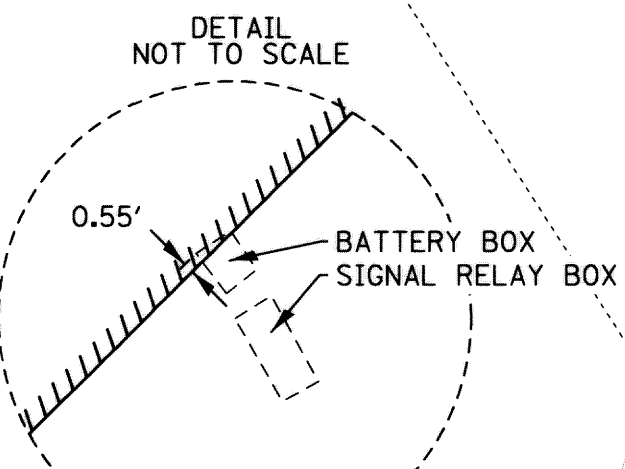
PART OF SEC. 13, T2N, R10W, OF THE 3RD PM, ST. CLAIR COUNTY, ILLINOIS

| PARCEL NO. | OWNER | TOTAL HOLDING | | | | FEE SIMPLE ACQUISITION | | REMAINDER | EASEMENTS | | PERMANENT TAX NUMBER | PROPERTY ACQUIRED BY |
|------------|---|---------------|--------|---------|-------|------------------------|---------|-----------|----------------|---------------------------------|----------------------|----------------------|
| | | ACRES | ACRES | SQ. FT. | ACRES | ACRES | SQ. FT. | | PE = PERMANENT | TE = TEMPORARY | | |
| 8409011 | THE CONSOLIDATED RAIL CORPORATION A/K/A CONRAIL SC-6817 | 1 | N/A | N/A | N/A | N/A | 0.3420 | 14,896 | PE | BRIDGE CONST. MAINT. & RECONST. | 01-13.0-508-001 | - |
| 8409012 | *SEE OWNER NOTE | 1 | 0.0636 | N/A | N/A | 0.0636 | 0.0636 | 2,769 | PE | BRIDGE CONST. MAINT. & RECONST. | N/A | - |

OWNER NOTE: TERMINAL RAILROAD ASSOCIATION OF ST. LOUIS, ST. LOUIS BRIDGE COMPANY, WIGGINS FERRY COMPANY, THE EAST ST. LOUIS AND CARONDELET RAILWAY, THE CITY OF EAST ST. LOUIS, ILLINOIS AND THE GATEWAY EASTERN RAILWAY COMPANY AS THEIR INTERESTS MAY APPEAR SC-6816



EXIST. CURVE ASEMLK-C2
 PI STA. = 22+19.44
 $\Delta = 98^\circ 26' 08''$ (RT)
 T = 562.23'
 L = 833.24'
 R = 485.00'
 C = 734.48'
 C.B. = S $25^\circ 43' 00''$ E
 P.C.C. STA = 16+57.21
 P.C.C. STA = 24+90.45

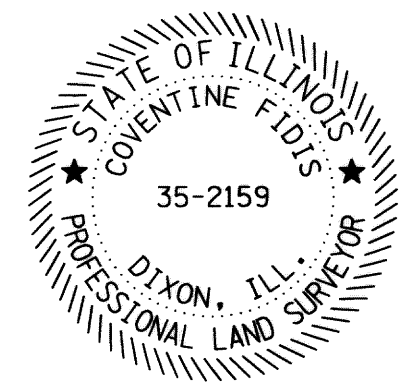


STATE OF ILLINOIS)
) SS
 COUNTY OF LEE)

I, COVENTINE FIDIS, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, STATE THAT I HAVE SURVEYED THE PLAT OF HIGHWAY SHOWN HEREON AND THAT THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY FOR THE PROPOSED PARCEL(S) TO BE ACQUIRED BY THE STATE OF ILLINOIS, DEPARTMENT OF TRANSPORTATION, SHOWN HEREON.

DATED 5/5/17

[Signature]
 COVENTINE FIDIS, PLS NO. 35-2159
 LICENSE EXPIRATION DATE: 11/30/2018



BEARINGS SHOWN HEREON ARE BASED ON THE MISSISSIPPI RIVER CROSSING (MRC) COORDINATE SYSTEM WHICH IS A MODIFIED UNIVERSAL TRANSVERSE MERCATOR (UTM) SYSTEM, ZONE 15 NORTH.

SPACE RESERVED FOR RECORDING OFFICER

3rd FERRY DIVISION
 (BK. A, PG. 166)

BLOCK 110
 EAST ST. LOUIS
 BK. A, PG. 51 & 52
 Rec. Nov. 28th, 1859



ILLINOIS DEPARTMENT OF TRANSPORTATION
 PLAT OF HIGHWAYS
 FAP ROUTE 799 (MLK RAMP)
 SECTION 1BR-1-1
 ST. CLAIR COUNTY
 JOB NO. R-98-009-14
 STATION 64+00 TO STATION 67+00

SCALE: 1" = 20'

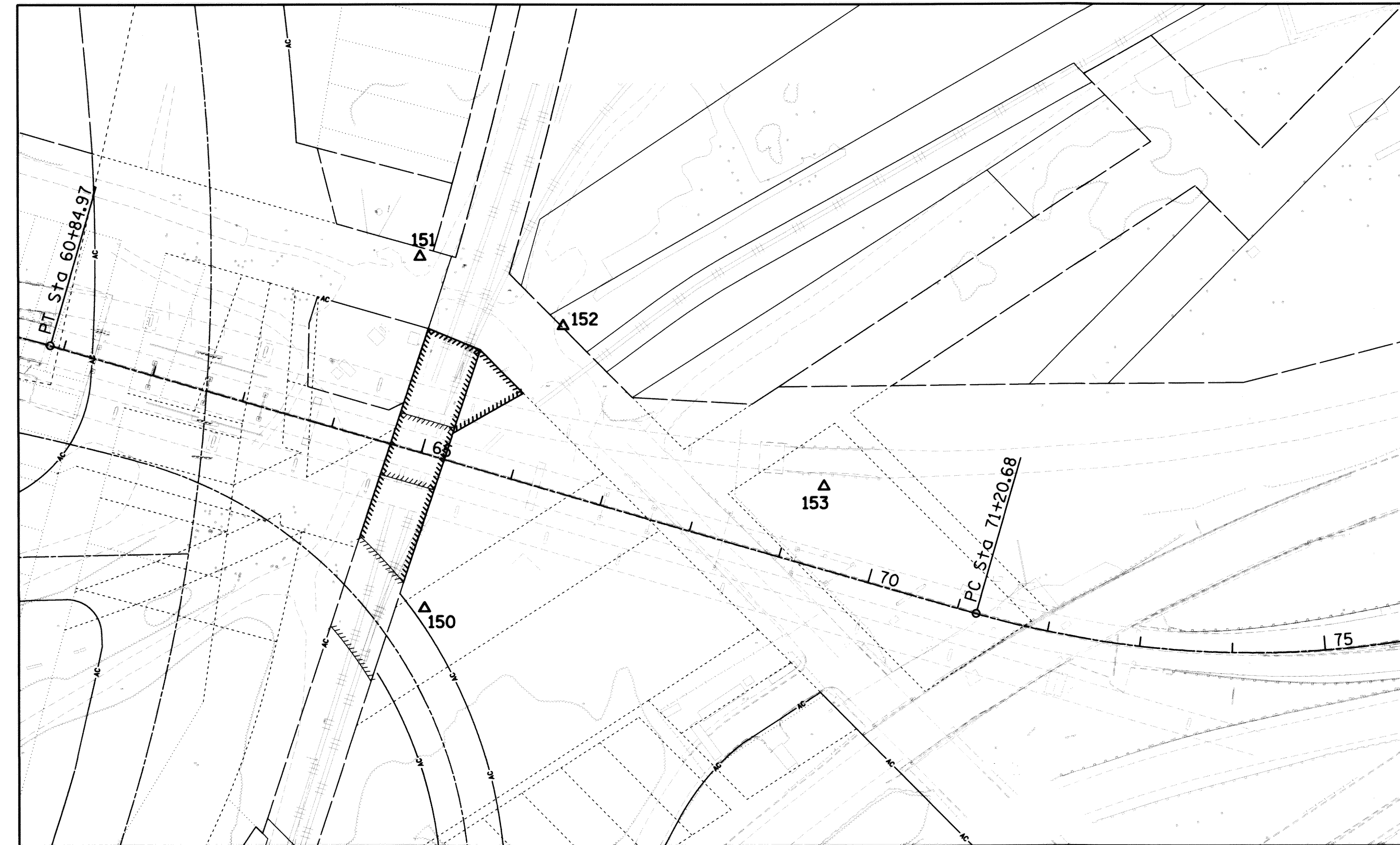
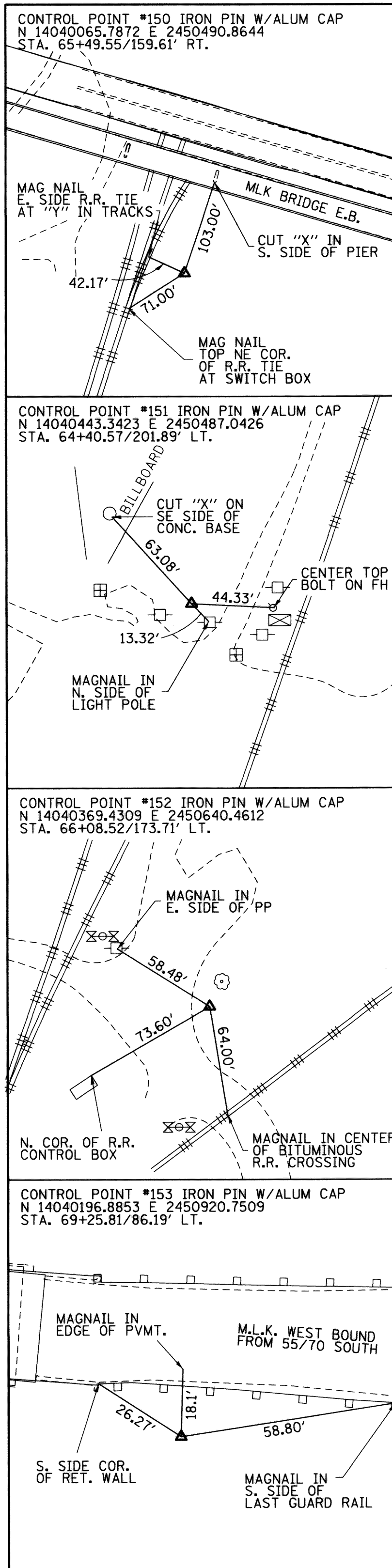
ILLINOIS DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS/REGION 5/DISTRICT 8
 1102 EASTPORT PLAZA DRIVE
 COLLINSVILLE, ILLINOIS 62234-6198

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-------------|---------|-----------|--------------|-----------|
| 799 | 1BR-1-1 | ST. CLAIR | 315 | 102 |

CONTRACT NO. 76G39

COMPLETION DATE OF FIELD WORK PERFORMED
 LAND SURVEY: 4/25/17 ROW STAKING: 4/25/17

FED. ROAD DIST. NO. 8 ILLINOIS FED. AID PROJECT



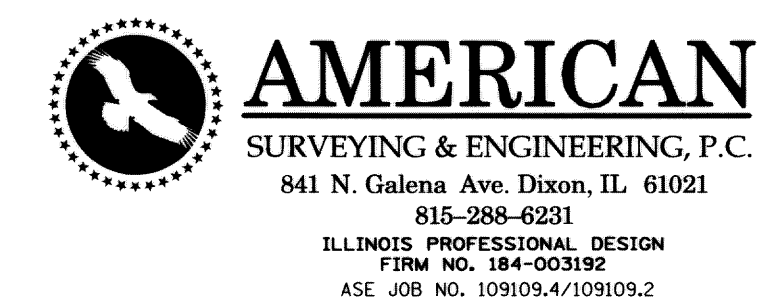
SPACE RESERVED FOR RECORDING OFFICER

BEARINGS SHOWN HEREON ARE BASED ON THE MISSISSIPPI RIVER CROSSING (MRC) COORDINATE SYSTEM WHICH IS A MODIFIED UNIVERSAL TRANSVERSE MERCATOR (UTM) SYSTEM, ZONE 15 NORTH.

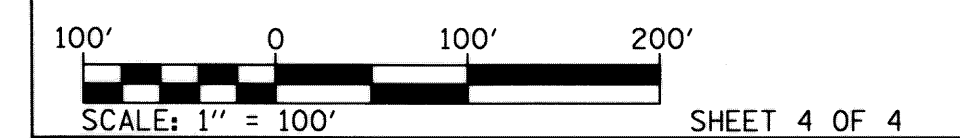
PROPOSED CENTERLINE MLK

| Station | Offset | North | East |
|----------|--------|---------------|--------------|
| 60+84.97 | 0.0000 | 14038526.9357 | 2424440.6199 |
| 71+20.68 | 0.0000 | 14038238.0417 | 2425435.2247 |

| Station | Offset | North | East |
|----------|-----------|---------------|--------------|
| 65+30.19 | -124.0377 | 14040343.5822 | 2450551.3900 |
| 65+87.60 | -92.2297 | 14040297.0233 | 2450597.6483 |
| 65+26.67 | -29.5246 | 14040253.8014 | 2450521.6491 |
| 64+70.39 | -130.3555 | 14040366.3312 | 2450495.7195 |
| 65+20.39 | 139.4151 | 14040093.3207 | 2450468.4880 |
| 64+61.66 | 104.0729 | 14040143.6408 | 2450421.9507 |



ILLINOIS DEPARTMENT OF TRANSPORTATION
PLAT OF HIGHWAYS
FAP ROUTE 799 (MLK RAMP)
SECTION 1BR-1-1
ST. CLAIR COUNTY
JOB NO. R-98-009-14



ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS/REGION 5/DISTRICT 8
1102 EASTPORT PLAZA DRIVE
COLLINSVILLE, ILLINOIS 62234-6198

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-------------|---------|-----------|--------------|-----------|
| 799 | 1BR-1-1 | ST. CLAIR | 315 | 103 |

| COMPLETION DATE OF FIELD WORK PERFORMED | |
|---|----------------------|
| LAND SURVEY: 4/25/17 | ROW STAKING: 4/25/17 |

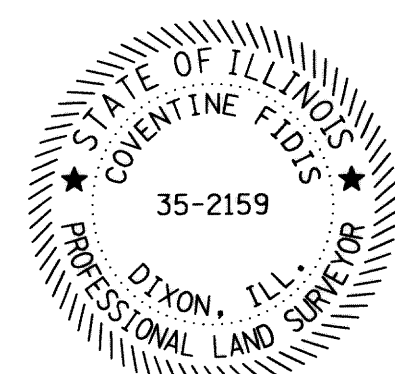
CONTRACT NO. 76G39
FED. ROAD DIST. NO. 8 ILLINOIS FED. AID PROJECT

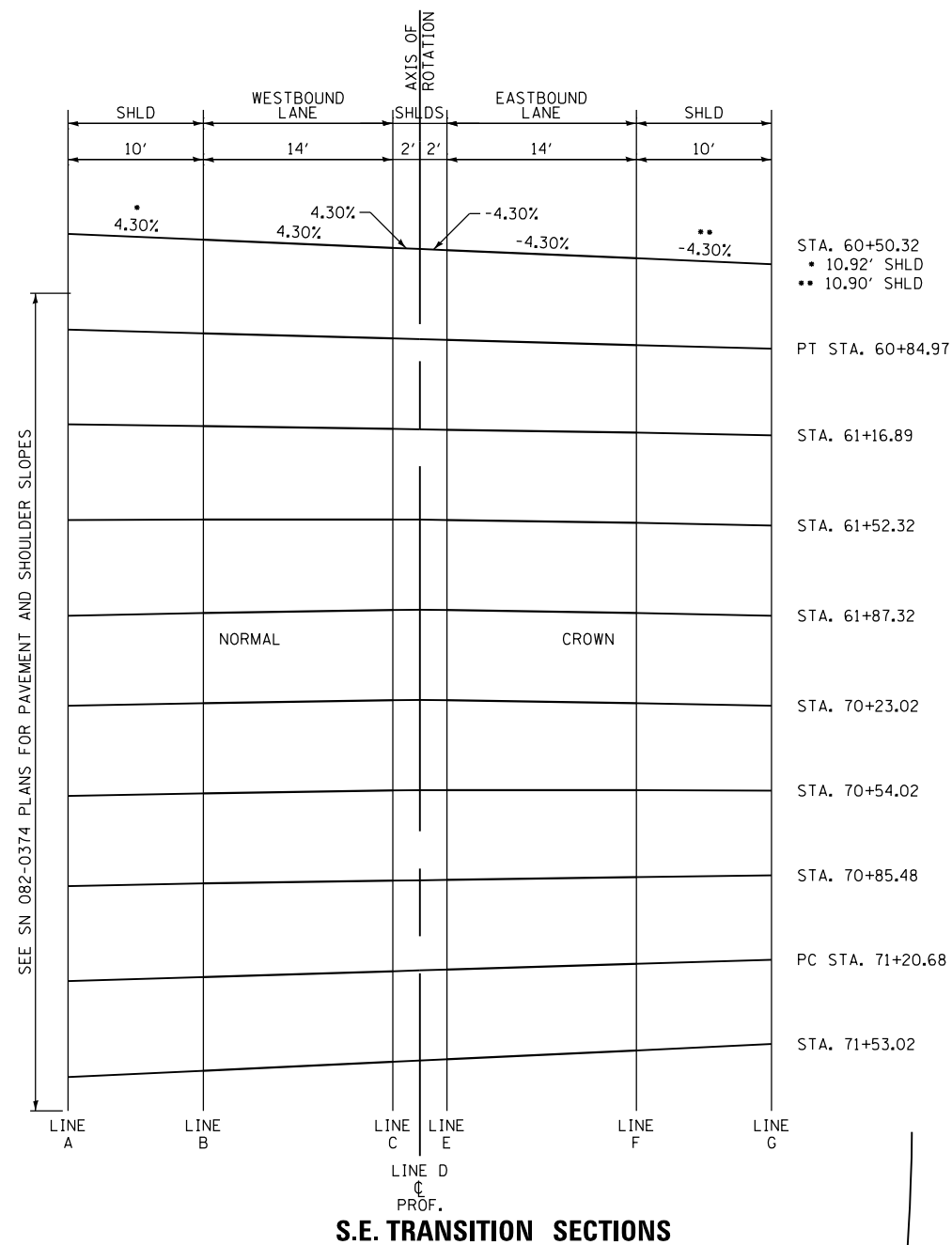
STATE OF ILLINOIS)
) SS
COUNTY OF LEE)

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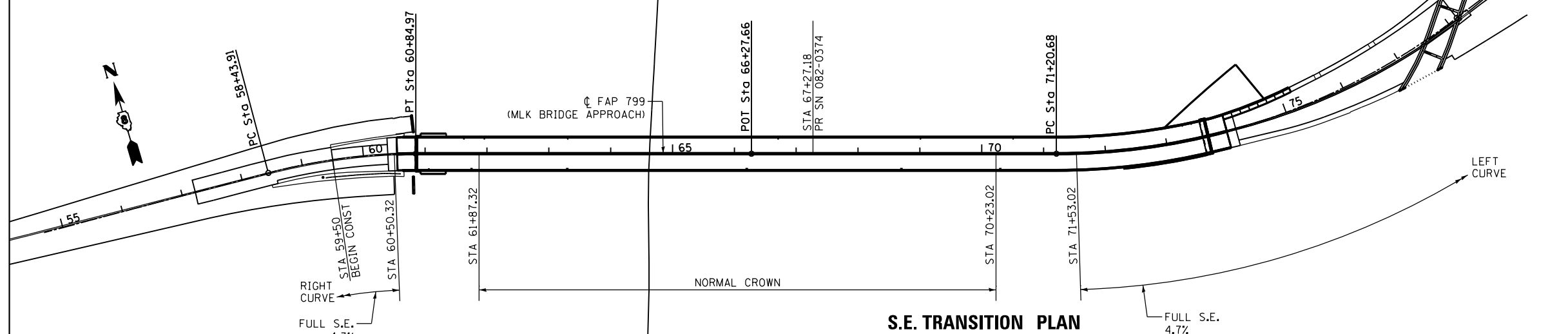
DATED 5/5/17

Coventine Fidis
COVENTINE FIDIS, PLS NO. 35-2159
LICENSE EXPIRATION DATE: 11/30/2018





| SUPERELEVATION TRANSITIONS | | | | | | | | | |
|----------------------------|------------|-------------------------|--------|--------|-----------------------|--------|--------|--------|------------|
| STATION | SHLD WIDTH | ELEVATIONS AT LOCATIONS | | | | | | | SHLD WIDTH |
| | | A | B | C | D | E | F | G | |
| FULL SUPER | | | | | | | | | |
| 60+50.32 | 10.92 | 448.33 | 447.86 | 447.26 | 447.18 | 447.09 | 446.49 | 446.02 | 10.90 |
| 60+84.97 | 10 | | | | SEE SN 082-0374 PLANS | | | | 10 |
| 61+16.89 | 10 | | | | SEE SN 082-0374 PLANS | | | | 10 |
| 61+52.32 | 10 | | | | SEE SN 082-0374 PLANS | | | | 10 |
| 61+87.32 | 10 | | | | SEE SN 082-0374 PLANS | | | | 10 |
| 70+23.02 | 10 | | | | SEE SN 082-0374 PLANS | | | | 10 |
| 70+54.02 | 10 | | | | SEE SN 082-0374 PLANS | | | | 10 |
| 70+85.48 | 10 | | | | SEE SN 082-0374 PLANS | | | | 10 |
| 71+20.68 | 10 | | | | SEE SN 082-0374 PLANS | | | | 10 |
| 71+53.02 | 10 | | | | SEE SN 082-0374 PLANS | | | | 10 |
| FULL SUPER | | | | | | | | | |



| | |
|--|--|
| PROP. CURVE C20 PI STA. = 59+65.12 $\Delta = 14^\circ 51' 56''$ (RT) D = 6° 10' 00" R = 929.12' T = 121.21' L = 241.06' E = 7.87' e = 4.3% T.R. = 35' S.E. RUN = 102' P.C. STA = 58+43.91 P.T. STA = 60+84.97 | PROP. CURVE C21 PI STA. = 74+81.50 $\Delta = 37^\circ 27' 17''$ (LT) D = 5° 23' 00" R = 1,064.32' T = 360.82' L = 695.75' E = 59.50' e = 4.7% T.R. = 31' S.E. RUN = 99' P.C. STA = 71+20.68 P.T. STA = 78+16.44 |
|--|--|

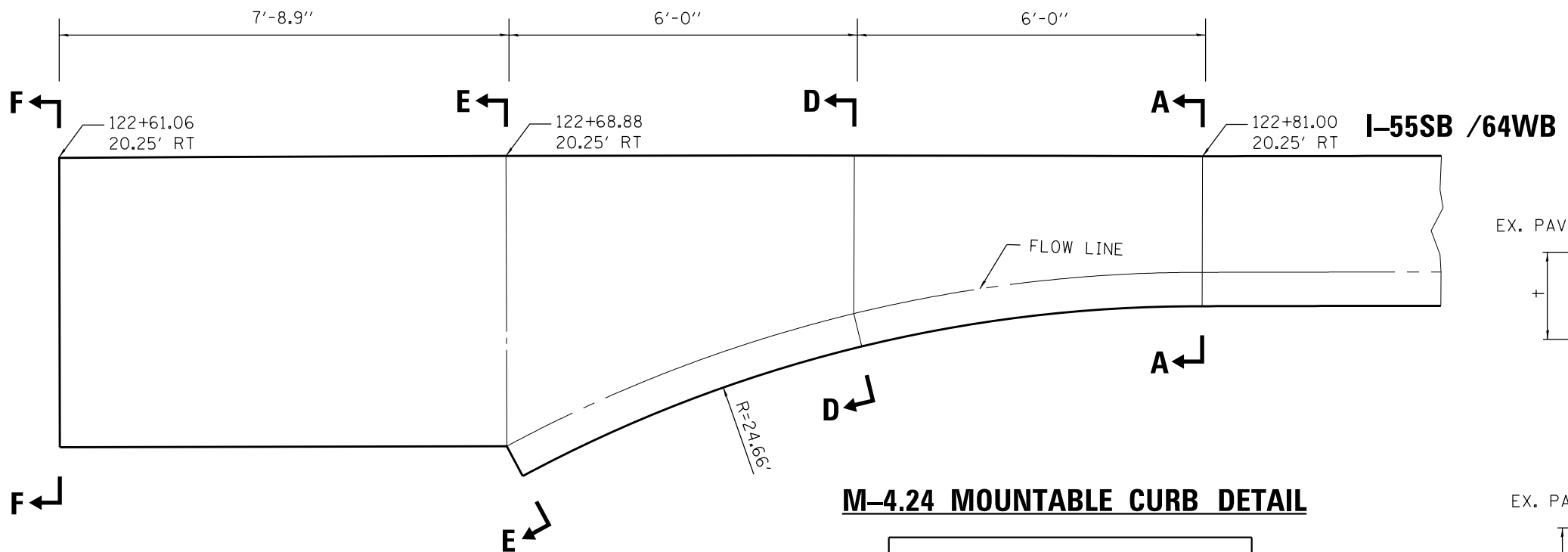
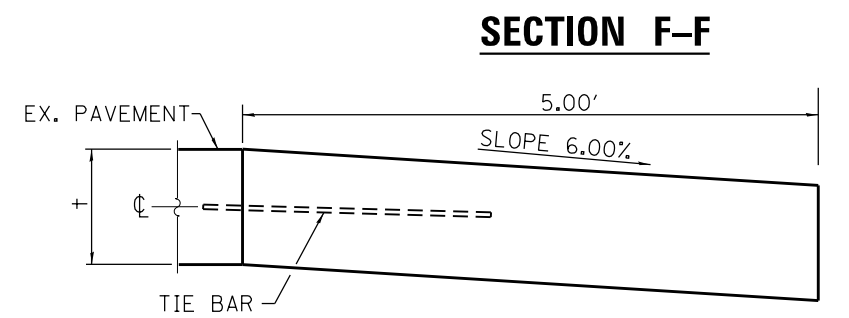
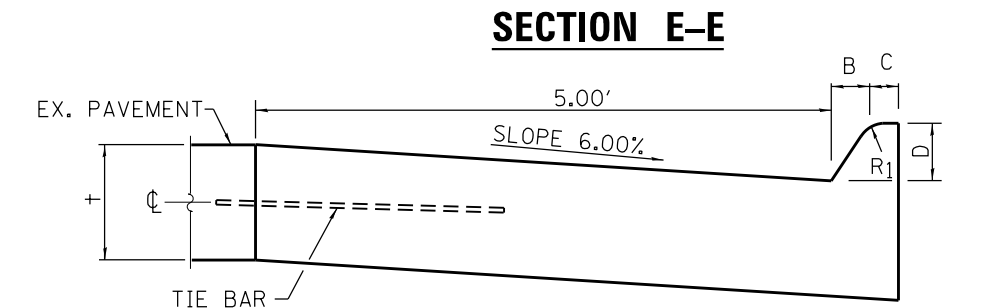
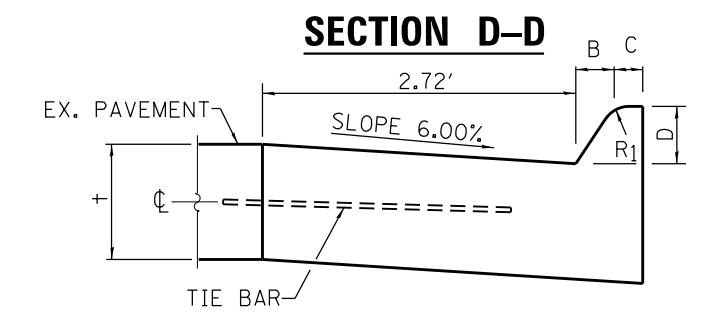
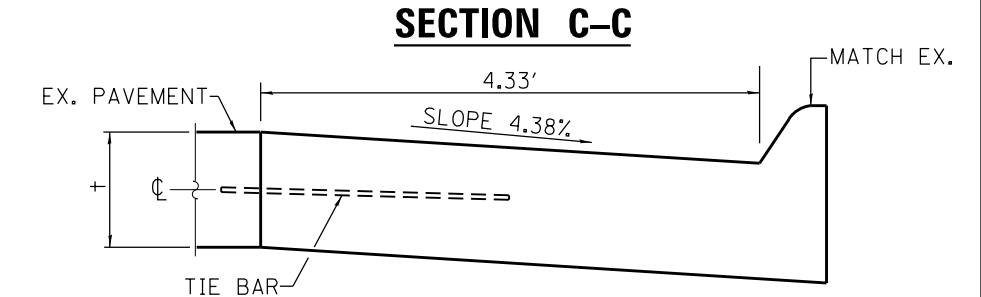
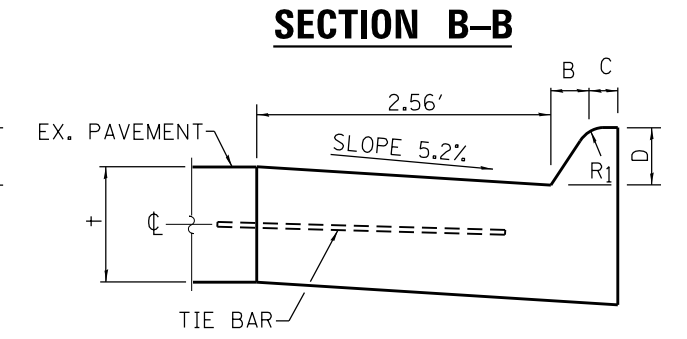
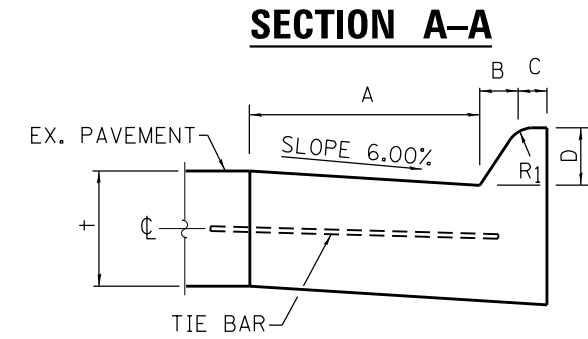
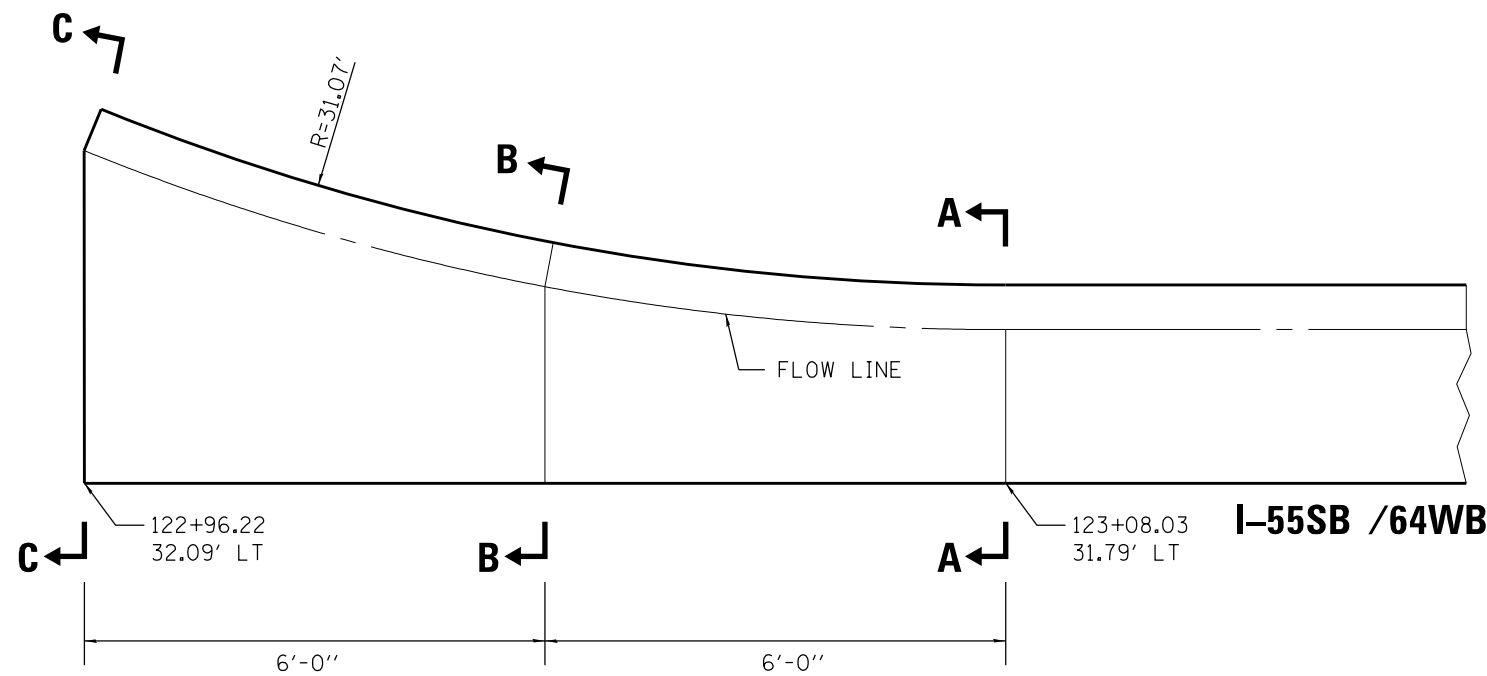
| | | | |
|--|----------------|------------------|-----------|
| FILE NAME = 089-D876039-sht-detail-SETrans.dgn | USER NAME = jd | DESIGNED - JRD | REVISED - |
| | | DRAWN - JRD | REVISED - |
| | | CHECKED - SLD | REVISED - |
| | | DATE - 3/22/2018 | REVISED - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAIL
SUPER ELEVATION TRANSITION SECTIONS

SCALE: 1" = 100' SHEET 1 OF 4 SHEETS STA. TO STA.

| | | | | |
|---------------------------|-----------------|-----------------|------------------|---------------|
| F.A.P. RTE. 799 | SECTION 1BR-1-1 | COUNTY ST CLAIR | TOTAL SHEETS 315 | SHEET NO. 104 |
| CONTRACT NO. 76C39 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |



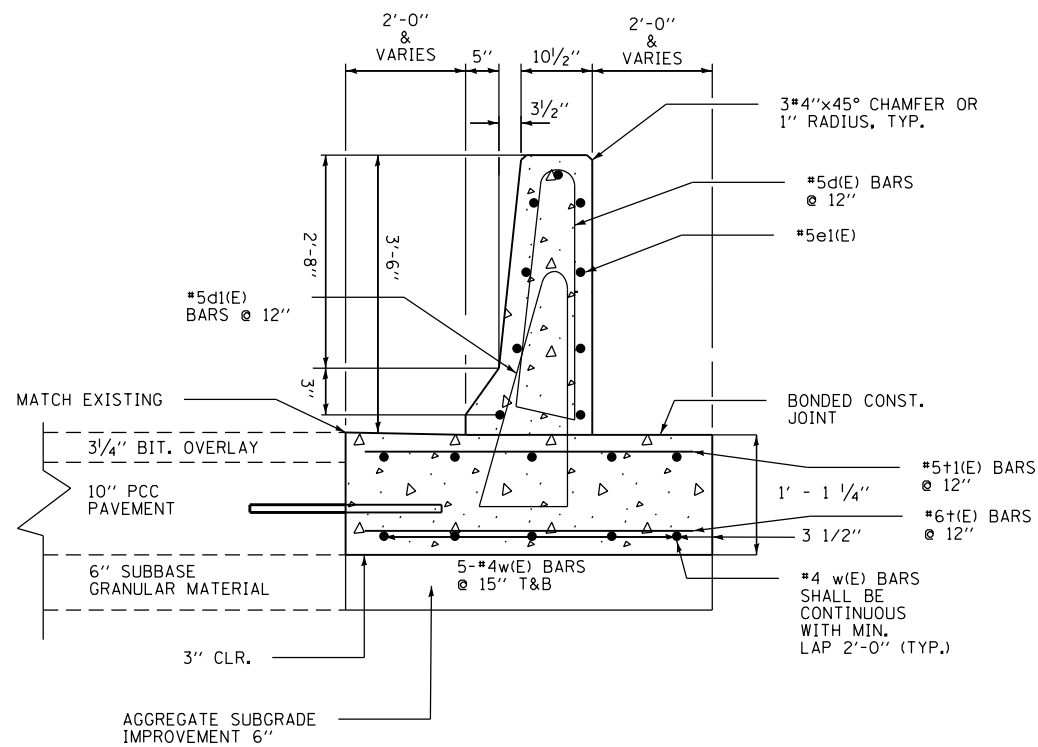
M-4.24 MOUNTABLE CURB DETAIL

| TABLE OF DIMENSIONS | | | | | |
|---------------------|----|---|---|---|----------------|
| TYPE | A | B | C | D | R ₁ |
| M-4.24 | 24 | 4 | 3 | 4 | 3 |

+ = THICKNESS OF PAVEMENT

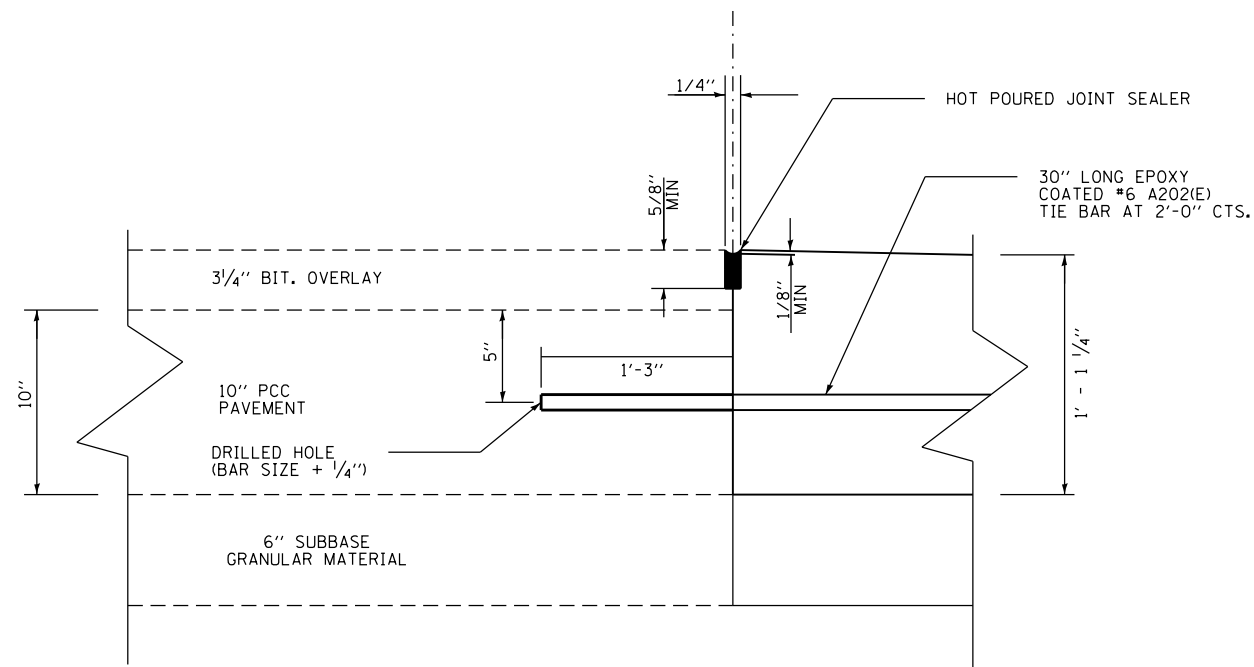
NOTE:
ALL COSTS ASSOCIATED WITH THE CONSTRUCTION OF THE GUTTER INLETS SHALL BE PAID FOR BY CLASS SI CONCRETE (OUTLET)

EFK Moen, LLC
Civil Engineering Design



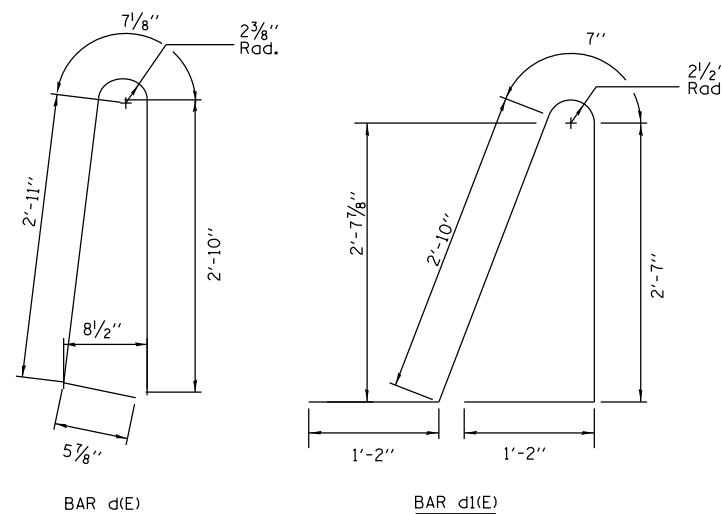
**CONCRETE BARRIER AND BASE,
SINGLE FACE, 42 INCH HEIGHT (SPECIAL)**

STA. 13+79.91 LT - STA. 15+68.34 LT (RAMP B)
STA. 12+69.94 LT - STA. 16+37.35 LT (RAMP D)



**LONGITUDINAL CONSTRUCTION JOINT
GROUTED-IN-PLACE TIE BAR**

N.T.S.



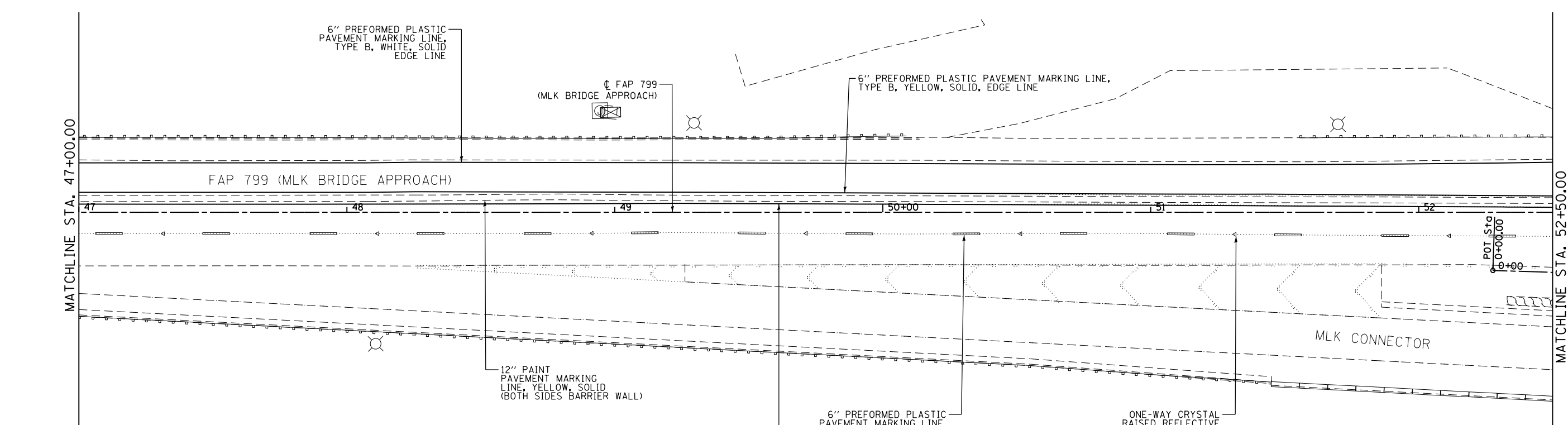
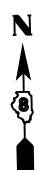
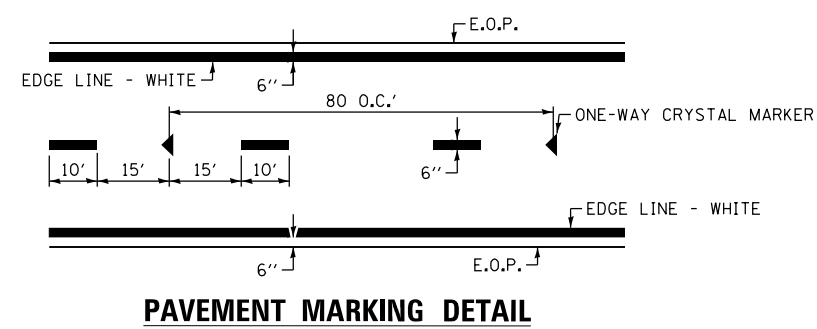
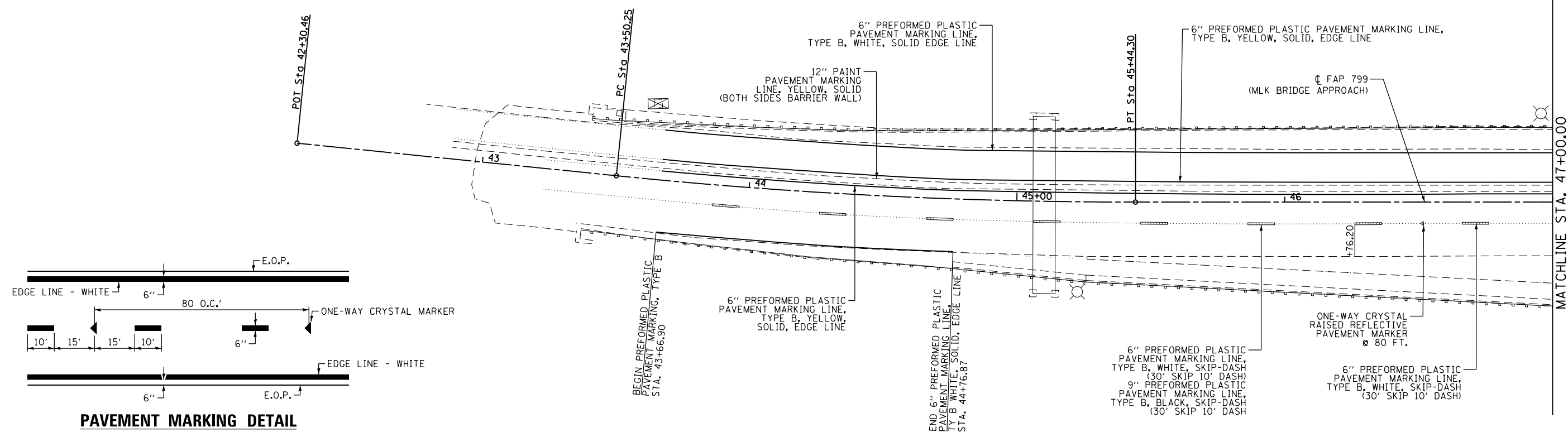
BENDING DIAGRAM

NOTES:

- REINFORCEMENT BARS TO BE INCLUDED IN THE UNIT COST FOR: CONCRETE BARRIER, SINGLE FACE, 42 INCH HEIGHT (SPECIAL)
- TOP SHOULDER EDGE OF BARRIER BASE GUTTER SHALL MATCH THE TOE OF SHOULDER ELEVATION.
- 1" DEEP CONTRACTION JOINTS SHALL BE CONSTRUCTED IN BOTH THE REINFORCED CONCRETE BARRIER WALL AND BASE. MAXIMUM JOINT SPACING SHALL BE 20 FEET.
- THE FORMING OF CONTRACTION JOINTS SHALL BE DONE WITH AN APPROVED FINISHING TOOL AT THE DISCRETION OF THE ENGINEER SUBJECT TO THE SATISFACTORY CONTROL OF CRACKING. THE SAWING OF CONTRACTION JOINTS IN THE BARRIER WALL SHALL NOT BE PERMITTED.
- REINFORCING BARS DESIGNATED "(E)" SHALL BE EPOXY COATED.
- REINFORCEMENT BENDING DETAILS SHALL BE IN ACCORDANCE WITH THE "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES", ACI 315, LATEST EDITION.
- REINFORCEMENT BAR BENDING DIMENSIONS ARE OUT TO OUT.
- SLOPE OF THE BARRIER BASE TO MATCH SHOULDER SLOPE.
- LONGITUDINAL CONSTRUCTION JOINT AND GROUTED-IN-PLACE TIE BAR TO BE INCLUDED IN THE UNIT COST FOR : CONCRETE BARRIER AND BASE, SINGLE FACE, 42 INCH HEIGHT (SPECIAL)

EFK Moen, LLC
Civil Engineering Design

| | | | | | | | | | | | | |
|--|------------------|----------------|---------------------------|---|--|---------------------|-----------------|--------------------|------------------|---------------|--|--|
| FILE NAME = 092-D876039-sht-detail-Barrier.dgn | USER NAME = jd | DESIGNED - JRD | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | DETAIL CONCRETE BARRIER AND BASE, SINGLE FACE, 42 INCH HEIGHT (SPECIAL) | F.A.P. RTE. 799 | SECTION 1BR-1-1 | COUNTY ST. CLAIR | TOTAL SHEETS 315 | SHEET NO. 107 | | |
| PLOT SCALE = 5.0000' / in. | CHECKED - SLD | REVISIED - | SCALE: 1"=10' | | | SHEET 4 OF 4 SHEETS | STA. TO STA. | CONTRACT NO. 76C39 | | | | |
| *MODELNAME* | DATE - 3/22/2018 | REVISIED - | ILLINOIS FED. AID PROJECT | | | | | | | | | |
| | | | | | | | | | | | | |



NOTE: THE CONTRACTOR AND THE ENGINEER SHALL BE AWARE THAT NO SURVEY WAS PERFORMED BETWEEN STA. 42+30.46 AND STA. 54+43. THE TOPOGRAPHY, AND QUANTITIES SHOWN IN THE PLANS WERE CREATED USING AERIAL TOPOGRAPHY, MICROFILM AND FIELD MEASUREMENTS. ALL SHALL BE ASSUMED TO BE APPROXIMATE. THE CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.



EFK·Moen, LLC
Civil Engineering Design

| | | | |
|---------------------------------------|----------------|------------------|-----------|
| FILE NAME = 092-DB76639-sh1-pmk01.dgn | USER NAME = jd | DESIGNED - JRD | REVISED - |
| | | DRAWN - JRD | REVISED - |
| | | CHECKED - SLD | REVISED - |
| | | DATE - 3/22/2018 | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

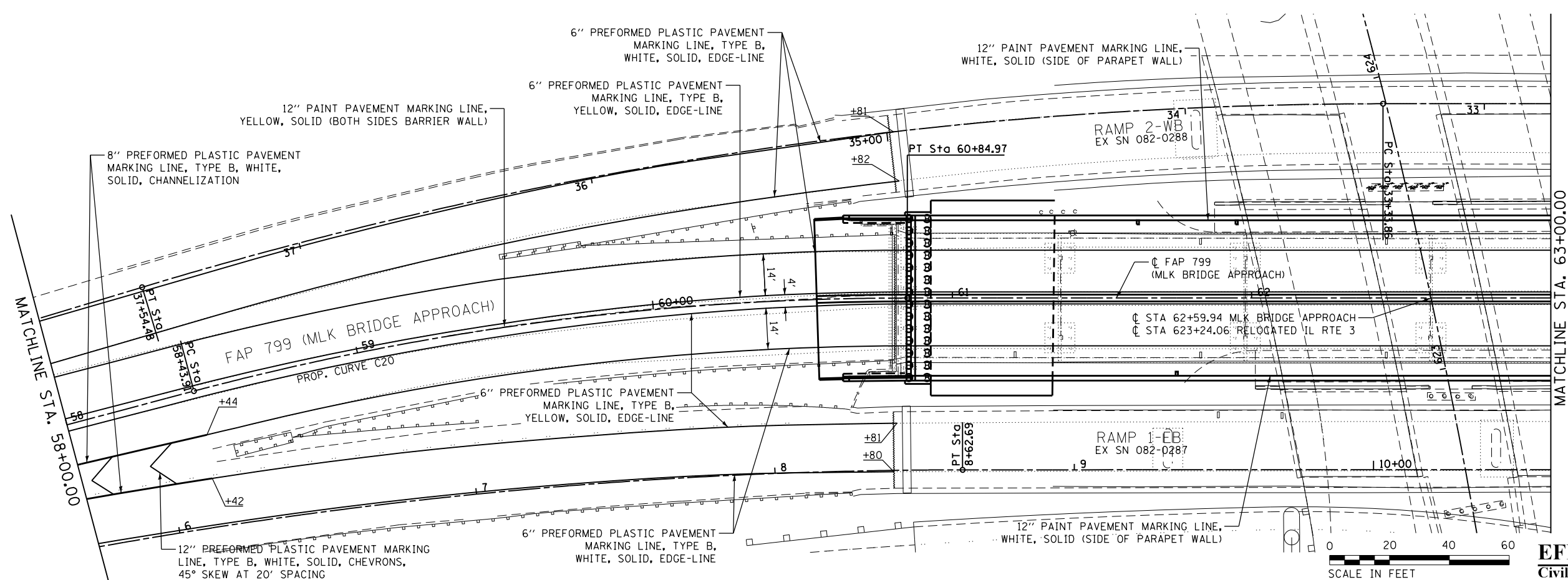
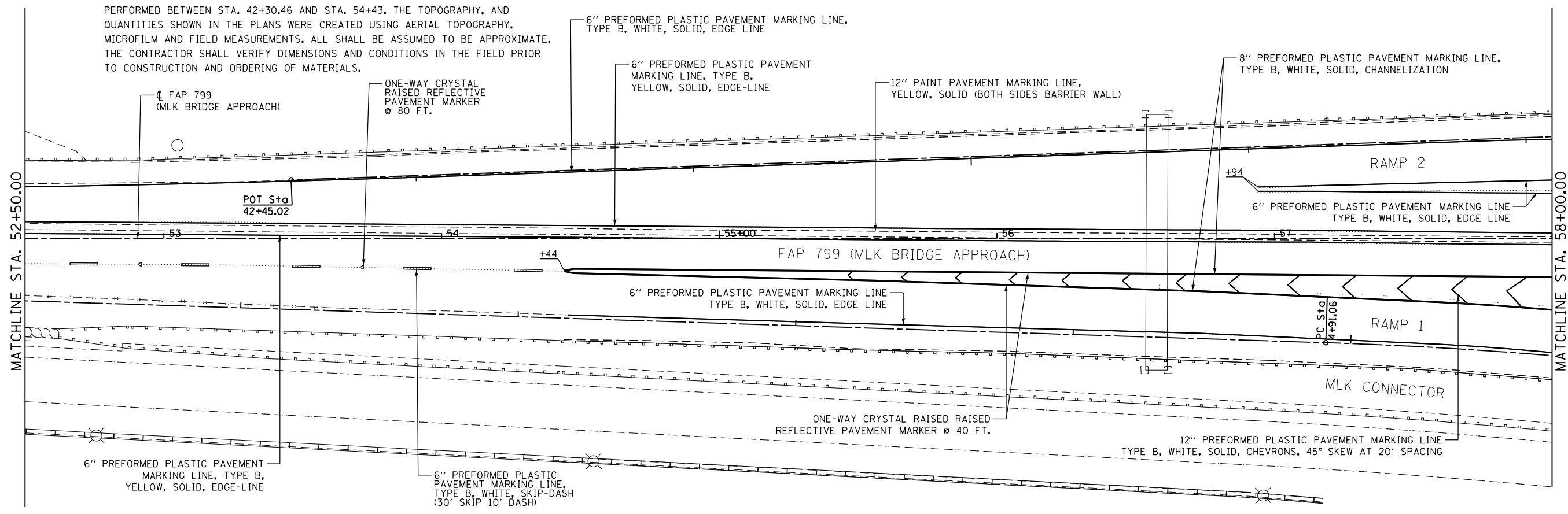
**PAVEMENT MARKING PLAN
FAP 799**

SCALE: 1"=20' SHEET 1 OF 8 SHEETS STA. 42+30.46 TO STA. 52+50.00

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|--------------------|---------|-----------|--------------|-----------|
| 799 | 1BR-1-1 | ST. CLAIR | 315 | 108 |
| CONTRACT NO. 76C39 | | | | |

ILLINOIS FED. AID PROJECT

NOTE: THE CONTRACTOR AND THE ENGINEER SHALL BE AWARE THAT NO SURVEY WAS PERFORMED BETWEEN STA. 42+30.46 AND STA. 54+43. THE TOPOGRAPHY, AND QUANTITIES SHOWN IN THE PLANS WERE CREATED USING AERIAL TOPOGRAPHY, MICROFILM AND FIELD MEASUREMENTS. ALL SHALL BE ASSUMED TO BE APPROXIMATE. THE CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.



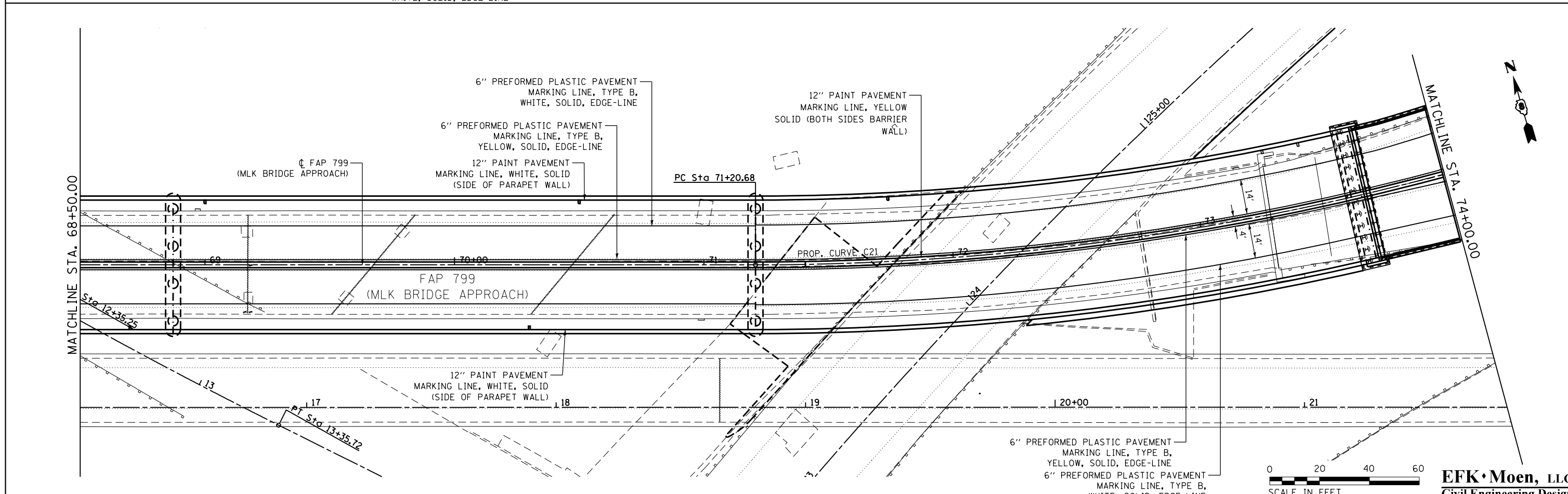
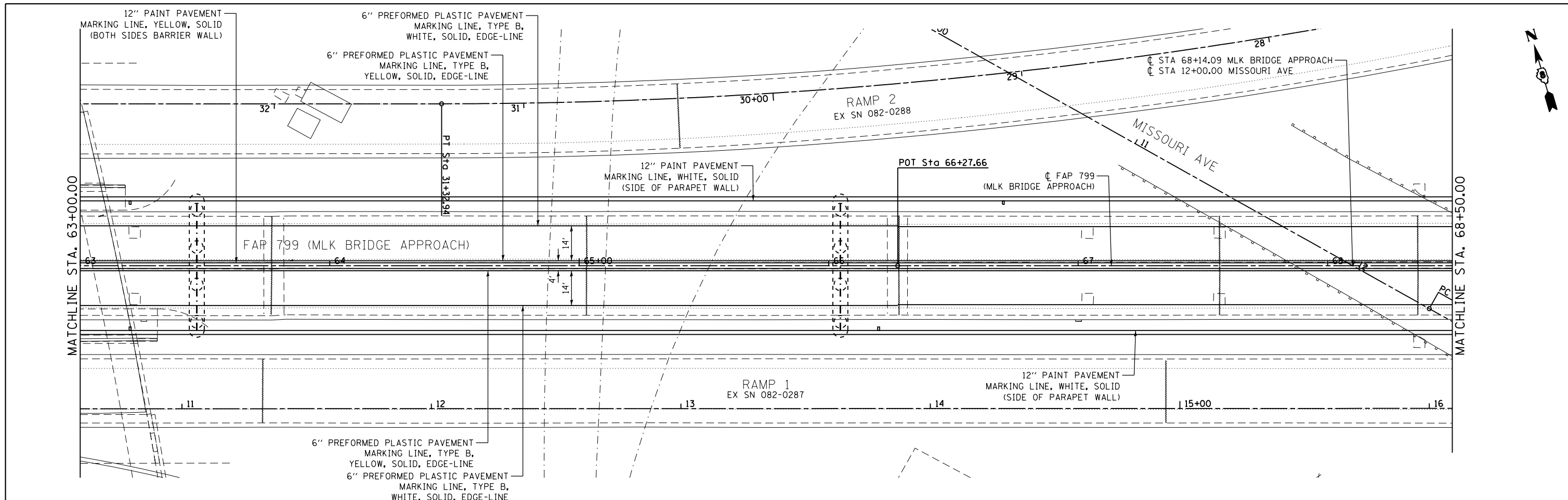
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| | | CHECKED - SLD | REVISED - |
| | | DATE - 3/22/2018 | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

| | |
|------------------------------|---------------------|
| PAVEMENT MARKING PLAN | |
| FAP 799 | |
| SCALE: 1"=20' | SHEET 2 OF 8 SHEETS |
| STA. 52+50.00 | TO STA. 63+00.00 |

| | | | | |
|--------------------|-----------------|------------------|---------------------------|---------------|
| F.A.P. RTE. 799 | SECTION 1BR-1-1 | COUNTY ST. CLAIR | TOTAL SHEETS 315 | SHEET NO. 109 |
| CONTRACT NO. 76C39 | | | ILLINOIS FED. AID PROJECT | |

EFK·Moen, LLC
Civil Engineering Design



| | | | |
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| | | DATE - 3/22/2018 | REVISED - |

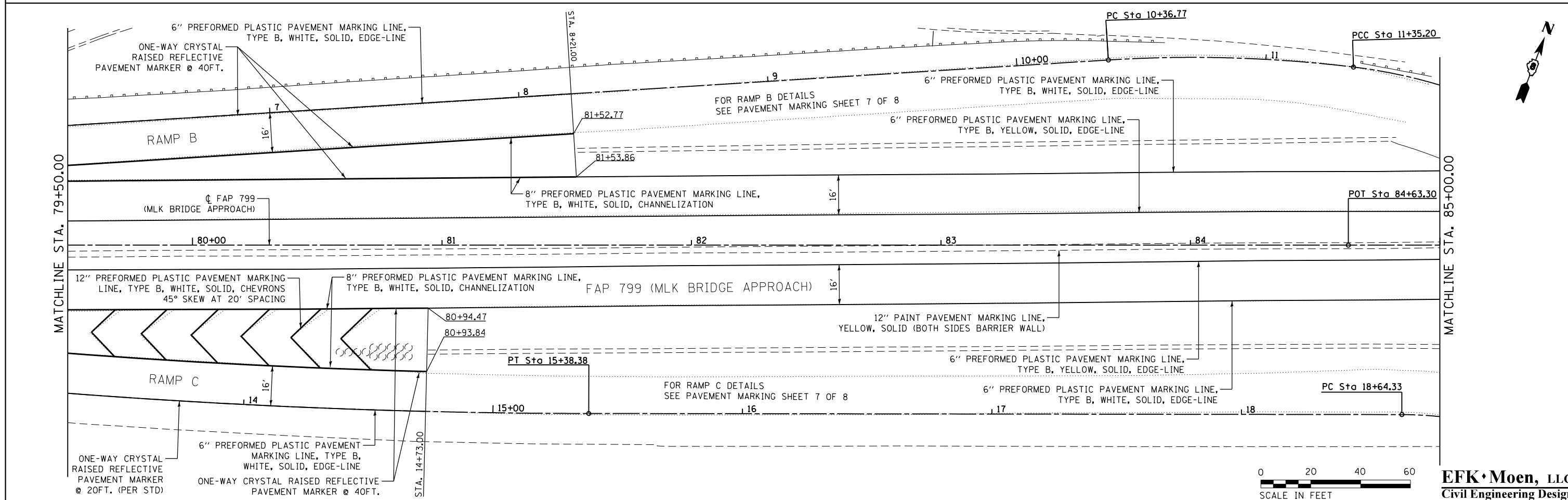
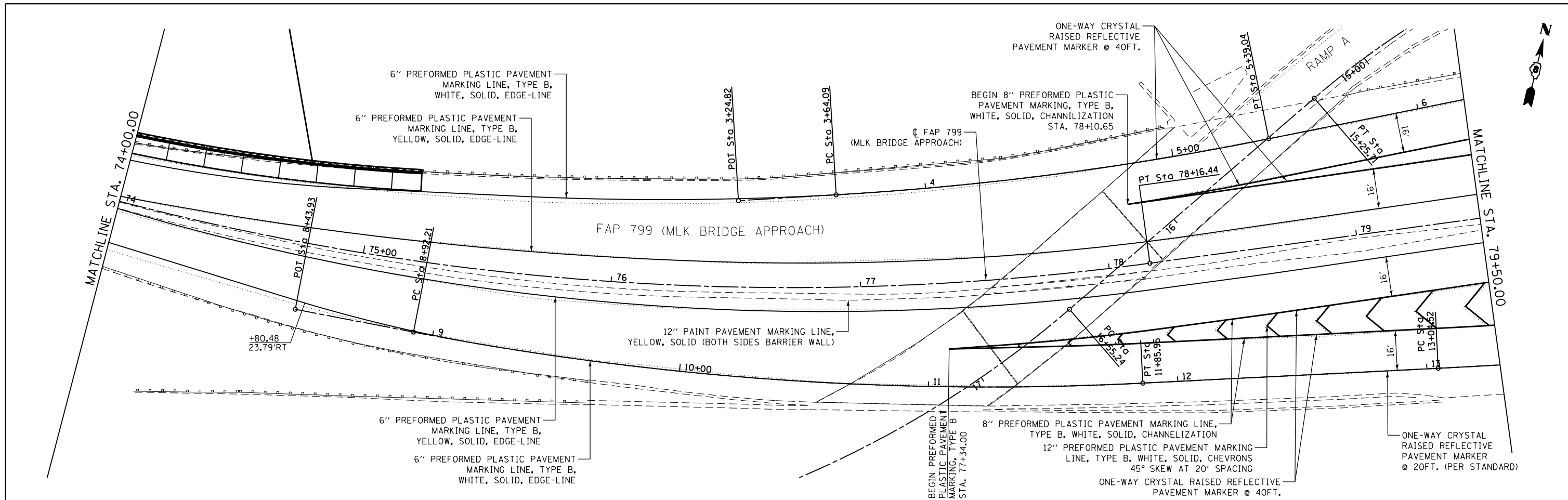
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING PLAN
FAP 799**

SCALE: 1"=20' SHEET 3 OF 8 SHEETS STA. 63+00.00 TO STA. 74+00.00

| | | | | |
|---------------------------|-----------------|------------------|--------------------|---------------|
| F.A.P. RTE. 799 | SECTION 1BR-1-1 | COUNTY ST. CLAIR | TOTAL SHEETS 315 | SHEET NO. 110 |
| | | | CONTRACT NO. 76C39 | |
| ILLINOIS FED. AID PROJECT | | | | |

EFK·Moen, LLC
Civil Engineering Design



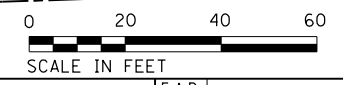
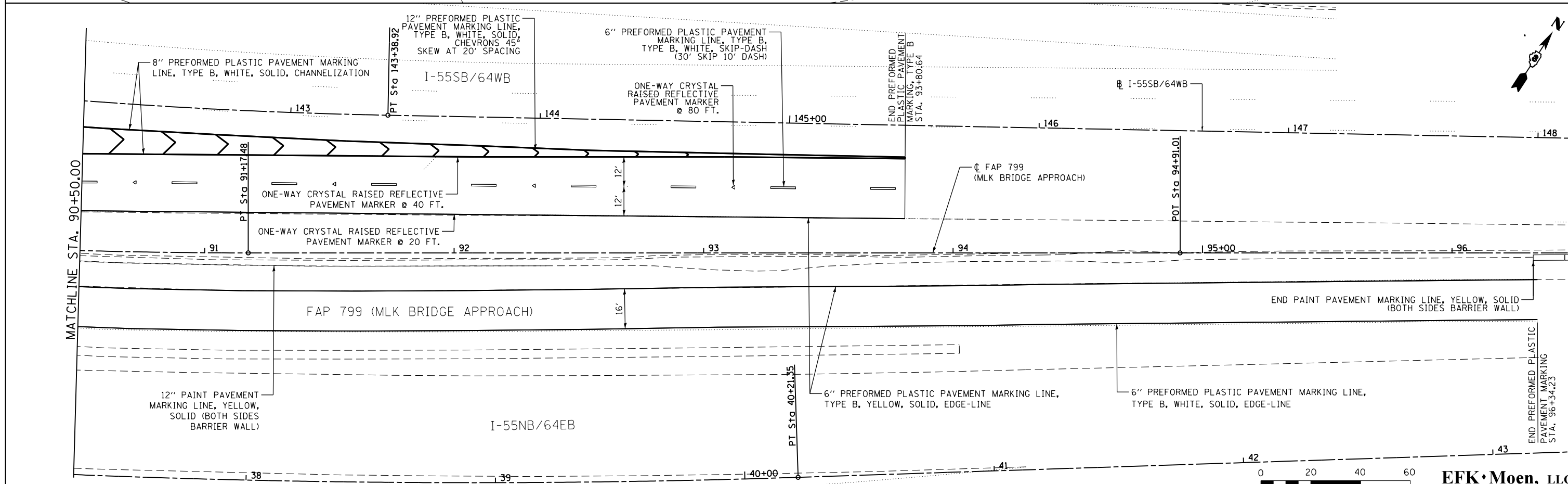
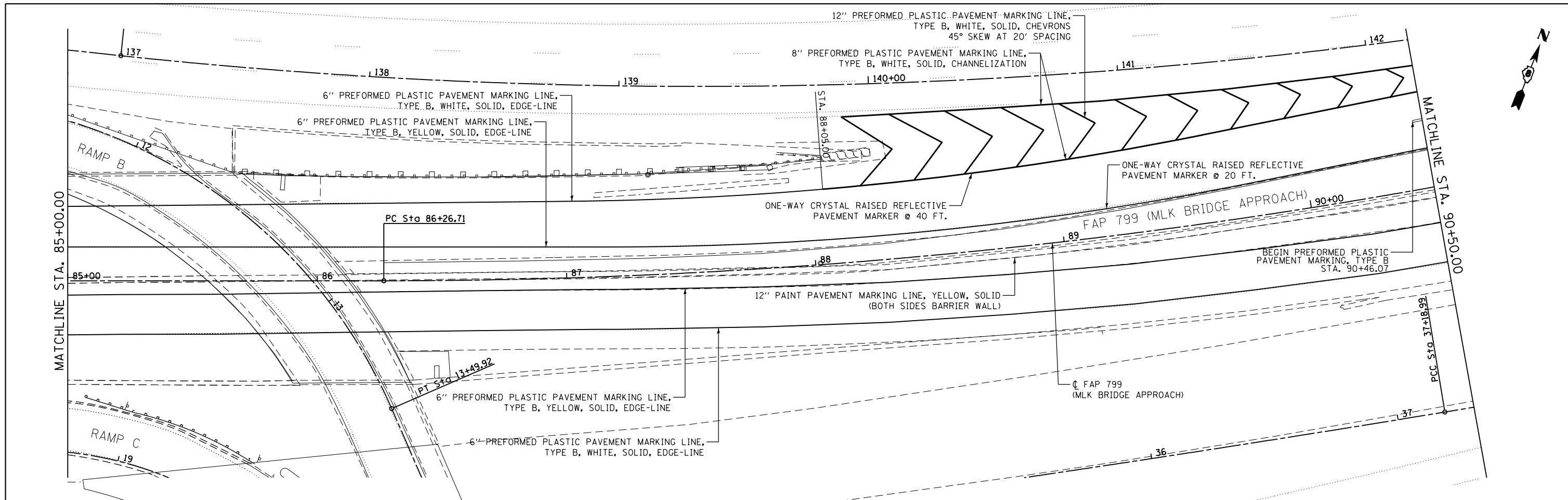
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| | | DRAWN - JRD | REVISED - |
| | | CHECKED - SLD | REVISED - |
| | | DATE - 3/22/2018 | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

| | |
|--|---------------------|
| PAVEMENT MARKING PLAN FAP 799 | |
| SCALE: 1"=20' | SHEET 4 OF 8 SHEETS |
| STA. 74+00.00 TO STA. 85+00.00 | |

| | | | | |
|---------------------------|-----------------|------------------|--------------------|---------------|
| F.A.P. RTE. 799 | SECTION 1BR-1-1 | COUNTY ST. CLAIR | TOTAL SHEETS 315 | SHEET NO. 111 |
| ILLINOIS FED. AID PROJECT | | | CONTRACT NO. 76C39 | |

EFK·Moen, LLC
Civil Engineering Design



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USER NAME = jd
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 PLOT DATE = 3/22/2018

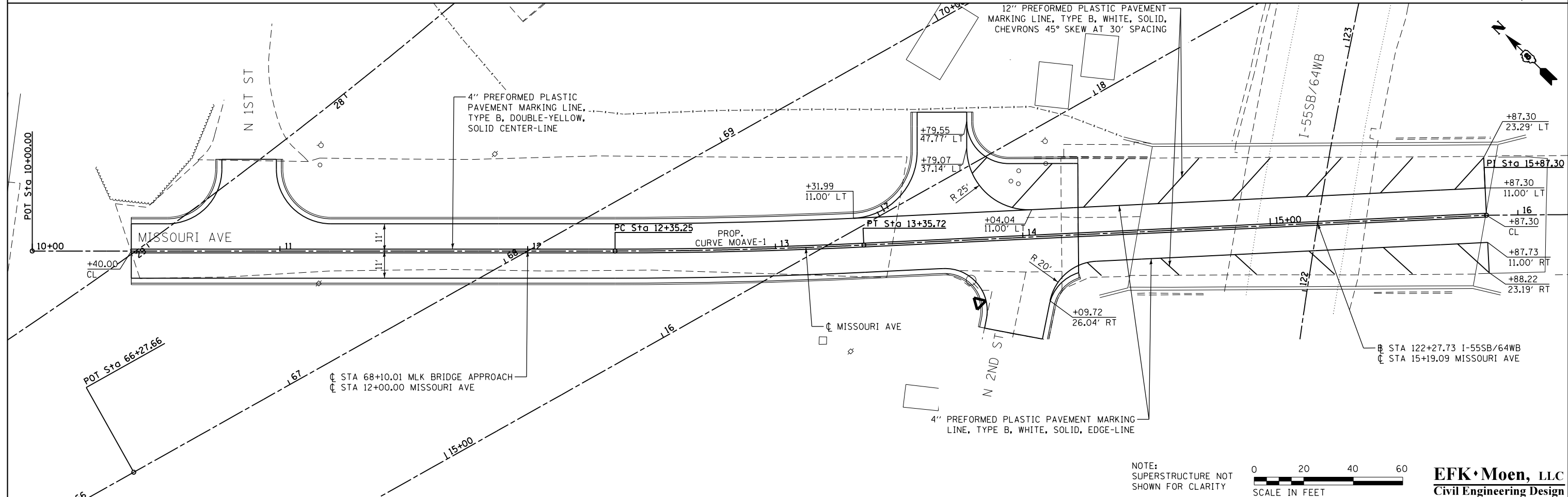
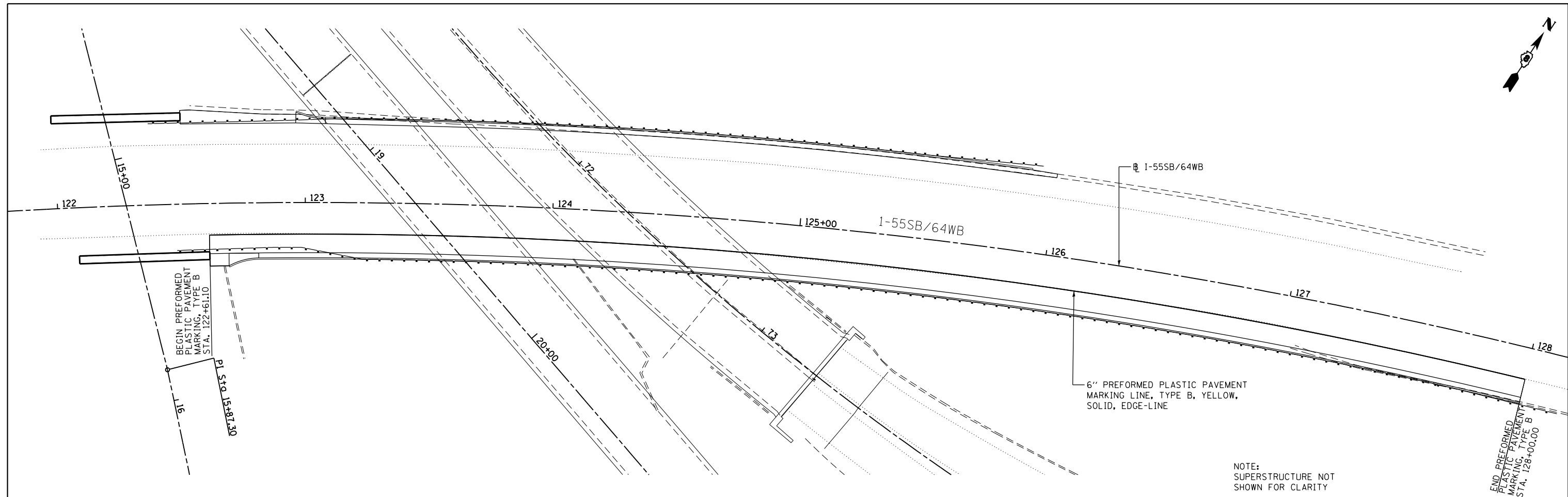
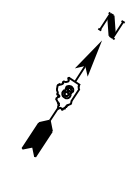
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|------------------|-----------|
| DESIGNED - JRD | REVISED - |
| DRAWN - JRD | REVISED - |
| CHECKED - SLD | REVISED - |
| DATE - 3/22/2018 | REVISED - |

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING PLAN
 FAP 799**
 SCALE: 1"=20'
 SHEET 5 OF 8 SHEETS
 STA. 85+00.00 TO STA. 96+50.00

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|---------|-----------|--------------------|-----------|
| 799 | 1BR-1-1 | ST. CLAIR | 315 | 112 |
| ILLINOIS FED. AID PROJECT | | | CONTRACT NO. 76C39 | |

EFK·Moen, LLC
 Civil Engineering Design



NOTE:
SUPERSTRUCTURE NOT
SHOWN FOR CLARITY



EFK·Moen, LLC
Civil Engineering Design

FILE NAME =
093-DB76039-shd-pmk06.dgn

USER NAME = jd
PLOT SCALE = 48.0000' / in.
PLOT DATE = 3/22/2018

DESIGNED - JRD
DRAWN - JRD
CHECKED - SLD
DATE - 3/22/2018

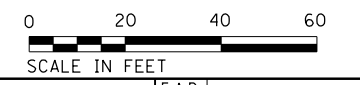
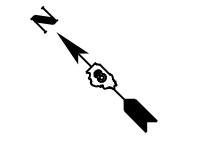
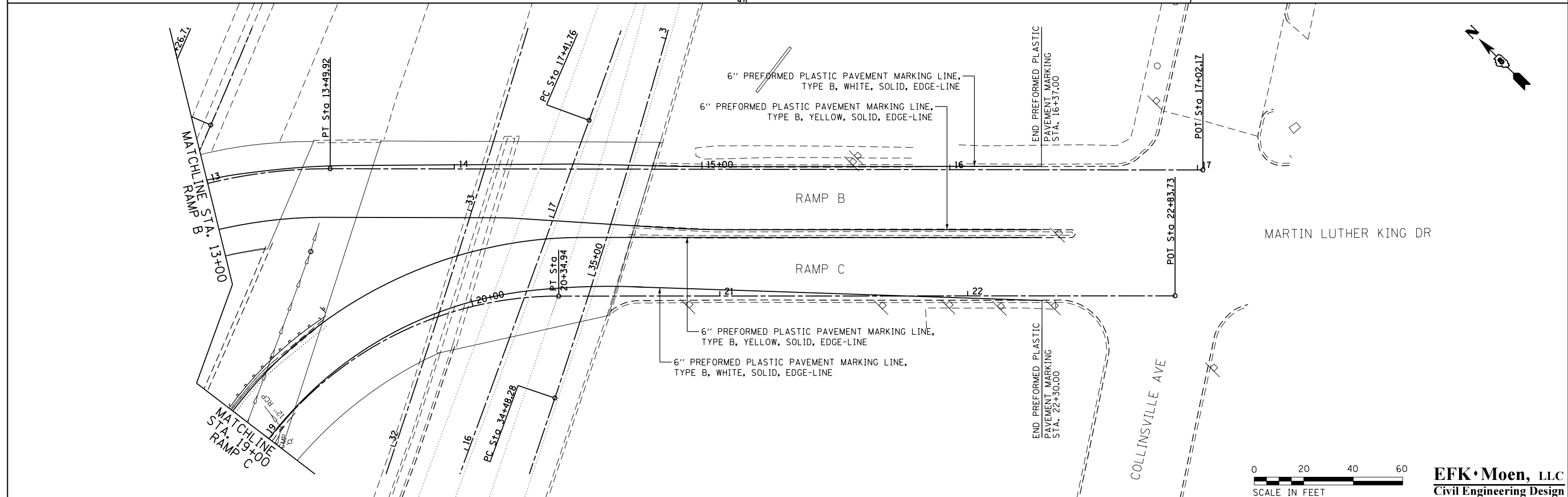
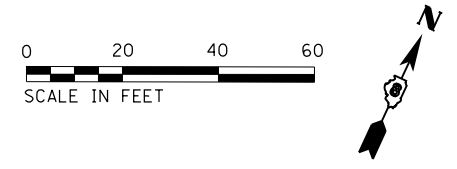
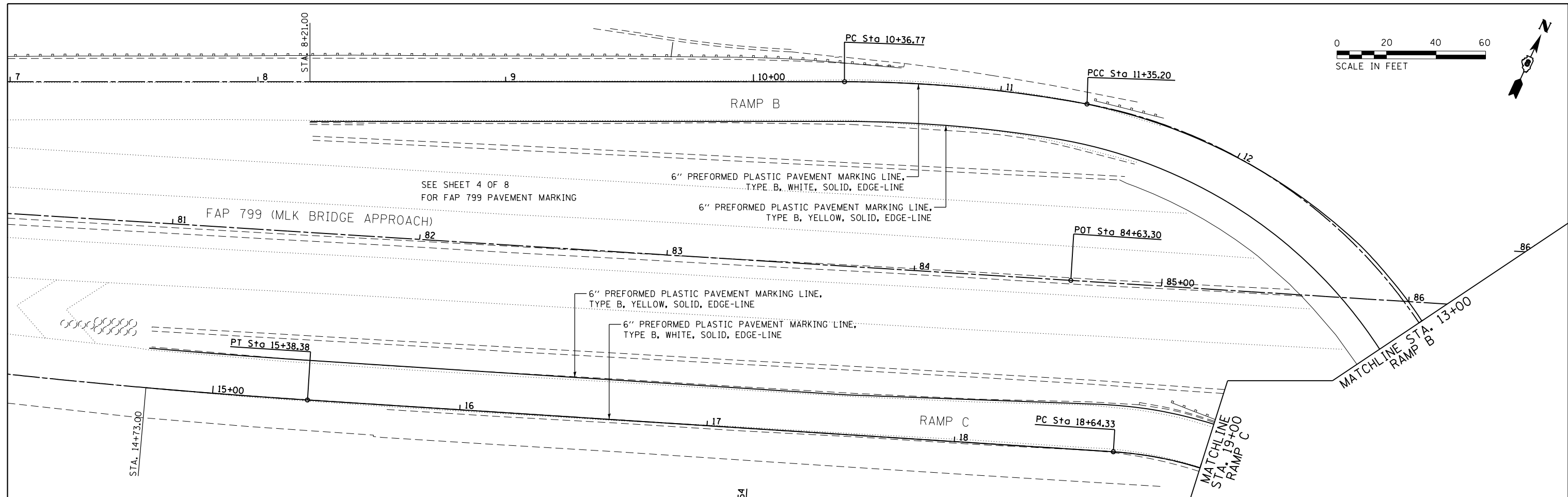
REVISED -
REVISED -
REVISED -
REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING PLAN
I-55SB / 64WB & MISSOURI AVE**

SCALE: 1"=20' SHEET 6 OF 8 SHEETS STA. 10+00.00 TO STA. 16+00.00

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|--------------------|---------|-----------|---------------------------|-----------|
| 799 | 1BR-1-1 | ST. CLAIR | 315 | 113 |
| CONTRACT NO. 76C39 | | | ILLINOIS FED. AID PROJECT | |



| | | | |
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| | | DATE - 3/22/2018 | REVISED - |

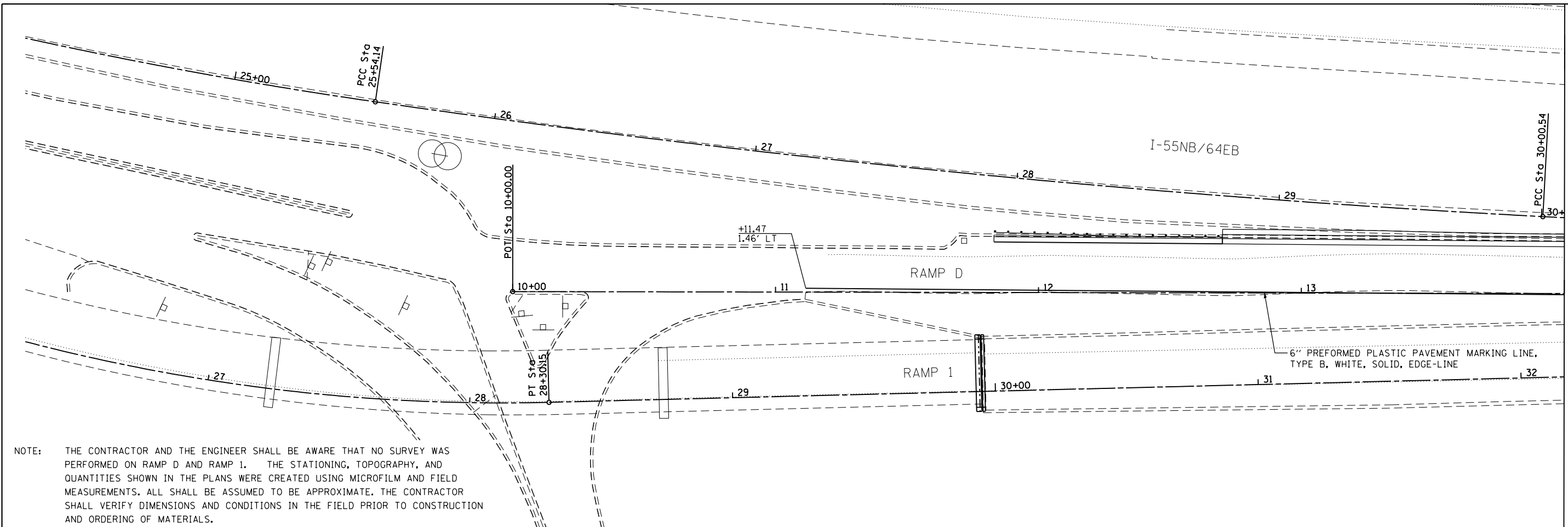
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING PLAN
RAMP B & RAMP C**

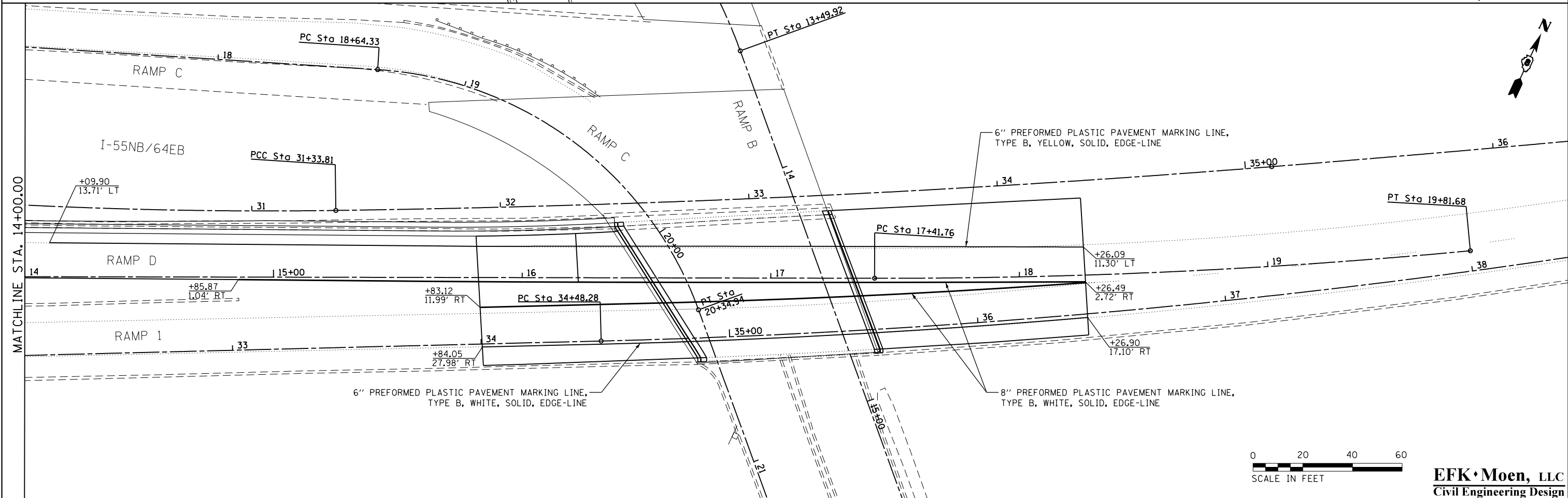
SCALE: 1"=20' SHEET 7 OF 8 SHEETS STA. TO STA.

| | | | | |
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| F.A.P. RTE. 799 | SECTION 1BR-1-1 | COUNTY ST. CLAIR | TOTAL SHEETS 315 | SHEET NO. 114 |
| | | | CONTRACT NO. 76639 | |
| ILLINOIS FED. AID PROJECT | | | | |

EFK·Moen, LLC
Civil Engineering Design



NOTE: THE CONTRACTOR AND THE ENGINEER SHALL BE AWARE THAT NO SURVEY WAS PERFORMED ON RAMP D AND RAMP 1. THE STATIONING, TOPOGRAPHY, AND QUANTITIES SHOWN IN THE PLANS WERE CREATED USING MICROFILM AND FIELD MEASUREMENTS. ALL SHALL BE ASSUMED TO BE APPROXIMATE. THE CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.



EFK Moen, LLC
Civil Engineering Design

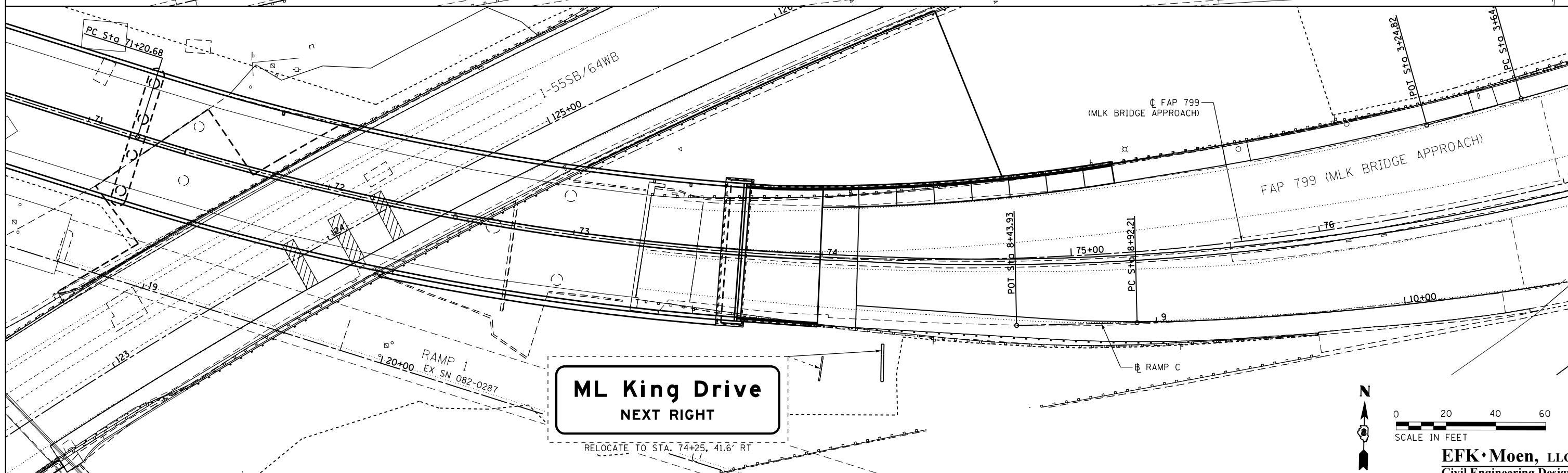
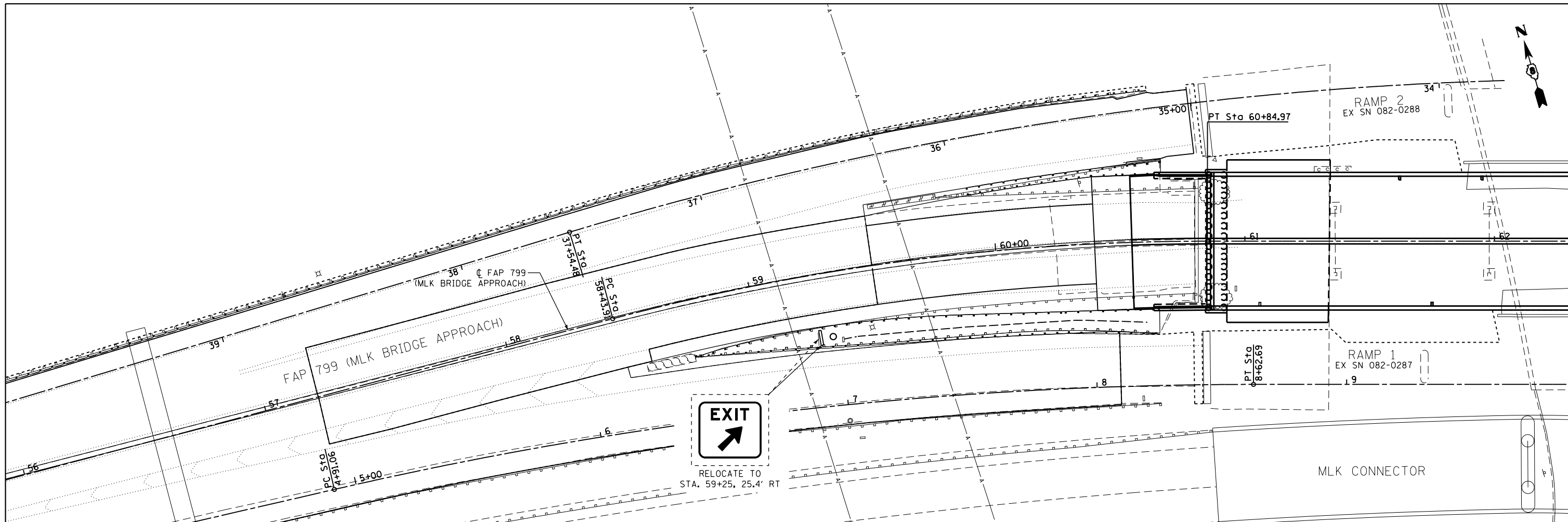
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| | PLOT SCALE = 40.0000' / in. | CHECKED - SLD | REVISED - |
| | PLOT DATE = 3/22/2018 | DATE - 3/22/2018 | REVISED - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN
RAMP D

SCALE: 1"=20' SHEET 8 OF 8 SHEETS STA. TO STA.

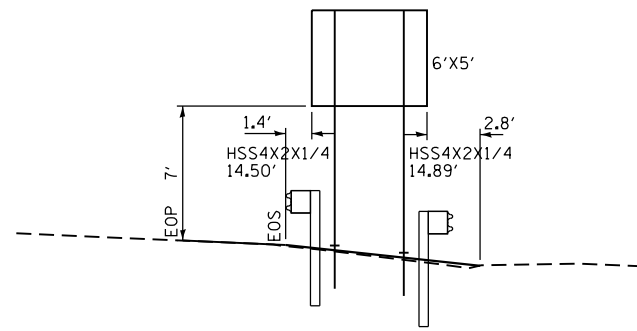
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|--------------------|---------|-----------|---------------------------|-----------|
| 799 | 1BR-1-1 | ST. CLAIR | 315 | 115 |
| CONTRACT NO. 76C39 | | | ILLINOIS FED. AID PROJECT | |



| | | | | | | | | | | | | |
|--|-----------------------------|------------------|-----------|---|---------------------------------|---------------------------|---------------------|------------------|------------------|--------------------|--|--|
| FILE NAME = 096-DB76039-sht-Sign01.dgn | USER NAME = jrd | DESIGNED - JRD | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | SIGNING PLAN FAP 799 | F.A.P. RTE. 799 | SECTION 1BR-1-1 | COUNTY ST. CLAIR | TOTAL SHEETS 315 | SHEET NO. 116 | | |
| *MODELNAME* | PLOT SCALE = 40.0000' / in. | CHECKED - SLD | REVISED - | | | SCALE: 1"=20' | SHEET 1 OF 6 SHEETS | STA. | TO STA. | CONTRACT NO. 76C39 | | |
| | PLOT DATE = 3/22/2018 | DATE - 3/22/2018 | REVISED - | | | ILLINOIS FED. AID PROJECT | | | | | | |
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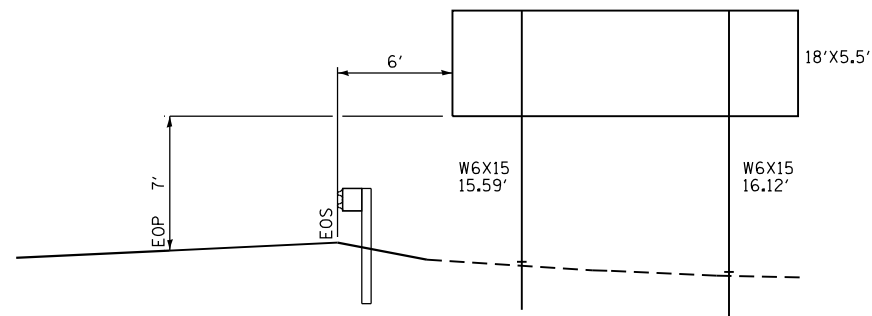
EFK Moen, LLC
Civil Engineering Design

STA. 59+25, 25.4'RT
MLK BRIDGE APPROACH



| LOCATION | | | RELOCATE SIGN PANEL TYPE 3 (SQ FT) | STRUCT STEEL SIGN SUPPORT BREAKAWAY (POUND) | TELESCOP STEEL SIGN SUPPORT (FOOT) | DRILLED SHAFT CONC FOUNDATION (CU YD) | REM CONC FDN - GR MT (EACH) |
|----------|---------|----------|------------------------------------|---|------------------------------------|---------------------------------------|-----------------------------|
| ROADWAY | STATION | SIDE | | | | | |
| MLK | 59+25 | 25.4' RT | 30 | | 259 | 1.5 | |
| MLK | 74+25 | 41.6' RT | 99 | 476 | | 1.5 | |
| MLK | 59+24 | 25.7' RT | | | | | 2 |
| MLK | 74+01 | 44.7' RT | | | | | 2 |
| TOTALS | | | 129 | 476 | 259 | 3 | 4 |

STA. 74+25, 41.6'RT
MLK BRIDGE APPROACH



EFK·Moen, LLC
Civil Engineering Design

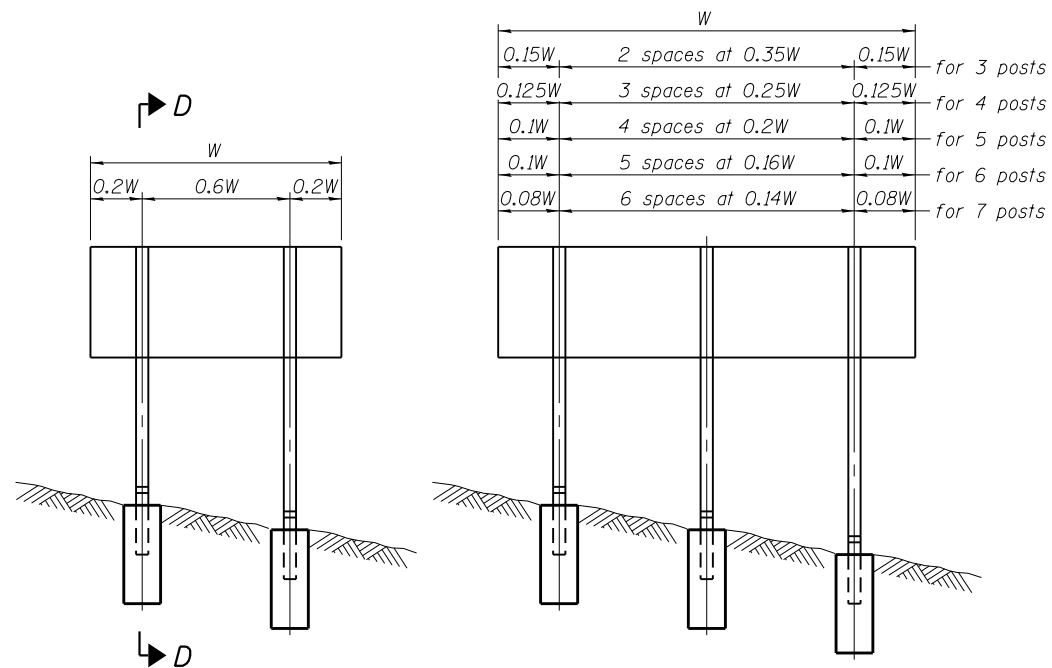
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| | | DRAWN - JRD | REVISED - |
| | PLOT SCALE = 10.0000' / 1" | CHECKED - SLD | REVISED - |
| *MODELNAME* | PLOT DATE = 3/22/2018 | DATE - 3/22/2018 | REVISED - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

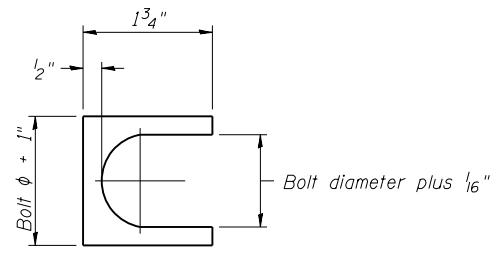
SIGNING PLAN
FAP 799

SCALE: N/A SHEET 2 OF 6 SHEETS STA. TO STA.

| | | | | |
|--------------------|--------------------|---------------------|---------------------|---------------------------|
| F.A.P. RTE. 799 | SECTION IBR-1-1 | COUNTY ST. CLAIR | TOTAL SHEETS 315 | SHEET NO. 117 |
| CONTRACT NO. 76G39 | | | | ILLINOIS FED. AID PROJECT |

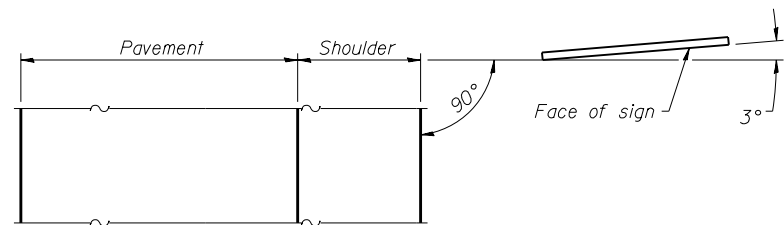


ELEVATION

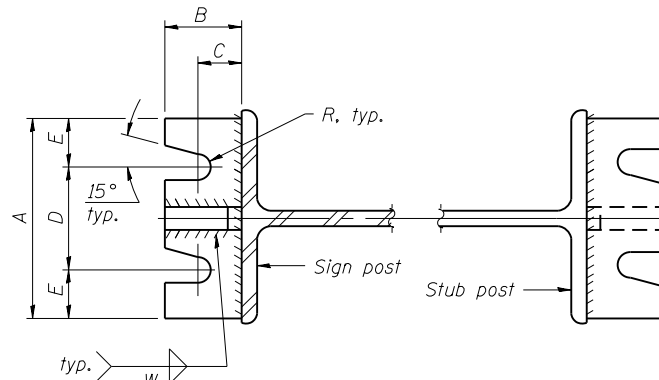


SHIM DETAIL

Furnish two 0.01" thick and two 0.03" thick stainless steel or brass (ASTM B36) shims per post.

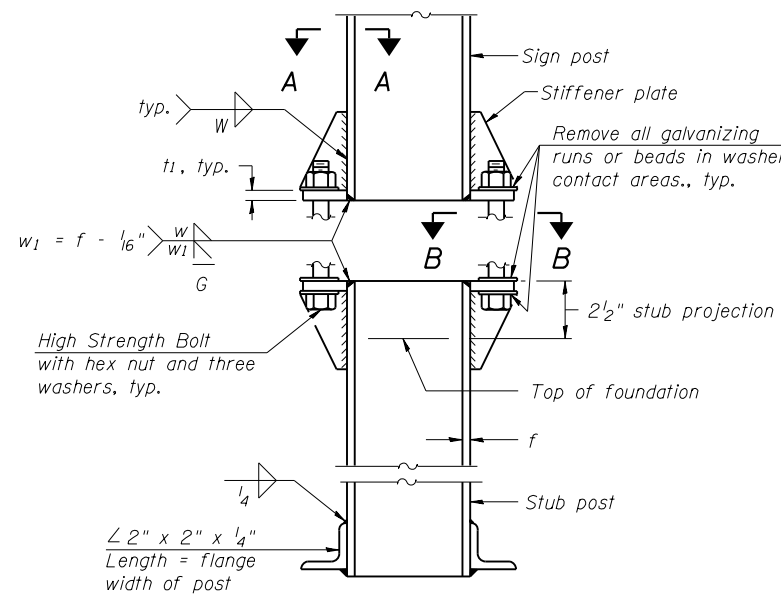


LOCATION SKETCH

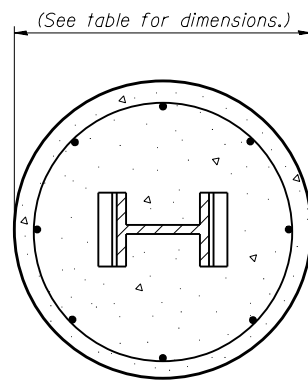


SECTION A-A

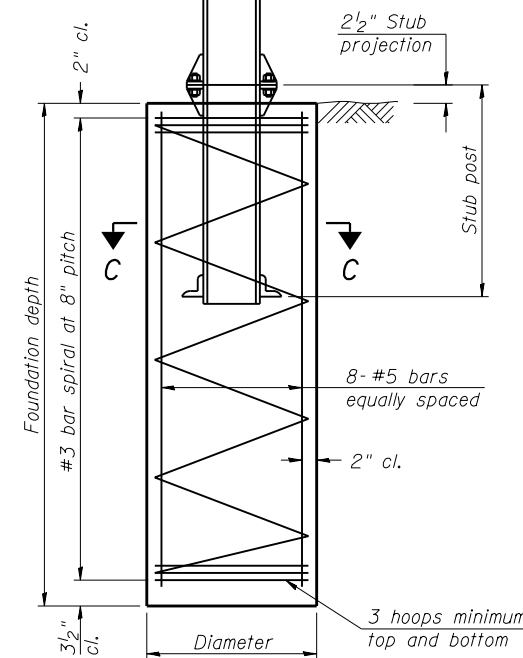
SECTION B-B



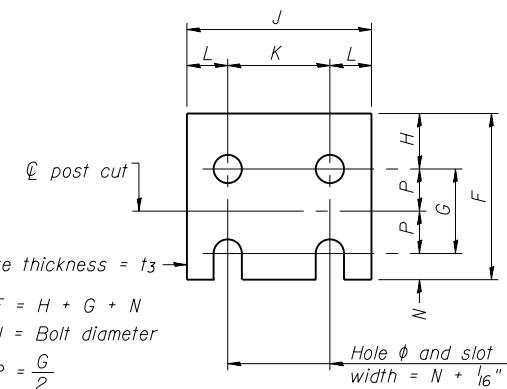
**ELEVATION
SIGN POST & STUB POST**



SECTION C-C



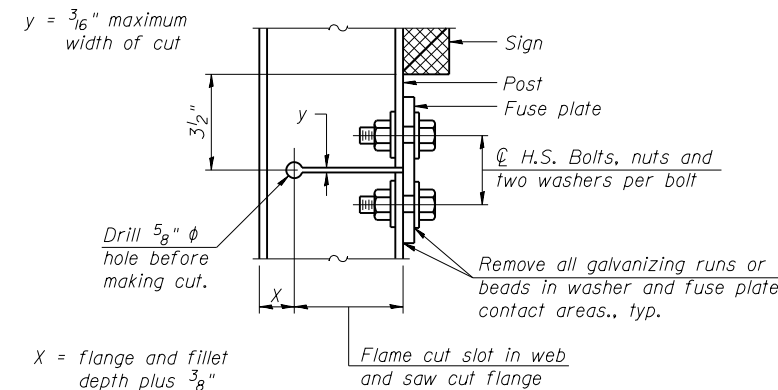
SECTION D-D



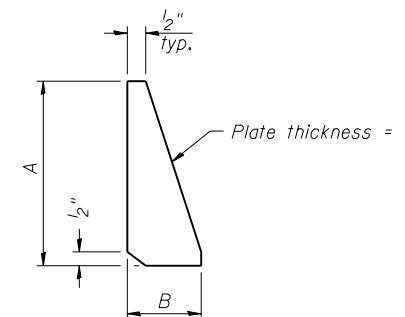
FUSE PLATE DETAIL

(Install with notches down.)

| FUSE PLATE DATA | | |
|-------------------|--------|--------|
| N = Bolt Diameter | G | H |
| 1/2" | 2" | 1 1/8" |
| 5/8" | 2 1/4" | 1 1/4" |
| 3/4" | 2 1/2" | 1 3/8" |
| 7/8" | 2 3/4" | 1 1/2" |
| 1" | 3" | 1 5/8" |
| 1 1/8" | 3 1/4" | 1 3/4" |
| 1 1/4" | 3 1/2" | 1 7/8" |



DETAIL H



STIFFENER PLATE DETAIL

GENERAL NOTES

Posts shall be plumbed by using shims with post-to-stub post connection bolts snug tight only. Final tightening of all High Strength Bolts shall be in accordance with Article 727.05 and threads at the junction of the bolt and nut shall be burred or center punched to prevent the nut from loosening.

LOADING: 80 m.p.h. wind with 30% gust factor, normal to sign.

DESIGN STRESSES:
 Structural steel - 20,000 p.s.i.
 Reinforcing steel - 20,000 p.s.i.
 Concrete - 1,400 p.s.i.
 Footing soil pressure - 2,000 p.s.f.

After fabrication, the post, fuse plate and upper 6", min. of the stub post shall be hot-dip galvanized in accordance with AASHTO M111. All bolts, nuts and washers shall be hot-dip galvanized in accordance with AASHTO M232.

Work this sheet with Base Sheet BAW-A-2.

BAW-A-1

6-1-12

(Sheet 1 of 2)

| | | | |
|--|----------------|------------------|-----------|
| FILE NAME = 097-DB76G39-sht-Sign03-BAW-A-1.dgn | USER NAME = jd | DESIGNED - | REVISED - |
| | | DRAWN - | REVISED - |
| | | CHECKED - SLD | REVISED - |
| | | DATE - 3/22/2018 | REVISED - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BREAK-AWAY WIDE FLANGE
STEEL SIGN POST DETAILS

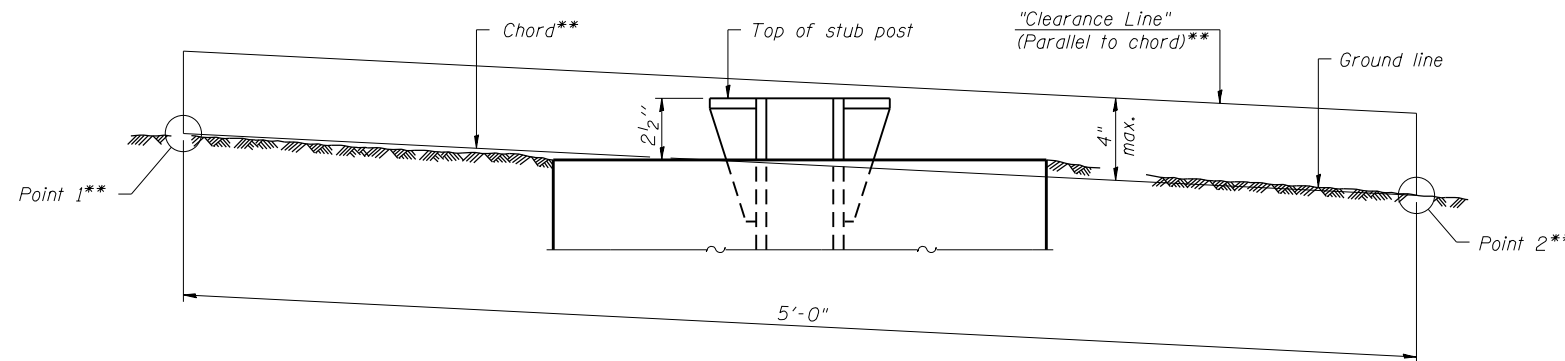
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|--------------------|-----------------|------------------|---------------------------|---------------|
| F.A.P. RTE. 799 | SECTION 1BR-1-1 | COUNTY ST. CLAIR | TOTAL SHEETS 315 | SHEET NO. 118 |
| CONTRACT NO. 76C39 | | | ILLINOIS FED. AID PROJECT | |

| POST | CONCRETE FOUNDATION TABLE | | | | | | | POST TO STUB POST CONNECTION DATA | | | | | | | | | | FUSE PLATE DATA | | | | |
|--------|---------------------------|-----------------|------------------------|----------------------|----------------------|---------|------------------|-----------------------------------|-------------|--------|--------|--------|--------|----------------|----------------|------|--------|-----------------|--------|--------|----------------|----------|
| | Foundation | | | Reinforcement | | | Stub Post Length | Bolt Size | A | B | C | D | E | t ₁ | t ₂ | R | W | J | K | L | t ₃ | |
| | Diameter | * Minimum Depth | Concrete (1) cu. yds.) | Vertical Bars Length | Bar Spirals Diameter | Length | | | | | | | | | | | | | | | | lbs. (2) |
| W6x9 | 2'-0" | 6'-0" | 0.70 | 5'-9" | 1'-8 1/2" | 79'-0" | 78 | 2'-3" | 5/8" x 3/4" | 6" | 2 1/4" | 1 1/4" | 3 1/2" | 1 1/4" | 3/4" | 1/2" | 11/32" | 1/4" | 4" | 2 1/4" | 7/8" | 1/4" |
| W6x15 | 2'-0" | 6'-0" | 0.70 | 5'-9" | 1'-8 1/2" | 79'-0" | 78 | 2'-6" | 5/8" x 3/4" | 6" | 2 1/4" | 1 1/4" | 3 1/2" | 1 1/4" | 3/4" | 1/2" | 11/32" | 1/4" | 6" | 3 1/2" | 1 1/4" | 3/8" |
| W8x18 | 2'-0" | 6'-0" | 0.70 | 5'-9" | 1'-8 1/2" | 79'-0" | 78 | 2'-6" | 3/4" x 3/4" | 6" | 2 1/2" | 1 3/8" | 3 1/4" | 1 3/8" | 1" | 1/2" | 13/32" | 5/16" | 5 1/4" | 2 3/4" | 1 1/4" | 3/8" |
| W10x22 | 2'-6" | 6'-6" | 1.18 | 6'-3" | 2'-2 1/2" | 105'-0" | 92 | 3'-0" | 3/4" x 3/4" | 6" | 2 1/2" | 1 3/8" | 3 1/4" | 1 3/8" | 1" | 1/2" | 13/32" | 5/16" | 5 3/4" | 2 3/4" | 1 1/2" | 1/2" |
| W10x26 | 2'-6" | 7'-0" | 1.27 | 6'-9" | 2'-2 1/2" | 112'-0" | 98 | 3'-0" | 7/8" x 4" | 7" | 2 3/4" | 1 1/2" | 4" | 1 1/2" | 1" | 3/4" | 15/32" | 3/8" | 5 3/4" | 2 3/4" | 1 1/2" | 5/8" |
| W12x26 | 2'-6" | 7'-9" | 1.41 | 7'-6" | 2'-2 1/2" | 119'-0" | 107 | 3'-0" | 7/8" x 4" | 7" | 2 3/4" | 1 1/2" | 4" | 1 1/2" | 1" | 3/4" | 15/32" | 3/8" | 6 1/2" | 3 1/2" | 1 1/2" | 5/8" |
| W14x30 | 3'-0" | 7'-3" | 1.90 | 7'-0" | 2'-8 1/2" | 145'-0" | 113 | 3'-0" | 7/8" x 4" | 7" | 2 3/4" | 1 1/2" | 4" | 1 1/2" | 1" | 3/4" | 15/32" | 3/8" | 6 3/4" | 3 1/2" | 1 5/8" | 1/2" |
| W14x38 | 3'-0" | 8'-0" | 2.09 | 7'-9" | 2'-8 1/2" | 153'-0" | 122 | 3'-6" | 1" x 4 1/2" | 7 1/2" | 3" | 1 3/4" | 4" | 1 3/4" | 1 1/4" | 3/4" | 17/32" | 3/8" | 6 3/4" | 3 1/2" | 1 5/8" | 1/2" |
| W16x45 | 3'-0" | 8'-6" | 2.23 | 8'-3" | 2'-8 1/2" | 162'-0" | 130 | 3'-6" | 1" x 4 1/2" | 7 1/2" | 3" | 1 3/4" | 4" | 1 3/4" | 1 1/4" | 3/4" | 17/32" | 3/8" | 7" | 3 1/2" | 1 3/4" | 1/2" |

*Dimensional changes required for varying site conditions shall be approved by the Engineer.

| POST | FUSE PLATE BOLT SIZE | | | | | | | | | | | | | | | | | | | | |
|--------|----------------------|---------------|---------------|---------------|-----------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-------------|-------------|-------------|-------------|-------------|
| | Sign Height | | | | | | | | | | | | | | | | | | | | |
| | 4'-0" | 5'-0" | 6'-0" | 7'-0" | 8'-0" | 9'-0" | 10'-0" | 11'-0" | 12'-0" | 13'-0" | 14'-0" | 15'-0" | 16'-0" | 17'-0" | 18'-0" | 19'-0" | 20'-0" | 21'-0" | 22'-0" | 23'-0" | 24'-0" |
| W6x9 | 1/2" x 1 1/2" | 1/2" x 1 1/2" | 1/2" x 1 1/2" | 1/2" x 1 1/2" | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| W6x15 | 1/2" x 1 3/4" | 1/2" x 1 3/4" | 1/2" x 1 3/4" | 5/8" x 2" | 5/8" x 2" | 3/4" x 2" | 3/4" x 2" | 3/4" x 2" | 3/4" x 2" | 3/4" x 2" | — | — | — | — | — | — | — | — | — | — | — |
| W8x18 | 1/2" x 1 3/4" | 1/2" x 1 3/4" | 1/2" x 1 3/4" | 1/2" x 1 3/4" | 5/8" x 2" | 5/8" x 2" | 3/4" x 2" | 3/4" x 2" | 3/4" x 2" | 3/4" x 2" | — | — | — | — | — | — | — | — | — | — | — |
| W10x22 | 1/2" x 2" | 1/2" x 2" | 1/2" x 2" | 1/2" x 2" | 1/2" x 2" | 5/8" x 2" | 5/8" x 2" | 3/4" x 2 1/4" | 3/4" x 2 1/4" | 3/4" x 2 1/4" | 3/4" x 2 1/4" | 3/4" x 2 1/4" | 3/4" x 2 1/4" | — | — | — | — | — | — | — | — |
| W10x26 | 1/2" x 2" | 1/2" x 2" | 1/2" x 2" | 1/2" x 2" | 1/2" x 2" | 5/8" x 2 1/4" | 5/8" x 2 1/4" | 3/4" x 2 1/2" | 3/4" x 2 1/2" | 3/4" x 2 1/2" | 3/4" x 2 1/2" | 3/4" x 2 1/2" | 3/4" x 2 1/2" | 3/4" x 2 1/2" | — | — | — | — | — | — | — |
| W12x26 | 1/2" x 2" | 1/2" x 2" | 1/2" x 2" | 1/2" x 2" | 1/2" x 2" | 5/8" x 2 1/4" | 5/8" x 2 1/4" | 3/4" x 2 1/2" | 3/4" x 2 1/2" | 3/4" x 2 1/2" | 3/4" x 2 1/2" | 3/4" x 2 1/2" | 3/4" x 2 1/2" | 3/4" x 2 1/2" | 3/4" x 2 1/2" | — | — | — | — | — | — |
| W14x30 | 1/2" x 2" | 1/2" x 2" | 1/2" x 2" | 1/2" x 2" | 1/2" x 2" | 5/8" x 2" | 5/8" x 2" | 3/4" x 2 1/4" | 3/4" x 2 1/4" | 3/4" x 2 1/4" | 3/4" x 2 1/4" | 3/4" x 2 1/4" | 3/4" x 2 1/4" | 3/4" x 2 1/4" | 3/4" x 2 1/4" | 3/4" x 2 1/4" | — | — | — | — | — |
| W14x38 | 1/2" x 2" | 1/2" x 2" | 1/2" x 2" | 1/2" x 2" | 1/2" x 2" | 5/8" x 2 1/4" | 5/8" x 2 1/4" | 3/4" x 2 1/2" | 3/4" x 2 1/2" | 3/4" x 2 1/2" | 3/4" x 2 1/2" | 7/8" x 2 1/2" | 7/8" x 2 1/2" | 1" x 2 3/4" | 1" x 2 3/4" | 1" x 2 3/4" | 1" x 2 3/4" | 1" x 2 3/4" | 1" x 2 3/4" | 1" x 2 3/4" | 1" x 2 3/4" |
| W16x45 | — | 1/2" x 2" | 1/2" x 2" | 1/2" x 2" | 1/2" x 2" | 1/2" x 2" | 1/2" x 2" | 5/8" x 2 1/4" | 5/8" x 2 1/4" | 5/8" x 2 1/4" | 3/4" x 2 1/2" | 3/4" x 2 1/2" | 7/8" x 2 1/2" | 7/8" x 2 1/2" | 1" x 2 3/4" | 1" x 2 3/4" | 1" x 2 3/4" | 1" x 2 3/4" | 1" x 2 3/4" | 1" x 2 3/4" | 1" x 2 3/4" |



ELEVATION
GROUND LINE & STUB POST

** For all "Point 1" and "Point 2" locations, "Clearance Line" must be at or above top of stub post.

- (1) Quantity includes all concrete necessary for one foundation.
- (2) Includes reinforcement bars and spiral hooping for one foundation.

BAW-A-2

6-1-12

(Sheet 2 of 2)

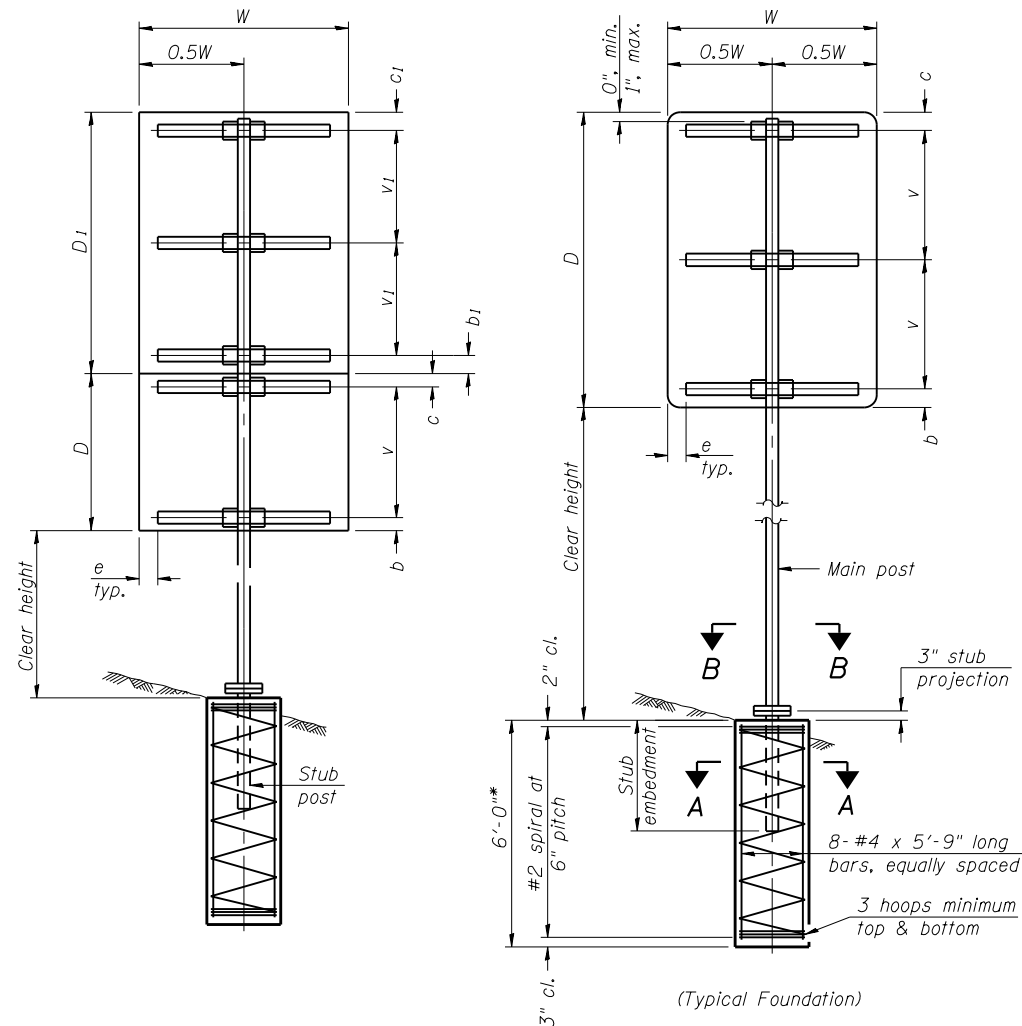
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| | | DRAWN - | REVISED - |
| | | CHECKED - SLD | REVISED - |
| | | DATE - 3/22/2018 | REVISED - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BREAK-AWAY WIDE FLANGE
STEEL SIGN POST TABLES

SCALE: N/A SHEET 4 OF 6 SHEETS STA. TO STA.

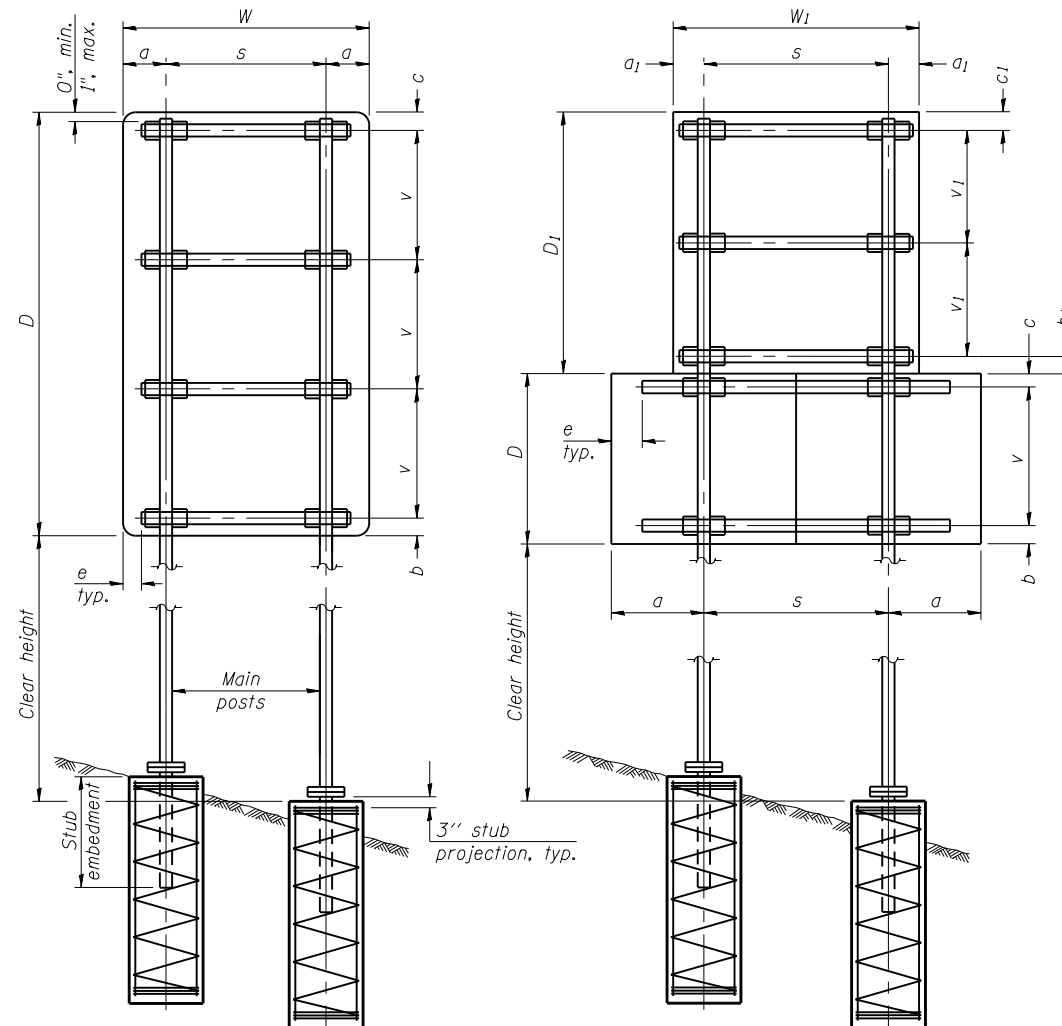
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| F.A.P. RTE. 799 | SECTION IBR-1-1 | COUNTY ST. CLAIR | TOTAL SHEETS 315 | SHEET NO. 119 |
| CONTRACT NO. 76C39 | | | | ILLINOIS FED. AID PROJECT |



SINGLE POST ASSEMBLY EXAMPLES

* Dimensional changes required for varying site conditions shall be approved by the Engineer.

a or a_1 = 6" min. to 2'-0" max. (Approximately 0.2W or 0.2W₁)
 b or b_1 = 3" min. to 4" max
 c or c_1 = 3" min. to 4" max
 e = 0" min. to 6" max
 s = 3'-0" min. to 6'-0" max. (Approximately 0.6W or 0.6W₁)
 v or v_1 = 2'-0" min. to 2'-11" max.



DUAL POST ASSEMBLY EXAMPLES

GENERAL NOTES

Posts shall be plumbed by using shims with post-to-stub post connection bolts snug tight only. Final tightening of all High Strength Bolts shall be in accordance with Article 727.05 and threads at the junction of the bolt and nut shall be burred or center punched to prevent the nut from loosening.

One foundation requires 0.7 cubic yards of concrete and 46 pounds of reinforcement bars and spiral hoops.

LOADING: 80 mph wind with 30% gust factor, normal to sign.

DESIGN STRESSES:
 Structural steel - 20,000 psi
 Reinforcing steel - 20,000 psi
 Concrete - 1,400 psi
 Footing soil pressure - 2,000 psf

After fabrication, the post, fuse plate, base plate and upper 6", min. of the stub post shall be hot-dip galvanized in accordance with AASHTO M111. All bolts, nuts and washers shall be hot-dip galvanized in accordance with AASHTO M232.

For Sections A-A and B-B, see Base Sheet BAT-A-2.

FOUNDATIONS:

All necessary excavation or drilling (except in rock); backfilling with excavated material; disposal of unsuitable or surplus material; formwork; and furnishing and placing the Class SI Concrete and reinforcement bars, shall be included in the pay item used for foundations.

The measurement of the tubular steel shall be computed on the basis of the weight per foot of the support, multiplied by the combined length of the main posts and stub posts.

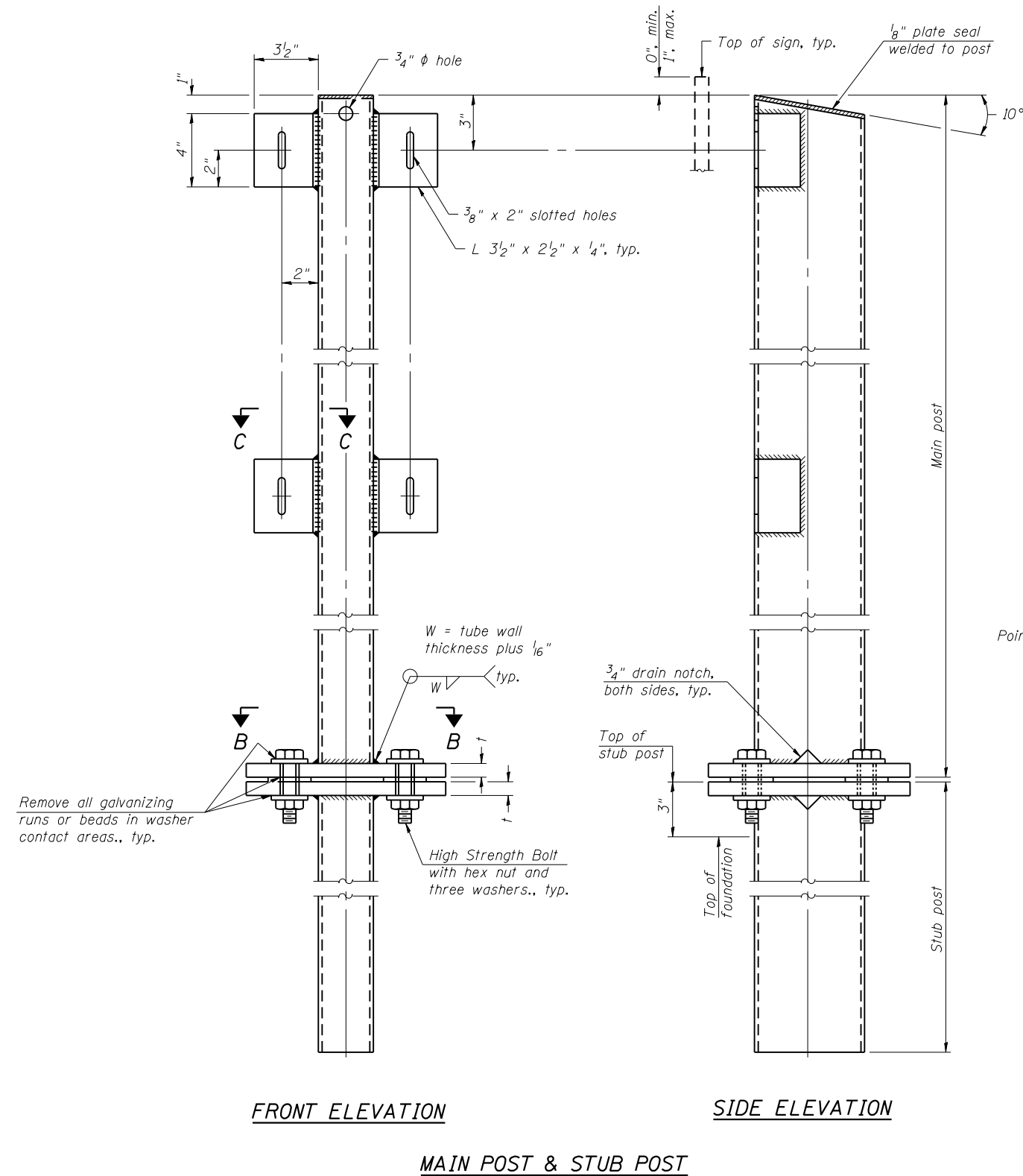
| MAIN POST STEEL TUBING | WEIGHT PER FOOT (POUND) | STUB POST TABLE | | MAIN POST TABLE | | | | |
|------------------------|-------------------------|-----------------|------------------|-----------------|---------|------|--------|-------------|
| | | Stub Embedment | Stub Post Length | Bolt Size | A | t | R | Bolt Circle |
| 3" x 2" x 1/4" | 7.11 | 2'-0" | 2'-3" | 1/2" x 2 3/4" | 8 1/4" | 5/8" | 9/32" | 6 1/2" |
| 4" x 2" x 1/4" | 8.81 | 2'-0" | 2'-3" | 1/2" x 2 3/4" | 8 1/4" | 5/8" | 9/32" | 6 1/2" |
| 4" x 3" x 1/4" | 10.51 | 2'-3" | 2'-6" | 5/8" x 3 1/4" | 10" | 3/4" | 11/32" | 8" |
| 5" x 3" x 1/4" | 12.21 | 2'-3" | 2'-6" | 5/8" x 3 1/4" | 10" | 3/4" | 11/32" | 8" |
| 6" x 3" x 1/4" | 13.91 | 2'-3" | 2'-6" | 5/8" x 3 1/4" | 11 1/2" | 3/4" | 11/32" | 9 1/2" |
| 6" x 4" x 1/4" | 15.62 | 2'-3" | 2'-6" | 3/4" x 3 1/2" | 11 1/2" | 3/4" | 13/32" | 9 1/2" |
| 6" x 4" x 5/16" | 19.08 | 2'-3" | 2'-6" | 3/4" x 3 1/2" | 11 1/2" | 3/4" | 13/32" | 9 1/2" |
| 7" x 5" x 1/4" | 19.02 | 2'-6" | 2'-9" | 3/4" x 3 1/2" | 1'-2" | 3/4" | 13/32" | 1'-0" |
| 8" x 4" x 1/4" | 19.02 | 2'-6" | 2'-9" | 3/4" x 3 1/2" | 1'-2" | 3/4" | 13/32" | 1'-0" |
| 8" x 6" x 1/4" | 22.42 | 2'-6" | 2'-9" | 7/8" x 3 1/2" | 1'-2" | 3/4" | 15/32" | 1'-0" |

BAT-A-1

6-1-12

(Sheet 1 of 2)

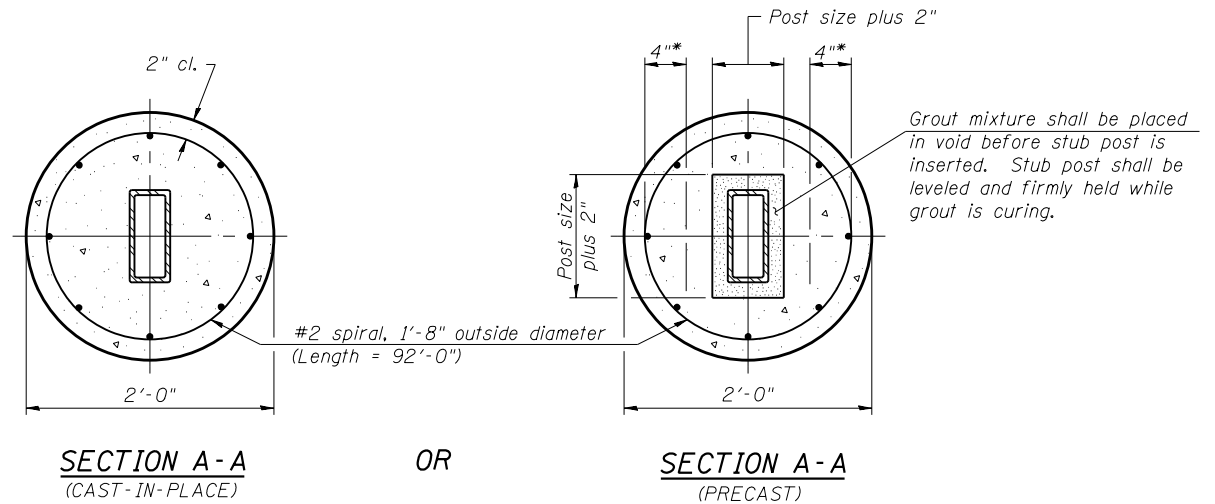
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| *MODELNAME* | PLOT SCALE = 48.0000' / in. | CHECKED - SLD | REVISED - | | | SCALE: N/A | SHEET 5 OF 6 SHEETS | STA. | TO STA. | CONTRACT NO. 76C39 | | |
| | PLOT DATE = 3/22/2018 | DATE - 3/22/2018 | REVISED - | | | ILLINOIS FED. AID PROJECT | | | | | | |



FRONT ELEVATION

SIDE ELEVATION

MAIN POST & STUB POST

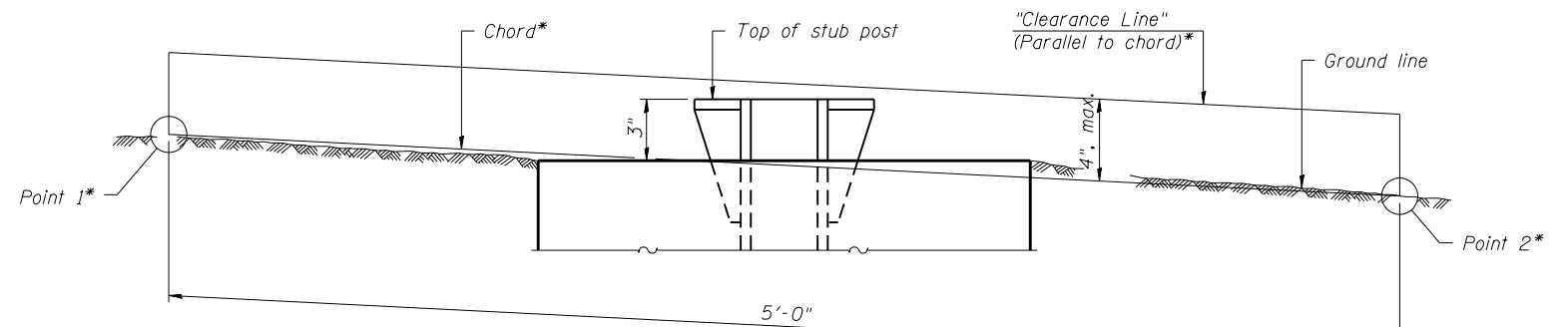


SECTION A-A
(CAST-IN-PLACE)

OR

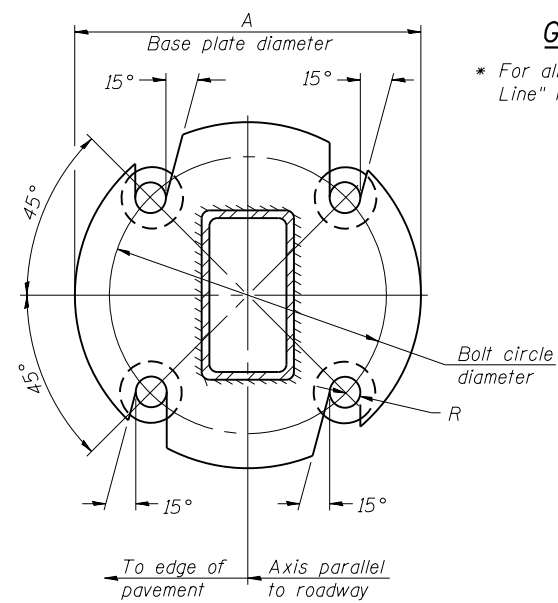
SECTION A-A
(PRECAST)

* Hot dip galvanized lifting loops or inserts may be placed in precast foundation inside the spiral reinforcement but not within 6" of the long axis of the post. Inserts must be adequate for safely lifting a total of 3,000 pounds and must not interfere with installation of the stub post or proper functioning of the slip base.

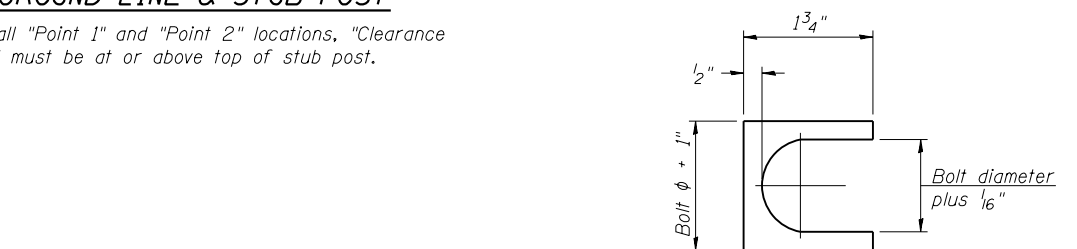


ELEVATION
GROUND LINE & STUB POST

* For all "Point 1" and "Point 2" locations, "Clearance Line" must be at or above top of stub post.

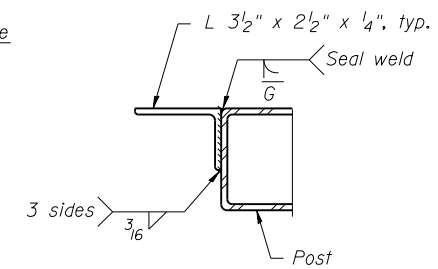


SECTION B-B



SHIM DETAIL

Furnish two 0.01" thick and two 0.03" thick stainless steel or brass (ASTM B36) shims per post.



SECTION C-C

Weld continuously around corners.

BAT-A-2

6-1-12

(Sheet 2 of 2)

FILE NAME =
097-DB76G39-sht-Sign06-BAT-A-2.dgn
MODELNAME

USER NAME = jd
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PLOT DATE = 3/22/2018

DESIGNED -
DRAWN -
CHECKED - SLD
DATE - 3/22/2018

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

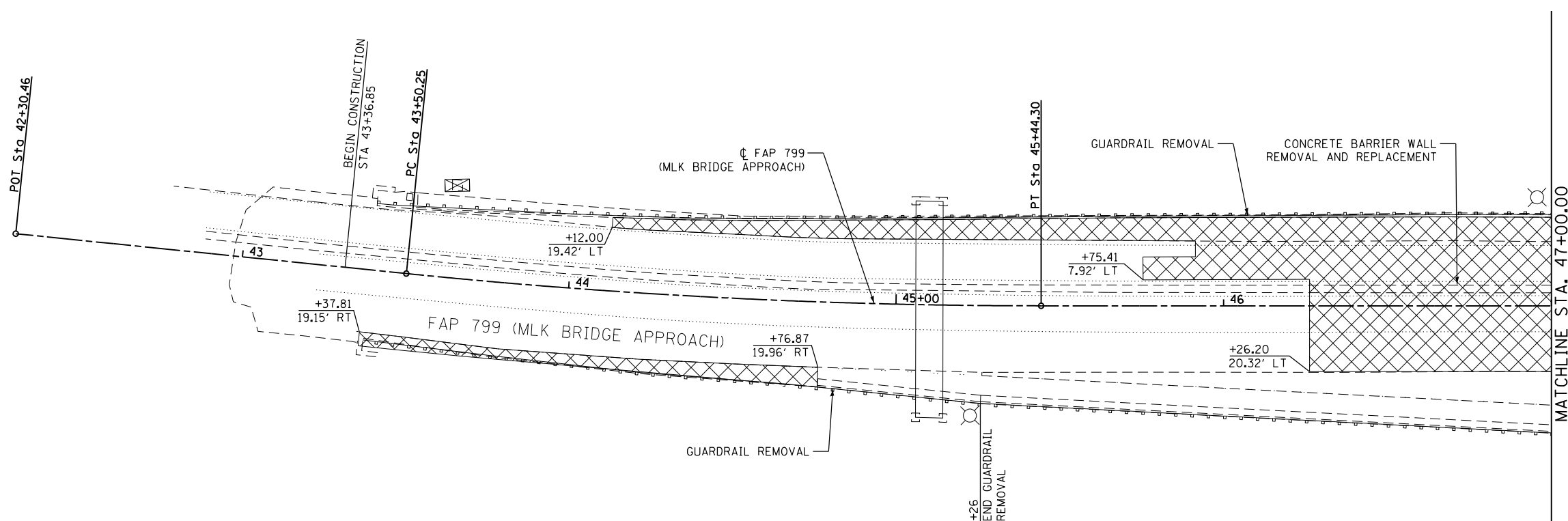
BREAK-AWAY TUBULAR STEEL
SIGN POSTS AND DETAILS

SCALE: N/A SHEET 6 OF 6 SHEETS STA. TO STA.

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|---------|-----------|--------------|-----------|
| 799 | IBR-1-1 | ST. CLAIR | 315 | 121 |
| CONTRACT NO. 76G39 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

REMOVAL LEGEND

- PAVEMENT REMOVAL
 SHOULDER REMOVAL
 HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH
- HOT-MIX ASPHALT SURFACE REMOVAL, 2.5"
- HOT-MIX ASPHALT SURFACE REMOVAL, 1.5"
- REMOVE STRUCTURE
 PAVEMENT REMOVAL (SPECIAL)



NOTE: THE CONTRACTOR AND THE ENGINEER SHALL BE AWARE THAT NO SURVEY WAS PERFORMED BETWEEN STA. 42+30.46 AND STA. 54+43. THE TOPOGRAPHY, AND QUANTITIES SHOWN IN THE PLANS WERE CREATED USING AERIAL TOPOGRAPHY, MICROFILM AND FIELD MEASUREMENTS. ALL SHALL BE ASSUMED TO BE APPROXIMATE. THE CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.



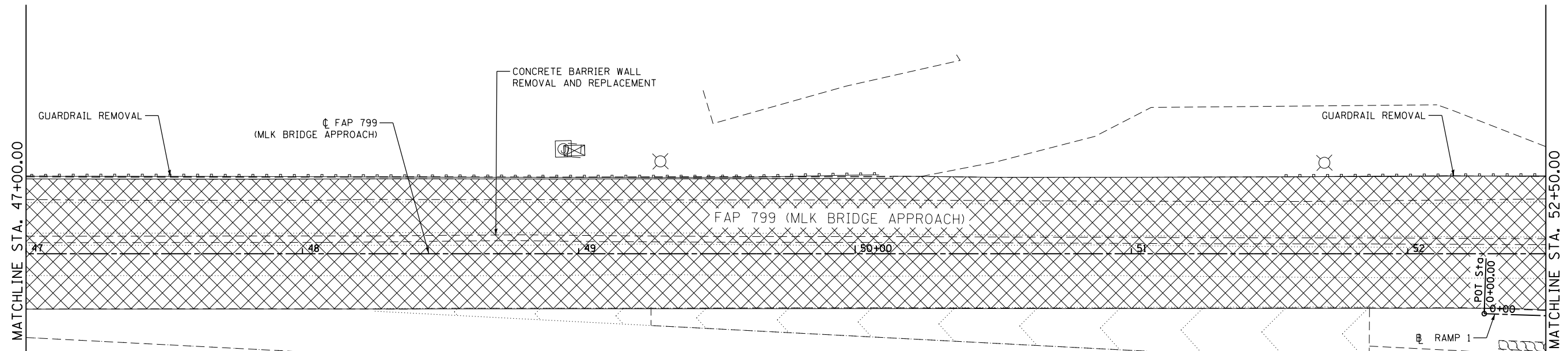
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| *MODELNAME* | PLOT DATE = 3/22/2018 | DATE - 3/22/2018 | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

| | | | |
|-----------------------------|---------------------|--------------------------------|--|
| REMOVALS FAP 799 | | | |
| SCALE: 1"=20' | SHEET 1 OF 9 SHEETS | STA. 42+30.46 TO STA. 47+00.00 | |

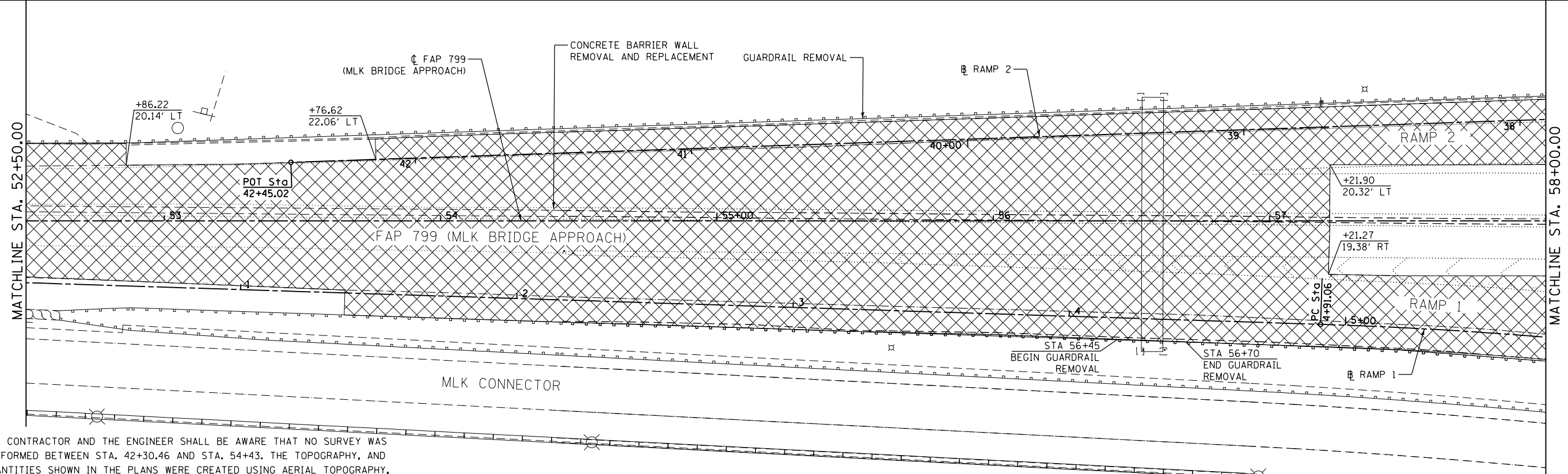
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| F.A.P. RTE. 799 | SECTION 1BR-1-1 | COUNTY ST. CLAIR | TOTAL SHEETS 315 | SHEET NO. 122 |
| CONTRACT NO. 76G39 | | | ILLINOIS FED. AID PROJECT | |

EFK·Moen, LLC
Civil Engineering Design



REMOVAL LEGEND

- PAVEMENT REMOVAL
- SHOULDERS REMOVAL
- HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH
- HOT-MIX ASPHALT SURFACE REMOVAL, 2.5"
- HOT-MIX ASPHALT SURFACE REMOVAL, 1.5"
- REMOVE STRUCTURE
- PAVEMENT REMOVAL (SPECIAL)



NOTE: THE CONTRACTOR AND THE ENGINEER SHALL BE AWARE THAT NO SURVEY WAS PERFORMED BETWEEN STA. 42+30.46 AND STA. 54+43. THE TOPOGRAPHY, AND QUANTITIES SHOWN IN THE PLANS WERE CREATED USING AERIAL TOPOGRAPHY, MICROFILM AND FIELD MEASUREMENTS. ALL SHALL BE ASSUMED TO BE APPROXIMATE. THE CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.



EFK·Moen, LLC
Civil Engineering Design

| | | | |
|---------------------------------------|-----------------------------|------------------|-----------|
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| | PLOT DATE = 3/22/2018 | DATE - 3/22/2018 | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

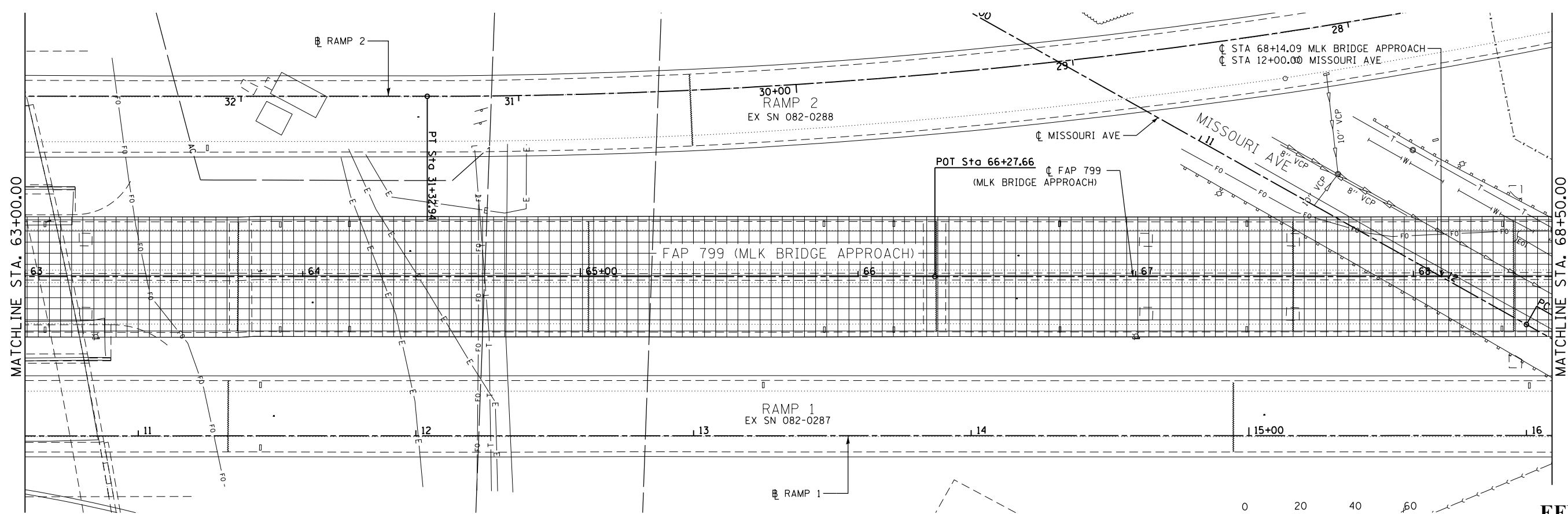
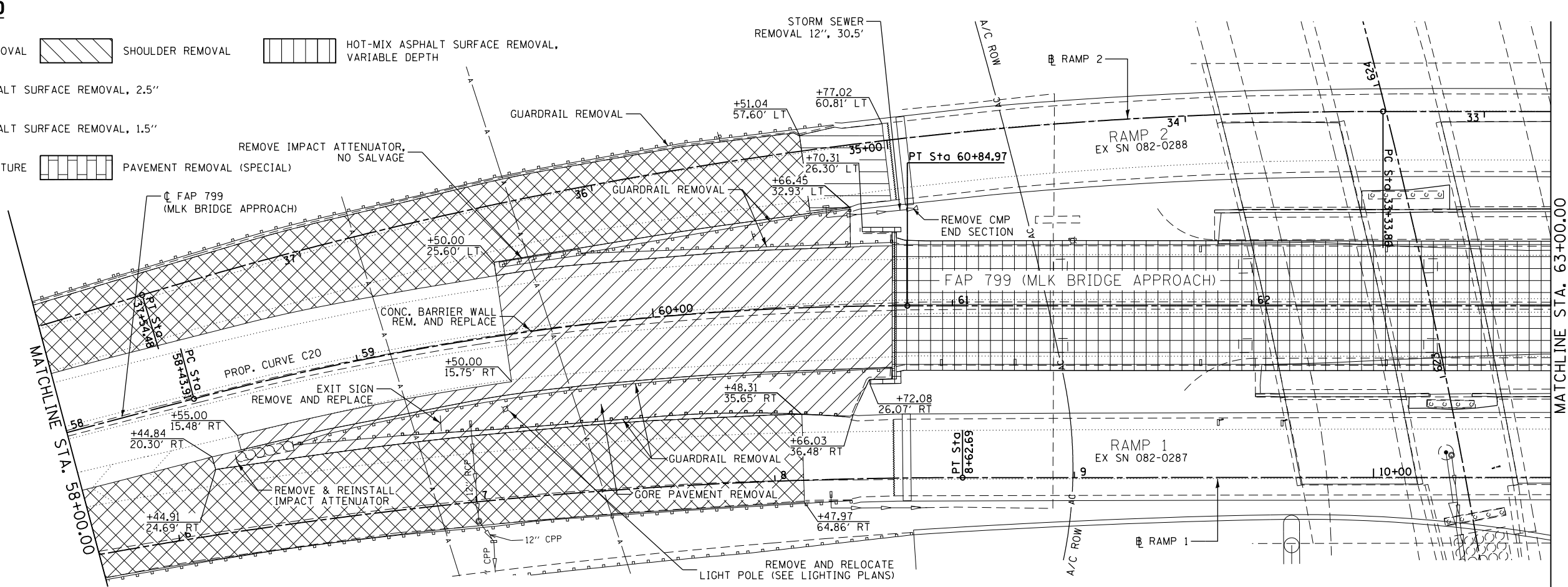
**REMOVALS
FAP 799**

SCALE: 1"=20' SHEET 2 OF 9 SHEETS STA. 47+00.00 TO STA. 58+00.00

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|---------|-----------|--------------------|-----------|
| 799 | 1BR-1-1 | ST. CLAIR | 315 | 123 |
| | | | CONTRACT NO. 76C39 | |
| ILLINOIS FED. AID PROJECT | | | | |

REMOVAL LEGEND

- PAVEMENT REMOVAL
- SHOULDER REMOVAL
- HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH
- HOT-MIX ASPHALT SURFACE REMOVAL, 2.5"
- HOT-MIX ASPHALT SURFACE REMOVAL, 1.5"
- REMOVE STRUCTURE
- PAVEMENT REMOVAL (SPECIAL)



| | | | |
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| | | CHECKED - SLD | REVISED - |
| | | DATE - 3/22/2018 | REVISED - |

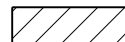
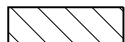


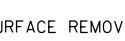
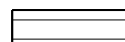
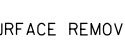
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

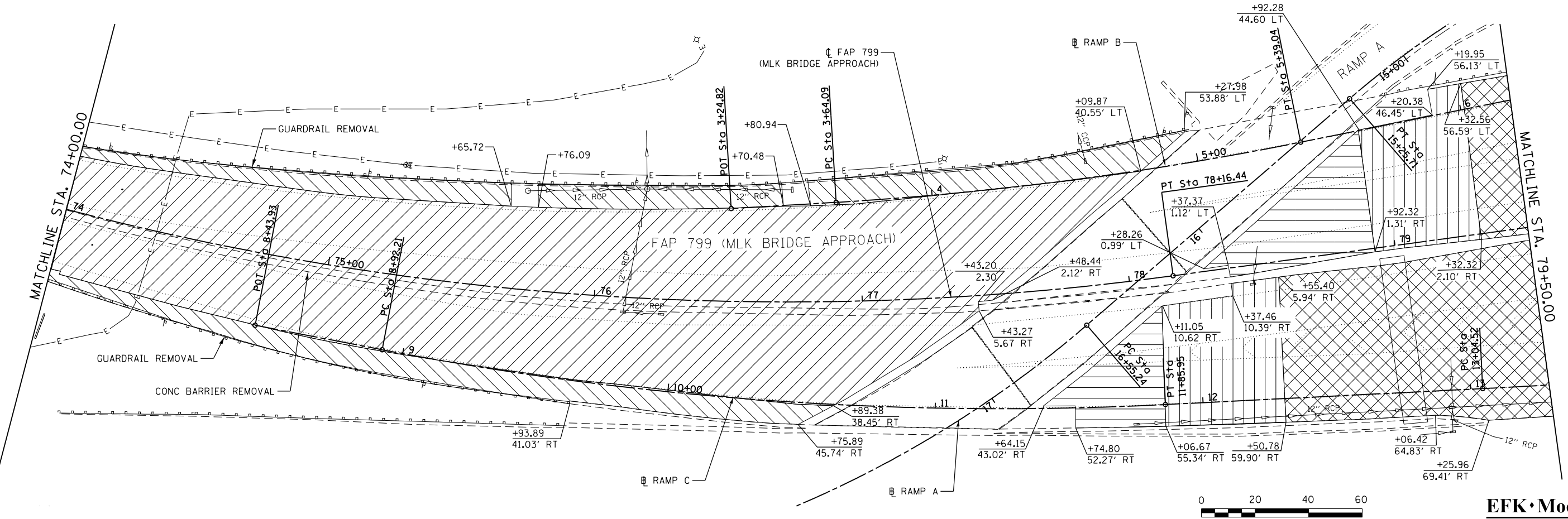
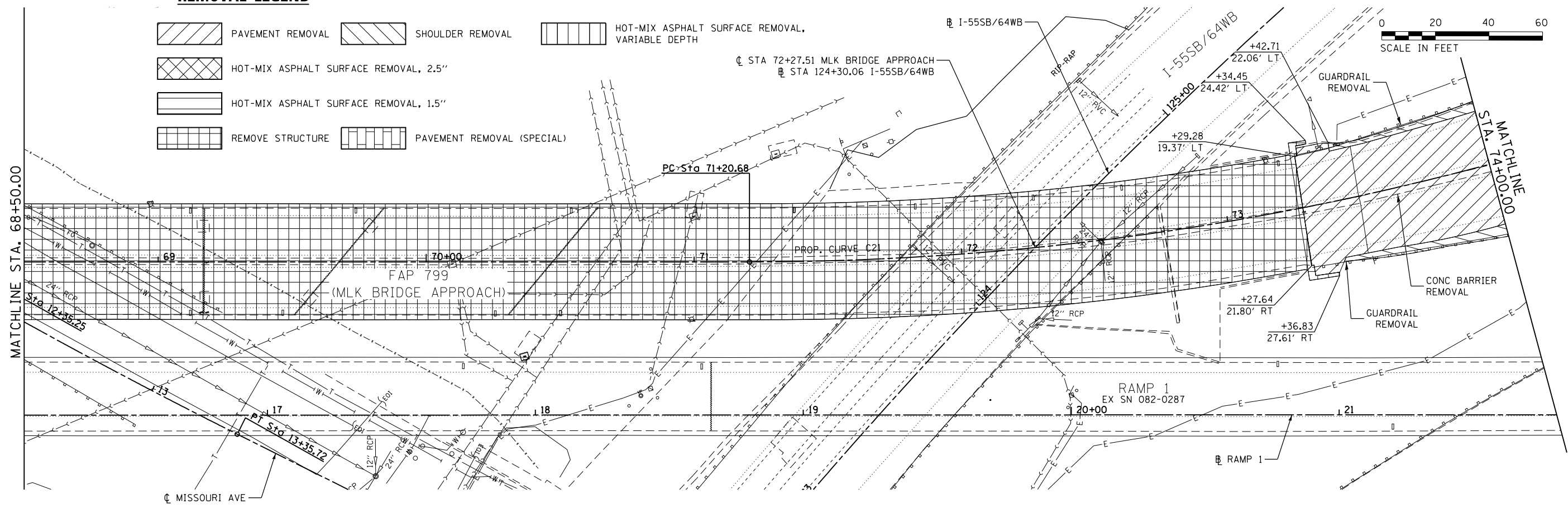
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|-----------------|---------------------|
| REMOVALS | |
| FAP 799 | |
| SCALE: 1"=20' | SHEET 3 OF 9 SHEETS |
| STA. 58+00.00 | TO STA. 68+50.00 |

| | | | | |
|--------------------|-----------------|------------------|---------------------------|---------------|
| F.A.P. RTE. 799 | SECTION 1BR-1-1 | COUNTY ST. CLAIR | TOTAL SHEETS 315 | SHEET NO. 124 |
| CONTRACT NO. 76C39 | | | ILLINOIS FED. AID PROJECT | |

EFK·Moen, LLC
Civil Engineering Design

REMOVAL LEGEND

-  PAVEMENT REMOVAL
-  SHOULDER REMOVAL
-  HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH
-  HOT-MIX ASPHALT SURFACE REMOVAL, 2.5"
-  HOT-MIX ASPHALT SURFACE REMOVAL, 1.5"
-  REMOVE STRUCTURE
-  PAVEMENT REMOVAL (SPECIAL)



FILE NAME = 495-DB76039-shr-rem04.dgn
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USER NAME = jd
 PLOT SCALE = 40.0000' / in.
 PLOT DATE = 3/22/2018

DESIGNED - JRD
 DRAWN - JRD
 CHECKED - SLD
 DATE - 3/22/2018

REVISED -
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 REVISED -
 REVISED -

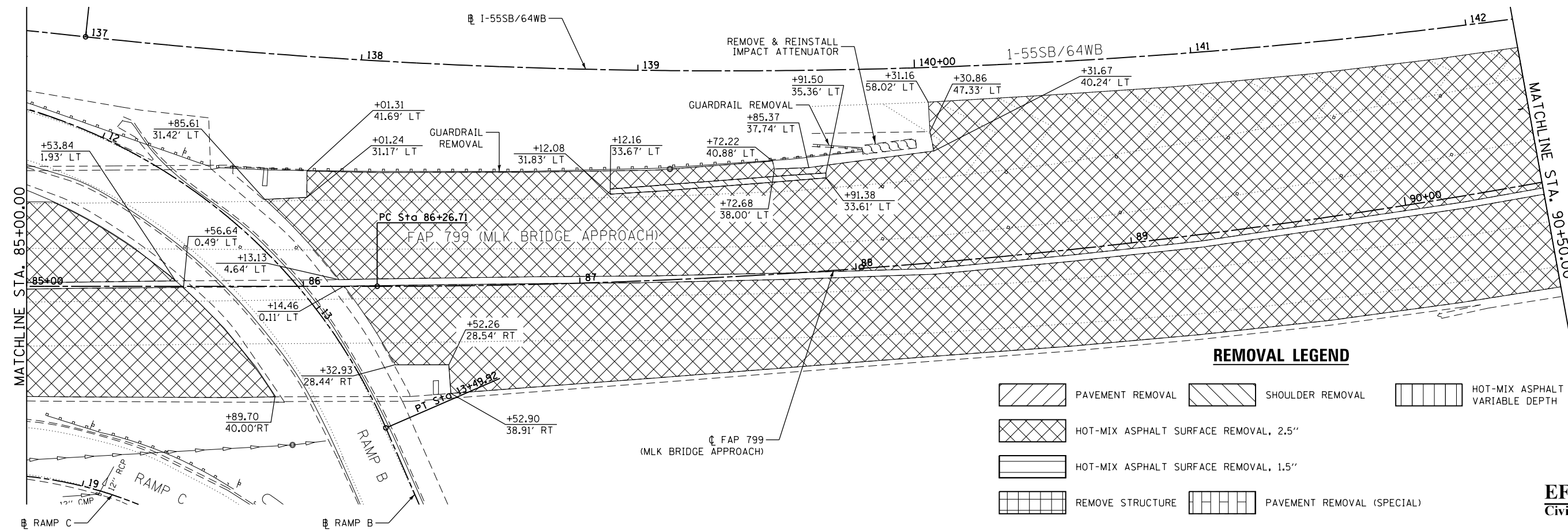
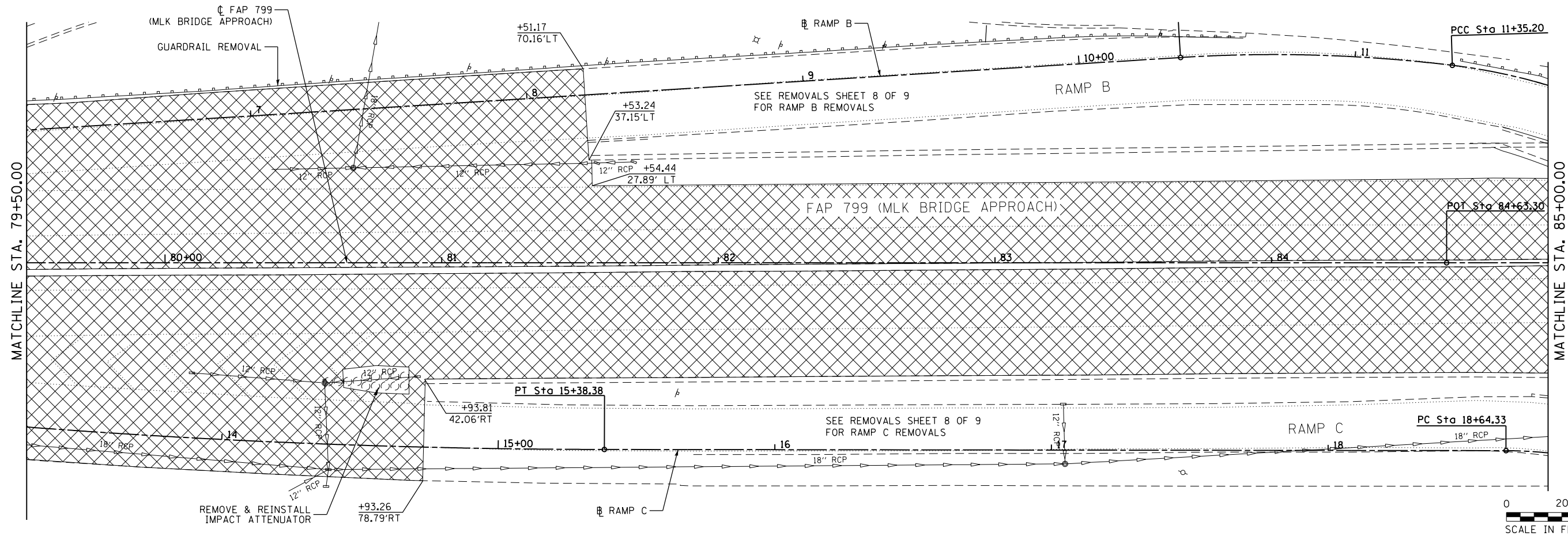
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**REMOVALS
 FAP 799**
 SCALE: 1"=20' SHEET 4 OF 9 SHEETS STA. 68+50.00 TO STA. 79+50.00

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-------------|---------|-----------|--------------|-----------|
| 799 | 1BR-1-1 | ST. CLAIR | 315 | 125 |

CONTRACT NO. 76C39
 ILLINOIS FED. AID PROJECT

EFK·Moen, LLC
 Civil Engineering Design



REMOVAL LEGEND

- PAVEMENT REMOVAL
- SHOULDER REMOVAL
- HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH
- HOT-MIX ASPHALT SURFACE REMOVAL, 2.5"
- HOT-MIX ASPHALT SURFACE REMOVAL, 1.5"
- REMOVE STRUCTURE
- PAVEMENT REMOVAL (SPECIAL)

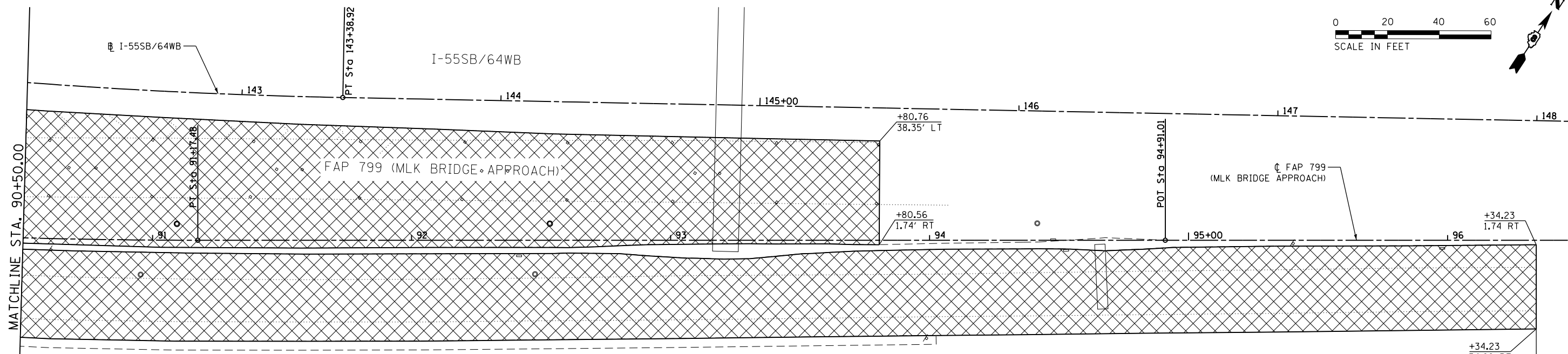
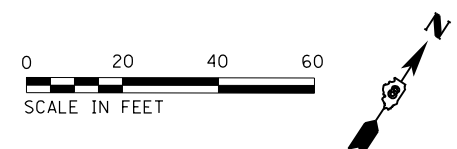
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| | PLOT SCALE = 40.0000' / in. | CHECKED - SLD | REVISED - |
| | PLOT DATE = 3/22/2018 | DATE - 3/22/2018 | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

| | | | |
|-----------------------------|---------------------|--------------------------------|--|
| REMOVALS FAP 799 | | | |
| SCALE: 1"=20' | SHEET 5 OF 9 SHEETS | STA. 79+50.00 TO STA. 90+50.00 | |

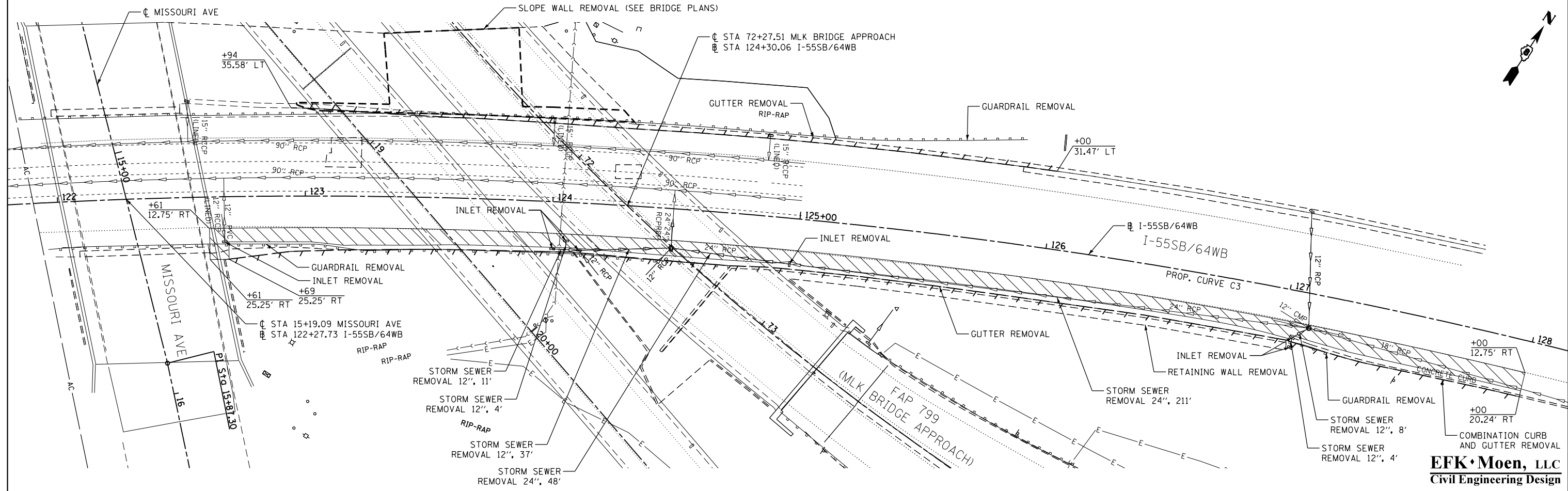
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| F.A.P. RTE. 799 | SECTION 1BR-1-1 | COUNTY ST. CLAIR | TOTAL SHEETS 315 | SHEET NO. 126 |
| CONTRACT NO. 76C39 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

EFK•Moen, LLC
Civil Engineering Design



REMOVAL LEGEND

- PAVEMENT REMOVAL
- SHOULDER REMOVAL
- HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH
- HOT-MIX ASPHALT SURFACE REMOVAL, 2.5"
- REMOVE STRUCTURE
- HOT-MIX ASPHALT SURFACE REMOVAL, 1.5"
- PAVEMENT REMOVAL (SPECIAL)



FILE NAME = 497-DB76039-shr-rem06.dgn
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USER NAME = jd
 PLOT SCALE = 40.0000' / in.
 PLOT DATE = 3/22/2018

DESIGNED - JRD
 DRAWN - JRD
 CHECKED - SLD
 DATE - 3/22/2018

REVISED -
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**REMOVALS
 FAP 799 AND I-55SB /64WB**

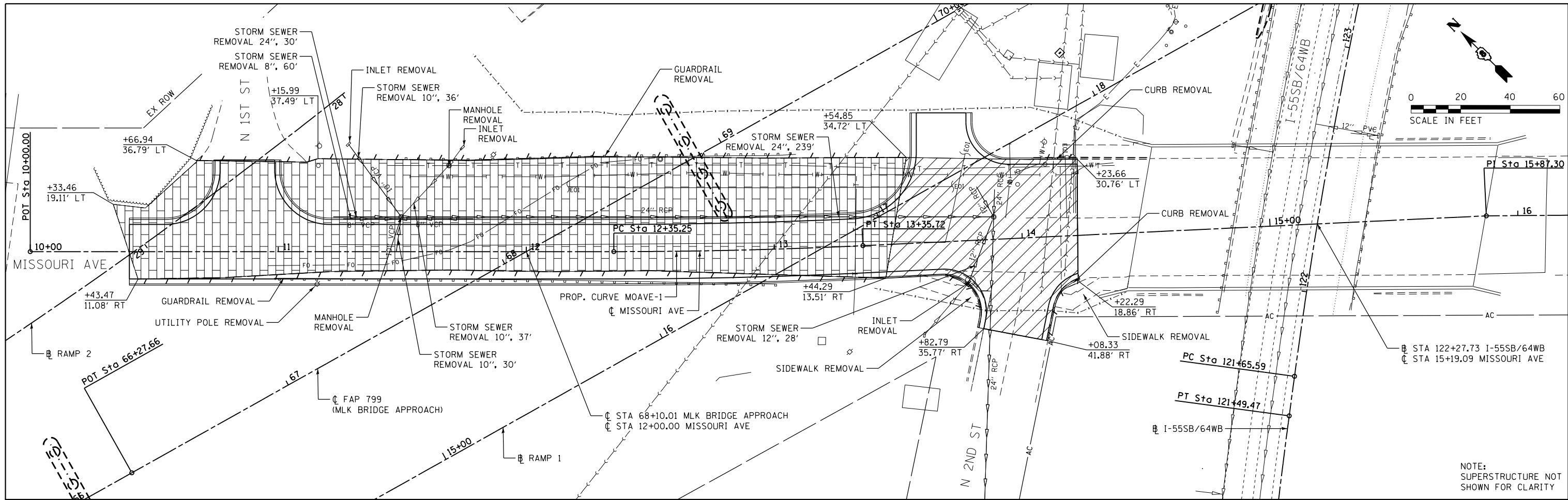
SCALE: 1"=20' SHEET 6 OF 9 SHEETS STA. 90+50.00 TO STA. 96+34.23

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-------------|---------|-----------|--------------|-----------|
| 799 | 1BR-1-1 | ST. CLAIR | 315 | 127 |

CONTRACT NO. 76C39

EFK Moen, LLC
 Civil Engineering Design

ILLINOIS FED. AID PROJECT



NOTE:
SUPERSTRUCTURE NOT
SHOWN FOR CLARITY

REMOVAL LEGEND

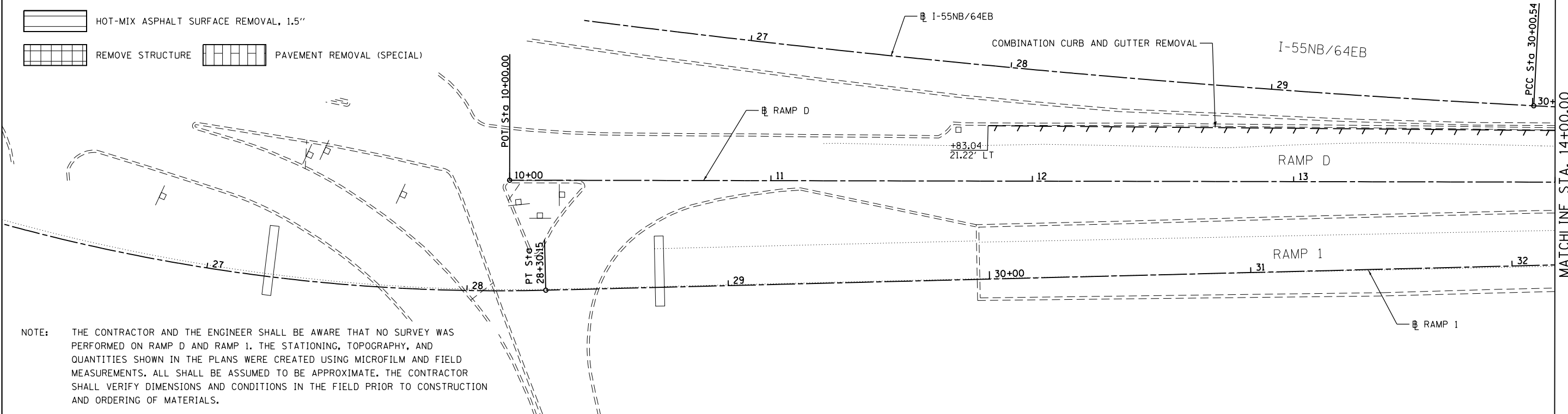
- PAVEMENT REMOVAL
- SHOULDER REMOVAL
- HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH
- HOT-MIX ASPHALT SURFACE REMOVAL, 2.5"
- HOT-MIX ASPHALT SURFACE REMOVAL, 1.5"
- REMOVE STRUCTURE
- PAVEMENT REMOVAL (SPECIAL)

EFK Moen, LLC
Civil Engineering Design

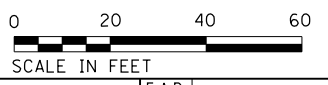
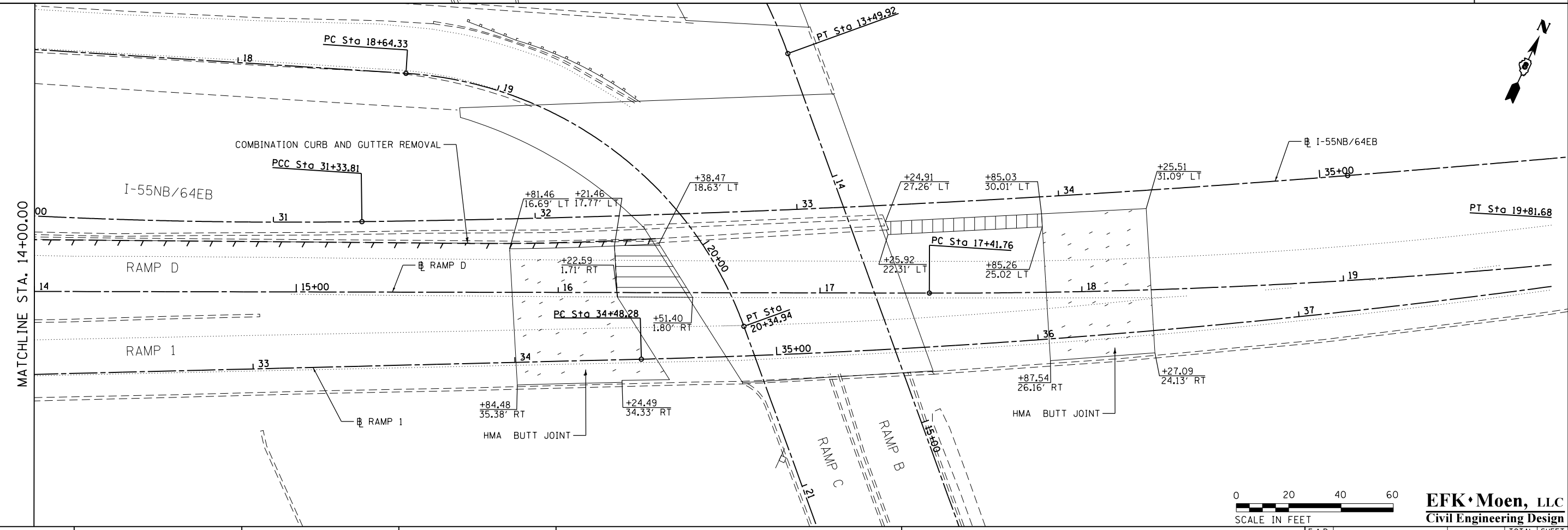
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| *MODELNAME* | PLOT SCALE = 40.0000' / in. | CHECKED - SLD | REVISED - | | | SCALE: 1"=20' | SHEET 7 OF 9 SHEETS | STA. 10+00.00 | TO STA. 15+87.30 | ILLINOIS FED. AID PROJECT | | |
| | PLOT DATE = 3/22/2018 | DATE - 3/22/2018 | REVISED - | | | | | | | | | |
| CONTRACT NO. 76C39 | | | | | | | | | | | | |

REMOVAL LEGEND

- PAVEMENT REMOVAL
- SHOULDER REMOVAL
- HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH
- HOT-MIX ASPHALT SURFACE REMOVAL, 2.5"
- HOT-MIX ASPHALT SURFACE REMOVAL, 1.5"
- REMOVE STRUCTURE
- PAVEMENT REMOVAL (SPECIAL)



NOTE: THE CONTRACTOR AND THE ENGINEER SHALL BE AWARE THAT NO SURVEY WAS PERFORMED ON RAMP D AND RAMP 1. THE STATIONING, TOPOGRAPHY, AND QUANTITIES SHOWN IN THE PLANS WERE CREATED USING MICROFILM AND FIELD MEASUREMENTS. ALL SHALL BE ASSUMED TO BE APPROXIMATE. THE CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.



EFK·Moen, LLC
Civil Engineering Design

| | | | |
|---------------------------------------|-----------------------------|------------------|-----------|
| FILE NAME = 500-D876G39-sht-rem09.dgn | USER NAME = jd | DESIGNED - JRD | REVISED - |
| | | DRAWN - JRD | REVISED - |
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| | PLOT DATE = 3/22/2018 | DATE - 3/22/2018 | REVISED - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | |
|-----------------|---------------------|---------------|------------------|
| REMOVALS | | RAMP D | |
| SCALE: 1"=20' | SHEET 9 OF 9 SHEETS | STA. 10+00.00 | TO STA. 19+81.68 |

| | | | | |
|--------------------|-----------------|------------------|---------------------------|---------------|
| F.A.P. RTE. 799 | SECTION 1BR-1-1 | COUNTY ST. CLAIR | TOTAL SHEETS 315 | SHEET NO. 130 |
| CONTRACT NO. 76G39 | | | ILLINOIS FED. AID PROJECT | |

LUMINAIRE, LED, HORIZONTAL MOUNT, LOW WATTAGE

ILLINOIS DEPARTMENT OF TRANSPORTATION
LUMINAIRE PERFORMANCE TABLE
MAJOR-LOW

| GIVEN CONDITIONS | | |
|------------------------|---|-----------|
| ROADWAY DATA | Lane Width | 12 ft |
| | Number of Lanes (in each direction) | 2 |
| | Median Width | 0 ft |
| | I.E.S. Surface Classification | R3 |
| | Q-Zero Value | .07 |
| LIGHT POLE DATA | Mounting Height | 45 ft |
| | Arm Length | 6 ft |
| | Set-Back From Edge of Pavement (White Line) | 1.5 ft |
| LUMINAIRE DATA | Luminaire Type | LED |
| | I.E.S. Vertical Distribution | Medium |
| | BUG Rating | U = 0 |
| | I.E.S. Lateral Distribution | Type II |
| | Total Light Loss Factor | 0.684 |
| LAYOUT DATA | Spacing | 400 ft |
| | Configuration | Staggered |

- NOTES:**
- Variations from the above specified I.E.S. distribution may be requested and will be subject to review by the Engineer.
 - Total light loss factor is the product of "Lumen Depreciation" (LLD) = 0.90, "Dirt Depreciation" (LDF) = 0.80, and "Equipment factors" (EF) = 0.95.
 - A Lumen Depreciation value greater than 0.90 for LED light sources shall be based upon I.E.S. LM-80 or I.E.S. LM-84 and I.E.S. TM-21 test reports.

PERFORMANCE REQUIREMENTS

NOTE: These performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

| | | |
|------------------|---|-----------------------|
| LUMINANCE | Average Luminance, L_{AVE} | 0.6 cd/m ² |
| | Uniformity Ratio, L_{AVE}/L_{MIN} | 3.5:1 |
| | Uniformity Ratio, L_{MAX}/L_{MIN} | 6.0:1 |
| | Max. Veiling Luminance Ratio, L_v/L_{AVE} | 0.3:1 |

LUMINAIRE, LED, UNDERPASS, LOW WATTAGE

ILLINOIS DEPARTMENT OF TRANSPORTATION
LUMINAIRE PERFORMANCE TABLE
Freeway Class A

| GIVEN CONDITIONS | | |
|------------------------|---|---------------------------|
| ROADWAY DATA | Lane Width | 16 ft |
| | Number of Lanes | 1 (in one direction only) |
| | Median Width | No Median |
| | I.E.S. Surface Classification | R3 |
| | Q-Zero Value | .07 |
| LIGHT POLE DATA | Mounting Height | 16 ft |
| | Set-Back From Edge of Pavement (White Line) | 10 ft |
| | LUMINAIRE DATA | Luminaire Type |
| | I.E.S. Vertical Distribution | Medium |
| | BUG Rating | U = 0 |
| | I.E.S. Lateral Distribution | Type III or IV |
| | Total Light Loss Factor | 0.684 |
| LAYOUT DATA | Spacing | 65 ft |
| | Configuration | Single Sided |

- NOTES:**
- Variations from the above specified I.E.S. distribution may be requested and will be subject to review by the Engineer.
 - Total light loss factor is the product of "Lumen Depreciation" (LLD) = 0.90, "Dirt Depreciation" (LDF) = 0.80, and "Equipment factors" (EF) = 0.95.
 - A Lumen Depreciation value greater than 0.90 for LED light sources shall be based upon I.E.S. LM-80 or I.E.S. LM-84 and I.E.S. TM-21 test reports.

PERFORMANCE REQUIREMENTS

NOTE: These performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

| | | |
|--------------------|---|--------|
| ILLUMINANCE | Average Illuminance, E_{AVE} | 0.9 fc |
| | Uniformity Ratio, E_{AVE}/E_{MIN} | 3.0:1 |
| | Max. Veiling Luminance Ratio, L_v/L_{AVE} | 0.4:1 |

SCHEDULE OF QUANTITIES

| PAY ITEM | DESCRIPTION | UNIT | QUANTITY |
|----------|--|------|----------|
| 84200600 | REMOVAL OF LIGHTING UNIT, NO SALVAGE | EACH | 43 |
| X1400094 | LUMINAIRE, LED, HORIZONTAL MOUNT, LOW WATTAGE | EACH | 43 |
| X8420111 | REMOVAL OF UNDERPASS LIGHTING UNIT, NO SALVAGE | EACH | 14 |
| | LUMINAIRE, LED, UNDERPASS, LOW WATTAGE | EACH | 14 |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES & LUMINAIRE PERFORMANCE TABLES
(W. OF APP. BRG.)

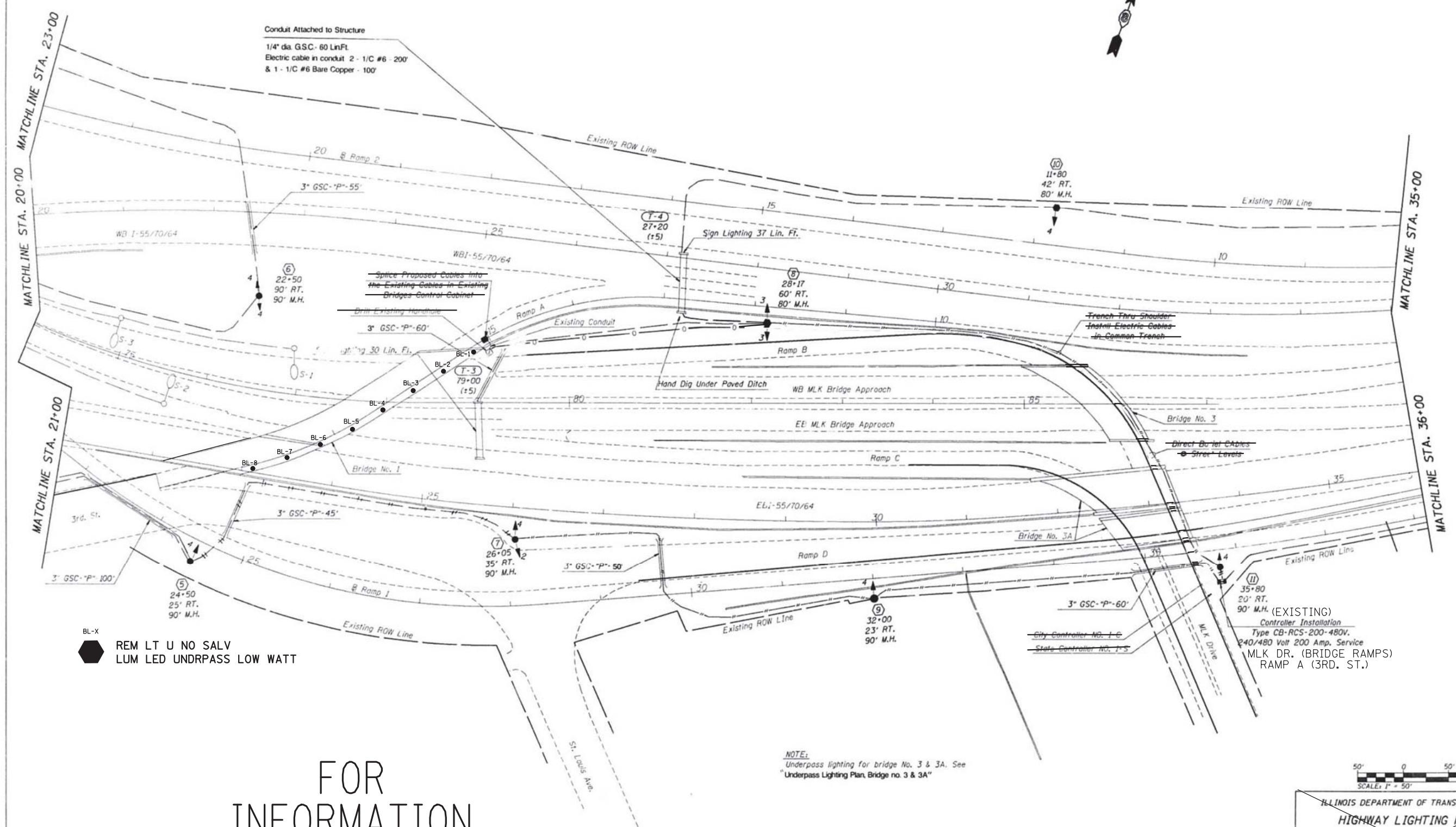
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| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | 1BR-1-1 | ST. CLAIR | 315 | 131 |
| ILLINOIS | | | CONTRACT NO. 76G39 | |
| FED. AID PROJECT | | | | |

SCALE: SHEET LTG. 01 OF LTG. 13 SHEETS STA. TO STA.

| SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------|-----------|--------------|-----------|
| 70 | St. Clair | 87 | 70 |

EXISTING CONDITIONS:
 82-(1,2,4)R-3, (1,2,4)HL-2

SEE " LIGHTING AND ELECTRICAL LEGEND "
SHT. LGT. 03



BL-X
 REM LT U NO SALV
 LUM LED UNDRPASS LOW WATT

FOR
 INFORMATION
 ONLY

NOTE:
 Underpass lighting for bridge No. 3 & 3A. See
 "Underpass Lighting Plan, Bridge no. 3 & 3A"



ILLINOIS DEPARTMENT OF TRANSPORTATION
 HIGHWAY LIGHTING PLANS
 FAI ROUTE 70
 SECTION 82-(1,2,4)R-2
 ST. CLAIR COUNTY

MLK DR. (APPROACH BRIDGE RAMPS) & RAMP A (3RD. ST. EXIT)
 LIGHTING PLAN

MODEL: Default
 FILE: \\mlls01\B&E\BID\ITEC\Illinois\pvt\PIV\DOT\Documents\13DOT\Office\DL\lert\B\Project\08766339\CaddData\CAD\sheet\08766339-13-03.dwg

| | | |
|------------------------------|------------|-----------|
| USER NAME = prestonme | DESIGNED - | REVISED - |
| | DRAWN - | REVISED - |
| PLOT SCALE = 100,0000' / in. | CHECKED - | REVISED - |
| PLOT DATE = 3/8/2018 | DATE - | REVISED - |

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

MLK DR. (APPROACH BRIDGE RAMPS) & RAMP A (3RD. ST. EXIT)
 LIGHTING PLAN

SCALE: SHEET LGT. 09 OF LGT. 13 SHEETS STA. TO STA.

| | | | | |
|---------------------------|-----------------|------------------|--------------------|---------------|
| F.A.P. RTE. 799 | SECTION 1BR-1-1 | COUNTY ST. CLAIR | TOTAL SHEETS 315 | SHEET NO. 136 |
| ILLINOIS FED. AID PROJECT | | | CONTRACT NO. 76G39 | |













LIGHTING AND ELECTRICAL GENERAL NOTES

1. All work shall comply with the NEC (latest edition), IDOT Standard Specifications, and all applicable State and Local codes.
2. The Contractor and Sub-Contractor performing the electrical work depicted herein shall be properly qualified, skilled, and experienced in the type of work required.
3. In no way shall these plans be interpreted as requiring a violation of the NEC or any other applicable Federal, State, or Local Codes or regulations. In any case of dispute between these plans and the NEC, the higher (more stringent) standard shall govern.
4. The Contractor shall bear full responsibility for all coordination with the concerned authorities, including obtaining all required permits and any fines and/or penalties resulting from such work.
5. The installation of all equipment and materials shall comply with their respective manufacturers' recommendations and installation procedures.
6. Variations from these plans must be submitted to the Engineer for approval. All changes shall be reflected in the as-built drawings.
7. In addition to the materials, components, and equipment shown on the plans, provide all raceways, junction and pull boxes, fittings, conductors, connectors, and other items required to provide a complete, functional, and safe installation.
8. The existing roadway lighting system fed from the existing lighting controller shall remain fully operable during all hours of darkness throughout construction.
9. The Contractor shall provide temporary wiring and/or power sources if required in order to maintain the existing lighting systems in service.
10. The Contractor shall bear full responsibility for field measurements and verification of all relevant dimensions, equipment specifications, electrical loads, circuit loads, and similar information prior to purchase and/or fabrication of equipment or materials. Equipment ratings and/or wire and conduit sizes shown on the plans shall be increased where required by the loads served.
11. The Contractor shall investigate and/or verify the locations of all existing utilities, above ground and underground prior to construction. Any damage to existing utilities shall be repaired by the Contractor as directed by the Engineer at no additional cost.
12. All equipment, raceways, wiring etc. shown on these plans, or otherwise required, shall be new unless specifically noted otherwise.
13. Locations of raceways, and equipment shown are diagrammatic only. Exact locations shall be determined in the field by the Contractor and subject to approval of the Engineer.
14. Where details are not provided or not fully developed, the Contractor shall provide additional details necessary to provide and submit layout drawings and shop drawings for review.
15. The Contractor shall be responsible for immediate repair of any existing equipment damaged or disturbed by the Contractor's construction work at the Contractor's own expense to the satisfaction of the Engineer.
16. The Contractor shall de-energize existing circuit prior to making new connections.
17. Existing equipment and services that are not specifically shown by these plans as being replaced or modified as part of the work depicted herein, are to remain in service throughout construction. Exercise care to avoid unnecessary disturbances to such equipment and services, and obtain approval from the Engineer for any necessary disturbances.
18. All proposed light poles shall be labeled according to the IDOT Standard Specifications Art. 1069.06. Light pole numbering shall be as directed by the Engineer.
19. The Contractor shall be responsible to coordinate electrical work with other trades.
20. Number of conduit bends from start of pavement removal to the proposed junction boxes on the West Abutment shall be according to the NEC and IDOT Standard Specifications. In case of dispute between NEC and IDOT Standard Specifications, the higher (more stringent) standard shall govern.

SCOPE OF ELECTRICAL WORK

1. Light poles, junction boxes, and luminaires mounted on the existing structure shall be removed. None are to be salvaged. Cost included with Removal of Existing Structures. See SN 082-0374 plans.
2. Provide and install new LED lighting, including new junction boxes, new conductors, and new conduits as shown on the plans, on the MLK Bridge Approach over relocated IL Route 3, various railroads, Missouri Avenue, and I-55SB/64WB.
3. Replace existing conductors with new No. 6 conductors between existing light pole Nos. (10) and (8).
4. Replace existing conductors with new No. 6 conductors between existing light pole Nos. (11) and (9).
5. Replace existing conductors with new No. 6 conductors between existing light pole No. (8) to the proposed junction box on the west abutment wingwall.
6. Replace existing conductors with new No. 6 conductors between existing light pole No. (9) to the proposed junction box on the west abutment wingwall.
7. Retain existing conduit between existing light pole No. (9) to the connection for the new conduit within the designated pavement removal area.
8. Retain existing conduit between existing light pole No. (10) to the connection for the new conduit within the designated pavement removal area.
9. All galvanized steel poles shall be painted in accordance with the special provision for Surface Preparation and Painting of New Galvanized Steel Structures.
10. Luminaire shall be mounted on a pole with a vertical tenon but the lighting element shall be horizontal to the pavement.

LIGHTING AND ELECTRICAL LEGEND

-  New bridge parapet mounted 40 Ft. galvanized steel pole, tenon top, LED luminaire, Type II, medium wattage
-  Existing light pole
-  New junction box, stainless steel, attached to structure, 12" x 12" x 6"
-  New electrical cable in conduit, 600V, (XLP-Type Use-2) 2-1C No. 6, 1/C No. 6 ground in 2" dia. stainless steel conduit
-  New electrical cable in conduit, 600V, (XLP-Type Use-2) 2-1C No. 6, 1/C No. 6 ground in 2" dia. PVC conduit embedded in structure
-  New flexible non-metallic conduit, 2" dia., 6' max. length.
-  Existing unit duct, 600V, 2 - 1C No. 6, 1C No. 8 ground, (XLP-Type Use), 1" dia. polyethylene
-  Existing 2" dia. galvanized steel conduit, 2 - #10, 1 - #10G
-  New 2" dia. stainless steel conduit
-  New 2" dia. liquidtight flexible non-metallic conduit, 6' max. length
-  New 2" dia. PVC conduit
-  Circuit breaker

HIGHWAY STANDARDS

- 821101-02 Luminaire wiring in pole
- 830021-02 Light pole steel tenon top
- 836001-03 Light pole foundation

| CODE NO. | LIGHTING AND ELECTRICAL ITEMS | UNIT | TOTAL QUANTITY |
|----------|--|------|----------------|
| | CONDUIT EMBEDDED IN STRUCTURE, 2" DIA. PVC | FOOT | 2640 |
| | JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12" X 12" X 6" | EACH | 4 |
| | ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6 | FOOT | 11,500 |
| | LIGHT POLE, GALVANIZED STEEL, 40 FT. M.H., TENON MOUNT | EACH | 7 |
| | LIGHT POLE FOUNDATION, 30" DIAMETER | FOOT | 6 |
| | REMOVAL OF POLE FOUNDATION | EACH | 1 |
| | RELOCATE EXISTING LIGHTING UNIT | EACH | 1 |
| | LUMINAIRE, LED, HORIZONTAL MOUNT, MEDIUM WATTAGE | EACH | 7 |
| | UNDERGROUND CONDUIT, STAINLESS STEEL, 2" DIA. | FOOT | 350 |

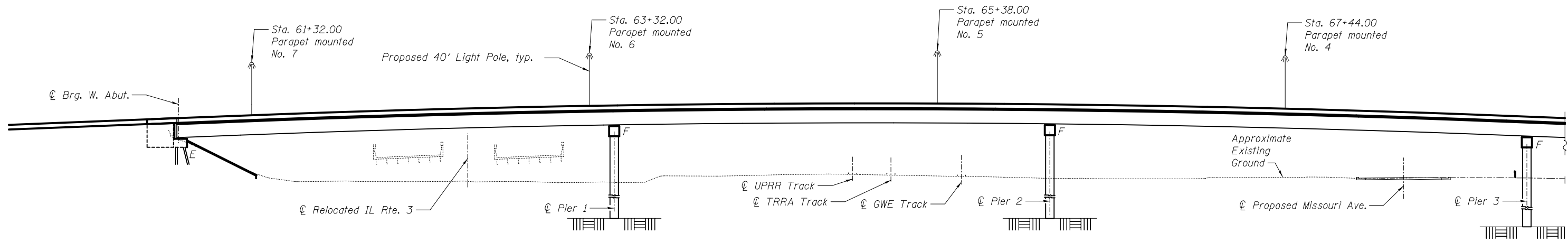


| | | |
|------------------------|-------------------|-----------|
| USER NAME = | DESIGNED - NKB | REVISED - |
| | DRAWN - RLR | REVISED - |
| PLOT SCALE = | CHECKED - LVB | REVISED - |
| PLOT DATE = 03/22/2018 | DATE - 03/22/2018 | REVISED - |

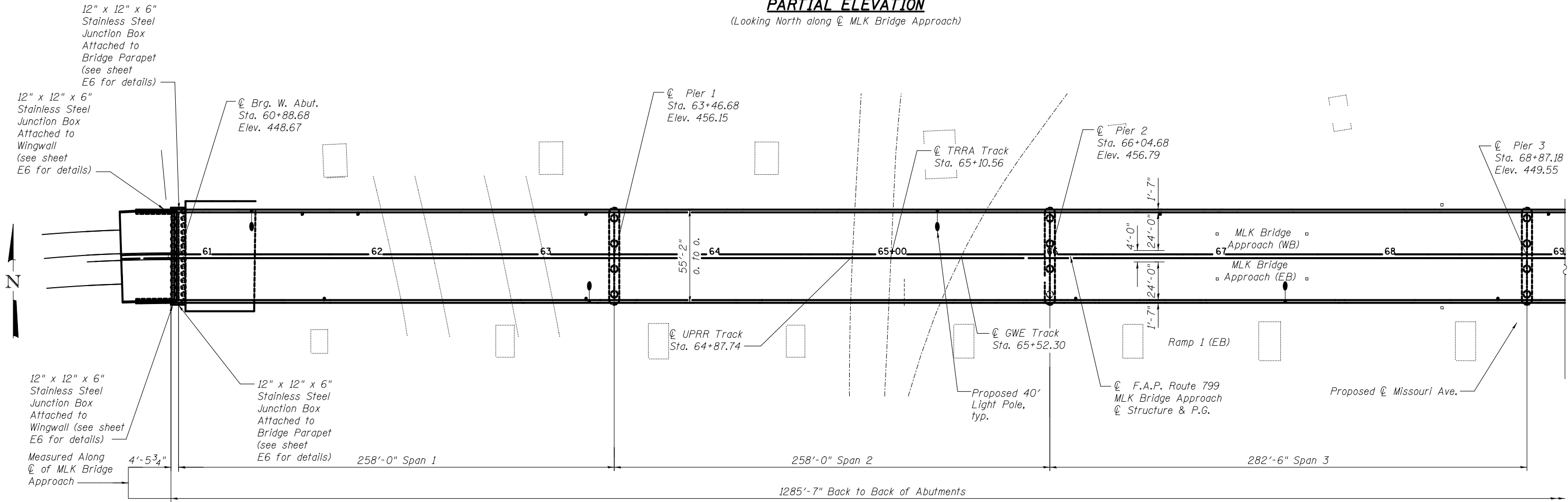
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

| | |
|--|---------------------------|
| S.N. 082-0374 LIGHTING AND ELECTRICAL GENERAL NOTES, LEGEND, AND SCHEDULE OF QUANTITIES | |
| SCALE: N.T.S. | SHEET NO. E1 OF E8 SHEETS |

| | | | | |
|---------------------------|---------|-----------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | 1BR-1-1 | ST. CLAIR | 315 | 137 |
| CONTRACT NO. 76G39 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |



PARTIAL ELEVATION
(Looking North along MLK Bridge Approach)



PARTIAL PLAN

Notes:
For lighting and electrical general notes, legend, and schedule of quantities, see sheet E1.

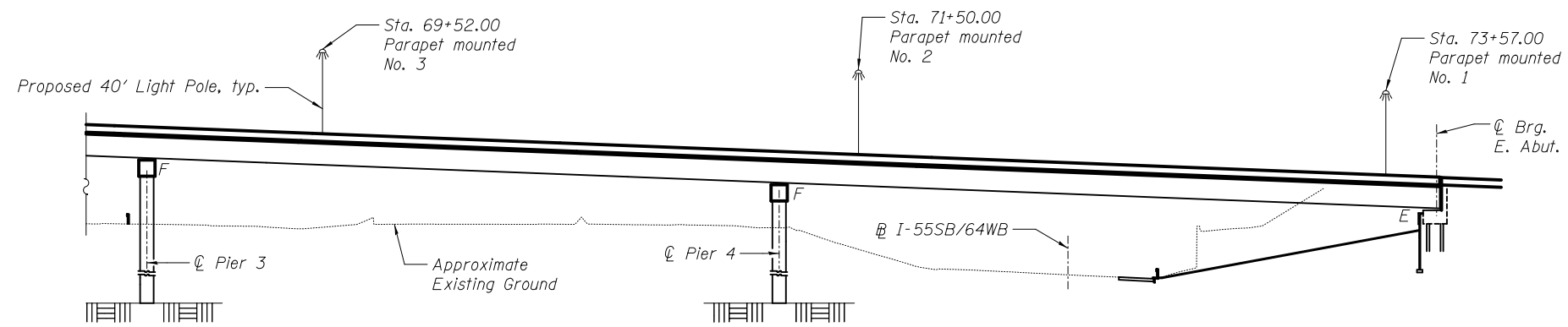


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|------------------------|-------------------|-----------|
| USER NAME = | DESIGNED - NKB | REVISED - |
| | DRAWN - RLR | REVISED - |
| PLOT SCALE = | CHECKED - LVB | REVISED - |
| PLOT DATE = 03/22/2018 | DATE - 03/22/2018 | REVISED - |

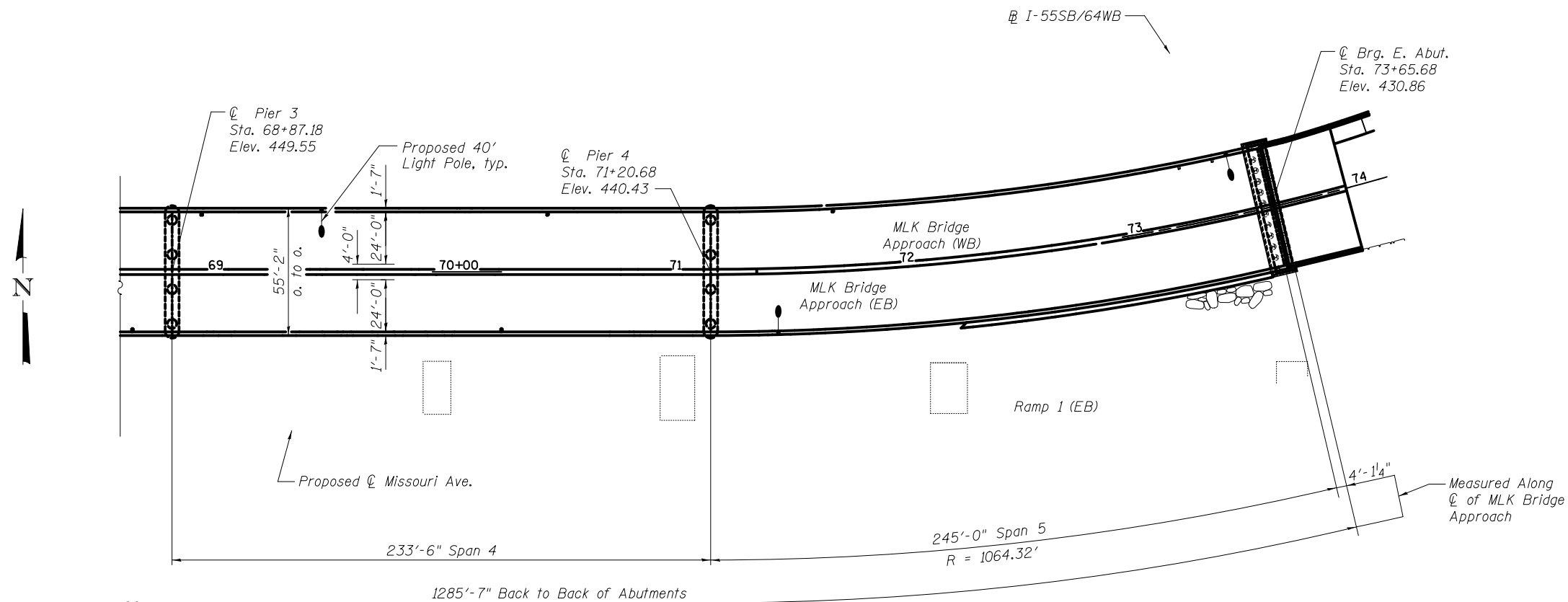
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | |
|---|---------------------------|--------------------------------|
| S.N. 082-0374 LIGHTING AND ELECTRICAL PLAN - 1 | | |
| SCALE: N.T.S. | SHEET NO. E2 OF E8 SHEETS | STA. 60+50.00 TO STA. 68+87.18 |

| | | | | |
|--------------------|---------|-----------|---------------------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | 1BR-1-1 | ST. CLAIR | 315 | 138 |
| CONTRACT NO. 76G39 | | | ILLINOIS FED. AID PROJECT | |



PARTIAL ELEVATION
(Looking North along MLK Bridge Approach)



PARTIAL PLAN

Notes:
For lighting and electrical general notes, legend, and schedule of quantities, see sheet E1.



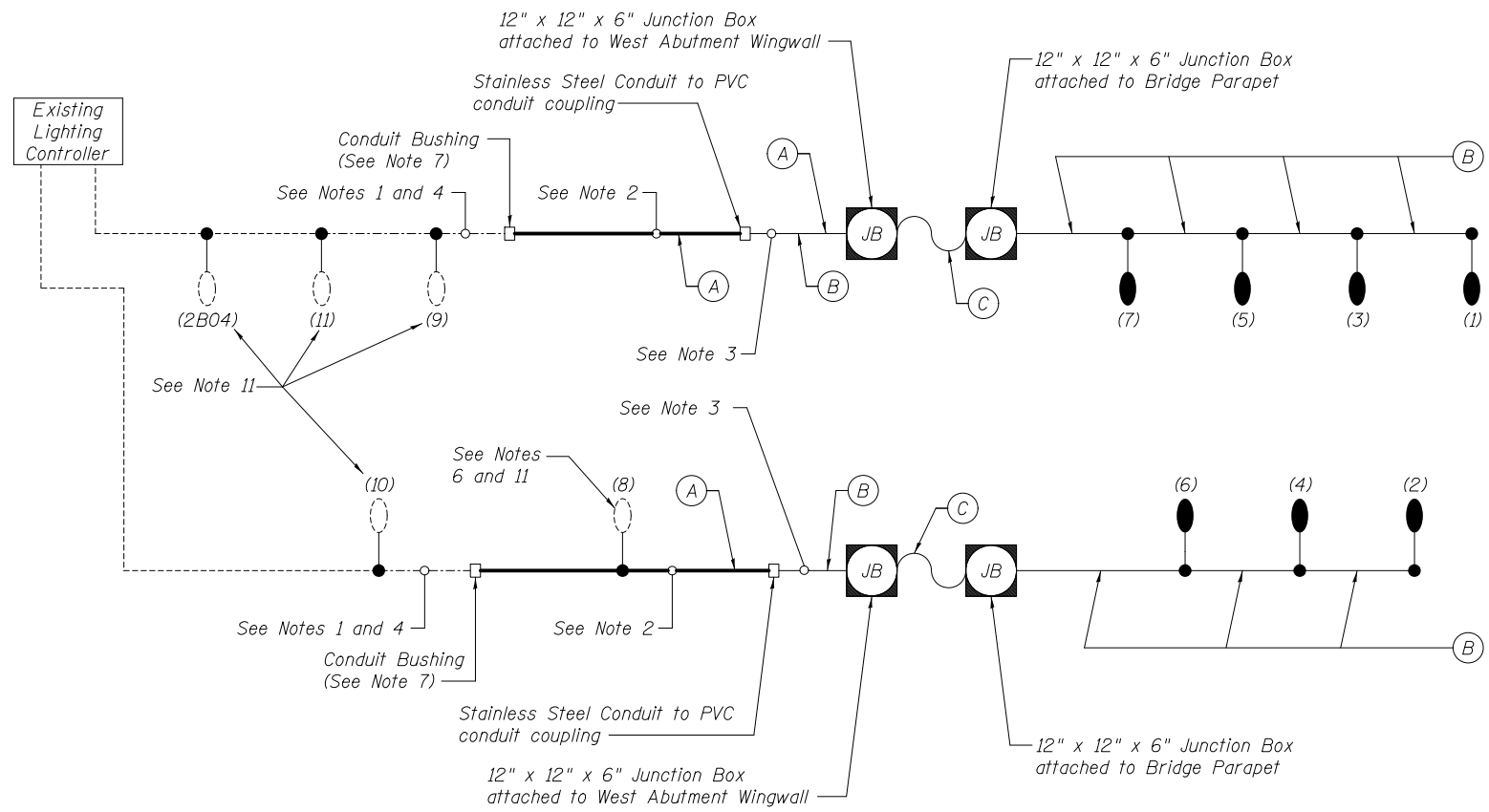
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| | DRAWN - RLR | REVISED - |
| PLOT SCALE = | CHECKED - LVB | REVISED - |
| PLOT DATE = 03/22/2018 | DATE - 03/22/2018 | REVISED - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

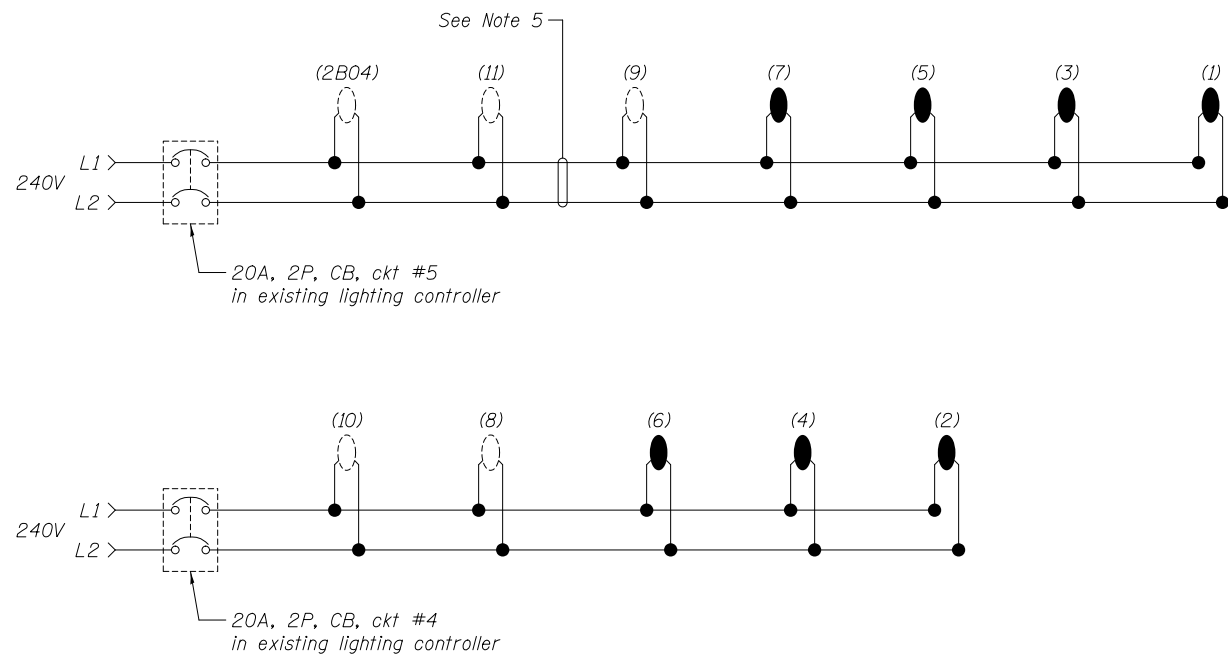
S.N. 082-0374
LIGHTING AND ELECTRICAL PLAN - 2

SCALE: N.T.S. SHEET NO. E3 OF E8 SHEETS STA. 68+87.18 TO STA. 74+00.00

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|--------------------|---------|-----------|---------------------------|-----------|
| 799 | IBR-1-1 | ST. CLAIR | 315 | 139 |
| CONTRACT NO. 76G39 | | | ILLINOIS FED. AID PROJECT | |



CONDUIT LAYOUT



WIRING DIAGRAM

Notes:

1. Retain existing electrical conduit to the point of connection to the new conduit.
2. Install new 10' x 2" dia. stainless steel conduit with bushing from point of connection of existing conduit to West Abutment Wingwall.
3. Install 2" dia. PVC conduit in the Wingwall to new junction box installed on West Abutment Wingwall.
4. Remove and replace existing conductors with XLP-Type Use-2 No. 6 conductors between light pole no. (9) and proposed junction box installed on West Abutment Wingwall and between light pole no. (10) and proposed junction box installed on West Abutment Wingwall. Make connections in the existing light pole base.
5. Remove and replace existing conductors with XLP-Type Use-2 No. 6 conductors between light pole no. (11) and light pole no. (9). Make connections in the existing light pole base.
6. Light pole no. (8) is existing light pole unit with new foundation. See Roadway Plan sheets for the proposed location.
7. Location for connection between existing conduit and new conduit shall be within the designated area of pavement removal. See Roadway Plan sheet 104 for Removals.
8. For junction box details, see sheet E6.
9. For existing conditions, see reference sheets E7 and E8.
10. For lighting and electrical general notes, legend, and schedule of quantities, see sheet E1.
11. The existing light fixtures are to be replaced with new LED light fixtures. See sheets 76G39 DB LTG 01-13 for more information.



| | | |
|------------------------|-------------------|-----------|
| USER NAME = | DESIGNED - NKB | REVISED - |
| | DRAWN - RLR | REVISED - |
| PLOT SCALE = | CHECKED - LVB | REVISED - |
| PLOT DATE = 03/22/2018 | DATE - 03/22/2018 | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**S.N. 082-0374
CONDUIT LAYOUT AND WIRING DIAGRAM**

SCALE: N.T.S. SHEET NO. E4 OF E8 SHEETS

| | | | | |
|--------------------|-----------------|------------------|------------------|---------------------------|
| F.A.P. RTE. 799 | SECTION 1BR-1-1 | COUNTY ST. CLAIR | TOTAL SHEETS 315 | SHEET NO. 140 |
| CONTRACT NO. 76G39 | | | | ILLINOIS FED. AID PROJECT |

ILLINOIS DEPARTMENT OF TRANSPORTATION
LED LUMINAIRE PERFORMANCE TABLE

GIVEN CONDITIONS

| | | |
|-------------|---|-------------------|
| ROADWAY: | Lane Width | <u>24.417 Ft</u> |
| | Number of Lanes | <u>1</u> |
| | Median Width | <u>3.168</u> |
| | IES Pavement Classification | <u>R3</u> |
| | Roadway Facility Classification | <u>Expressway</u> |
| | Pedestrian Conflict Area | <u>Low</u> |
| LIGHT POLE: | Mounting Height | <u>40 Ft.</u> |
| | Mast Arm Length | <u>N/A</u> |
| | Pole Set-back from Edge of Parapet | <u>1.375 Ft</u> |
| LUMINAIRE: | Lamp Type | <u>LED, MW</u> |
| | Initial Lamp Lumens | <u>>19900</u> |
| | IES Distribution | <u>Type II</u> |
| | IES Luminaire Classification | <u>Cutoff (C)</u> |
| | Total Light Loss Factor | <u>0.684</u> |
| LAYOUT: | Spacing | <u>405 Ft.</u> |
| | Configuration | <u>Staggered</u> |
| | Luminaire Overhang Over Edge of Parapet | <u>0 Ft.</u> |

NOTE: Variations from the above specified IES distribution pattern may be requested and acceptance of variations will be subject to review by the Engineer based on how well the performance requirements are met.

PERFORMANCE REQUIREMENTS

NOTE: These performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

| | |
|--|-----------------------------|
| Average Horizontal Illuminance (E_{ave}) | <u>0.9 fc</u> |
| Uniformity Ratio, (Ave./Min.) | <u>3.0</u> |
| Average Luminance (L_{avg}) | <u>0.6 cd/m²</u> |
| Uniformity Ratio (L_{avg} / L_{min}) | <u>3.5 (Max. allowed)</u> |
| Uniformity Ratio (L_{max} / L_{min}) | <u>6.0 (Max. allowed)</u> |
| Veiling Luminance Ratio (L_{vmax} / L_{avg}) | <u>0.30 (Max. allowed)</u> |

Note:
For lighting and electrical general notes, legend, and schedule of quantities, see sheet E1.



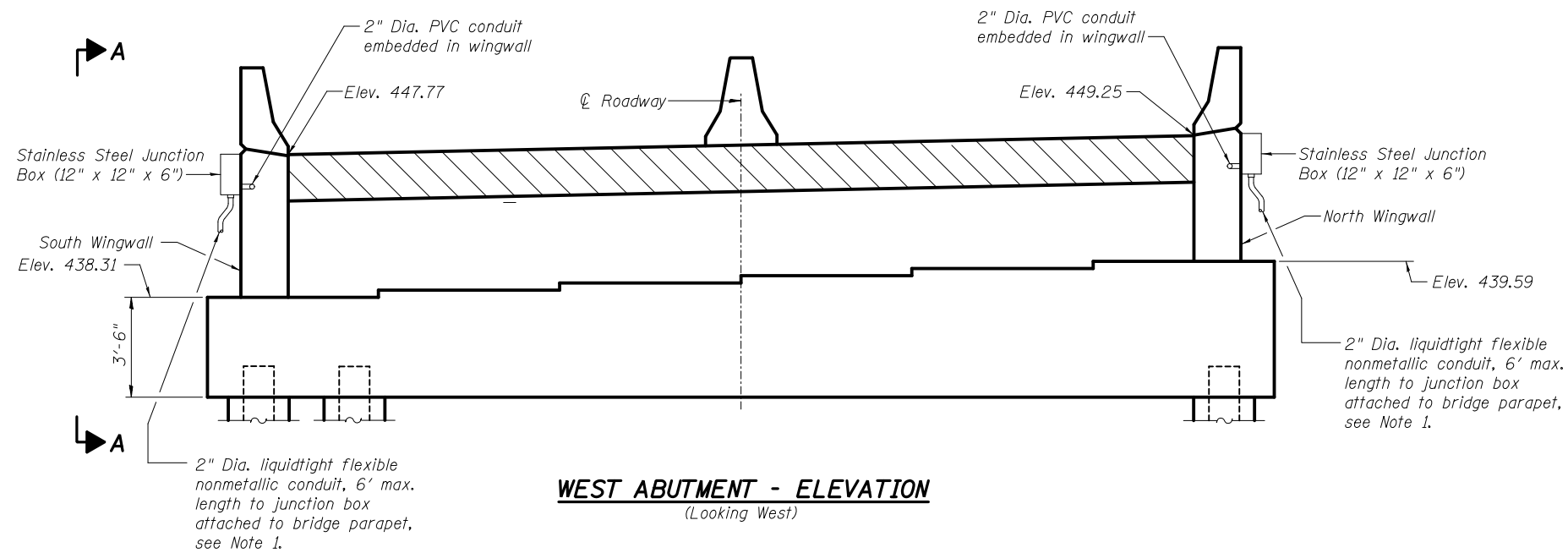
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| USER NAME = | DESIGNED - NKB | REVISED - |
| | DRAWN - RLR | REVISED - |
| PLOT SCALE = | CHECKED - LVB | REVISED - |
| PLOT DATE = 03/22/2018 | DATE - 03/22/2018 | REVISED - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

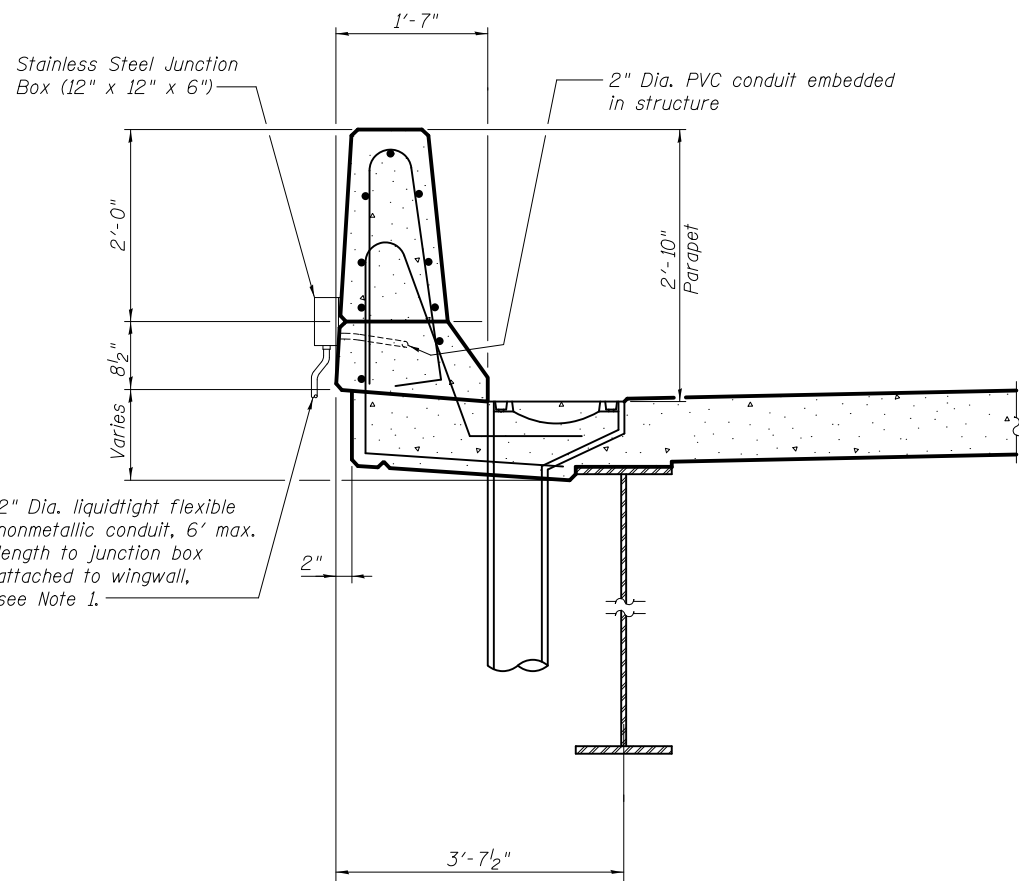
S.N. 082-0374
LUMINAIRE PERFORMANCE TABLE

SCALE: N.T.S. SHEET NO. E5 OF E8 SHEETS

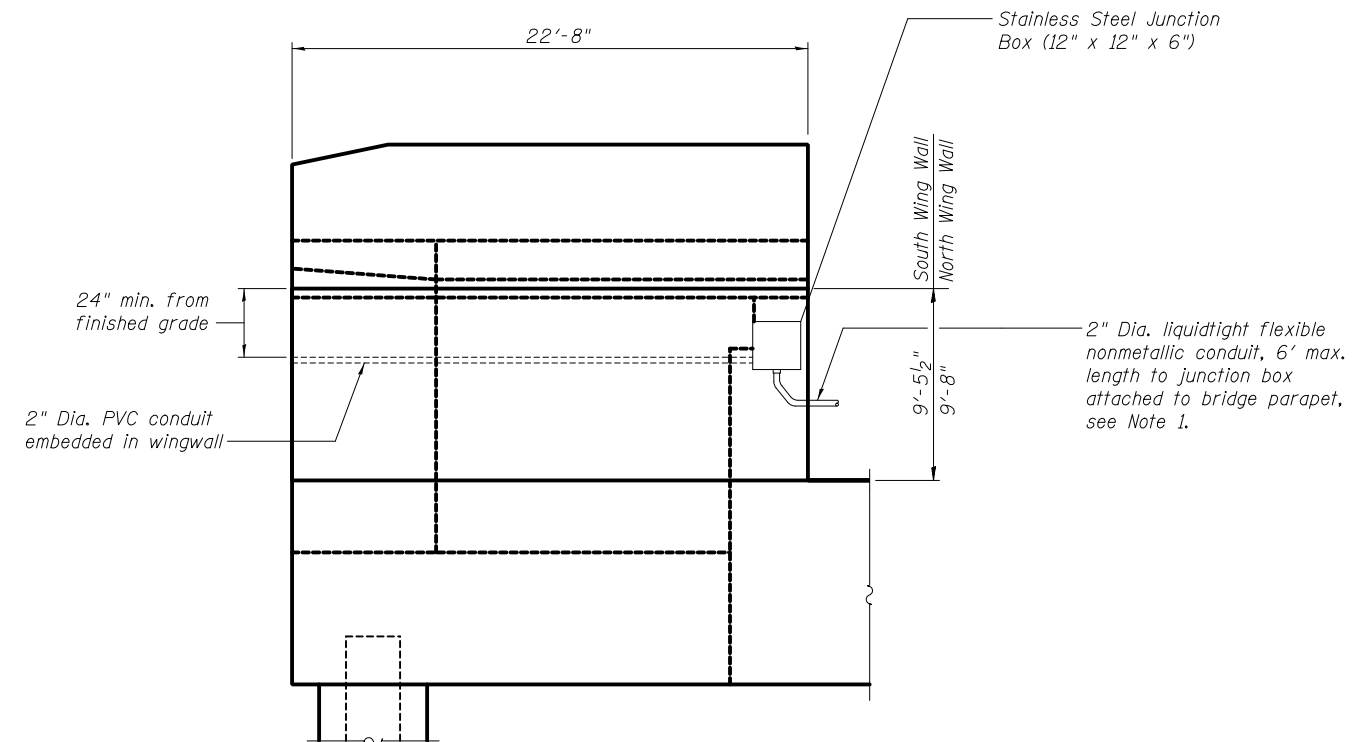
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|--------------------|---------|-----------|---------------------------|-----------|
| 799 | IBR-1-1 | ST. CLAIR | 315 | 141 |
| CONTRACT NO. 76G39 | | | ILLINOIS FED. AID PROJECT | |



WEST ABUTMENT - ELEVATION
(Looking West)



PARAPET AT WEST END OF DECK
(Looking Ahead Station)
(North shown, South mirrored)



VIEW A-A - WING WALL ELEVATION
(Southwest side shown, Northwest side similar)

Notes:

1. The Contractor must provide a liquidtight flexible nonmetallic conduit at each side of the West Abutment expansion joint. Material and installation of the LFNC shall be according to the IDOT Standard Specifications. Cost included with Conduit Embedded in Structure, 2" Dia. PVC.
2. For lighting and electrical general notes, legend, and schedule of quantities, see sheet E1.



| | | |
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| USER NAME = | DESIGNED - NKB | REVISED - |
| | DRAWN - RLR | REVISED - |
| PLOT SCALE = | CHECKED - LVB | REVISED - |
| PLOT DATE = 03/22/2018 | DATE - 03/22/2018 | REVISED - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

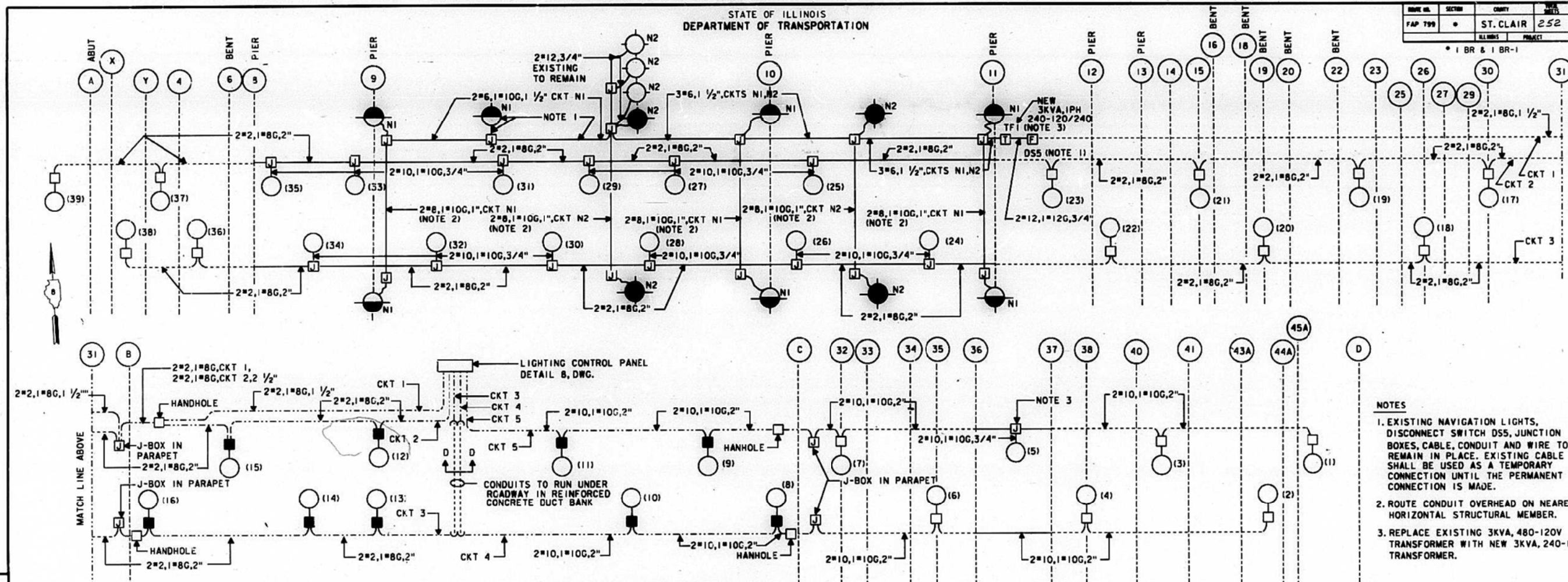
S.N. 082-0374
ELECTRICAL DETAILS

SCALE: N.T.S. SHEET NO. E6 OF E8 SHEETS

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| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | IBR-1-1 | ST. CLAIR | 315 | 142 |
| CONTRACT NO. 76G39 | | | ILLINOIS FED. AID PROJECT | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

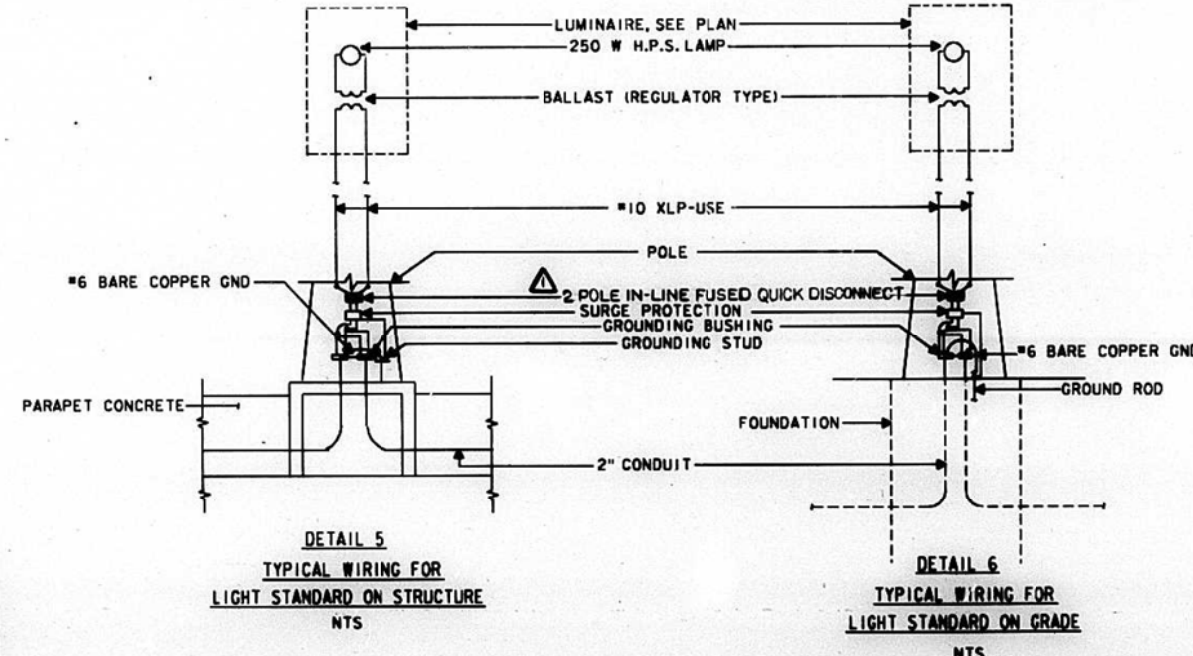
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| DATE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| FAP 799 | ST. CLAIR | 252 | 227 | |
| REVISIONS | PROJECT | | | |



- NOTES**
- EXISTING NAVIGATION LIGHTS, DISCONNECT SWITCH DSS, JUNCTION BOXES, CABLE, CONDUIT AND WIRE TO REMAIN IN PLACE. EXISTING CABLE SHALL BE USED AS A TEMPORARY CONNECTION UNTIL THE PERMANENT CONNECTION IS MADE.
 - ROUTE CONDUIT OVERHEAD ON NEAREST HORIZONTAL STRUCTURAL MEMBER.
 - REPLACE EXISTING 3KVA, 480-120V TRANSFORMER WITH NEW 3KVA, 240-120V TRANSFORMER.

10358 FILE: ZF3151.JMK.ELECT.DGN
 LEVELS PLOTTED DATE: OCT. 23, 1987
 42 35 50 56 58 63
 PRF: MK/ELECT

| | |
|----------|------------|
| DESIGNED | S.P. GITTO |
| CHECKED | W.W. LEWIS |
| DRAWN | T.A. MUNDY |
| CHECKED | W.W. LEWIS |



SYMBOLS

- NAVIGATION LIGHT 180° RED NOTE 1
- NAVIGATION LIGHT 360° GREEN NOTE 1
- NAVIGATION LIGHT 180° NOTE 1
- 250 WATT HIGH PRESSURE SODIUM ROADWAY LIGHTING FIXTURE ON 40'-0" POLE; SEE DETAIL 1
- 250 WATT HIGH PRESSURE SODIUM BRACKET MTG ROADWAY LIGHTING FIXTURE - SEE DETAIL 3
- 250 WATT HIGH PRESSURE SODIUM ROADWAY LIGHTING FIXTURE ON 40'-0" POLE; SEE DETAIL 2

- CONDUIT DIRECT BURIED IN EARTH
- EXPOSED CONDUIT
- CONCEALED CONDUIT IN CONCRETE PARAPET
- JUNCTION BOX (18" L X 12" W X 10" D, EXCEPT AS NOTED)
- TRANSFORMER- TF
- DISCONNECT SWITCH- DS, FUSED

LIGHTING ELEMENTARY DIAGRAM

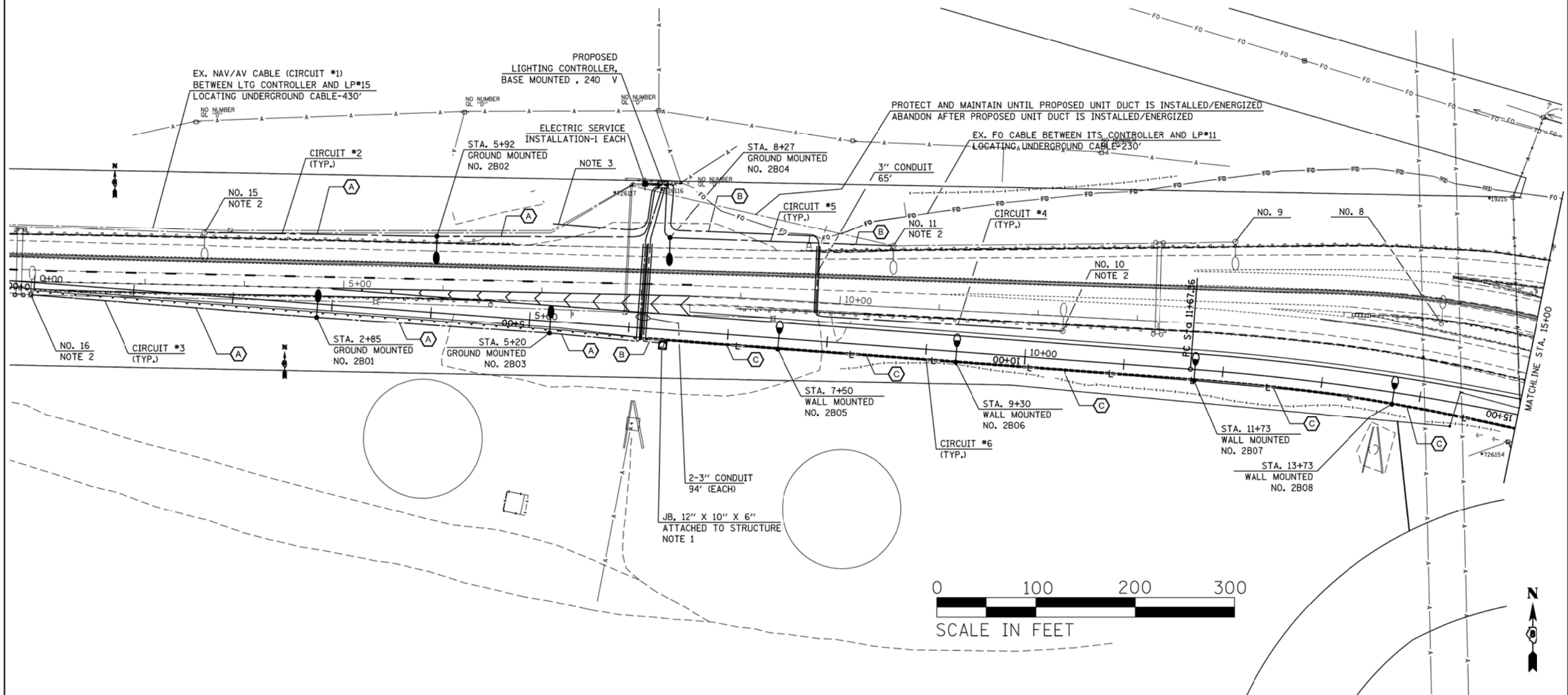
PREPARED BY:
SVERDRUP CORPORATION
ST. LOUIS, MISSOURI

Rev. 12-4-87

FOR INFORMATION ONLY

NOTES:

1. SEE "JUNCTION BOX ATTACHED TO PARAPET WALL DETAIL"
2. INTERCEPT EXISTING CONDUIT STUB AT THE FOUNDATION OF EXISTING LIGHTING UNIT TO REMAIN.
3. THE CONTRACTOR SHALL RELOCATE NAVIGATION LIGHTING CABLES AND CONDUIT TO NEW PROPOSED CONTROLLER. THE COST FOR THIS WORK SHALL BE INCLUDED IN THE COST OF THE CONTROLLER.
4. THE CONTRACTOR MUST PROVIDE AN EXPANSION/DEFLECTION FITTING AT EACH LOCATION WHERE CONDUIT RUN TRAVERSE AN EXPANSION JOINT.
5. THE CONTRACTOR SHALL INSTALL LIGHT POLES 2B02 AND 2B04 AND MADE OPERATIONAL BEFORE COMMENCING MOT STAGE 2.



| | | | | | | | | | | |
|--|------------------------------|------------|-----------|---|--|---------------------------|---------------------|------------------|------------------|--------------|
| FILE NAME = | USER NAME = prestonne | DESIGNED - | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | PROPOSED LIGHTING PLAN SHEET 1 OF 2 | F.A.P. RTE. 64 | SECTION 82-11,41B-1 | COUNTY ST. CLAIR | TOTAL SHEETS 406 | SHEET NO. 87 |
| 01\p\work\p\dot\prestonne\08320451\08320451-Sht-TS.dgn | 6089-Sht-TS.dgn | DRAWN - | REVISED - | | | CONTRACT NO. 76G09 | | | | |
| | PLOT SCALE = 100.0000' / in. | CHECKED - | REVISED - | | | ILLINOIS FED. AID PROJECT | | | | |
| | PLOT DATE = 7/22/2014 | DATE - | REVISED - | | | | | | | |

FOR INFORMATION ONLY

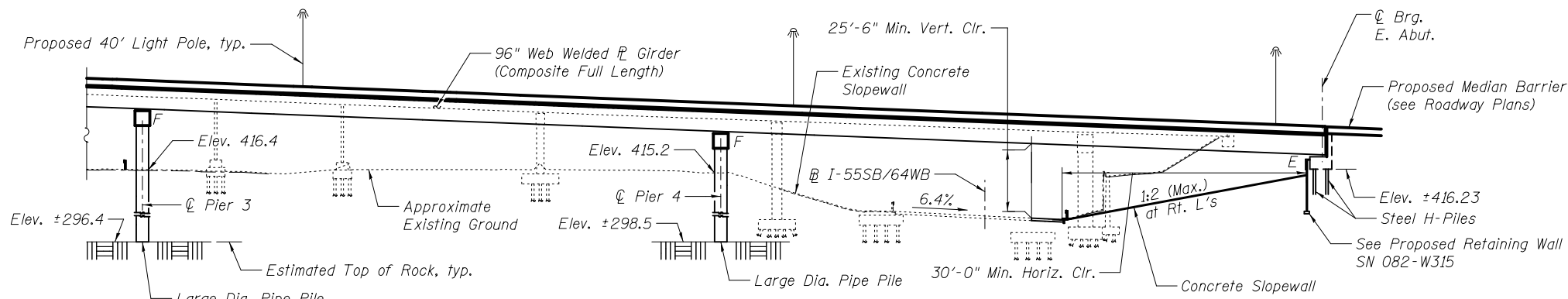


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| | DRAWN - RLR | REVISED - |
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| PLOT DATE = 03/22/2018 | DATE - 03/22/2018 | REVISED - |

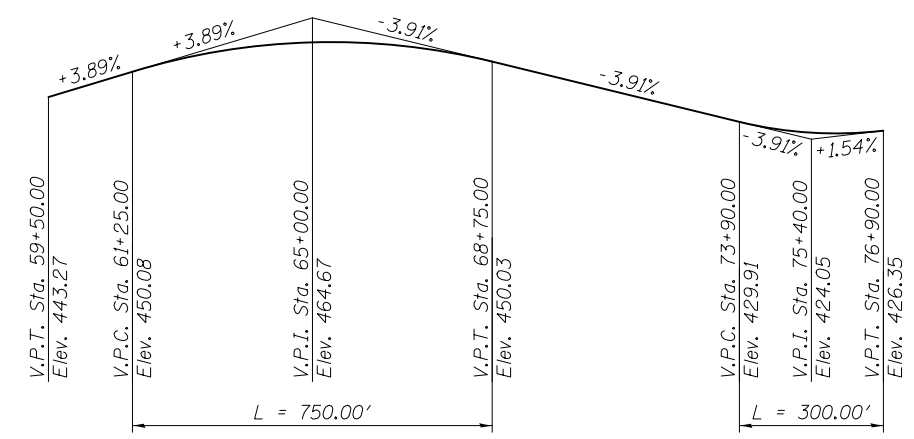
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

| | |
|---|---------------------------|
| S.N. 082-0374 EXISTING LIGHTING PLAN - 2014 REHABILITATION | |
| SCALE: N.T.S. | SHEET NO. E8 OF E8 SHEETS |

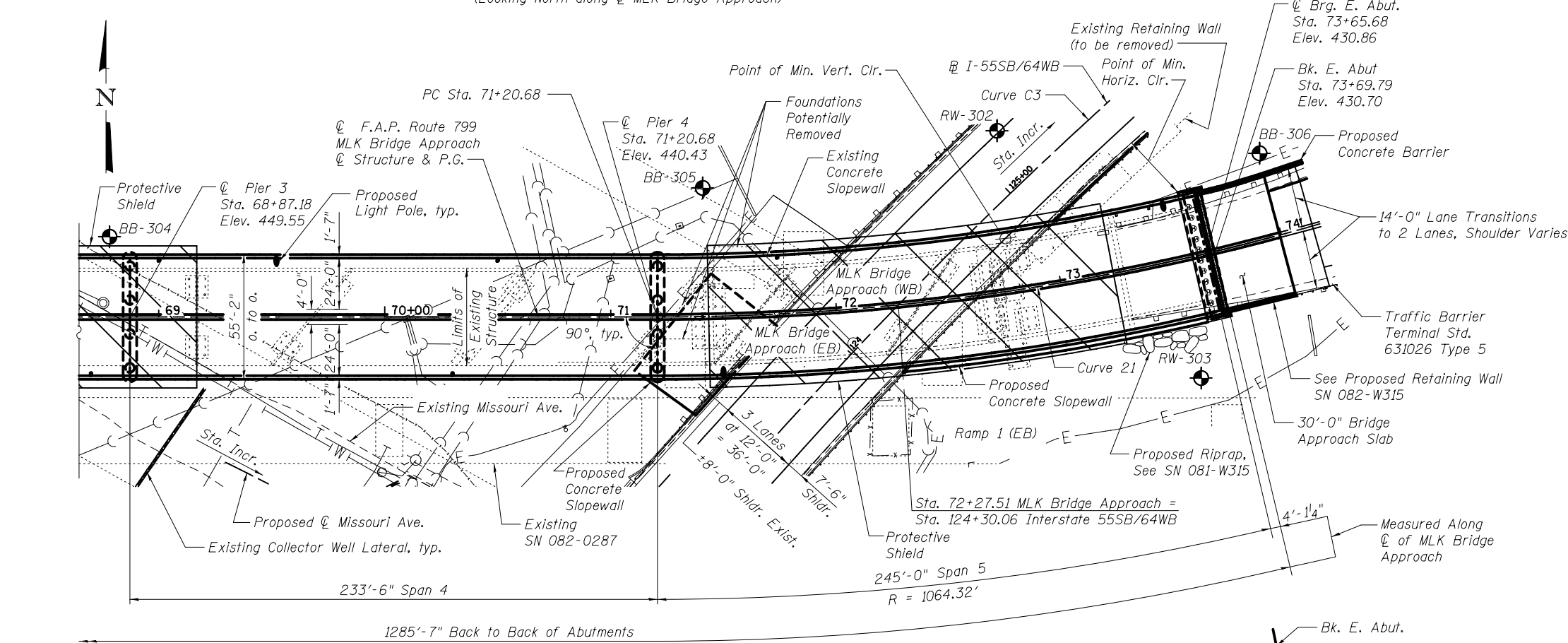
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| CONTRACT NO. 76G39 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |



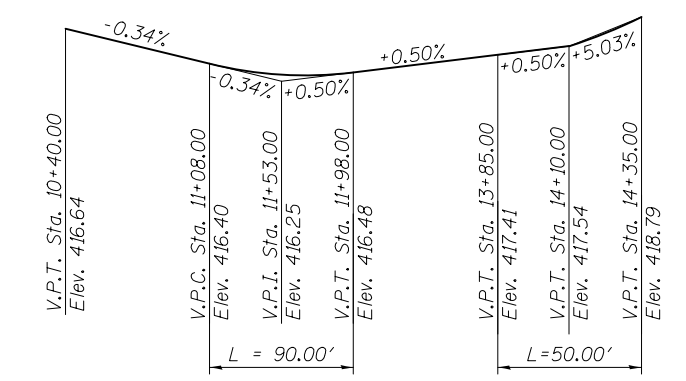
PARTIAL ELEVATION
(Looking North along MLK Bridge Approach)



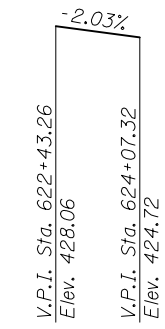
PROFILE GRADE
(Along the MLK Bridge Approach)



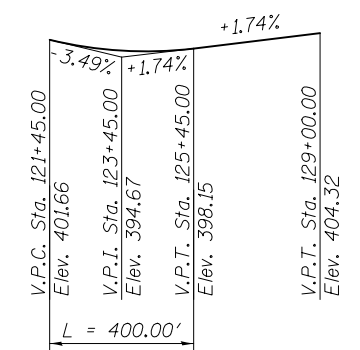
PARTIAL PLAN



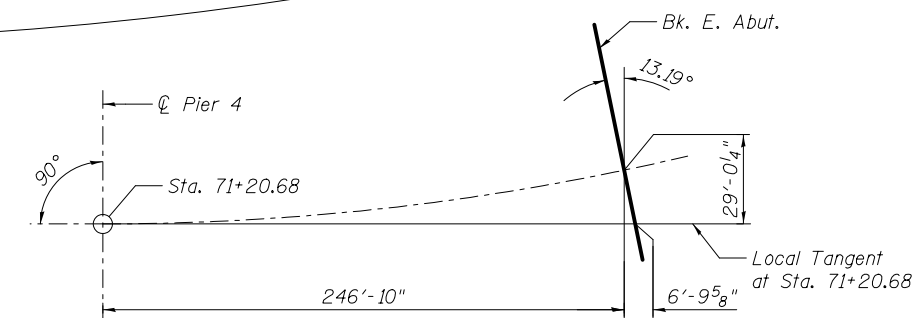
PROFILE GRADE
(Along Missouri Avenue)



PROFILE GRADE
(Along Relocated IL Rte. 3)



PROFILE GRADE
(Along I-55SB/64WB)
(Original Design)



OFFSET SKETCH

Notes:
See Lighting Plans for lighting, conduit, junction box, and handhole details.
For superelevation transitions, see sheet S6.
Existing utilities shown will be relocated to avoid any conflict during construction.

STATION 67+27.18
BUILT 20__ BY
STATE OF ILLINOIS
F.A.P. RT. 799 SEC. 1BR-1-1
LOADING HL-93
STRUCTURE NO. 082-0374

NAME PLATE
See Std. 515001

CURVE C3 DATA
P.I. Sta. = 125+66.38
 $\Delta = 21^\circ 41' 42''$ (RT)
D = 2° 44' 22"
R = 2,091.61'
T = 400.79'
L = 791.99'
E = 38.05'
e = N/A
T.R. = N/A
S.E. Run = N/A
P.C. Sta. = 121+65.59
P.T. Sta. = 129+57.58

CURVE 21 DATA
P.I. Sta. = 74+81.50
 $\Delta = 37^\circ 27' 17''$ (LT)
D = 5° 23' 00"
R = 1,064.32'
T = 360.82'
L = 695.75'
E = 59.50'
e = 4.7%
T.R. = 31'
S.E. Run = 99'
P.C. Sta. = 71+20.68
P.T. Sta. = 78+16.44



| | | |
|-----------------------|--------------------|---------|
| USER NAME = | DESIGNED - YSS/LNB | REVISED |
| PLOT SCALE = | CHECKED - ZJB/MJP | REVISED |
| PLOT DATE = 3/12/2018 | DRAWN - PRC | REVISED |
| | CHECKED - JMH | REVISED |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN - 2
S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB/64WB
SHEET NO. S2 OF S77 SHEETS

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|---------|-----------|--------------|-----------|
| 799 | 1BR-1-1 | ST. CLAIR | 315 | 146 |
| CONTRACT NO. 76G39 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

**MLK BRIDGE APPROACH OVER RELOCATED IL RTE. 3,
VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB/64WB
F.A.P. ROUTE 799 SEC. 1BR-1-1
ST. CLAIR COUNTY
STATION 67+27.18
STRUCTURE NO. 082-0374**

INDEX OF SHEETS

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- S2 General Plan - 2
- S3 General Structure Data
- S4 General Details - 1
- S5 General Details - 2
- S6 General Details - 3
- S7 Temporary Soil Retention
- S8 Substructure Layout
- S9 Suggested Erection Sequence - 1
- S10 Suggested Erection Sequence - 2
- S11 Top of Slab Elevations - 1
- S12 Top of Slab Elevations - 2
- S13 Top of Slab Elevations - 3
- S14 Top of Slab Elevations - 4
- S15 Top of Slab Elevations - 5
- S16 Top of Slab Elevations - 6
- S17 Top of Slab Elevations - 7
- S18 Top of West Approach Slab Elevations
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- S24 Superstructure Details - 3
- S25 Superstructure Details - 4
- S26 Concrete Parapet Slipforming Option
- S27 Drainage Scupper DS-11
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- S29 Bridge Approach Slab Details at West Abutment - 2
- S30 Bridge Approach Slab Details at East Abutment - 1
- S31 Bridge Approach Slab Details at East Abutment - 2
- S32 Bridge Approach Slab Details at East Abutment - 3
- S33 Modular Expansion Joint - 1
- S34 Modular Expansion Joint - 2
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- S38 Steel Framing Plan - 4
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- S41 Steel Details - 3
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- S43 HLMR Guided Expansion Bearings
- S44 Fixed HLMR Bearings
- S45 West Abutment
- S46 West Abutment Details
- S47 East Abutment
- S48 East Abutment Details
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- S50 Pier 2
- S51 Pier 3
- S52 Pier 4
- S53 Pier Details
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- S72 Soil Boring Log - 10
- S73 Soil Boring Log - 11
- S74 Soil Boring Log - 12
- S75 Soil Boring Log - 13
- S76 Soil Boring Log - 14
- S77 Soil Boring Log - 15

GENERAL NOTES

1. Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts. Bolts 7/8 in. ϕ , holes 15/16 in. ϕ , unless otherwise noted.
 2. Calculated weight of Structural Steel
M 270 Grade 50 = 3,415,970 lbs.
M 270 Grade 70W = 1,351,500 lbs.
 3. No field welding is permitted except as specified in the contract documents.
 4. Reinforcement bars designated (E) shall be epoxy coated.
 5. 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.
 6. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction.
 7. 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.
 8. Concrete Sealer shall be applied to all exposed surfaces of the abutment backwalls, bridge seats, and front faces of the abutment caps.
 9. The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
 10. See SN 082-W315 plans for MSE details and pay items.
 11. The east abutment piles are located within the reinforced soil mass and aggregate column ground improvement limits for SN 082-W315. Piles with pile sleeves shall be driven prior to the placement of the reinforced soil mass. The piles shall not be driven through the aggregate of an installed column. The aggregate column layout shall provide clearance for the bridge piles. See SN 082-W315 plans for additional details.
 12. Demolition of the existing structure over I-55SB/64WB shall occur during a weekend closure of I-55SB/64WB. The Contractor shall protect the existing pavement, guardrail, and any other structures beneath the existing structure from damage due to falling debris and equipment in accordance with Article 107.16 of the Standard Specifications.
 13. Protective shield systems shall be erected and maintained to protect vehicular and rail traffic from demolition and construction activities. The systems shall be installed at the following locations and protect the specified bridge length and width of the existing and proposed structures.
- | LOCATION | LENGTH | WIDTH |
|-------------------------|-----------|---------|
| Relocated IL Rte. 3 | 124' | 62'-10" |
| UPRR/KCS, TRRA, and GWE | 150' | 62'-10" |
| Missouri Avenue | 190' | 62'-10" |
| I-55SB/64WB * | 175'-186' | 62'-10" |
- * Protective shield not required for demolition.
14. Removal of Existing Structures shall include all removals necessary to install the proposed structure, which include but are not limited to, removal of the existing east abutment retaining wall, removal of existing slopewalls, removal of miscellaneous debris, and removal of existing foundations, original abandoned foundations, or previously installed temporary foundations which interfere with the proposed structure.
 15. The Contractor shall retain the services of an engineering firm, prequalified in the IDOT consultant selection category of Highway Bridge (Advanced Typical), for preparation of the Structural Assessment Report(s). Structural Assessment Report(s) will be required for the adjacent ramp structures (SN 082-0277; SN 082-0278), the relocated Illinois Route 3 structures (SN 082-0385; SN 082-0386) and the Missouri Avenue structure (SN 082-0135) if utilized for construction access. Contractor's pre-approval shall not be applicable for this project. See Special Provision.

Current Ratings on File for Existing Structure
Inventory: HS 12.4
Operating: HS 20.6
Live Load Restriction: No
 16. The Contractor is advised that the existing structure contains members that are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the existing structure when developing construction procedures for the complete or partial removal, or replacement of the structure. An Existing Structure Information Package is available upon request as noted in the special provisions.

Inventory and Operating Ratings and Live Load Restrictions are provided for information only. Inventory and Operating Ratings are based on HS loading and configuration. Live Load Restrictions are based on Illinois legal loads and configurations. The Ratings and Live Load Restrictions are not necessarily representative of capacities to support the Contractor's equipment.
 17. At the east and west abutments, required cuts in the existing slopes steeper than 5 horizontal to 1 vertical (5H:1V) should be benched to provide a level surface prior to placing any new fill material. The benches shall be spaced such that the maximum height of cut at the up-slope end of the bench is 5 feet. Cost included with Structure Excavation.
 18. The erection of the structural steel shall be accomplished by a steel erection contractor or sub-contractor in accordance with the special provision "Erection of Curved Steel Structures."
 19. Prior to the placement of the joint block-out, the Contractor shall coordinate with the Modular Joint Manufacturer to ensure that the joint will be properly supported and that the reinforcement bars and structural steel members will not interfere with the joint components. Any necessary adjustments to the reinforcement layout shall be submitted to the Engineer for approval.
 20. The Contractor is alerted that camber and dead load deflection values shown on the girder detail drawings were developed based on the deck pouring sequence shown in the Contract Drawings. Any deviation from this pouring sequence will result in changes to camber and elevations that reflect dead load deflections. If the Contractor wishes to change the sequence, then the proposed plan revisions and design calculations shall be submitted to the Engineer for review and approval. The calculations shall be prepared and sealed by a Licensed Structural Engineer in Illinois.

PAINING NOTES

1. The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The 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 Gray, Munsell No. 5B 7/1.
2. Expansion Joints - The steel girders and all structural steel within 10'-0" from the bridge expansion joints shall be metallized in the shop and Paint System 2 shall be applied according to the special provision "Metallizing of Structural Steel". All cross frame members within these limits shall be hot-dip galvanized and painted according to the special provision "Hot Dip Galvanizing for Structural Steel". Faying surfaces and areas of the girder top flange where stud shear connectors are to be field welded should be masked off before the paint system is applied.

TOTAL BILL OF MATERIAL

| ITEM | UNIT | SUPER | SUB | TOTAL |
|--|---------|---------|---------|---------|
| Removal of Existing Structures | Each | - | - | 1 |
| Protective Shield | Sq. Yd. | - | - | 7,739 |
| Structure Excavation | Cu. Yd. | - | 1,107 | 1,107 |
| Concrete Structures | Cu. Yd. | - | 975.2 | 975.2 |
| Concrete Superstructure | Cu. Yd. | 2,419.4 | - | 2,419.4 |
| Bridge Deck Grooving | Sq. Yd. | 7,424 | - | 7,424 |
| Concrete Encasement | Cu. Yd. | - | 16.4 | 16.4 |
| Protective Coat | Sq. Yd. | 9,580 | - | 9,580 |
| Concrete Superstructure (Approach Slab) | Cu. Yd. | 152.2 | - | 152.2 |
| Furnishing and Erecting Structural Steel | L. Sum | 1 | - | 1 |
| Stud Shear Connectors | Each | 12,228 | - | 12,228 |
| Reinforcement Bars, Epoxy Coated | Pound | 748,570 | 133,490 | 882,060 |
| Bar Splicers | Each | - | 108 | 108 |
| Slope Wall, 4 Inch | Sq. Yd. | - | 2,031 | 2,031 |
| Furnishing Steel Piles HP14x117 | Foot | - | 6,791 | 6,791 |
| Driving Piles | Foot | - | 6,791 | 6,791 |
| Test Pile Steel HP14x117 | Each | - | 2 | 2 |
| Pile Shoes | Each | - | 54 | 54 |
| Name Plates | Each | 1 | - | 1 |
| Anchor Bolts, 1 1/2" | Each | 120 | - | 120 |
| Temporary Soil Retention System | Sq. Ft. | - | - | 732 |
| Concrete Sealer | Sq. Ft. | - | 2,295 | 2,295 |
| Geocomposite Wall Drain | Sq. Yd. | - | 692 | 692 |
| Drainage Scuppers, DS-11 | Each | 15 | - | 15 |
| Drainage System | L. Sum | 1 | - | 1 |
| Modular Expansion Joint, 12" | Foot | 52 | - | 52 |
| Modular Expansion Joint, 16" | Foot | 52 | - | 52 |
| Pipe Underdrains for Structures, 4" | Foot | - | 89 | 89 |
| Furnishing Metal Large Diameter Pipe Piles, 48" x 3/4" | Foot | - | 2,254 | 2,254 |
| Driving Large Diameter Pipe Piles | Foot | - | 2,254 | 2,254 |
| Pile Shoes Large Diameter Pipe | Each | - | 16 | 16 |
| High Load Multi-Rotational Bearings, Guided Expansion, 400 k | Each | 6 | - | 6 |
| High Load Multi-Rotational Bearings, Guided Expansion, 500 k | Each | 6 | - | 6 |
| High Load Multi-Rotational Bearings, Fixed, 900 k | Each | 6 | - | 6 |
| High Load Multi-Rotational Bearings, Fixed, 1000 k | Each | 18 | - | 18 |
| Granular Backfill for Structures | Cu. Yd. | - | 223.8 | 223.8 |

3. Field Sections over Railroads and I-55SB/64WB - The Organic Zinc Rich Primer / Epoxy / Urethane Paint System shall be used for painting of new structural steel over the various railroads and I-55SB/64WB. This includes all structural steel between field splices 3 and 5 and between field splices 8 and 10. The respective field splices are also included. The entire system shall be shop applied, with the exception of the exterior surface and the bottom of the bottom flange of fascia beams, 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 Gray, Munsell No. 5B 7/1.
4. Large Diameter Pipe Pile - The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for field painting of exposed surfaces of large diameter pipe pile and shall extend a minimum of 3 feet below finished grade. Surfaces shall comply with SSPC-SP10, Near-White Blast Cleaning at the time of painting. The color of the final finish coat shall be Gray, Munsell No. 5B 7/1.

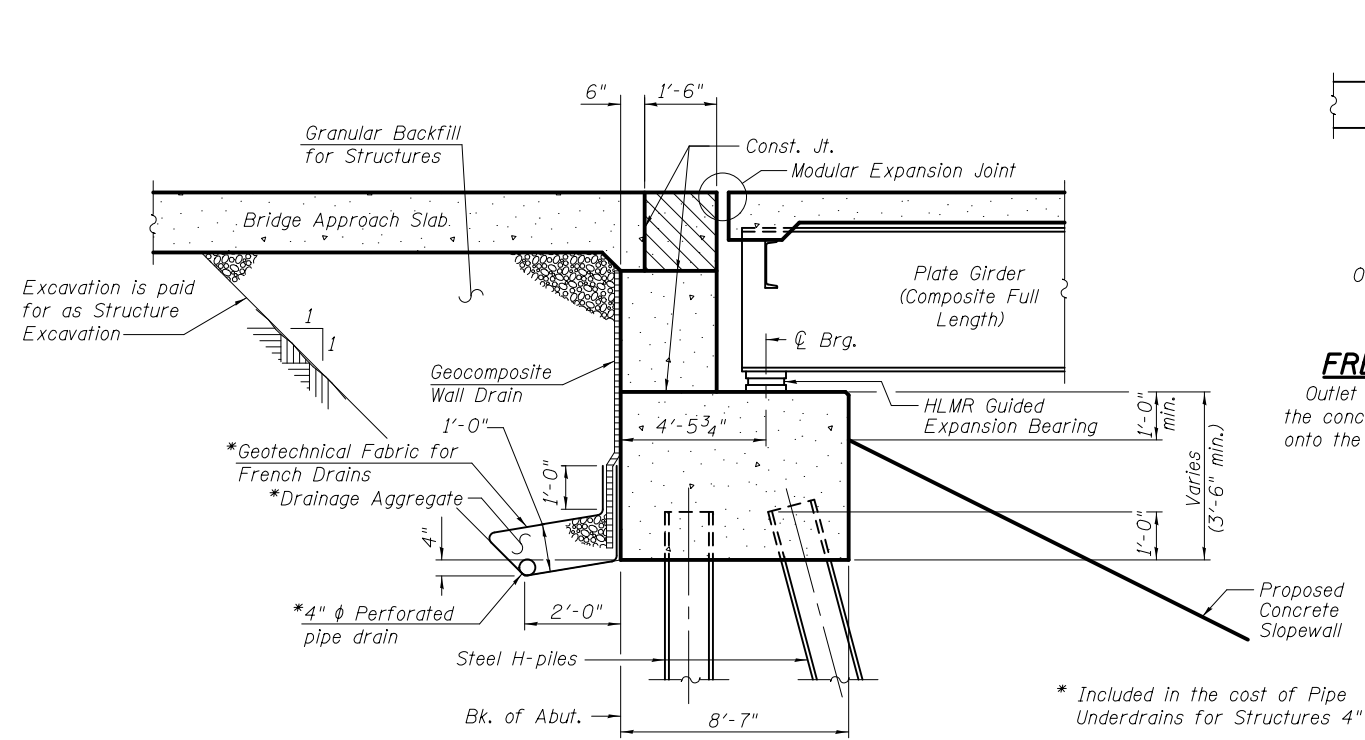


| | | |
|-----------------------|----------------|---------|
| USER NAME = | DESIGNED - MJP | REVISED |
| | CHECKED - JMH | REVISED |
| PLOT SCALE = | DRAWN - AEC | REVISED |
| PLOT DATE = 3/12/2018 | CHECKED - JMH | REVISED |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

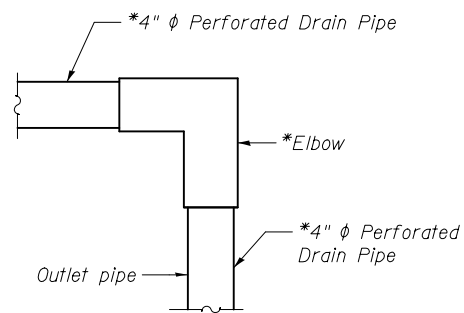
**GENERAL STRUCTURE DATA
S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB/64WB**

| | | | | |
|---------------------------|---------|-----------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | 1BR-1-1 | ST. CLAIR | 315 | 147 |
| CONTRACT NO. 76G39 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |



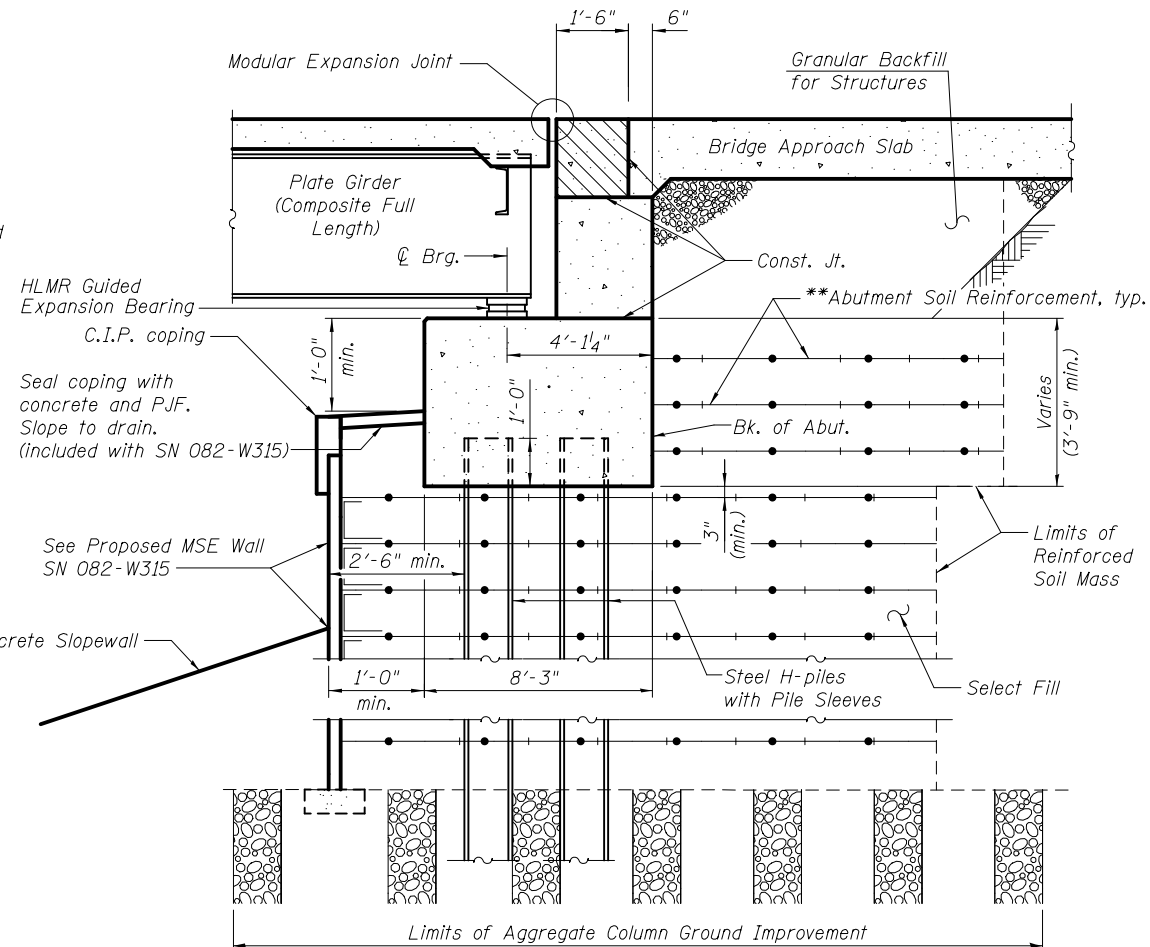
SECTION THRU WEST ABUTMENT

Perforated pipe drain shall penetrate through each wingwall and extend 2'-0" from the wingwall face to the French Drain Outlet.



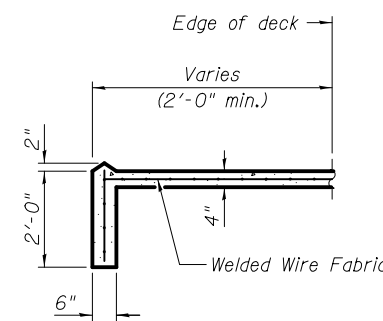
FRENCH DRAIN OUTLET

Outlet pipes shall extend until intersecting the concrete slopewall. The pipes shall drain onto the concrete slopewall.

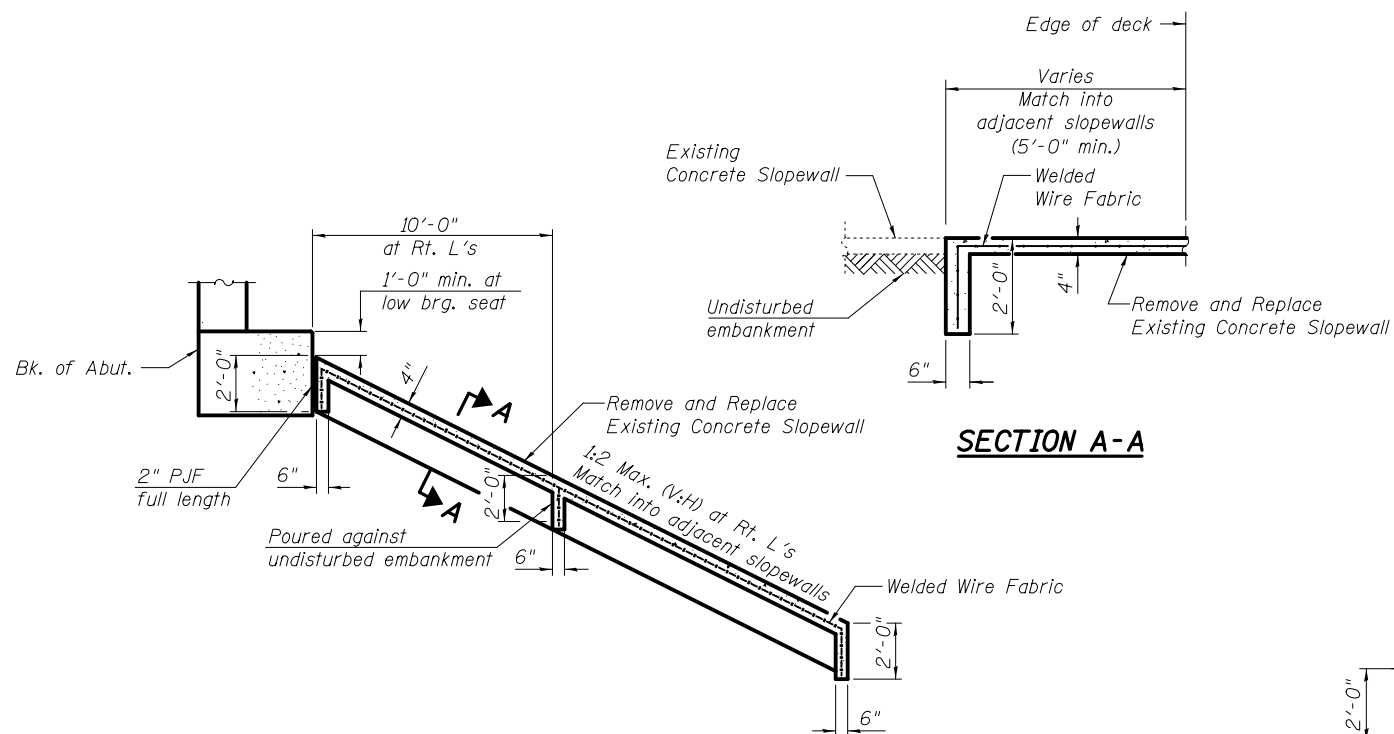


SECTION THRU EAST ABUTMENT

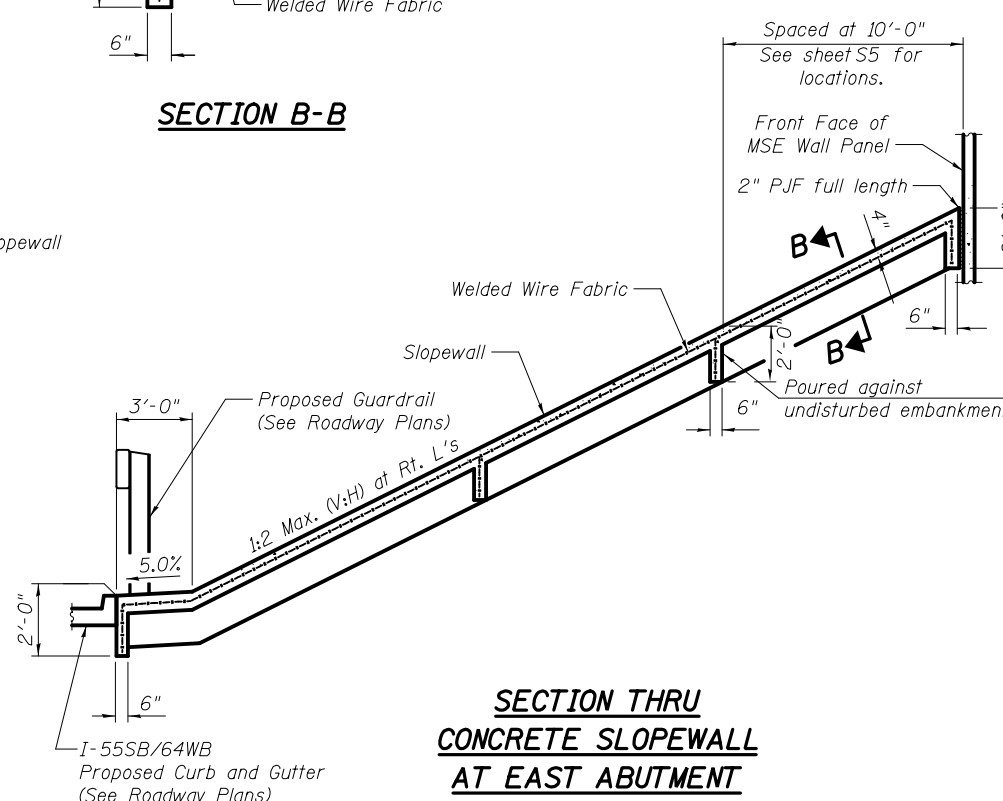
** The M.S.E. wall supplier shall design the abutment soil reinforcement to resist a horizontal force of 7.4 kips/ft. of abutment. Cost shall be included with "Mechanically Stabilized Earth Retaining Wall".



SECTION B-B



SECTION THRU CONCRETE SLOPEWALL AT WEST ABUTMENT



SECTION THRU CONCRETE SLOPEWALL AT EAST ABUTMENT

BILL OF MATERIAL

| Item | Unit | Total |
|-------------------|---------|-------|
| Slope Wall 4 Inch | Sq. Yd. | 2,031 |

Notes:
 See sheet S5 for additional slopewall details.
 See SN 082-W315 for MSE Wall configuration and details.
 Slopewall shall be reinforced with welded wire fabric, 6" x 6" - W4.0, weighing 58 lbs. per 100 sq. ft. Cost of the mesh is included in the cost of slopewall.



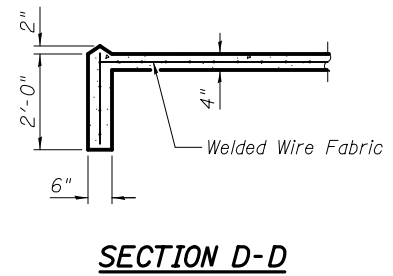
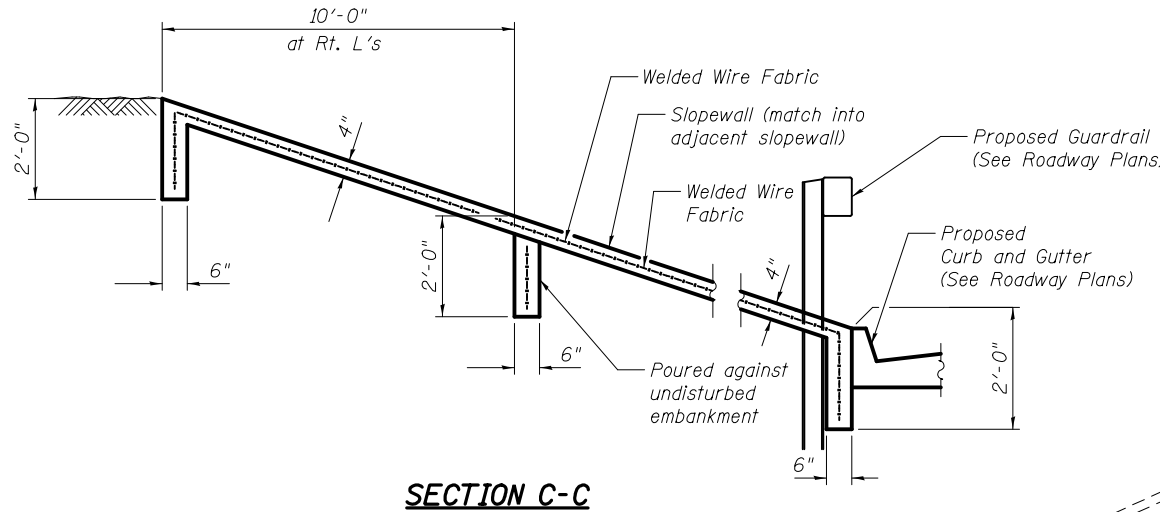
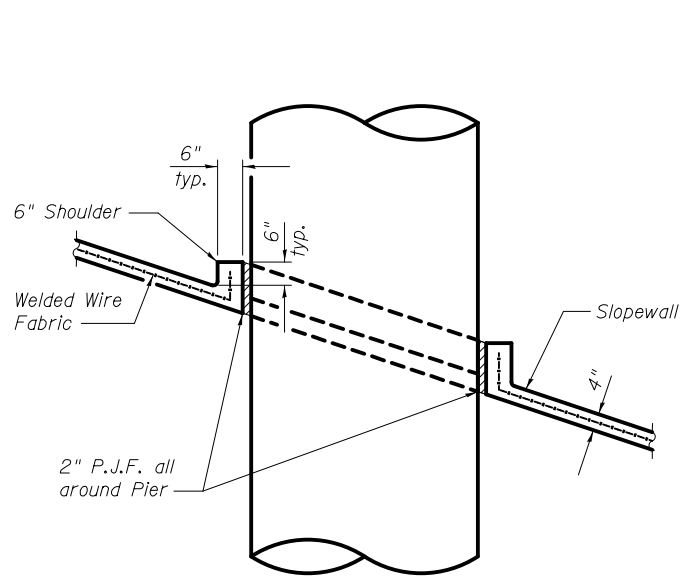
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| USER NAME = | DESIGNED - MJP | REVISED |
| | CHECKED - LNB | REVISED |
| PLOT SCALE = | DRAWN - AEC | REVISED |
| PLOT DATE = 3/12/2018 | CHECKED - MJP | REVISED |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

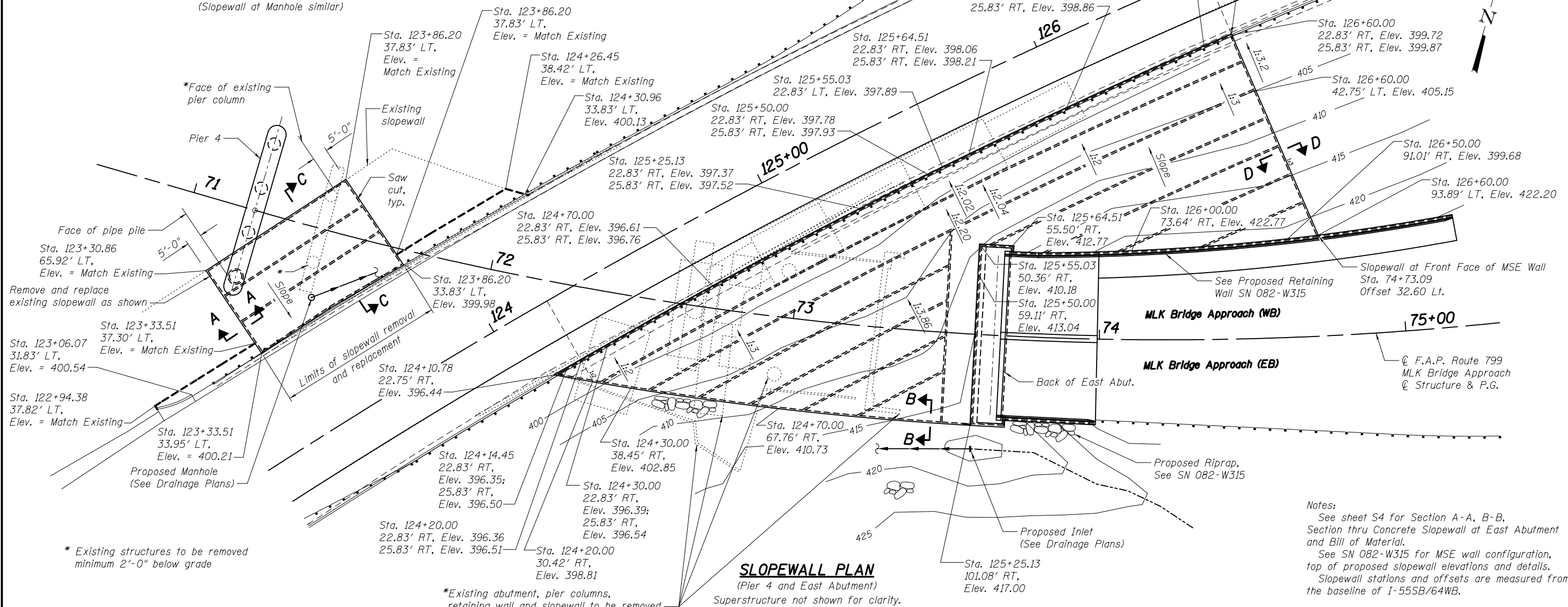
GENERAL DETAILS - 1
 S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
 VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB/64WB
 SHEET NO. S4 OF S77 SHEETS

| | | | | |
|--------------------|---------|-----------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | IBR-1-1 | ST. CLAIR | 315 | 148 |
| CONTRACT NO. 76G39 | | | | |

ILLINOIS FED. AID PROJECT



SLOPEWALL AT PIER 4 PIPE PILE
(Slopewall at Manhole similar)



* Existing structures to be removed minimum 2'-0" below grade

* Existing abutment, pier columns, retaining wall and slopewall to be removed

SLOPEWALL PLAN
(Pier 4 and East Abutment)
Superstructure not shown for clarity.

Notes:
See sheet S4 for Section A-A, B-B, Section thru Concrete Slopewall at East Abutment and Bill of Material.
See SN 082-W315 for MSE wall configuration, top of proposed slopewall elevations and details.
Slopewall stations and offsets are measured from the baseline of I-55SB/64WB.

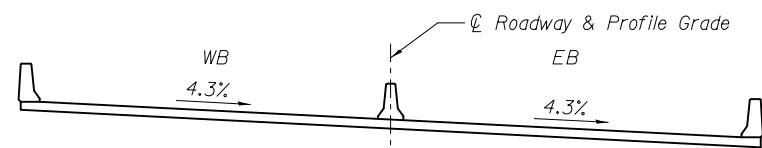


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|-----------------------|----------------|---------|
| USER NAME = | DESIGNED - MJP | REVISED |
| | CHECKED - LNB | REVISED |
| PLOT SCALE = | DRAWN - PRC | REVISED |
| PLOT DATE = 3/12/2018 | CHECKED - MJP | REVISED |

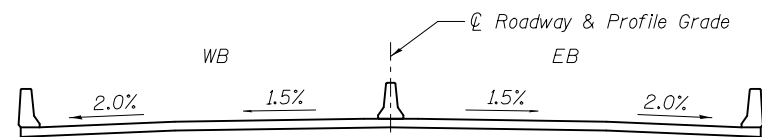
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL DETAILS - 2
S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB/64WB
SHEET NO. 55 OF 577 SHEETS

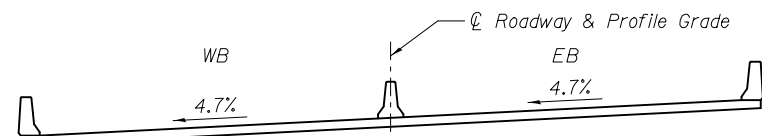
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| F.A.P. RTE. 799 | SECTION 1BR-1-1 | COUNTY ST. CLAIR | TOTAL SHEETS 315 | SHEET NO. 149 |
| CONTRACT NO. 76G39 | | | ILLINOIS FED. AID PROJECT | |



STA. 60+50.32



STA. 61+87.32 TO STA. 70+23.02

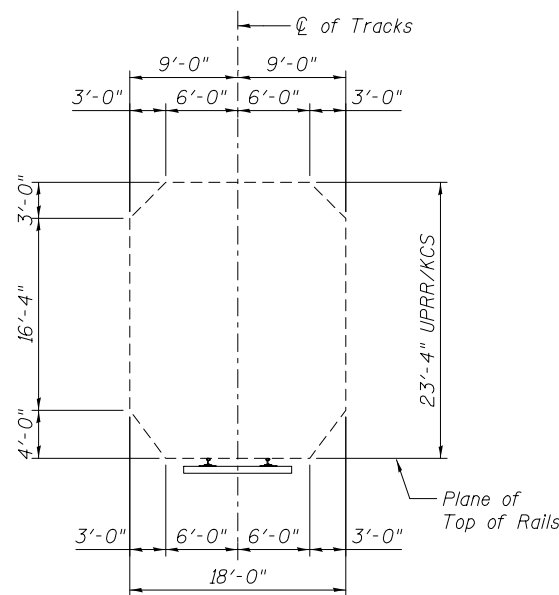


STA. 71+53.02 TO STA. 77+84.10

SUPERELEVATION TRANSITION

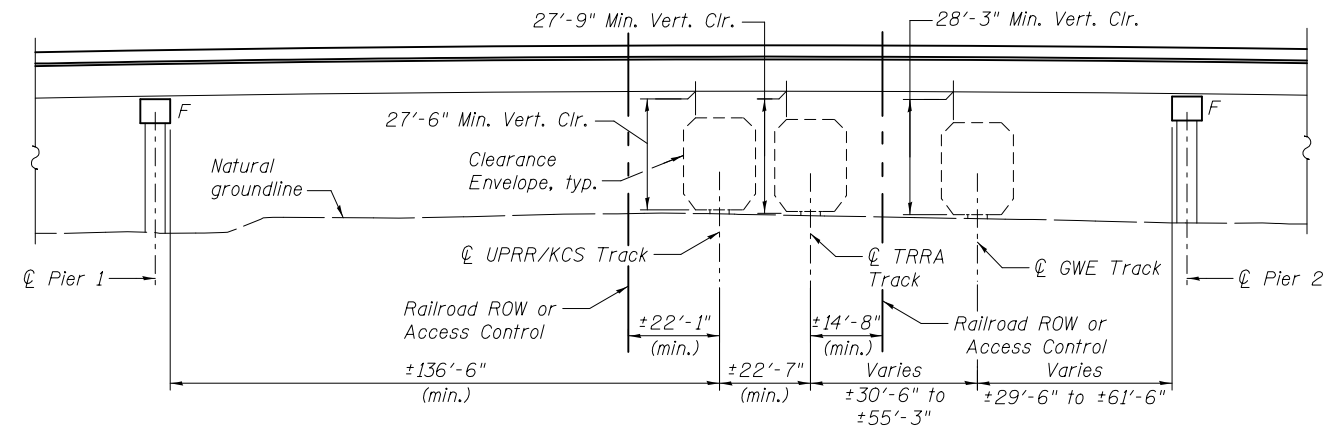
(Looking East)

(See Roadway Plans for additional transition details.)



**MINIMUM RAILWAY
BRIDGE CLEARANCE ENVELOPE**

(Tangent track)



PART ELEVATION - RR TRACK CLEARANCE

(Looking North, Span 2)

UPRR/KCS M.P. 280.98
UPRR/KCS Sta. 14690+04.51 =
MLK Bridge Approach Sta. 64+87.74

| | |
|------------------|--------------|
| Sta. 14681+00.00 | Elev. 418.65 |
| Sta. 14682+00.00 | Elev. 418.80 |
| Sta. 14683+00.00 | Elev. 418.81 |
| Sta. 14684+00.00 | Elev. 418.98 |
| Sta. 14685+00.00 | Elev. 419.48 |
| Sta. 14686+00.00 | Elev. 419.64 |
| Sta. 14687+00.00 | Elev. 419.59 |
| Sta. 14688+00.00 | Elev. 419.71 |
| Sta. 14689+00.00 | Elev. 419.80 |
| Sta. 14690+00.00 | Elev. 419.93 |
| Sta. 14691+00.00 | Elev. 420.05 |
| Sta. 14692+00.00 | Elev. 420.37 |
| Sta. 14693+00.00 | Elev. 421.27 |
| Sta. 14694+00.00 | Elev. 422.37 |
| Sta. 14695+00.00 | Elev. 423.49 |
| Sta. 14696+00.00 | Elev. 424.69 |
| Sta. 14697+00.00 | Elev. 425.75 |
| Sta. 14698+00.00 | Elev. 426.73 |
| Sta. 14699+00.00 | Elev. 426.67 |
| Sta. 14700+00.00 | Elev. 426.91 |
| Sta. 14701+00.00 | Elev. 426.93 |

PROFILE GRADE - UPRR/KCS

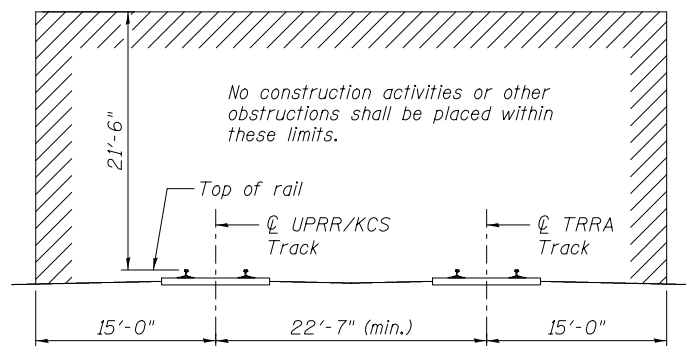
Note: Stations increase from north to south.

TRRA M.P. 74.00
TRRA Sta. 14690+04.11 =
MLK Bridge Approach Sta. 65+10.56

| | |
|------------------|--------------|
| Sta. 14681+00.00 | Elev. 418.61 |
| Sta. 14682+00.00 | Elev. 418.76 |
| Sta. 14683+00.00 | Elev. 418.70 |
| Sta. 14684+00.00 | Elev. 418.80 |
| Sta. 14685+00.00 | Elev. 419.00 |
| Sta. 14686+00.00 | Elev. 419.00 |
| Sta. 14687+00.00 | Elev. 419.10 |
| Sta. 14688+00.00 | Elev. 419.40 |
| Sta. 14689+00.00 | Elev. 419.58 |
| Sta. 14690+00.00 | Elev. 419.69 |
| Sta. 14691+00.00 | Elev. 419.94 |
| Sta. 14692+00.00 | Elev. 420.48 |
| Sta. 14693+00.00 | Elev. 421.38 |
| Sta. 14694+00.00 | Elev. 422.33 |
| Sta. 14695+00.00 | Elev. 423.53 |
| Sta. 14696+00.00 | Elev. 424.60 |
| Sta. 14697+00.00 | Elev. 425.60 |
| Sta. 14698+00.00 | Elev. 426.41 |
| Sta. 14699+00.00 | Elev. 426.66 |
| Sta. 14700+00.00 | Elev. 426.49 |
| Sta. 14701+00.00 | Elev. 426.47 |

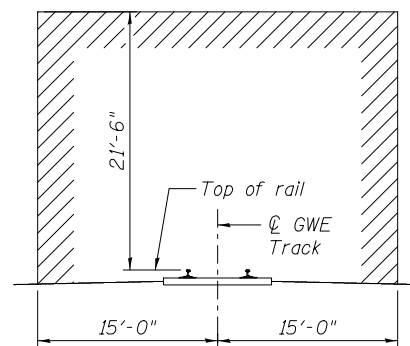
PROFILE GRADE - TRRA

Note: Stations increase from north to south.



**UPRR/KCS AND TRRA
CONSTRUCTION CLEARANCE DIAGRAM**

(Horizontal dimension at Rt. L's to CL tracks)



**GWE TRACK
CONSTRUCTION CLEARANCE DIAGRAM**

(Horizontal dimension at Rt. L's to CL tracks)

TRRA Sta. 14692+26.25 =
GWE Track Sta. 20+00.00

GWE Track Sta. 17+70.29 =
MLK Bridge Approach Sta. 65+52.30

| | |
|---------------|--------------|
| Sta. 8+00.00 | Elev. 416.50 |
| Sta. 9+00.00 | Elev. 416.37 |
| Sta. 10+00.00 | Elev. 416.46 |
| Sta. 11+00.00 | Elev. 416.45 |
| Sta. 12+00.00 | Elev. 416.71 |
| Sta. 13+00.00 | Elev. 417.03 |
| Sta. 14+00.00 | Elev. 417.29 |
| Sta. 15+00.00 | Elev. 417.61 |
| Sta. 16+00.00 | Elev. 418.01 |
| Sta. 17+00.00 | Elev. 418.04 |
| Sta. 18+00.00 | Elev. 418.80 |
| Sta. 19+00.00 | Elev. 420.08 |
| Sta. 20+00.00 | Elev. 420.48 |

PROFILE GRADE - GWE TRACK

Note: Stations increase from north to south.



USER NAME =
DESIGNED - JMH
CHECKED - ACK
PLOT SCALE =
DRAWN - PRC
PLOT DATE = 3/12/2018
CHECKED - JMH
REVISED

DESIGNED - JMH
CHECKED - ACK
DRAWN - PRC
CHECKED - JMH
REVISED

DESIGNED - JMH
CHECKED - ACK
DRAWN - PRC
CHECKED - JMH
REVISED

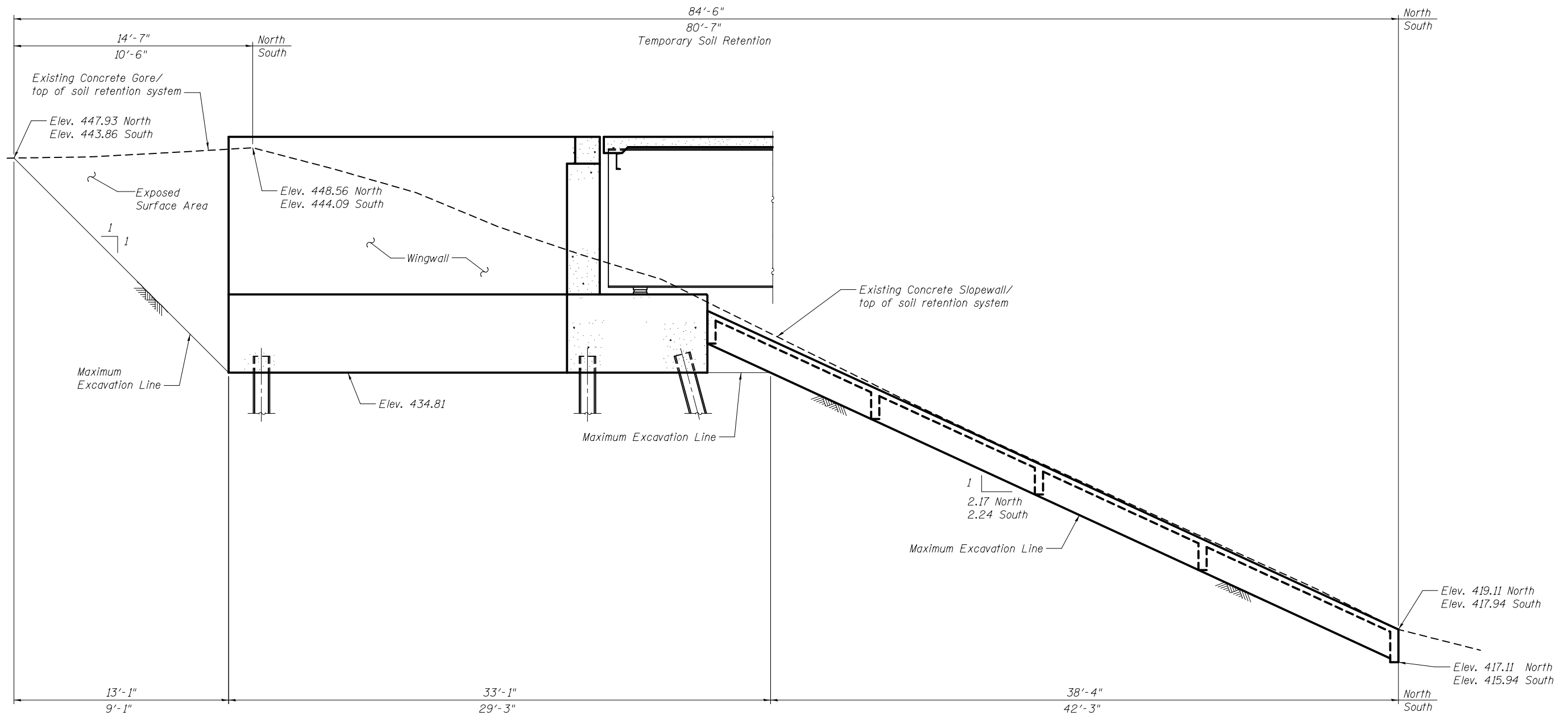
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

GENERAL DETAILS - 3
**S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB/64WB**

SHEET NO. 56 OF 577 SHEETS

| | | | | |
|--------------------|---------|-----------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | 1BR-1-1 | ST. CLAIR | 315 | 150 |
| CONTRACT NO. 76C39 | | | | |

ILLINOIS FED. AID PROJECT



BILL OF MATERIAL

| Item | Unit | Total |
|---------------------------------|---------|-------|
| Temporary Soil Retention System | Sq. Ft. | 732 |

**TEMPORARY SOIL RETENTION SYSTEM
WEST ABUTMENT**

Note:
A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer. Temporary soil retention systems required north and south of the proposed west abutment. For locations, see sheet S1.



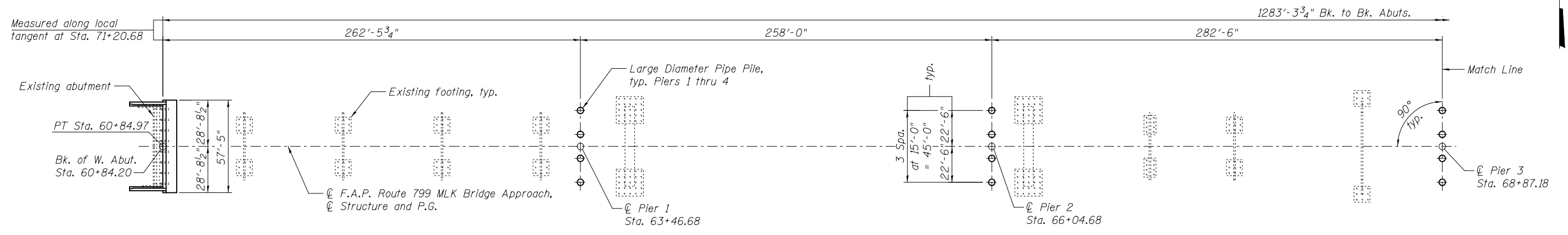
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| | CHECKED - MJP | REVISED |
| PLOT SCALE = | DRAWN - PRC | REVISED |
| PLOT DATE = 3/12/2018 | CHECKED - JMH | REVISED |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

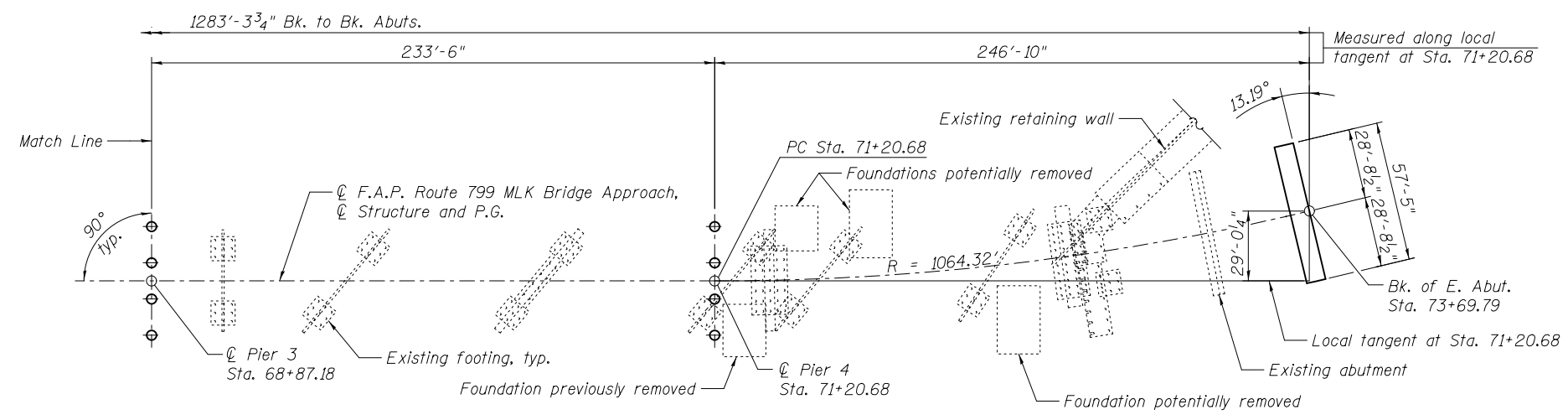
**TEMPORARY SOIL RETENTION
S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB/64WB**

SHEET NO. S7 OF S77 SHEETS

| | | | | |
|---------------------------|---------|-----------|--------------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | 1BR-1-1 | ST. CLAIR | 315 | 151 |
| ILLINOIS FED. AID PROJECT | | | CONTRACT NO. 76G39 | |



PARTIAL FOOTING LAYOUT



PARTIAL FOOTING LAYOUT



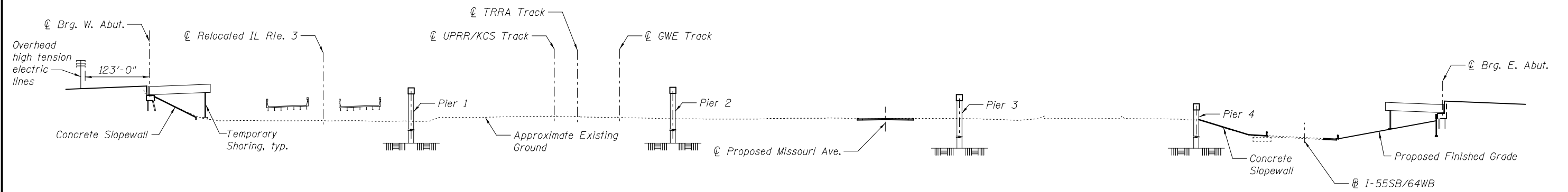
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| | CHECKED - MJP | REVISED |
| PLOT SCALE = | DRAWN - PRC | REVISED |
| PLOT DATE = 3/12/2018 | CHECKED - LNB | REVISED |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

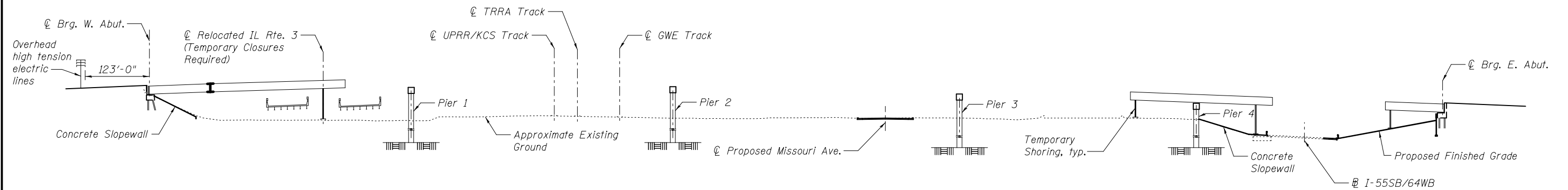
SUBSTRUCTURE LAYOUT
S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB64WB

SHEET NO. 58 OF 577 SHEETS

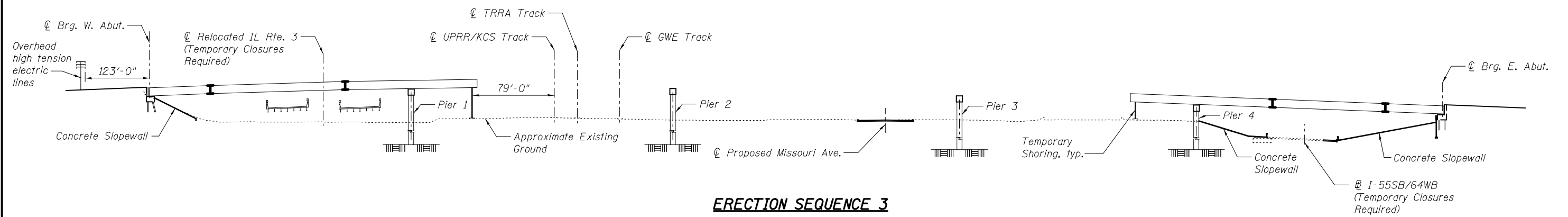
| | | | | |
|--------------------|-----------------|------------------|------------------|---------------------------|
| F.A.P. RTE. 799 | SECTION 1BR-1-1 | COUNTY ST. CLAIR | TOTAL SHEETS 315 | SHEET NO. 152 |
| CONTRACT NO. 76G39 | | | | ILLINOIS FED. AID PROJECT |



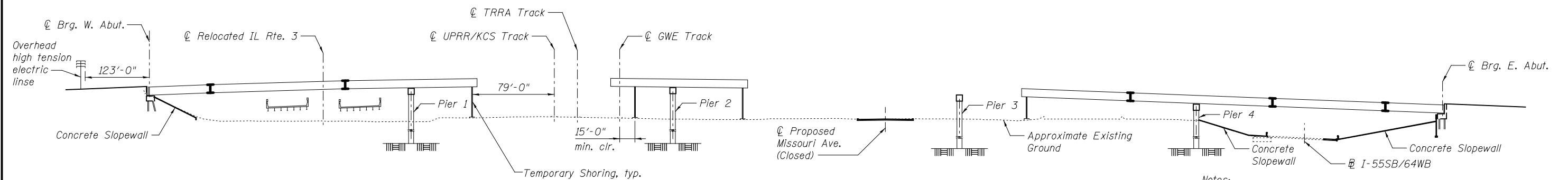
ERECTION SEQUENCE 1



ERECTION SEQUENCE 2



ERECTION SEQUENCE 3



ERECTION SEQUENCE 4

Notes:
 Erection sequence and temporary shoring locations shown are suggested and may be modified at the Contractor's discretion. The sequence and shoring placement shown does not relieve the Contractor of the requirement to submit a steel erection plan prepared and sealed by a Licensed Structural Engineer in Illinois.
 Elevation view shown is along the centerline of the structure.
 Clearances shown are measured along the centerline, except for GWE Track clearance which is a minimum throughout the project limits.
 Temporary closures shown are required for erecting girders over the roadway.
 A portion of Missouri Avenue will be closed during erection sequence 4 and remain closed until after erection sequence 7.



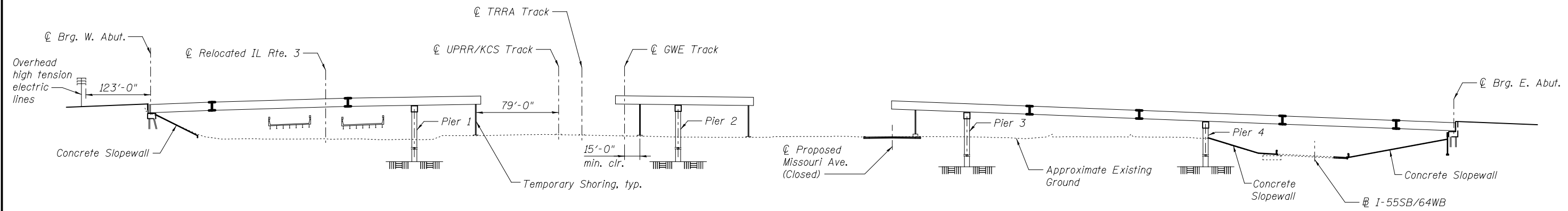
| | | |
|-----------------------|----------------|---------|
| USER NAME = | DESIGNED - ZJB | REVISED |
| | CHECKED - YSS | REVISED |
| PLOT SCALE = | DRAWN - AEC | REVISED |
| PLOT DATE = 3/12/2018 | CHECKED - ZJB | REVISED |

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

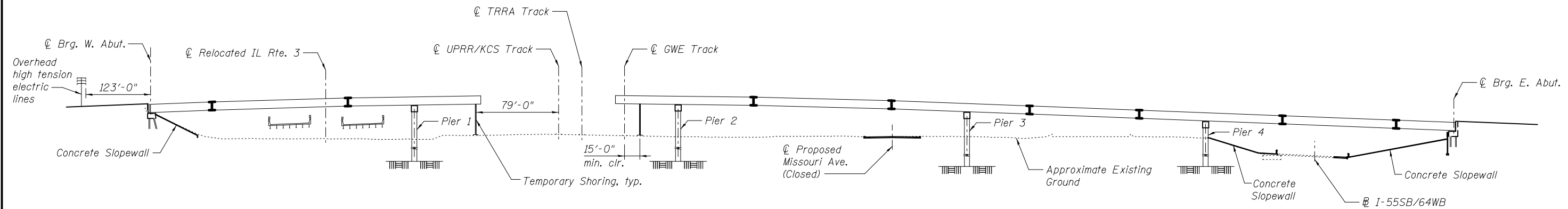
SUGGESTED ERECTION SEQUENCE - 1
 S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
 VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB/64WB

SHEET NO. 59 OF 577 SHEETS

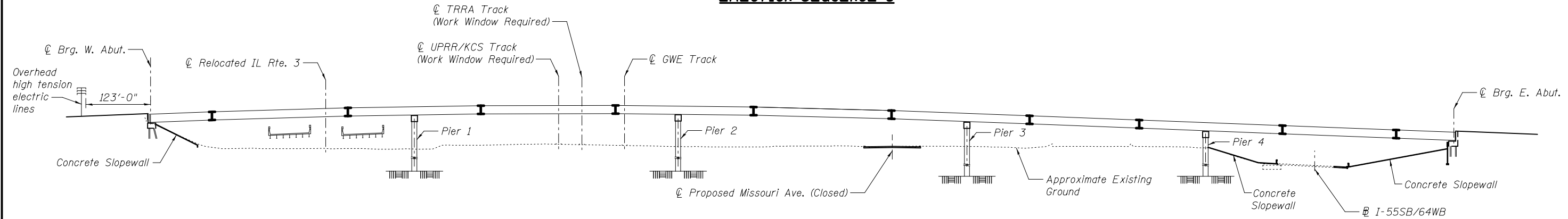
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|---------------------------|---------|-----------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | 1BR-1-1 | ST. CLAIR | 315 | 153 |
| CONTRACT NO. 76C39 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |



ERECTION SEQUENCE 5



ERECTION SEQUENCE 6



ERECTION SEQUENCE 7

Notes:
 Erection sequence and temporary shoring locations shown are suggested and may be modified at the Contractor's discretion. The sequence and shoring placement shown does not relieve the Contractor of the requirement to submit a steel erection plan prepared and sealed by a Licensed Structural Engineer in Illinois.
 Elevation view shown is along the centerline of the structure.
 Clearances shown are measured along the centerline, except for GWE Track clearance which is a minimum throughout the project limits.
 Temporary closures shown are required for erecting girders over the roadway.
 A portion of Missouri Avenue will be closed during erection sequence 4 and remain closed until after erection sequence 7.



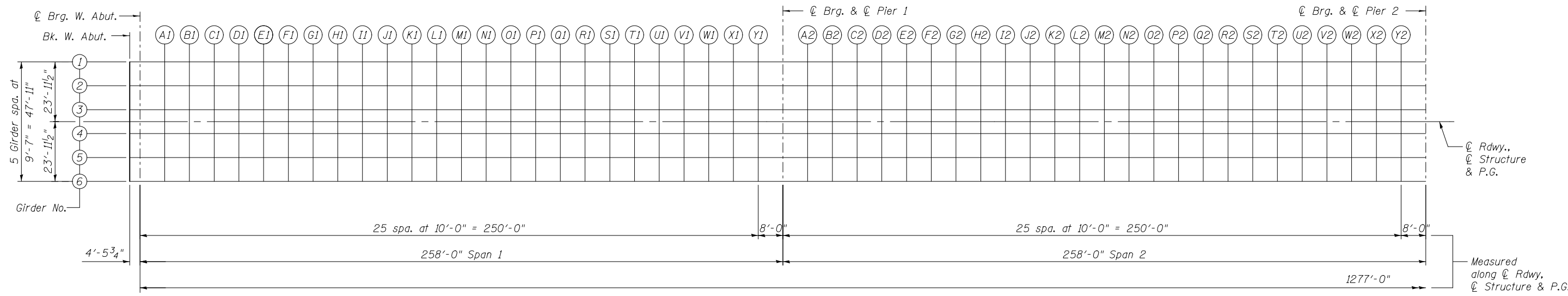
| | | |
|-----------------------|----------------|---------|
| USER NAME = | DESIGNED - ZJB | REVISED |
| | CHECKED - YSS | REVISED |
| PLOT SCALE = | DRAWN - AEC | REVISED |
| PLOT DATE = 3/12/2018 | CHECKED - ZJB | REVISED |

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

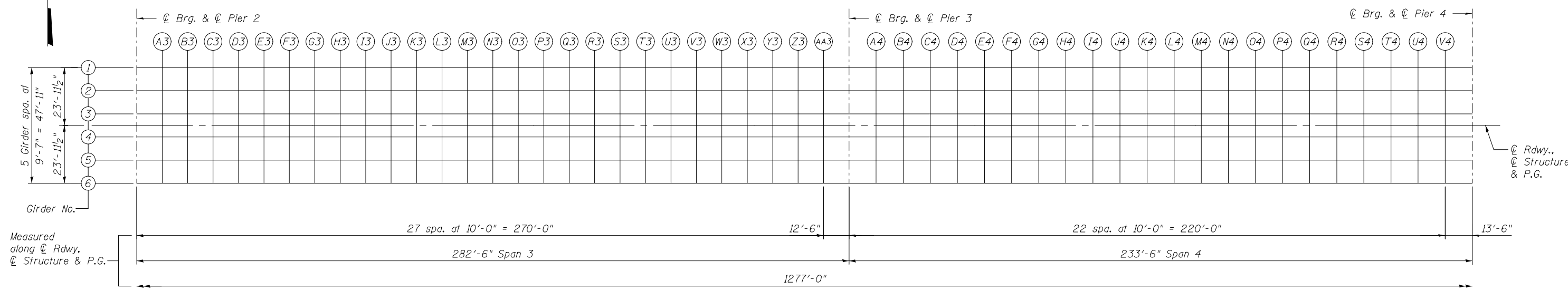
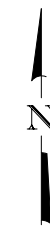
SUGGESTED ERECTION SEQUENCE - 2
**S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
 VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB/64WB**

| | | | | |
|---------------------------|---------|-----------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | IBR-1-1 | ST. CLAIR | 315 | 154 |
| CONTRACT NO. 76G39 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

SHEET NO. S10 OF S77 SHEETS



PART PLAN - SPANS 1 AND 2



PART PLAN - SPANS 3 AND 4



| | | |
|-----------------------|----------------|---------|
| USER NAME = | DESIGNED - MJP | REVISED |
| | CHECKED - LNB | REVISED |
| PLOT SCALE = | DRAWN - PRC | REVISED |
| PLOT DATE = 3/12/2018 | CHECKED - MJP | REVISED |

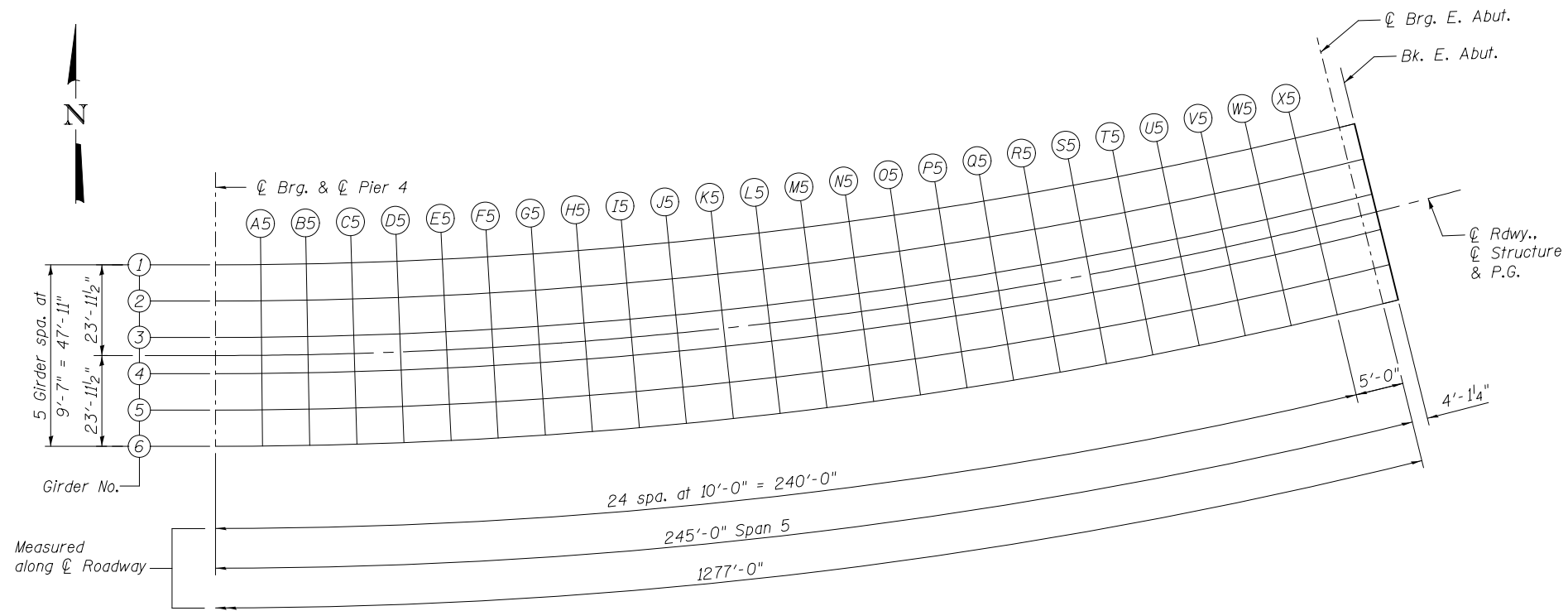
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TOP OF SLAB ELEVATIONS - 1
S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB64WB

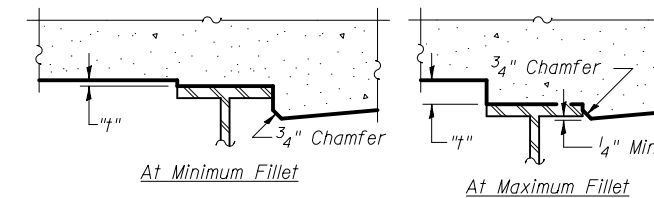
| | | | | |
|--------------------|---------|-----------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | 1BR-1-1 | ST. CLAIR | 315 | 155 |
| CONTRACT NO. 76G39 | | | | |

SHEET NO. S11 OF S77 SHEETS

ILLINOIS FED. AID PROJECT



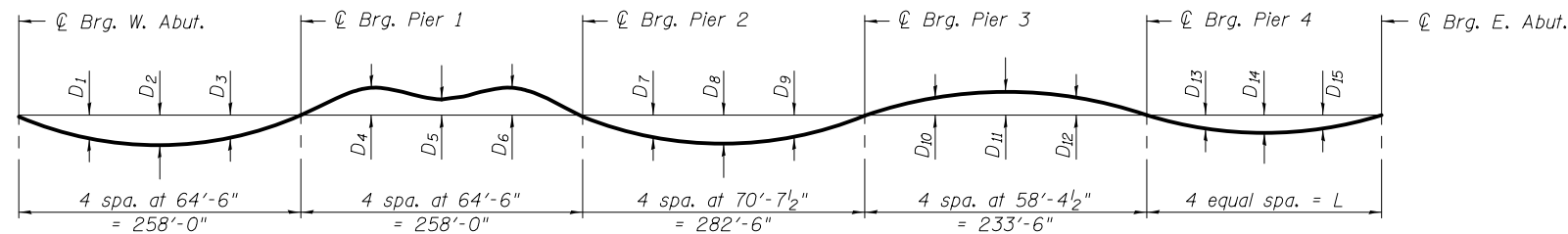
PART PLAN - SPAN 5



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown on sheets S11 and S12. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheets S13 thru S17, minus slab thickness, equals the fillet heights "t" above top flange of beams.

"Theoretical Grade Elevations Adjusted For Dead Load Deflection" shown on sheets S13 thru S17 are based on the pour sequence shown sheet S25. Deviation from this pouring sequence will alter the elevations shown.

FILLET HEIGHTS



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)
(Girder 6 diagram shown)

Notes:

The dead load deflections are not to be used in the field if the Engineer is working from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" as shown on sheets S13 and S17.

Dead load deflections are based on the pour sequence shown on sheet S25. Deviation from this pouring sequence will alter the deflection ordinates shown.

See sheet S38 for dimension "L".

TABLE OF "D" DIMENSIONS

| Girder | D ₁ | D ₂ | D ₃ | D ₄ | D ₅ | D ₆ | D ₇ | D ₈ | D ₉ | D ₁₀ | D ₁₁ | D ₁₂ | D ₁₃ | D ₁₄ | D ₁₅ |
|--------|---------------------------------|---------------------------------|---------------------------------|----------------------------------|----------------------------------|----------------------------------|---------------------------------|---------------------------------|---------------------------------|----------------------------------|----------------------------------|----------------------------------|---------------------------------|---------------------------------|---------------------------------|
| 1 | 6 ⁵ / ₈ " | 8 ³ / ₈ " | 4 ³ / ₄ " | -5 ⁸ / ₈ " | 1 ⁸ / ₈ " | -1 ⁴ / ₈ " | 4 ³ / ₈ " | 7 ¹ / ₈ " | 4 ¹ / ₂ " | -3 ⁸ / ₈ " | 1 ⁸ / ₈ " | 0" | 2 ¹ / ₄ " | 4" | 3 ¹ / ₄ " |
| 2 | 6 ⁵ / ₈ " | 8 ³ / ₈ " | 4 ⁷ / ₈ " | -5 ⁸ / ₈ " | 1 ⁸ / ₈ " | -1 ⁴ / ₈ " | 4 ¹ / ₂ " | 7 ³ / ₈ " | 4 ⁵ / ₈ " | -5 ⁸ / ₈ " | -1 ⁴ / ₈ " | -3 ⁸ / ₈ " | 2 ⁷ / ₈ " | 5 ¹ / ₈ " | 4" |
| 3 | 6 ⁵ / ₈ " | 8 ¹ / ₂ " | 4 ⁷ / ₈ " | -5 ⁸ / ₈ " | 1 ⁸ / ₈ " | -1 ⁴ / ₈ " | 4 ¹ / ₂ " | 7 ¹ / ₂ " | 4 ⁷ / ₈ " | -7 ⁸ / ₈ " | -5 ⁸ / ₈ " | -3 ⁴ / ₈ " | 3 ¹ / ₂ " | 6 ¹ / ₈ " | 4 ⁷ / ₈ " |
| 4 | 6 ⁵ / ₈ " | 8 ¹ / ₂ " | 4 ⁷ / ₈ " | -5 ⁸ / ₈ " | 0" | -3 ⁸ / ₈ " | 4 ⁵ / ₈ " | 7 ⁵ / ₈ " | 5" | -1 | -1 | -1 | 4 ⁸ / ₈ " | 7 ¹ / ₄ " | 5 ³ / ₄ " |
| 5 | 6 ⁵ / ₈ " | 8 ¹ / ₂ " | 4 ⁷ / ₈ " | -5 ⁸ / ₈ " | 0" | -3 ⁸ / ₈ " | 4 ³ / ₄ " | 7 ³ / ₄ " | 5 ¹ / ₈ " | -1 ¹ / ₄ " | -1 ³ / ₈ " | -1 ³ / ₈ " | 4 ³ / ₄ " | 8 ³ / ₈ " | 6 ⁵ / ₈ " |
| 6 | 6 ⁵ / ₈ " | 8 ³ / ₈ " | 4 ⁷ / ₈ " | -3 ⁴ / ₈ " | -1 ⁸ / ₈ " | -1 ² / ₈ " | 4 ³ / ₄ " | 7 ⁷ / ₈ " | 5 ¹ / ₄ " | -1 ¹ / ₂ " | -1 ³ / ₄ " | -1 ³ / ₄ " | 5 ¹ / ₂ " | 9 ⁵ / ₈ " | 7 ¹ / ₂ " |



| | | |
|-----------------------|----------------|---------|
| USER NAME = | DESIGNED - LNB | REVISED |
| | CHECKED - MJP | REVISED |
| PLOT SCALE = | DRAWN - AEC | REVISED |
| PLOT DATE = 3/12/2018 | CHECKED - LNB | REVISED |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS - 2
S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB/64WB

SHEET NO. S12 OF S77 SHEETS

| | | | | |
|--------------------|-----------------|------------------|---------------------------|---------------|
| F.A.P. RTE. 799 | SECTION 1BR-1-1 | COUNTY ST. CLAIR | TOTAL SHEETS 315 | SHEET NO. 156 |
| CONTRACT NO. 76C39 | | | ILLINOIS FED. AID PROJECT | |

GIRDER 1

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|-----------------|----------|--------|------------------------------|--|
| Bk. W. Abut. | 60+84.20 | -23.96 | 449.18 | 449.18 |
| ⊕ Brg. W. Abut. | 60+88.68 | -23.96 | 449.30 | 449.30 |
| A1 | 60+98.68 | -23.96 | 449.59 | 449.69 |
| B1 | 61+08.68 | -23.96 | 449.87 | 450.07 |
| C1 | 61+18.68 | -23.96 | 450.16 | 450.44 |
| D1 | 61+28.68 | -23.96 | 450.44 | 450.81 |
| E1 | 61+38.68 | -23.96 | 450.72 | 451.17 |
| F1 | 61+48.68 | -23.96 | 450.98 | 451.50 |
| G1 | 61+58.68 | -23.96 | 451.24 | 451.82 |
| H1 | 61+68.68 | -23.96 | 451.48 | 452.11 |
| I1 | 61+78.68 | -23.96 | 451.71 | 452.38 |
| J1 | 61+88.68 | -23.96 | 451.95 | 452.64 |
| K1 | 61+98.68 | -23.96 | 452.27 | 452.97 |
| L1 | 62+08.68 | -23.96 | 452.58 | 453.28 |
| M1 | 62+18.68 | -23.96 | 452.87 | 453.57 |
| N1 | 62+28.68 | -23.96 | 453.16 | 453.83 |
| O1 | 62+38.68 | -23.96 | 453.44 | 454.08 |
| P1 | 62+48.68 | -23.96 | 453.70 | 454.30 |
| Q1 | 62+58.68 | -23.96 | 453.96 | 454.50 |
| R1 | 62+68.68 | -23.96 | 454.20 | 454.69 |
| S1 | 62+78.68 | -23.96 | 454.44 | 454.86 |
| T1 | 62+88.68 | -23.96 | 454.66 | 455.02 |
| U1 | 62+98.68 | -23.96 | 454.87 | 455.16 |
| V1 | 63+08.68 | -23.96 | 455.08 | 455.29 |
| W1 | 63+18.68 | -23.96 | 455.27 | 455.42 |
| X1 | 63+28.68 | -23.96 | 455.45 | 455.54 |
| Y1 | 63+38.68 | -23.96 | 455.62 | 455.66 |
| ⊕ Brg. Pier 1 | 63+46.68 | -23.96 | 455.75 | 455.75 |
| A2 | 63+56.68 | -23.96 | 455.91 | 455.88 |
| B2 | 63+66.68 | -23.96 | 456.05 | 456.00 |
| C2 | 63+76.68 | -23.96 | 456.18 | 456.12 |
| D2 | 63+86.68 | -23.96 | 456.31 | 456.24 |
| E2 | 63+96.68 | -23.96 | 456.42 | 456.35 |
| F2 | 64+06.68 | -23.96 | 456.52 | 456.46 |
| G2 | 64+16.68 | -23.96 | 456.61 | 456.56 |
| H2 | 64+26.68 | -23.96 | 456.69 | 456.66 |
| I2 | 64+36.68 | -23.96 | 456.76 | 456.74 |
| J2 | 64+46.68 | -23.96 | 456.82 | 456.81 |
| K2 | 64+56.68 | -23.96 | 456.87 | 456.87 |
| L2 | 64+66.68 | -23.96 | 456.91 | 456.92 |
| M2 | 64+76.68 | -23.96 | 456.94 | 456.95 |
| N2 | 64+86.68 | -23.96 | 456.96 | 456.97 |
| O2 | 64+96.68 | -23.96 | 456.96 | 456.97 |
| P2 | 65+06.68 | -23.96 | 456.96 | 456.97 |
| Q2 | 65+16.68 | -23.96 | 456.95 | 456.95 |
| R2 | 65+26.68 | -23.96 | 456.93 | 456.92 |
| S2 | 65+36.68 | -23.96 | 456.89 | 456.87 |
| T2 | 65+46.68 | -23.96 | 456.85 | 456.82 |
| U2 | 65+56.68 | -23.96 | 456.79 | 456.76 |
| V2 | 65+66.68 | -23.96 | 456.73 | 456.69 |
| W2 | 65+76.68 | -23.96 | 456.65 | 456.61 |
| X2 | 65+86.68 | -23.96 | 456.57 | 456.54 |
| Y2 | 65+96.68 | -23.96 | 456.47 | 456.46 |
| ⊕ Brg. Pier 2 | 66+04.68 | -23.96 | 456.39 | 456.39 |
| A3 | 66+14.68 | -23.96 | 456.27 | 456.31 |
| B3 | 66+24.68 | -23.96 | 456.15 | 456.23 |
| C3 | 66+34.68 | -23.96 | 456.01 | 456.14 |
| D3 | 66+44.68 | -23.96 | 455.87 | 456.05 |
| E3 | 66+54.68 | -23.96 | 455.71 | 455.95 |
| F3 | 66+64.68 | -23.96 | 455.54 | 455.84 |
| G3 | 66+74.68 | -23.96 | 455.37 | 455.73 |
| H3 | 66+84.68 | -23.96 | 455.18 | 455.59 |
| I3 | 66+94.68 | -23.96 | 454.98 | 455.44 |
| J3 | 67+04.68 | -23.96 | 454.77 | 455.28 |
| K3 | 67+14.68 | -23.96 | 454.55 | 455.10 |
| L3 | 67+24.68 | -23.96 | 454.32 | 454.89 |

GIRDER 1 (CONT.)

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|-----------------|----------|--------|------------------------------|--|
| M3 | 67+34.68 | -23.96 | 454.08 | 454.67 |
| N3 | 67+44.68 | -23.96 | 453.83 | 454.43 |
| O3 | 67+54.68 | -23.96 | 453.57 | 454.17 |
| P3 | 67+64.68 | -23.96 | 453.30 | 453.88 |
| Q3 | 67+74.68 | -23.96 | 453.02 | 453.58 |
| R3 | 67+84.68 | -23.96 | 452.73 | 453.26 |
| S3 | 67+94.68 | -23.96 | 452.43 | 452.91 |
| T3 | 68+04.68 | -23.96 | 452.12 | 452.55 |
| U3 | 68+14.68 | -23.96 | 451.79 | 452.18 |
| V3 | 68+24.68 | -23.96 | 451.46 | 451.79 |
| W3 | 68+34.68 | -23.96 | 451.12 | 451.38 |
| X3 | 68+44.68 | -23.96 | 450.76 | 450.97 |
| Y3 | 68+54.68 | -23.96 | 450.40 | 450.55 |
| Z3 | 68+64.68 | -23.96 | 450.02 | 450.12 |
| AA3 | 68+74.68 | -23.96 | 449.64 | 449.69 |
| ⊕ Brg. Pier 3 | 68+87.18 | -23.96 | 449.15 | 449.15 |
| A4 | 68+97.18 | -23.96 | 448.76 | 448.74 |
| B4 | 69+07.18 | -23.96 | 448.37 | 448.33 |
| C4 | 69+17.18 | -23.96 | 447.98 | 447.94 |
| D4 | 69+27.18 | -23.96 | 447.59 | 447.54 |
| E4 | 69+37.18 | -23.96 | 447.20 | 447.16 |
| F4 | 69+47.18 | -23.96 | 446.81 | 446.77 |
| G4 | 69+57.18 | -23.96 | 446.42 | 446.39 |
| H4 | 69+67.18 | -23.96 | 446.03 | 446.01 |
| I4 | 69+77.18 | -23.96 | 445.64 | 445.63 |
| J4 | 69+87.18 | -23.96 | 445.24 | 445.25 |
| K4 | 69+97.18 | -23.96 | 444.85 | 444.87 |
| L4 | 70+07.18 | -23.96 | 444.46 | 444.48 |
| M4 | 70+17.18 | -23.96 | 444.07 | 444.09 |
| N4 | 70+27.18 | -23.96 | 443.68 | 443.70 |
| O4 | 70+37.18 | -23.96 | 443.29 | 443.31 |
| P4 | 70+47.18 | -23.96 | 442.90 | 442.91 |
| Q4 | 70+57.18 | -23.96 | 442.51 | 442.51 |
| R4 | 70+67.18 | -23.96 | 442.12 | 442.11 |
| S4 | 70+77.18 | -23.96 | 441.73 | 441.72 |
| T4 | 70+87.18 | -23.96 | 441.33 | 441.31 |
| U4 | 70+97.18 | -23.96 | 440.94 | 440.84 |
| V4 | 71+07.18 | -23.96 | 440.54 | 440.34 |
| ⊕ Brg. Pier 4 | 71+20.68 | -23.96 | 439.68 | 439.68 |
| A5 | 71+30.68 | -23.96 | 439.17 | 439.19 |
| B5 | 71+40.68 | -23.96 | 438.66 | 438.71 |
| C5 | 71+50.68 | -23.96 | 438.16 | 438.23 |
| D5 | 71+60.68 | -23.96 | 437.74 | 437.85 |
| E5 | 71+70.68 | -23.96 | 437.35 | 437.50 |
| F5 | 71+80.68 | -23.96 | 436.96 | 437.14 |
| G5 | 71+90.68 | -23.96 | 436.57 | 436.78 |
| H5 | 72+00.68 | -23.96 | 436.18 | 436.43 |
| I5 | 72+10.68 | -23.96 | 435.79 | 436.06 |
| J5 | 72+20.68 | -23.96 | 435.40 | 435.70 |
| K5 | 72+30.68 | -23.96 | 435.01 | 435.33 |
| L5 | 72+40.68 | -23.96 | 434.62 | 434.95 |
| M5 | 72+50.68 | -23.96 | 434.23 | 434.56 |
| N5 | 72+60.68 | -23.96 | 433.83 | 434.17 |
| O5 | 72+70.68 | -23.96 | 433.44 | 433.78 |
| P5 | 72+80.68 | -23.96 | 433.05 | 433.37 |
| Q5 | 72+90.68 | -23.96 | 432.66 | 432.97 |
| R5 | 73+00.68 | -23.96 | 432.27 | 432.55 |
| S5 | 73+10.68 | -23.96 | 431.88 | 432.13 |
| T5 | 73+20.68 | -23.96 | 431.49 | 431.70 |
| U5 | 73+30.68 | -23.96 | 431.10 | 431.27 |
| V5 | 73+40.68 | -23.96 | 430.71 | 430.83 |
| W5 | 73+50.68 | -23.96 | 430.32 | 430.40 |
| X5 | 73+60.68 | -23.96 | 429.93 | 429.95 |
| ⊕ Brg. E. Abut. | 73+65.68 | -23.96 | 429.73 | 429.73 |
| Bk. E. Abut. | 73+69.79 | -23.96 | 429.57 | 429.57 |

GIRDER 2

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|-----------------|----------|--------|------------------------------|--|
| Bk. W. Abut. | 60+84.20 | -14.38 | 448.91 | 448.91 |
| ⊕ Brg. W. Abut. | 60+88.68 | -14.38 | 449.06 | 449.06 |
| A1 | 60+98.68 | -14.38 | 449.39 | 449.49 |
| B1 | 61+08.68 | -14.38 | 449.71 | 449.91 |
| C1 | 61+18.68 | -14.38 | 450.04 | 450.33 |
| D1 | 61+28.68 | -14.38 | 450.37 | 450.74 |
| E1 | 61+38.68 | -14.38 | 450.69 | 451.14 |
| F1 | 61+48.68 | -14.38 | 451.00 | 451.52 |
| G1 | 61+58.68 | -14.38 | 451.29 | 451.88 |
| H1 | 61+68.68 | -14.38 | 451.58 | 452.21 |
| I1 | 61+78.68 | -14.38 | 451.86 | 452.53 |
| J1 | 61+88.68 | -14.38 | 452.13 | 452.83 |
| K1 | 61+98.68 | -14.38 | 452.45 | 453.16 |
| L1 | 62+08.68 | -14.38 | 452.76 | 453.47 |
| M1 | 62+18.68 | -14.38 | 453.06 | 453.76 |
| N1 | 62+28.68 | -14.38 | 453.34 | 454.02 |
| O1 | 62+38.68 | -14.38 | 453.62 | 454.26 |
| P1 | 62+48.68 | -14.38 | 453.88 | 454.49 |
| Q1 | 62+58.68 | -14.38 | 454.14 | 454.69 |
| R1 | 62+68.68 | -14.38 | 454.38 | 454.88 |
| S1 | 62+78.68 | -14.38 | 454.62 | 455.05 |
| T1 | 62+88.68 | -14.38 | 454.84 | 455.20 |
| U1 | 62+98.68 | -14.38 | 455.06 | 455.35 |
| V1 | 63+08.68 | -14.38 | 455.26 | 455.48 |
| W1 | 63+18.68 | -14.38 | 455.45 | 455.60 |
| X1 | 63+28.68 | -14.38 | 455.64 | 455.73 |
| Y1 | 63+38.68 | -14.38 | 455.81 | 455.85 |
| ⊕ Brg. Pier 1 | 63+46.68 | -14.38 | 455.94 | 455.94 |
| A2 | 63+56.68 | -14.38 | 456.09 | 456.06 |
| B2 | 63+66.68 | -14.38 | 456.23 | 456.19 |
| C2 | 63+76.68 | -14.38 | 456.37 | 456.31 |
| D2 | 63+86.68 | -14.38 | 456.49 | 456.43 |
| E2 | 63+96.68 | -14.38 | 456.60 | 456.54 |
| F2 | 64+06.68 | -14.38 | 456.70 | 456.65 |
| G2 | 64+16.68 | -14.38 | 456.79 | 456.75 |
| H2 | 64+26.68 | -14.38 | 456.87 | 456.84 |
| I2 | 64+36.68 | -14.38 | 456.94 | 456.92 |
| J2 | 64+46.68 | -14.38 | 457.00 | 456.99 |
| K2 | 64+56.68 | -14.38 | 457.05 | 457.05 |
| L2 | 64+66.68 | -14.38 | 457.09 | 457.10 |
| M2 | 64+76.68 | -14.38 | 457.12 | 457.13 |
| N2 | 64+86.68 | -14.38 | 457.14 | 457.15 |
| O2 | 64+96.68 | -14.38 | 457.15 | 457.16 |
| P2 | 65+06.68 | -14.38 | 457.15 | 457.15 |
| Q2 | 65+16.68 | -14.38 | 457.13 | 457.13 |
| R2 | 65+26.68 | -14.38 | 457.11 | 457.10 |
| S2 | 65+36.68 | -14.38 | 457.08 | 457.06 |
| T2 | 65+46.68 | -14.38 | 457.03 | 457.00 |
| U2 | 65+56.68 | -14.38 | 456.98 | 456.94 |
| V2 | 65+66.68 | -14.38 | 456.91 | 456.87 |
| W2 | 65+76.68 | -14.38 | 456.84 | 456.80 |
| X2 | 65+86.68 | -14.38 | 456.75 | 456.72 |
| Y2 | 65+96.68 | -14.38 | 456.66 | 456.64 |
| ⊕ Brg. Pier 2 | 66+04.68 | -14.38 | 456.57 | 456.57 |
| A3 | 66+14.68 | -14.38 | 456.46 | 456.49 |
| B3 | 66+24.68 | -14.38 | 456.33 | 456.41 |
| C3 | 66+34.68 | -14.38 | 456.20 | 456.32 |
| D3 | 66+44.68 | -14.38 | 456.05 | 456.24 |
| E3 | 66+54.68 | -14.38 | 455.89 | 456.14 |
| F3 | 66+64.68 | -14.38 | 455.73 | 456.03 |
| G3 | 66+74.68 | -14.38 | 455.55 | 455.92 |
| H3 | 66+84.68 | -14.38 | 455.36 | 455.79 |
| I3 | 66+94.68 | -14.38 | 455.16 | 455.64 |
| J3 | 67+04.68 | -14.38 | 454.96 | 455.48 |
| K3 | 67+14.68 | -14.38 | 454.74 | 455.29 |
| L3 | 67+24.68 | -14.38 | 454.51 | 455.09 |



| | | |
|-----------------------|----------------|---------|
| USER NAME = | DESIGNED - LNB | REVISED |
| | CHECKED - MJP | REVISED |
| PLOT SCALE = | DRAWN - AEC | REVISED |
| PLOT DATE = 3/12/2018 | CHECKED - LNB | REVISED |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS - 3
S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB/64WB**

| | | | | |
|-----------------------------|---------|-----------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | IBR-1-1 | ST. CLAIR | 315 | 157 |
| CONTRACT NO. 76G39 | | | | |
| SHEET NO. 513 OF 577 SHEETS | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

GIRDER 2 (CONT.)

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|-----------------|----------|--------|------------------------------|--|
| M3 | 67+34.68 | -14.38 | 454.27 | 454.87 |
| N3 | 67+44.68 | -14.38 | 454.02 | 454.63 |
| O3 | 67+54.68 | -14.38 | 453.76 | 454.36 |
| P3 | 67+64.68 | -14.38 | 453.49 | 454.08 |
| Q3 | 67+74.68 | -14.38 | 453.21 | 453.78 |
| R3 | 67+84.68 | -14.38 | 452.91 | 453.45 |
| S3 | 67+94.68 | -14.38 | 452.61 | 453.11 |
| T3 | 68+04.68 | -14.38 | 452.30 | 452.75 |
| U3 | 68+14.68 | -14.38 | 451.98 | 452.38 |
| V3 | 68+24.68 | -14.38 | 451.64 | 451.98 |
| W3 | 68+34.68 | -14.38 | 451.30 | 451.58 |
| X3 | 68+44.68 | -14.38 | 450.95 | 451.17 |
| Y3 | 68+54.68 | -14.38 | 450.58 | 450.74 |
| Z3 | 68+64.68 | -14.38 | 450.21 | 450.31 |
| AA3 | 68+74.68 | -14.38 | 449.82 | 449.87 |
| ⊙ Brg. Pier 3 | 68+87.18 | -14.38 | 449.33 | 449.33 |
| A4 | 68+97.18 | -14.38 | 448.94 | 448.92 |
| B4 | 69+07.18 | -14.38 | 448.55 | 448.51 |
| C4 | 69+17.18 | -14.38 | 448.16 | 448.11 |
| D4 | 69+27.18 | -14.38 | 447.77 | 447.72 |
| E4 | 69+37.18 | -14.38 | 447.38 | 447.33 |
| F4 | 69+47.18 | -14.38 | 446.99 | 446.94 |
| G4 | 69+57.18 | -14.38 | 446.60 | 446.56 |
| H4 | 69+67.18 | -14.38 | 446.21 | 446.17 |
| I4 | 69+77.18 | -14.38 | 445.82 | 445.79 |
| J4 | 69+87.18 | -14.38 | 445.43 | 445.41 |
| K4 | 69+97.18 | -14.38 | 445.04 | 445.02 |
| L4 | 70+07.18 | -14.38 | 444.65 | 444.63 |
| M4 | 70+17.18 | -14.38 | 444.26 | 444.24 |
| N4 | 70+27.18 | -14.38 | 443.87 | 443.85 |
| O4 | 70+37.18 | -14.38 | 443.48 | 443.46 |
| P4 | 70+47.18 | -14.38 | 443.08 | 443.06 |
| Q4 | 70+57.18 | -14.38 | 442.69 | 442.67 |
| R4 | 70+67.18 | -14.38 | 442.30 | 442.27 |
| S4 | 70+77.18 | -14.38 | 441.91 | 441.88 |
| T4 | 70+87.18 | -14.38 | 441.51 | 441.48 |
| U4 | 70+97.18 | -14.38 | 441.05 | 441.02 |
| V4 | 71+07.18 | -14.38 | 440.60 | 440.58 |
| ⊙ Brg. Pier 4 | 71+20.68 | -14.38 | 439.98 | 439.98 |
| A5 | 71+30.68 | -14.38 | 439.52 | 439.55 |
| B5 | 71+40.68 | -14.38 | 439.06 | 439.12 |
| C5 | 71+50.68 | -14.38 | 438.60 | 438.70 |
| D5 | 71+60.68 | -14.38 | 438.19 | 438.34 |
| E5 | 71+70.68 | -14.38 | 437.80 | 437.99 |
| F5 | 71+80.68 | -14.38 | 437.41 | 437.64 |
| G5 | 71+90.68 | -14.38 | 437.02 | 437.30 |
| H5 | 72+00.68 | -14.38 | 436.63 | 436.95 |
| I5 | 72+10.68 | -14.38 | 436.24 | 436.59 |
| J5 | 72+20.68 | -14.38 | 435.85 | 436.23 |
| K5 | 72+30.68 | -14.38 | 435.46 | 435.86 |
| L5 | 72+40.68 | -14.38 | 435.07 | 435.49 |
| M5 | 72+50.68 | -14.38 | 434.68 | 435.11 |
| N5 | 72+60.68 | -14.38 | 434.29 | 434.71 |
| O5 | 72+70.68 | -14.38 | 433.89 | 434.32 |
| P5 | 72+80.68 | -14.38 | 433.50 | 433.91 |
| Q5 | 72+90.68 | -14.38 | 433.11 | 433.50 |
| R5 | 73+00.68 | -14.38 | 432.72 | 433.07 |
| S5 | 73+10.68 | -14.38 | 432.33 | 432.64 |
| T5 | 73+20.68 | -14.38 | 431.94 | 432.21 |
| U5 | 73+30.68 | -14.38 | 431.55 | 431.77 |
| V5 | 73+40.68 | -14.38 | 431.16 | 431.32 |
| W5 | 73+50.68 | -14.38 | 430.77 | 430.87 |
| X5 | 73+60.68 | -14.38 | 430.38 | 430.41 |
| ⊙ Brg. E. Abut. | 73+65.68 | -14.38 | 430.18 | 430.18 |
| Bk. E. Abut. | 73+69.79 | -14.38 | 430.02 | 430.02 |

GIRDER 3

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|-----------------|----------|--------|------------------------------|--|
| Bk. W. Abut. | 60+84.20 | -4.79 | 448.63 | 448.63 |
| ⊙ Brg. W. Abut. | 60+88.68 | -4.79 | 448.80 | 448.80 |
| A1 | 60+98.68 | -4.79 | 449.17 | 449.27 |
| B1 | 61+08.68 | -4.79 | 449.54 | 449.73 |
| C1 | 61+18.68 | -4.79 | 449.90 | 450.19 |
| D1 | 61+28.68 | -4.79 | 450.27 | 450.65 |
| E1 | 61+38.68 | -4.79 | 450.63 | 451.09 |
| F1 | 61+48.68 | -4.79 | 450.98 | 451.51 |
| G1 | 61+58.68 | -4.79 | 451.32 | 451.91 |
| H1 | 61+68.68 | -4.79 | 451.65 | 452.28 |
| I1 | 61+78.68 | -4.79 | 451.97 | 452.64 |
| J1 | 61+88.68 | -4.79 | 452.28 | 452.97 |
| K1 | 61+98.68 | -4.79 | 452.60 | 453.30 |
| L1 | 62+08.68 | -4.79 | 452.90 | 453.61 |
| M1 | 62+18.68 | -4.79 | 453.20 | 453.90 |
| N1 | 62+28.68 | -4.79 | 453.49 | 454.16 |
| O1 | 62+38.68 | -4.79 | 453.76 | 454.41 |
| P1 | 62+48.68 | -4.79 | 454.03 | 454.63 |
| Q1 | 62+58.68 | -4.79 | 454.28 | 454.83 |
| R1 | 62+68.68 | -4.79 | 454.53 | 455.02 |
| S1 | 62+78.68 | -4.79 | 454.76 | 455.19 |
| T1 | 62+88.68 | -4.79 | 454.99 | 455.35 |
| U1 | 62+98.68 | -4.79 | 455.20 | 455.49 |
| V1 | 63+08.68 | -4.79 | 455.40 | 455.62 |
| W1 | 63+18.68 | -4.79 | 455.60 | 455.75 |
| X1 | 63+28.68 | -4.79 | 455.78 | 455.87 |
| Y1 | 63+38.68 | -4.79 | 455.95 | 455.99 |
| ⊙ Brg. Pier 1 | 63+46.68 | -4.79 | 456.08 | 456.08 |
| A2 | 63+56.68 | -4.79 | 456.24 | 456.21 |
| B2 | 63+66.68 | -4.79 | 456.38 | 456.33 |
| C2 | 63+76.68 | -4.79 | 456.51 | 456.45 |
| D2 | 63+86.68 | -4.79 | 456.63 | 456.57 |
| E2 | 63+96.68 | -4.79 | 456.75 | 456.68 |
| F2 | 64+06.68 | -4.79 | 456.85 | 456.79 |
| G2 | 64+16.68 | -4.79 | 456.94 | 456.89 |
| H2 | 64+26.68 | -4.79 | 457.02 | 456.98 |
| I2 | 64+36.68 | -4.79 | 457.09 | 457.06 |
| J2 | 64+46.68 | -4.79 | 457.15 | 457.13 |
| K2 | 64+56.68 | -4.79 | 457.20 | 457.19 |
| L2 | 64+66.68 | -4.79 | 457.24 | 457.24 |
| M2 | 64+76.68 | -4.79 | 457.27 | 457.27 |
| N2 | 64+86.68 | -4.79 | 457.28 | 457.29 |
| O2 | 64+96.68 | -4.79 | 457.29 | 457.30 |
| P2 | 65+06.68 | -4.79 | 457.29 | 457.29 |
| Q2 | 65+16.68 | -4.79 | 457.28 | 457.27 |
| R2 | 65+26.68 | -4.79 | 457.25 | 457.24 |
| S2 | 65+36.68 | -4.79 | 457.22 | 457.20 |
| T2 | 65+46.68 | -4.79 | 457.18 | 457.14 |
| U2 | 65+56.68 | -4.79 | 457.12 | 457.08 |
| V2 | 65+66.68 | -4.79 | 457.06 | 457.01 |
| W2 | 65+76.68 | -4.79 | 456.98 | 456.94 |
| X2 | 65+86.68 | -4.79 | 456.90 | 456.86 |
| Y2 | 65+96.68 | -4.79 | 456.80 | 456.78 |
| ⊙ Brg. Pier 2 | 66+04.68 | -4.79 | 456.71 | 456.71 |
| A3 | 66+14.68 | -4.79 | 456.60 | 456.64 |
| B3 | 66+24.68 | -4.79 | 456.47 | 456.56 |
| C3 | 66+34.68 | -4.79 | 456.34 | 456.47 |
| D3 | 66+44.68 | -4.79 | 456.19 | 456.38 |
| E3 | 66+54.68 | -4.79 | 456.04 | 456.29 |
| F3 | 66+64.68 | -4.79 | 455.87 | 456.18 |
| G3 | 66+74.68 | -4.79 | 455.69 | 456.07 |
| H3 | 66+84.68 | -4.79 | 455.51 | 455.94 |
| I3 | 66+94.68 | -4.79 | 455.31 | 455.79 |
| J3 | 67+04.68 | -4.79 | 455.10 | 455.63 |
| K3 | 67+14.68 | -4.79 | 454.88 | 455.45 |
| L3 | 67+24.68 | -4.79 | 454.65 | 455.25 |

GIRDER 3 (CONT.)

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|-----------------|----------|--------|------------------------------|--|
| M3 | 67+34.68 | -4.79 | 454.41 | 455.03 |
| N3 | 67+44.68 | -4.79 | 454.16 | 454.78 |
| O3 | 67+54.68 | -4.79 | 453.90 | 454.52 |
| P3 | 67+64.68 | -4.79 | 453.63 | 454.24 |
| Q3 | 67+74.68 | -4.79 | 453.35 | 453.94 |
| R3 | 67+84.68 | -4.79 | 453.06 | 453.61 |
| S3 | 67+94.68 | -4.79 | 452.76 | 453.27 |
| T3 | 68+04.68 | -4.79 | 452.44 | 452.91 |
| U3 | 68+14.68 | -4.79 | 452.12 | 452.53 |
| V3 | 68+24.68 | -4.79 | 451.79 | 452.14 |
| W3 | 68+34.68 | -4.79 | 451.44 | 451.73 |
| X3 | 68+44.68 | -4.79 | 451.09 | 451.32 |
| Y3 | 68+54.68 | -4.79 | 450.73 | 450.89 |
| Z3 | 68+64.68 | -4.79 | 450.35 | 450.46 |
| AA3 | 68+74.68 | -4.79 | 449.97 | 450.02 |
| ⊙ Brg. Pier 3 | 68+87.18 | -4.79 | 449.48 | 449.48 |
| A4 | 68+97.18 | -4.79 | 449.09 | 449.06 |
| B4 | 69+07.18 | -4.79 | 448.70 | 448.65 |
| C4 | 69+17.18 | -4.79 | 448.31 | 448.25 |
| D4 | 69+27.18 | -4.79 | 447.92 | 447.85 |
| E4 | 69+37.18 | -4.79 | 447.53 | 447.46 |
| F4 | 69+47.18 | -4.79 | 447.13 | 447.07 |
| G4 | 69+57.18 | -4.79 | 446.74 | 446.68 |
| H4 | 69+67.18 | -4.79 | 446.35 | 446.29 |
| I4 | 69+77.18 | -4.79 | 445.96 | 445.91 |
| J4 | 69+87.18 | -4.79 | 445.57 | 445.52 |
| K4 | 69+97.18 | -4.79 | 445.18 | 445.13 |
| L4 | 70+07.18 | -4.79 | 444.79 | 444.74 |
| M4 | 70+17.18 | -4.79 | 444.40 | 444.35 |
| N4 | 70+27.18 | -4.79 | 444.01 | 443.96 |
| O4 | 70+37.18 | -4.79 | 443.62 | 443.57 |
| P4 | 70+47.18 | -4.79 | 443.23 | 443.18 |
| Q4 | 70+57.18 | -4.79 | 442.84 | 442.78 |
| R4 | 70+67.18 | -4.79 | 442.45 | 442.39 |
| S4 | 70+77.18 | -4.79 | 442.06 | 442.00 |
| T4 | 70+87.18 | -4.79 | 441.66 | 441.61 |
| U4 | 70+97.18 | -4.79 | 441.25 | 441.20 |
| V4 | 71+07.18 | -4.79 | 440.84 | 440.81 |
| ⊙ Brg. Pier 4 | 71+20.68 | -4.79 | 440.28 | 440.28 |
| A5 | 71+30.68 | -4.79 | 439.87 | 439.90 |
| B5 | 71+40.68 | -4.79 | 439.45 | 439.53 |
| C5 | 71+50.68 | -4.79 | 439.04 | 439.16 |
| D5 | 71+60.68 | -4.79 | 438.64 | 438.82 |
| E5 | 71+70.68 | -4.79 | 438.25 | 438.48 |
| F5 | 71+80.68 | -4.79 | 437.86 | 438.15 |
| G5 | 71+90.68 | -4.79 | 437.47 | 437.81 |
| H5 | 72+00.68 | -4.79 | 437.08 | 437.47 |
| I5 | 72+10.68 | -4.79 | 436.69 | 437.12 |
| J5 | 72+20.68 | -4.79 | 436.30 | 436.76 |
| K5 | 72+30.68 | -4.79 | 435.91 | 436.40 |
| L5 | 72+40.68 | -4.79 | 435.52 | 436.03 |
| M5 | 72+50.68 | -4.79 | 435.13 | 435.65 |
| N5 | 72+60.68 | -4.79 | 434.74 | 435.26 |
| O5 | 72+70.68 | -4.79 | 434.35 | 434.86 |
| P5 | 72+80.68 | -4.79 | 433.95 | 434.45 |
| Q5 | 72+90.68 | -4.79 | 433.56 | 434.03 |
| R5 | 73+00.68 | -4.79 | 433.17 | 433.60 |
| S5 | 73+10.68 | -4.79 | 432.78 | 433.16 |
| T5 | 73+20.68 | -4.79 | 432.39 | 432.71 |
| U5 | 73+30.68 | -4.79 | 432.00 | 432.26 |
| V5 | 73+40.68 | -4.79 | 431.61 | 431.80 |
| W5 | 73+50.68 | -4.79 | 431.22 | 431.34 |
| X5 | 73+60.68 | -4.79 | 430.83 | 430.87 |
| ⊙ Brg. E. Abut. | 73+65.68 | -4.79 | 430.63 | 430.63 |
| Bk. E. Abut. | 73+69.79 | -4.79 | 430.47 | 430.47 |



| | | |
|-----------------------|----------------|---------|
| USER NAME = | DESIGNED - LNB | REVISED |
| | CHECKED - MJP | REVISED |
| PLOT SCALE = | DRAWN - AEC | REVISED |
| PLOT DATE = 3/12/2018 | CHECKED - LNB | REVISED |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS - 4
S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB/64WB

| | | | | |
|-----------------------------|---------|-----------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | IBR-1-1 | ST. CLAIR | 315 | 158 |
| CONTRACT NO. 76G39 | | | | |
| SHEET NO. S14 OF S77 SHEETS | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

☉ ROADWAY, ☉ STRUCTURE & P.G.

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|-----------------|----------|--------|------------------------------|--|
| Bk. W. Abut. | 60+84.20 | 0.00 | 448.49 | 448.49 |
| ☉ Brg. W. Abut. | 60+88.68 | 0.00 | 448.67 | 448.67 |
| A1 | 60+98.68 | 0.00 | 449.06 | 449.16 |
| B1 | 61+08.68 | 0.00 | 449.45 | 449.64 |
| C1 | 61+18.68 | 0.00 | 449.84 | 450.13 |
| D1 | 61+28.68 | 0.00 | 450.23 | 450.60 |
| E1 | 61+38.68 | 0.00 | 450.61 | 451.06 |
| F1 | 61+48.68 | 0.00 | 450.97 | 451.50 |
| G1 | 61+58.68 | 0.00 | 451.33 | 451.92 |
| H1 | 61+68.68 | 0.00 | 451.68 | 452.32 |
| I1 | 61+78.68 | 0.00 | 452.02 | 452.69 |
| J1 | 61+88.68 | 0.00 | 452.35 | 453.04 |
| K1 | 61+98.68 | 0.00 | 452.67 | 453.38 |
| L1 | 62+08.68 | 0.00 | 452.97 | 453.68 |
| M1 | 62+18.68 | 0.00 | 453.27 | 453.97 |
| N1 | 62+28.68 | 0.00 | 453.56 | 454.24 |
| O1 | 62+38.68 | 0.00 | 453.83 | 454.48 |
| P1 | 62+48.68 | 0.00 | 454.10 | 454.70 |
| Q1 | 62+58.68 | 0.00 | 454.36 | 454.91 |
| R1 | 62+68.68 | 0.00 | 454.60 | 455.10 |
| S1 | 62+78.68 | 0.00 | 454.83 | 455.26 |
| T1 | 62+88.68 | 0.00 | 455.06 | 455.42 |
| U1 | 62+98.68 | 0.00 | 455.27 | 455.56 |
| V1 | 63+08.68 | 0.00 | 455.48 | 455.70 |
| W1 | 63+18.68 | 0.00 | 455.67 | 455.82 |
| X1 | 63+28.68 | 0.00 | 455.85 | 455.94 |
| Y1 | 63+38.68 | 0.00 | 456.02 | 456.06 |
| ☉ Brg. Pier 1 | 63+46.68 | 0.00 | 456.15 | 456.15 |
| A2 | 63+56.68 | 0.00 | 456.31 | 456.28 |
| B2 | 63+66.68 | 0.00 | 456.45 | 456.40 |
| C2 | 63+76.68 | 0.00 | 456.58 | 456.52 |
| D2 | 63+86.68 | 0.00 | 456.71 | 456.64 |
| E2 | 63+96.68 | 0.00 | 456.82 | 456.75 |
| F2 | 64+06.68 | 0.00 | 456.92 | 456.86 |
| G2 | 64+16.68 | 0.00 | 457.01 | 456.96 |
| H2 | 64+26.68 | 0.00 | 457.09 | 457.05 |
| I2 | 64+36.68 | 0.00 | 457.16 | 457.13 |
| J2 | 64+46.68 | 0.00 | 457.22 | 457.20 |
| K2 | 64+56.68 | 0.00 | 457.27 | 457.26 |
| L2 | 64+66.68 | 0.00 | 457.31 | 457.31 |
| M2 | 64+76.68 | 0.00 | 457.34 | 457.34 |
| N2 | 64+86.68 | 0.00 | 457.36 | 457.36 |
| O2 | 64+96.68 | 0.00 | 457.36 | 457.37 |
| P2 | 65+06.68 | 0.00 | 457.36 | 457.36 |
| Q2 | 65+16.68 | 0.00 | 457.35 | 457.34 |
| R2 | 65+26.68 | 0.00 | 457.33 | 457.31 |
| S2 | 65+36.68 | 0.00 | 457.29 | 457.27 |
| T2 | 65+46.68 | 0.00 | 457.25 | 457.21 |
| U2 | 65+56.68 | 0.00 | 457.19 | 457.15 |
| V2 | 65+66.68 | 0.00 | 457.13 | 457.08 |
| W2 | 65+76.68 | 0.00 | 457.05 | 457.01 |
| X2 | 65+86.68 | 0.00 | 456.97 | 456.93 |
| Y2 | 65+96.68 | 0.00 | 456.87 | 456.85 |
| ☉ Brg. Pier 2 | 66+04.68 | 0.00 | 456.79 | 456.79 |
| A3 | 66+14.68 | 0.00 | 456.67 | 456.71 |
| B3 | 66+24.68 | 0.00 | 456.55 | 456.63 |
| C3 | 66+34.68 | 0.00 | 456.41 | 456.54 |
| D3 | 66+44.68 | 0.00 | 456.27 | 456.46 |
| E3 | 66+54.68 | 0.00 | 456.11 | 456.36 |
| F3 | 66+64.68 | 0.00 | 455.94 | 456.26 |
| G3 | 66+74.68 | 0.00 | 455.76 | 456.14 |
| H3 | 66+84.68 | 0.00 | 455.58 | 456.01 |
| I3 | 66+94.68 | 0.00 | 455.38 | 455.87 |
| J3 | 67+04.68 | 0.00 | 455.17 | 455.71 |
| K3 | 67+14.68 | 0.00 | 454.95 | 455.52 |
| L3 | 67+24.68 | 0.00 | 454.72 | 455.32 |

☉ ROADWAY, ☉ STRUCTURE & P.G. (CONT.)

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|-----------------|----------|--------|------------------------------|--|
| M3 | 67+34.68 | 0.00 | 454.48 | 455.10 |
| N3 | 67+44.68 | 0.00 | 454.23 | 454.86 |
| O3 | 67+54.68 | 0.00 | 453.97 | 454.60 |
| P3 | 67+64.68 | 0.00 | 453.70 | 454.31 |
| Q3 | 67+74.68 | 0.00 | 453.42 | 454.01 |
| R3 | 67+84.68 | 0.00 | 453.13 | 453.69 |
| S3 | 67+94.68 | 0.00 | 452.83 | 453.35 |
| T3 | 68+04.68 | 0.00 | 452.52 | 452.99 |
| U3 | 68+14.68 | 0.00 | 452.19 | 452.61 |
| V3 | 68+24.68 | 0.00 | 451.86 | 452.22 |
| W3 | 68+34.68 | 0.00 | 451.52 | 451.81 |
| X3 | 68+44.68 | 0.00 | 451.16 | 451.39 |
| Y3 | 68+54.68 | 0.00 | 450.80 | 450.96 |
| Z3 | 68+64.68 | 0.00 | 450.42 | 450.53 |
| AA3 | 68+74.68 | 0.00 | 450.04 | 450.09 |
| ☉ Brg. Pier 3 | 68+87.18 | 0.00 | 449.55 | 449.55 |
| A4 | 68+97.18 | 0.00 | 449.16 | 449.13 |
| B4 | 69+07.18 | 0.00 | 448.77 | 448.72 |
| C4 | 69+17.18 | 0.00 | 448.38 | 448.31 |
| D4 | 69+27.18 | 0.00 | 447.99 | 447.92 |
| E4 | 69+37.18 | 0.00 | 447.60 | 447.52 |
| F4 | 69+47.18 | 0.00 | 447.21 | 447.13 |
| G4 | 69+57.18 | 0.00 | 446.82 | 446.74 |
| H4 | 69+67.18 | 0.00 | 446.43 | 446.35 |
| I4 | 69+77.18 | 0.00 | 446.03 | 445.97 |
| J4 | 69+87.18 | 0.00 | 445.64 | 445.58 |
| K4 | 69+97.18 | 0.00 | 445.25 | 445.19 |
| L4 | 70+07.18 | 0.00 | 444.86 | 444.80 |
| M4 | 70+17.18 | 0.00 | 444.47 | 444.41 |
| N4 | 70+27.18 | 0.00 | 444.08 | 444.02 |
| O4 | 70+37.18 | 0.00 | 443.69 | 443.63 |
| P4 | 70+47.18 | 0.00 | 443.30 | 443.23 |
| Q4 | 70+57.18 | 0.00 | 442.91 | 442.84 |
| R4 | 70+67.18 | 0.00 | 442.52 | 442.45 |
| S4 | 70+77.18 | 0.00 | 442.13 | 442.06 |
| T4 | 70+87.18 | 0.00 | 441.74 | 441.67 |
| U4 | 70+97.18 | 0.00 | 441.35 | 441.29 |
| V4 | 71+07.18 | 0.00 | 440.96 | 440.92 |
| ☉ Brg. Pier 4 | 71+20.68 | 0.00 | 440.43 | 440.43 |
| A5 | 71+30.68 | 0.00 | 440.04 | 440.08 |
| B5 | 71+40.68 | 0.00 | 439.65 | 439.73 |
| C5 | 71+50.68 | 0.00 | 439.26 | 439.39 |
| D5 | 71+60.68 | 0.00 | 438.87 | 439.06 |
| E5 | 71+70.68 | 0.00 | 438.48 | 438.73 |
| F5 | 71+80.68 | 0.00 | 438.09 | 438.40 |
| G5 | 71+90.68 | 0.00 | 437.70 | 438.07 |
| H5 | 72+00.68 | 0.00 | 437.30 | 437.73 |
| I5 | 72+10.68 | 0.00 | 436.91 | 437.38 |
| J5 | 72+20.68 | 0.00 | 436.52 | 437.03 |
| K5 | 72+30.68 | 0.00 | 436.13 | 436.67 |
| L5 | 72+40.68 | 0.00 | 435.74 | 436.30 |
| M5 | 72+50.68 | 0.00 | 435.35 | 435.92 |
| N5 | 72+60.68 | 0.00 | 434.96 | 435.53 |
| O5 | 72+70.68 | 0.00 | 434.57 | 435.13 |
| P5 | 72+80.68 | 0.00 | 434.18 | 434.72 |
| Q5 | 72+90.68 | 0.00 | 433.79 | 434.29 |
| R5 | 73+00.68 | 0.00 | 433.40 | 433.86 |
| S5 | 73+10.68 | 0.00 | 433.01 | 433.42 |
| T5 | 73+20.68 | 0.00 | 432.62 | 432.96 |
| U5 | 73+30.68 | 0.00 | 432.23 | 432.51 |
| V5 | 73+40.68 | 0.00 | 431.84 | 432.04 |
| W5 | 73+50.68 | 0.00 | 431.45 | 431.57 |
| X5 | 73+60.68 | 0.00 | 431.05 | 431.10 |
| ☉ Brg. E. Abut. | 73+65.68 | 0.00 | 430.86 | 430.86 |
| Bk. E. Abut. | 73+69.79 | 0.00 | 430.70 | 430.70 |

GIRDER 4

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|-----------------|----------|--------|------------------------------|--|
| Bk. W. Abut. | 60+84.20 | 4.79 | 448.36 | 448.36 |
| ☉ Brg. W. Abut. | 60+88.68 | 4.79 | 448.54 | 448.54 |
| A1 | 60+98.68 | 4.79 | 448.95 | 449.05 |
| B1 | 61+08.68 | 4.79 | 449.36 | 449.56 |
| C1 | 61+18.68 | 4.79 | 449.76 | 450.05 |
| D1 | 61+28.68 | 4.79 | 450.15 | 450.53 |
| E1 | 61+38.68 | 4.79 | 450.53 | 450.99 |
| F1 | 61+48.68 | 4.79 | 450.90 | 451.43 |
| G1 | 61+58.68 | 4.79 | 451.26 | 451.85 |
| H1 | 61+68.68 | 4.79 | 451.61 | 452.24 |
| I1 | 61+78.68 | 4.79 | 451.95 | 452.62 |
| J1 | 61+88.68 | 4.79 | 452.28 | 452.97 |
| K1 | 61+98.68 | 4.79 | 452.60 | 453.30 |
| L1 | 62+08.68 | 4.79 | 452.90 | 453.61 |
| M1 | 62+18.68 | 4.79 | 453.20 | 453.90 |
| N1 | 62+28.68 | 4.79 | 453.49 | 454.16 |
| O1 | 62+38.68 | 4.79 | 453.76 | 454.41 |
| P1 | 62+48.68 | 4.79 | 454.03 | 454.63 |
| Q1 | 62+58.68 | 4.79 | 454.28 | 454.84 |
| R1 | 62+68.68 | 4.79 | 454.53 | 455.02 |
| S1 | 62+78.68 | 4.79 | 454.76 | 455.19 |
| T1 | 62+88.68 | 4.79 | 454.99 | 455.35 |
| U1 | 62+98.68 | 4.79 | 455.20 | 455.49 |
| V1 | 63+08.68 | 4.79 | 455.40 | 455.62 |
| W1 | 63+18.68 | 4.79 | 455.60 | 455.75 |
| X1 | 63+28.68 | 4.79 | 455.78 | 455.87 |
| Y1 | 63+38.68 | 4.79 | 455.95 | 455.99 |
| ☉ Brg. Pier 1 | 63+46.68 | 4.79 | 456.08 | 456.08 |
| A2 | 63+56.68 | 4.79 | 456.24 | 456.21 |
| B2 | 63+66.68 | 4.79 | 456.38 | 456.33 |
| C2 | 63+76.68 | 4.79 | 456.51 | 456.45 |
| D2 | 63+86.68 | 4.79 | 456.63 | 456.57 |
| E2 | 63+96.68 | 4.79 | 456.75 | 456.68 |
| F2 | 64+06.68 | 4.79 | 456.85 | 456.79 |
| G2 | 64+16.68 | 4.79 | 456.94 | 456.89 |
| H2 | 64+26.68 | 4.79 | 457.02 | 456.98 |
| I2 | 64+36.68 | 4.79 | 457.09 | 457.06 |
| J2 | 64+46.68 | 4.79 | 457.15 | 457.13 |
| K2 | 64+56.68 | 4.79 | 457.20 | 457.19 |
| L2 | 64+66.68 | 4.79 | 457.24 | 457.24 |
| M2 | 64+76.68 | 4.79 | 457.27 | 457.27 |
| N2 | 64+86.68 | 4.79 | 457.28 | 457.29 |
| O2 | 64+96.68 | 4.79 | 457.29 | 457.29 |
| P2 | 65+06.68 | 4.79 | 457.29 | 457.29 |
| Q2 | 65+16.68 | 4.79 | 457.28 | 457.27 |
| R2 | 65+26.68 | 4.79 | 457.25 | 457.23 |
| S2 | 65+36.68 | 4.79 | 457.22 | 457.19 |
| T2 | 65+46.68 | 4.79 | 457.18 | 457.14 |
| U2 | 65+56.68 | 4.79 | 457.12 | 457.08 |
| V2 | 65+66.68 | 4.79 | 457.06 | 457.01 |
| W2 | 65+76.68 | 4.79 | 456.98 | 456.94 |
| X2 | 65+86.68 | 4.79 | 456.90 | 456.86 |
| Y2 | 65+96.68 | 4.79 | 456.80 | 456.78 |
| ☉ Brg. Pier 2 | 66+04.68 | 4.79 | 456.71 | 456.71 |
| A3 | 66+14.68 | 4.79 | 456.60 | 456.64 |
| B3 | 66+24.68 | 4.79 | 456.47 | 456.56 |
| C3 | 66+34.68 | 4.79 | 456.34 | 456.47 |
| D3 | 66+44.68 | 4.79 | 456.19 | 456.39 |
| E3 | 66+54.68 | 4.79 | 456.04 | 456.29 |
| F3 | 66+64.68 | 4.79 | 455.87 | 456.19 |
| G3 | 66+74.68 | 4.79 | 455.69 | 456.08 |
| H3 | 66+84.68 | 4.79 | 455.51 | 455.94 |
| I3 | 66+94.68 | 4.79 | 455.31 | 455.80 |
| J3 | 67+04.68 | 4.79 | 455.10 | 455.64 |
| K3 | 67+14.68 | 4.79 | 454.88 | 455.46 |
| L3 | 67+24.68 | 4.79 | 454.65 | 455.26 |



| | | |
|-----------------------|----------------|---------|
| USER NAME = | DESIGNED - LNB | REVISED |
| | CHECKED - MJP | REVISED |
| PLOT SCALE = | DRAWN - AEC | REVISED |
| PLOT DATE = 3/12/2018 | CHECKED - LNB | REVISED |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS - 5
S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB/64WB**

| | | | | |
|-----------------------------|---------|-----------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | IBR-1-1 | ST. CLAIR | 315 | 159 |
| CONTRACT NO. 76C39 | | | | |
| SHEET NO. S15 OF S77 SHEETS | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

GIRDER 4 (CONT.)

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|-----------------|----------|--------|------------------------------|--|
| M3 | 67+34.68 | 4.79 | 454.41 | 455.04 |
| N3 | 67+44.68 | 4.79 | 454.16 | 454.80 |
| O3 | 67+54.68 | 4.79 | 453.90 | 454.53 |
| P3 | 67+64.68 | 4.79 | 453.63 | 454.25 |
| Q3 | 67+74.68 | 4.79 | 453.35 | 453.95 |
| R3 | 67+84.68 | 4.79 | 453.06 | 453.62 |
| S3 | 67+94.68 | 4.79 | 452.76 | 453.28 |
| T3 | 68+04.68 | 4.79 | 452.44 | 452.92 |
| U3 | 68+14.68 | 4.79 | 452.12 | 452.54 |
| V3 | 68+24.68 | 4.79 | 451.79 | 452.15 |
| W3 | 68+34.68 | 4.79 | 451.44 | 451.74 |
| X3 | 68+44.68 | 4.79 | 451.09 | 451.33 |
| Y3 | 68+54.68 | 4.79 | 450.73 | 450.90 |
| Z3 | 68+64.68 | 4.79 | 450.35 | 450.46 |
| AA3 | 68+74.68 | 4.79 | 449.97 | 450.02 |
| ⊙ Brg. Pier 3 | 68+87.18 | 4.79 | 449.48 | 449.48 |
| A4 | 68+97.18 | 4.79 | 449.09 | 449.06 |
| B4 | 69+07.18 | 4.79 | 448.70 | 448.64 |
| C4 | 69+17.18 | 4.79 | 448.31 | 448.24 |
| D4 | 69+27.18 | 4.79 | 447.92 | 447.84 |
| E4 | 69+37.18 | 4.79 | 447.53 | 447.44 |
| F4 | 69+47.18 | 4.79 | 447.13 | 447.05 |
| G4 | 69+57.18 | 4.79 | 446.74 | 446.66 |
| H4 | 69+67.18 | 4.79 | 446.35 | 446.27 |
| I4 | 69+77.18 | 4.79 | 445.96 | 445.88 |
| J4 | 69+87.18 | 4.79 | 445.57 | 445.49 |
| K4 | 69+97.18 | 4.79 | 445.18 | 445.10 |
| L4 | 70+07.18 | 4.79 | 444.79 | 444.71 |
| M4 | 70+17.18 | 4.79 | 444.40 | 444.32 |
| N4 | 70+27.18 | 4.79 | 444.02 | 443.94 |
| O4 | 70+37.18 | 4.79 | 443.65 | 443.57 |
| P4 | 70+47.18 | 4.79 | 443.28 | 443.20 |
| Q4 | 70+57.18 | 4.79 | 442.92 | 442.83 |
| R4 | 70+67.18 | 4.79 | 442.55 | 442.47 |
| S4 | 70+77.18 | 4.79 | 442.18 | 442.10 |
| T4 | 70+87.18 | 4.79 | 441.81 | 441.74 |
| U4 | 70+97.18 | 4.79 | 441.45 | 441.39 |
| V4 | 71+07.18 | 4.79 | 441.08 | 441.04 |
| ⊙ Brg. Pier 4 | 71+20.68 | 4.79 | 440.58 | 440.58 |
| A5 | 71+30.68 | 4.79 | 440.21 | 440.26 |
| B5 | 71+40.68 | 4.79 | 439.84 | 439.94 |
| C5 | 71+50.68 | 4.79 | 439.48 | 439.63 |
| D5 | 71+60.68 | 4.79 | 439.09 | 439.30 |
| E5 | 71+70.68 | 4.79 | 438.70 | 438.98 |
| F5 | 71+80.68 | 4.79 | 438.31 | 438.65 |
| G5 | 71+90.68 | 4.79 | 437.92 | 438.32 |
| H5 | 72+00.68 | 4.79 | 437.53 | 437.99 |
| I5 | 72+10.68 | 4.79 | 437.14 | 437.65 |
| J5 | 72+20.68 | 4.79 | 436.75 | 437.30 |
| K5 | 72+30.68 | 4.79 | 436.36 | 436.94 |
| L5 | 72+40.68 | 4.79 | 435.97 | 436.57 |
| M5 | 72+50.68 | 4.79 | 435.58 | 436.19 |
| N5 | 72+60.68 | 4.79 | 435.19 | 435.80 |
| O5 | 72+70.68 | 4.79 | 434.80 | 435.40 |
| P5 | 72+80.68 | 4.79 | 434.40 | 434.98 |
| Q5 | 72+90.68 | 4.79 | 434.01 | 434.56 |
| R5 | 73+00.68 | 4.79 | 433.62 | 434.12 |
| S5 | 73+10.68 | 4.79 | 433.23 | 433.67 |
| T5 | 73+20.68 | 4.79 | 432.84 | 433.22 |
| U5 | 73+30.68 | 4.79 | 432.45 | 432.75 |
| V5 | 73+40.68 | 4.79 | 432.06 | 432.28 |
| W5 | 73+50.68 | 4.79 | 431.67 | 431.81 |
| X5 | 73+60.68 | 4.79 | 431.28 | 431.33 |
| ⊙ Brg. E. Abut. | 73+65.68 | 4.79 | 431.08 | 431.08 |
| Bk. E. Abut. | 73+69.79 | 4.79 | 430.92 | 430.92 |

GIRDER 5

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|-----------------|----------|--------|------------------------------|--|
| Bk. W. Abut. | 60+84.20 | 14.38 | 448.08 | 448.08 |
| ⊙ Brg. W. Abut. | 60+88.68 | 14.38 | 448.28 | 448.28 |
| A1 | 60+98.68 | 14.38 | 448.73 | 448.83 |
| B1 | 61+08.68 | 14.38 | 449.18 | 449.38 |
| C1 | 61+18.68 | 14.38 | 449.62 | 449.91 |
| D1 | 61+28.68 | 14.38 | 450.01 | 450.38 |
| E1 | 61+38.68 | 14.38 | 450.39 | 450.84 |
| F1 | 61+48.68 | 14.38 | 450.76 | 451.28 |
| G1 | 61+58.68 | 14.38 | 451.12 | 451.70 |
| H1 | 61+68.68 | 14.38 | 451.47 | 452.10 |
| I1 | 61+78.68 | 14.38 | 451.81 | 452.48 |
| J1 | 61+88.68 | 14.38 | 452.13 | 452.83 |
| K1 | 61+98.68 | 14.38 | 452.45 | 453.16 |
| L1 | 62+08.68 | 14.38 | 452.76 | 453.47 |
| M1 | 62+18.68 | 14.38 | 453.06 | 453.76 |
| N1 | 62+28.68 | 14.38 | 453.34 | 454.02 |
| O1 | 62+38.68 | 14.38 | 453.62 | 454.26 |
| P1 | 62+48.68 | 14.38 | 453.88 | 454.49 |
| Q1 | 62+58.68 | 14.38 | 454.14 | 454.69 |
| R1 | 62+68.68 | 14.38 | 454.38 | 454.88 |
| S1 | 62+78.68 | 14.38 | 454.62 | 455.05 |
| T1 | 62+88.68 | 14.38 | 454.84 | 455.20 |
| U1 | 62+98.68 | 14.38 | 455.06 | 455.35 |
| V1 | 63+08.68 | 14.38 | 455.26 | 455.48 |
| W1 | 63+18.68 | 14.38 | 455.45 | 455.60 |
| X1 | 63+28.68 | 14.38 | 455.64 | 455.73 |
| Y1 | 63+38.68 | 14.38 | 455.81 | 455.85 |
| ⊙ Brg. Pier 1 | 63+46.68 | 14.38 | 455.94 | 455.94 |
| A2 | 63+56.68 | 14.38 | 456.09 | 456.06 |
| B2 | 63+66.68 | 14.38 | 456.23 | 456.18 |
| C2 | 63+76.68 | 14.38 | 456.37 | 456.30 |
| D2 | 63+86.68 | 14.38 | 456.49 | 456.42 |
| E2 | 63+96.68 | 14.38 | 456.60 | 456.53 |
| F2 | 64+06.68 | 14.38 | 456.70 | 456.64 |
| G2 | 64+16.68 | 14.38 | 456.79 | 456.74 |
| H2 | 64+26.68 | 14.38 | 456.87 | 456.83 |
| I2 | 64+36.68 | 14.38 | 456.94 | 456.91 |
| J2 | 64+46.68 | 14.38 | 457.00 | 456.98 |
| K2 | 64+56.68 | 14.38 | 457.05 | 457.04 |
| L2 | 64+66.68 | 14.38 | 457.09 | 457.09 |
| M2 | 64+76.68 | 14.38 | 457.12 | 457.12 |
| N2 | 64+86.68 | 14.38 | 457.14 | 457.14 |
| O2 | 64+96.68 | 14.38 | 457.15 | 457.15 |
| P2 | 65+06.68 | 14.38 | 457.15 | 457.14 |
| Q2 | 65+16.68 | 14.38 | 457.13 | 457.12 |
| R2 | 65+26.68 | 14.38 | 457.11 | 457.09 |
| S2 | 65+36.68 | 14.38 | 457.08 | 457.05 |
| T2 | 65+46.68 | 14.38 | 457.03 | 456.99 |
| U2 | 65+56.68 | 14.38 | 456.98 | 456.93 |
| V2 | 65+66.68 | 14.38 | 456.91 | 456.86 |
| W2 | 65+76.68 | 14.38 | 456.84 | 456.79 |
| X2 | 65+86.68 | 14.38 | 456.75 | 456.72 |
| Y2 | 65+96.68 | 14.38 | 456.66 | 456.64 |
| ⊙ Brg. Pier 2 | 66+04.68 | 14.38 | 456.57 | 456.57 |
| A3 | 66+14.68 | 14.38 | 456.46 | 456.50 |
| B3 | 66+24.68 | 14.38 | 456.33 | 456.42 |
| C3 | 66+34.68 | 14.38 | 456.20 | 456.33 |
| D3 | 66+44.68 | 14.38 | 456.05 | 456.25 |
| E3 | 66+54.68 | 14.38 | 455.89 | 456.15 |
| F3 | 66+64.68 | 14.38 | 455.73 | 456.05 |
| G3 | 66+74.68 | 14.38 | 455.55 | 455.94 |
| H3 | 66+84.68 | 14.38 | 455.36 | 455.81 |
| I3 | 66+94.68 | 14.38 | 455.16 | 455.66 |
| J3 | 67+04.68 | 14.38 | 454.96 | 455.50 |
| K3 | 67+14.68 | 14.38 | 454.74 | 455.32 |
| L3 | 67+24.68 | 14.38 | 454.51 | 455.12 |

GIRDER 5 (CONT.)

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|-----------------|----------|--------|------------------------------|--|
| M3 | 67+34.68 | 14.38 | 454.27 | 454.90 |
| N3 | 67+44.68 | 14.38 | 454.02 | 454.66 |
| O3 | 67+54.68 | 14.38 | 453.76 | 454.40 |
| P3 | 67+64.68 | 14.38 | 453.49 | 454.12 |
| Q3 | 67+74.68 | 14.38 | 453.21 | 453.82 |
| R3 | 67+84.68 | 14.38 | 452.91 | 453.49 |
| S3 | 67+94.68 | 14.38 | 452.61 | 453.15 |
| T3 | 68+04.68 | 14.38 | 452.30 | 452.79 |
| U3 | 68+14.68 | 14.38 | 451.98 | 452.41 |
| V3 | 68+24.68 | 14.38 | 451.64 | 452.02 |
| W3 | 68+34.68 | 14.38 | 451.30 | 451.61 |
| X3 | 68+44.68 | 14.38 | 450.95 | 451.19 |
| Y3 | 68+54.68 | 14.38 | 450.58 | 450.76 |
| Z3 | 68+64.68 | 14.38 | 450.21 | 450.32 |
| AA3 | 68+74.68 | 14.38 | 449.82 | 449.88 |
| ⊙ Brg. Pier 3 | 68+87.18 | 14.38 | 449.33 | 449.33 |
| A4 | 68+97.18 | 14.38 | 448.94 | 448.91 |
| B4 | 69+07.18 | 14.38 | 448.55 | 448.50 |
| C4 | 69+17.18 | 14.38 | 448.16 | 448.09 |
| D4 | 69+27.18 | 14.38 | 447.77 | 447.68 |
| E4 | 69+37.18 | 14.38 | 447.38 | 447.28 |
| F4 | 69+47.18 | 14.38 | 446.99 | 446.89 |
| G4 | 69+57.18 | 14.38 | 446.60 | 446.49 |
| H4 | 69+67.18 | 14.38 | 446.21 | 446.10 |
| I4 | 69+77.18 | 14.38 | 445.82 | 445.71 |
| J4 | 69+87.18 | 14.38 | 445.43 | 445.32 |
| K4 | 69+97.18 | 14.38 | 445.04 | 444.93 |
| L4 | 70+07.18 | 14.38 | 444.65 | 444.53 |
| M4 | 70+17.18 | 14.38 | 444.26 | 444.14 |
| N4 | 70+27.18 | 14.38 | 443.89 | 443.78 |
| O4 | 70+37.18 | 14.38 | 443.57 | 443.46 |
| P4 | 70+47.18 | 14.38 | 443.25 | 443.14 |
| Q4 | 70+57.18 | 14.38 | 442.93 | 442.82 |
| R4 | 70+67.18 | 14.38 | 442.61 | 442.50 |
| S4 | 70+77.18 | 14.38 | 442.29 | 442.18 |
| T4 | 70+87.18 | 14.38 | 441.97 | 441.87 |
| U4 | 70+97.18 | 14.38 | 441.64 | 441.57 |
| V4 | 71+07.18 | 14.38 | 441.32 | 441.27 |
| ⊙ Brg. Pier 4 | 71+20.68 | 14.38 | 440.88 | 440.88 |
| A5 | 71+30.68 | 14.38 | 440.56 | 440.61 |
| B5 | 71+40.68 | 14.38 | 440.24 | 440.35 |
| C5 | 71+50.68 | 14.38 | 439.92 | 440.09 |
| D5 | 71+60.68 | 14.38 | 439.54 | 439.79 |
| E5 | 71+70.68 | 14.38 | 439.15 | 439.47 |
| F5 | 71+80.68 | 14.38 | 438.76 | 439.15 |
| G5 | 71+90.68 | 14.38 | 438.37 | 438.84 |
| H5 | 72+00.68 | 14.38 | 437.98 | 438.51 |
| I5 | 72+10.68 | 14.38 | 437.59 | 438.17 |
| J5 | 72+20.68 | 14.38 | 437.20 | 437.83 |
| K5 | 72+30.68 | 14.38 | 436.81 | 437.48 |
| L5 | 72+40.68 | 14.38 | 436.42 | 437.11 |
| M5 | 72+50.68 | 14.38 | 436.03 | 436.73 |
| N5 | 72+60.68 | 14.38 | 435.64 | 436.34 |
| O5 | 72+70.68 | 14.38 | 435.25 | 435.94 |
| P5 | 72+80.68 | 14.38 | 434.86 | 435.52 |
| Q5 | 72+90.68 | 14.38 | 434.46 | 435.09 |
| R5 | 73+00.68 | 14.38 | 434.07 | 434.65 |
| S5 | 73+10.68 | 14.38 | 433.68 | 434.19 |
| T5 | 73+20.68 | 14.38 | 433.29 | 433.73 |
| U5 | 73+30.68 | 14.38 | 432.90 | 433.25 |
| V5 | 73+40.68 | 14.38 | 432.51 | 432.77 |
| W5 | 73+50.68 | 14.38 | 432.12 | 432.28 |
| X5 | 73+60.68 | 14.38 | 431.73 | 431.78 |
| ⊙ Brg. E. Abut. | 73+65.68 | 14.38 | 431.54 | 431.54 |
| Bk. E. Abut. | 73+69.79 | 14.38 | 431.37 | 431.37 |



| | | |
|-----------------------|----------------|---------|
| USER NAME = | DESIGNED - LNB | REVISED |
| | CHECKED - MJP | REVISED |
| PLOT SCALE = | DRAWN - AEC | REVISED |
| PLOT DATE = 3/12/2018 | CHECKED - LNB | REVISED |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TOP OF SLAB ELEVATIONS - 6
S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB/64WB

| | | | | |
|-----------------------------|---------|-----------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | IBR-1-1 | ST. CLAIR | 315 | 160 |
| CONTRACT NO. 76G39 | | | | |
| SHEET NO. S16 OF S77 SHEETS | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

GIRDER 6

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|-----------------|----------|--------|------------------------------|--|
| Bk. W. Abut. | 60+84.20 | 23.96 | 447.80 | 447.80 |
| ⊕ Brg. W. Abut. | 60+88.68 | 23.96 | 448.02 | 448.02 |
| A1 | 60+98.68 | 23.96 | 448.51 | 448.61 |
| B1 | 61+08.68 | 23.96 | 448.99 | 449.19 |
| C1 | 61+18.68 | 23.96 | 449.44 | 449.72 |
| D1 | 61+28.68 | 23.96 | 449.83 | 450.20 |
| E1 | 61+38.68 | 23.96 | 450.21 | 450.66 |
| F1 | 61+48.68 | 23.96 | 450.58 | 451.10 |
| G1 | 61+58.68 | 23.96 | 450.94 | 451.52 |
| H1 | 61+68.68 | 23.96 | 451.28 | 451.91 |
| I1 | 61+78.68 | 23.96 | 451.62 | 452.29 |
| J1 | 61+88.68 | 23.96 | 451.95 | 452.64 |
| K1 | 61+98.68 | 23.96 | 452.27 | 452.97 |
| L1 | 62+08.68 | 23.96 | 452.58 | 453.28 |
| M1 | 62+18.68 | 23.96 | 452.87 | 453.57 |
| N1 | 62+28.68 | 23.96 | 453.16 | 453.83 |
| O1 | 62+38.68 | 23.96 | 453.44 | 454.08 |
| P1 | 62+48.68 | 23.96 | 453.70 | 454.30 |
| Q1 | 62+58.68 | 23.96 | 453.96 | 454.51 |
| R1 | 62+68.68 | 23.96 | 454.20 | 454.70 |
| S1 | 62+78.68 | 23.96 | 454.44 | 454.86 |
| T1 | 62+88.68 | 23.96 | 454.66 | 455.02 |
| U1 | 62+98.68 | 23.96 | 454.87 | 455.16 |
| V1 | 63+08.68 | 23.96 | 455.08 | 455.30 |
| W1 | 63+18.68 | 23.96 | 455.27 | 455.42 |
| X1 | 63+28.68 | 23.96 | 455.45 | 455.54 |
| Y1 | 63+38.68 | 23.96 | 455.62 | 455.66 |
| ⊕ Brg. Pier 1 | 63+46.68 | 23.96 | 455.75 | 455.75 |
| A2 | 63+56.68 | 23.96 | 455.91 | 455.88 |
| B2 | 63+66.68 | 23.96 | 456.05 | 456.00 |
| C2 | 63+76.68 | 23.96 | 456.18 | 456.12 |
| D2 | 63+86.68 | 23.96 | 456.31 | 456.24 |
| E2 | 63+96.68 | 23.96 | 456.42 | 456.35 |
| F2 | 64+06.68 | 23.96 | 456.52 | 456.46 |
| G2 | 64+16.68 | 23.96 | 456.61 | 456.56 |
| H2 | 64+26.68 | 23.96 | 456.69 | 456.65 |
| I2 | 64+36.68 | 23.96 | 456.76 | 456.73 |
| J2 | 64+46.68 | 23.96 | 456.82 | 456.80 |
| K2 | 64+56.68 | 23.96 | 456.87 | 456.85 |
| L2 | 64+66.68 | 23.96 | 456.91 | 456.90 |
| M2 | 64+76.68 | 23.96 | 456.94 | 456.93 |
| N2 | 64+86.68 | 23.96 | 456.96 | 456.95 |
| O2 | 64+96.68 | 23.96 | 456.96 | 456.96 |
| P2 | 65+06.68 | 23.96 | 456.96 | 456.95 |
| Q2 | 65+16.68 | 23.96 | 456.95 | 456.93 |
| R2 | 65+26.68 | 23.96 | 456.93 | 456.90 |
| S2 | 65+36.68 | 23.96 | 456.89 | 456.86 |
| T2 | 65+46.68 | 23.96 | 456.85 | 456.81 |
| U2 | 65+56.68 | 23.96 | 456.79 | 456.74 |
| V2 | 65+66.68 | 23.96 | 456.73 | 456.68 |
| W2 | 65+76.68 | 23.96 | 456.65 | 456.61 |
| X2 | 65+86.68 | 23.96 | 456.57 | 456.53 |
| Y2 | 65+96.68 | 23.96 | 456.47 | 456.45 |
| ⊕ Brg. Pier 2 | 66+04.68 | 23.96 | 456.39 | 456.39 |
| A3 | 66+14.68 | 23.96 | 456.27 | 456.31 |
| B3 | 66+24.68 | 23.96 | 456.15 | 456.23 |
| C3 | 66+34.68 | 23.96 | 456.01 | 456.15 |
| D3 | 66+44.68 | 23.96 | 455.87 | 456.07 |
| E3 | 66+54.68 | 23.96 | 455.71 | 455.97 |
| F3 | 66+64.68 | 23.96 | 455.54 | 455.87 |
| G3 | 66+74.68 | 23.96 | 455.37 | 455.76 |
| H3 | 66+84.68 | 23.96 | 455.18 | 455.63 |
| I3 | 66+94.68 | 23.96 | 454.98 | 455.49 |
| J3 | 67+04.68 | 23.96 | 454.77 | 455.33 |
| K3 | 67+14.68 | 23.96 | 454.55 | 455.15 |
| L3 | 67+24.68 | 23.96 | 454.32 | 454.95 |

GIRDER 6 (CONT.)

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|-----------------|----------|--------|------------------------------|--|
| M3 | 67+34.68 | 23.96 | 454.08 | 454.73 |
| N3 | 67+44.68 | 23.96 | 453.83 | 454.49 |
| O3 | 67+54.68 | 23.96 | 453.57 | 454.23 |
| P3 | 67+64.68 | 23.96 | 453.30 | 453.94 |
| Q3 | 67+74.68 | 23.96 | 453.02 | 453.64 |
| R3 | 67+84.68 | 23.96 | 452.73 | 453.32 |
| S3 | 67+94.68 | 23.96 | 452.43 | 452.98 |
| T3 | 68+04.68 | 23.96 | 452.12 | 452.62 |
| U3 | 68+14.68 | 23.96 | 451.79 | 452.24 |
| V3 | 68+24.68 | 23.96 | 451.46 | 451.84 |
| W3 | 68+34.68 | 23.96 | 451.12 | 451.43 |
| X3 | 68+44.68 | 23.96 | 450.76 | 451.02 |
| Y3 | 68+54.68 | 23.96 | 450.40 | 450.58 |
| Z3 | 68+64.68 | 23.96 | 450.02 | 450.14 |
| AA3 | 68+74.68 | 23.96 | 449.64 | 449.70 |
| ⊕ Brg. Pier 3 | 68+87.18 | 23.96 | 449.15 | 449.15 |
| A4 | 68+97.18 | 23.96 | 448.76 | 448.73 |
| B4 | 69+07.18 | 23.96 | 448.37 | 448.31 |
| C4 | 69+17.18 | 23.96 | 447.98 | 447.89 |
| D4 | 69+27.18 | 23.96 | 447.59 | 447.49 |
| E4 | 69+37.18 | 23.96 | 447.20 | 447.08 |
| F4 | 69+47.18 | 23.96 | 446.81 | 446.68 |
| G4 | 69+57.18 | 23.96 | 446.42 | 446.29 |
| H4 | 69+67.18 | 23.96 | 446.03 | 445.89 |
| I4 | 69+77.18 | 23.96 | 445.64 | 445.50 |
| J4 | 69+87.18 | 23.96 | 445.24 | 445.10 |
| K4 | 69+97.18 | 23.96 | 444.85 | 444.71 |
| L4 | 70+07.18 | 23.96 | 444.46 | 444.32 |
| M4 | 70+17.18 | 23.96 | 444.07 | 443.92 |
| N4 | 70+27.18 | 23.96 | 443.73 | 443.58 |
| O4 | 70+37.18 | 23.96 | 443.46 | 443.31 |
| P4 | 70+47.18 | 23.96 | 443.19 | 443.04 |
| Q4 | 70+57.18 | 23.96 | 442.91 | 442.77 |
| R4 | 70+67.18 | 23.96 | 442.64 | 442.50 |
| S4 | 70+77.18 | 23.96 | 442.37 | 442.24 |
| T4 | 70+87.18 | 23.96 | 442.09 | 441.98 |
| U4 | 70+97.18 | 23.96 | 441.82 | 441.73 |
| V4 | 71+07.18 | 23.96 | 441.54 | 441.49 |
| ⊕ Brg. Pier 4 | 71+20.68 | 23.96 | 441.17 | 441.17 |
| A5 | 71+30.68 | 23.96 | 440.90 | 440.96 |
| B5 | 71+40.68 | 23.96 | 440.63 | 440.75 |
| C5 | 71+50.68 | 23.96 | 440.36 | 440.56 |
| D5 | 71+60.68 | 23.96 | 439.99 | 440.27 |
| E5 | 71+70.68 | 23.96 | 439.60 | 439.97 |
| F5 | 71+80.68 | 23.96 | 439.21 | 439.66 |
| G5 | 71+90.68 | 23.96 | 438.82 | 439.35 |
| H5 | 72+00.68 | 23.96 | 438.43 | 439.03 |
| I5 | 72+10.68 | 23.96 | 438.04 | 438.71 |
| J5 | 72+20.68 | 23.96 | 437.65 | 438.37 |
| K5 | 72+30.68 | 23.96 | 437.26 | 438.03 |
| L5 | 72+40.68 | 23.96 | 436.87 | 437.66 |
| M5 | 72+50.68 | 23.96 | 436.48 | 437.28 |
| N5 | 72+60.68 | 23.96 | 436.09 | 436.89 |
| O5 | 72+70.68 | 23.96 | 435.70 | 436.49 |
| P5 | 72+80.68 | 23.96 | 435.31 | 436.07 |
| Q5 | 72+90.68 | 23.96 | 434.92 | 435.63 |
| R5 | 73+00.68 | 23.96 | 434.52 | 435.18 |
| S5 | 73+10.68 | 23.96 | 434.13 | 434.71 |
| T5 | 73+20.68 | 23.96 | 433.74 | 434.24 |
| U5 | 73+30.68 | 23.96 | 433.35 | 433.75 |
| V5 | 73+40.68 | 23.96 | 432.96 | 433.25 |
| W5 | 73+50.68 | 23.96 | 432.57 | 432.75 |
| X5 | 73+60.68 | 23.96 | 432.18 | 432.24 |
| ⊕ Brg. E. Abut. | 73+65.68 | 23.96 | 431.99 | 431.99 |
| Bk. E. Abut. | 73+69.79 | 23.96 | 431.83 | 431.83 |



| | | |
|-----------------------|----------------|---------|
| USER NAME = | DESIGNED - LNB | REVISED |
| | CHECKED - MJP | REVISED |
| PLOT SCALE = | DRAWN - AEC | REVISED |
| PLOT DATE = 3/12/2018 | CHECKED - LNB | REVISED |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TOP OF SLAB ELEVATIONS - 7
**S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB/64WB**

| | | | | |
|--------------------|---------|-----------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | IBR-1-1 | ST. CLAIR | 315 | 161 |
| CONTRACT NO. 76G39 | | | | |

SHEET NO. 517 OF 577 SHEETS

ILLINOIS FED. AID PROJECT

NORTH CURB LINE

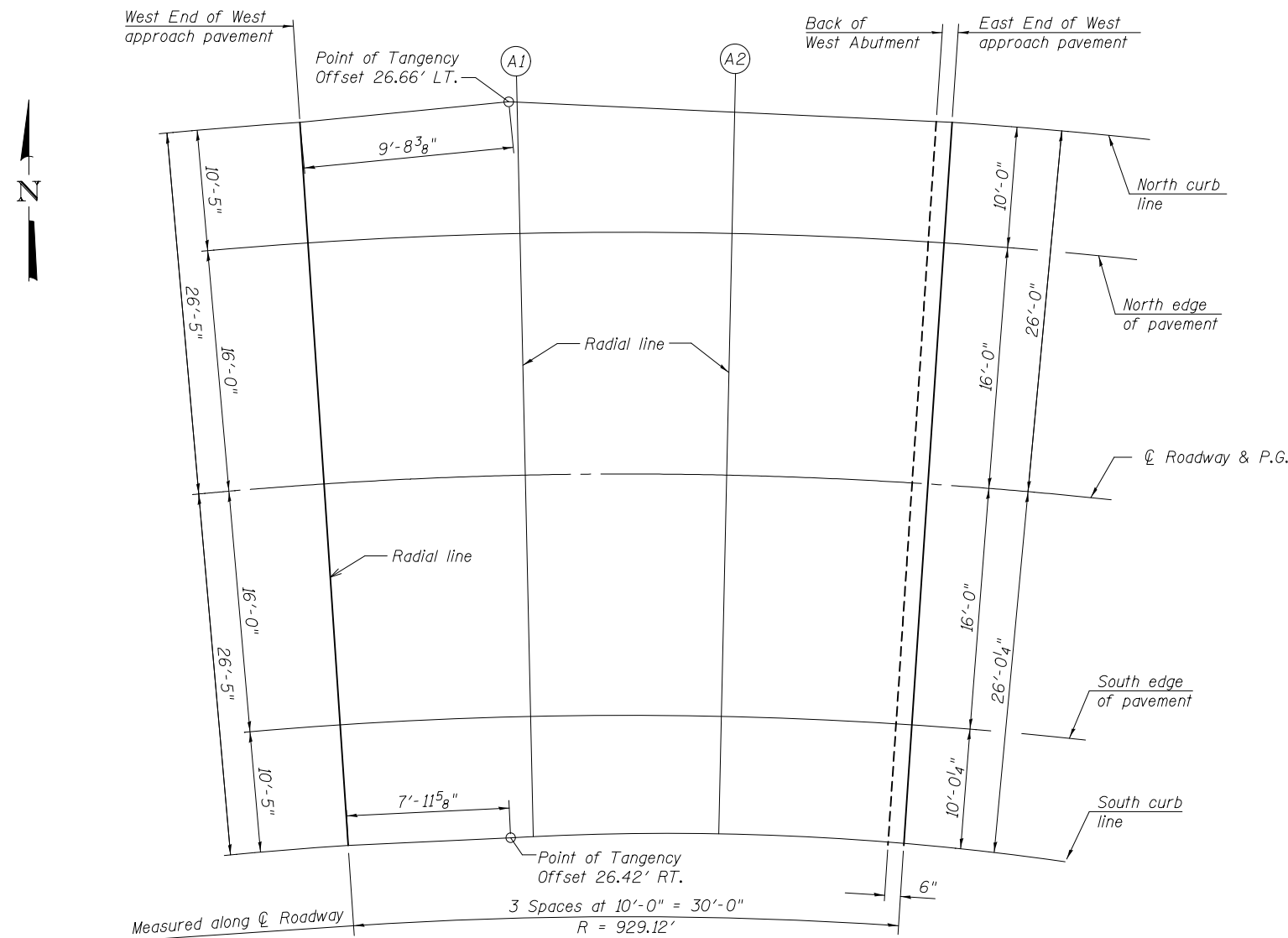
| Location | Station | Offset | Theoretical Grade Elevations |
|--------------------------|----------|--------|------------------------------|
| W. End West Appr. Pav't. | 60+54.70 | -26.42 | 448.43 |
| A1 | 60+64.70 | -26.55 | 448.71 |
| A2 | 60+74.70 | -26.06 | 448.97 |
| E. End West Appr. Pav't | 60+84.71 | -26.00 | 449.25 |

NORTH EDGE OF PAVEMENT

| Location | Station | Offset | Theoretical Grade Elevations |
|--------------------------|----------|--------|------------------------------|
| W. End West Appr. Pav't. | 60+54.70 | -16.00 | 448.00 |
| A1 | 60+64.70 | -16.00 | 448.32 |
| A2 | 60+74.70 | -16.00 | 448.64 |
| E. End West Appr. Pav't | 60+84.70 | -16.00 | 448.97 |

☉ ROADWAY AND P.G.

| Location | Station | Offset | Theoretical Grade Elevations |
|--------------------------|----------|--------|------------------------------|
| W. End West Appr. Pav't. | 60+54.70 | 0.00 | 447.34 |
| A1 | 60+64.70 | 0.00 | 447.73 |
| A2 | 60+74.70 | 0.00 | 448.12 |
| E. End West Appr. Pav't | 60+84.70 | 0.00 | 448.51 |



PLAN

SOUTH EDGE OF PAVEMENT

| Location | Station | Offset | Theoretical Grade Elevations |
|--------------------------|----------|--------|------------------------------|
| W. End West Appr. Pav't. | 60+54.70 | 16.00 | 446.68 |
| A1 | 60+64.70 | 16.00 | 447.14 |
| A2 | 60+74.70 | 16.00 | 447.60 |
| E. End West Appr. Pav't | 60+84.70 | 16.00 | 448.05 |

SOUTH CURB LINE

| Location | Station | Offset | Theoretical Grade Elevations |
|--------------------------|----------|--------|------------------------------|
| W. End West Appr. Pav't. | 60+54.70 | 26.42 | 446.27 |
| A1 | 60+64.70 | 26.15 | 446.77 |
| A2 | 60+74.70 | 26.07 | 447.27 |
| E. End West Appr. Pav't | 60+84.69 | 26.02 | 447.77 |



| | | |
|-----------------------|----------------|---------|
| USER NAME = | DESIGNED - MJP | REVISED |
| | CHECKED - LNB | REVISED |
| PLOT SCALE = | DRAWN - PRC | REVISED |
| PLOT DATE = 3/12/2018 | CHECKED - MJP | REVISED |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TOP OF WEST APPROACH SLAB ELEVATIONS
S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB64WB**

SHEET NO. S18 OF S77 SHEETS

| | | | | |
|---------------------------|---------|-----------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | 1BR-1-1 | ST. CLAIR | 315 | 162 |
| CONTRACT NO. 76G39 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

NORTH CURB LINE

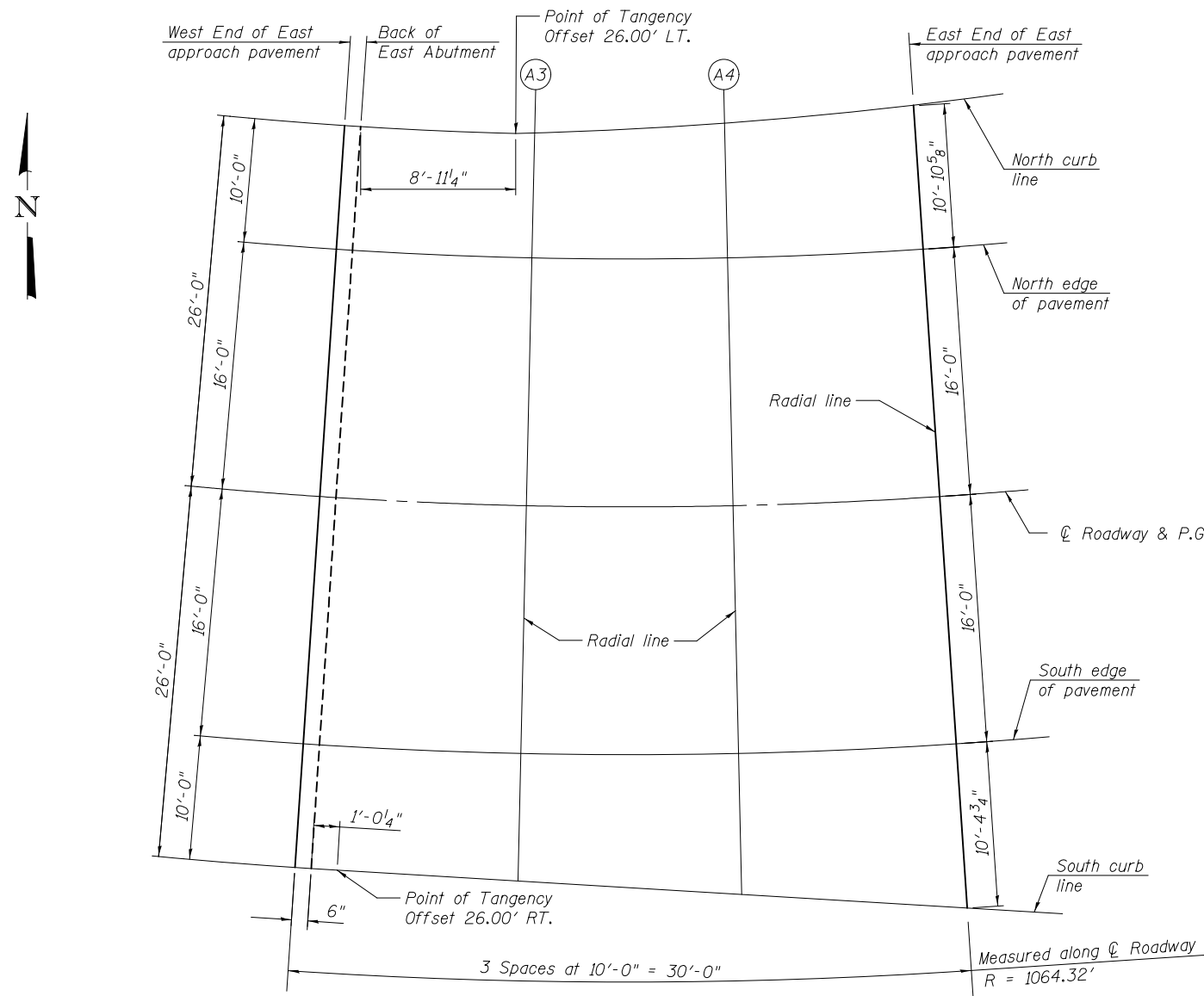
| Location | Station | Offset | Theoretical Grade Elevations |
|--------------------------|----------|--------|------------------------------|
| W. End East Appr. Pav't. | 73+69.29 | -26.00 | 429.50 |
| A3 | 73+79.29 | -26.01 | 429.11 |
| A4 | 73+89.29 | -26.43 | 428.70 |
| E. End East Appr. Pav't | 73+99.29 | -26.89 | 428.29 |

NORTH EDGE OF PAVEMENT

| Location | Station | Offset | Theoretical Grade Elevations |
|--------------------------|----------|--------|------------------------------|
| W. End East Appr. Pav't. | 73+69.29 | -16.00 | 429.97 |
| A3 | 73+79.29 | -16.00 | 429.58 |
| A4 | 73+89.29 | -16.00 | 429.19 |
| E. End East Appr. Pav't | 73+99.29 | -16.00 | 428.80 |

☉ ROADWAY AND P.G.

| Location | Station | Offset | Theoretical Grade Elevations |
|--------------------------|----------|--------|------------------------------|
| W. End East Appr. Pav't. | 73+69.29 | 0.00 | 430.72 |
| A3 | 73+79.29 | 0.00 | 430.33 |
| A4 | 73+89.29 | 0.00 | 429.94 |
| E. End East Appr. Pav't | 73+99.29 | 0.00 | 429.55 |



PLAN

SOUTH EDGE OF PAVEMENT

| Location | Station | Offset | Theoretical Grade Elevations |
|--------------------------|----------|--------|------------------------------|
| W. End East Appr. Pav't. | 73+69.29 | 16.00 | 431.47 |
| A3 | 73+79.29 | 16.00 | 431.08 |
| A4 | 73+89.29 | 16.00 | 430.69 |
| E. End East Appr. Pav't | 73+99.29 | 16.00 | 430.31 |

SOUTH CURB LINE

| Location | Station | Offset | Theoretical Grade Elevations |
|--------------------------|----------|--------|------------------------------|
| W. End East Appr. Pav't. | 73+69.29 | 26.00 | 431.94 |
| A3 | 73+79.29 | 26.04 | 431.55 |
| A4 | 73+89.29 | 26.17 | 431.17 |
| E. End East Appr. Pav't | 73+99.29 | 26.39 | 430.80 |



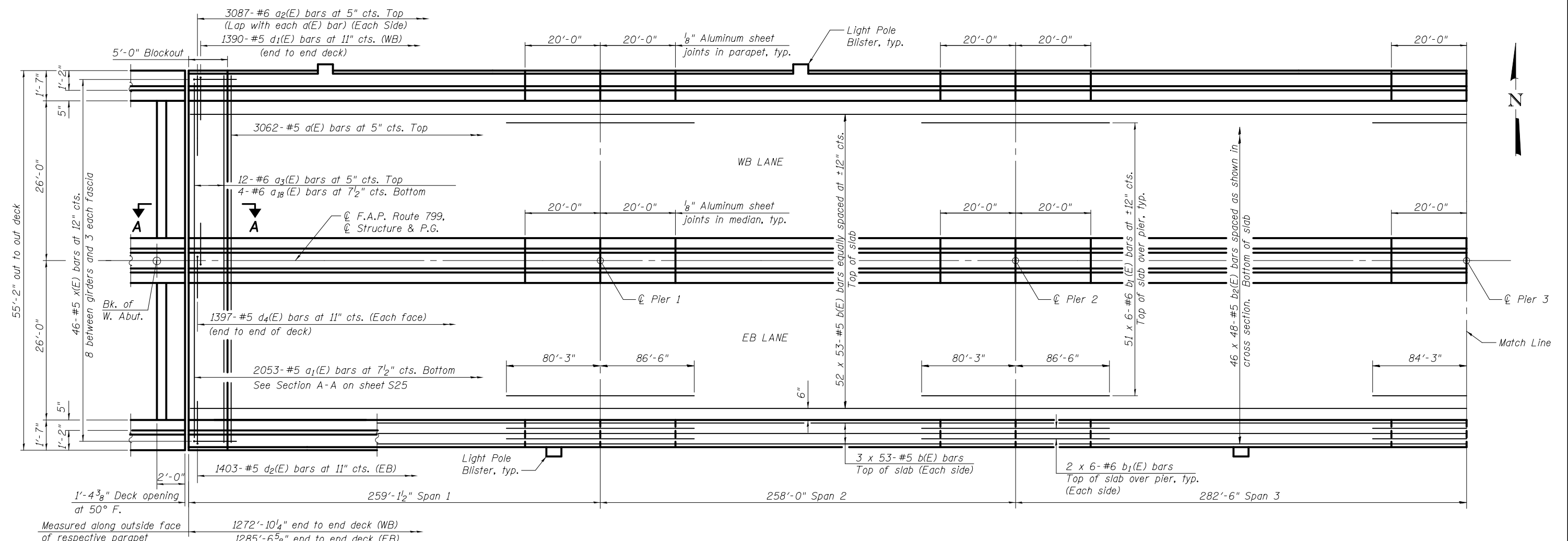
| | | |
|-----------------------|----------------|---------|
| USER NAME = | DESIGNED - MJP | REVISED |
| | CHECKED - LNB | REVISED |
| PLOT SCALE = | DRAWN - PRC | REVISED |
| PLOT DATE = 3/12/2018 | CHECKED - MJP | REVISED |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TOP OF EAST APPROACH SLAB ELEVATIONS
S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB64WB**

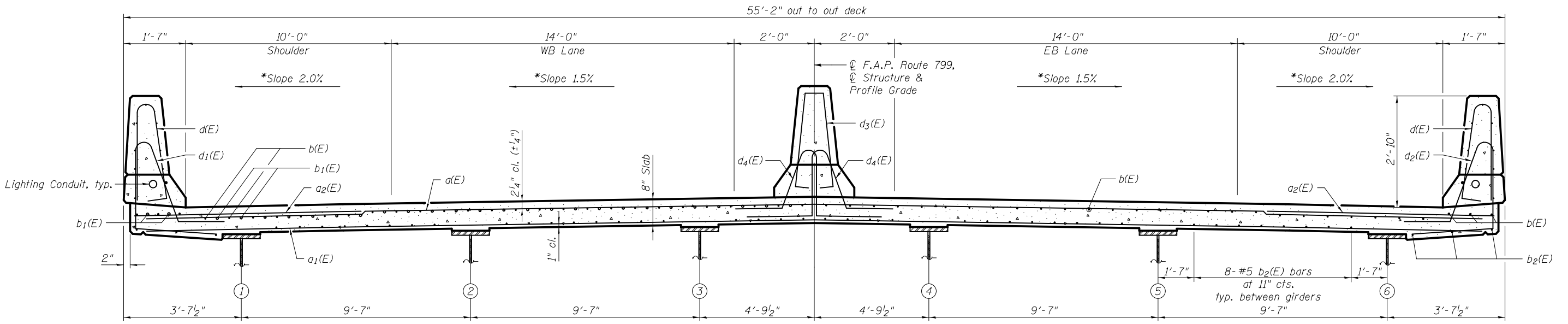
SHEET NO. S19 OF S77 SHEETS

| | | | | |
|---------------------------|---------|-----------|--------------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | 1BR-1-1 | ST. CLAIR | 315 | 163 |
| | | | CONTRACT NO. 76G39 | |
| ILLINOIS FED. AID PROJECT | | | | |



PART SLAB PLAN

* Slope varies from west end of deck to Sta. 61+87.32, see superelevation transition.



MINIMUM BAR LAP
(Deck)

#5 bar = 3'-6"
#6 bar = 4'-5"

CROSS SECTION

(Looking Upstation)
Sta. 61+87.32 to Sta. 68+87.18 (Shown)
West End of Deck to Sta. 61+87.32 (Similar)

Notes:

See sheet S6 for superelevation transition.
See sheet S25 for Section A-A, superstructure details and Bill of Material.
The "a" bars for Spans 1 thru 4 are spaced along eastbound edge of deck.
Bars indicated thus 52 x 53-#5 etc. indicates 52 lines of bars with 53 lengths per line.
See sheet S1 for scupper locations.
See sheet S22 thru S24 for parapet, median and light pole blister details.

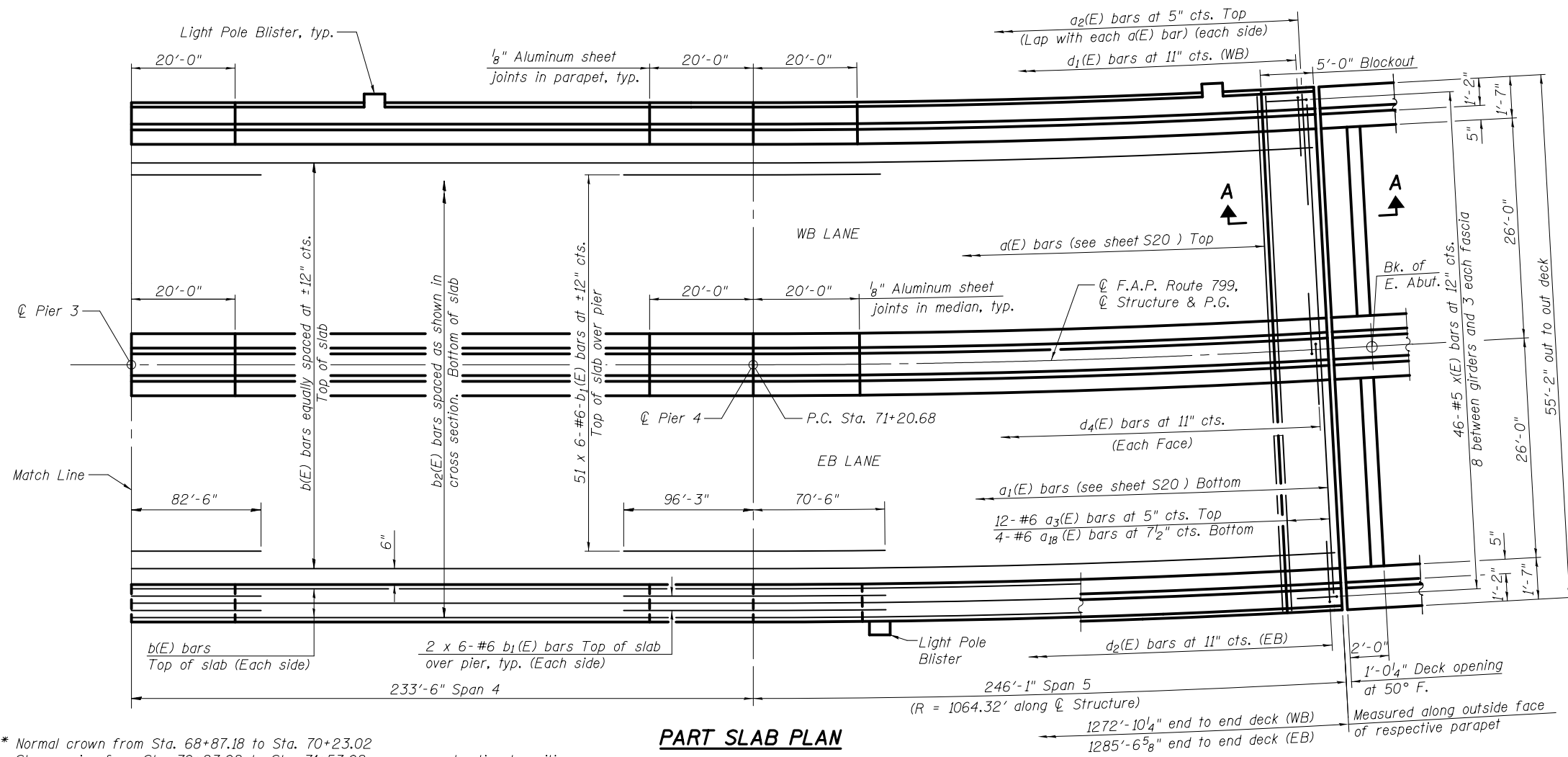


| | | |
|-----------------------|----------------|---------|
| USER NAME = | DESIGNED - ZJB | REVISED |
| | CHECKED - YSS | REVISED |
| PLOT SCALE = | DRAWN - PRC | REVISED |
| PLOT DATE = 3/12/2018 | CHECKED - ZJB | REVISED |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

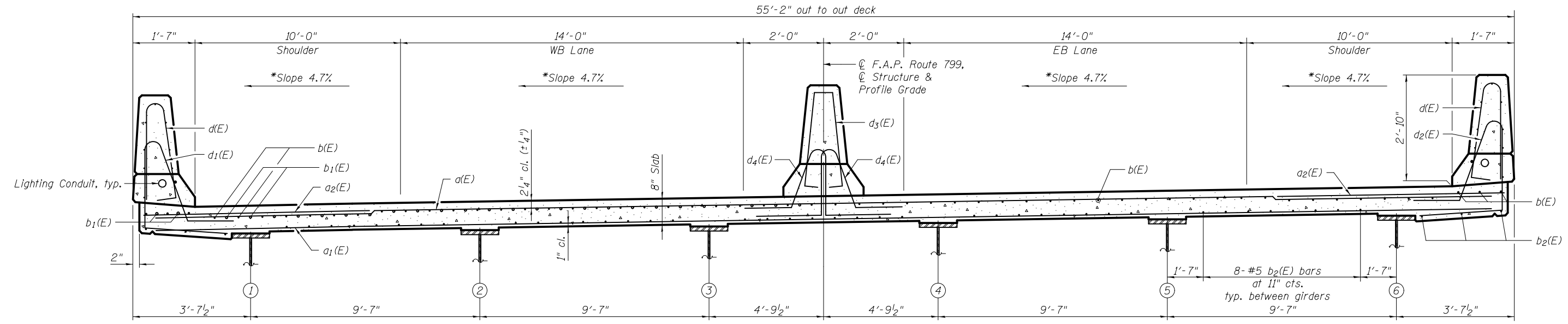
SUPERSTRUCTURE - 1
S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB64WB
SHEET NO. S20 OF S77 SHEETS

| | | | | |
|---------------------------|-----------------|------------------|--------------------|---------------|
| F.A.P. RTE. 799 | SECTION 1BR-1-1 | COUNTY ST. CLAIR | TOTAL SHEETS 315 | SHEET NO. 164 |
| ILLINOIS FED. AID PROJECT | | | CONTRACT NO. 76G39 | |



* Normal crown from Sta. 68+87.18 to Sta. 70+23.02
Slope varies from Sta. 70+23.02 to Sta. 71+53.02, see superelevation transition.

PART SLAB PLAN



MINIMUM BAR LAP
(Deck)

#5 bar = 3'-6"
#6 bar = 4'-5"

CROSS SECTION
(Looking Upstation)

Sta. 71+53.02 to East End of Deck (Shown)
Sta. 68+87.18 to 71+53.02 (Similar)

Notes:
See sheet S6 for superelevation transition.
See sheet S25 for Section A-A, superstructure details and Bill of Material.
The "a" bars are placed radially for Span 5 and spaced along eastbound edge of deck.

The "b" bars are placed concentrically for Span 5. Bars indicated thus 51 x 6-#6 etc. indicates 51 lines of bars with 6 lengths per line. See sheet S1 for scupper locations. See sheet S22 thru S24 for parapet, median and light pole blister details.

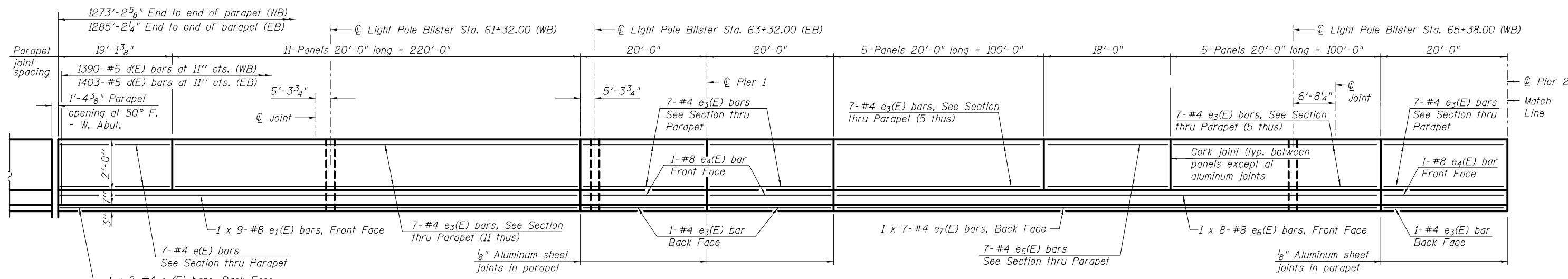


| | | |
|-----------------------|----------------|---------|
| USER NAME = | DESIGNED - ZJB | REVISED |
| | CHECKED - YSS | REVISED |
| PLOT SCALE = | DRAWN - PRC | REVISED |
| PLOT DATE = 3/12/2018 | CHECKED - ZJB | REVISED |

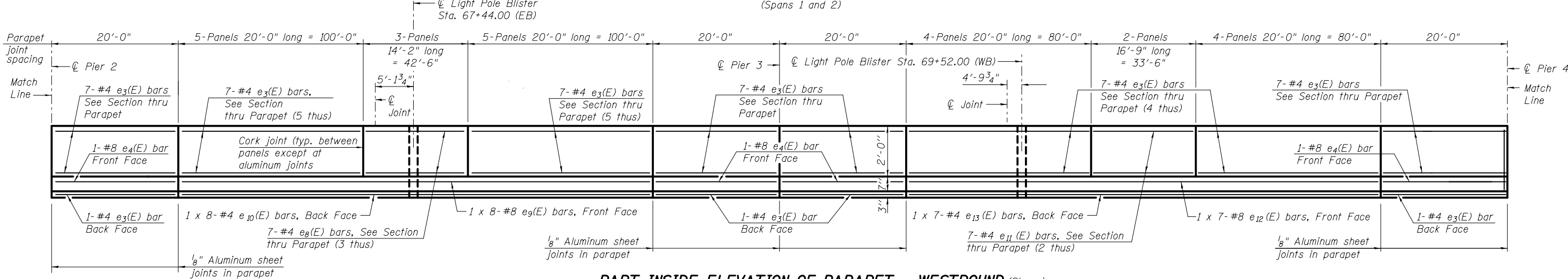
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE - 2
S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB64WB
SHEET NO. S21 OF S77 SHEETS

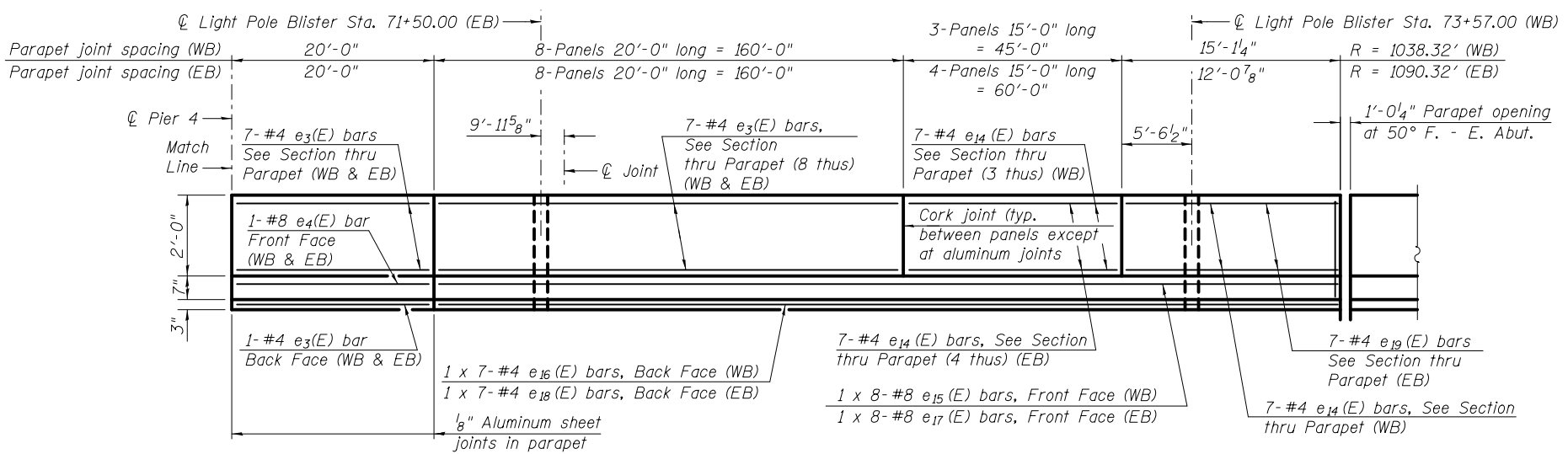
| | | | | |
|---------------------------|-----------------|------------------|------------------|--------------------|
| F.A.P. RTE. 799 | SECTION 1BR-1-1 | COUNTY ST. CLAIR | TOTAL SHEETS 315 | SHEET NO. 165 |
| | | | | CONTRACT NO. 76G39 |
| ILLINOIS FED. AID PROJECT | | | | |



PART INSIDE ELEVATION OF PARAPET - WESTBOUND (Shown)
PART INSIDE ELEVATION OF PARAPET - EASTBOUND (Opposite hand)
 (Spans 1 and 2)



PART INSIDE ELEVATION OF PARAPET - WESTBOUND (Shown)
PART INSIDE ELEVATION OF PARAPET - EASTBOUND (Opposite hand)
 (Spans 3 and 4)



PART INSIDE ELEVATION OF PARAPET - WESTBOUND (Shown)
PART INSIDE ELEVATION OF PARAPET - EASTBOUND (Opposite hand)
 (Span 5)

Notes:
 All dimensions shown are along toe of parapet.
 Bar indicated thus 1 x 8-#8 etc. indicates 1 line of bars with 8 lengths per line.
 See sheet S24 for Section Thru Parapet and light pole blister details.
 See sheet S25 for Bill of Material.

MINIMUM BAR LAP
 (Parapet)
 #4 bar = 2'-8"
 #8 bar = 5'-11"

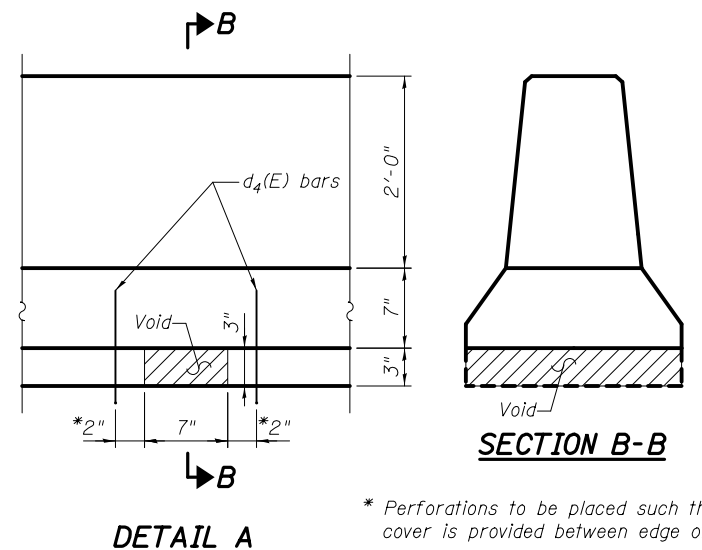
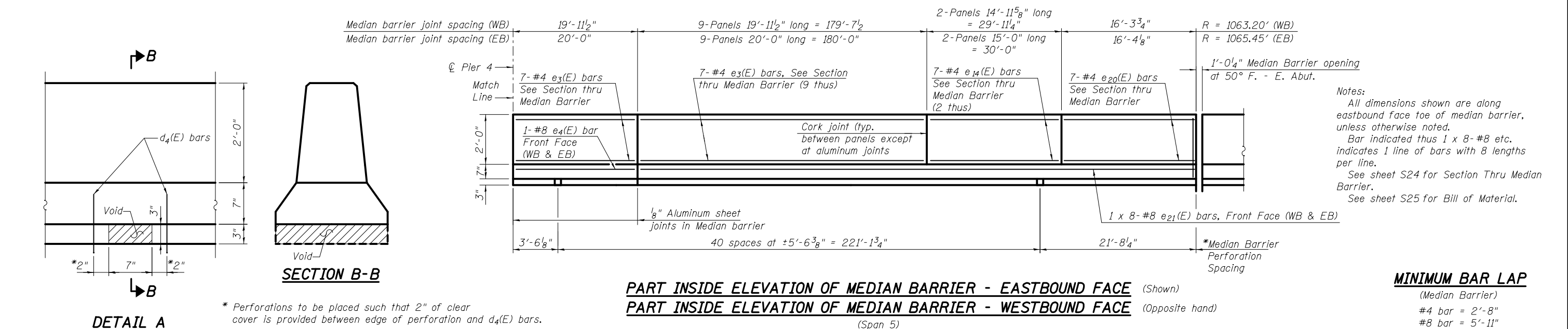
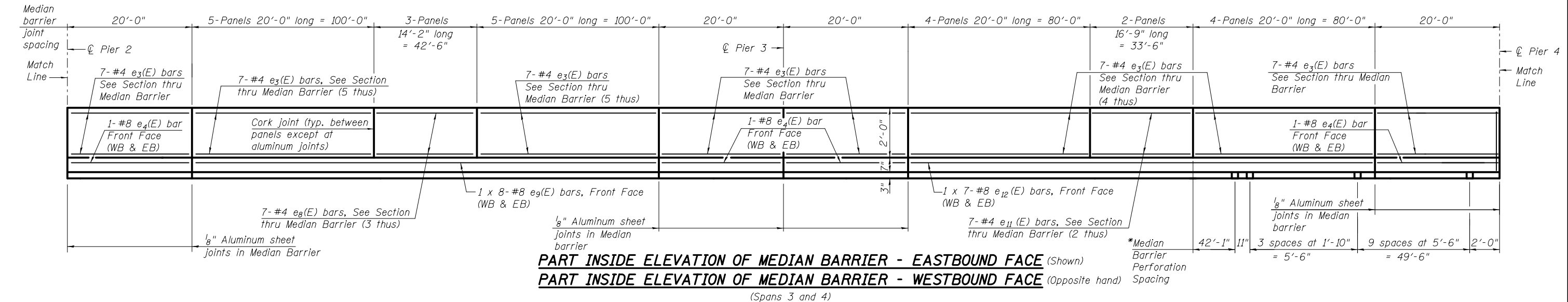
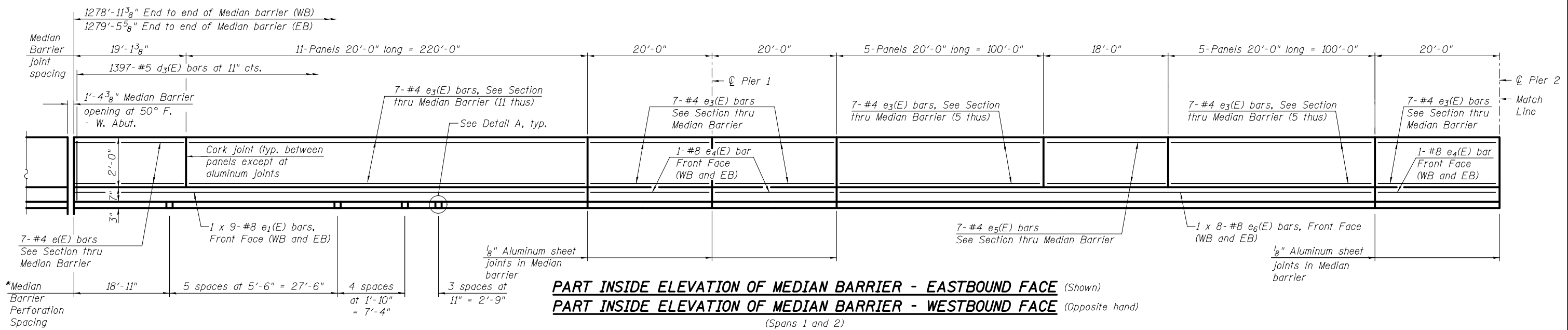


| | | |
|-----------------------|----------------|---------|
| USER NAME = | DESIGNED - ZJB | REVISED |
| | CHECKED - YSS | REVISED |
| PLOT SCALE = | DRAWN - PRC | REVISED |
| PLOT DATE = 3/12/2018 | CHECKED - ZJB | REVISED |

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS - 1
 S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
 VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB64WB
 SHEET NO. S22 OF S77 SHEETS

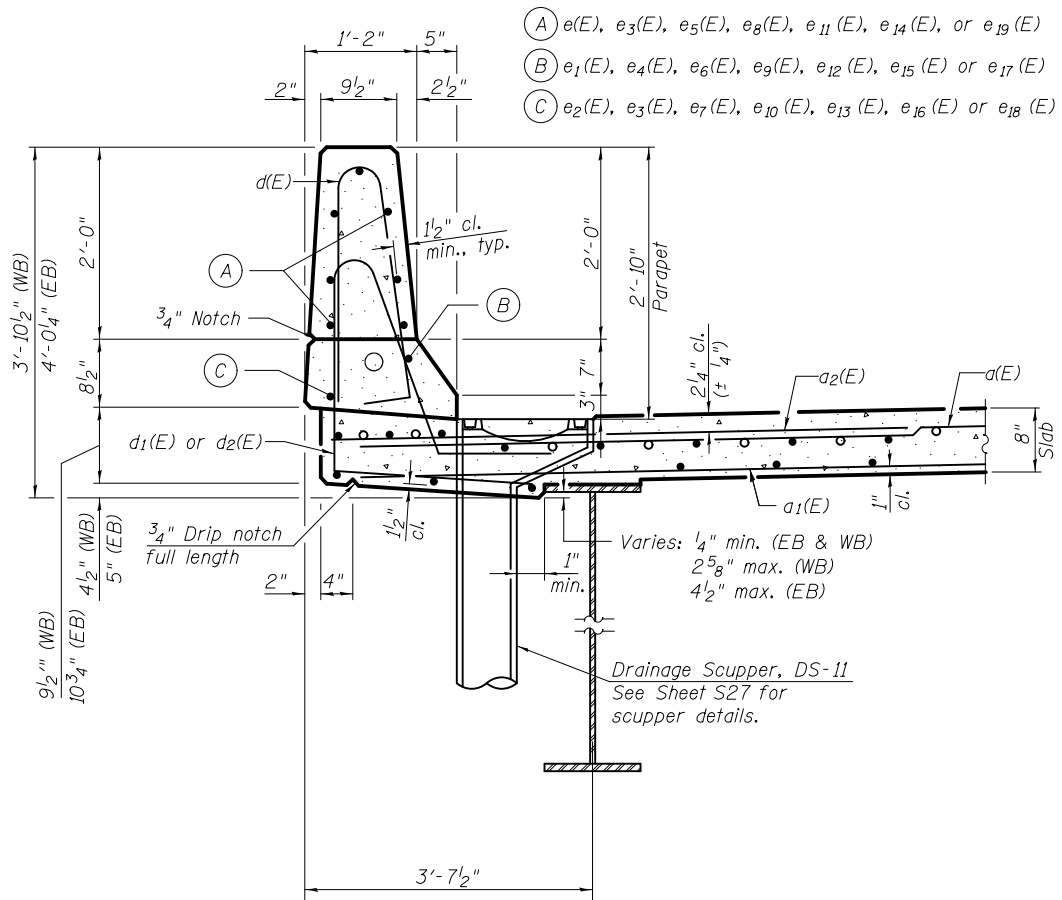
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|---------------------------|---------|-----------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | IBR-1-1 | ST. CLAIR | 315 | 166 |
| CONTRACT NO. 76G39 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |



* Perforations to be placed such that 2" of clear cover is provided between edge of perforation and d₄(E) bars.

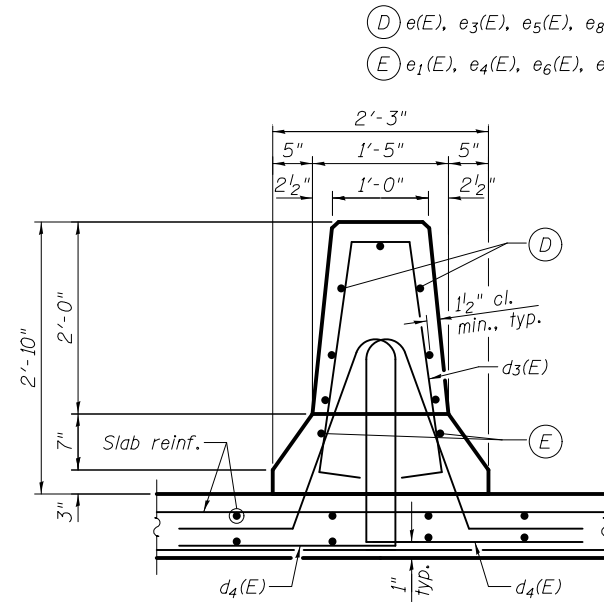
Notes:
 All dimensions shown are along eastbound face toe of median barrier, unless otherwise noted.
 Bar indicated thus 1 x 8-#8 etc. indicates 1 line of bars with 8 lengths per line.
 See sheet S24 for Section Thru Median Barrier.
 See sheet S25 for Bill of Material.

MINIMUM BAR LAP
 (Median Barrier)
 #4 bar = 2'-8"
 #8 bar = 5'-11"

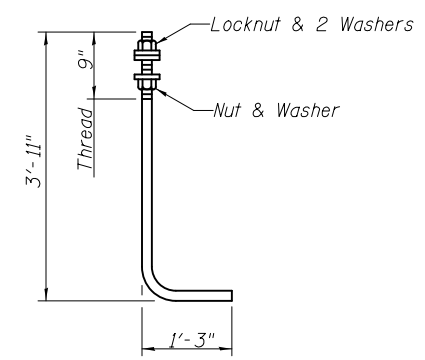


SECTION THRU PARAPET

See sheet S56 thru S61 for closed drainage details.

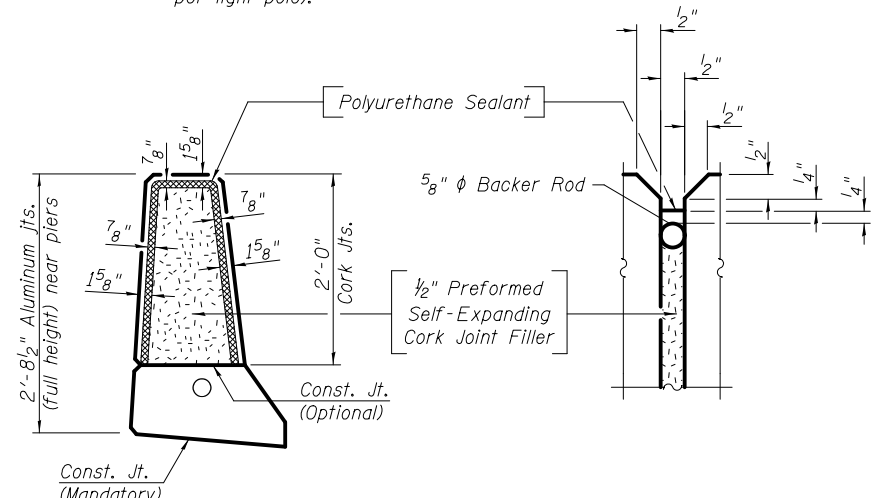


SECTION THRU MEDIAN BARRIER

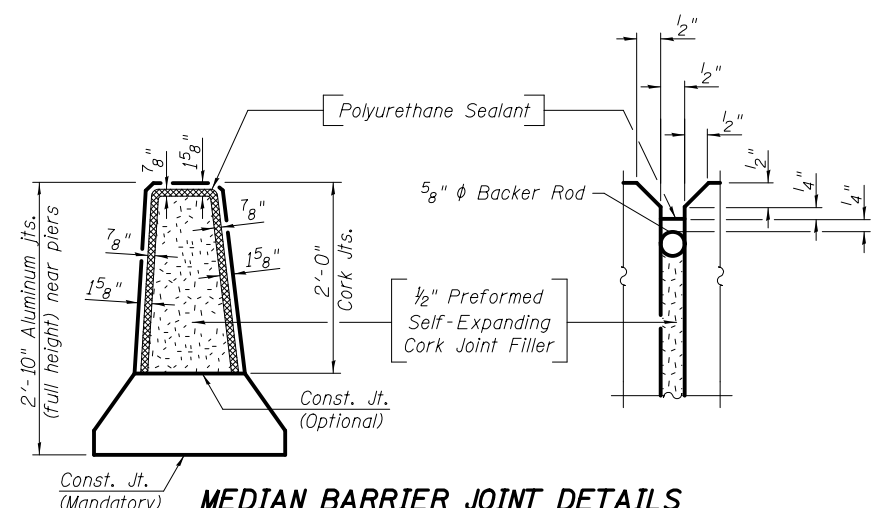


ANCHOR ROD

Diameter as specified for light poles. (ASTM F 1554 Grade 105). Full length hot dipped galvanized. (4 Required per light pole).

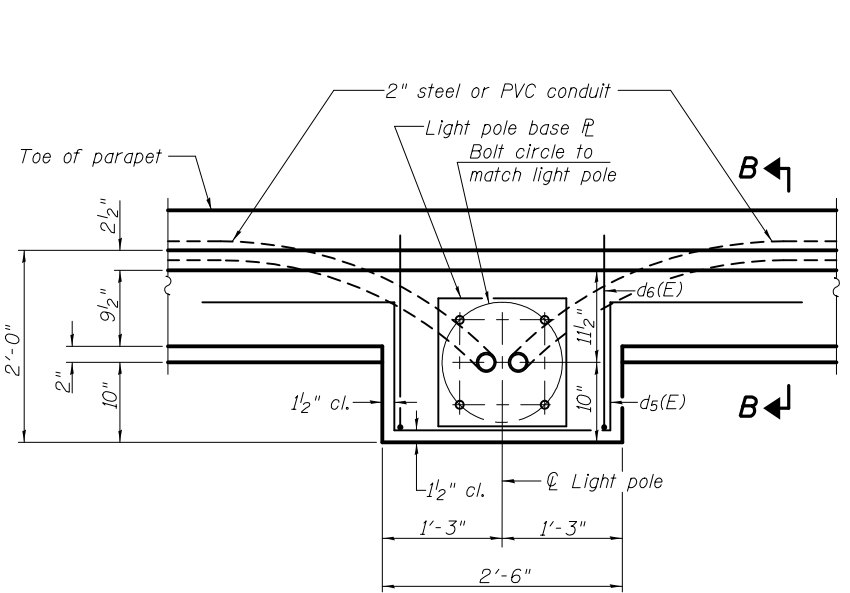


PARAPET JOINT DETAILS



MEDIAN BARRIER JOINT DETAILS

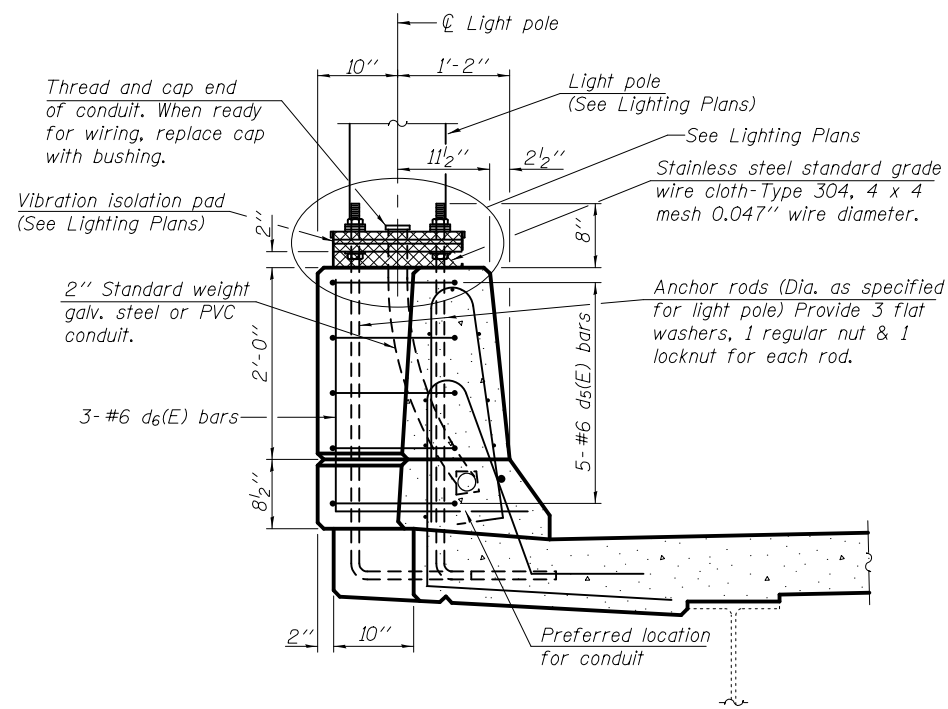
Notes:
 The 1/8" Aluminum sheet shall be ASTM B 209 alloy 3003-H14 and coated to minimize reaction with wet concrete. Cost included with Concrete Superstructure.
 The Polyurethane Sealant shall be non-staining gray one component non-sag elastomeric gun grade meeting the requirements of ASTM C-920, Type S, Grade NS, Class 25. Use T with a 5/8" backer rod. Cost included with Concrete Superstructure.
 The 1/2" Preformed Self-Expanding Cork Joint Filler shall be according to Article 1051.07 of the Std. Spec. Cost included with Concrete Superstructure.



LIGHT POLE BLISTER PLAN

(7 Locations required)

Notes:
 Cost of anchor rods and conduit is included with Concrete Superstructure.
 Apply protective coat to the top surface of the light pole blister according to Article 503.19 of the Standard Specification.



SECTION B-B

Slab reinforcement not shown for clarity.

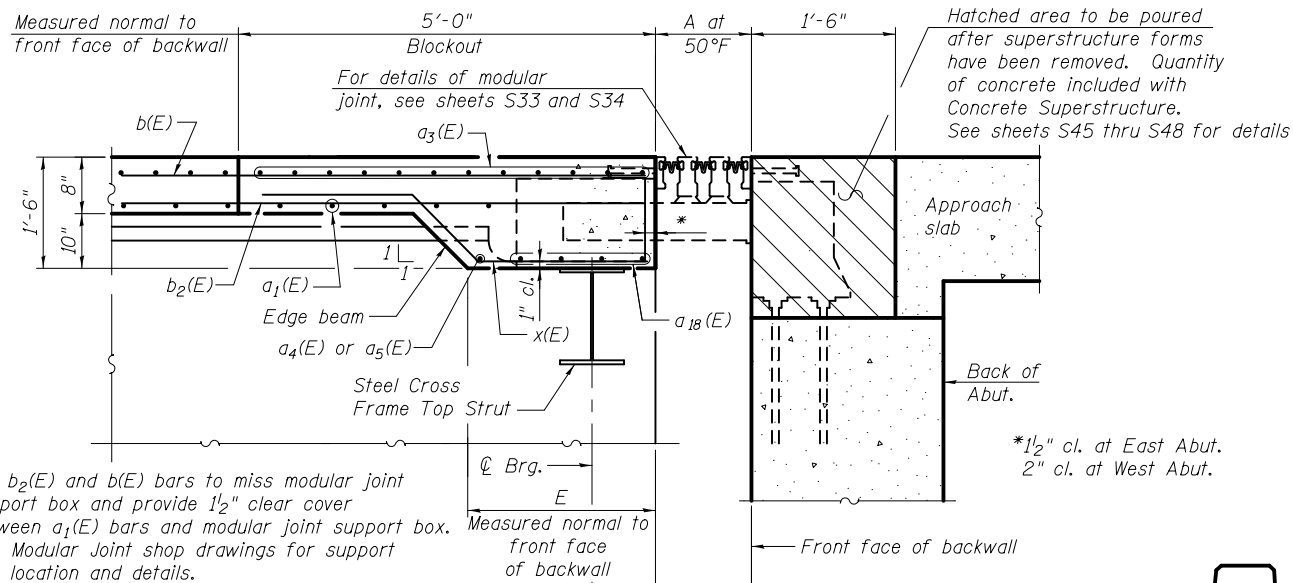


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|-----------------------|----------------|---------|
| USER NAME = | DESIGNED - ZJB | REVISED |
| PLOT SCALE = | CHECKED - YSS | REVISED |
| PLOT DATE = 3/12/2018 | DRAWN - PRC | REVISED |
| | CHECKED - ZJB | REVISED |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS - 3
 S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
 VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB64WB
 SHEET NO. S24 OF S77 SHEETS

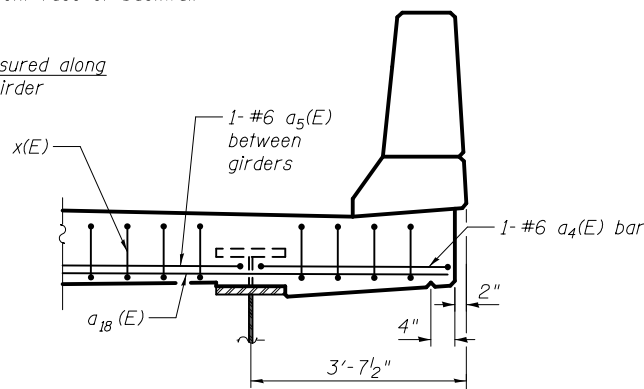
| | | | | |
|--------------------|---------|-----------|---------------------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | 1BR-1-1 | ST. CLAIR | 315 | 168 |
| CONTRACT NO. 76G39 | | | ILLINOIS FED. AID PROJECT | |



Cut $b_2(E)$ and $b(E)$ bars to miss modular joint support box and provide $1\frac{1}{2}$ " clear cover between $a_1(E)$ bars and modular joint support box. See Modular Joint shop drawings for support box location and details.

| | W. Abutment | E. Abutment |
|---|----------------------|----------------------|
| A | 1'-4 $\frac{3}{8}$ " | 1'-0 $\frac{1}{4}$ " |
| B | 1'-4 $\frac{1}{4}$ " | 1'-0 $\frac{1}{4}$ " |
| C | 1'-1 $\frac{1}{2}$ " | 1'-1" |
| D | 2'-5 $\frac{3}{4}$ " | 2'-1 $\frac{1}{4}$ " |
| E | 2'-4 $\frac{1}{2}$ " | 2'-4" |

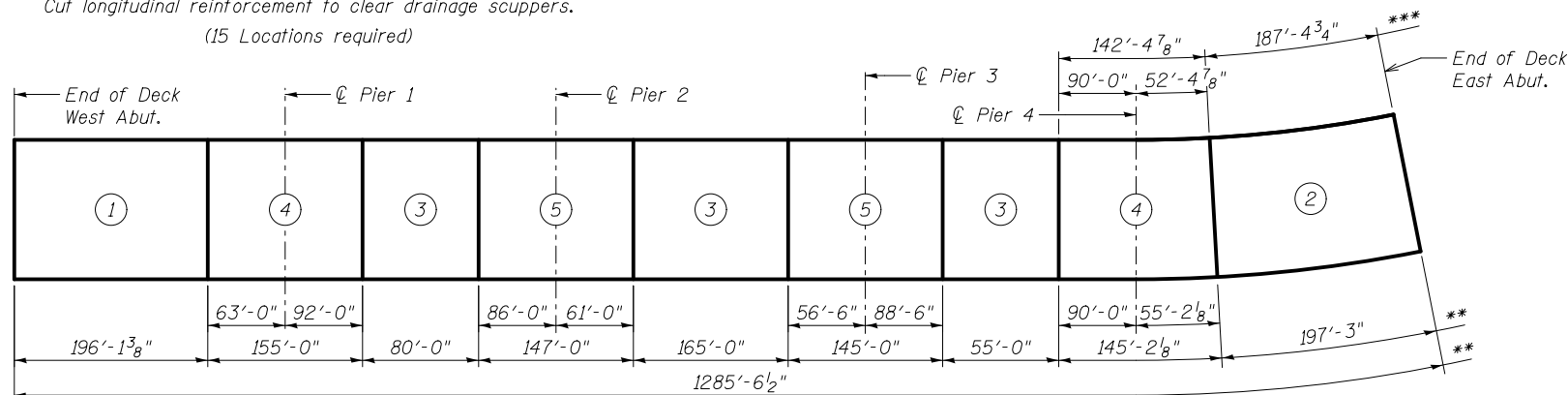
SECTION A-A



PARTIAL EDGE BEAM SECTION
(Modular Joint Support Box not shown)

PLAN AT DRAINAGE SCUPPER, DS-11

Cut longitudinal reinforcement to clear drainage scuppers.
(15 Locations required)



DECK POUR SEQUENCE

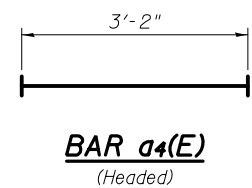
** Measured along south edge of slab
*** Measured along north edge of slab

Notes:

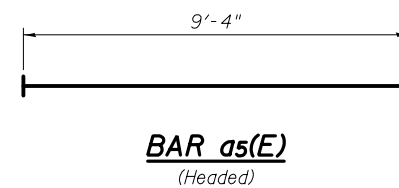
When the deck pour is stopped for the day at one or more of the transverse bonded construction joints in the deck pouring sequence as shown, the next pour shall not be made until both of the following are met:

- 1) At least 72 hours shall have elapsed from the end of the previous pour.
- 2) The concrete strength shall have attained a minimum flexural strength of 675 psi or a minimum compressive strength of 4000 psi.

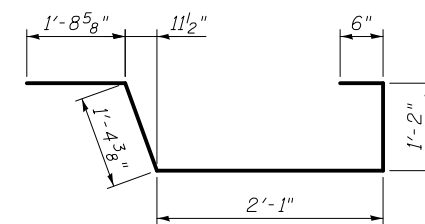
The Contractor is alerted that camber and dead load deflection values shown on the girder detail drawings were developed based on the deck pouring sequence shown. Any deviation from this pouring sequence will result in changes to camber and elevations that reflect dead load deflections. If the Contractor wishes to change the sequence, then the proposed plan revisions and design calculations shall be submitted to the Engineer for review and approval. The calculations shall be prepared and sealed by a Licensed Structural Engineer in Illinois.



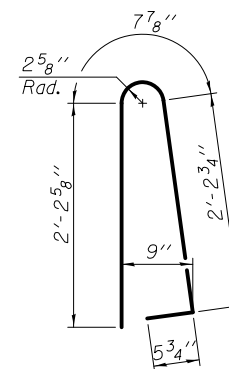
BAR a4(E)



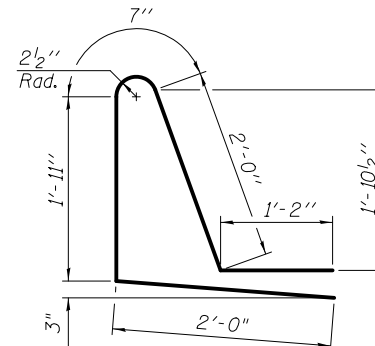
BAR a5(E)



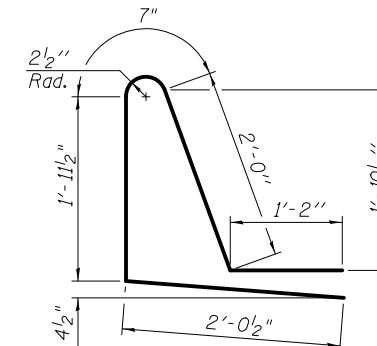
BAR x(E)



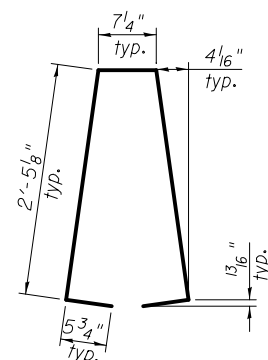
BAR d(E)



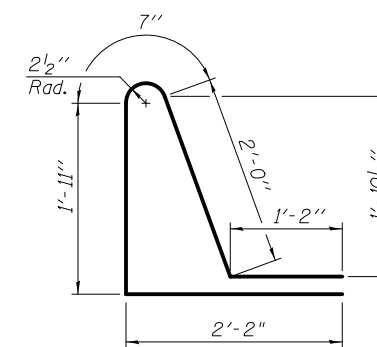
BAR d1(E)



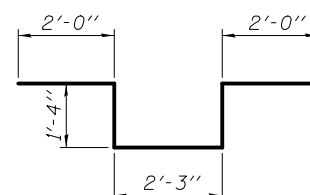
BAR d2(E)



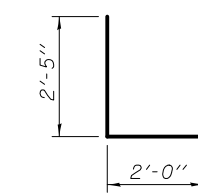
BAR d3(E)



BAR d4(E)



BAR d5(E)



BAR d6(E)

SUPERSTRUCTURE BILL OF MATERIAL

| Bar | No. | Size | Length | Shape |
|----------------------------------|------|---------|---------|-------|
| a(E) | 3062 | #5 | 54'-6" | — |
| a1(E) | 2053 | #5 | 54'-3" | — |
| a2(E) | 6174 | #6 | 6'-6" | — |
| a3(E) | 24 | #6 | 54'-6" | — |
| a4(E) | 4 | #6 | 3'-2" | — |
| a5(E) | 10 | #6 | 9'-4" | — |
| a6(E) | 120 | #5 | 1'-6" | — |
| a18(E) | 8 | #6 | 54'-3" | — |
| b(E) | 3074 | #5 | 27'-9" | — |
| b1(E) | 1320 | #6 | 32'-0" | — |
| b2(E) | 2208 | #5 | 30'-3" | — |
| d(E) | 2793 | #5 | 5'-7" | Δ |
| d1(E) | 1390 | #5 | 7'-8" | Δ |
| d2(E) | 1403 | #5 | 7'-9" | Δ |
| d3(E) | 1397 | #5 | 6'-5" | Δ |
| d4(E) | 2794 | #5 | 7'-10" | Δ |
| d5(E) | 35 | #6 | 8'-11" | — |
| d6(E) | 21 | #6 | 4'-5" | L |
| e(E) | 21 | #4 | 18'-10" | — |
| e1(E) | 36 | #8 | 32'-0" | — |
| e2(E) | 16 | #4 | 32'-3" | — |
| e3(E) | 1178 | #4 | 19'-9" | — |
| e4(E) | 32 | #8 | 19'-9" | — |
| e5(E) | 21 | #4 | 17'-9" | — |
| e6(E) | 32 | #8 | 32'-6" | — |
| e7(E) | 14 | #4 | 33'-6" | — |
| e8(E) | 63 | #4 | 13'-11" | — |
| e9(E) | 32 | #8 | 35'-6" | — |
| e10(E) | 16 | #4 | 32'-9" | — |
| e11(E) | 42 | #4 | 16'-6" | — |
| e12(E) | 28 | #8 | 32'-9" | — |
| e13(E) | 14 | #4 | 30'-0" | — |
| e14(E) | 70 | #4 | 14'-9" | — |
| e15(E) | 8 | #8 | 32'-9" | — |
| e16(E) | 7 | #4 | 33'-9" | — |
| e17(E) | 8 | #8 | 34'-3" | — |
| e18(E) | 7 | #4 | 35'-6" | — |
| e19(E) | 7 | #4 | 11'-10" | — |
| e20(E) | 7 | #4 | 16'-0" | — |
| e21(E) | 16 | #8 | 33'-6" | — |
| x(E) | 92 | #5 | 6'-10" | — |
| Concrete Superstructure | | Cu. Yd. | 2,390.8 | |
| Bridge Deck Grooving | | Sq. Yd. | 7,072 | |
| Protective Coat | | Sq. Yd. | 9,132 | |
| Reinforcement Bars, Epoxy Coated | | Pound | 683,120 | |

Notes:

Headed bars shall conform to ASTM A970 with threaded attachment; Class HA; and reinforcement bars conforming to ASTM A706. Cost included with Reinforcement Bars, Epoxy Coated.

For location of Section A-A, see sheet S20 and S21.

For drainage scupper locations, see sheet S1.



| | | |
|-----------------------|----------------|---------|
| USER NAME = | DESIGNED - ZJB | REVISED |
| PLOT SCALE = | CHECKED - YSS | REVISED |
| PLOT DATE = 3/12/2018 | DRAWN - PRC | REVISED |
| | CHECKED - ZJB | REVISED |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

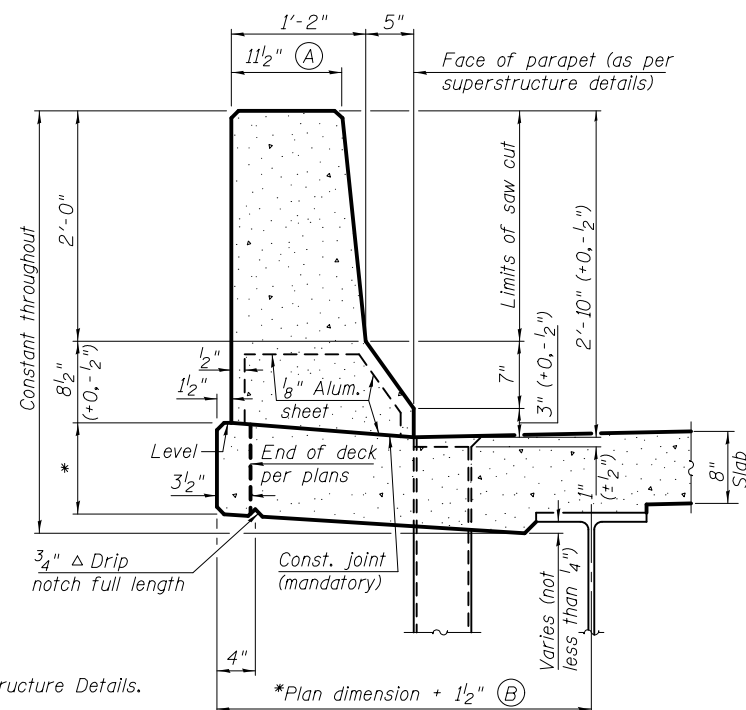
SUPERSTRUCTURE DETAILS - 4
S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB64WB
SHEET NO. S25 OF S77 SHEETS

| | | | | |
|---------------------------|---------|-----------|--------------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | 1BR-1-1 | ST. CLAIR | 315 | 169 |
| ILLINOIS FED. AID PROJECT | | | CONTRACT NO. 76G39 | |

GENERAL NOTES

All dimensions shall remain the same as shown on superstructure details, except dimensions A and B which are to be revised as shown to provide additional clearance. Additional concrete needed to revise dimension A and B = 0.0165 cu. yds./ft. for 34" parapet.

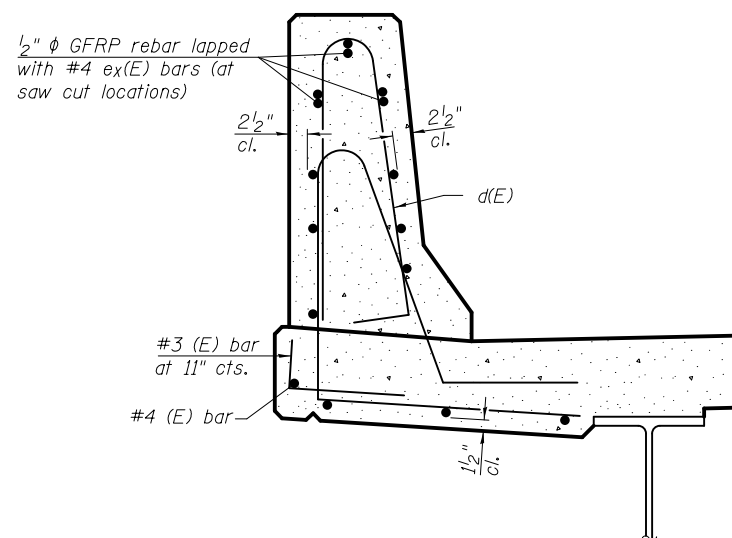
Place aluminum sheet in curb portion at and near piers. Full thickness saw cut at all joint locations in lieu of cork joint filler.



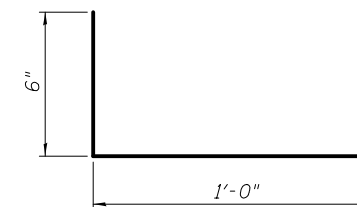
34" F SHAPE PARAPET SECTION
(Showing dimensions)

*See Superstructure Details.

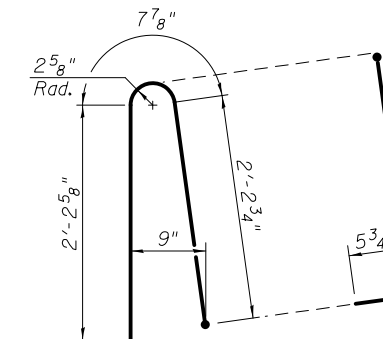
*Plan dimension + 1 1/2" (B)



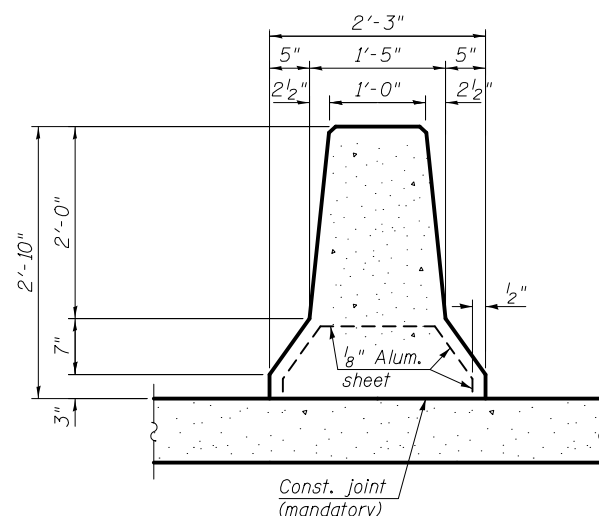
34" F SHAPE PARAPET SECTION
(Showing reinforcement clearances for slip forming and additional reinforcement bars)



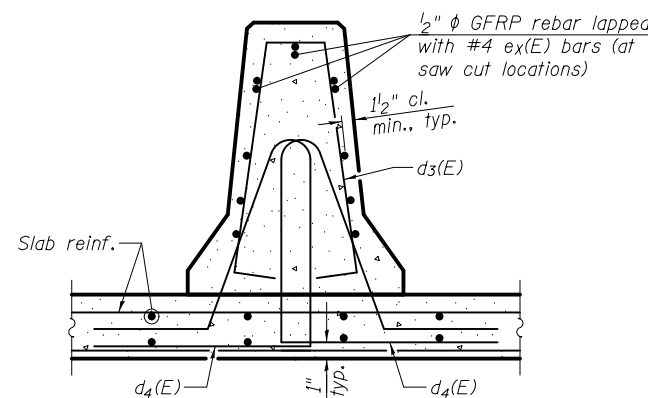
#3 (E) BAR



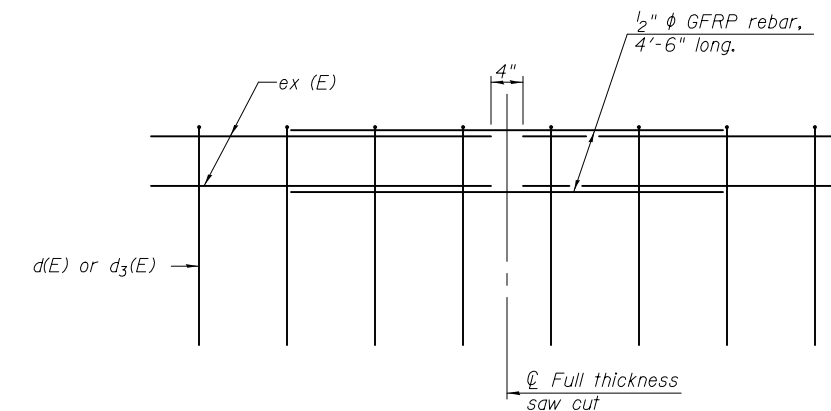
ALTERNATE BAR d(E)
(For 34" parapet when conduit is present)



MEDIAN BARRIER SECTION
(Showing dimensions)



MEDIAN BARRIER SECTION
(Showing reinforcement)



GFRP REBAR STIFFENING DETAIL

(Place as shown in parapet and median barrier section at each parapet and median barrier joint location.)



| | | |
|-----------------------|----------------|---------|
| USER NAME = | DESIGNED - YSS | REVISED |
| | CHECKED - ZJB | REVISED |
| PLOT SCALE = | DRAWN - AEC | REVISED |
| PLOT DATE = 3/12/2018 | CHECKED - YSS | REVISED |

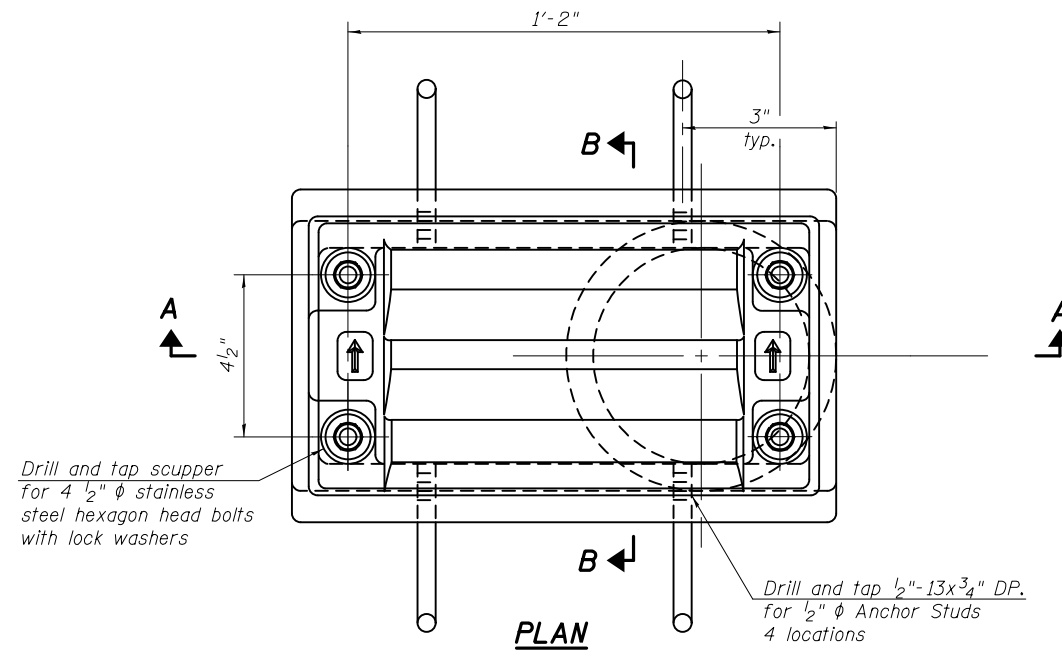
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONCRETE PARAPET SLIPFORMING OPTION
S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB64WB

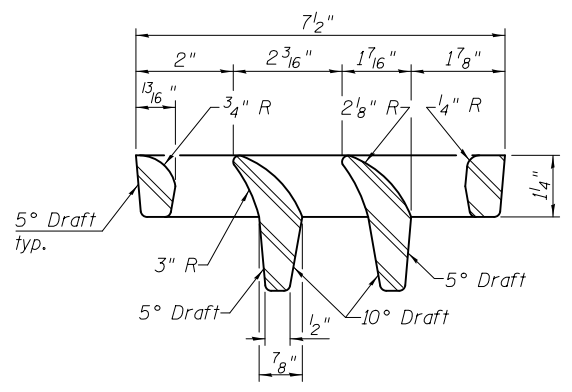
SHEET NO. S26 OF S77 SHEETS

| | | | | |
|--------------------|---------|-----------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | 1BR-1-1 | ST. CLAIR | 315 | 170 |
| CONTRACT NO. 76G39 | | | | |

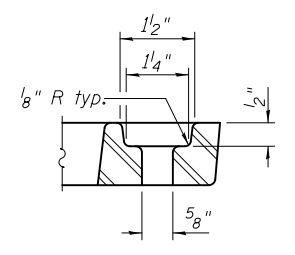
ILLINOIS FED. AID PROJECT



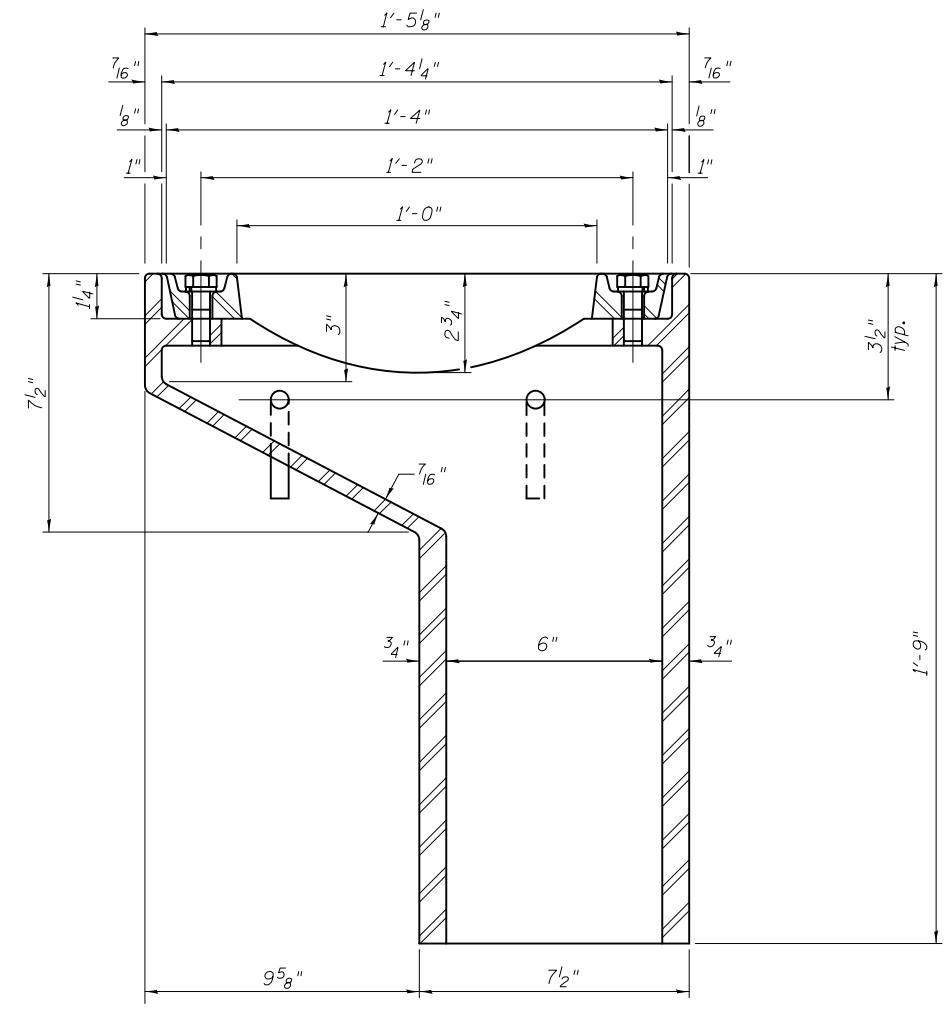
PLAN



VANE GRATE DETAIL

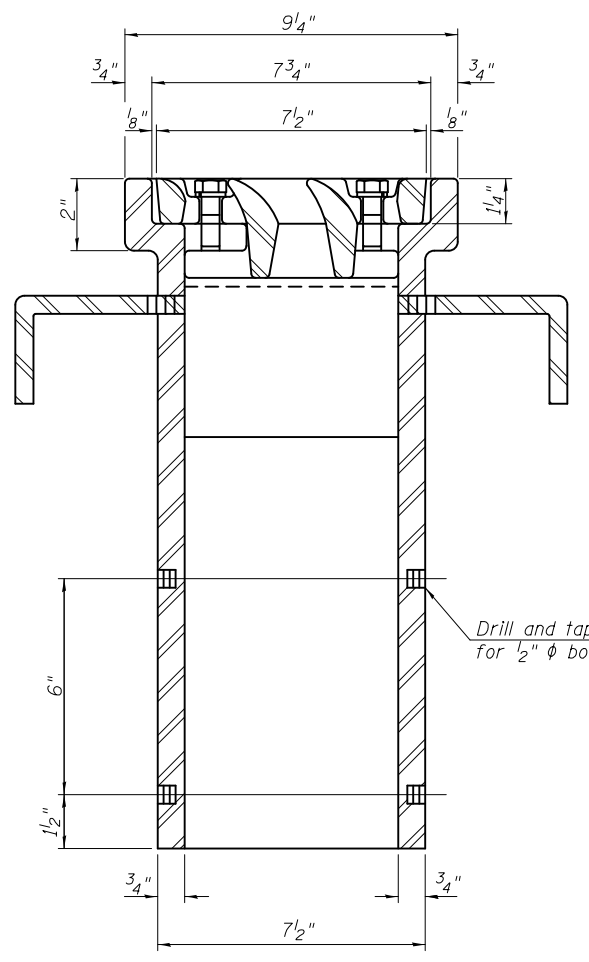


BOLT HOLE DETAIL

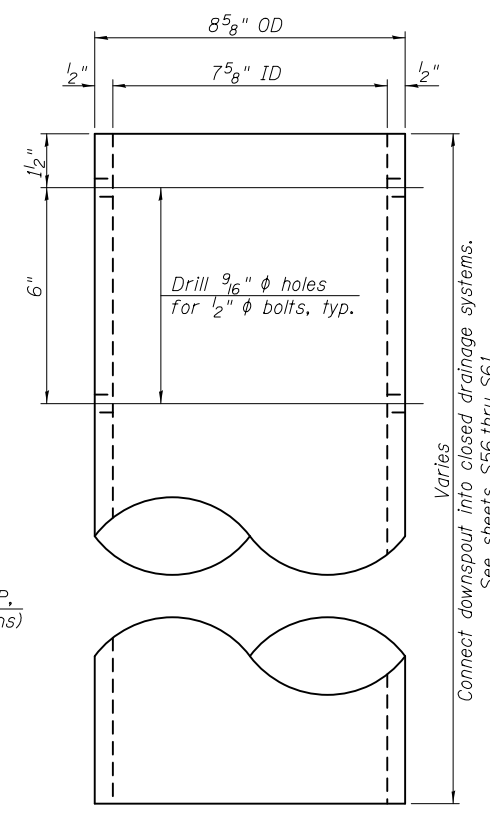


SECTION A-A

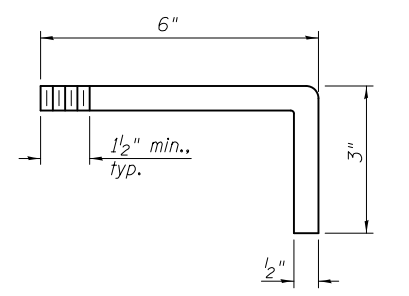
See sheet S24 for scupper location relative to parapet.



SECTION B-B



DOWNSPOUT



ANCHOR STUD DETAIL

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.

BILL OF MATERIAL

| ITEM | UNIT | QUANTITY |
|-------------------------|------|----------|
| Drainage Scupper, DS-11 | Each | 15 |

DS-11

7-1-10

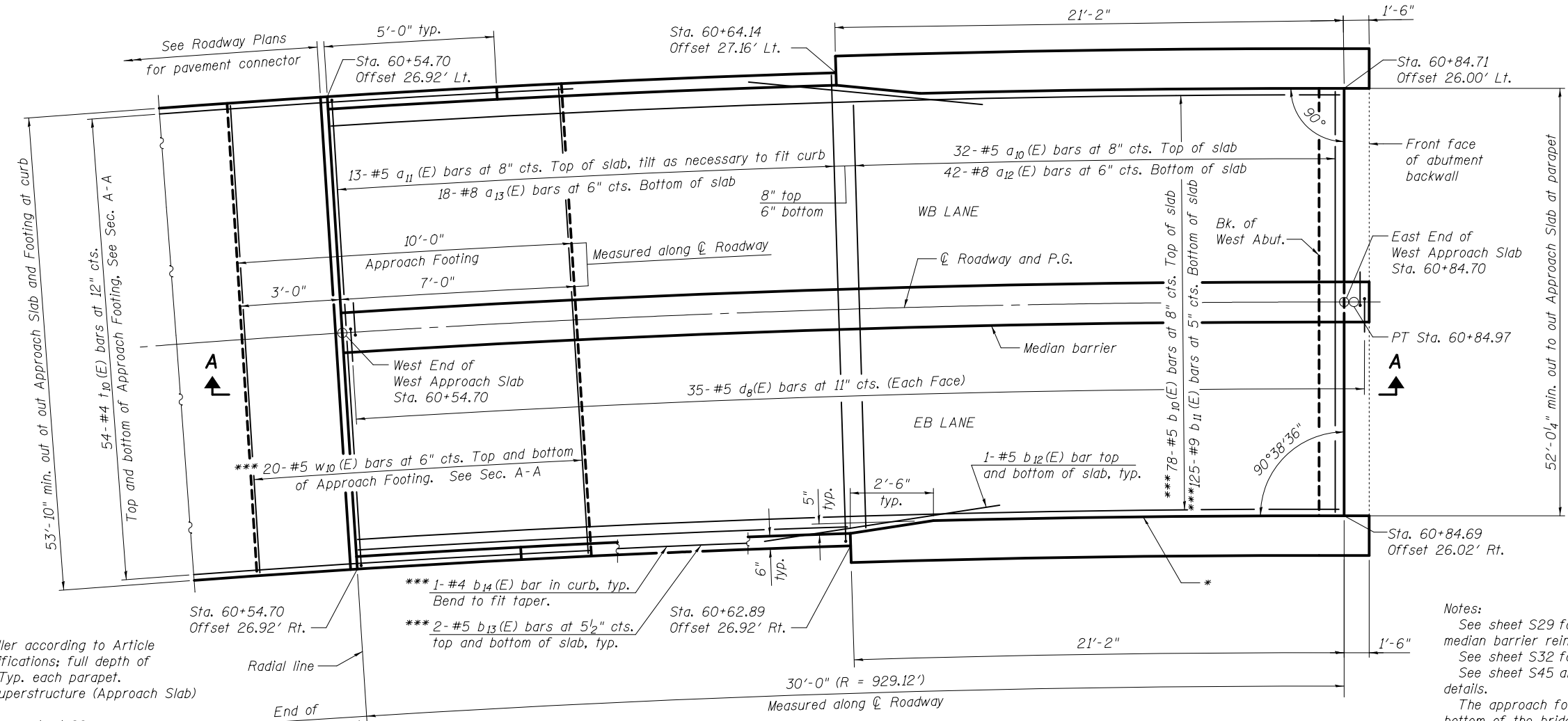


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| USER NAME = | DESIGNED - YSS | REVISED |
| | CHECKED - ZJB | REVISED |
| PLOT SCALE = | DRAWN - AEC | REVISED |
| PLOT DATE = 3/12/2018 | CHECKED - YSS | REVISED |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE SCUPPER DS-11
 S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
 VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB64WB
 SHEET NO. S27 OF S77 SHEETS

| | | | | |
|---------------------------|---------|-----------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | 1BR-1-1 | ST. CLAIR | 315 | 171 |
| CONTRACT NO. 76G39 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |



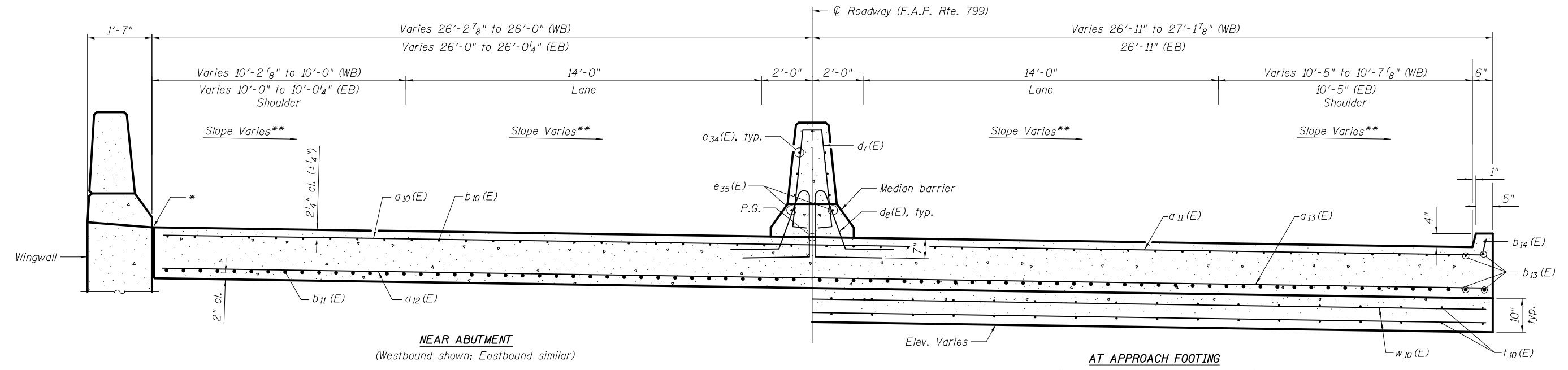
PLAN

* Prefomed Expansion Joint Filler according to Article 1051.09 of the Standard Specifications; full depth of slab, full length of parapet. Typ. each parapet. Cost included with Concrete Superstructure (Approach Slab)

** For superelevation transition, see sheet S6.

*** Cut to fit in field as required.

Notes:
 See sheet S29 for Section A-A, Bill of Material and median barrier reinforcement details.
 See sheet S32 for median barrier dimensions.
 See sheet S45 and S46 for wingwall and parapet details.
 The approach footing shall be placed parallel to the bottom of the bridge approach slab with a constant 10 inch thickness.
 Stations and offsets on this sheet are given to either the toe of parapet or back face of curb and are measured from centerline of roadway.



CROSS SECTION
(Looking East)

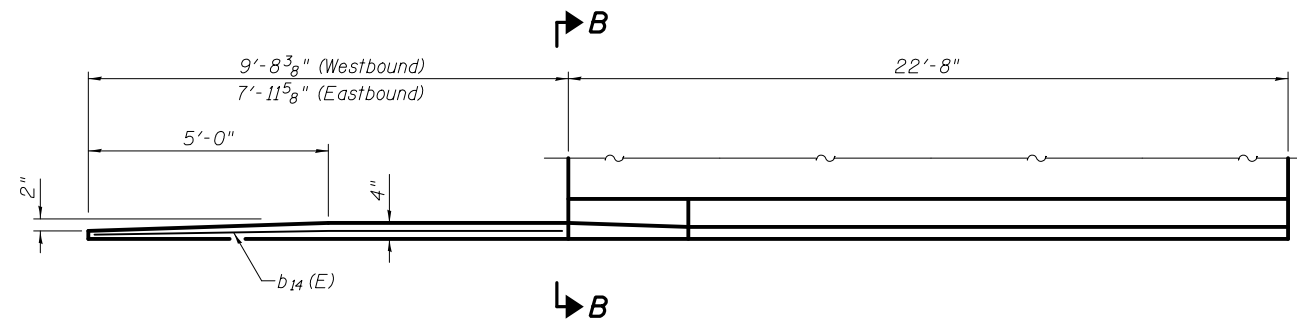


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|-----------------------|----------------|---------|
| USER NAME = | DESIGNED - ZJB | REVISED |
| | CHECKED - YSS | REVISED |
| PLOT SCALE = | DRAWN - PRC | REVISED |
| PLOT DATE = 3/12/2018 | CHECKED - ZJB | REVISED |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

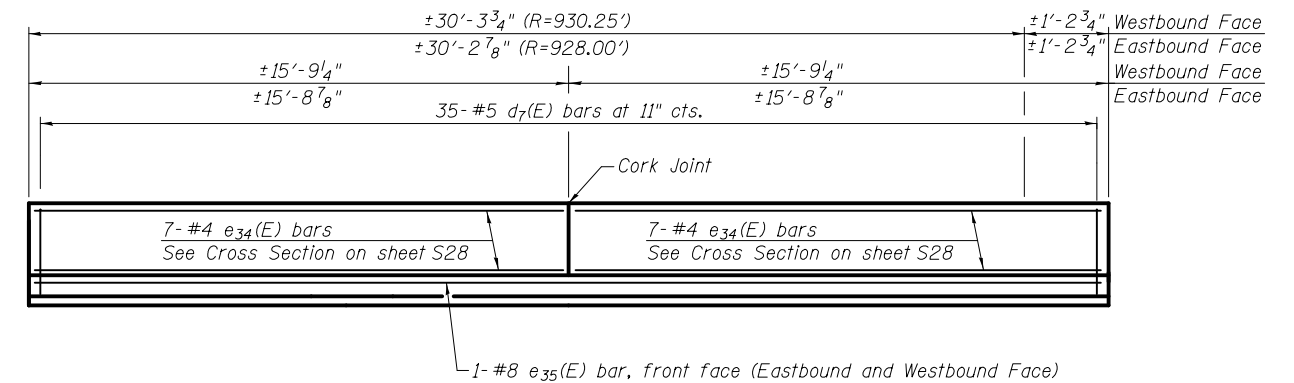
BRIDGE APPROACH SLAB DETAILS AT WEST ABUTMENT - 1
 S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
 VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB64WB

| | | | | |
|-----------------------------|-----------------|------------------|------------------|--------------------|
| F.A.P. RTE. 799 | SECTION 1BR-1-1 | COUNTY ST. CLAIR | TOTAL SHEETS 315 | SHEET NO. 172 |
| SHEET NO. S28 OF S77 SHEETS | | | | CONTRACT NO. 76G39 |
| ILLINOIS FED. AID PROJECT | | | | |



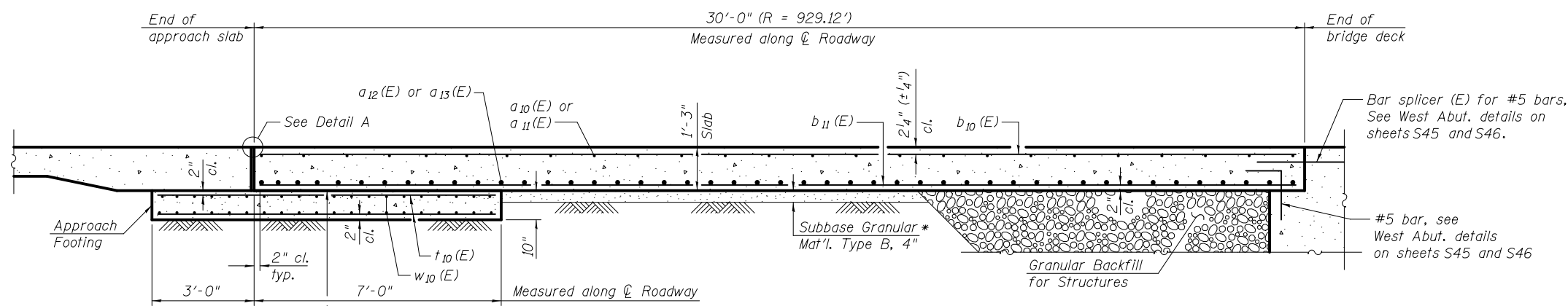
INSIDE ELEVATION OF PARAPET AND CURB

See sheet S45 and S46 for parapet details.
(Westbound shown; Eastbound opposite hand)



INSIDE ELEVATION OF MEDIAN BARRIER

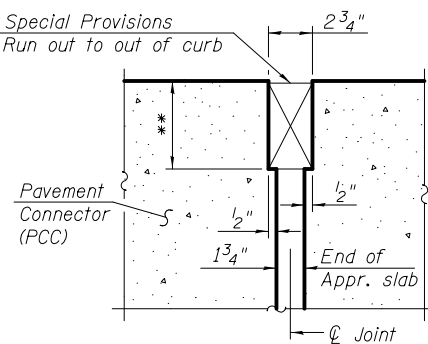
(Eastbound shown; Westbound opposite hand)



SECTION A-A

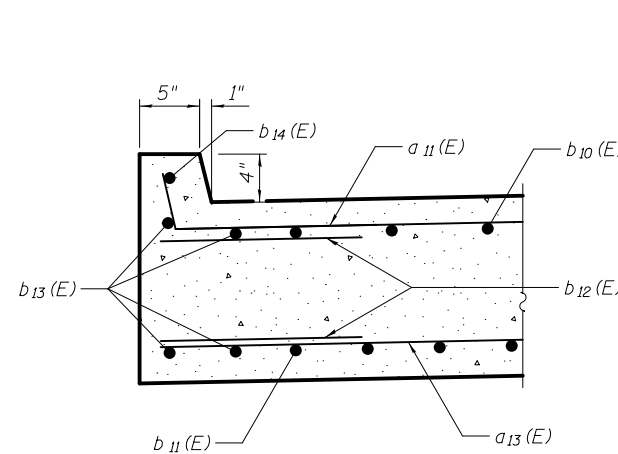
* 10 mil. Polyethylene bond breaker on steel trowel finish

* Expansion joint. See Special Provisions
Recess 1/4" minimum. Run out to out of curb

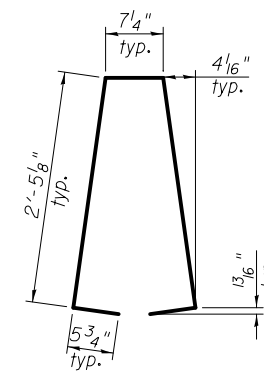


DETAIL A

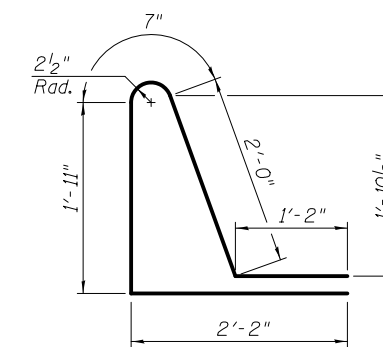
(See Highway Standard 420401)



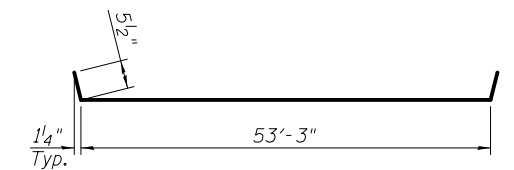
SECTION B-B



BAR d7(E)



BAR d8(E)



BAR a11(E)

**WEST APPROACH SLAB
BILL OF MATERIAL**

| Bar | No. | Size | Length | Shape |
|---|-----|---------|--------|-------|
| a10(E) | 32 | #5 | 51'-8" | — |
| a11(E) | 13 | #5 | 54'-2" | — |
| a12(E) | 42 | #8 | 51'-8" | — |
| a13(E) | 18 | #8 | 53'-6" | — |
| b10(E) | 78 | #5 | 30'-6" | — |
| b11(E) | 125 | #9 | 30'-6" | — |
| b12(E) | 4 | #5 | 8'-6" | — |
| b13(E) | 8 | #5 | 9'-4" | — |
| b14(E) | 2 | #4 | 9'-4" | — |
| d7(E) | 35 | #5 | 6'-5" | Δ |
| d8(E) | 70 | #5 | 7'-10" | Δ |
| e34(E) | 14 | #4 | 15'-5" | — |
| e35(E) | 2 | #8 | 31'-2" | — |
| t10(E) | 108 | #4 | 9'-8" | — |
| w10(E) | 40 | #5 | 53'-9" | — |
| Concrete Structures | | Cu. Yd. | 16.7 | |
| Concrete Superstructure | | Cu. Yd. | 4.8 | |
| Bridge Deck Grooving | | Sq. Yd. | 176 | |
| Protective Coat | | Sq. Yd. | 221 | |
| Concrete Superstructure (Approach Slab) | | Cu. Yd. | 73.4 | |
| Reinforcement Bars, Epoxy Coated | | Pound | 30,460 | |

Notes:

Median barrier concrete shall be paid for as Concrete Superstructure.
Approach slab shall be paid for as Concrete Superstructure (Approach Slab).
Approach footing concrete shall be paid for as Concrete Structures.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
Cost of excavation for approach footing included with Concrete Structures.
For Granular Backfill for Structures and drainage treatment details, see sheet S4.
See sheet S32 for median joint details.



| | | |
|-----------------------|----------------|---------|
| USER NAME = | DESIGNED - ZJB | REVISED |
| | CHECKED - YSS | REVISED |
| PLOT SCALE = | DRAWN - PRC | REVISED |
| PLOT DATE = 3/12/2018 | CHECKED - ZJB | REVISED |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS AT WEST ABUTMENT - 2
S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB64WB

| | | | | |
|--------------------|---------|-----------|---------------------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | IBR-1-1 | ST. CLAIR | 315 | 173 |
| CONTRACT NO. 76C39 | | | ILLINOIS FED. AID PROJECT | |

SHEET NO. S29 OF S77 SHEETS

MINIMUM BAR LAP

(Approach Slab)

#5 bar = 3'-6"
#8 bar = 4'-9"

Notes:

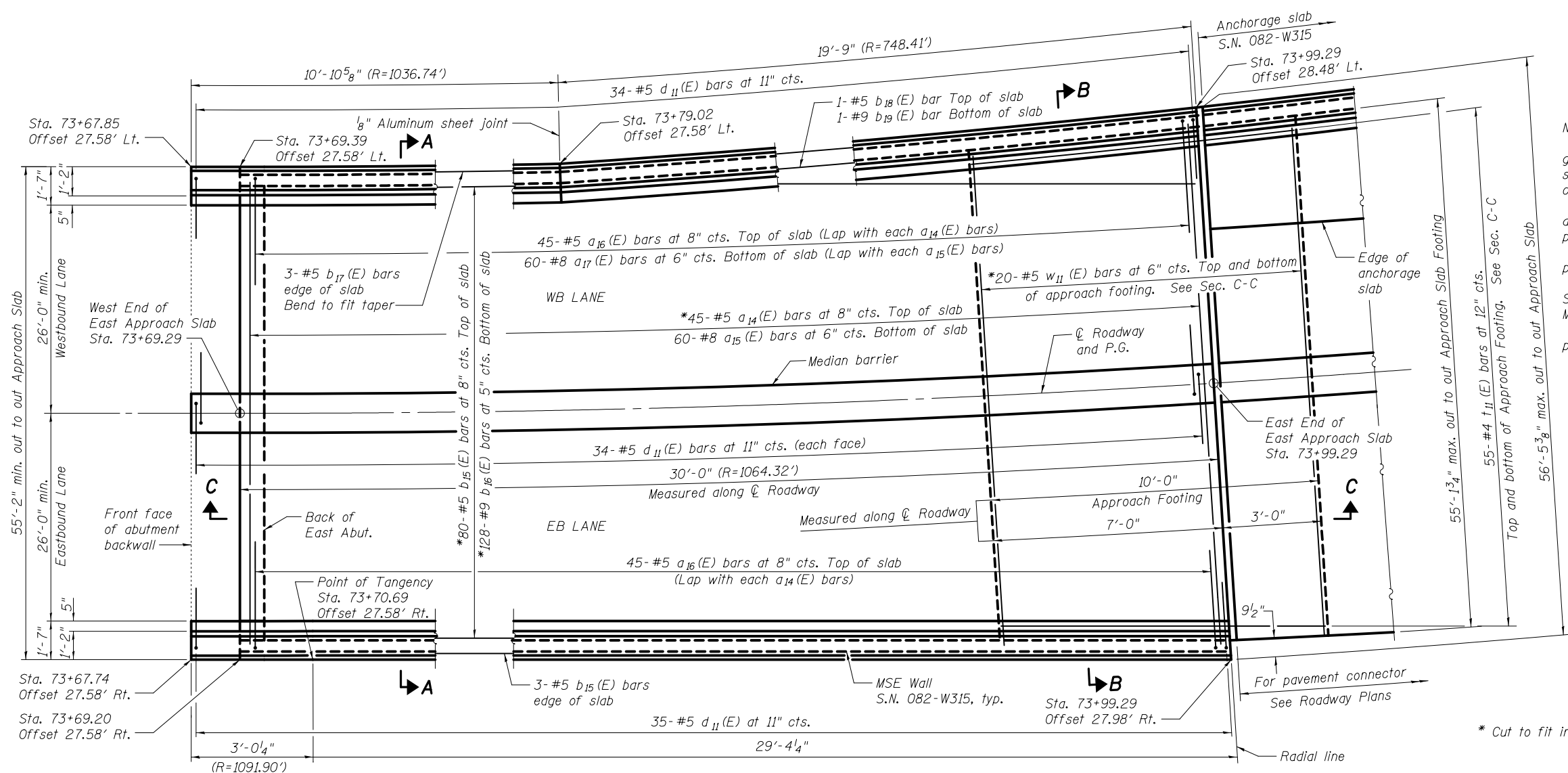
Stations and offsets on this sheet are given to the back face of the approach slab parapets and are measured from centerline roadway, except as noted.

Dimensions on this sheet are measured along the back face of the approach slab parapet, except as noted.

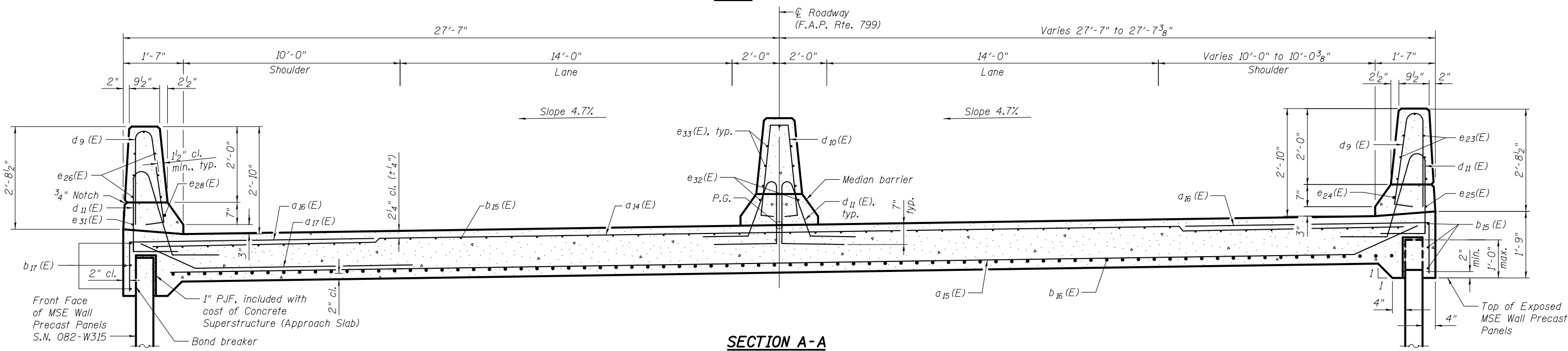
See sheet S31 for Section B-B, C-C, parapet and median barrier details.

See sheet S32 for median dimensions, Section Thru Median Barrier and Bill of Material.

See proposed retaining wall SN 082-W315 plans for further details.



PLAN



SECTION A-A

(Sta. 73+69.29 to Sta. 73+79.02)
(Looking East)

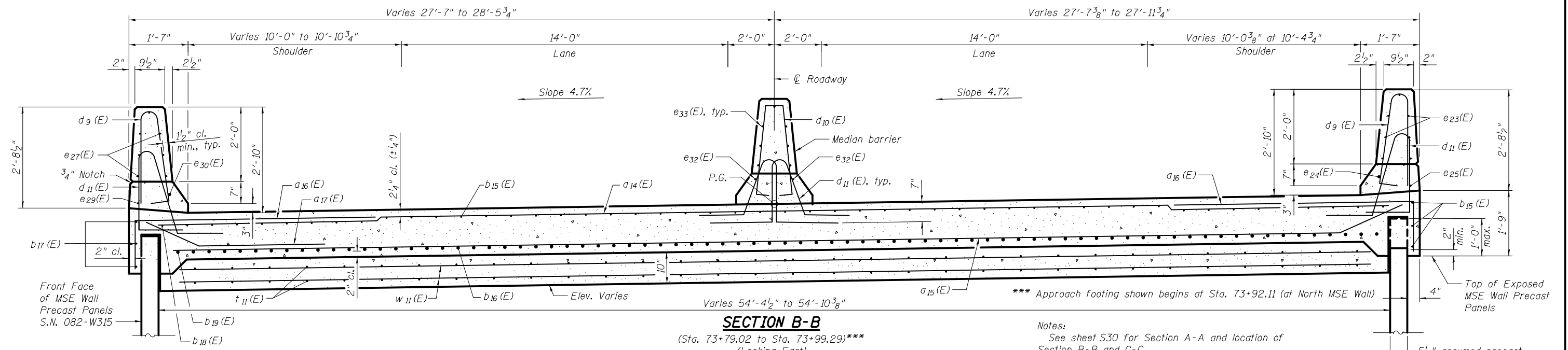


| | | |
|-----------------------|----------------|---------|
| USER NAME = | DESIGNED - ZJB | REVISED |
| | CHECKED - YSS | REVISED |
| PLOT SCALE = | DRAWN - PRC | REVISED |
| PLOT DATE = 3/12/2018 | CHECKED - ZJB | REVISED |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

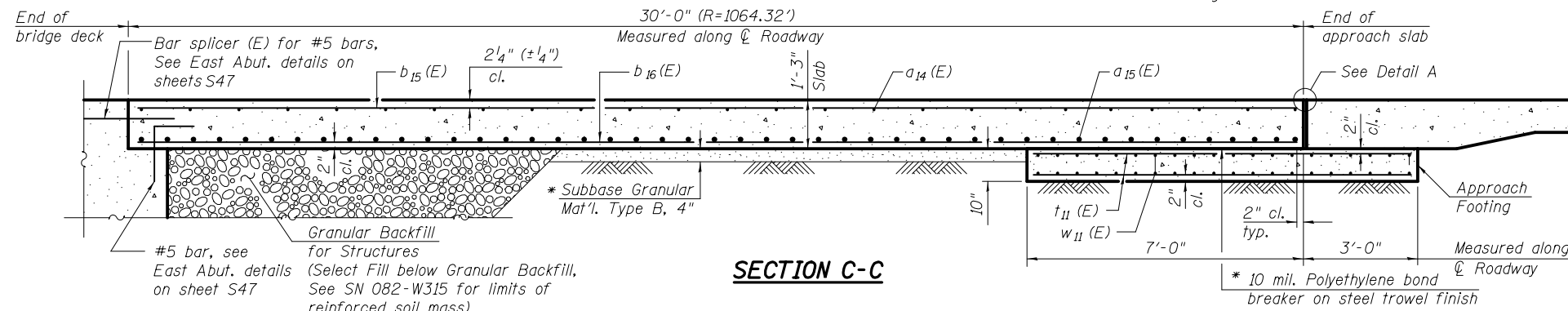
BRIDGE APPROACH SLAB DETAILS AT EAST ABUTMENT - 1
S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB64WB

| | | | | |
|-----------------------------|-----------------|------------------|--------------------|---------------|
| F.A.P. RTE. 799 | SECTION 1BR-1-1 | COUNTY ST. CLAIR | TOTAL SHEETS 315 | SHEET NO. 174 |
| SHEET NO. S30 OF S77 SHEETS | | | CONTRACT NO. 76C39 | |
| ILLINOIS FED. AID PROJECT | | | | |

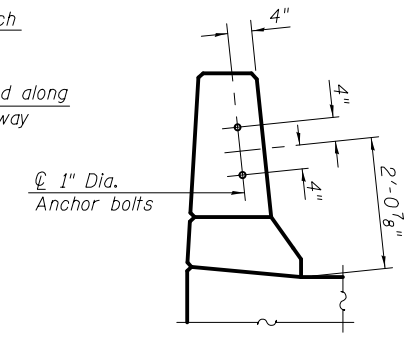


SECTION B-B
(Sta. 73+79.02 to Sta. 73+99.29)***
(Looking East)

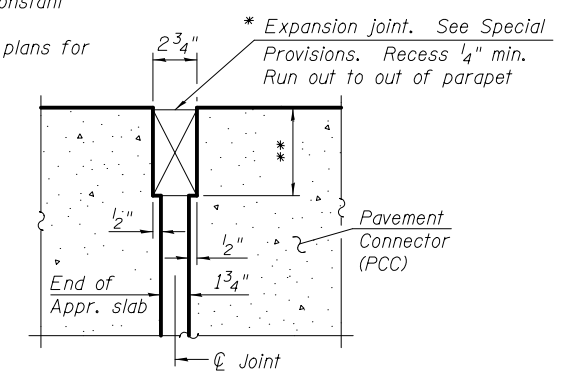
Notes:
See sheet S30 for Section A-A and location of Section B-B and C-C.
See sheet S32 Bill of Material and Section Thru Median Barrier.
See sheet S32 for parapet and median barrier joint details.
The approach footing shall be placed parallel to the bottom of the bridge approach slab with a constant 10 inch thickness.
See proposed retaining wall SN 082-W315 plans for further details.



SECTION C-C



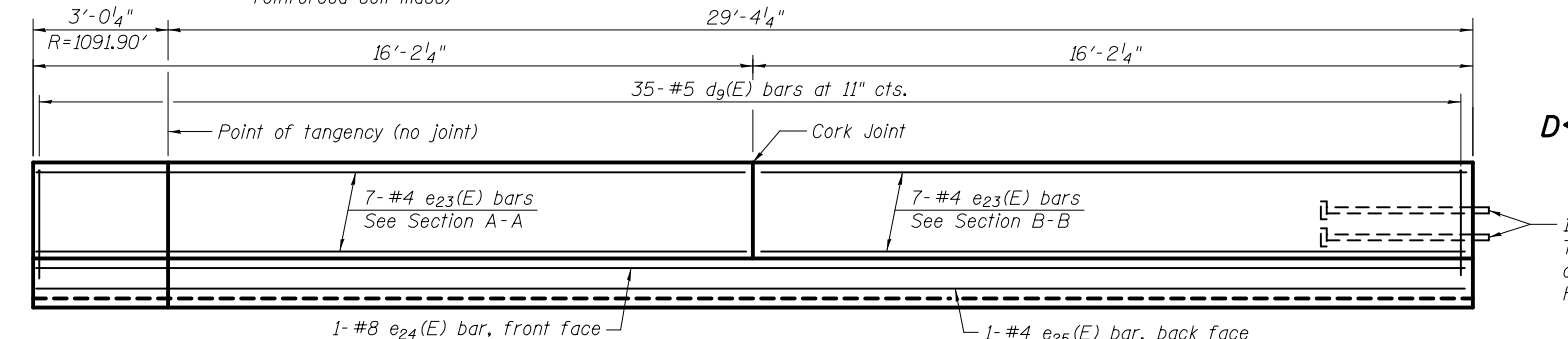
VIEW D-D



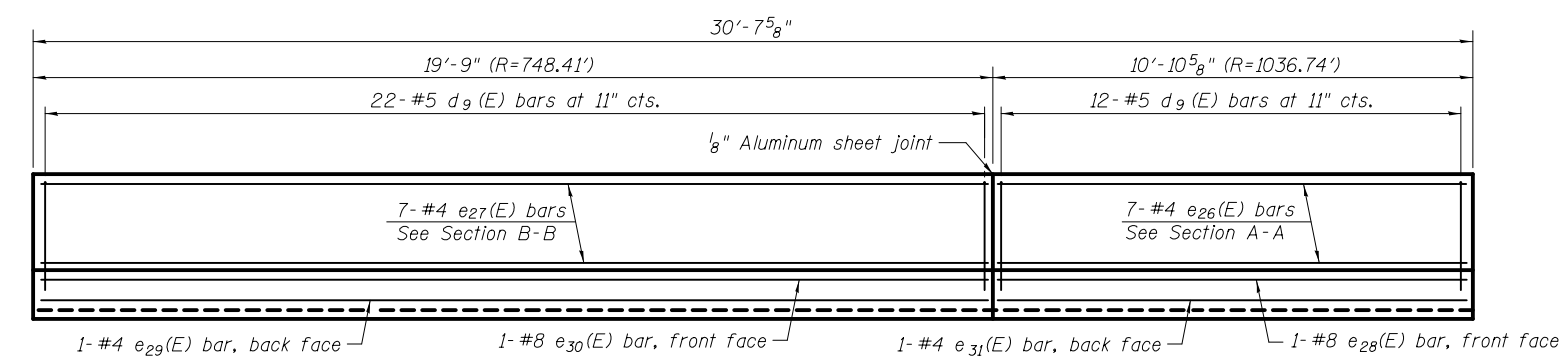
DETAIL A

(See Highway Standard 420401)

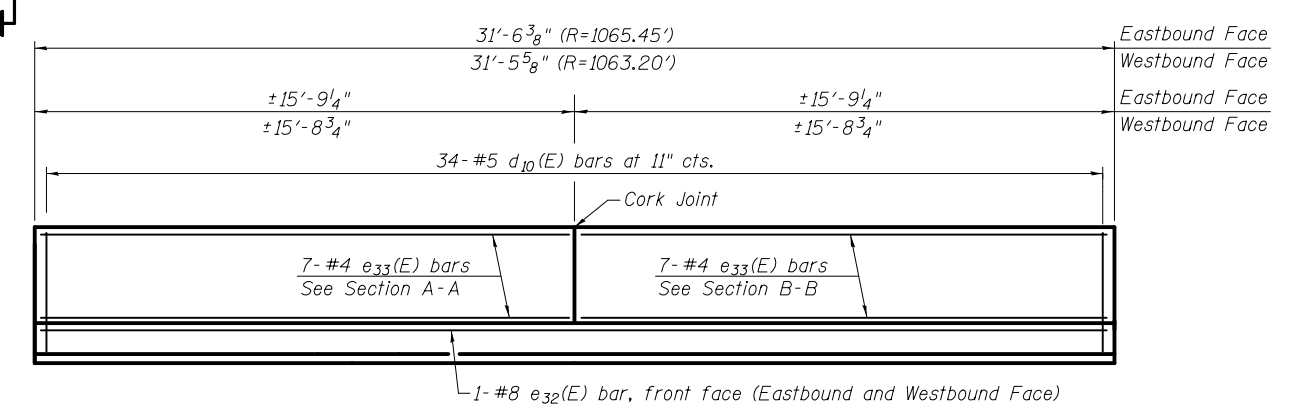
* Cost included with Concrete Superstructure (Approach Slab).
** Per manufacturer recommendations



OUTSIDE ELEVATION OF EASTBOUND APPROACH PARAPET



OUTSIDE ELEVATION OF WESTBOUND APPROACH PARAPET



INSIDE ELEVATION OF MEDIAN BARRIER

(Eastbound Face Shown, Westbound opposite hand)



| | | |
|-----------------------|----------------|---------|
| USER NAME = | DESIGNED - ZJB | REVISED |
| | CHECKED - YSS | REVISED |
| PLOT SCALE = | DRAWN - PRC | REVISED |
| PLOT DATE = 3/12/2018 | CHECKED - ZJB | REVISED |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

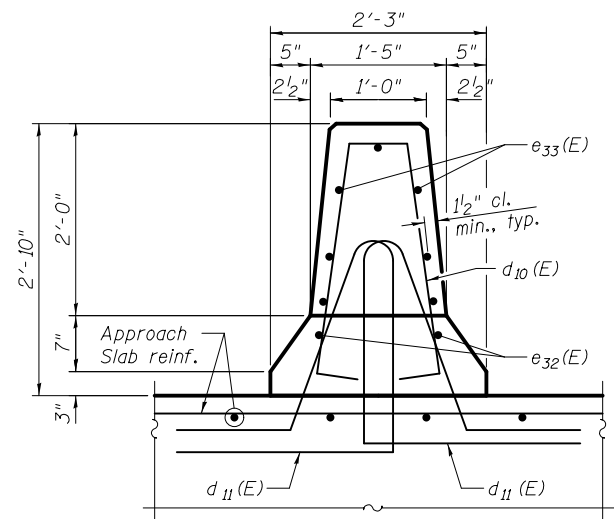
BRIDGE APPROACH SLAB DETAILS AT EAST ABUTMENT - 2
S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB64WB

| | | | | |
|--------------------|---------|-----------|---------------------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | IBR-1-1 | ST. CLAIR | 315 | 175 |
| CONTRACT NO. 76G39 | | | ILLINOIS FED. AID PROJECT | |

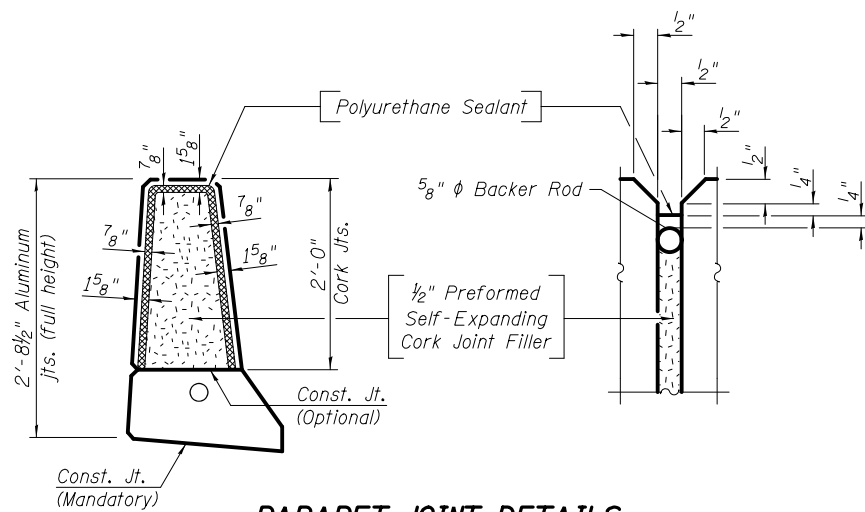
SHEET NO. S31 OF S77 SHEETS

**EAST APPROACH SLAB
BILL OF MATERIAL**

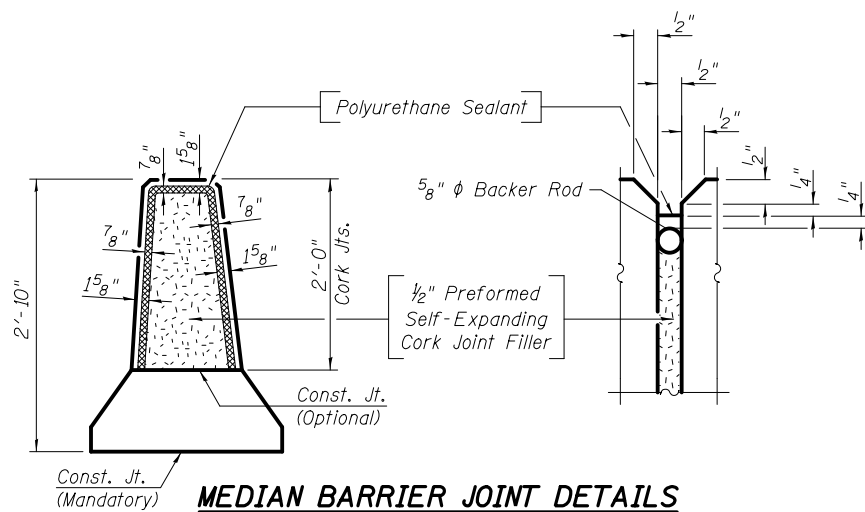
| Bar | No. | Size | Length | Shape |
|---|-----|---------|---------|-------|
| a ₁₄ (E) | 45 | #5 | 54'-10" | — |
| a ₁₅ (E) | 60 | #8 | 52'-0" | — |
| a ₁₆ (E) | 90 | #5 | 7'-9" | — |
| a ₁₇ (E) | 60 | #8 | 11'-0" | — |
| b ₁₅ (E) | 83 | #5 | 30'-6" | — |
| b ₁₆ (E) | 128 | #9 | 30'-6" | — |
| b ₁₇ (E) | 3 | #5 | 28'-9" | — |
| b ₁₈ (E) | 1 | #5 | 8'-0" | — |
| b ₁₉ (E) | 1 | #9 | 8'-0" | — |
| d ₉ (E) | 69 | #5 | 5'-7" | ⏏ |
| d ₁₀ (E) | 34 | #5 | 6'-5" | ⏏ |
| d ₁₁ (E) | 137 | #5 | 7'-10" | ⏏ |
| e ₂₃ (E) | 14 | #4 | 15'-10" | — |
| e ₂₄ (E) | 1 | #8 | 32'-1" | — |
| e ₂₅ (E) | 1 | #4 | 32'-1" | — |
| e ₂₆ (E) | 7 | #4 | 10'-7" | — |
| e ₂₇ (E) | 7 | #4 | 19'-6" | — |
| e ₂₈ (E) | 1 | #8 | 10'-7" | — |
| e ₂₉ (E) | 1 | #4 | 19'-6" | — |
| e ₃₀ (E) | 1 | #8 | 19'-6" | — |
| e ₃₁ (E) | 1 | #4 | 10'-7" | — |
| e ₃₂ (E) | 2 | #8 | 31'-3" | — |
| e ₃₃ (E) | 14 | #4 | 15'-6" | — |
| t ₁₁ (E) | 110 | #4 | 9'-8" | — |
| w ₁₁ (E) | 40 | #5 | 54'-10" | — |
| Concrete Structures | | Cu. Yd. | 17.0 | |
| Concrete Superstructure | | Cu. Yd. | 11.8 | |
| Bridge Deck Grooving | | Sq. Yd. | 176 | |
| Protective Coat | | Sq. Yd. | 227 | |
| Concrete Superstructure (Approach Slab) | | Cu. Yd. | 78.8 | |
| Reinforcement Bars, Epoxy Coated | | Pound | 34,990 | |



SECTION THRU MEDIAN BARRIER



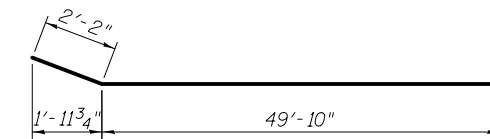
PARAPET JOINT DETAILS



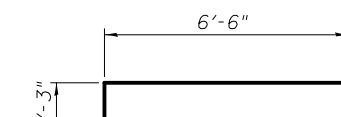
MEDIAN BARRIER JOINT DETAILS

Notes:

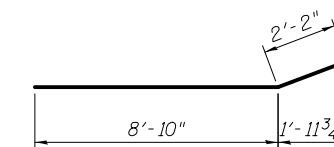
- The 1/8" Aluminum sheet shall be ASTM B 209 alloy 3003-H14 and coated to minimize reaction with wet concrete. Cost included with Concrete Superstructure.
- The Polyurethane Sealant shall be non-staining gray one component non-sag elastomeric gun grade meeting the requirements of ASTM C-920, Type S, Grade NS, Class 25. Use T with a 5/8" backer rod. Cost included with Concrete Superstructure.
- The 1/2" Preformed Self-Expanding Cork Joint Filler shall be according to Article 1051.07 of the Std. Spec. Cost included with Concrete Superstructure.



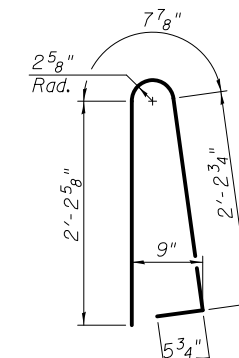
BAR a₁₅(E)



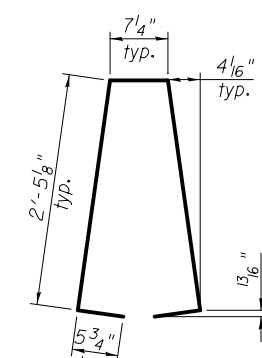
BAR a₁₆(E)



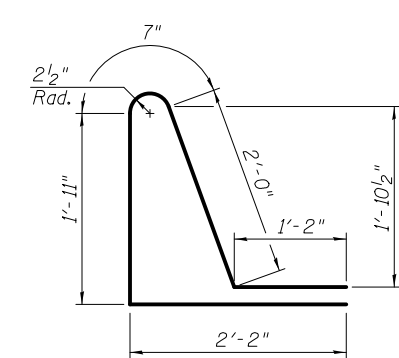
BAR a₁₇(E)



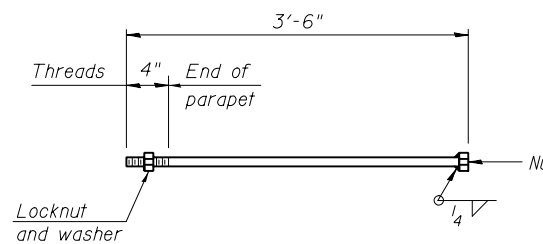
BAR d₉(E)



BAR d₁₀(E)



BAR d₁₁(E)



1" ANCHOR BOLT

2 - required
Anchor bolt assemblies shall be galvanized according to Article 1006.09 of the Standard Specifications. Cost included with Concrete Superstructure (Approach Slab).

Notes:

- Parapet and median barrier concrete shall be paid for as Concrete Superstructure.
- Approach slab shall be paid for as Concrete Superstructure (Approach Slab).
- Approach footing concrete shall be paid for as Concrete Structures.
- The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
- Cost of excavation for approach footing included with Concrete Structures.
- For Granular Backfill for Structures and drainage treatment details, see sheet S4.



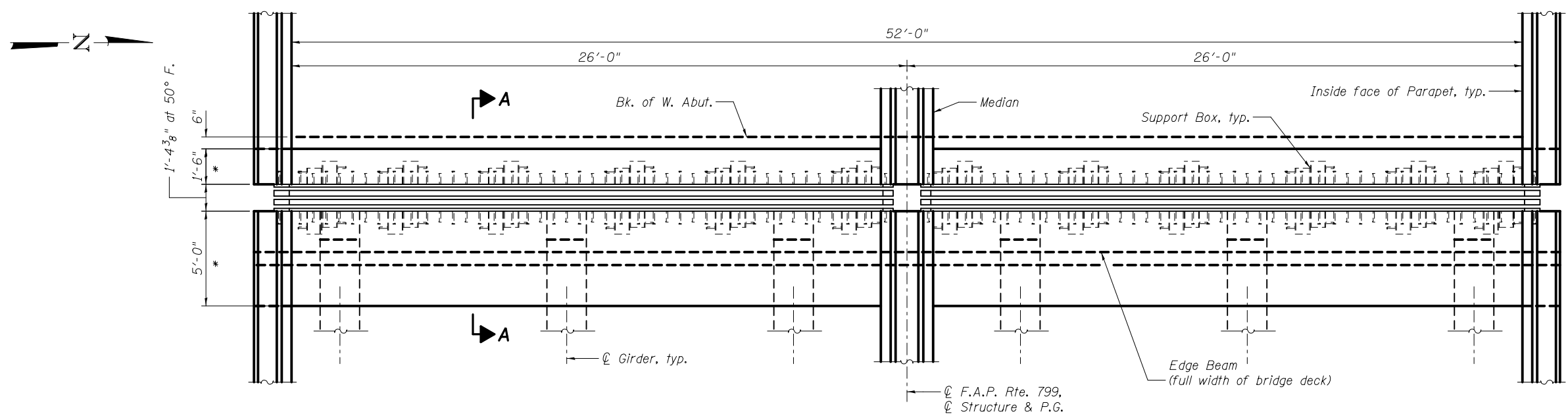
| | | |
|-----------------------|----------------|---------|
| USER NAME = | DESIGNED - ZJB | REVISED |
| | CHECKED - YSS | REVISED |
| PLOT SCALE = | DRAWN - PRC | REVISED |
| PLOT DATE = 3/12/2018 | CHECKED - ZJB | REVISED |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BRIDGE APPROACH SLAB DETAILS AT EAST ABUTMENT - 3
S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB64WB**

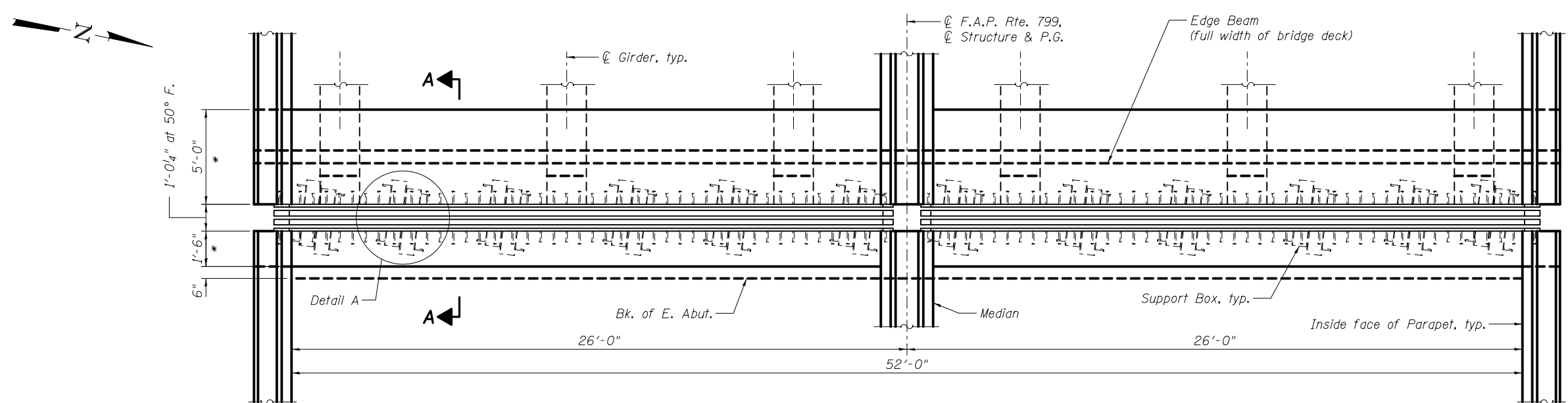
SHEET NO. S32 OF S77 SHEETS

| | | | | |
|--------------------|---------|-----------|---------------------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | IBR-1-1 | ST. CLAIR | 315 | 176 |
| CONTRACT NO. 76G39 | | | ILLINOIS FED. AID PROJECT | |



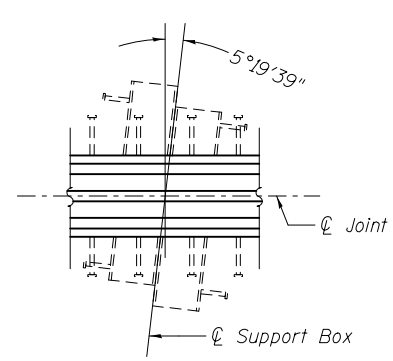
PLAN AT WEST ABUTMENT

Sliding plates at parapets and median, not shown for clarity.



PLAN AT EAST ABUTMENT

Sliding plates at parapets and median, not shown for clarity.



DETAIL A

* Blockout

Note:
For Section A-A and additional details, see sheet S34.
The number, location and orientation of support boxes shall be determined by the manufacturer.

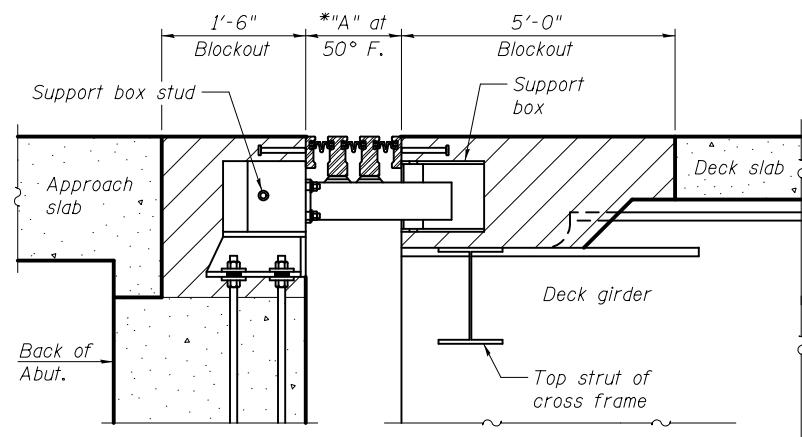


| | | |
|-----------------------|----------------|---------|
| USER NAME = | DESIGNED - MJP | REVISED |
| | CHECKED - LNB | REVISED |
| PLOT SCALE = | DRAWN - PRC | REVISED |
| PLOT DATE = 3/12/2018 | CHECKED - MJP | REVISED |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MODULAR EXPANSION JOINT - 1
S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB/64WB
SHEET NO. S33 OF S77 SHEETS

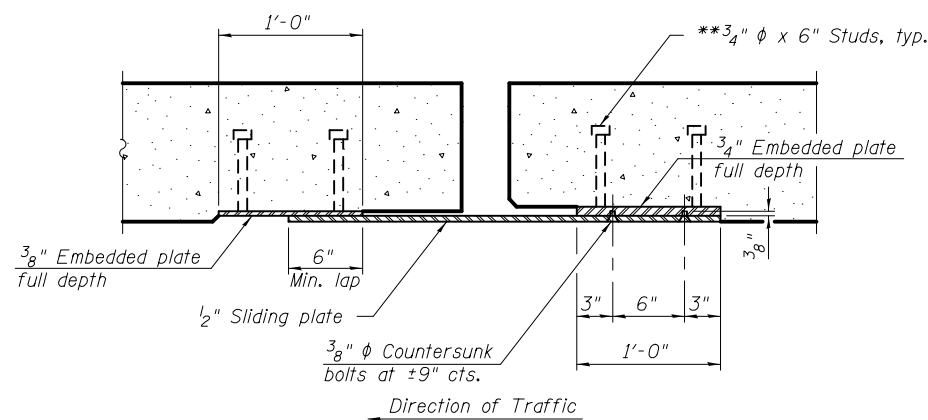
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|---------|-----------|--------------|-----------|
| 799 | 1BR-1-1 | ST. CLAIR | 315 | 177 |
| CONTRACT NO. 76G39 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |



SECTION A-A

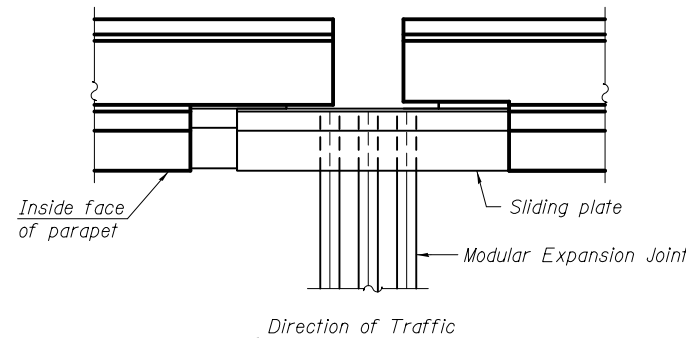
* Number of rails determined by manufacturer.

"A" = 1'-4 3/8" (W. Abut.)
1'-0 1/4" (E. Abut.)



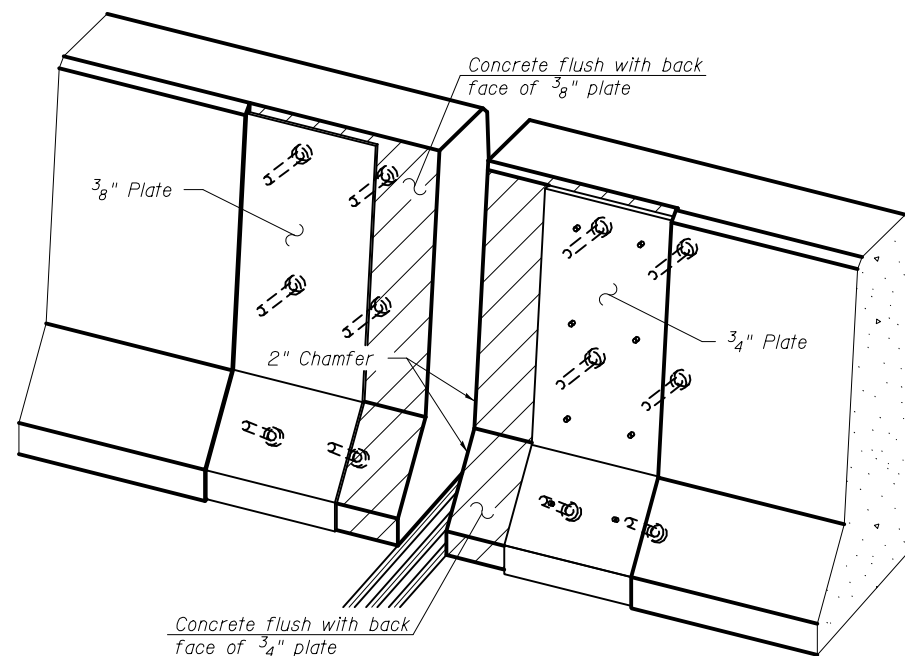
SECTION B-B

** Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



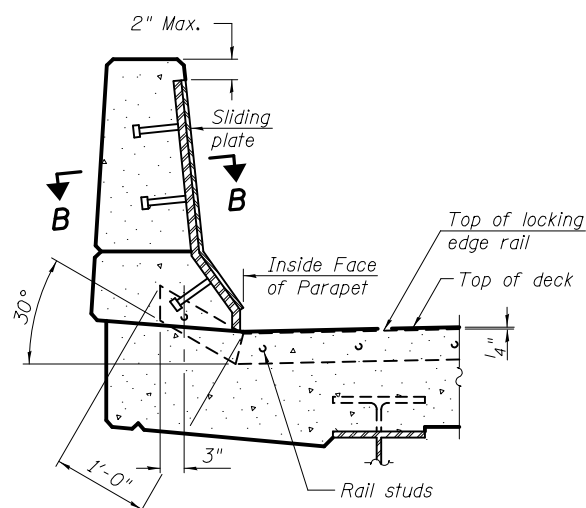
PLAN AT SLIDING PLATE

Parapet shown, median similar

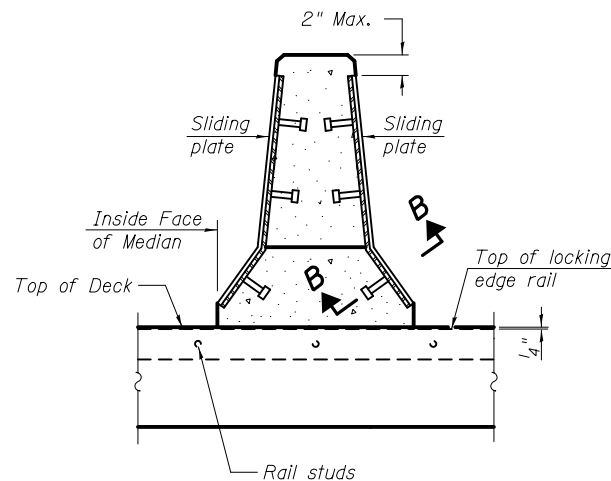


TRIMETRIC VIEW

Parapet shown, median similar (Showing back plates only)



SECTION THRU PARAPET



SECTION THRU MEDIAN

Notes:

- The manufacturer's recommended installation methods shall be followed.
- All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.
- Parapet plates, median plates and anchorage studs included in the cost of "Modular Expansion Joint - 12" and "Modular Expansion Joint - 16".
- Support boxes shall be rigidly attached to cross frames, girders and abutment backwalls by adjustable brackets, stools or shims. Cost of attachment included in "Modular Expansion Joint - 12" and "Modular Expansion Joint - 16".
- The number, location and orientation of support boxes shall be determined by the manufacturer. All boxes shall be located so they do not interfere with the top or auxiliary flanges of the girders. See Detail E on sheet S38.
- Modular expansion joints shall be assembled in their final relative position with the ends in place for shop inspection and acceptance.
- For location of Section A-A, see sheet S33.
- Prior to the placement of the joint block-out, the Contractor shall coordinate with the Modular Joint Manufacturer to ensure that the joint will be properly supported and that the reinforcement bars and structural steel members will not interfere with the joint components. Any necessary adjustments to the reinforcement layout shall be submitted to the Engineer for approval.

BILL OF MATERIAL

| Item | Unit | Total |
|-------------------------------|------|-------|
| Modular Expansion Joint - 12" | Foot | 52.0 |
| Modular Expansion Joint - 16" | Foot | 52.0 |



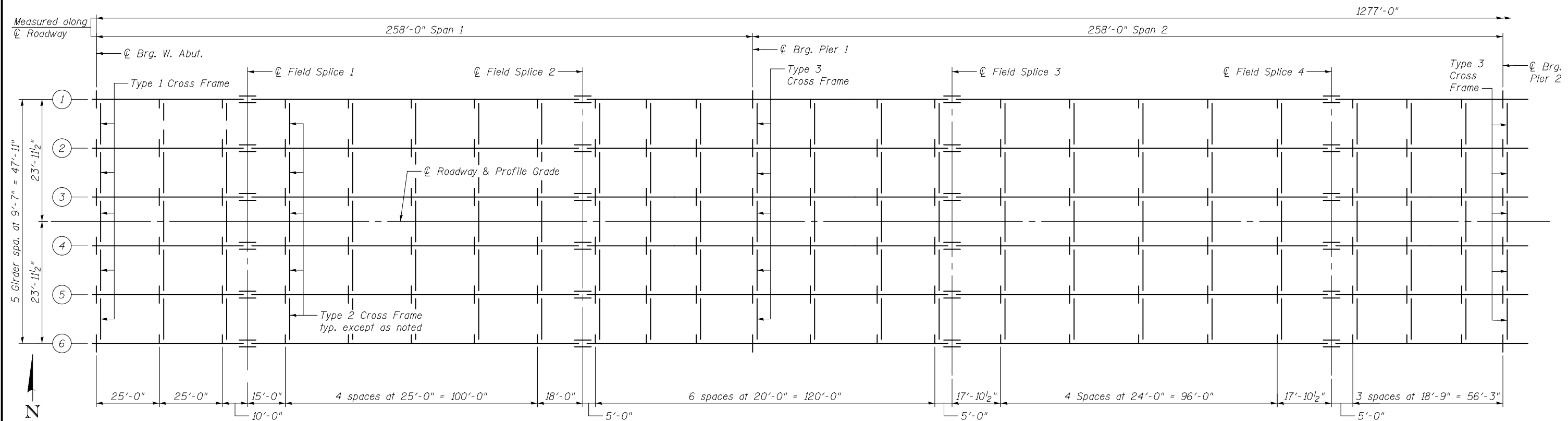
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|-----------------------|----------------|---------|
| USER NAME = | DESIGNED - MJP | REVISED |
| | CHECKED - LNB | REVISED |
| PLOT SCALE = | DRAWN - AEC | REVISED |
| PLOT DATE = 3/12/2018 | CHECKED - MJP | REVISED |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

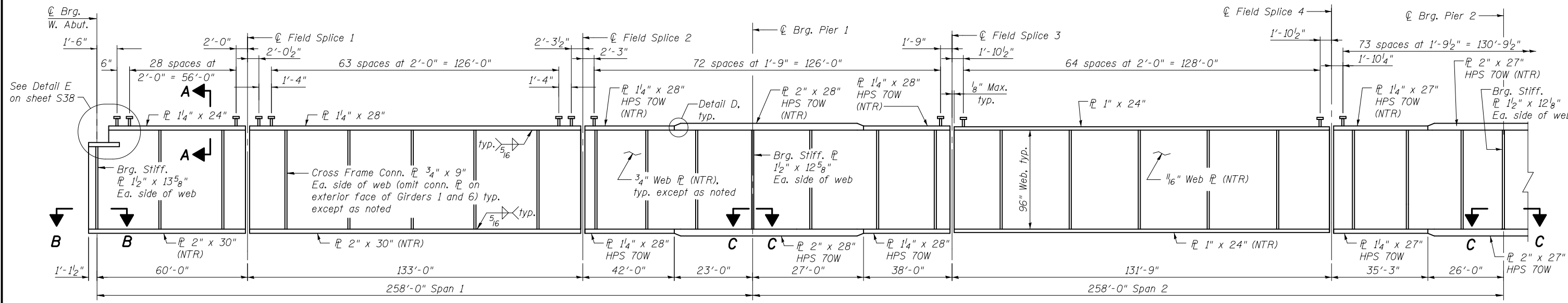
MODULAR EXPANSION JOINT - 2
S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB/64WB

SHEET NO. S34 OF S77 SHEETS

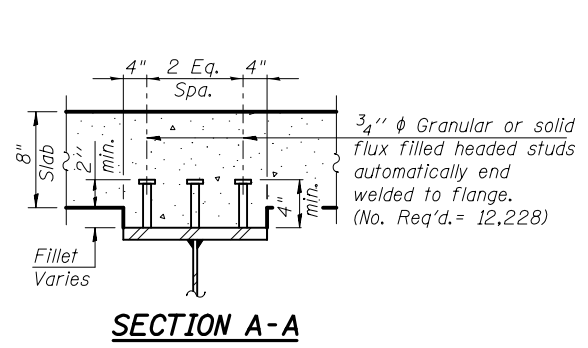
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|---------------------------|---------|-----------|--------------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | 1BR-1-1 | ST. CLAIR | 315 | 178 |
| ILLINOIS FED. AID PROJECT | | | CONTRACT NO. 76G39 | |



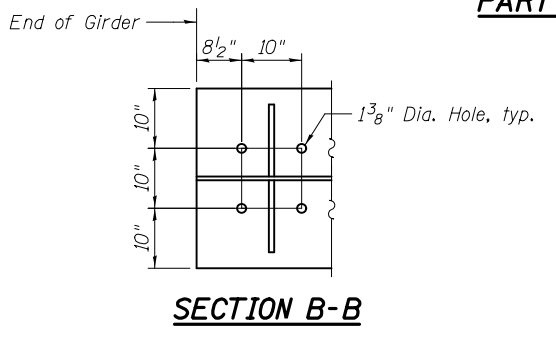
PART FRAMING PLAN - SPANS 1 AND 2



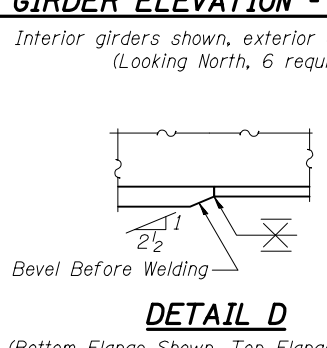
PART GIRDER ELEVATION - SPANS 1 AND 2



SECTION A-A

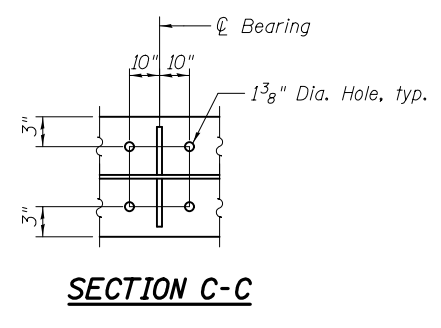


SECTION B-B



DETAIL D

(Bottom Flange Shown, Top Flange Similar)



SECTION C-C

Notes:
 Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.
 All flange plates, web plates, bearing stiffeners, cross frames and connection plates shall be AASHTO M270 Grade 50, except as noted. The Contractor shall either:
 1. Ream diaphragm and/or cross frame connection holes during shop assembly, or
 2. Provide detailing and fabrication controls acceptable to the Engineer which ensures accuracy such that field reaming will not exceed the amount permitted in Article 505.08(I) of the Standard Specifications.
 See sheets S39 thru S42 for additional steel details and data.

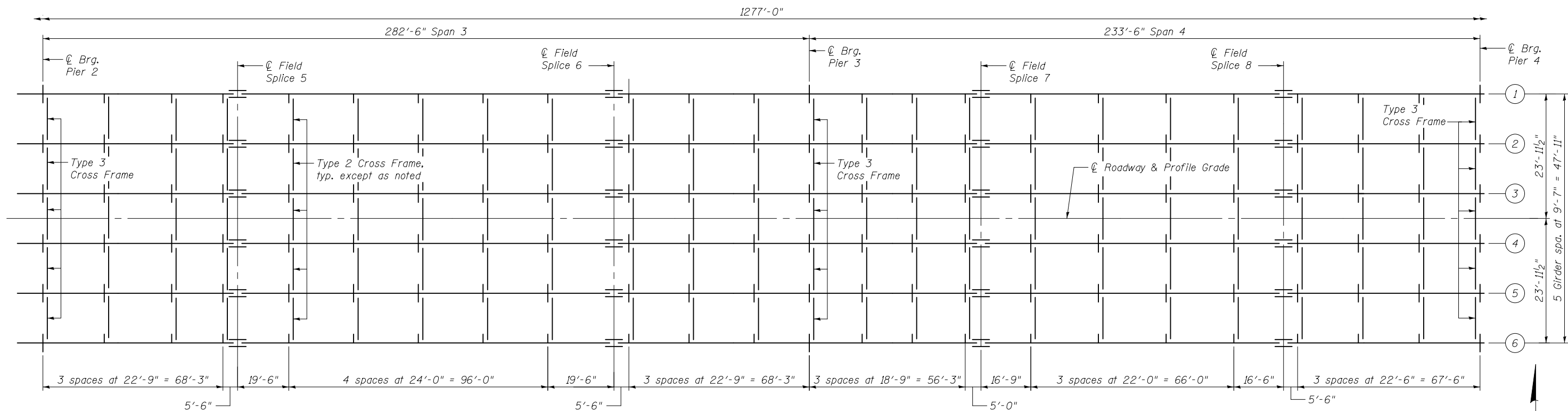


| | | |
|-----------------------|----------------|---------|
| USER NAME = | DESIGNED - YSS | REVISED |
| PLOT SCALE = | CHECKED - ZJB | REVISED |
| PLOT DATE = 3/12/2018 | DRAWN - AEC | REVISED |
| | CHECKED - YSS | REVISED |

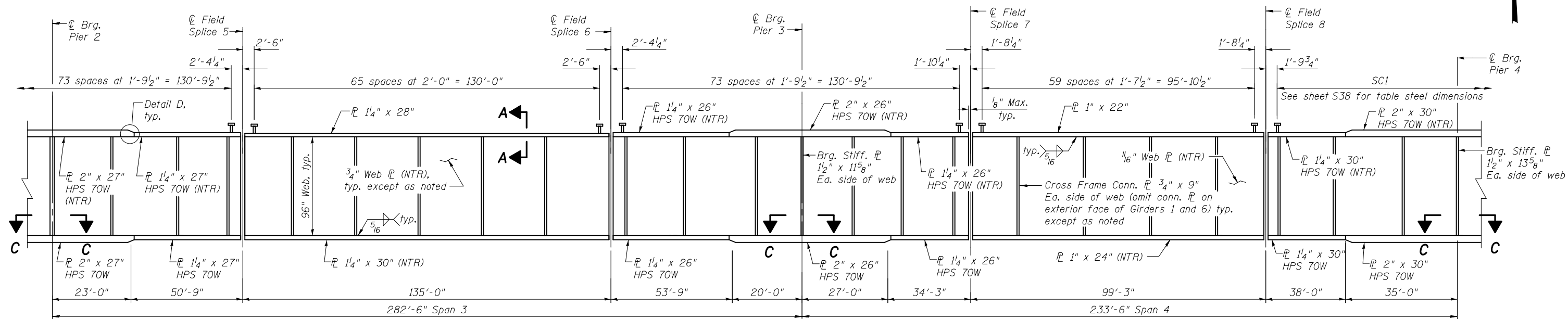
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

STEEL FRAMING PLAN - 1
S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB64WB
 SHEET NO. S35 OF S77 SHEETS

| | | | | |
|---------------------------|---------|-----------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | 1BR-1-1 | ST. CLAIR | 315 | 179 |
| CONTRACT NO. 76G39 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |



PART FRAMING PLAN - SPANS 3 AND 4



PART GIRDER ELEVATION - SPANS 3 AND 4

Interior girders shown, exterior girders similar.
(Looking North, 6 required)

Notes:

- Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.
- All flange plates, web plates, bearing stiffeners, cross frames and connection plates shall be AASHTO M270 Grade 50, except as noted.
- The Contractor shall either:
 1. Ream diaphragm and/or cross frame connection holes during shop assembly, or
 2. Provide detailing and fabrication controls acceptable to the Engineer which ensures accuracy such that field reaming will not exceed the amount permitted in Article 505.08(1) of the Standard Specifications.
- See sheet S35 for Section A-A, Section C-C and Detail D.
- See sheets S39 thru S42 for additional steel details and data.



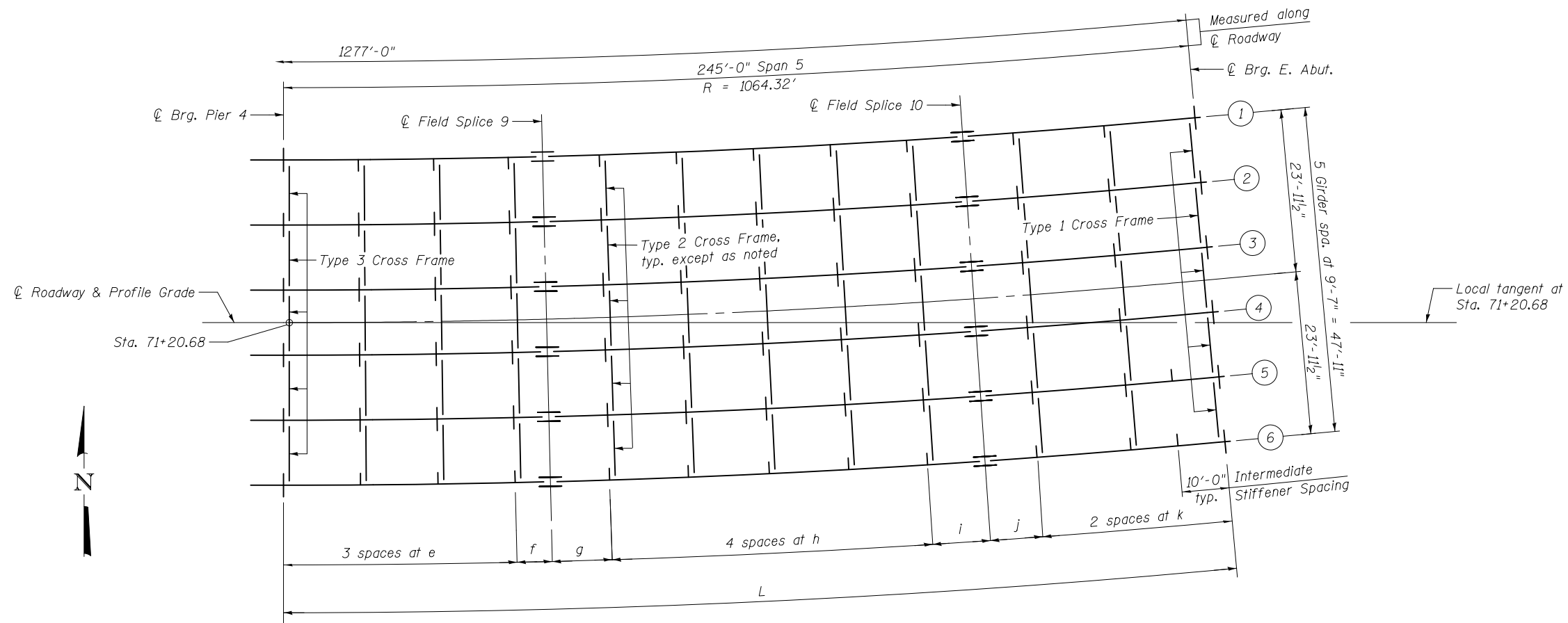
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|-----------------------|----------------|---------|
| USER NAME = | DESIGNED - YSS | REVISED |
| | CHECKED - ZJB | REVISED |
| PLOT SCALE = | DRAWN - AEC | REVISED |
| PLOT DATE = 3/12/2018 | CHECKED - YSS | REVISED |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

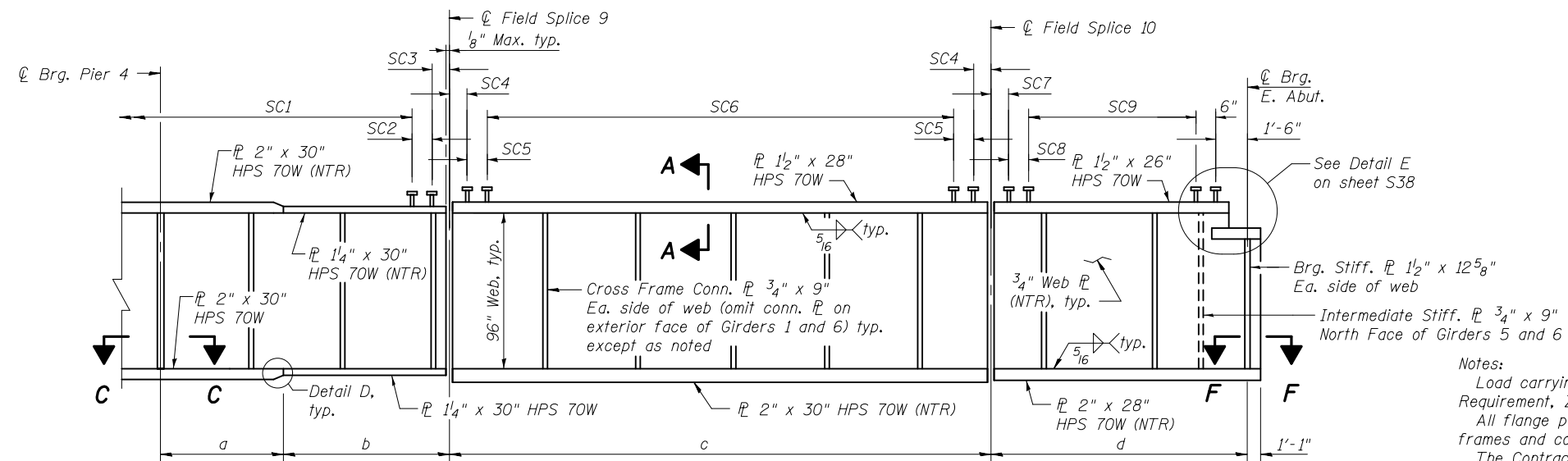
STEEL FRAMING PLAN - 2
S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB/64WB

SHEET NO. S36 OF S77 SHEETS

| | | | | |
|---------------------------|---------|-----------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | 1BR-1-1 | ST. CLAIR | 315 | 180 |
| CONTRACT NO. 76C39 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

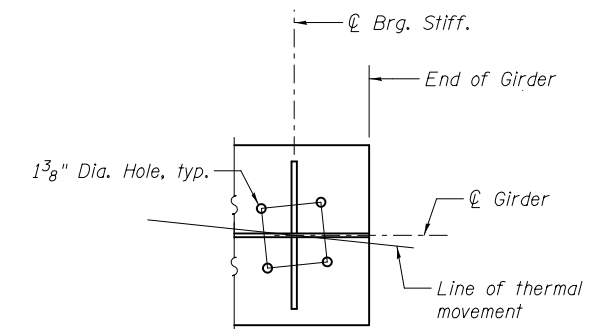


FRAMING PLAN - SPAN 5



GIRDER ELEVATION - SPAN 5

Interior girders shown, exterior girders similar.
(Looking North, 6 required)



SECTION F-F

See sheet S43 for east abutment bearing alignment details.

- Notes:
- Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.
 - All flange plates, web plates, bearing stiffeners, intermediate stiffeners, cross frames and connection plates shall be AASHTO M270 Grade 50, except as noted.
 - The Contractor shall either:
 - Ream diaphragm and/or cross frame connection holes during shop assembly, or
 - Provide detailing and fabrication controls acceptable to the Engineer which ensures accuracy such that field reaming will not exceed the amount permitted in Article 505.08(l) of the Standard Specifications.
- See sheet S35 for Section C-C and Detail D.
See sheets S39 thru S42 for additional steel details and data.
See sheet S38 for table of steel dimensions.



| | | |
|-----------------------|----------------|---------|
| USER NAME = | DESIGNED - YSS | REVISED |
| | CHECKED - ZJB | REVISED |
| PLOT SCALE = | DRAWN - AEC | REVISED |
| PLOT DATE = 3/12/2018 | CHECKED - YSS | REVISED |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STEEL FRAMING PLAN - 3
S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB64WB

SHEET NO. S37 OF S77 SHEETS

| | | | | |
|--------------------|---------|-----------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | 1BR-1-1 | ST. CLAIR | 315 | 181 |
| CONTRACT NO. 76G39 | | | | |

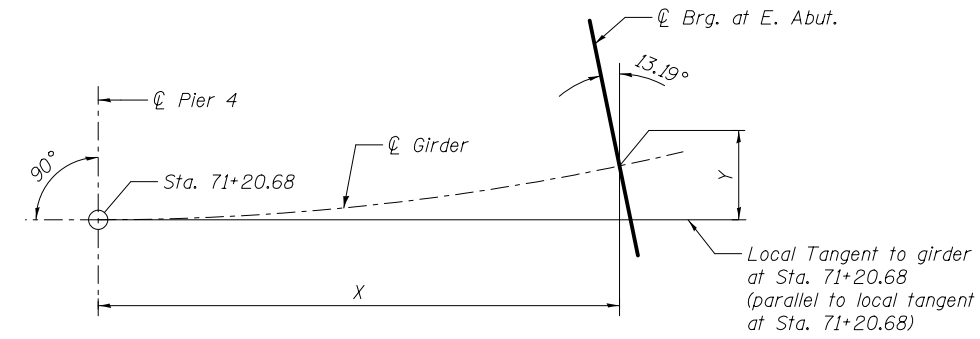
ILLINOIS FED. AID PROJECT

GIRDER DIMENSIONS

| Girder | Radius | a | b | c | d | e | f | g | h | i | j | k | L |
|--------|----------|--------------------------------------|--------------------------------------|---------------------------------------|---------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|--------------------------------------|--|
| 1 | 1040.36' | 21'-11 ⁷ / ₈ " | 37'-3 ³ / ₈ " | 122'-10 ¹ / ₄ " | 57'-4 ⁵ / ₈ " | 18'-1 ⁵ / ₁₆ " | 4'-9 ³ / ₈ " | 18'-1 ⁵ / ₁₆ " | 22'-11 ⁵ / ₁₆ " | 12'-11 ¹ / ₁₆ " | 9'-6 ¹ / ₁₆ " | 23'-10 ³ / ₄ " | 239'-5 ¹³ / ₁₆ " |
| 2 | 1049.95' | 22'-2 ¹ / ₄ " | 37'-7 ¹ / ₂ " | 123'-11 ⁷ / ₈ " | 57'-10 ⁵ / ₈ " | 18'-4" | 4'-9 ⁷ / ₈ " | 18'-4" | 23'-1 ⁷ / ₈ " | 13'-0 ⁷ / ₁₆ " | 9'-7 ³ / ₄ " | 24'-1 ⁷ / ₁₆ " | 241'-8 ⁵ / ₁₆ " |
| 3 | 1059.53' | 22'-4 ³ / ₄ " | 37'-11 ⁵ / ₈ " | 125'-1 ¹ / ₂ " | 58'-5" | 18'-6" | 4'-10 ⁷ / ₁₆ " | 18'-6" | 23'-4 ³ / ₈ " | 13'-1 ⁷ / ₈ " | 9'-8 ¹³ / ₁₆ " | 24'-4 ¹ / ₁₆ " | 243'-10 ³ / ₄ " |
| 4 | 1069.11' | 22'-7 ¹ / ₈ " | 38'-3 ³ / ₈ " | 126'-3" | 58'-11 ⁵ / ₁₆ " | 18'-8" | 4'-10 ⁵ / ₁₆ " | 18'-8" | 23'-6 ¹⁵ / ₁₆ " | 13'-3 ⁵ / ₁₆ " | 9'-9 ⁷ / ₈ " | 24'-6 ¹ / ₁₆ " | 246'-1 ¹ / ₄ " |
| 5 | 1078.70' | 22'-9 ³ / ₁₆ " | 38'-7 ⁷ / ₈ " | 127'-4 ⁵ / ₈ " | 59'-5 ¹ / ₁₆ " | 18'-10" | 4'-11 ¹ / ₂ " | 18'-10" | 23'-9 ⁷ / ₁₆ " | 13'-4 ³ / ₄ " | 9'-10 ¹⁵ / ₁₆ " | 24'-9 ³ / ₈ " | 248'-3 ¹ / ₁₆ " |
| 6 | 1088.28' | 23'-0" | 39'-0" | 128'-6 ³ / ₁₆ " | 60'-0" | 19'-0" | 5'-0" | 19'-0" | 24'-0" | 13'-6 ³ / ₁₆ " | 10'-0" | 25'-0" | 250'-6 ³ / ₁₆ " |

LAYOUT DIMENSIONS

| Girder | CL. Brg. Pier 4 | | CL. Field Splice 9 | | CL. Field Splice 10 | | CL. Brg. E. Abutment | |
|--------|-----------------|-------|---------------------------------------|--------------------------------------|---------------------------------------|--|---------------------------------------|--------------------------------------|
| | X | Y | X | Y | X | Y | X | Y |
| 1 | 0'-0" | 0'-0" | 59'-2 ⁷ / ₈ " | 1'-8 ¹ / ₄ " | 181'-2 ³ / ₈ " | 15'-10 ¹³ / ₁₆ " | 237'-4 ¹ / ₂ " | 27'-5 ⁵ / ₁₆ " |
| 2 | 0'-0" | 0'-0" | 59'-9 ³ / ₈ " | 1'-8 ⁷ / ₁₆ " | 182'-10 ³ / ₈ " | 16'-0 ⁹ / ₁₆ " | 239'-6 ³ / ₄ " | 27'-8 ⁵ / ₁₆ " |
| 3 | 0'-0" | 0'-0" | 60'-3 ¹⁵ / ₁₆ " | 1'-8 ⁵ / ₈ " | 184'-6 ⁷ / ₁₆ " | 16'-2 ⁵ / ₁₆ " | 241'-9" | 27'-11 ³ / ₈ " |
| 4 | 0'-0" | 0'-0" | 60'-10 ¹ / ₂ " | 1'-8 ¹³ / ₁₆ " | 186'-2 ⁷ / ₁₆ " | 16'-4 ¹ / ₁₆ " | 243'-11 ¹ / ₄ " | 28'-2 ⁷ / ₁₆ " |
| 5 | 0'-0" | 0'-0" | 61'-5 ¹ / ₁₆ " | 1'-9" | 187'-10 ¹ / ₂ " | 16'-5 ¹³ / ₁₆ " | 246'-1 ⁷ / ₁₆ " | 28'-5 ⁷ / ₁₆ " |
| 6 | 0'-0" | 0'-0" | 61'-11 ⁵ / ₈ " | 1'-9 ³ / ₁₆ " | 189'-6 ¹ / ₂ " | 16'-7 ⁵ / ₈ " | 248'-3 ¹ / ₁₆ " | 28'-8 ¹ / ₂ " |

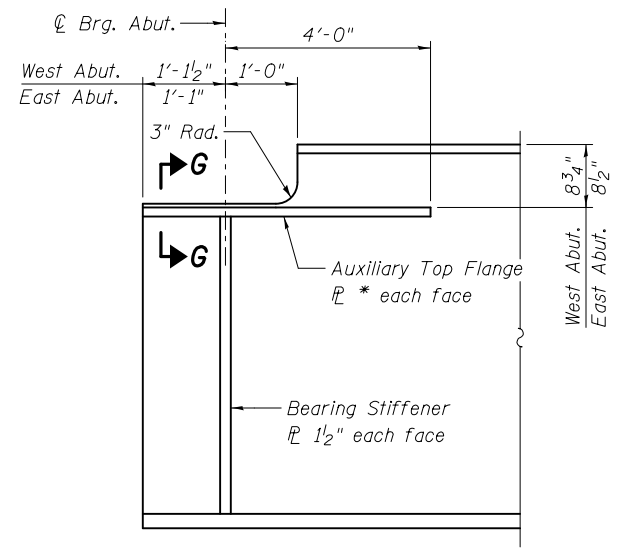


OFFSET DETAIL

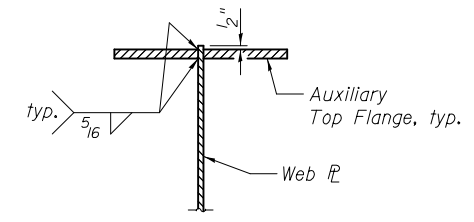
X Dimensions are parallel to the respective girder tangent
Y Dimensions are perpendicular to the respective girder tangent

SHEAR STUD DIMENSIONS

| Girder | SC1 | SC2 | SC3 | SC4 | SC5 | SC6 | SC7 | SC8 | SC9 |
|--------|--|---------------------------|--------------------------------------|---------------------------------------|----------------------------|------------------------------|-------------------------------------|-----------------------------|-----------------------------|
| 1 | 77 spaces at 1'-7 ¹ / ₂ " = 125'-1 ¹ / ₂ " | 2 spaces at 1'-3" = 2'-6" | 2'-10" | 3'-1 ¹ / ₈ " | 2 spaces at 1'-8" = 3'-4" | 55 spaces at 2'-0" = 110'-0" | 3'-0 ⁵ / ₁₆ " | 2 spaces at 1'-2" = 2'-4" | 25 spaces at 2'-0" = 50'-0" |
| 2 | 77 spaces at 1'-7 ¹ / ₂ " = 125'-1 ¹ / ₂ " | 2 spaces at 1'-6" = 3'-0" | 2'-10 ⁹ / ₁₆ " | 2'-11 ¹⁵ / ₁₆ " | 2 spaces at 1'-6" = 3'-0" | 56 spaces at 2'-0" = 112'-0" | 3'-0 ⁵ / ₈ " | 2 spaces at 1'-5" = 2'-10" | 25 spaces at 2'-0" = 50'-0" |
| 3 | 77 spaces at 1'-7 ¹ / ₂ " = 125'-1 ¹ / ₂ " | 2 spaces at 1'-9" = 3'-6" | 2'-11 ¹ / ₈ " | 3'-0 ³ / ₄ " | 2 spaces at 1'-9" = 3'-6" | 56 spaces at 2'-0" = 112'-0" | 3'-1" | 2 spaces at 1'-8" = 3'-4" | 25 spaces at 2'-0" = 50'-0" |
| 4 | 78 spaces at 1'-7 ¹ / ₂ " = 126'-9" | 2 spaces at 1'-3" = 2'-6" | 2'-10 ¹ / ₈ " | 3'-1 ¹ / ₂ " | 2 spaces at 1'-6" = 3'-0" | 57 spaces at 2'-0" = 114'-0" | 3'-1 ⁵ / ₁₆ " | 2 spaces at 1'-11" = 3'-10" | 25 spaces at 2'-0" = 50'-0" |
| 5 | 78 spaces at 1'-7 ¹ / ₂ " = 126'-9" | 2 spaces at 1'-6" = 3'-0" | 2'-10 ¹ / ₁₆ " | 3'-0 ⁵ / ₁₆ " | 2 spaces at 1'-10" = 3'-8" | 57 spaces at 2'-0" = 114'-0" | 3'-1 ¹ / ₁₆ " | 2 spaces at 1'-2" = 2'-4" | 26 spaces at 2'-0" = 52'-0" |
| 6 | 78 spaces at 1'-7 ¹ / ₂ " = 126'-9" | 2 spaces at 1'-9" = 3'-6" | 2'-11 ¹ / ₄ " | 3'-1 ¹ / ₁₆ " | 2 spaces at 1'-7" = 3'-2" | 58 spaces at 2'-0" = 116'-0" | 3'-2" | 2 spaces at 1'-5" = 2'-10" | 26 spaces at 2'-0" = 52'-0" |



DETAIL E



VIEW G-G

* 1¹/₄" x 11⁵/₈" - West Abut.
1¹/₂" x 12⁵/₈" HPS 70W - East Abut.

Notes:
All auxiliary flange plates shall be AASHTO M270 Grade 50, except as noted.
See sheet S35 and S37 for location of Detail E.



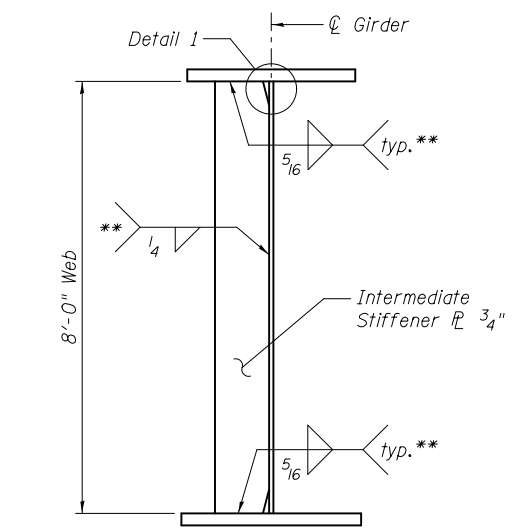
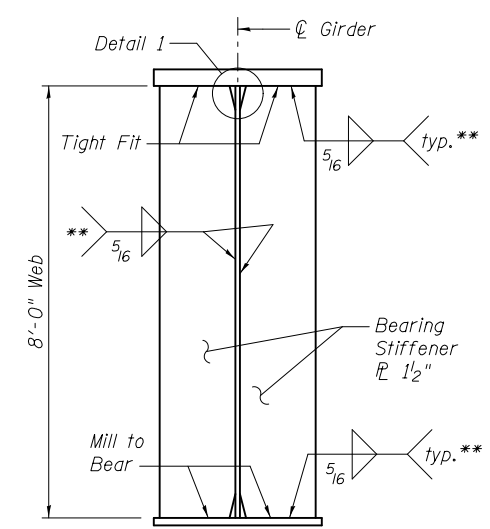
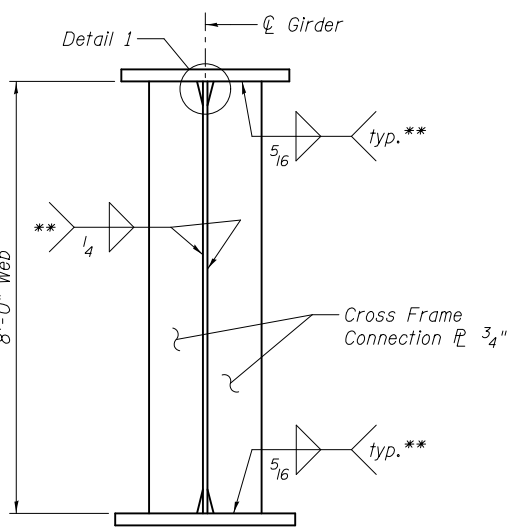
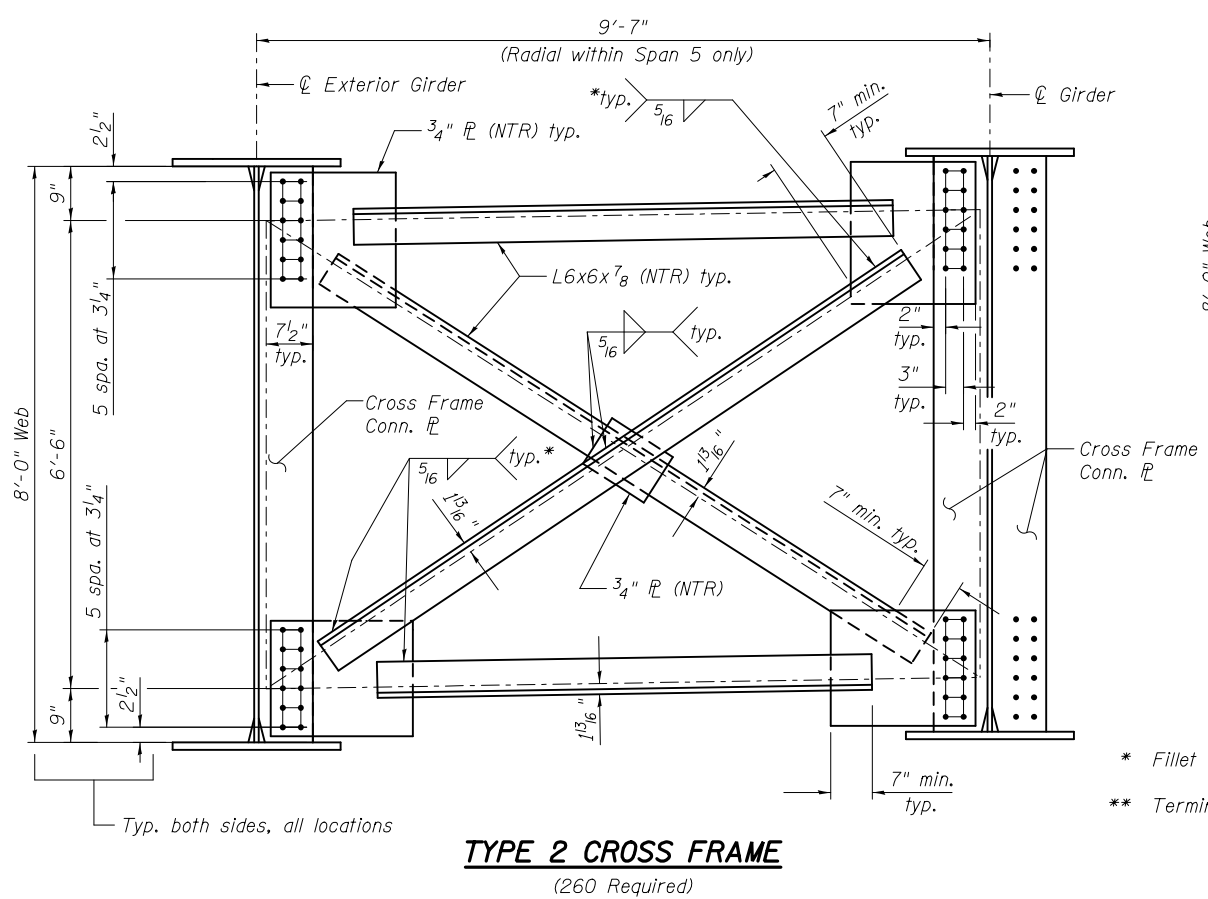
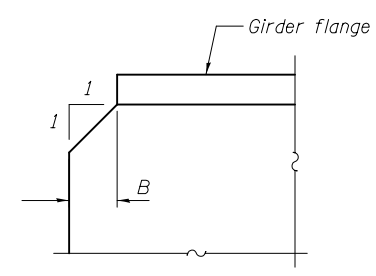
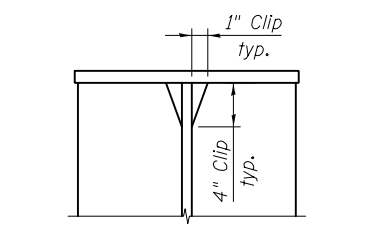
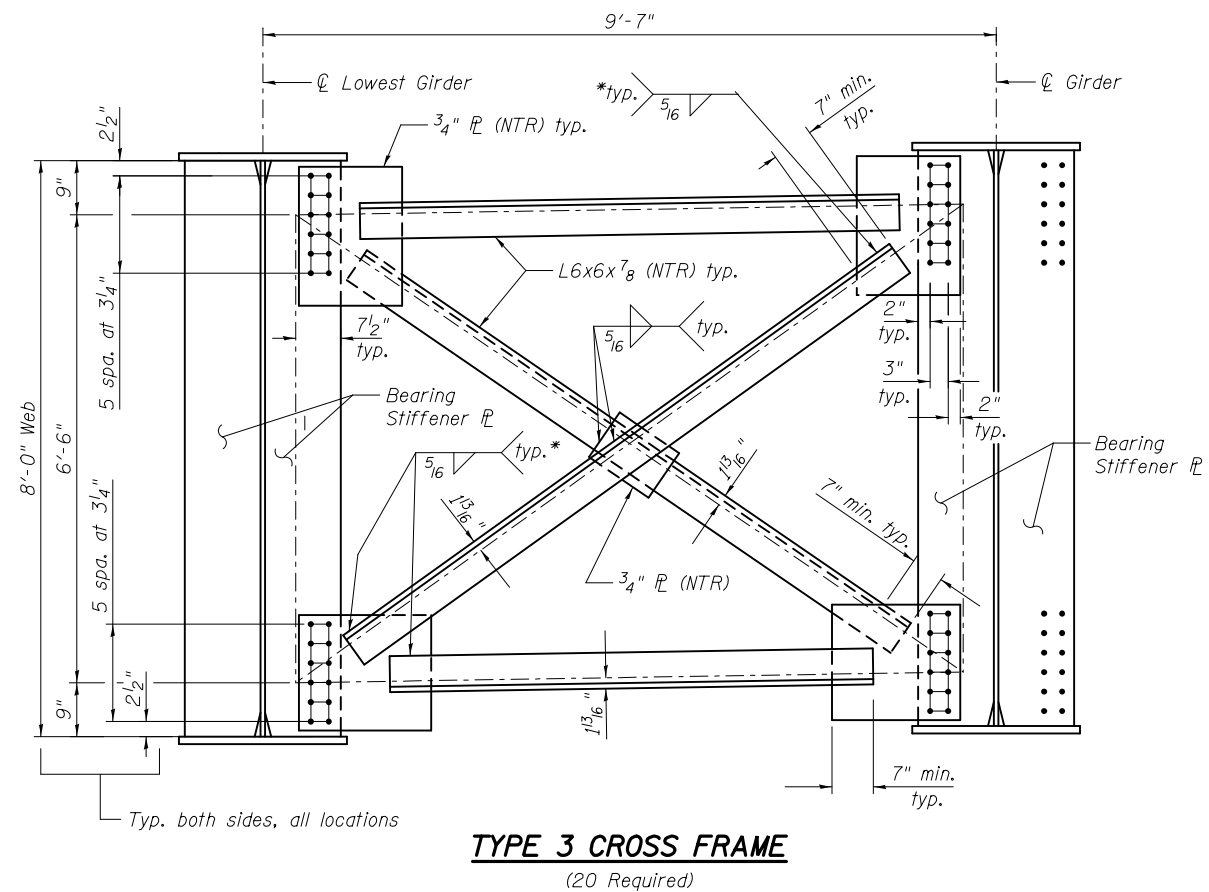
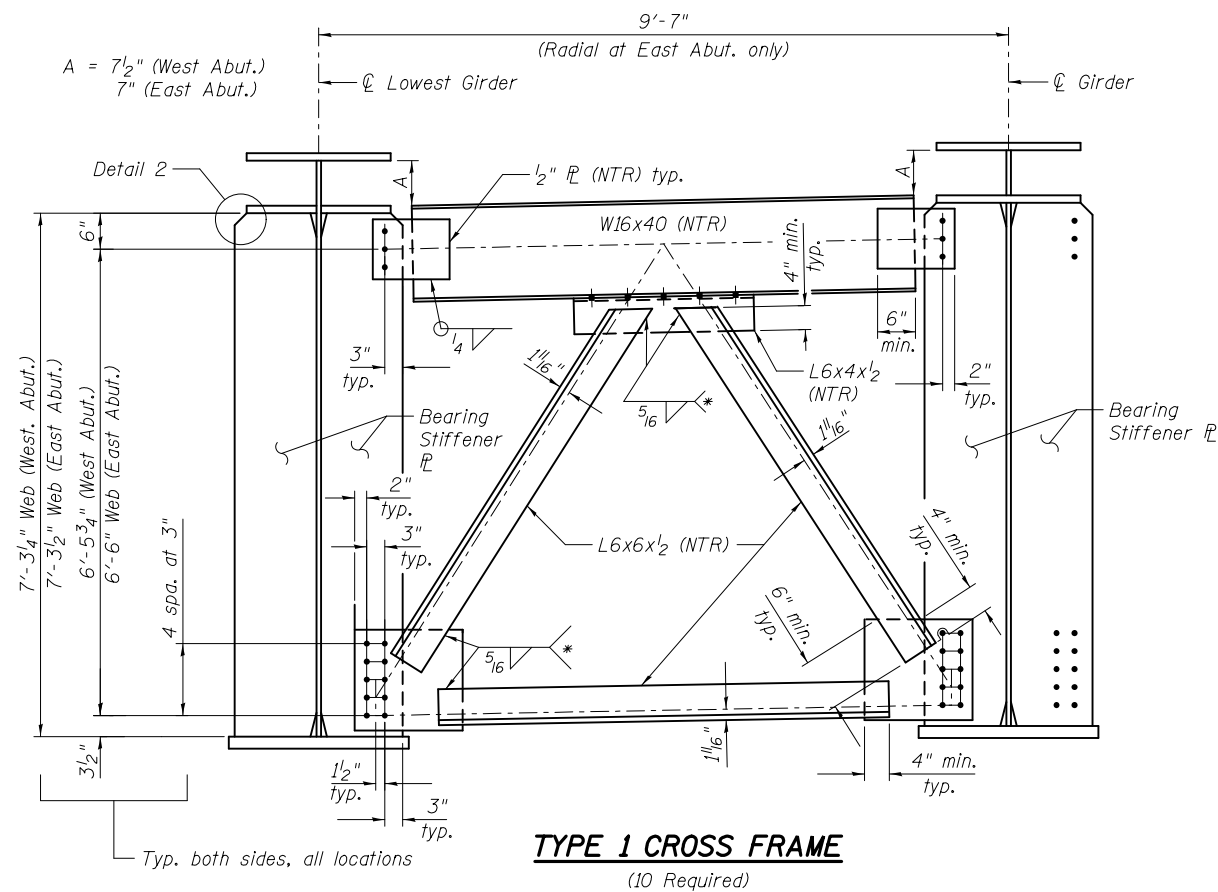
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|-----------------------|----------------|---------|
| USER NAME = | DESIGNED - YSS | REVISED |
| | CHECKED - ZJB | REVISED |
| PLOT SCALE = | DRAWN - AEC | REVISED |
| PLOT DATE = 3/12/2018 | CHECKED - YSS | REVISED |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STEEL FRAMING PLAN - 4
S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB64WB
SHEET NO. S38 OF S77 SHEETS

| | | | | |
|--------------------|---------|-----------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | 1BR-1-1 | ST. CLAIR | 315 | 182 |
| CONTRACT NO. 76G39 | | | | |

ILLINOIS FED. AID PROJECT



- * Fillet weld angles along 3 sides on one face of gusset plate.
- ** Terminate weld 1/4" from edges of stiffener and connection plate.

Notes:
All cross frames between girders shall be installed with erection pins and bolts in accordance with the erection plan approved by the Engineer. Individual cross frames at supports may be temporarily disconnected to install bearing anchor rods.
Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2. Bolts for cross frame connections shall be 7/8" diameter, holes 1" diameter.
Type 1 cross frames shall be galvanized in accordance with the special provision for Hot Dip Galvanizing for Structural Steel.

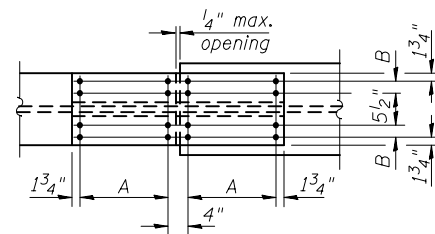


| | | |
|-----------------------|----------------|---------|
| USER NAME = | DESIGNED - ZAC | REVISED |
| | CHECKED - YSS | REVISED |
| PLOT SCALE = | DRAWN - PRC | REVISED |
| PLOT DATE = 3/12/2018 | CHECKED - JMH | REVISED |

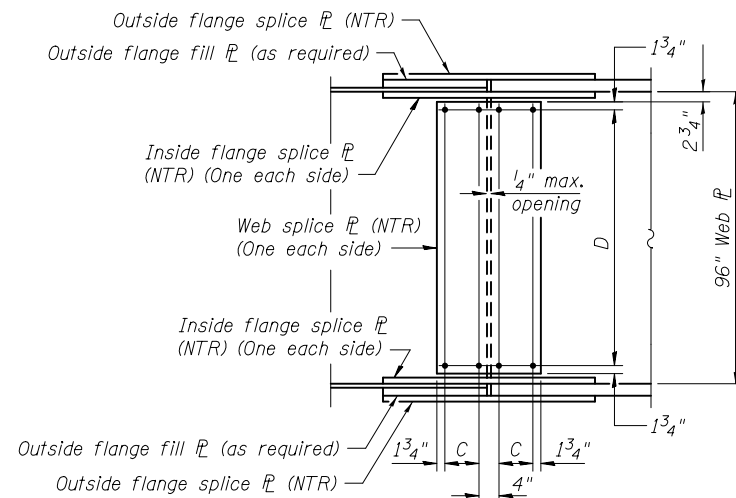
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STEEL DETAILS - 1
S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB64WB
SHEET NO. 539 OF 577 SHEETS

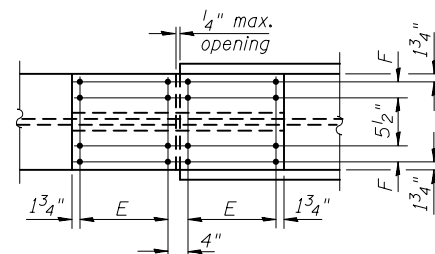
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| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | 1BR-1-1 | ST. CLAIR | 315 | 183 |
| CONTRACT NO. 76G39 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |



TOP FLANGE SPLICE



WEB SPLICE



BOTTOM FLANGE SPLICE

FIELD SPLICE DETAIL

TOP FLANGE FIELD SPLICE

| Splice Location | Outside Flange Splice | Inside Flange Splice | Fill | A | B |
|-----------------|-----------------------|----------------------------|--------------------|--------------|------------------|
| Field Splice 1 | 3/4"x24"x3'-1 1/2" | 2 - 3/4"x11"x3'-1 1/2" | - | 5 Spa. at 3" | 2 Spa. at 3 3/4" |
| Field Splice 2 | 3/4"x28"x2'-7 1/2" | 2 - 3/4"x13"x2'-7 1/2" | - | 4 Spa. at 3" | 2 Spa. at 4 3/4" |
| Field Splice 3 | 5/8"x24"x2'-7 1/2" | 2 - 5/8"x11"x2'-7 1/2" | 1/4"x24"x1'-3 1/2" | 4 Spa. at 3" | 2 Spa. at 3 3/4" |
| Field Splice 4 | 5/8"x24"x2'-7 1/2" | 2 - 5/8"x11"x2'-7 1/2" | 1/4"x24"x1'-3 1/2" | 4 Spa. at 3" | 2 Spa. at 3 3/4" |
| Field Splice 5 | 3/4"x27"x2'-7 1/2" | 2 - 3/4"x12 1/2"x2'-7 1/2" | - | 4 Spa. at 3" | 2 Spa. at 4 1/2" |
| Field Splice 6 | 3/4"x26"x2'-7 1/2" | 2 - 3/4"x12"x2'-7 1/2" | - | 4 Spa. at 3" | 2 Spa. at 4 1/4" |
| Field Splice 7 | 5/8"x22"x2'-7 1/2" | 2 - 5/8"x10"x2'-7 1/2" | 1/4"x22"x1'-3 1/2" | 4 Spa. at 3" | 2 Spa. at 3 1/4" |
| Field Splice 8 | 5/8"x22"x2'-7 1/2" | 2 - 5/8"x10"x2'-7 1/2" | 1/4"x22"x1'-3 1/2" | 4 Spa. at 3" | 2 Spa. at 3 1/4" |
| Field Splice 9 | *3/4"x28"x4'-7 1/2" | *2 - 3/4"x13"x4'-7 1/2" | 1/4"x28"x2'-3 1/2" | 8 Spa. at 3" | 2 Spa. at 4 3/4" |
| Field Splice 10 | *7/8"x26"x5'-1 1/2" | *2 - 7/8"x12"x5'-1 1/2" | - | 9 Spa. at 3" | 2 Spa. at 4 1/4" |

WEB FIELD SPLICE

| Splice Location | Web Splice | C | D |
|-----------------|------------------------|--------------|-------------------|
| Field Splice 1 | 1/2"x25 1/2"x7'-6 1/2" | 3 Spa. at 3" | 24 Spa. at 3 5/8" |
| Field Splice 2 | 1/2"x19 1/2"x7'-6 1/2" | 2 Spa. at 3" | 29 Spa. at 3" |
| Field Splice 3 | 3/8"x19 1/2"x7'-6 1/2" | 2 Spa. at 3" | 24 Spa. at 3 5/8" |
| Field Splice 4 | 3/8"x19 1/2"x7'-6 1/2" | 2 Spa. at 3" | 24 Spa. at 3 5/8" |
| Field Splice 5 | 1/2"x19 1/2"x7'-6 1/2" | 2 Spa. at 3" | 29 Spa. at 3" |
| Field Splice 6 | 1/2"x19 1/2"x7'-6 1/2" | 2 Spa. at 3" | 29 Spa. at 3" |
| Field Splice 7 | 3/8"x19 1/2"x7'-6 1/2" | 2 Spa. at 3" | 24 Spa. at 3 5/8" |
| Field Splice 8 | 3/8"x19 1/2"x7'-6 1/2" | 2 Spa. at 3" | 24 Spa. at 3 5/8" |
| Field Splice 9 | 5/8"x25 1/2"x7'-6 1/2" | 3 Spa. at 3" | 29 Spa. at 3" |
| Field Splice 10 | 5/8"x25 1/2"x7'-6 1/2" | 3 Spa. at 3" | 29 Spa. at 3" |

BOTTOM FLANGE FIELD SPLICE

| Splice Location | Outside Flange Splice | Inside Flange Splice | Fill | E | F |
|-----------------|-----------------------|----------------------------|--------------------|---------------|------------------|
| Field Splice 1 | 1 1/4"x30"x6'-1 1/2" | 2 - 1 1/4"x14"x6'-1 1/2" | - | 11 Spa. at 3" | 2 Spa. at 5 1/4" |
| Field Splice 2 | 7/8"x28"x5'-1 1/2" | 2 - 7/8"x13"x5'-1 1/2" | 3/4"x28"x2'-6 1/2" | 9 Spa. at 3" | 2 Spa. at 4 3/4" |
| Field Splice 3 | 5/8"x24"x2'-7 1/2" | 2 - 5/8"x11"x2'-7 1/2" | 1/4"x24"x1'-3 1/2" | 4 Spa. at 3" | 2 Spa. at 3 3/4" |
| Field Splice 4 | 5/8"x24"x2'-7 1/2" | 2 - 5/8"x11"x2'-7 1/2" | 1/4"x24"x1'-3 1/2" | 4 Spa. at 3" | 2 Spa. at 3 3/4" |
| Field Splice 5 | 3/4"x27"x3'-1 1/2" | 2 - 7/8"x12 1/2"x3'-1 1/2" | - | 5 Spa. at 3" | 2 Spa. at 4 1/2" |
| Field Splice 6 | 3/4"x26"x3'-1 1/2" | 2 - 7/8"x12"x3'-1 1/2" | - | 5 Spa. at 3" | 2 Spa. at 4 1/4" |
| Field Splice 7 | 5/8"x24"x2'-7 1/2" | 2 - 5/8"x11"x2'-7 1/2" | 1/4"x24"x1'-3 1/2" | 4 Spa. at 3" | 2 Spa. at 3 3/4" |
| Field Splice 8 | 5/8"x24"x2'-7 1/2" | 2 - 5/8"x11"x2'-7 1/2" | 1/4"x24"x1'-3 1/2" | 4 Spa. at 3" | 2 Spa. at 3 3/4" |
| Field Splice 9 | *3/4"x30"x5'-7 1/2" | *2 - 3/4"x14"x5'-7 1/2" | 3/4"x30"x2'-9 1/2" | 10 Spa. at 3" | 2 Spa. at 5 1/4" |
| Field Splice 10 | *1 1/4"x28"x7'-7 1/2" | *2 - 1 1/4"x13"x7'-7 1/2" | - | 14 Spa. at 3" | 2 Spa. at 4 3/4" |

* HPS 70W steel

TOP OF WEB ELEVATIONS

(For fabrication only.)

| Girder No. | Q. Brg. W. Abut. | Q. Field Splice 1 | Q. Field Splice 2 | Q. Brg. Pier 1 | Q. Field Splice 3 | Q. Field Splice 4 | Q. Brg. Pier 2 | Q. Field Splice 5 | Q. Field Splice 6 | Q. Brg. Pier 3 | Q. Field Splice 7 | Q. Field Splice 8 | Q. Brg. Pier 4 | Q. Field Splice 9 | Q. Field Splice 10 | Q. Brg. E. Abut. |
|------------|------------------|-------------------|-------------------|----------------|-------------------|-------------------|----------------|-------------------|-------------------|----------------|-------------------|-------------------|----------------|-------------------|--------------------|------------------|
| 1 | 448.43 | 450.80 | 454.05 | 454.83 | 455.48 | 455.85 | 455.46 | 454.85 | 451.40 | 448.22 | 445.74 | 441.87 | 438.74 | 436.20 | 431.43 | 428.82 |
| 2 | 448.18 | 450.82 | 454.26 | 455.01 | 455.68 | 456.03 | 455.64 | 455.04 | 451.60 | 448.41 | 445.90 | 442.02 | 439.04 | 436.72 | 431.98 | 429.27 |
| 3 | 447.92 | 450.80 | 454.41 | 455.15 | 455.82 | 456.17 | 455.79 | 455.19 | 451.77 | 448.55 | 446.03 | 442.18 | 439.34 | 437.26 | 432.54 | 429.72 |
| 4 | 447.66 | 450.71 | 454.41 | 455.15 | 455.82 | 456.16 | 455.79 | 455.20 | 451.80 | 448.55 | 446.01 | 442.16 | 439.64 | 437.81 | 433.09 | 430.17 |
| 5 | 447.40 | 450.57 | 454.27 | 455.01 | 455.67 | 456.01 | 455.64 | 455.07 | 451.66 | 448.41 | 445.82 | 442.11 | 439.94 | 438.31 | 433.65 | 430.62 |
| 6 | 447.15 | 450.37 | 454.06 | 454.83 | 455.47 | 455.82 | 455.46 | 454.89 | 451.50 | 448.22 | 445.62 | 442.01 | 440.23 | 438.84 | 434.21 | 431.07 |

Notes:

Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.

All splice plates shall be AASHTO M270 Grade 50 steel, unless noted otherwise.

Top of web elevations are based on a "no-load" condition prior to any dead load deflections.

Top of web elevations at the abutments are before the coping shown in Detail E on sheet S38.



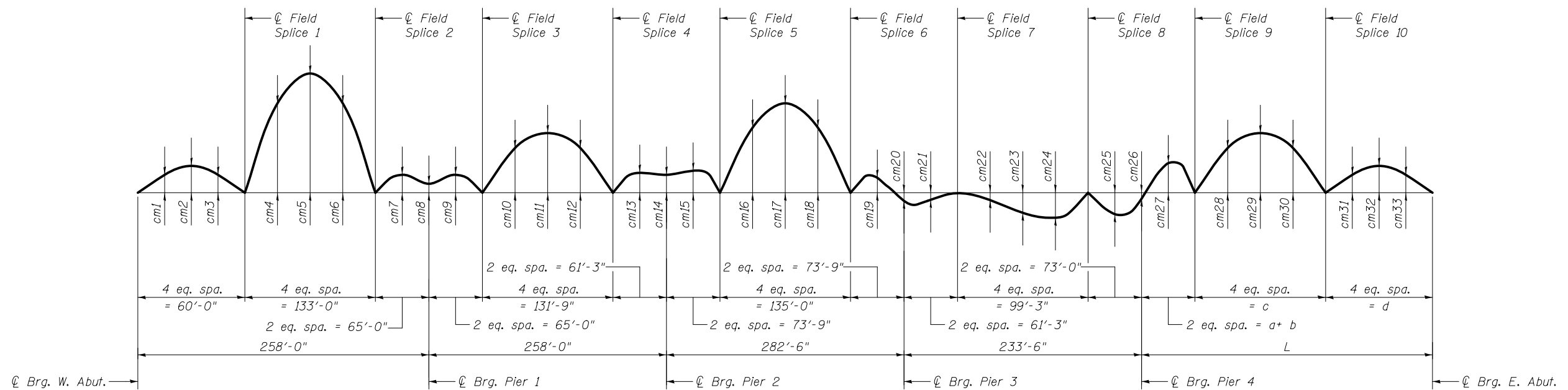
| | | |
|-----------------------|------------|---------|
| USER NAME = | DESIGNED - | REVISED |
| | CHECKED - | REVISED |
| PLOT SCALE = | DRAWN - | REVISED |
| PLOT DATE = 3/12/2018 | CHECKED - | REVISED |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

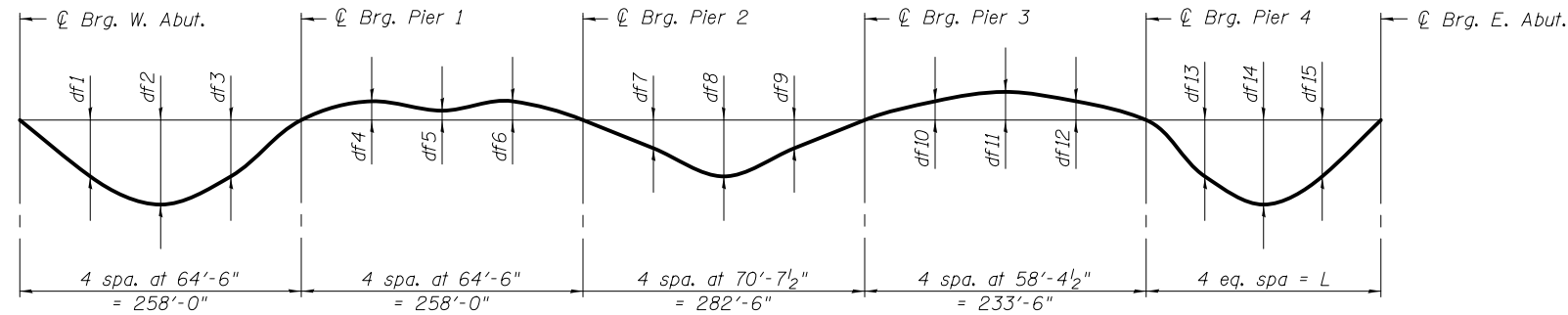
STEEL DETAILS - 2
S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB64WB

| | | | | |
|---------------------------|---------|-----------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | IBR-1-1 | ST. CLAIR | 315 | 184 |
| CONTRACT NO. 76G39 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

SHEET NO. 540 OF 577 SHEETS



CAMBER DIAGRAM
(Camber profile at Girder 6 shown)



STEEL DEFLECTION DIAGRAM
(Deflection profile at Girder 6 shown)

CAMBER TABLE

| Girder | cm1 | cm2 | cm3 | cm4 | cm5 | cm6 | cm7 | cm8 | cm9 | cm10 | cm11 | cm12 | cm13 | cm14 | cm15 | cm16 | cm17 | cm18 | cm19 | cm20 | cm21 | cm22 | cm23 | cm24 | cm25 | cm26 | cm27 | cm28 | cm29 | cm30 | cm31 | cm32 | cm33 |
|--------|--------|--------|--------|--------|--------|--------|-----|------|------|------|--------|--------|------|------|--------|--------|------|--------|------|-------|-------|-------|---------|------|---------|---------|---------|--------|--------|--------|------|------|------|
| 1 | 3/4" | 1" | 3/4" | 2 3/4" | 4 3/4" | 4 1/4" | 1" | 3/4" | 3/4" | 3/4" | 4 1/4" | 3 1/4" | 3/4" | 3/4" | 1 1/4" | 5 1/4" | 7" | 5 1/4" | 3/4" | -1" | -1" | 1" | 1 1/2" | 1" | 2" | 0" | -1 3/4" | 1 3/4" | 2 1/2" | 2" | 3/4" | 3/4" | 1/2" |
| 2 | 3/4" | 1" | 3/4" | 4" | 6" | 4 3/4" | 1" | 1/2" | 3/4" | 3/4" | 4 1/4" | 3 1/4" | 3/4" | 3/4" | 1 1/4" | 5 1/4" | 7" | 5 1/4" | 3/4" | -1" | -1" | 3/4" | 1" | 3/4" | 1/2" | -3/4" | -1 1/2" | 2 1/4" | 3" | 2 1/2" | 3/4" | 3/4" | 1/2" |
| 3 | 3/4" | 1" | 3/4" | 5 1/4" | 7" | 5 1/4" | 1" | 1/2" | 3/4" | 3/4" | 4 1/4" | 3 1/4" | 3/4" | 3/4" | 1 1/4" | 5 1/4" | 7" | 5 1/4" | 3/4" | -1" | -1" | 3/4" | 1" | 3/4" | -3/4" | -1 3/4" | -1 1/4" | 2 1/2" | 3 1/2" | 3" | 3/4" | 3/4" | 1/2" |
| 4 | 1" | 1 1/2" | 1" | 5 3/4" | 7 1/2" | 5 1/2" | 1" | 1/2" | 3/4" | 3/4" | 4 1/4" | 3 1/4" | 3/4" | 3/4" | 1 1/4" | 5 1/4" | 7" | 5 1/4" | 3/4" | -1" | -3/4" | 0" | 0" | 0" | -1 1/4" | -1 3/4" | -1" | 3" | 4" | 3 1/4" | 3/4" | 3/4" | 1/2" |
| 5 | 1 1/4" | 2" | 1 1/4" | 5 3/4" | 7 1/2" | 5 1/2" | 1" | 1/2" | 3/4" | 3/4" | 4 1/4" | 3 1/4" | 3/4" | 3/4" | 1 1/4" | 5 1/4" | 7" | 5 1/4" | 3/4" | -3/4" | -3/4" | -1/4" | -3/4" | -1" | -1 1/4" | -1 1/4" | 1/2" | 3 1/4" | 4 1/2" | 3 3/4" | 1" | 1" | 3/4" |
| 6 | 1 3/4" | 2 1/2" | 1 3/4" | 5 3/4" | 7 1/2" | 5 1/2" | 1" | 3/4" | 3/4" | 3/4" | 4 1/4" | 3 1/4" | 3/4" | 3/4" | 1 1/4" | 5 1/4" | 7" | 5 1/4" | 3/4" | -3/4" | -3/4" | -1/4" | -1 1/4" | -2" | -1" | -3/4" | 1 1/2" | 3 3/4" | 5 1/4" | 4 1/4" | 1" | 1" | 3/4" |

STEEL DEFLECTION TABLE

| Girder | Span 1 | | | Span 2 | | | Span 3 | | | Span 4 | | | Span 5 | | |
|--------|---------|---------|---------|--------|--------|--------|---------|----------|----------|--------|---------|----------|---------|----------|----------|
| | df1 | df2 | df3 | df4 | df5 | df6 | df7 | df8 | df9 | df10 | df11 | df12 | df13 | df14 | df15 |
| 1 | 3 1/2" | 4 7/16" | 2 1/2" | -7/16" | -1/8" | -5/16" | 2 1/4" | 3 11/16" | 2 1/4" | -5/16" | -1/16" | -3/16" | 1 9/16" | 2 5/16" | 1 7/8" |
| 2 | 3 1/2" | 4 7/16" | 2 1/2" | -1/2" | -1/8" | -5/16" | 2 5/16" | 3 3/4" | 2 3/8" | -7/16" | -5/16" | -3/8" | 1 1/16" | 2 15/16" | 2 5/16" |
| 3 | 3 1/2" | 4 7/16" | 2 1/2" | -1/2" | -3/16" | -3/8" | 2 3/8" | 3 13/16" | 2 7/16" | -9/16" | -9/16" | -9/16" | 2 1/16" | 3 5/8" | 2 13/16" |
| 4 | 3 9/16" | 4 7/16" | 2 1/2" | -1/2" | -3/16" | -3/8" | 2 3/8" | 3 15/16" | 2 1/2" | -1/16" | -3/4" | -13/16" | 2 7/16" | 4 1/4" | 3 5/16" |
| 5 | 3 9/16" | 4 7/16" | 2 1/2" | -1/2" | -3/16" | -3/8" | 2 7/16" | 4" | 2 5/8" | -7/8" | -1" | -1" | 2 7/8" | 4 15/16" | 3 7/8" |
| 6 | 3 9/16" | 4 7/16" | 2 9/16" | -1/2" | -1/4" | -7/16" | 2 1/2" | 4 1/16" | 2 11/16" | -1" | -1 1/4" | -1 3/16" | 3 1/4" | 5 5/8" | 4 7/16" |

Notes:
See sheet S38 for dimensions "a" thru "d" and "L".
Negative cambers are downward.
Negative deflections are upward.
The calculated deflections of the primary girders/beams under steel self-weight shall be used to detail the cross frame connections, and to erect the structural steel such that the girders/beams will be plumb within a tolerance of ± 1/8 in. per vertical ft. throughout when supporting their own weight.



| | | |
|-----------------------|----------------|---------|
| USER NAME = | DESIGNED - YSS | REVISED |
| PLOT SCALE = | CHECKED - ZJB | REVISED |
| PLOT DATE = 3/12/2018 | DRAWN - PRC | REVISED |
| | CHECKED - JMH | REVISED |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STEEL DETAILS - 3
S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB/64WB

SHEET NO. 541 OF 577 SHEETS

| | | | | |
|---------------------------|---------|-----------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | IBR-1-1 | ST. CLAIR | 315 | 185 |
| CONTRACT NO. 76G39 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

| INTERIOR GIRDER MOMENT TABLE (Girder 5) | | | | | | | | | | |
|--|--------------------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|
| | | 0.4 Sp. 1 | Pier 1 | 0.5 Sp. 2 | Pier 2 | 0.5 Sp. 3 | Pier 3 | 0.5 Sp. 4 | Pier 4 | 0.6 Sp. 5 |
| I_s | (in ⁴) | 272,955 | 324,245 | 163,600 | 314,640 | 226,621 | 305,035 | 158,811 | 343,456 | 294,622 |
| $I_c(n)$ | (in ⁴) | 512,584 | - | 318,287 | - | 406,117 | - | 317,232 | - | 521,996 |
| $I_c(3n)$ | (in ⁴) | 381,062 | - | 239,799 | - | 310,219 | - | 237,193 | - | 396,304 |
| $I_c(cr)$ | (in ⁴) | - | 339,356 | - | 329,741 | - | 320,125 | - | 358,585 | - |
| S_s | (in ³) | 6,409 | 6,485 | 3,339 | 6,293 | 4,681 | 6,101 | 3,300 | 6,869 | 6,566 |
| $S_c(n)$ | (in ³) | 7,732 | - | 4,264 | - | 5,687 | - | 4,262 | - | 7,768 |
| $S_c(3n)$ | (in ³) | 7,152 | - | 3,890 | - | 5,246 | - | 3,878 | - | 7,224 |
| $S_c(cr)$ | (in ³) | - | 6,584 | - | 6,394 | - | 6,203 | - | 6,966 | - |
| S_{xc} | (in ³) | 7,096 | 6,548 | 4,061 | 6,360 | 5,196 | 6,173 | 4,195 | 6,932 | 7,302 |
| DC1 | (k/') | 1.58 | 1.64 | 1.40 | 1.63 | 1.51 | 1.61 | 1.39 | 1.67 | 1.61 |
| M _{DC1} | (k) | 8,650 | 10,915 | 1,986 | 9,985 | 6,372 | 8,436 | 581 | 11,040 | 9,944 |
| DC2 | (k/') | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 |
| M _{DC2} | (k) | 1,429 | 1,861 | 455 | 1,757 | 1,101 | 1,485 | 191 | 1,848 | 1,616 |
| DW | (k/') | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 |
| M _{DW} | (k) | 2,266 | 2,970 | 720 | 2,805 | 1,736 | 2,375 | 309 | 2,946 | 2,557 |
| LLDF | | 0.62 | 0.62 | 0.62 | 0.62 | 0.63 | 0.63 | 0.65 | 0.71 | 0.70 |
| M _{LL+IM} | (k) | 5,728 | 5,515 | 4,181 | 5,630 | 5,150 | 5,312 | 3,905 | 5,837 | 6,027 |
| f _i (Strength I) | (ksi) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.18 | 2.47 |
| M _u + 1/3 f _i S _{xc} | (k) | 26,022 | 30,076 | 11,448 | 28,738 | 20,958 | 25,260 | 8,262 | 30,971 | 29,334 |
| φ _r M _n | (k) | 33,932 | - | 22,063 | - | 28,285 | * | * | * | * |
| f _s DC1 | (ksi) | 16.20 | 20.20 | 7.14 | 19.04 | 16.33 | 16.59 | 2.11 | 19.29 | 18.17 |
| f _s DC2 | (ksi) | 2.40 | 3.39 | 1.40 | 3.30 | 2.52 | 2.87 | 0.59 | 3.18 | 2.68 |
| f _s DW | (ksi) | 3.80 | 5.41 | 2.22 | 5.26 | 3.97 | 4.59 | 0.96 | 5.08 | 4.25 |
| f _s (LL+IM) | (ksi) | 8.89 | 10.05 | 11.77 | 10.57 | 10.87 | 10.28 | 10.99 | 10.06 | 9.31 |
| f _i (Service II) | (ksi) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.88 | 1.86 |
| f _s + f _i /2 (Service II) | (ksi) | 34.0 | 42.1 | 26.1 | 41.3 | 36.9 | 37.4 | 18.0 | 41.1 | 38.1 |
| 0.95R _n F _{yf} | (ksi) | 47.5 | 65.2 | 47.5 | 65.1 | 47.5 | 65.1 | 47.5 | 65.2 | 64.9 |
| f _s + f _i /3 (Total)(Strength I) | (ksi) | - | 55.2 | - | 54.3 | - | 49.2 | 24.1 | 53.7 | 49.6 |
| φ _r F _n | (ksi) | - | 67.7 | - | 67.5 | - | 60.7 | 50.0 | 67.8 | 68.3 |
| V _r | (k) | 24.8 | 26.0 | 17.8 | 27.7 | 27.4 | 29.1 | 18.7 | 26.8 | 25.7 |

| EXTERIOR GIRDER MOMENT TABLE (Girder 6) | | | | | | | | | | |
|--|--------------------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|
| | | 0.4 Sp. 1 | Pier 1 | 0.5 Sp. 2 | Pier 2 | 0.5 Sp. 3 | Pier 3 | 0.5 Sp. 4 | Pier 4 | 0.6 Sp. 5 |
| I_s | (in ⁴) | 272,955 | 324,245 | 163,600 | 314,640 | 226,621 | 305,035 | 158,811 | 343,456 | 294,622 |
| $I_c(n)$ | (in ⁴) | 493,945 | - | 307,972 | - | 392,891 | - | 306,753 | - | 504,049 |
| $I_c(3n)$ | (in ⁴) | 369,990 | - | 232,530 | - | 301,863 | - | 229,744 | - | 385,823 |
| $I_c(cr)$ | (in ⁴) | - | 337,563 | - | 327,950 | - | 318,337 | - | 356,788 | - |
| S_s | (in ³) | 6,409 | 6,485 | 3,339 | 6,293 | 4,681 | 6,101 | 3,300 | 6,869 | 6,566 |
| $S_c(n)$ | (in ³) | 7,664 | - | 4,223 | - | 5,635 | - | 4,219 | - | 7,702 |
| $S_c(3n)$ | (in ³) | 7,089 | - | 3,847 | - | 5,199 | - | 3,834 | - | 7,167 |
| $S_c(cr)$ | (in ³) | - | 6,572 | - | 6,382 | - | 6,191 | - | 6,955 | - |
| S_{xc} | (in ³) | 7,056 | 6,541 | 4,029 | 6,352 | 5,161 | 6,165 | 4,182 | 6,924 | 7,199 |
| DC1 | (k/') | 1.47 | 1.53 | 1.28 | 1.51 | 1.39 | 1.49 | 1.27 | 1.56 | 1.49 |
| M _{DC1} | (k) | 8,638 | 10,781 | 1,957 | 9,934 | 6,444 | 8,110 | 292 | 11,499 | 11,269 |
| DC2 | (k/') | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 |
| M _{DC2} | (k) | 1,441 | 1,902 | 454 | 1,811 | 1,111 | 1,494 | 156 | 1,996 | 1,865 |
| DW | (k/') | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 |
| M _{DW} | (k) | 2,259 | 2,950 | 708 | 2,807 | 1,748 | 2,309 | 235 | 3,092 | 2,928 |
| LLDF | | 0.76 | 0.77 | 0.75 | 0.78 | 0.77 | 0.78 | 0.78 | 0.88 | 0.89 |
| M _{LL+IM} | (k) | 6,989 | 6,863 | 5,093 | 7,019 | 6,308 | 6,608 | 4,721 | 7,293 | 7,790 |
| f _i (Strength I) | (ksi) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.49 | 2.96 |
| M _u + 1/3 f _i S _{xc} | (k) | 28,218 | 32,289 | 12,989 | 31,175 | 23,105 | 27,033 | 9,174 | 34,556 | 35,034 |
| φ _r M _n | (k) | 31,812 | - | 21,881 | - | 28,121 | * | * | * | * |
| f _s DC1 | (ksi) | 16.17 | 19.95 | 7.03 | 18.94 | 16.52 | 15.95 | 1.06 | 20.09 | 20.59 |
| f _s DC2 | (ksi) | 2.44 | 3.47 | 1.42 | 3.41 | 2.56 | 2.90 | 0.49 | 3.44 | 3.12 |
| f _s DW | (ksi) | 3.82 | 5.39 | 2.21 | 5.28 | 4.03 | 4.48 | 0.74 | 5.33 | 4.90 |
| f _s (LL+IM) | (ksi) | 10.94 | 12.53 | 14.47 | 13.20 | 13.43 | 12.81 | 13.43 | 12.58 | 12.14 |
| f _i (Service II) | (ksi) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.11 | 2.22 |
| f _s + f _i /2 (Service II) | (ksi) | 36.7 | 45.1 | 29.5 | 44.8 | 40.6 | 40.0 | 19.7 | 45.8 | 45.5 |
| 0.95R _n F _{yf} | (ksi) | 47.5 | 65.2 | 47.5 | 65.1 | 47.5 | 65.1 | 47.5 | 65.2 | 65.0 |
| f _s + f _i /3 (Total)(Strength I) | (ksi) | - | 59.3 | - | 59.0 | - | 52.7 | 26.5 | 59.9 | 59.2 |
| φ _r F _n | (ksi) | - | 67.7 | - | 67.5 | - | 60.7 | 50.0 | 67.8 | 68.4 |
| V _r | (k) | 36.2 | 39.1 | 30.1 | 39.8 | 38.1 | 41.8 | 30.4 | 41.9 | 41.6 |

*Sections are evaluated as non-compact sections per Article 6.10.6.2.2 & 3

| INTERIOR GIRDER REACTION TABLE (Girder 5) | | | | | | |
|---|----------|--------|--------|--------|--------|----------|
| | W. Abut. | Pier 1 | Pier 2 | Pier 3 | Pier 4 | E. Abut. |
| LLDF | 0.73 | 0.80 | 0.80 | 0.80 | 0.82 | 0.79 |
| OCF | - | - | - | - | - | - |
| R _{DC1} (k) | 169.6 | 457.6 | 425.7 | 387.7 | 482.3 | 192.5 |
| R _{DC2} (k) | 27.0 | 75.3 | 71.5 | 65.2 | 78.3 | 29.8 |
| R _{DW} (k) | 44.4 | 124.0 | 118.0 | 108.0 | 128.6 | 48.9 |
| R _{LL} (k) | 103.5 | 210.2 | 212.2 | 207.1 | 225.0 | 111.0 |
| R _{IM} (k) | 18.3 | 30.6 | 30.9 | 30.5 | 33.9 | 19.9 |
| R _{Total} (k) | 362.9 | 897.6 | 858.3 | 798.4 | 947.9 | 402.0 |

| EXTERIOR GIRDER REACTION TABLE (Girder 6) | | | | | | |
|---|----------|--------|--------|--------|--------|----------|
| | W. Abut. | Pier 1 | Pier 2 | Pier 3 | Pier 4 | E. Abut. |
| LLDF | 0.78 | 0.85 | 0.85 | 0.84 | 0.87 | 0.91 |
| OCF | - | - | - | - | - | - |
| R _{DC1} (k) | 166.5 | 446.0 | 415.9 | 372.2 | 437.3 | 210.3 |
| R _{DC2} (k) | 29.1 | 81.1 | 77.7 | 70.3 | 78.2 | 36.4 |
| R _{DW} (k) | 44.4 | 123.2 | 117.9 | 106.2 | 118.5 | 55.8 |
| R _{LL} (k) | 116.2 | 238.3 | 241.1 | 232.9 | 234.4 | 132.8 |
| R _{IM} (k) | 18.6 | 33.0 | 33.5 | 32.4 | 36.3 | 22.2 |
| R _{Total} (k) | 374.9 | 921.6 | 886.1 | 814.1 | 904.7 | 457.4 |

Notes on Live Load Distribution Factor:

- Live load distribution factor (LLDF) for design was determined by a refined method of analysis.
- LLDF include the effects of centrifugal force and superelevation.
- The live load + impact distribution factors provided in the tables on this sheet were computed for HL-93 loading only, and are intended to be used to approximate HL-93 live load + impact demands.
- The live load + impact distribution factors are in the form of a ratio of the girder live load demand obtained from the refined method of analysis caused by HL-93 loading, divided by the girder live load demand obtained from the application of a single lane of HL-93 loading acting on a single isolated girder.
- The girder live load demand obtained from line girder analysis does not include the effects of centrifugal force and superelevation.
- Example calculation of interior girder live load design moment in Span 5 based on the distribution factors provided in the tables:
 - From a line girder analysis with a distribution factor of 1.0 lane, the live load moment at Span 5 is found to be:
 $M_{LL+IM} = 8,643$ k-ft per lane
 - From the Interior Girder Live Load + Impact Distribution Factor table shown on this sheet, the design distribution factor for positive moment in Span 5 is 0.70. Therefore, the live load + impact moment at Span 5 based on the refined method of analysis is:
 $0.70 \times 8,643$ k-ft = 6,050 k-ft

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) in uncracked sections 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) in uncracked sections due to long-term composite (superimposed) dead loads (in⁴ and in³).

$I_c(cr), S_c(cr)$: Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing f_s (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite (superimposed) dead loads (in⁴ and in³).

S_{xc} : Section modulus about the major axis of section to the controlling flange, tension or compression, taken as yield moment with respect to the controlling flange over the yield strength of the controlling flange (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_{LL+IM}: Un-factored live load moment plus dynamic load allowance (impact)(kip-ft.).

M_u (Strength I): Factored design moment (kip-ft.).
 $1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_{LL+IM}$

f_i: Factored calculated normal stress at edge of flange for controlling flange plate due to lateral bending, Strength I or Service II as applicable (ksi).

φ_rM_n: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft.).

f_s DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
M_{DC1} / S_s

f_s DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
M_{DC2} / S_{c(3n)} or M_{DC2} / S_{c(cr)} as applicable.

f_s DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
M_{DW} / S_{c(3n)} or M_{DW} / S_{c(cr)} as applicable.

f_s (LL+IM): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live plus impact loads as calculated below (ksi).
M_{LL+IM} / S_{c(n)} or M_{LL+IM} S_{c(cr)} as applicable.

f_s + f_i/2 (Service II): Sum of stresses as computed below (ksi).
f_s DC1 + f_s DC2 + f_s DW + 1.3 f_s (LL+IM) + f_i/2

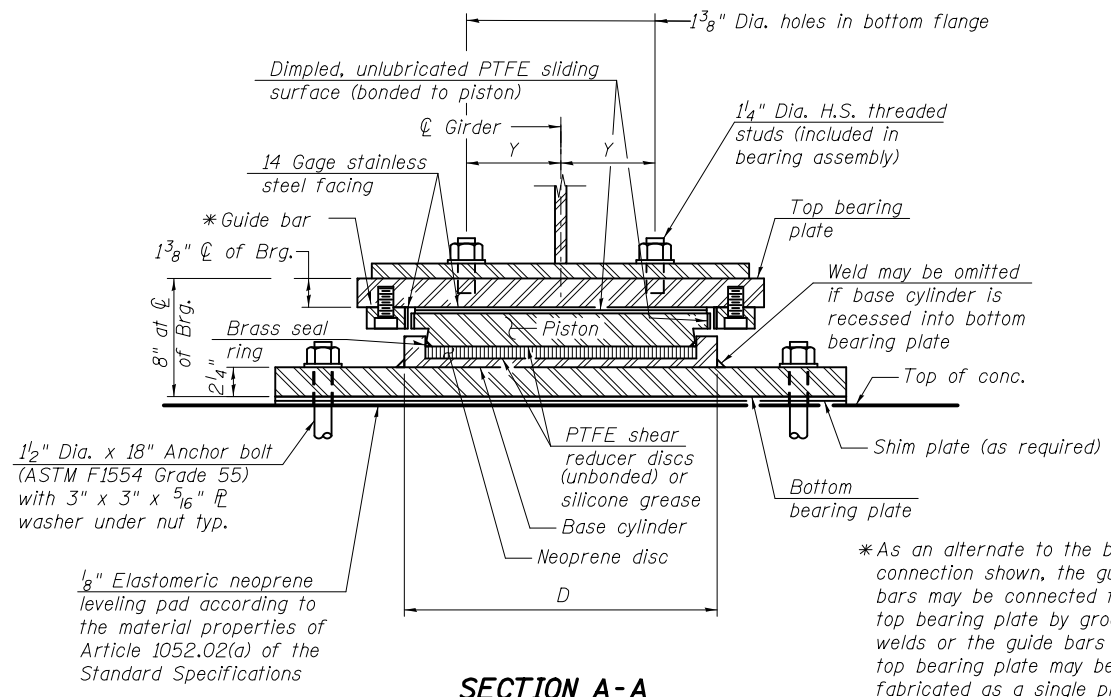
0.95R_nF_{yf}: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).

f_s + f_i/3 (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
1.25 (f_s DC1 + f_s DC2) + 1.5 f_s DW + 1.75 f_s (LL+IM) + f_i/3

φ_rF_n: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).

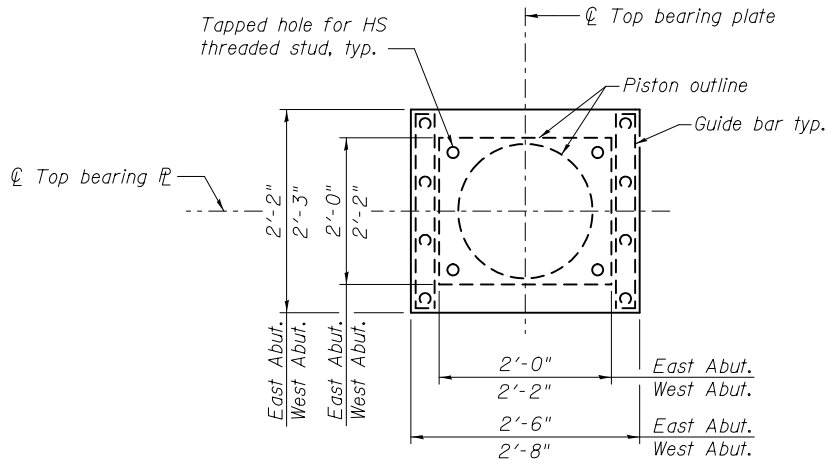
V_r: Maximum factored shear range in span computed according to Article 6.10.10 (kips).

Note:
M_{LL+IM} and R_{LL} include the effects of centrifugal force and superelevation.

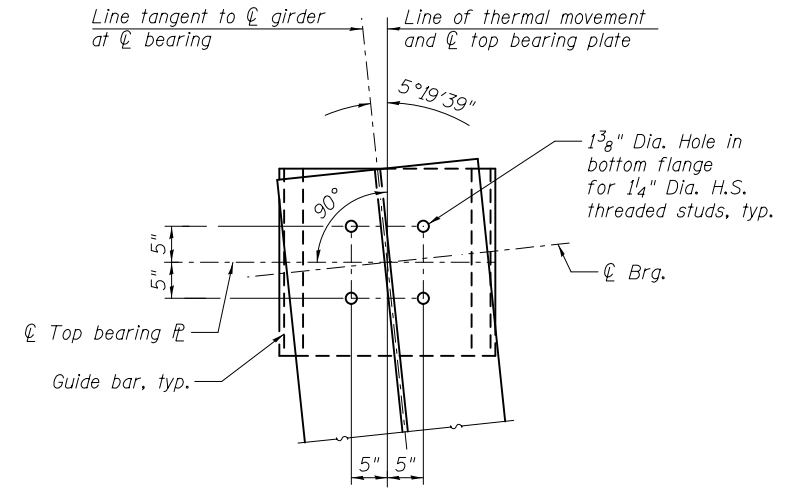


SECTION A-A

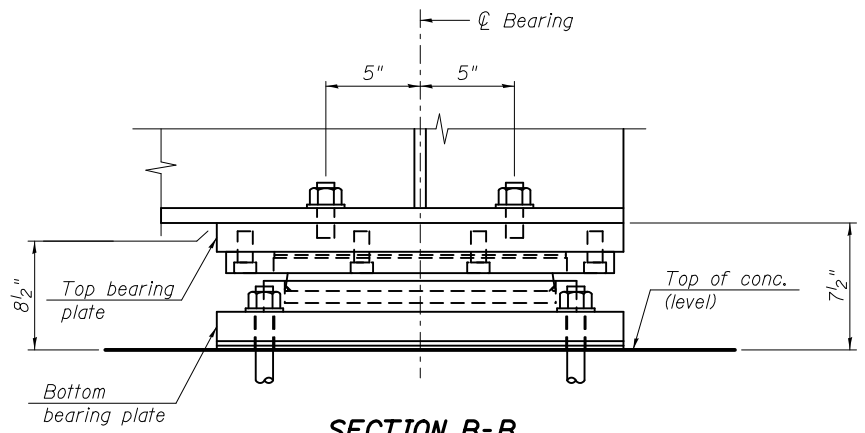
Y = 5" at West Abutment; Varies at East Abutment



TOP BEARING PLATE AND PISTON PLAN

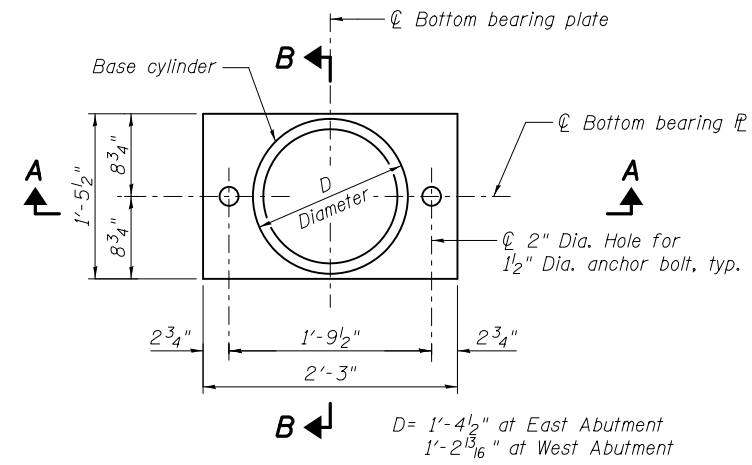


EAST ABUTMENT BEARING ALIGNMENT



SECTION B-B

(Looking North - East Abutment)
(Looking South - West Abutment)



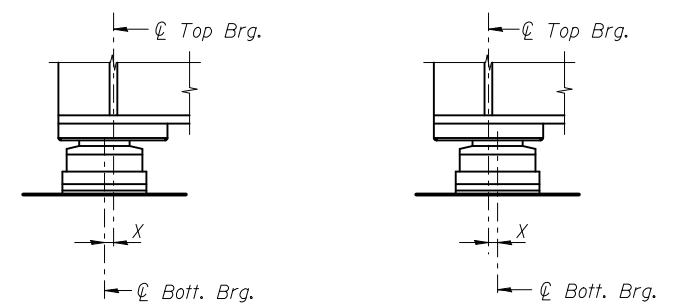
BOTTOM BEARING PLATE AND BASE CYLINDER PLAN

D = 1'-4 1/2" at East Abutment
1'-2 13/16" at West Abutment

BEARING DESIGN DATA

| Location | Vert. Design Load** (kips) | Hu, Horiz. Design Load** (kips) | θu, Required Rotation Range*** (radians) | Max. Theor. Thermal Mvmt**** (inches) |
|------------|----------------------------|---------------------------------|--|---------------------------------------|
| East Abut. | 475 | 95 | 0.037 | 3 5/8" |
| West Abut. | 383 | 77 | 0.030 | 5" |

** Design Loads are the governing service loads with no dynamic load allowance.
*** Rotation allowances for fabrication tolerances (0.005 radians), installation uncertainties (0.005 radians) are excluded.
**** Total required movement is based on one way expansion (or contraction) of the superstructure along the centerline of girder when bearings are set at 50°F. Bearing movement tolerances are excluded.



BELOW 50°F (Move bottom brg. away from fixed brg.)
ABOVE 50°F (Move bottom brg. toward fixed brg.)

SETTING ANCHOR BOLTS AT HLMR EXP. BRG.

X = 1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F. West Abutment Exp. Length = 730', East Abutment Exp. Length = 547'

Notes:
All steel for bearings shall conform to the requirements of AASHTO M270 Grade 50, unless otherwise noted.
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. 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 placing the cap concrete. Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Total bearing height is estimated based on manufacturer data. Actual bearing height may differ from contract plans. The Contractor shall be responsible for verifying bearing heights and adjusting seat elevations, if required, prior to placing concrete. Total bearing height is taken at the centerline of bearing for bevelled top plates.
Bearing assemblies shall be designed and assembled to allow for replacement by jacking the superstructure.
Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
The anchor bolt sizes and grades shown constitute a calculated seismic structural fuse. Substitution of higher diameter and/or grade anchor bolts will not be allowed.
All bearing plates, anchor bolts, nuts and washers shall be galvanized according to AASHTO M111 or M232 as applicable.

BILL OF MATERIAL

| Item | Unit | Total |
|---|------|-------|
| High Load Multi-Rotational Bearings, Guided Expansion, 400k | Each | 6 |
| High Load Multi-Rotational Bearings, Guided Expansion, 500k | Each | 6 |
| Anchor Bolts, 1 1/2" | Each | 24 |



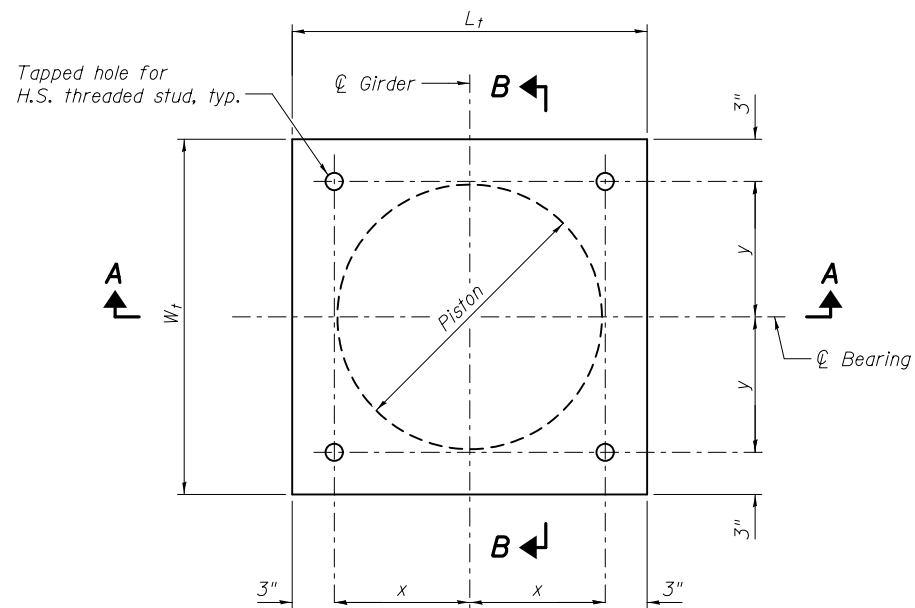
| | | |
|-----------------------|----------------|---------|
| USER NAME = | DESIGNED - MJP | REVISED |
| | CHECKED - LNB | REVISED |
| PLOT SCALE = | DRAWN - PRC | REVISED |
| PLOT DATE = 3/12/2018 | CHECKED - MJP | REVISED |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

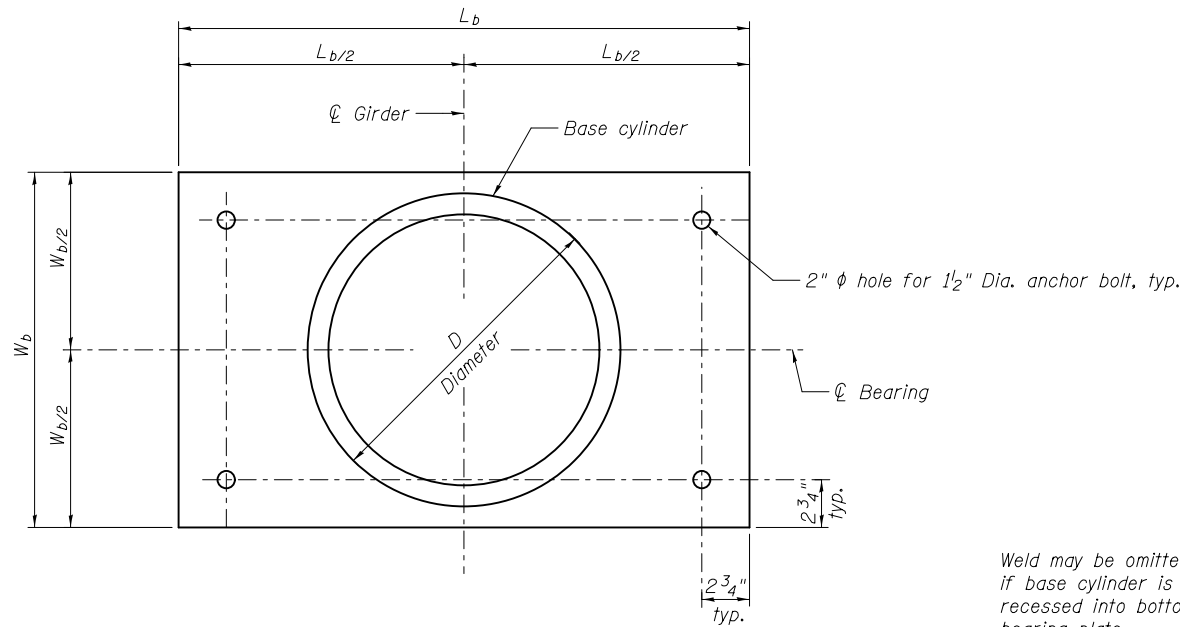
**HLMR GUIDED EXPANSION BEARINGS
S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB64WB**

| | | | | |
|--------------------|-----------------|------------------|------------------|---------------------------|
| F.A.P. RTE. 799 | SECTION 1BR-1-1 | COUNTY ST. CLAIR | TOTAL SHEETS 315 | SHEET NO. 187 |
| CONTRACT NO. 76G39 | | | | ILLINOIS FED. AID PROJECT |

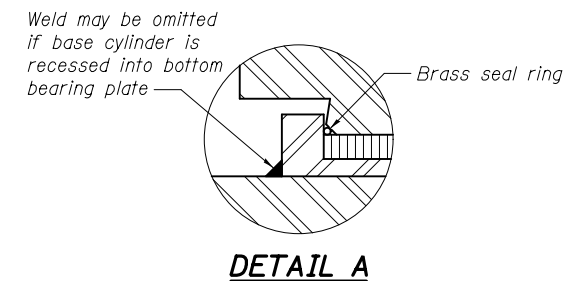
SHEET NO. 543 OF 577 SHEETS



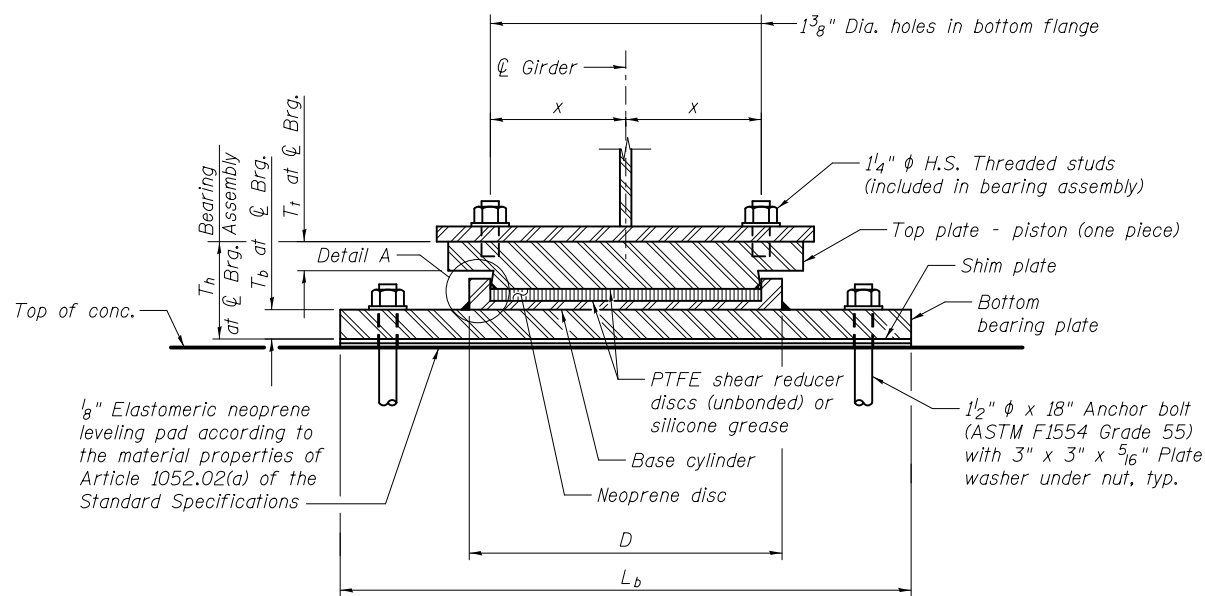
TOP PLATE - PISTON PLAN



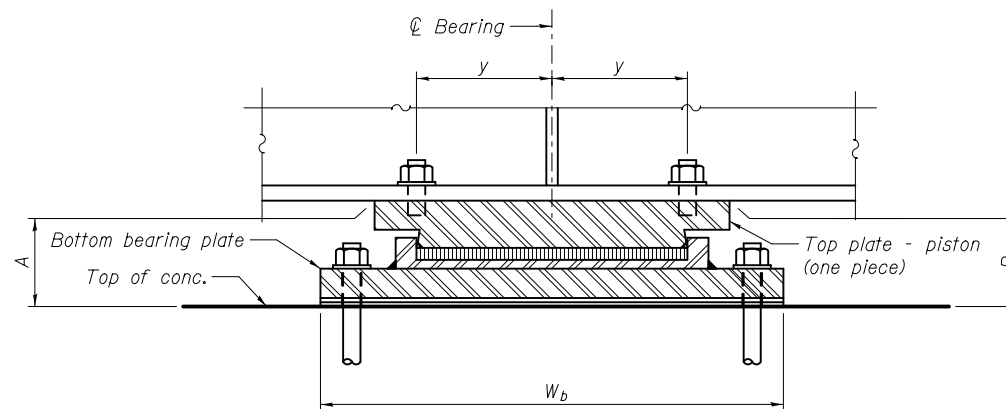
**BOTTOM BEARING PLATE AND
BASE CYLINDER PLAN**



DETAIL A



SECTION A-A



**SECTION B-B
(Looking North)**

Notes:
 All steel for bearings shall conform to the requirements of AASHTO M270 Grade 50, unless otherwise noted.
 Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. 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 placing the cap concrete. Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
 Total bearing height is estimated based on manufacturer data. Actual bearing height may differ from contract plans. The Contractor shall be responsible for verifying bearing heights and adjusting seat elevations, if required, prior to placing concrete. Total bearing height is taken at the ϕ of bearing for bevelled top plates.
 Bearing assemblies shall be designed and assembled to allow for replacement by jacking the superstructure.
 Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
 The anchor bolt sizes and grades shown constitute a calculated seismic structural fuse. Substitution of higher diameter and/or grade anchor bolts will not be allowed.
 All bearing plates, anchor bolts, nuts and washers shall be galvanized according to AASHTO M111 or M232 as applicable.

| Bearing Location | Vertical Design Load* (kips) | Hu, Horiz. Design Load* (kips) | θ_u , Required Rotation Range** (radians) | Bottom Bearing Plate | | | Top Bearing Plate | | | | | | A | B | D |
|------------------|------------------------------|--------------------------------|--|----------------------|-------|---------------------------------|-------------------|-------|---------------------------------|----------------------------------|-----|----------------------------------|------------------------------------|-----------------------------------|----------------------------------|
| | | | | L_b | W_b | T_b | L_t | W_t | T_t | x | y | T_h | | | |
| Pier 1 | 975 | 195 | 0.013 | 35" | 24" | 2 ⁵ / ₈ " | 28" | 26" | 3 ⁵ / ₈ " | 11" | 10" | 11 ¹ / ₄ " | 10 ¹⁵ / ₁₆ " | 11 ⁷ / ₁₆ " | 23 ¹ / ₄ " |
| Pier 2 | 915 | 183 | 0.013 | 35" | 24" | 2 ⁵ / ₈ " | 27" | 26" | 3 ⁵ / ₈ " | 10 ¹ / ₂ " | 10" | 11 ¹ / ₄ " | 11 ³ / ₈ " | 11 ¹ / ₈ " | 23 ¹ / ₄ " |
| Pier 3 | 865 | 173 | 0.016 | 35" | 24" | 2 ⁵ / ₈ " | 26" | 26" | 3 ⁵ / ₈ " | 10" | 10" | 11 ¹ / ₄ " | 11 ³ / ₄ " | 10 ³ / ₄ " | 22" |
| Pier 4 | 950 | 190 | 0.019 | 35" | 24" | 2 ⁵ / ₈ " | 30" | 26" | 3 ⁵ / ₈ " | 12" | 10" | 11 ¹ / ₄ " | 11 ³ / ₄ " | 10 ³ / ₄ " | 23 ¹ / ₄ " |

* Design Loads are the governing service loads with no dynamic load allowance.
 ** Rotation allowances for fabrication tolerances (0.005 radians), installation uncertainties (0.005 radians) are excluded.

BILL OF MATERIAL

| Item | Unit | Total |
|---|------|-------|
| High Load Multi-Rotational Bearings, Fixed, 900k | Each | 6 |
| High Load Multi-Rotational Bearings, Fixed, 1000k | Each | 18 |
| Anchor Bolts, 1 1/2" | Each | 96 |



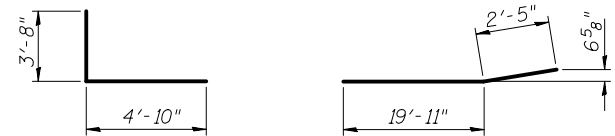
| | | |
|-----------------------|----------------|---------|
| USER NAME = | DESIGNED - LNB | REVISED |
| | CHECKED - MJP | REVISED |
| PLOT SCALE = | DRAWN - PRC | REVISED |
| PLOT DATE = 3/12/2018 | CHECKED - MJP | REVISED |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

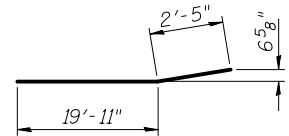
**FIXED HLMR BEARINGS
S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB64WB**

SHEET NO. 544 OF 577 SHEETS

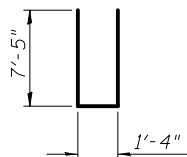
| | | | | |
|---------------------------|---------|-----------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | 1BR-1-1 | ST. CLAIR | 315 | 188 |
| CONTRACT NO. 76C39 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |



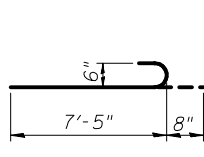
BAR h₂(E)



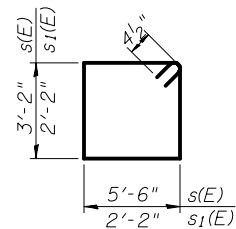
BAR h₄(E)



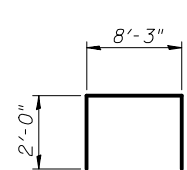
BAR n(E)



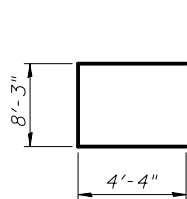
BAR n₁(E)



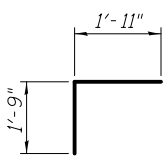
BARS s(E) & s₁(E)



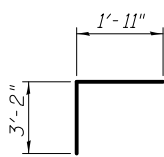
BAR s₂(E)



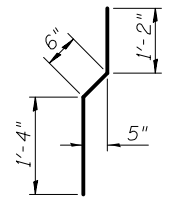
BAR u(E)



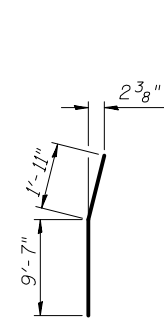
BAR v(E)



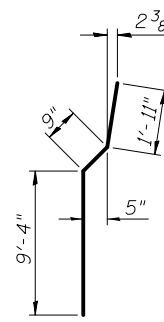
BAR v₇(E)



BAR v₁(E)



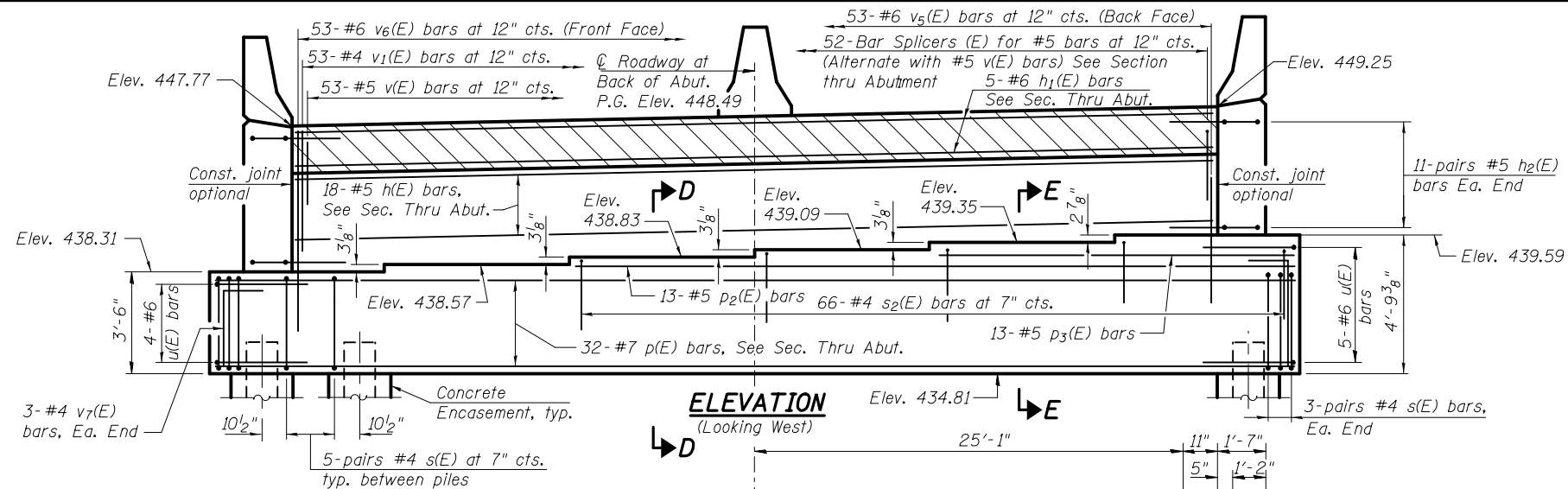
BAR v₃(E)



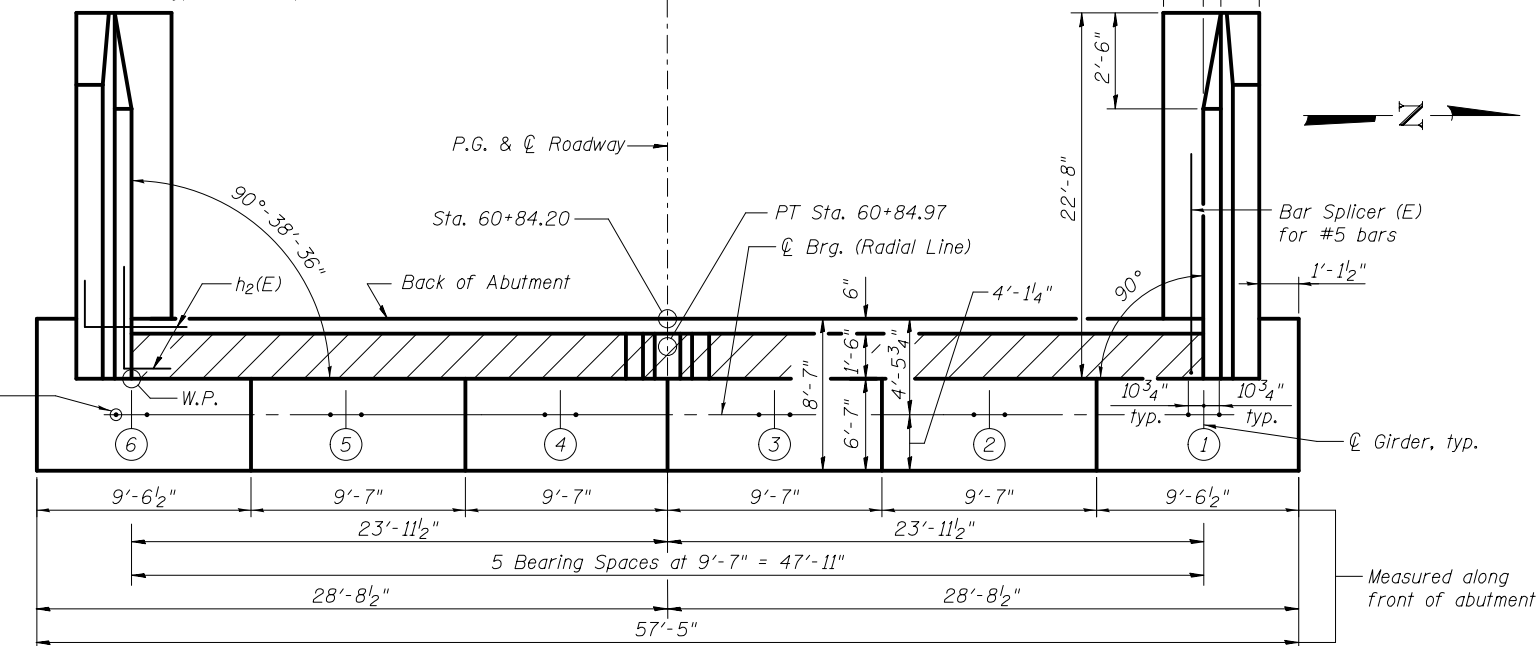
BAR v₄(E)

PILE DATA

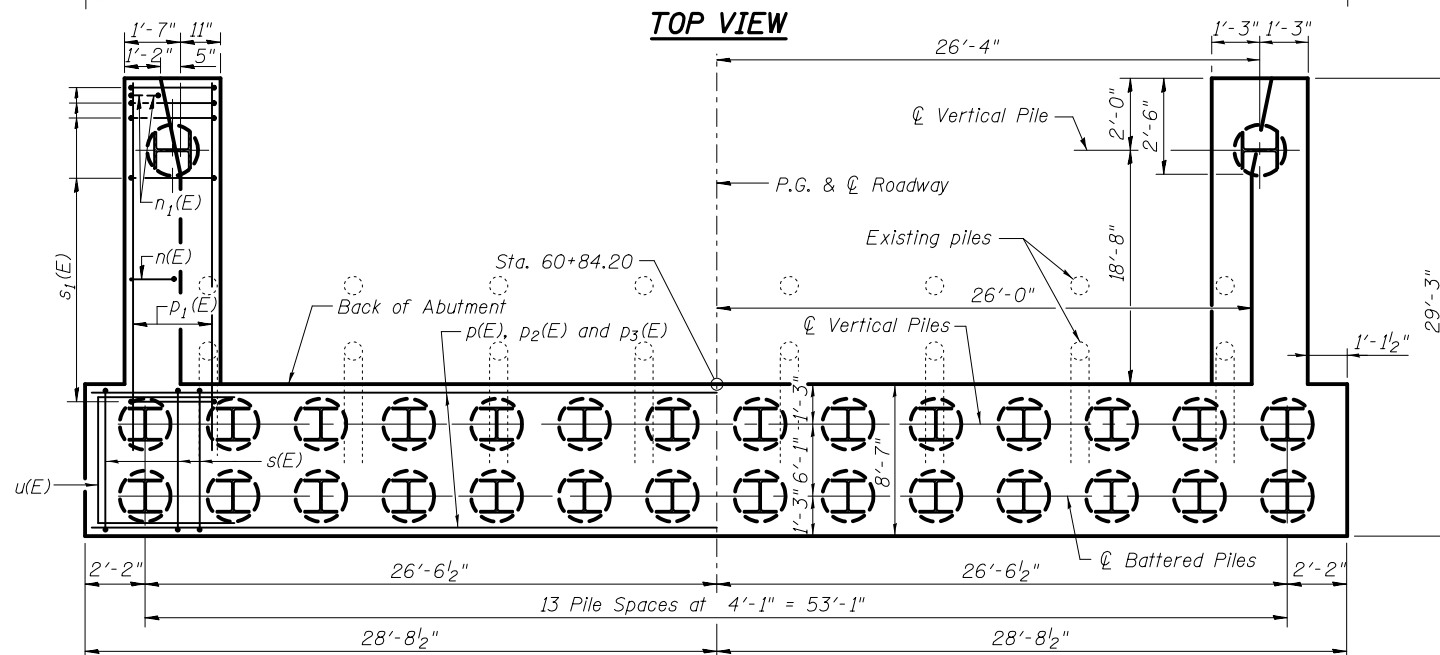
Type: HP 14x117
 Nominal Required Bearing: 929 kips
 Factored Resistance Available: 511 kips
 Est. Length: 139 feet
 No. Production Piles: 29
 No. Test Piles: 1



ELEVATION
(Looking West)



TOP VIEW



PLAN-PILE CAP

WEST ABUTMENT
BILL OF MATERIAL

| Bar | No. | Size | Length | Shape |
|----------------------------------|-----|---------|---------|-------|
| h(E) | 18 | #5 | 51'-8" | — |
| h ₁ (E) | 5 | #6 | 51'-8" | — |
| h ₂ (E) | 44 | #5 | 8'-6" | └ |
| h ₃ (E) | 33 | #4 | 22'-4" | — |
| h ₄ (E) | 25 | #4 | 22'-4" | — |
| n(E) | 40 | #6 | 16'-2" | └ |
| n ₁ (E) | 12 | #6 | 8'-1" | └ |
| p(E) | 32 | #7 | 57'-1" | — |
| p ₁ (E) | 20 | #7 | 24'-6" | — |
| p ₂ (E) | 13 | #5 | 37'-11" | — |
| p ₃ (E) | 13 | #5 | 18'-9" | — |
| s(E) | 142 | #4 | 18'-1" | └ |
| s ₁ (E) | 46 | #4 | 9'-5" | └ |
| s ₂ (E) | 66 | #4 | 12'-3" | └ |
| u(E) | 9 | #6 | 16'-11" | └ |
| v(E) | 53 | #5 | 3'-8" | └ |
| v ₁ (E) | 53 | #4 | 3'-0" | └ |
| v ₂ (E) | 46 | #6 | 11'-11" | └ |
| v ₃ (E) | 6 | #6 | 11'-6" | └ |
| v ₄ (E) | 40 | #6 | 12'-0" | └ |
| v ₅ (E) | 53 | #6 | 10'-4" | └ |
| v ₆ (E) | 53 | #6 | 11'-8" | └ |
| v ₇ (E) | 6 | #4 | 5'-2" | └ |
| Structure Excavation | | Cu. Yd. | 667 | |
| Concrete Structures | | Cu. Yd. | 144.2 | |
| Concrete Superstructures | | Cu. Yd. | 8.2 | |
| Reinforcement Bars, Epoxy Coated | | Pound | 15,740 | |
| Concrete Encasement | | Cu. Yd. | 16.4 | |
| Furnishing Steel Piles, HP14x117 | | Foot | 4,031 | |
| Driving Piles | | Foot | 4,031 | |
| Test Pile | | Each | 1 | |
| Pile Shoes | | Each | 30 | |
| Concrete Sealer | | Sq. Ft. | 1,151 | |

Notes:
 Remove existing 10" dia. piles as required to facilitate installation of new HP piles. Cost included with Removal of Existing Structures.
 For Section Thru Abutment, Section D-D, E-E and Wing Wall Elevations, see sheet S46.
 For details of Bar Splicers, see sheet S62.
 For details of piles and Concrete Encasement, see sheet S54.
 Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure.
 Abutment cap concrete pour shall be in accordance with Article 1020.15, Heat of Hydration Control for Concrete Structures, in the Standard Specifications.

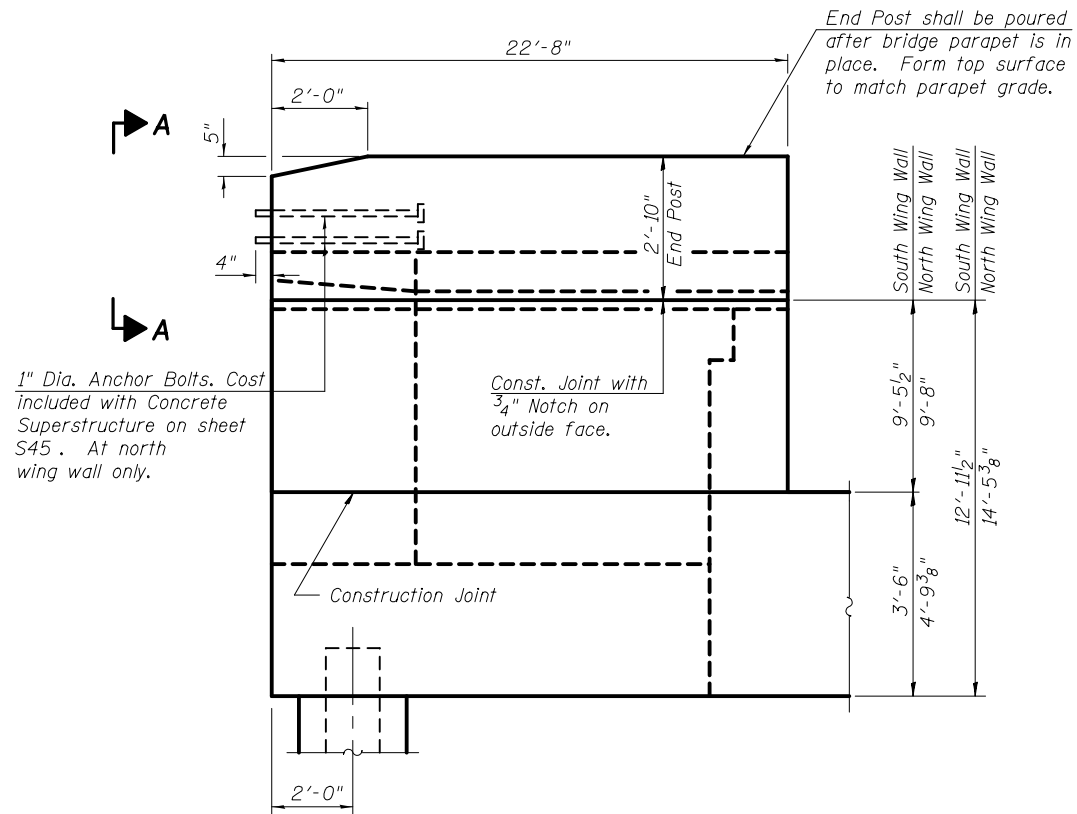


| | | |
|-----------------------|----------------|---------|
| USER NAME = | DESIGNED - MJP | REVISED |
| | CHECKED - LNB | REVISED |
| PLOT SCALE = | DRAWN - AEC | REVISED |
| PLOT DATE = 3/12/2018 | CHECKED - MJP | REVISED |

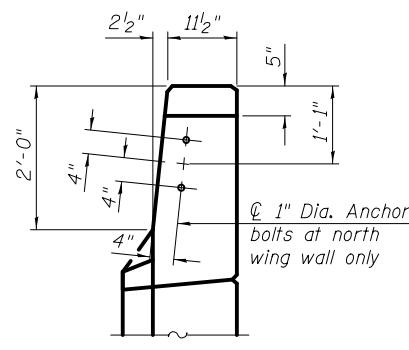
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

WEST ABUTMENT
 S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
 VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB64WB
 SHEET NO. S45 OF S77 SHEETS

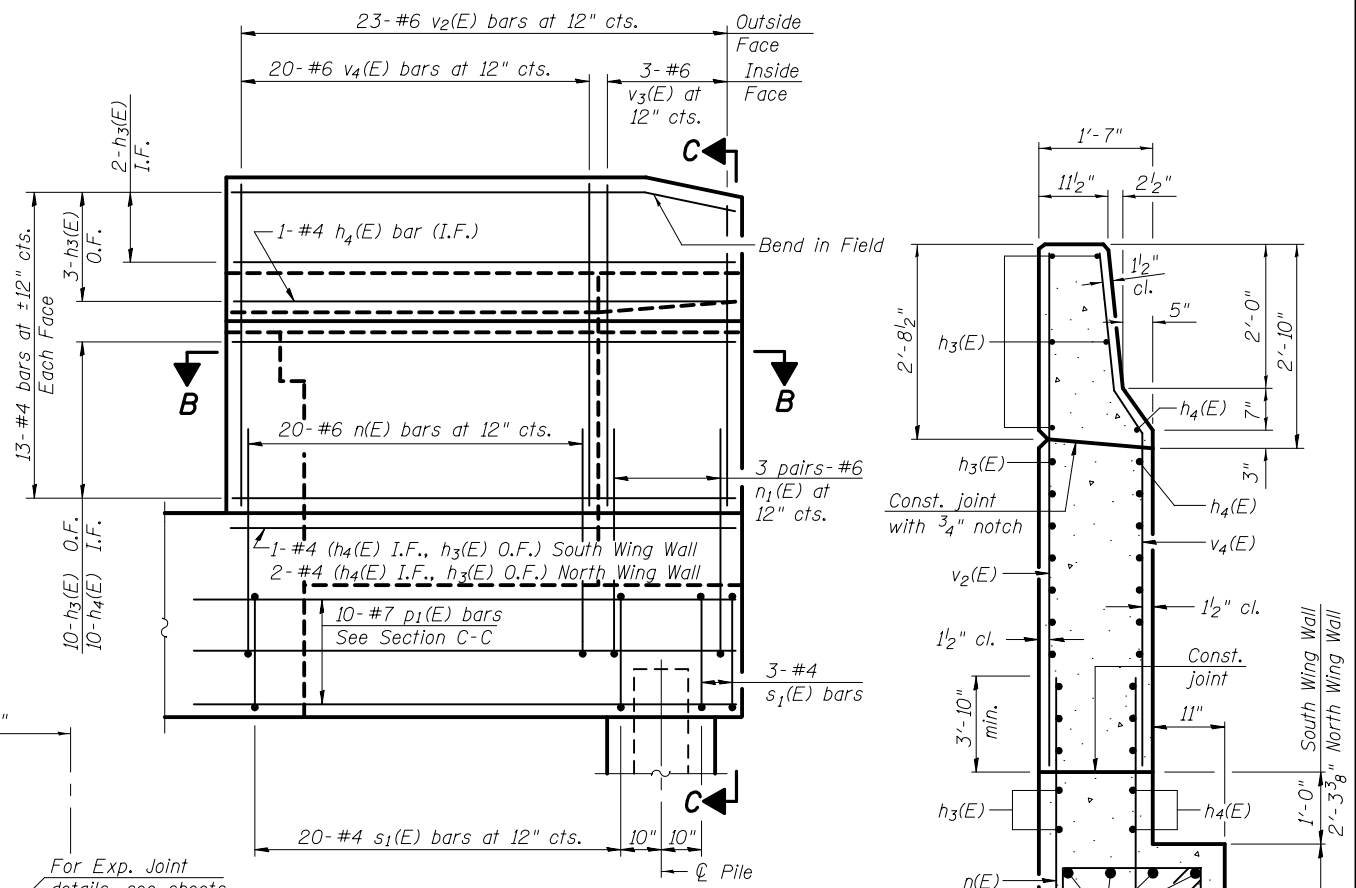
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|---------------------------|---------|-----------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | 1BR-1-1 | ST. CLAIR | 315 | 189 |
| CONTRACT NO. 76C39 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |



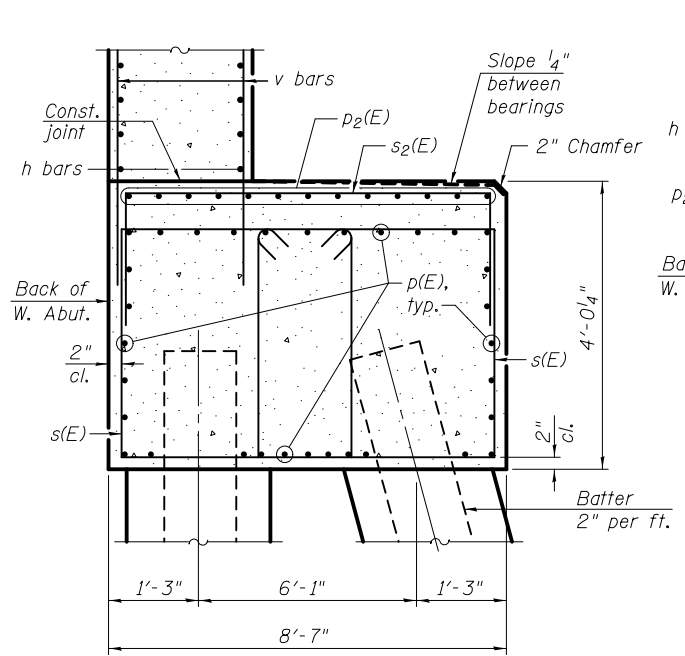
WING WALL ELEVATION
Showing Dimensions



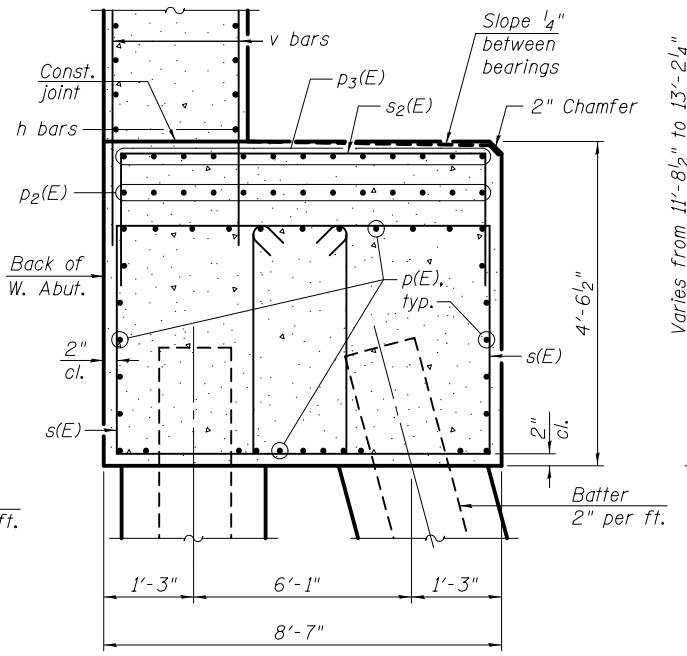
VIEW A-A



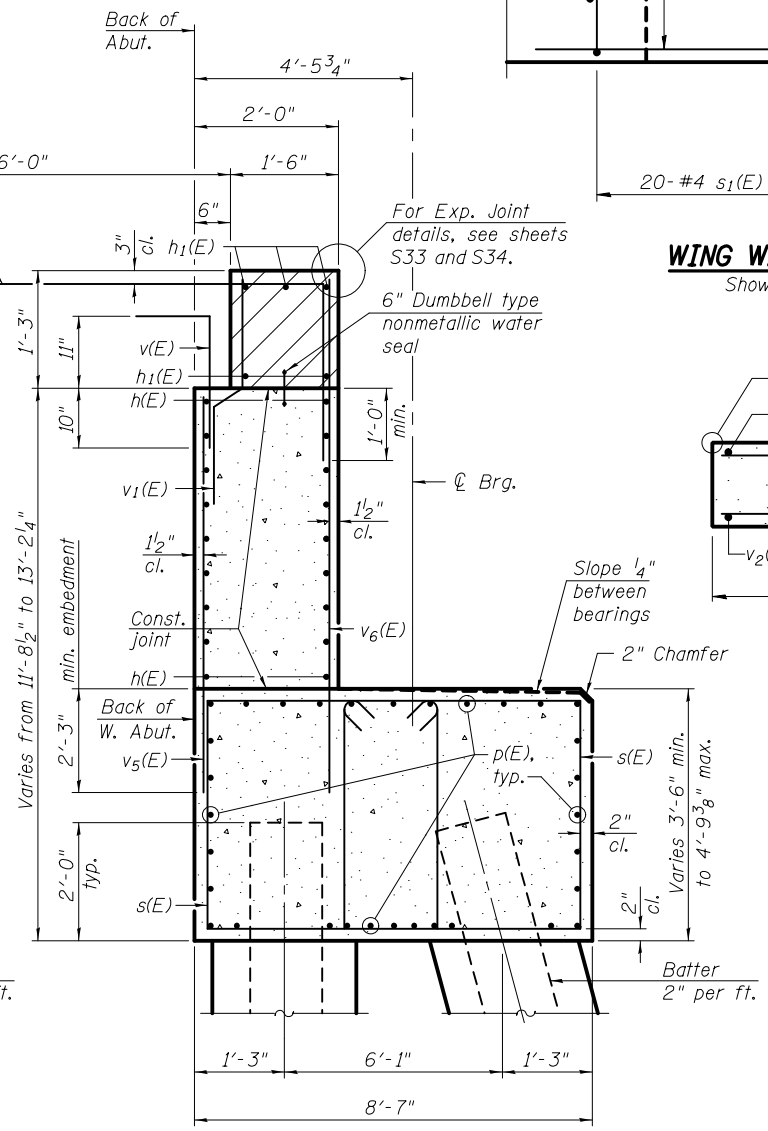
WING WALL ELEVATION
Showing Reinforcement



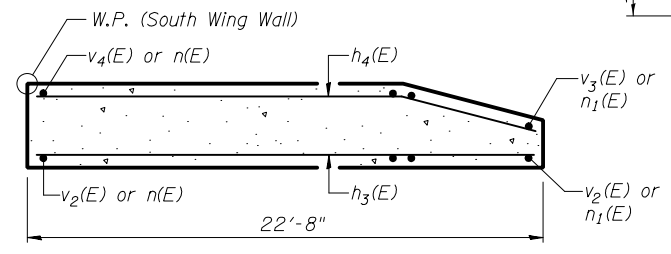
SECTION D-D



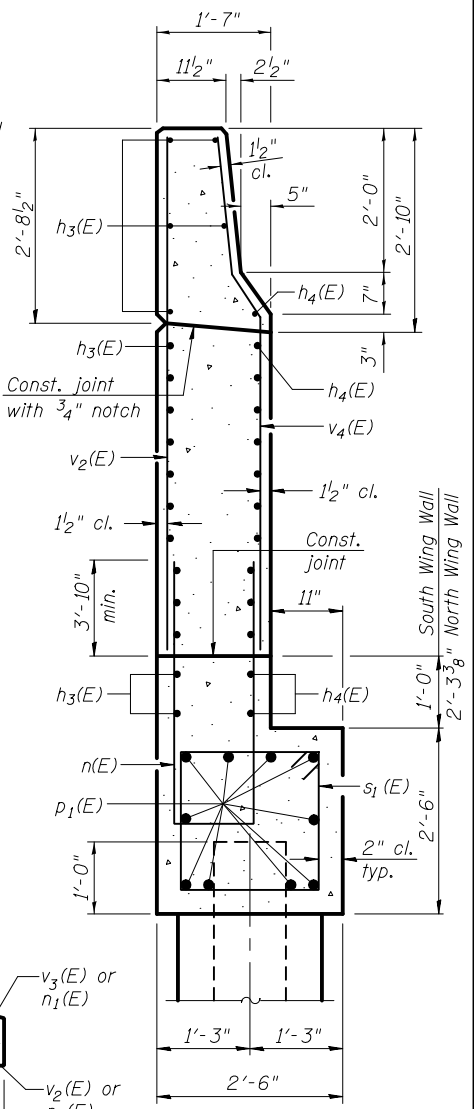
SECTION E-E



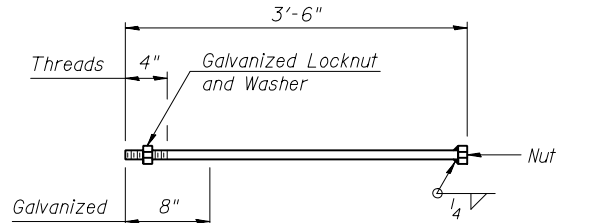
SECTION THRU ABUTMENT



SECTION B-B
(North Wing Wall shown;
South Wing Wall opposite hand)



SECTION C-C



1" DIA. ANCHOR BOLT
(2 - required)

Notes:
Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure. Space reinforcement in cap to miss anchor bolts. Pour steps monolithically with cap. Quantity of concrete in end post included with Concrete Superstructure on sheet S45. For Concrete Encasement details, see sheet S54.

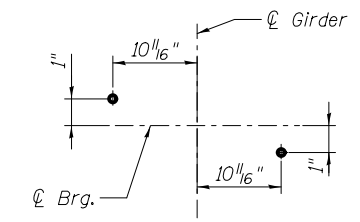
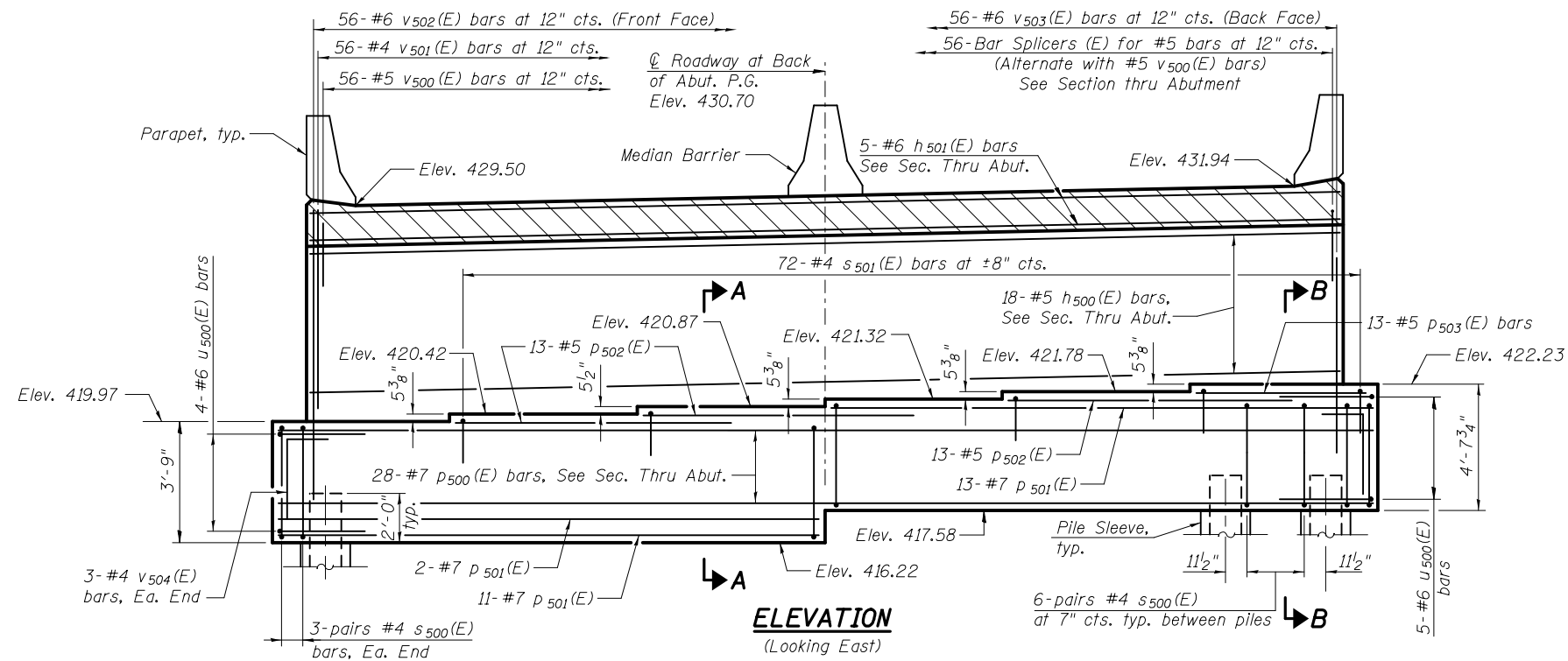


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|-----------------------|----------------|---------|
| USER NAME = | DESIGNED - MJP | REVISED |
| PLOT SCALE = | CHECKED - LNB | REVISED |
| PLOT DATE = 3/12/2018 | DRAWN - AEC | REVISED |
| | CHECKED - MJP | REVISED |

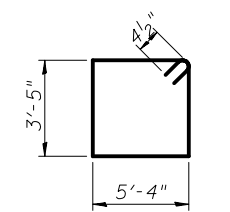
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST ABUTMENT DETAILS
S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB/64WB
SHEET NO. 546 OF 577 SHEETS

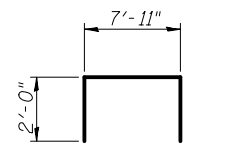
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|---------------------------|---------|-----------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | 1BR-1-1 | ST. CLAIR | 315 | 190 |
| CONTRACT NO. 76C39 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |



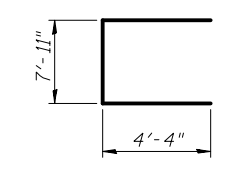
ANCHOR BOLT LAYOUT



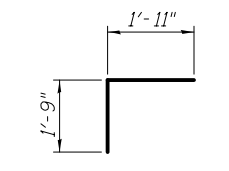
BARS s500(E)



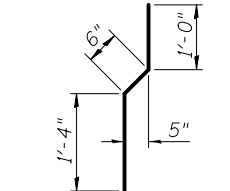
BARS s501(E)



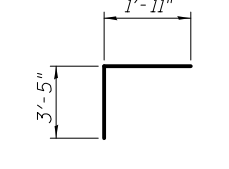
BAR u500(E)



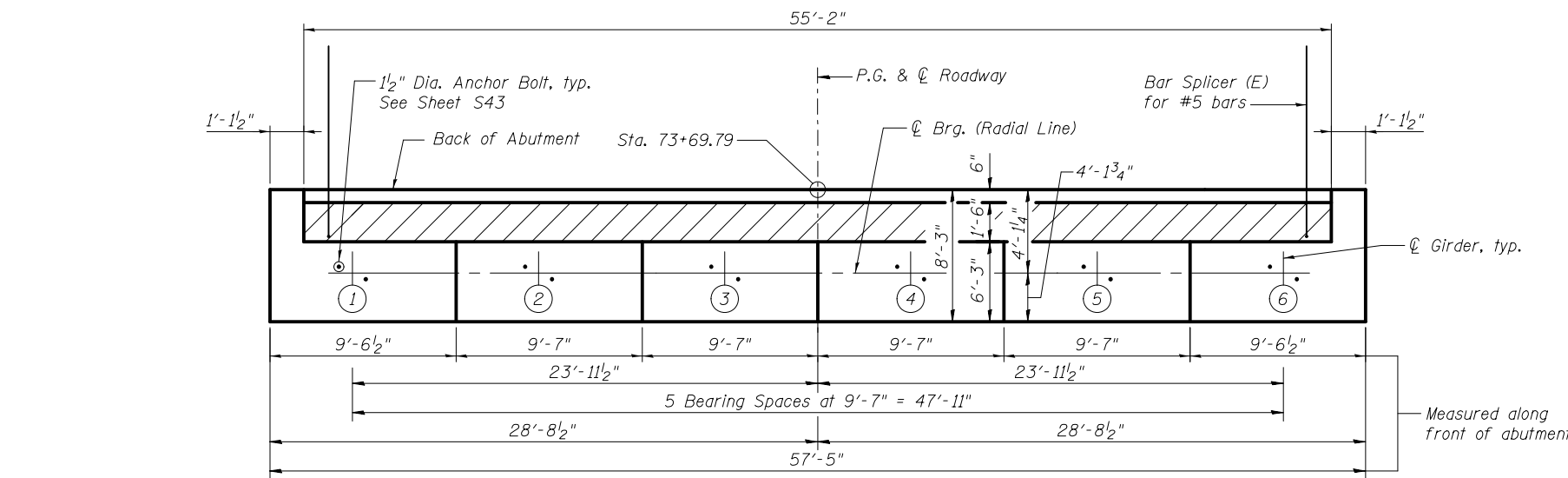
BAR v500(E)



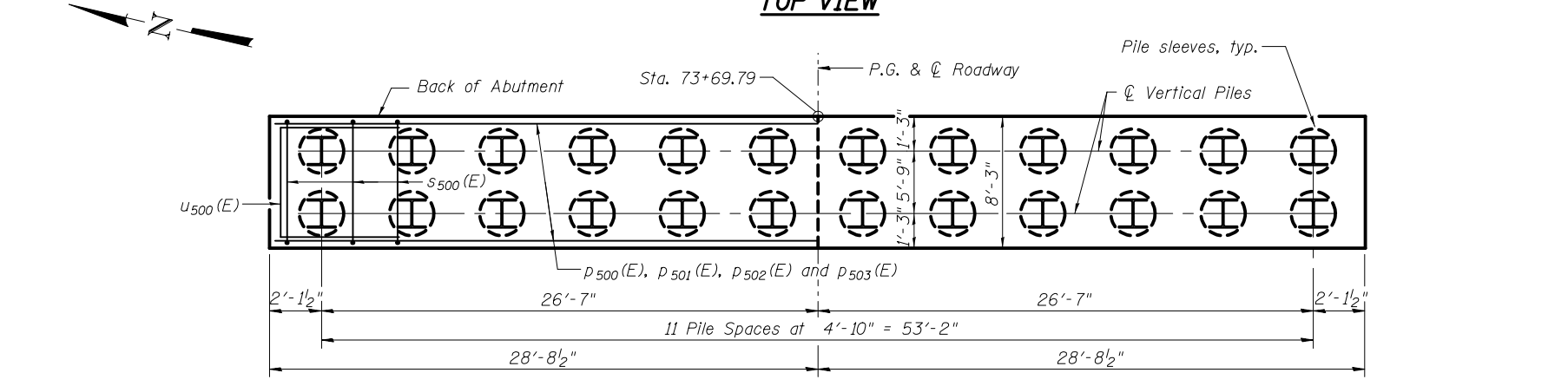
BAR v501(E)



BAR v504(E)



TOP VIEW



PLAN-PILE CAP

**EAST ABUTMENT
BILL OF MATERIAL**

| Bar | No. | Size | Length | Shape |
|----------------------------------|---------|------|---------|-------|
| h500(E) | 18 | #5 | 51'-8" | — |
| h501(E) | 5 | #6 | 51'-8" | — |
| p500(E) | 28 | #7 | 57'-1" | — |
| p501(E) | 26 | #7 | 28'-4" | — |
| p502(E) | 39 | #5 | 13'-4" | — |
| p503(E) | 13 | #5 | 9'-2" | — |
| s500(E) | 144 | #4 | 18'-3" | □ |
| s501(E) | 72 | #4 | 11'-11" | □ |
| u500(E) | 9 | #6 | 16'-7" | □ |
| v500(E) | 56 | #5 | 3'-8" | Γ |
| v501(E) | 56 | #4 | 2'-10" | Γ |
| v502(E) | 56 | #6 | 12'-9" | — |
| v503(E) | 56 | #6 | 11'-5" | — |
| v504(E) | 6 | #4 | 5'-4" | Γ |
| Structure Excavation | Cu. Yd. | | 440 | |
| Concrete Structures | Cu. Yd. | | 107.5 | |
| Concrete Superstructure | Cu. Yd. | | 3.8 | |
| Reinforcement Bars, Epoxy Coated | Pound | | 11,730 | |
| Furnishing Steel Piles, HP14x117 | Foot | | 2,760 | |
| Driving Piles | Foot | | 2,760 | |
| Test Piles | Each | | 1 | |
| Pile Shoes | Each | | 24 | |
| Concrete Sealer | Sq. Ft. | | 1,144 | |

PILE DATA

Type: HP 14x117
 Nominal Required Bearing: 929 kips
 Factored Resistance Available: 460 kips
 Est. Length: 120 feet
 No. Production Piles: 23
 No. Test Piles: 1

Notes:
 For Section Thru Abutment, Section A-A and B-B, see sheet S48.
 For parapet and median details, see sheets S30 thru S32.
 For details of Bar Splicers, see sheet S62.
 For details of piles and pile sleeves, see sheet S54.
 Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure.
 Abutment cap concrete pour shall be in accordance with Article 1020.15, Heat of Hydration Control for Concrete Structures, in the Standard Specifications.

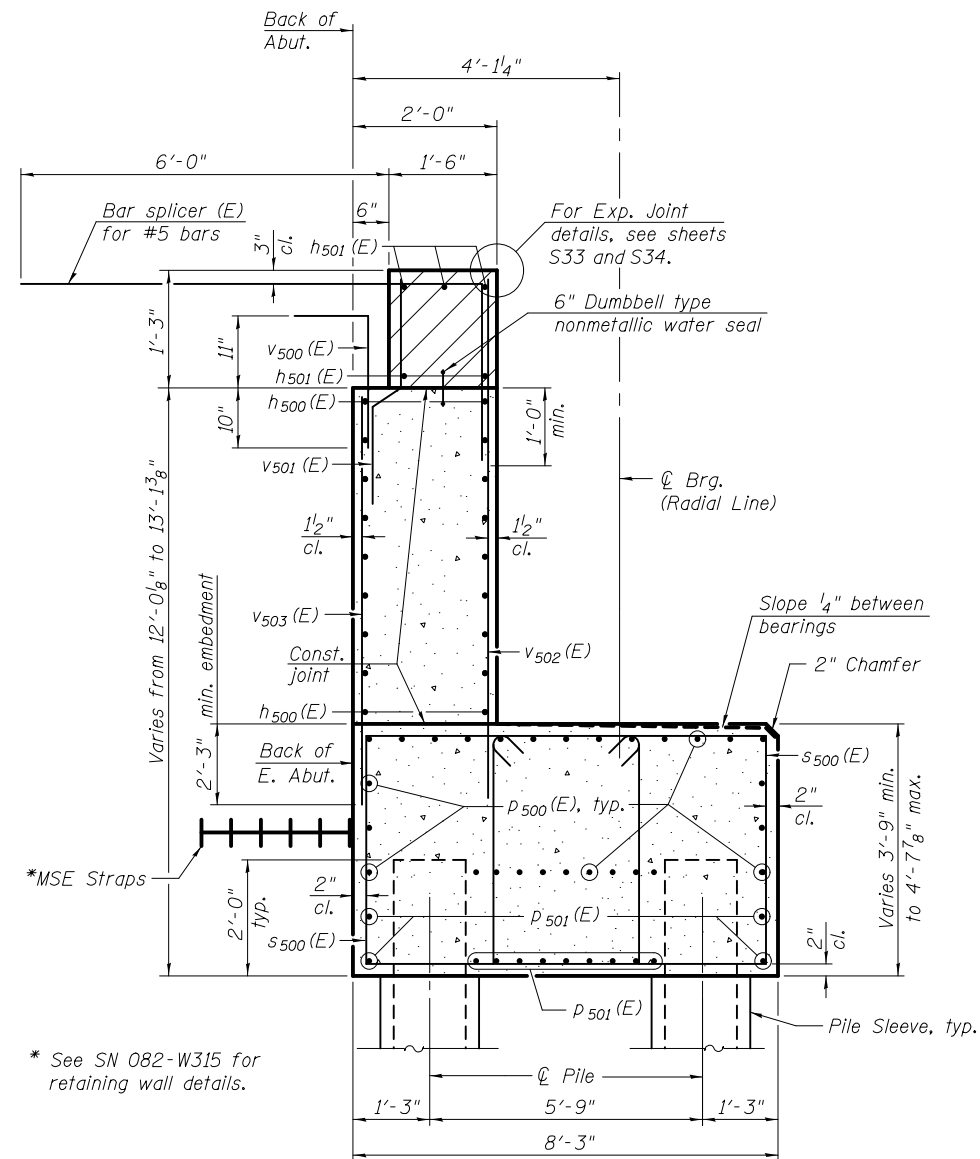


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| USER NAME = | DESIGNED - MJP | REVISED |
| | CHECKED - LNB | REVISED |
| PLOT SCALE = | DRAWN - AEC | REVISED |
| PLOT DATE = 3/12/2018 | CHECKED - MJP | REVISED |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

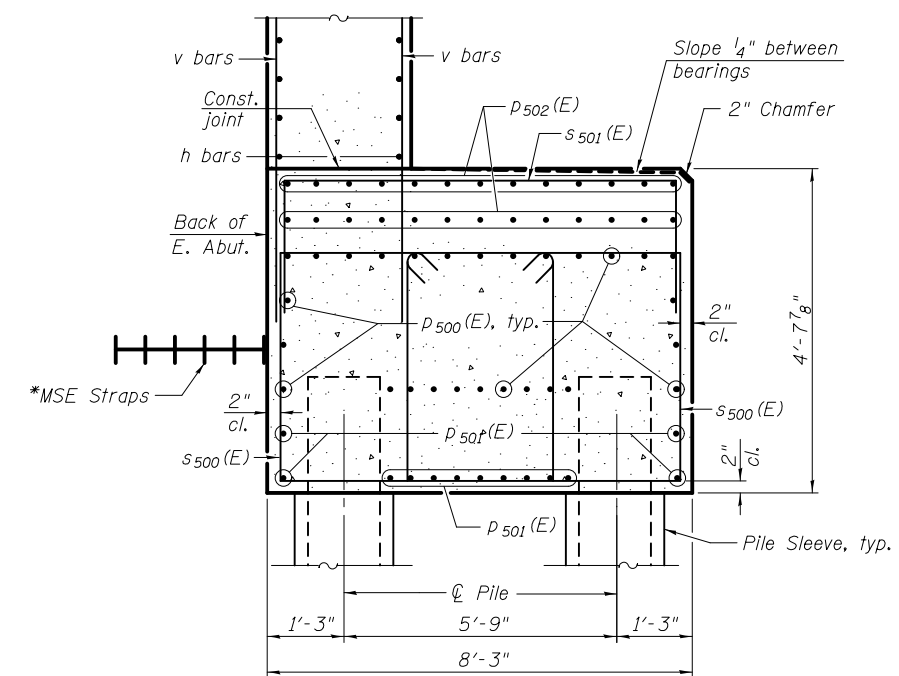
EAST ABUTMENT
**S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
 VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB/64WB**
 SHEET NO. 547 OF 577 SHEETS

| | | | | |
|---------------------------|---------|-----------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | 1BR-1-1 | ST. CLAIR | 315 | 191 |
| CONTRACT NO. 76C39 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

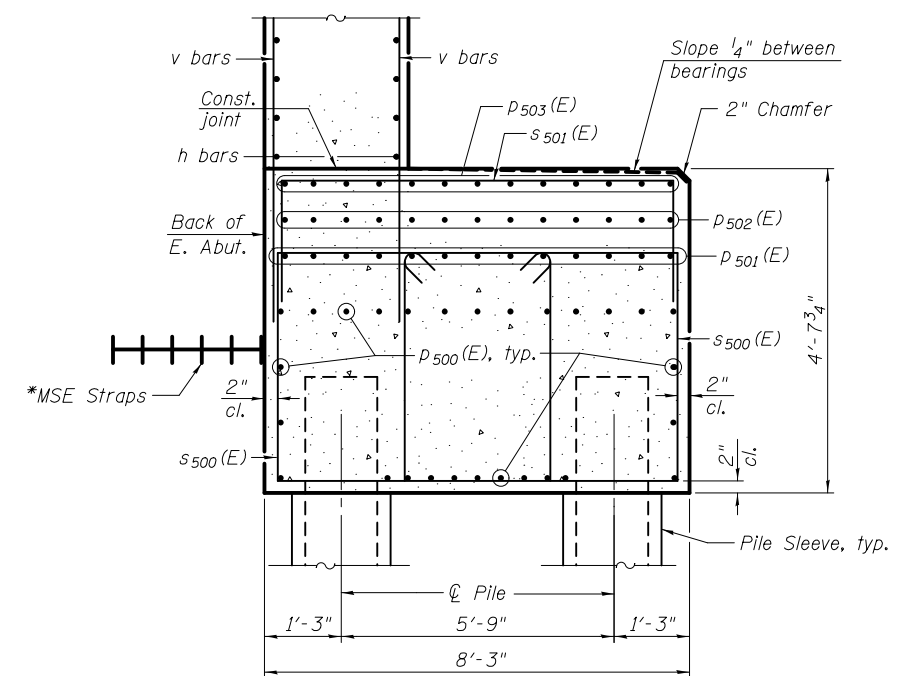


SECTION THRU ABUTMENT

* See SN 082-W315 for retaining wall details.



SECTION A-A



SECTION B-B

Notes:
 All horizontal dimensions are measured normal to the centerline of bearing.
 Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure.
 Space reinforcement in cap to miss anchor bolts.
 Pour steps monolithically with cap.
 For details of piles and pile sleeves, see sheet S54.
 Pile sleeves shall be sized to provide at least 1/2" of clearance around pile.



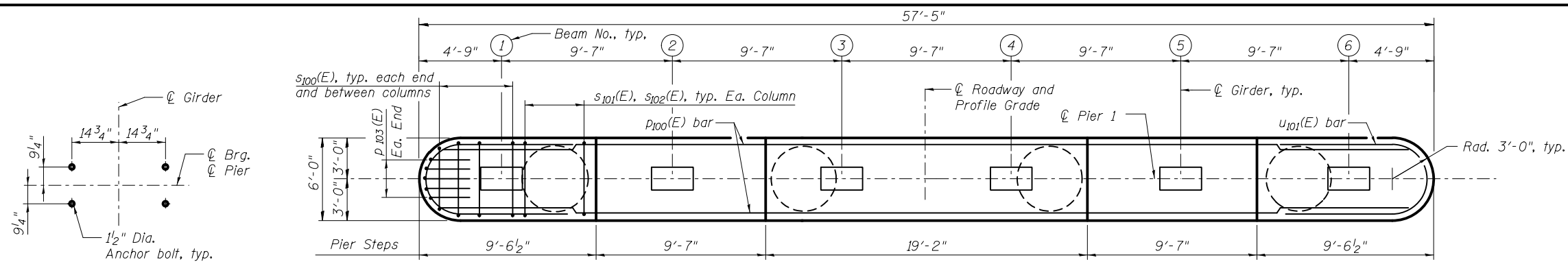
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| USER NAME = | DESIGNED - MJP | REVISED |
| | CHECKED - LNB | REVISED |
| PLOT SCALE = | DRAWN - AEC | REVISED |
| PLOT DATE = 3/12/2018 | CHECKED - MJP | REVISED |

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**EAST ABUTMENT DETAILS
 S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
 VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB64WB**

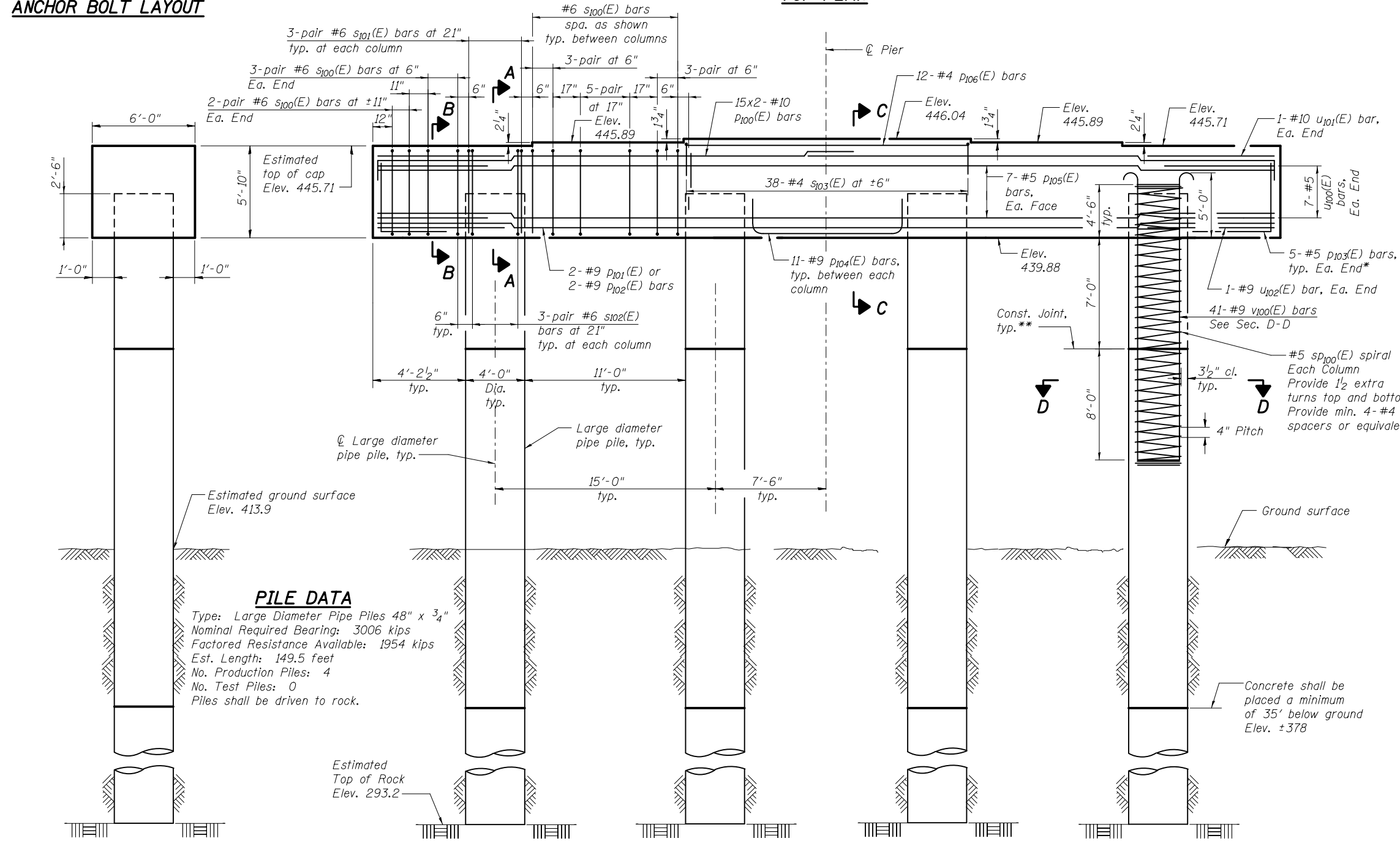
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|---------------------------|---------|-----------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | IBR-1-1 | ST. CLAIR | 315 | 192 |
| CONTRACT NO. 76C39 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

SHEET NO. 548 OF 577 SHEETS



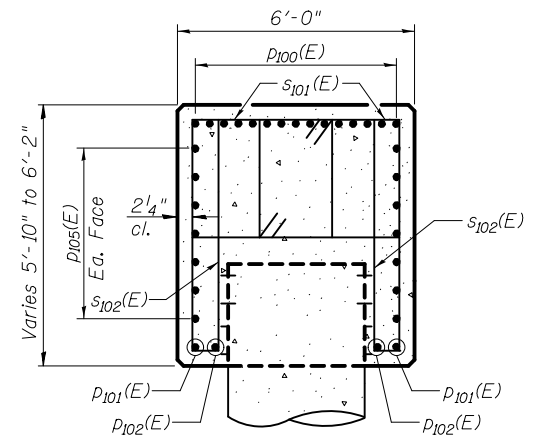
ANCHOR BOLT LAYOUT

TOP PLAN

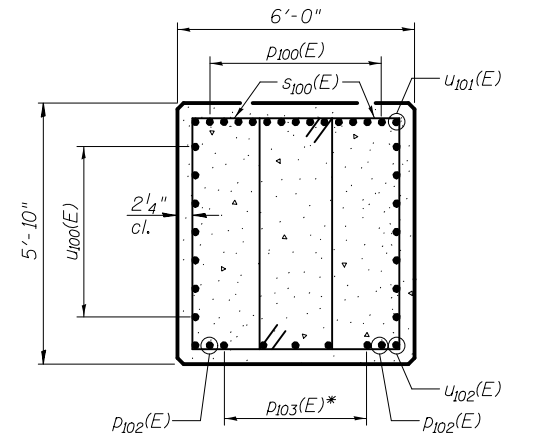


END VIEW

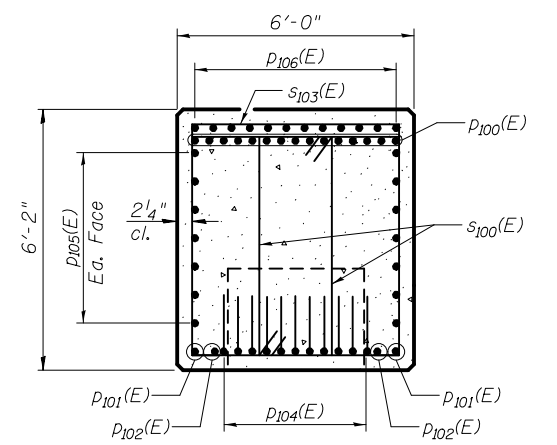
ELEVATION
(Looking East)



SECTION A-A



SECTION B-B



SECTION C-C

Notes:
 For Section D-D and Bill of Material, see sheet S53.
 Cast steps monolithically with cap.
 Space cap reinforcement to miss anchor bolts.
 For large diameter pipe details, see sheet S55.
 Bars indicated thus 15x2-#10 etc. indicates 15 lines of bars with 2 lengths per line.
 Piles shall be driven through precored holes extending to elevation 385, at a minimum, according to Article 512.09(c) of the Standard Specifications. The diameter of the precored holes shall be larger than the nominal outside diameter of the pile. Cost included with Driving Large Diameter Pipe Piles.
 Pier cap concrete pour shall be in accordance with Article 1020.15, Heat of Hydration Control for Concrete Structures, in the Standard Specifications.

* Cut to fit as required each end.
 ** Column concrete above construction joint to be placed at same time as cap concrete.

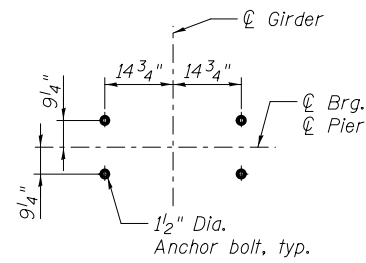


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| USER NAME = | DESIGNED - LNB | REVISED |
| PLOT SCALE = | CHECKED - MJP | REVISED |
| PLOT DATE = 3/12/2018 | DRAWN - AEC | REVISED |
| | CHECKED - LNB | REVISED |

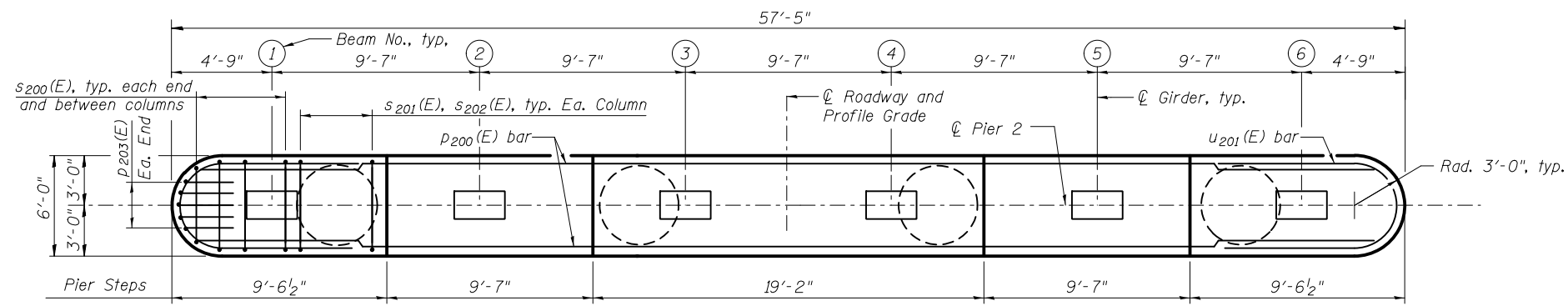
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 1
S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB64WB
 SHEET NO. 549 OF 577 SHEETS

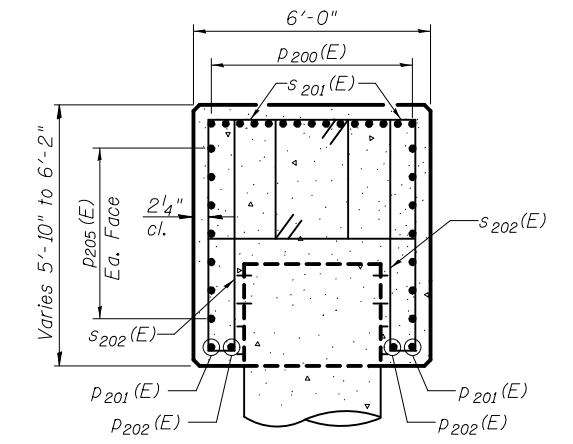
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|--------------------|---------|-----------|---------------------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | IBR-1-1 | ST. CLAIR | 315 | 193 |
| CONTRACT NO. 76C39 | | | ILLINOIS FED. AID PROJECT | |



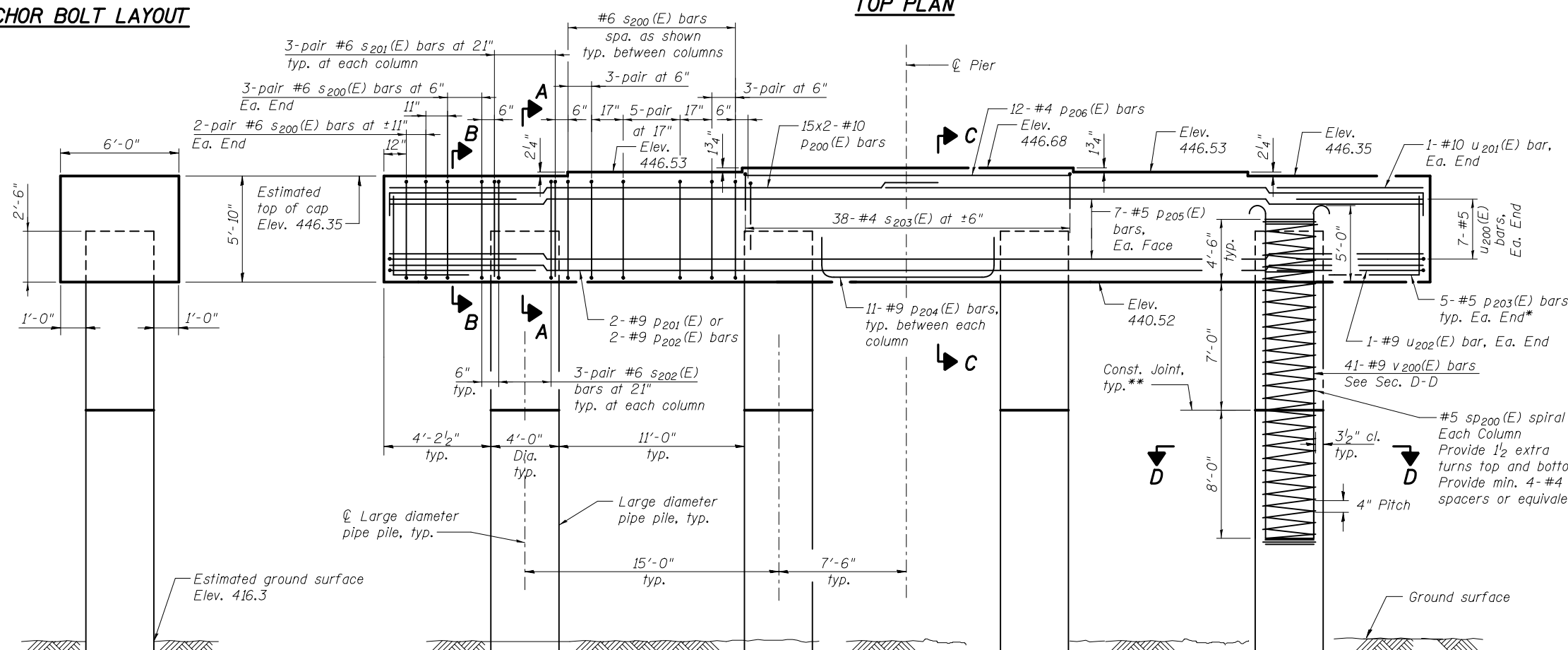
ANCHOR BOLT LAYOUT



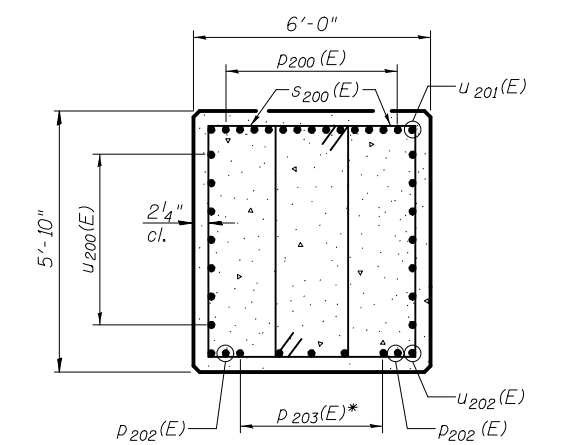
TOP PLAN



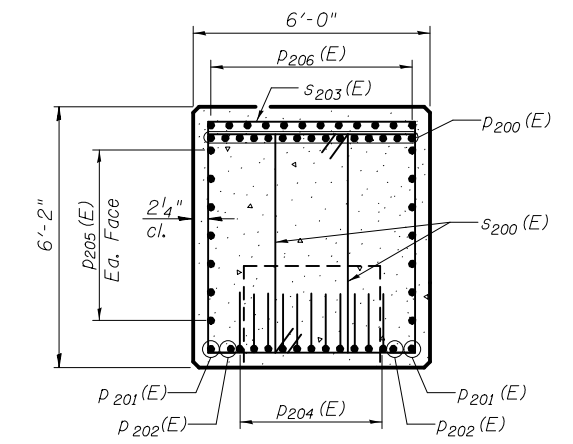
SECTION A-A



ELEVATION
(Looking East)



SECTION B-B



SECTION C-C

PILE DATA
 Type: Large Diameter Pipe Piles 48" x 3/4"
 Nominal Required Bearing: 3006 kips
 Factored Resistance Available: 1954 kips
 Est. Length: 146.5 feet
 No. Production Piles: 4
 No. Test Piles: 0
 Piles shall be driven to rock.

END VIEW

Notes:
 For Section D-D and Bill of Material, see sheet S53. Cast steps monolithically with cap. Space cap reinforcement to miss anchor bolts. For large diameter pipe details, see sheet S55. Bars indicated thus 15x2-#10 etc. indicates 15 lines of bars with 2 lengths per line. Piles shall be driven through precored holes extending a minimum distance of ten feet below the existing ground surface according to Article 512.09(c) of the Standard Specifications. The diameter of the precored holes shall be larger than the nominal outside diameter of the pile. Cost included with Driving Large Diameter Pipe Piles. Pier cap concrete pour shall be in accordance with Article 1020.15, Heat of Hydration Control for Concrete Structures, in the Standard Specifications.

* Cut to fit as required each end.
 ** Column concrete above construction joint to be placed at same time as cap concrete.

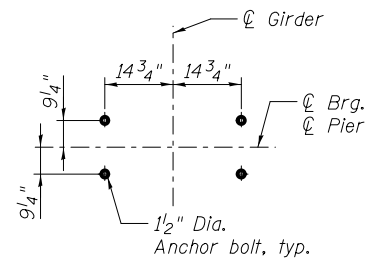


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| USER NAME = | DESIGNED - LNB | REVISED |
| PLOT SCALE = | CHECKED - MJP | REVISED |
| PLOT DATE = 3/12/2018 | DRAWN - AEC | REVISED |
| | CHECKED - LNB | REVISED |

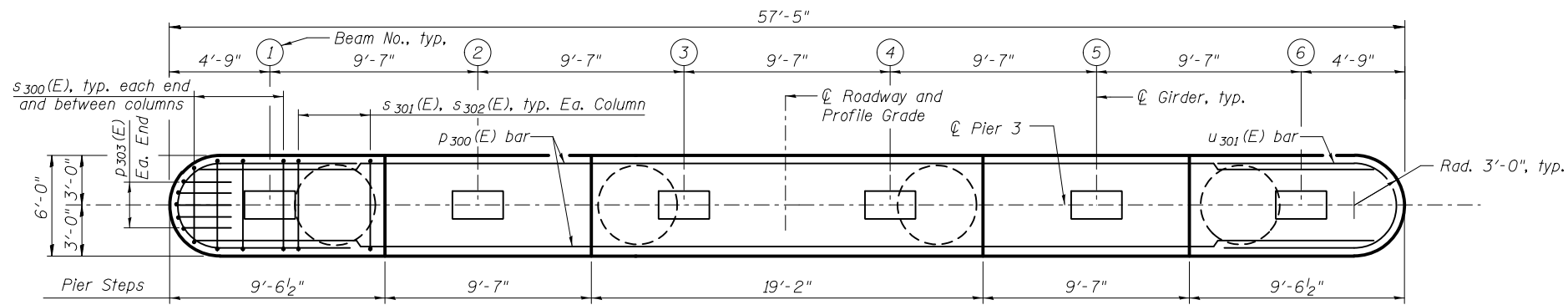
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 2
S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB64WB
 SHEET NO. 550 OF 577 SHEETS

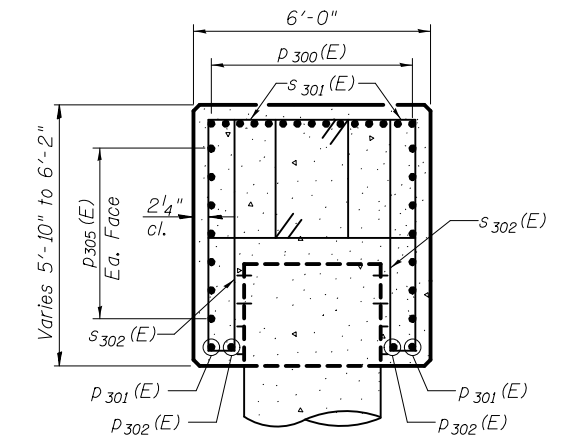
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|---------|-----------|--------------|-----------|
| 799 | 1BR-1-1 | ST. CLAIR | 315 | 194 |
| CONTRACT NO. 76C39 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |



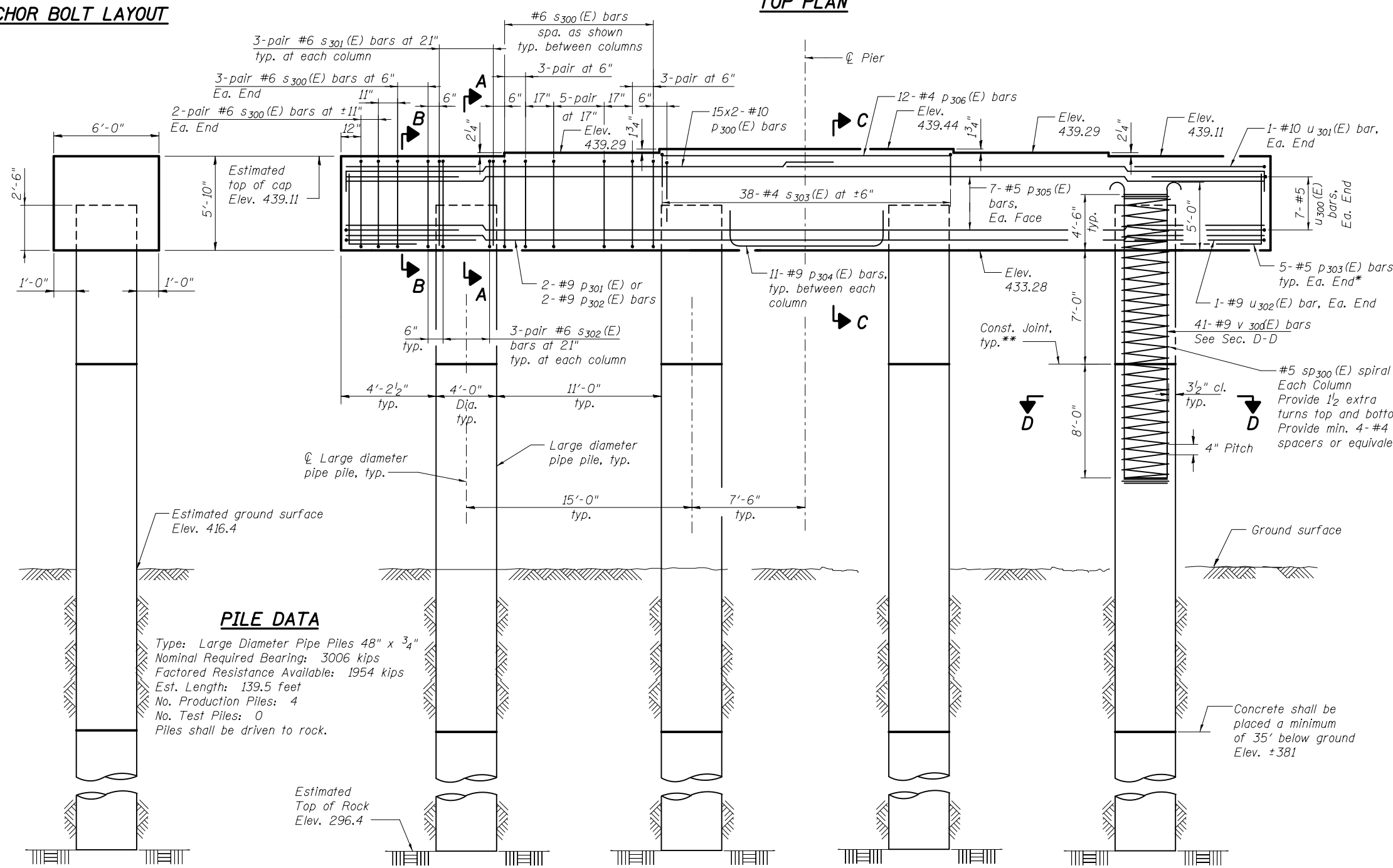
ANCHOR BOLT LAYOUT



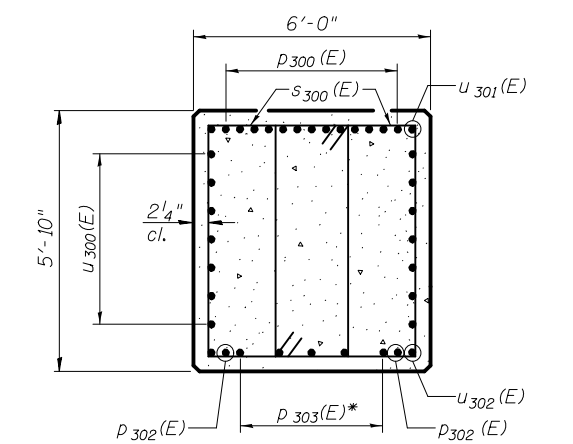
TOP PLAN



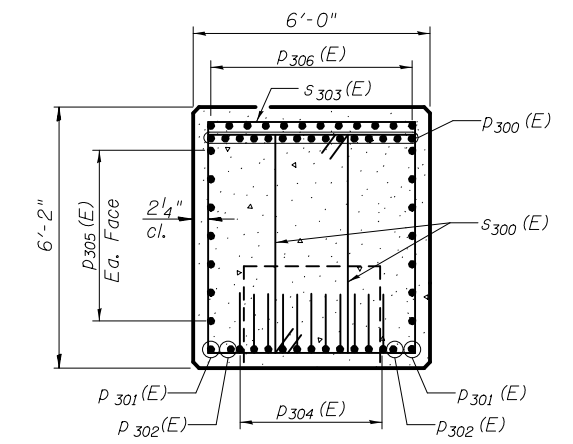
SECTION A-A



ELEVATION
(Looking East)



SECTION B-B



SECTION C-C

PILE DATA
 Type: Large Diameter Pipe Piles 48" x 3/4"
 Nominal Required Bearing: 3006 kips
 Factored Resistance Available: 1954 kips
 Est. Length: 139.5 feet
 No. Production Piles: 4
 No. Test Piles: 0
 Piles shall be driven to rock.

END VIEW

Notes:
 For Section D-D and Bill of Material, see sheet S53.
 Cast steps monolithically with cap.
 Space cap reinforcement to miss anchor bolts.
 For large diameter pipe details, see sheet S55.
 Bars indicated thus 15x2-#10 etc. indicates 15 lines of bars with 2 lengths per line.
 Piles shall be driven through precored holes extending a minimum distance of ten feet below the existing ground surface according to Article 512.09(c) of the Standard Specifications. The diameter of the precored holes shall be larger than the nominal outside diameter of the pile. Cost included with Driving Large Diameter Pipe Piles.
 Pier cap concrete pour shall be in accordance with Article 1020.15, Heat of Hydration Control for Concrete Structures, in the Standard Specifications.

* Cut to fit as required each end.
 ** Column concrete above construction joint to be placed at same time as cap concrete.



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| USER NAME = | DESIGNED - LNB | REVISED |
| PLOT SCALE = | CHECKED - MJP | REVISED |
| PLOT DATE = 3/12/2018 | DRAWN - AEC | REVISED |
| | CHECKED - LNB | REVISED |

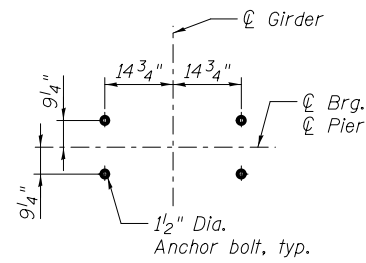
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 3
S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB64WB

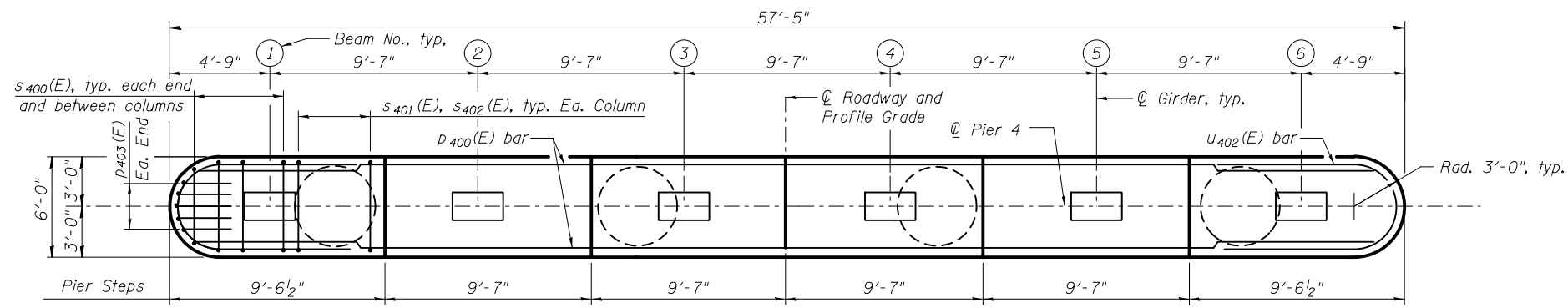
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|--------------------|---------|-----------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | 1BR-1-1 | ST. CLAIR | 315 | 195 |
| CONTRACT NO. 76C39 | | | | |

SHEET NO. S51 OF S77 SHEETS

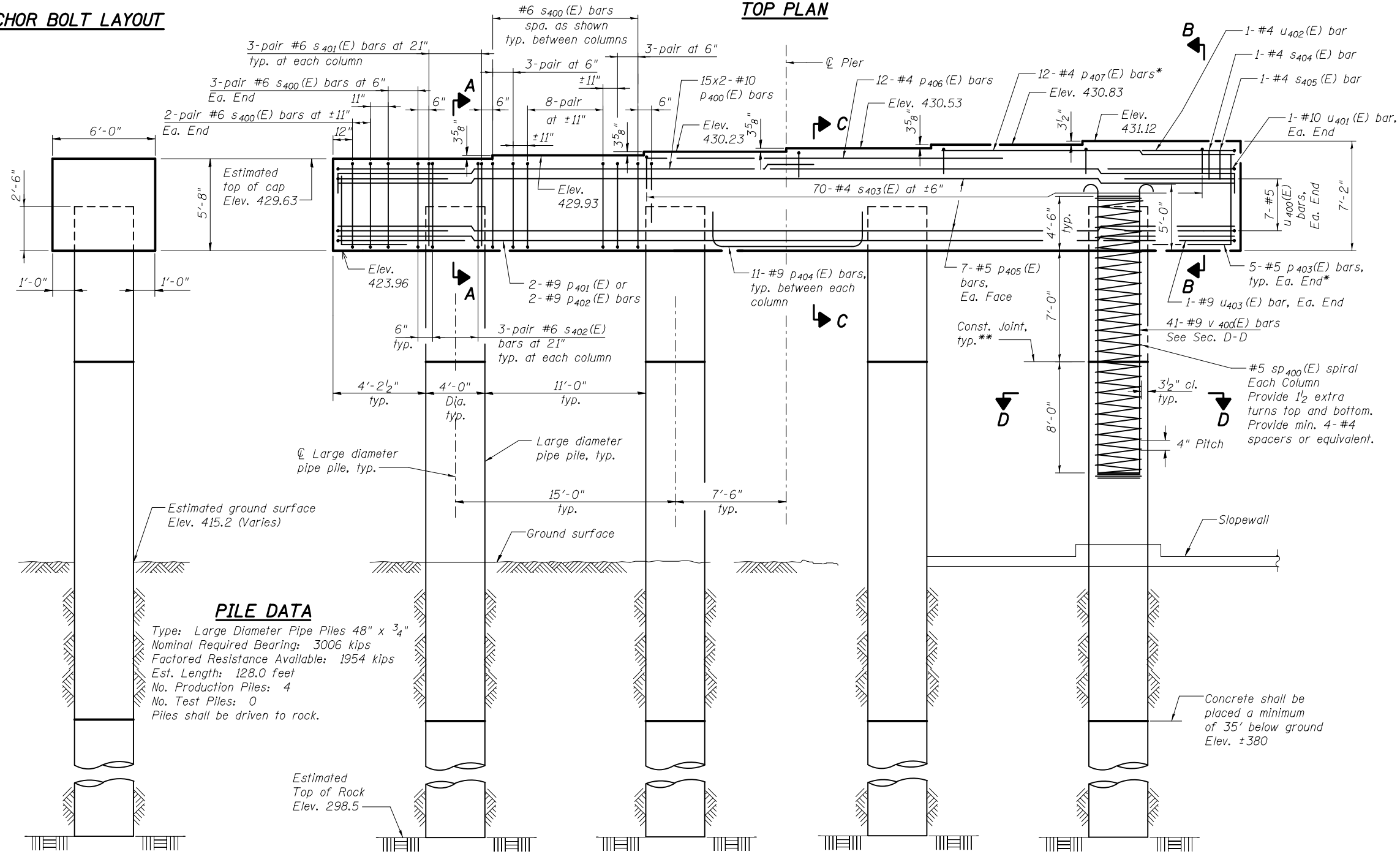
ILLINOIS FED. AID PROJECT



ANCHOR BOLT LAYOUT



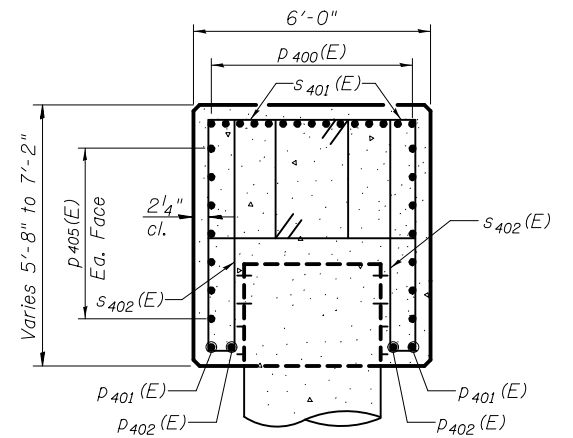
TOP PLAN



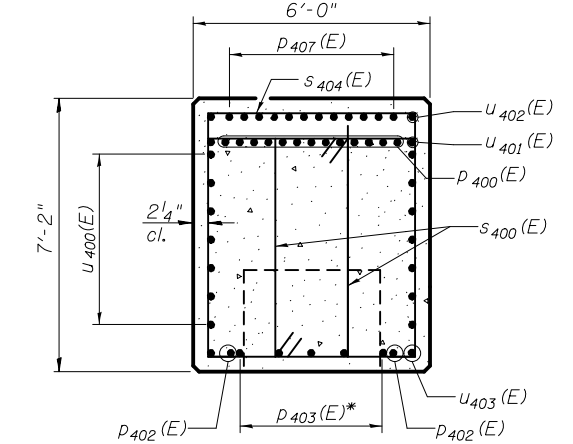
ELEVATION
(Looking East)

END VIEW

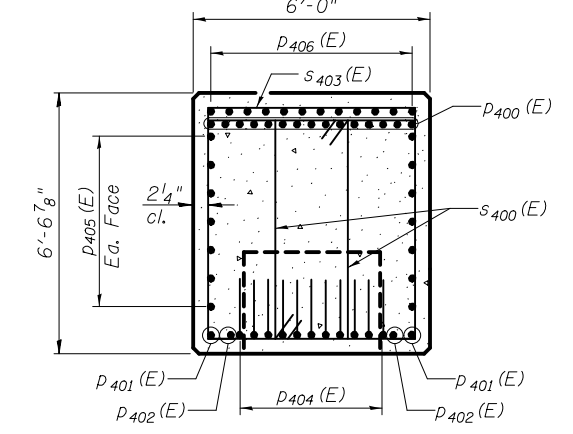
PILE DATA
 Type: Large Diameter Pipe Piles 48" x 3/4"
 Nominal Required Bearing: 3006 kips
 Factored Resistance Available: 1954 kips
 Est. Length: 128.0 feet
 No. Production Piles: 4
 No. Test Piles: 0
 Piles shall be driven to rock.



SECTION A-A



SECTION B-B



SECTION C-C

Notes:
 For Section D-D and Bill of Material, see sheet S53.
 For slopewall details, see sheet S5.
 Cast steps monolithically with cap.
 Space cap reinforcement to miss anchor bolts.
 For large diameter pipe details, see sheet S55.
 Bars indicated thus 15x2-#10 etc. indicates 15 lines of bars with 2 lengths per line.
 Piles shall be driven through precored holes extending a minimum distance of ten feet below the existing ground surface according to Article 512.09(c) of the Standard Specifications. The diameter of the precored holes shall be larger than the nominal outside diameter of the pile. Cost included with Driving Large Diameter Pipe Piles.
 Pier cap concrete pour shall be in accordance with Article 1020.15, Heat of Hydration Control for Concrete Structures, in the Standard Specifications.

* Cut to fit as required each end.
 ** Column concrete above construction joint to be placed at same time as cap concrete.



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| USER NAME = | DESIGNED - LNB | REVISED |
| PLOT SCALE = | CHECKED - MJP | REVISED |
| PLOT DATE = 3/12/2018 | DRAWN - AEC | REVISED |
| | CHECKED - LNB | REVISED |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 4
S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB64WB

| | | | | |
|---------------------------|---------|-----------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | 1BR-1-1 | ST. CLAIR | 315 | 196 |
| CONTRACT NO. 76C39 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

**PIER 1
BILL OF MATERIAL**

| Bar | No. | Size | Length | Shape |
|--|---------|------|---------|-------|
| P100(E) | 30 | #10 | 34'-5" | ┌ |
| P101(E) | 2 | #9 | 51'-5" | — |
| P102(E) | 2 | #9 | 54'-6" | — |
| P103(E) | 10 | #5 | 10'-6" | ┌ |
| P104(E) | 33 | #9 | 13'-5" | ┌ |
| P105(E) | 14 | #5 | 51'-5" | — |
| P106(E) | 12 | #4 | 18'-10" | — |
| S100(E) | 84 | #6 | 19'-8" | □ |
| S101(E) | 24 | #6 | 14'-0" | □ |
| S102(E) | 24 | #6 | 11'-5" | ┌ |
| S103(E) | 38 | #4 | 8'-2" | ┌ |
| **SP100(E) | 4 | #5 | 19'-6" | 〰 |
| U100(E) | 14 | #5 | 14'-2" | ┌ |
| U101(E) | 2 | #10 | 22'-2" | ┌ |
| U102(E) | 2 | #9 | 19'-6" | ┌ |
| V100(E) | 164 | #9 | 21'-3" | ┌ |
| Concrete Structures | Cu. Yd. | | 183.4 | |
| Reinforcement Bars, Epoxy Coated | Pound | | 26,280 | |
| Furnishing Metal Large Diameter Pipe Piles, 48" x 3/4" | Foot | | 598 | |
| Driving Large Diameter Pipe Piles | Foot | | 598 | |
| Pile Shoes Large Diameter Pipe | Each | | 4 | |

Minimum lap for spirals = 3'-9"
** Length is height of spiral.

**PIER 2
BILL OF MATERIAL**

| Bar | No. | Size | Length | Shape |
|--|---------|------|---------|-------|
| P200(E) | 30 | #10 | 34'-5" | ┌ |
| P201(E) | 2 | #9 | 51'-5" | — |
| P202(E) | 2 | #9 | 54'-6" | — |
| P203(E) | 10 | #5 | 10'-6" | ┌ |
| P204(E) | 33 | #9 | 13'-5" | ┌ |
| P205(E) | 14 | #5 | 51'-5" | — |
| P206(E) | 12 | #4 | 18'-10" | — |
| S200(E) | 84 | #6 | 19'-8" | □ |
| S201(E) | 24 | #6 | 14'-0" | □ |
| S202(E) | 24 | #6 | 11'-5" | ┌ |
| S203(E) | 38 | #4 | 8'-2" | ┌ |
| **SP200(E) | 4 | #5 | 19'-6" | 〰 |
| U200(E) | 14 | #5 | 14'-2" | ┌ |
| U201(E) | 2 | #10 | 22'-2" | ┌ |
| U202(E) | 2 | #9 | 19'-6" | ┌ |
| V200(E) | 164 | #9 | 21'-3" | ┌ |
| Concrete Structures | Cu. Yd. | | 180.4 | |
| Reinforcement Bars, Epoxy Coated | Pound | | 26,280 | |
| Furnishing Metal Large Diameter Pipe Piles, 48" x 3/4" | Foot | | 586 | |
| Driving Large Diameter Pipe Piles | Foot | | 586 | |
| Pile Shoes Large Diameter Pipe | Each | | 4 | |

Minimum lap for spirals = 3'-9"
** Length is height of spiral.

**PIER 3
BILL OF MATERIAL**

| Bar | No. | Size | Length | Shape |
|--|---------|------|---------|-------|
| P300(E) | 30 | #10 | 34'-5" | ┌ |
| P301(E) | 2 | #9 | 51'-5" | — |
| P302(E) | 2 | #9 | 54'-6" | — |
| P303(E) | 10 | #5 | 10'-6" | ┌ |
| P304(E) | 33 | #9 | 13'-5" | ┌ |
| P305(E) | 14 | #5 | 51'-5" | — |
| P306(E) | 12 | #4 | 18'-10" | — |
| S300(E) | 84 | #6 | 19'-8" | □ |
| S301(E) | 24 | #6 | 14'-0" | □ |
| S302(E) | 24 | #6 | 11'-5" | ┌ |
| S303(E) | 38 | #4 | 8'-2" | ┌ |
| **SP300(E) | 4 | #5 | 19'-6" | 〰 |
| U300(E) | 14 | #5 | 14'-2" | ┌ |
| U301(E) | 2 | #10 | 22'-2" | ┌ |
| U302(E) | 2 | #9 | 19'-6" | ┌ |
| V300(E) | 164 | #9 | 21'-3" | ┌ |
| Concrete Structures | Cu. Yd. | | 167.5 | |
| Reinforcement Bars, Epoxy Coated | Pound | | 26,280 | |
| Furnishing Metal Large Diameter Pipe Piles, 48" x 3/4" | Foot | | 558 | |
| Driving Large Diameter Pipe Piles | Foot | | 558 | |
| Pile Shoes Large Diameter Pipe | Each | | 4 | |

Minimum lap for spirals = 3'-9"
** Length is height of spiral.

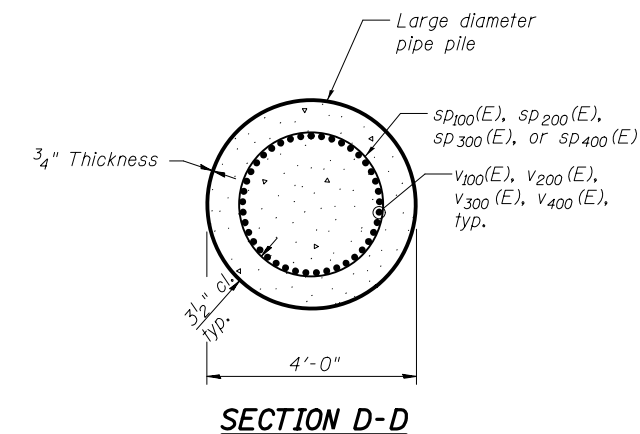
**PIER 4
BILL OF MATERIAL**

| Bar | No. | Size | Length | Shape |
|--|---------|------|--------|-------|
| P400(E) | 30 | #10 | 34'-5" | ┌ |
| P401(E) | 2 | #9 | 51'-5" | — |
| P402(E) | 2 | #9 | 54'-6" | — |
| P403(E) | 10 | #5 | 10'-6" | ┌ |
| P404(E) | 33 | #9 | 13'-5" | ┌ |
| P405(E) | 14 | #5 | 51'-5" | — |
| P406(E) | 12 | #4 | 22'-2" | — |
| P407(E) | 12 | #4 | 18'-9" | — |
| S400(E) | 104 | #6 | 19'-4" | □ |
| S401(E) | 24 | #6 | 13'-8" | □ |
| S402(E) | 24 | #6 | 11'-5" | ┌ |
| S403(E) | 70 | #4 | 8'-2" | ┌ |
| S404(E) | 1 | #4 | 7'-8" | ┌ |
| S405(E) | 1 | #4 | 6'-1" | ┌ |
| **SP400(E) | 4 | #5 | 19'-6" | 〰 |
| U400(E) | 14 | #5 | 14'-2" | ┌ |
| U401(E) | 2 | #10 | 22'-2" | ┌ |
| U402(E) | 1 | #4 | 13'-5" | ┌ |
| U403(E) | 2 | #9 | 19'-6" | ┌ |
| V400(E) | 164 | #9 | 21'-3" | ┌ |
| Concrete Structures | Cu. Yd. | | 158.5 | |
| Reinforcement Bars, Epoxy Coated | Pound | | 27,180 | |
| Furnishing Metal Large Diameter Pipe Piles, 48" x 3/4" | Foot | | 512 | |
| Driving Large Diameter Pipe Piles | Foot | | 512 | |
| Pile Shoes Large Diameter Pipe | Each | | 4 | |

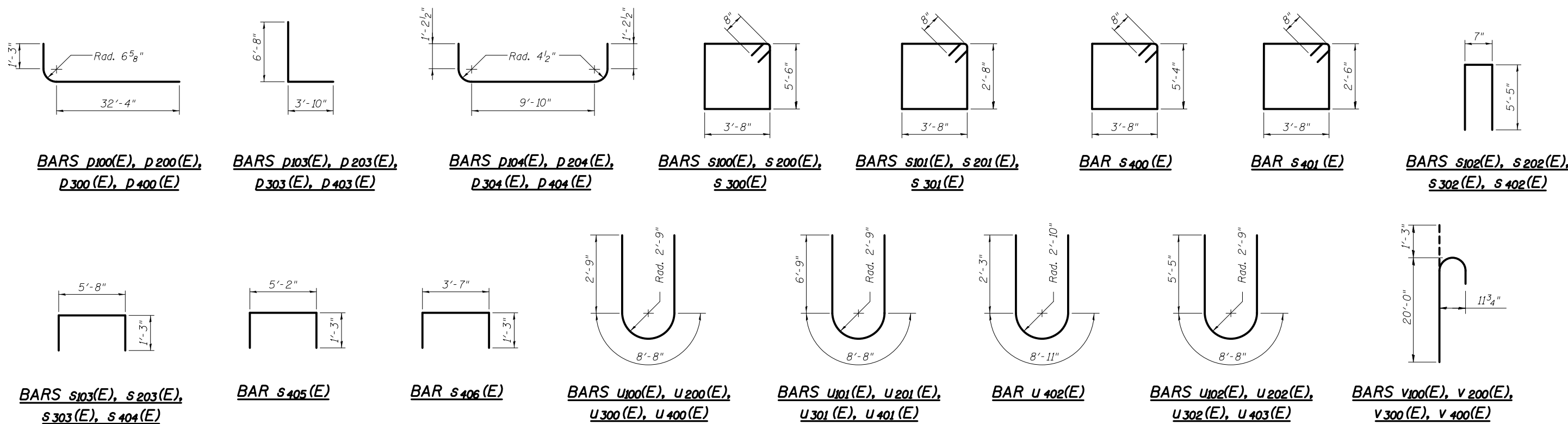
Minimum lap for spirals = 3'-9"
** Length is height of spiral.

MINIMUM BAR LAP

#10 bar = 8'-10"



Note:
For location of Section D-D, see sheets S49 thru S52.

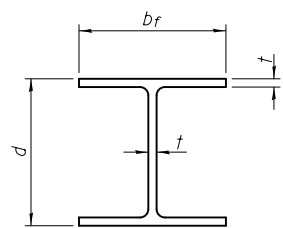


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| USER NAME = | DESIGNED - LNB | REVISED |
| | CHECKED - MJP | REVISED |
| PLOT SCALE = | DRAWN - AEC | REVISED |
| PLOT DATE = 3/12/2018 | CHECKED - LNB | REVISED |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

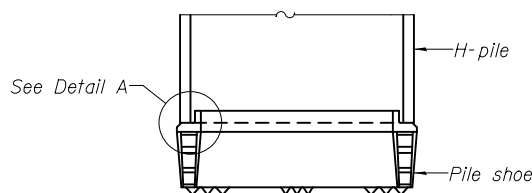
PIER DETAILS
S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB/64WB
SHEET NO. 553 OF 577 SHEETS

| | | | | |
|---------------------------|---------|-----------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | 1BR-1-1 | ST. CLAIR | 315 | 197 |
| CONTRACT NO. 76G39 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

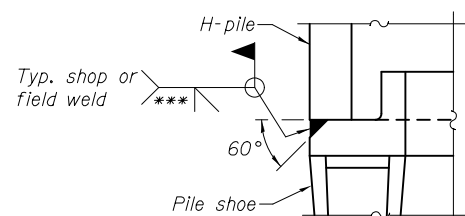


STEEL PILE TABLE

| Designation | Depth d | Flange width b _f | Web and Flange thickness t | Encasement diameter A |
|-------------|---------|-----------------------------|----------------------------|-----------------------|
| HP 14x117 | 14 1/4" | 14 7/8" | 13 1/16" | 30" |



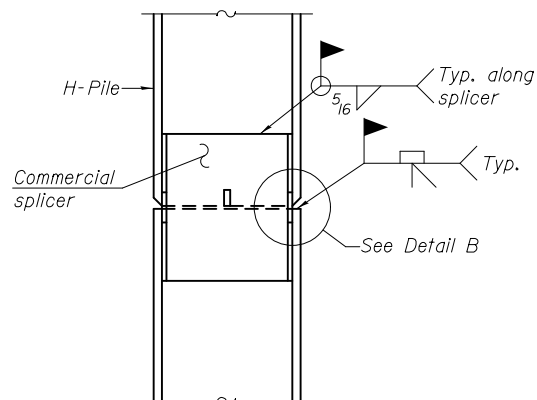
ELEVATION



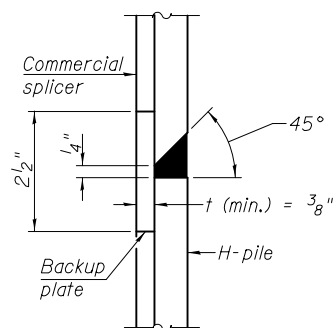
DETAIL A

H-PILE SHOE ATTACHMENT

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

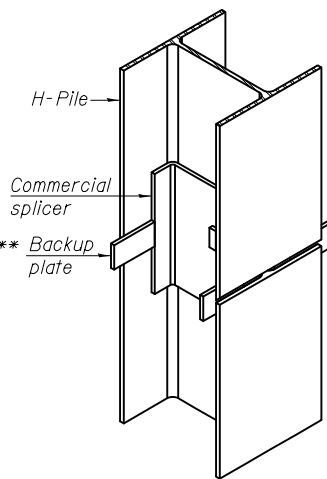


ELEVATION

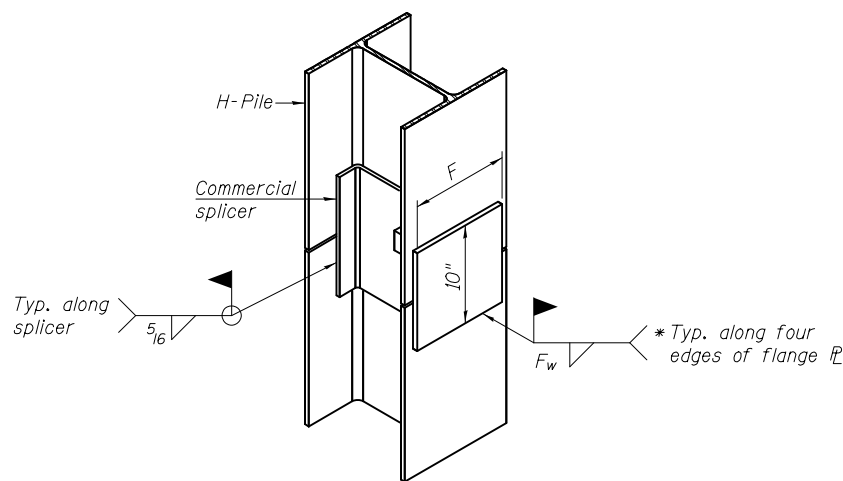


DETAIL "B"

WELDED COMMERCIAL SPLICE

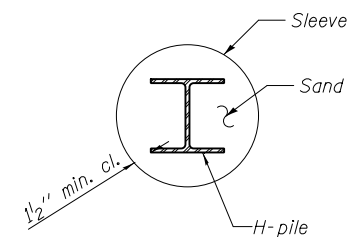


ISOMETRIC VIEW

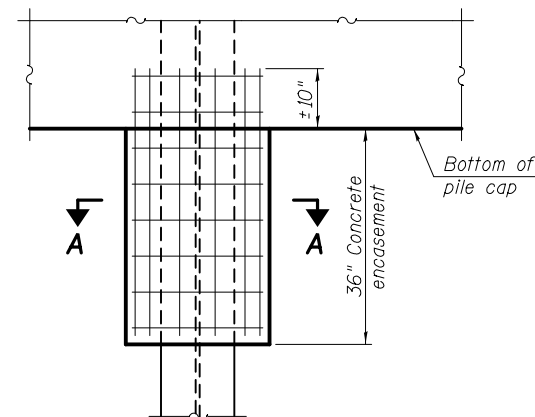


ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

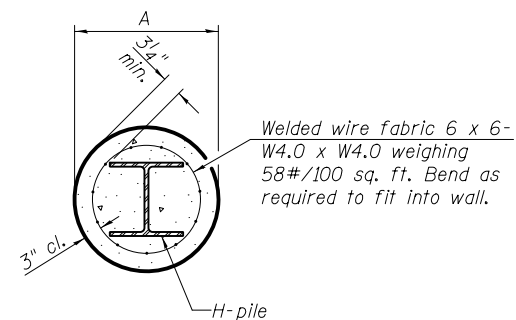


PILE SLEEVE SECTION



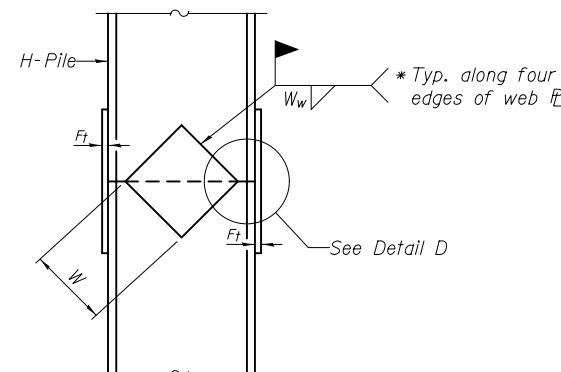
ELEVATION

PILE ENCASEMENT

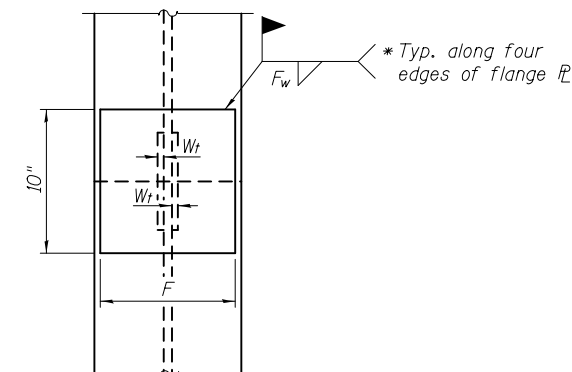


SECTION A-A

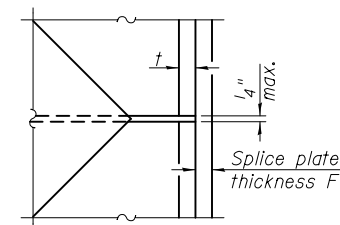
Note:
Forms for encasement may be omitted when soil conditions permit.



ELEVATION



END VIEW



DETAIL D

WELDED PLATE FIELD SPLICE

| Designation | F | F _t | F _w | W | W _t | W _w |
|-------------|---------|----------------|----------------|--------|----------------|----------------|
| HP 14x117 | 12 1/2" | 1" | 7 7/8" | 7 3/4" | 5 5/8" | 1/2" |

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

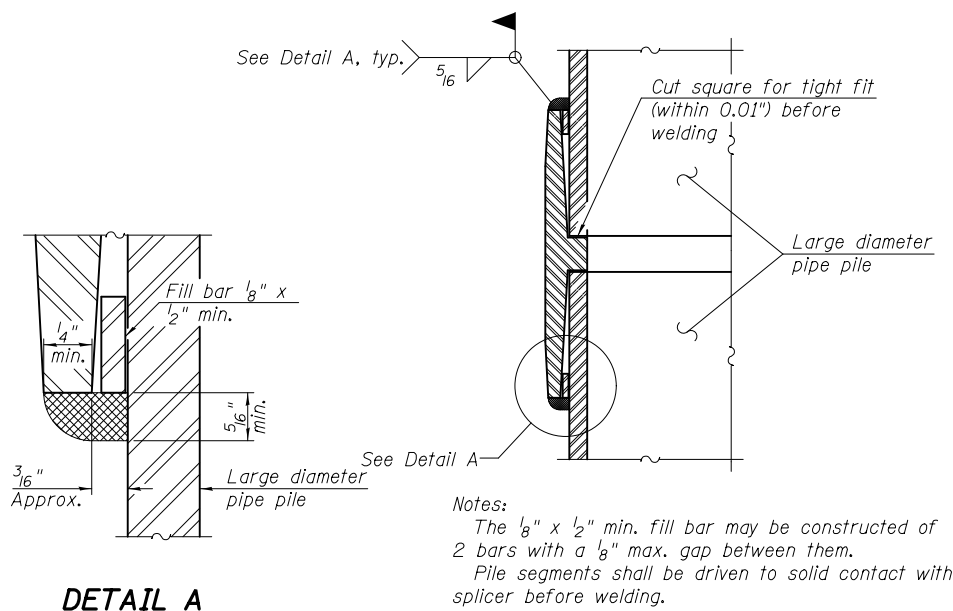


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| USER NAME = | DESIGNED - MJP | REVISED |
| | CHECKED - LNB | REVISED |
| PLOT SCALE = | DRAWN - AEC | REVISED |
| PLOT DATE = 3/12/2018 | CHECKED - MJP | REVISED |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STEEL H-PILE DETAILS
S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB64WB
SHEET NO. S54 OF S77 SHEETS

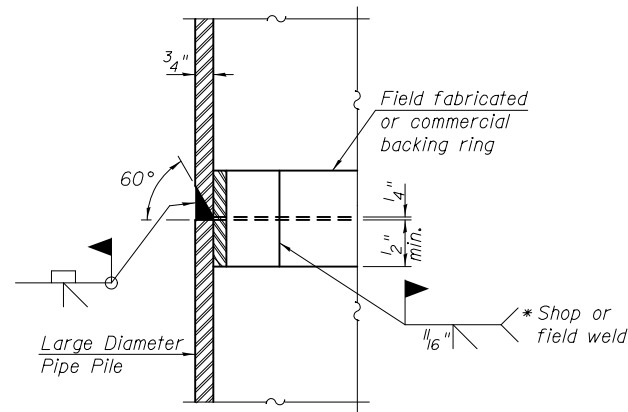
| | | | | |
|--------------------|---------|-----------|---------------------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | 1BR-1-1 | ST. CLAIR | 315 | 198 |
| CONTRACT NO. 76C39 | | | ILLINOIS FED. AID PROJECT | |



DETAIL A

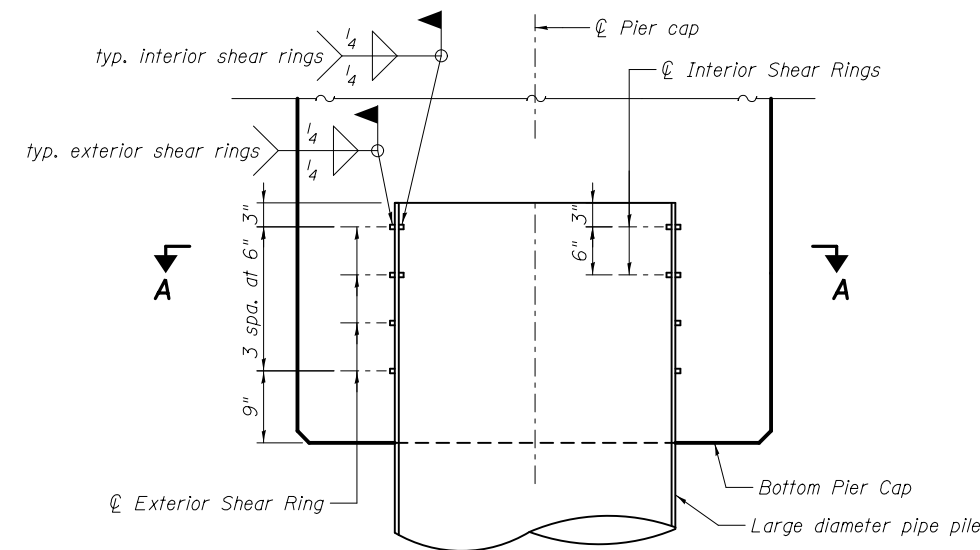
WELDED COMMERCIAL SPLICE

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.

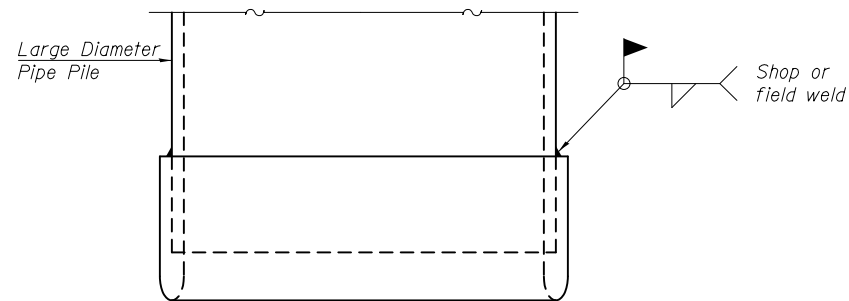


COMPLETE PENETRATION WELD SPLICE

* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.



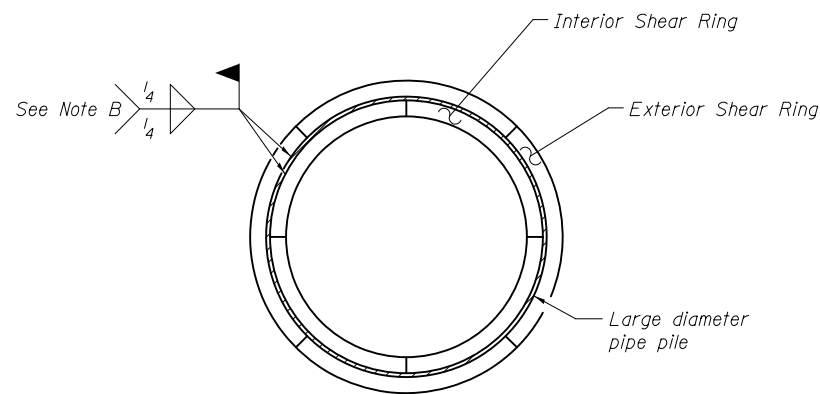
SHEAR RING DETAIL



LARGE DIAMETER PIPE PILE SHOE ATTACHMENT

(See Note A)

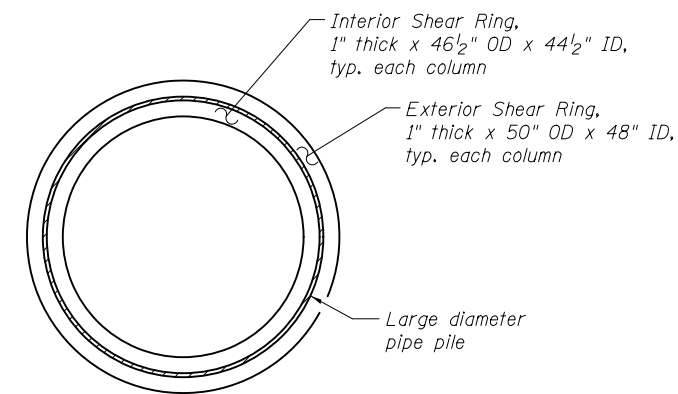
Note A:
 The Contractor shall furnish large diameter pipe pile shoes consisting of a single piece open ended cutting shoe as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 90-60 or AASHTO M 103 Grade 65-35 and shall provide full bearing over the full circumference of the large diameter pipe 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.



OPTIONAL SHEAR RING SPLICE DETAIL

Shear ring sections shall be aligned such that the exterior splice locations are centered within the interior shear ring section to avoid alignment of the splice locations.

Note B:
 Fillet weld shall stop 1/4" from end of shear ring.



SECTION A-A

Each shear ring may be assembled with a maximum of four equal sections utilizing the optional shear ring splice detail.

Notes:
 The large diameter pipe piles shall be according to ASTM A 252 Grade 3.
 The large diameter pipe piles shall be spiral-welded.
 The shear rings shall be according to AASHTO M270 Grade 50.
 Lifting devices shall be located at least 18" from any splices.
 Splices and lifting devices shall be located at least 14" below bottom pier cap.



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| USER NAME = | DESIGNED - LNB | REVISED |
| | CHECKED - MJP | REVISED |
| PLOT SCALE = | DRAWN - PRC | REVISED |
| PLOT DATE = 3/12/2018 | CHECKED - LNB | REVISED |

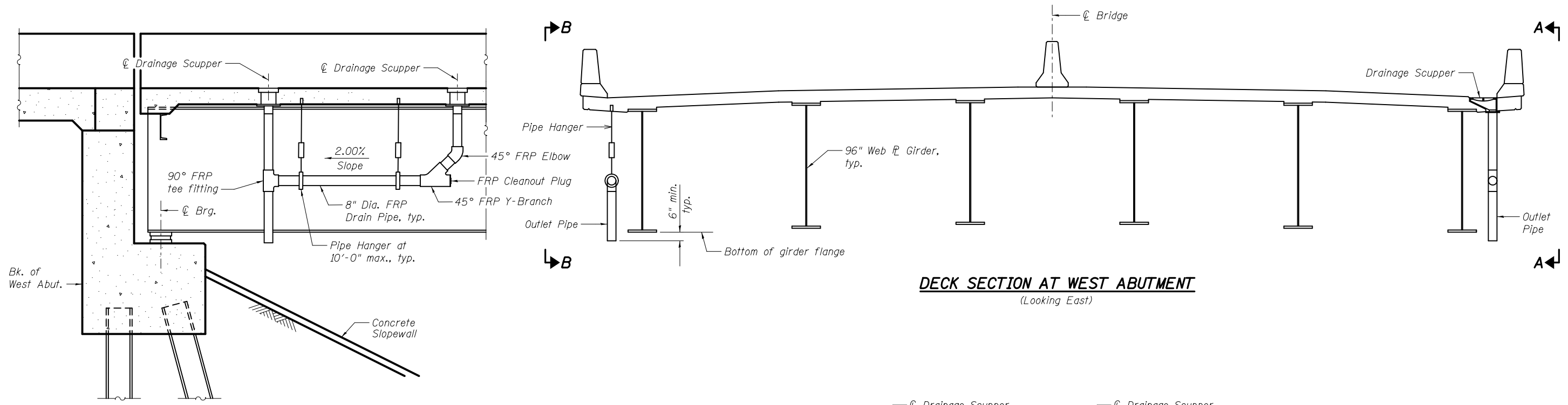
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

LARGE DIAMETER PIPE PILE
 S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
 VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB/64WB

SHEET NO. S55 OF S77 SHEETS

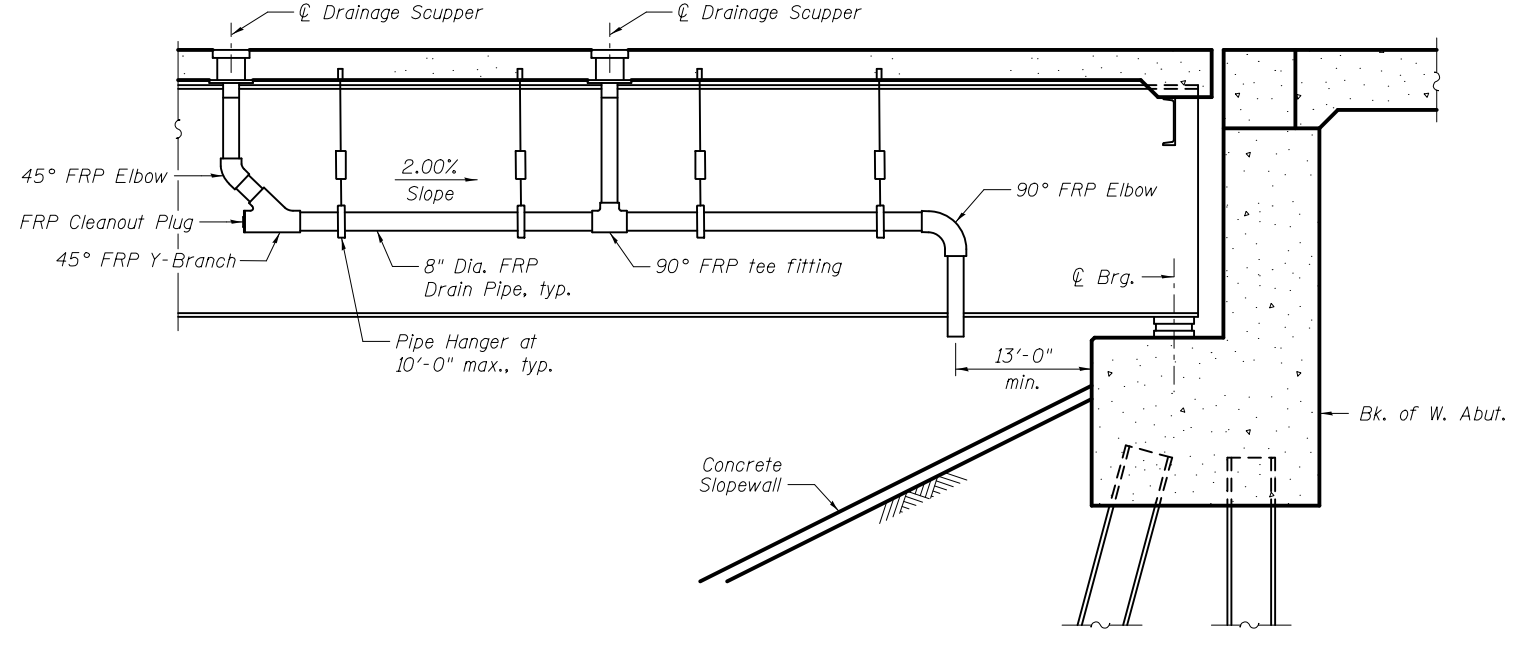
| | | | | |
|--------------------|---------|-----------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | 1BR-1-1 | ST. CLAIR | 315 | 199 |
| CONTRACT NO. 76G39 | | | | |

ILLINOIS FED. AID PROJECT

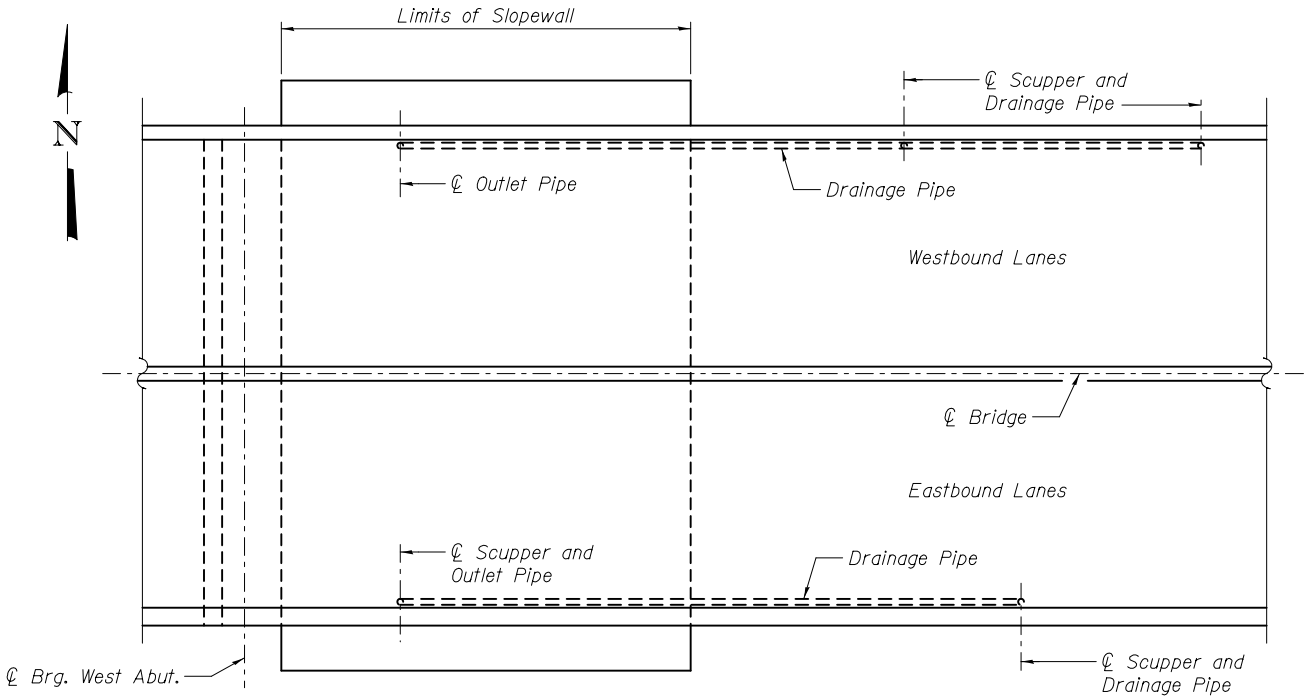


DECK SECTION AT WEST ABUTMENT
(Looking East)

VIEW A-A



VIEW B-B



DRAINAGE PLAN NEAR WEST ABUTMENT

Note: Surface drainage flows towards toe of West Abutment slopewall.

BILL OF MATERIAL

| Item | Unit | Total |
|-----------------|--------|-------|
| Drainage System | L. Sum | 1 |

The cost of furnishing, fabricating and installing of the bridge drainage system including pipes, fittings, cleanouts, connections to proposed drainage structures, stone riprap check basins, and all mounting hardware necessary to install and place the system into service shall be included in the lump sum price bid for Drainage System.

Notes:
 Drainage pipe and fittings shall be Fiberglass Reinforced Pipe (FRP).
 For location of drainage scupper stations, see table on sheet S1.
 For drainage scupper details, see sheet S27.
 For pipe hanger details, see sheet S57.



| | | |
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| USER NAME = | DESIGNED - PRC | REVISED |
| | CHECKED - JMH | REVISED |
| PLOT SCALE = | DRAWN - PRC | REVISED |
| PLOT DATE = 3/12/2018 | CHECKED - JMH | REVISED |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CLOSED DRAINAGE SYSTEM - 1
 S.N. 082-0374 MLK BRIDGE APPROACH OVER RELOCATED IL RTE 3,
 VARIOUS RAILROADS, MISSOURI AVE. AND I-55SB/64WB

SHEET NO. 556 OF 577 SHEETS

| | | | | |
|--------------------|---------|-----------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 799 | 1BR-1-1 | ST. CLAIR | 315 | 200 |
| CONTRACT NO. 76G39 | | | | |

ILLINOIS FED. AID PROJECT