

| | | | | |
|---------------------|-------------|--------------------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 330 | 462 X-B-1-1 | COOK | 44 | 1 |
| FED. ROAD DIST. NO. | ILLINOIS | CONTRACT NO. 60J38 | | |

D-91-228-10

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED
FEDERAL AID HIGHWAY

(F.A.P. ROUTE 330) US ROUTE 12, 20, 45 SOUTHBOUND (LAGRANGE RD)
OVER CN RAIL ROAD AND CANALS (0.9 MI SOUTH OF I-55)

SECTION: 462 X-B-1-1
COOK COUNTY

PROJECT: ACNHF-0330(062)

C-91-228-10

SOUTH BRIDGE REHABILITATION PROJECT
SN 016-2406



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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED JANUARY 29, 2010
Diane M. O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

March 19 2010
Scott E. Stitt PE, Inc.
ACTING ENGINEER OF DESIGN AND ENVIRONMENT

March 19 2010
Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

LONGCO, INC.
CONSULTING ENGINEERS
1560 WALL ST., SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

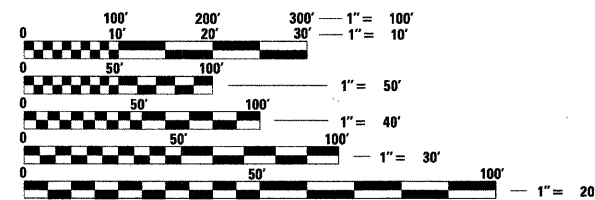
082-047827 REGISTERED PROFESSIONAL ENGINEER ILLINOIS
081-005150 REGISTERED PROFESSIONAL ENGINEER ILLINOIS
EX. 11/30/11 EX. 11/30/10

PROJECT LOCATED IN THE VILLAGE OF
HODGKINS AND THE VILLAGE OF WILLOW
SPRINGS IN COOK COUNTY, IL

FOR INDEX OF SHEETS, SEE SHEET NO. 2

DESIGN DESIGNATION
OTHER PRINCIPAL ARTERIAL

ADT 67400 (2005)
POSTED SPEED LIMIT 45 MPH



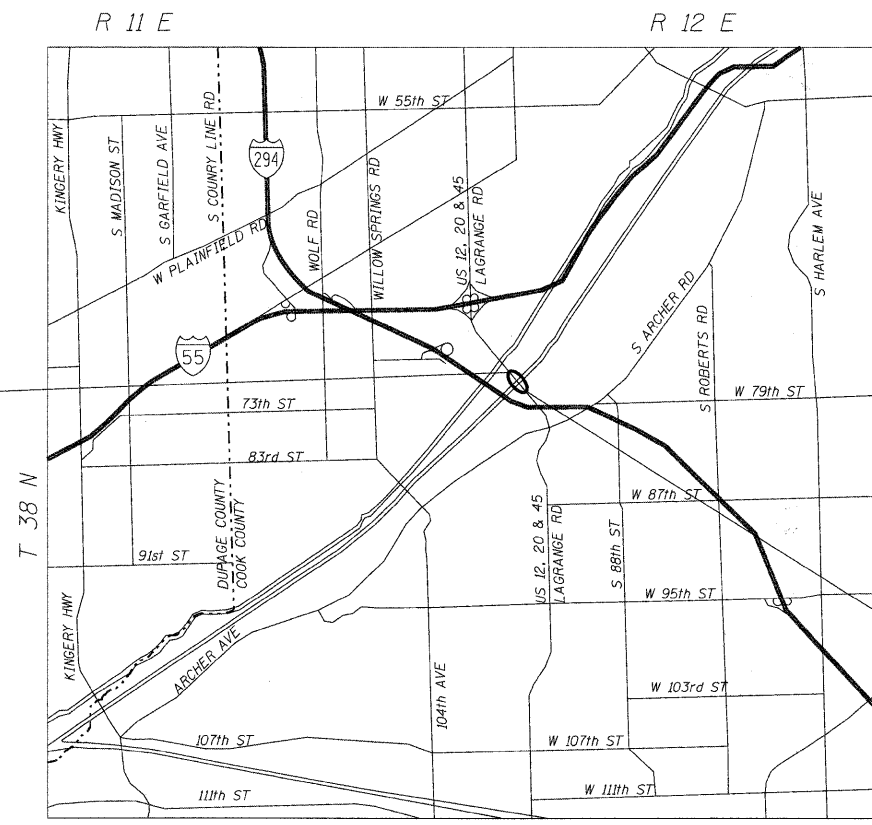
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD
ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT
CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS
ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

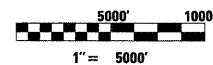
PROJECT MANAGER: KIM HARVEY (847) 705-4055
PROJECT ENGINEER: ERSKINE W. KLYCE (847) 705-4594

CONTRACT NO. 60J38

PROJECT BEGINS
STA. 31+99.36



LOCATION MAP



NET AND GROSS LENGTH OF PROJECT = 1501.86' = 0.284 MI

STATE STANDARDS

| <u>SHEET NO.</u> | <u>TITLE</u> |
|------------------|--|
| 1 | TITLE SHEET |
| 2 | GENERAL NOTES, STATE STANDARDS AND INDEX OF SHEETS |
| 3-4 | SUMMARY OF QUANTITIES |
| 5 | TYPICAL SECTIONS |
| 6 | STAGING TYPICAL SECTIONS |
| 7-8 | CONSTRUCTION STAGING PLAN - STAGE 1 |
| 9-10 | CONSTRUCTION STAGING PLAN - STAGE 2 |
| 11-14 | DETOUR PLAN |
| 15 | ROADWAY RESURFACING AND APPROACH OVERLAY PLAN |
| 16 | PAVEMENT MARKING PLAN |
| 17-34 | STRUCTURAL PLANS |
| 35 | BUTT JOINT AND HMA TAPER DETAILS |
| 36 | FREEWAY SINGLE AND MULTILANE WEAVE |
| 37 | RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT) |
| 38 | DISTRICT ONE TYPICAL PAVEMENT MARKINGS |
| 39 | TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURE AND PARTIAL RAMP CLOSURES |
| 40 | SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS |
| 41 | ARTERIAL ROAD INFORMATION SIGN |
| | HIGHWAY STANDARDS |

| <u>SHEET NO.</u> | <u>TITLE</u> |
|------------------|--|
| 000001-05 | STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS |
| 001001-02 | AREAS OF REINFORCEMENT REBARS |
| 635011-02 | REFLECTOR MARKER AND MOUNTING DETAIL |
| 701101-02 | OFF-RD OPERATIONS, MULTILANE, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE |
| 701400-04 | APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY |
| 701401-05 | LANE CLOSURE, FREEWAY/EXPRESSWAY |
| 701411-06 | LANE CLOSURE, MULTILANE AT ENTRANCE OR EXIT RAMP, FOR SPEEDS ≥ 45 MPH |
| 701426-03 | LANE CLOSURE, MULTILANE INTERMITTENT OR MOVING OPER., FOR SPEEDS ≥ 45 MPH |
| 701901-01 | TRAFFIC CONTROL DEVICES |
| 704001-06 | TEMPORARY CONCRETE BARRIER |
| 720011-01 | METAL POST FOR SIGNS, MARKERS & DELINEATORS |
| 728001-01 | TELESCOPING STEEL SIGN SUPPORT |
| 729001-01 | APPLICATIONS OF TYPES A & B METAL POST (FOR SIGNS & MARKERS) |

GENERAL NOTES

ALL ELEVATIONS ARE BASED ON UNITED STATES COAST AND GEODETIC SURVEY DATUM.

DIMENSIONS ARE IN ENGLISH UNITS UNLESS OTHERWISE NOTED.

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 800-892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, AND GAS FACILITIES (48 HOURS NOTIFICATION IS REQUIRED).

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

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING MATERIALS.

ANY REFERENCE TO STANDARDS IN THE PLANS OR SPECIAL PROVISIONS SHALL BE INTERPRETED TO BE THE LATEST STANDARDS OF THE DEPARTMENT LISTED IN THE PLANS WITH THE LATEST NUMBERS.

WHEN ARTIFICIAL LIGHTING IS UTILIZED IN NIGHT OPERATIONS, THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AND ADJOINING PROPERTIES.

THE RESIDENT ENGINEER SHALL CONTACT MS. PATRICE HARRIS, AREA TRAFFIC ENGINEER, AT (708) 597-9800 AT A MINIMUM OF 2 WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKING.

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

ALL WORK IS TO BE COMPLETED BY THE COMPLETION DATE. THE COMPLETION DATE FOR THIS CONTRACT IS OCTOBER 29, 2010.

BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORDED FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES (AND RAISED REFLECTIVE MARKERS) IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE DIRECTED BY THE ENGINEER.

LONGO, INC.
CONSULTING ENGINEERS
1960 WALL ST, SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

| | |
|-------------------|-----------|
| DESIGNED - MJY | REVISED - |
| DRAWN - ST, TSC | REVISED - |
| CHECKED - MJY, DC | REVISED - |
| DATE - 01/29/2010 | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL NOTES, STATE STANDARDS AND INDEX OF SHEETS
US 12, 20, 45 SB (LA GRANGE RD) OVER CN RR & CANALS**

SCALE: NONE SHEET NO. 2 OF 41 SHEETS STA. 16+97.50 TO STA. 31+99.36

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|-------------|--------|--------------------|-----------|
| 330 | 462 X-B-I-1 | COOK | 41 | 2 |
| D-91-228-10 | | | CONTRACT NO. 60J38 | |
| FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT | | | | |

| SUMMARY OF QUANTITIES | | | 80% FED. 20% STATE | | | SUMMARY OF QUANTITIES | | | 80% FED. 20% STATE | | |
|-----------------------|--|-------|-----------------------|--------------------|-------------------|-----------------------|--|--------|-----------------------|--------------------|-------------------|
| CODE NO. | ITEM | UNIT | URBAN TOTAL | ROADWAY J000-2A | BRIDGE X321-2A | CODE NO. | ITEM | UNIT | URBAN TOTAL | ROADWAY J000-2A | BRIDGE X321-2A |
| 40600200 | BITUMINOUS MATERIALS (PRIME COAT) | TON | 1 | 1 | | 67000400 | ENGINEER'S FIELD OFFICE, TYPE A | CAL MO | 8 | 8 | |
| 40600635 | LEVELING BINDER (MACHINE METHOD), N70 | TON | 22 | 22 | | 67100100 | MOBILIZATION | L SUM | 1 | 1 | |
| 40603595 | POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90 | TON | 59 | 59 | | 70101800 | TRAFFIC CONTROL AND PROTECTION, (SPECIAL) | L SUM | 1 | 1 | |
| 44000155 | HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2" | SQ YD | 268 | 268 | | 70102550 | TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR | EACH | 1 | 1 | |
| 44000198 | HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH | SQ YD | 332 | 332 | | 70103815 | TRAFFIC CONTROL SURVEILLANCE | CAL DA | 40 | 40 | |
| 50102400 | CONCRETE REMOVAL | CU YD | 36.5 | | 36.5 | 70106800 | CHANGEABLE MESSAGE SIGN | CAL MO | 12 | 12 | |
| 50157300 | PROTECTIVE SHIELD | SQ YD | 2152 | | 2152 | 70400100 | TEMPORARY CONCRETE BARRIER | FOOT | 1732 | 1732 | |
| 50300255 | CONCRETE SUPERSTRUCTURE | CU YD | 41.8 | | 41.8 | 70400200 | RELOCATE TEMPORARY CONCRETE BARRIER | FOOT | 1732 | 1732 | |
| 50300260 | BRIDGE DECK GROOVING | SQ YD | 5967 | | 5967 | * 78008210 | POLYUREA PAVEMENT MARKING TYPE 1 - LINE 4" | FOOT | 4846 | 1082 | 3764 |
| 50300300 | PROTECTIVE COAT | SQ YD | 5985 | | 5985 | * 78100100 | RAISED REFLECTIVE PAVEMENT MARKER | EACH | 32 | 32 | |
| 50500405 | FURNISHING AND ERECTING STRUCTURAL STEEL | POUND | 7833 | | 7833 | * 78100105 | RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE) | EACH | 68 | | 68 |
| 50500715 | JACK AND REMOVE EXISTING BEARINGS | EACH | 35 | | 35 | * 78200530 | BARRIER WALL MARKERS, TYPE C | EACH | 71 | 71 | |
| 50800205 | REINFORCEMENT BARS, EPOXY COATED | POUND | 5940 | | 5940 | 78300100 | PAVEMENT MARKING REMOVAL | SQ FT | 1616 | 1616 | |
| 50800515 | BAR SPLICERS | EACH | 91 | | 91 | 78300200 | RAISED REFLECTIVE PAVEMENT MARKER REMOVAL | EACH | 100 | 32 | 68 |
| 52000110 | PREFORMED JOINT STRIP SEAL | FOOT | 168 | | 168 | X0322185 | BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/4 INCHES | SQ YD | 5883 | | 5883 |
| 52100010 | ELASTOMERIC BEARING ASSEMBLY, TYPE I | EACH | 10 | | 10 | X0322256 | TEMPORARY INFORMATION SIGNING | SQ FT | 26 | 26 | |
| 52100020 | ELASTOMERIC BEARING ASSEMBLY, TYPE II | EACH | 20 | | 20 | X0325305 | STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES) | SQ FT | 213 | | 213 |
| 52100030 | ELASTOMERIC BEARING ASSEMBLY, TYPE III | EACH | 5 | | 5 | X0325775 | WET REFLECTIVE TEMPORARY TAPE, TYPE III, 4 INCH | FOOT | 7731 | 7731 | |
| 52100520 | ANCHOR BOLTS, 1" | EACH | 90 | | 90 | Z0006204 | BRIDGE DECK HYDRO-SCARIFICATION 1/2" | SQ YD | 5883 | | 5883 |

* SPECIALTY ITEMS

LONGO, INC.
CONSULTING ENGINEERS
1560 WALL ST, SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

| | |
|-------------------|-----------|
| DESIGNED - MJY | REVISED - |
| DRAWN - ST, TSC | REVISED - |
| CHECKED - MJY, DC | REVISED - |
| DATE - 01/29/2010 | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES
US 12, 20, 45 SB (LA GRANGE RD) OVER CN RR AND CANALS**

SCALE: NONE SHEET NO. 3 OF 41 SHEETS STA. 16+97.50 TO STA. 31+99.36

| | | | | |
|---|-------------|--------------------|-----------------|--------------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 330 | 462 X-B-1-1 | COOK | 41 | 3 |
| D-91-228-10 | | CONTRACT NO. 60J38 | | |
| FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT | | | | |

| SUMMARY OF QUANTITIES | | | 80% FED. 20% STATE | | | SUMMARY OF QUANTITIES | | | 80% FED. 20% STATE | | |
|-----------------------|---|-------|-----------------------|--------------------|-------------------|-----------------------|------|------|-----------------------|--------------------|-------------------|
| CODE NO. | ITEM | UNIT | URBAN TOTAL | ROADWAY J000-2A | BRIDGE X321-2A | CODE NO. | ITEM | UNIT | URBAN TOTAL | ROADWAY J000-2A | BRIDGE X321-2A |
| Z0013798 | CONSTRUCTION LAYOUT | L SUM | 1 | 1 | | | | | | | |
| Z0016002 | DECK SLAB REPAIR (FULL DEPTH, TYPE II) | SQ YD | 23 | | 23 | | | | | | |
| Z0034390 | MODULAR EXPANSION JOINT 6" | FOOT | 42 | | 42 | | | | | | |
| Z0048665 | RAILROAD PROTECTIVE LIABILITY INSURANCE | L SUM | 1 | 1 | | | | | | | |

* SPECIALTY ITEMS

LONGO, INC.
CONSULTING ENGINEERS
1560 WALL ST, SUITE 222
NAPERVILLE, ILLINOIS 60563 PH 630/577-9100

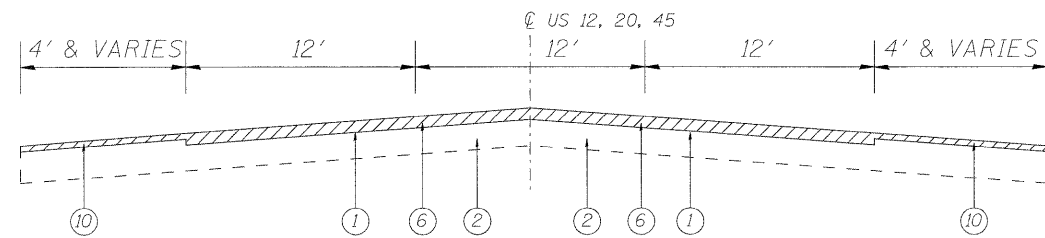
| | |
|-------------------|-----------|
| DESIGNED - MJY | REVISED - |
| DRAWN - ST, TSC | REVISED - |
| CHECKED - MJY, DC | REVISED - |
| DATE - 01/29/2010 | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

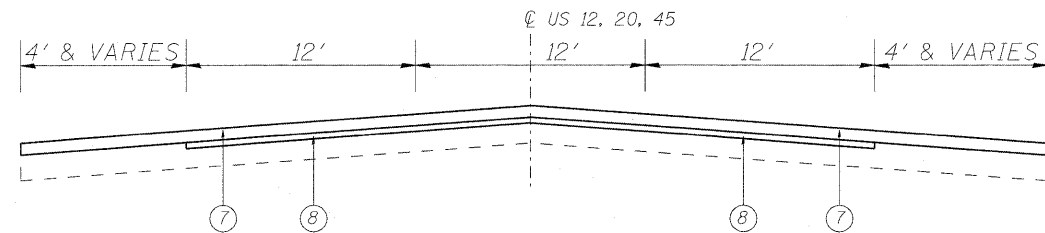
**SUMMARY OF QUANTITIES
US 12, 20, 45 SB (LA GRANGE RD) OVER CN RR AND CANALS**

SCALE: NONE SHEET NO. 4 OF 41 SHEETS STA. 16+97.50 TO STA. 31+99.36

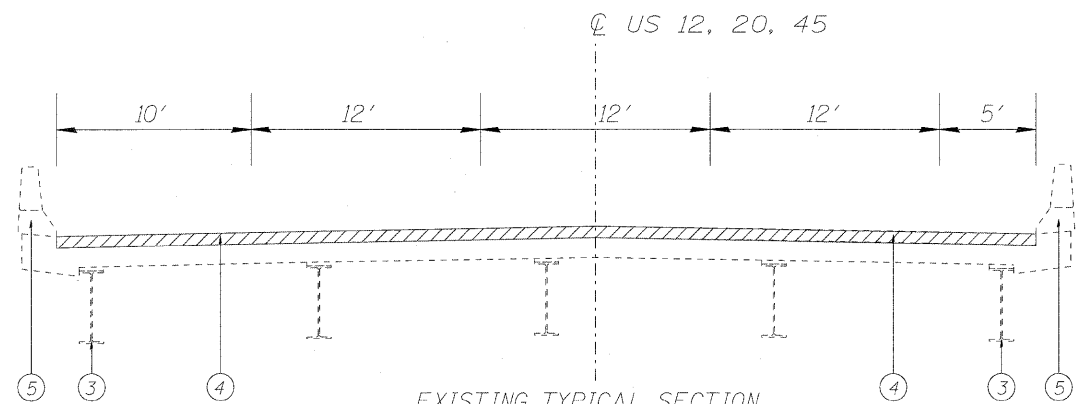
| | | | | |
|---------------------|-------------|---------------------------|-----------------|--------------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 330 | 462 X-B-I-1 | COOK | 41 | 4 |
| D-91-228-10 | | CONTRACT NO. 60J38 | | |
| FED. ROAD DIST. NO. | | ILLINOIS FED. AID PROJECT | | |



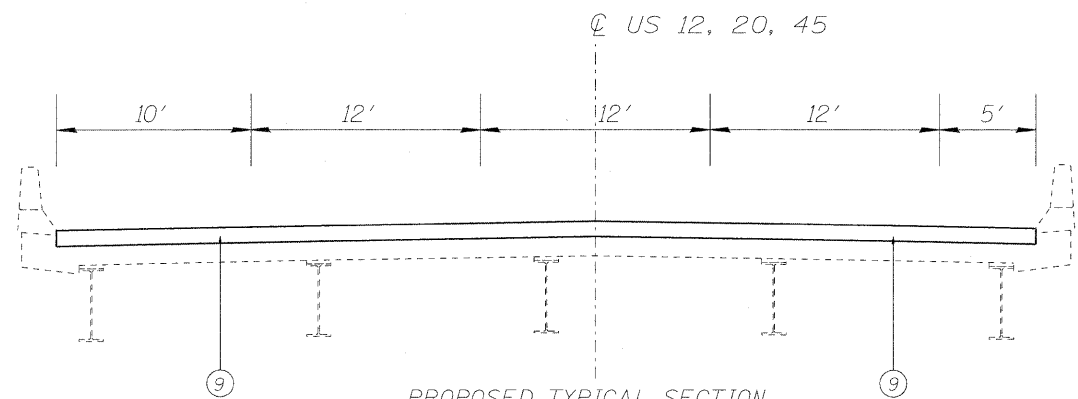
EXISTING TYPICAL SECTION
STA. 16+97.50 TO STA. 17+62.50
STA. 31+04.94 TO STA. 31+99.36



PROPOSED TYPICAL SECTION
STA. 16+97.50 TO STA. 17+62.50
STA. 31+04.94 TO STA. 31+99.36



EXISTING TYPICAL SECTION
STA. 17+62.5 TO STA. 31+04.44



PROPOSED TYPICAL SECTION
STA. 17+62.5 TO STA. 31+04.94

LEGEND

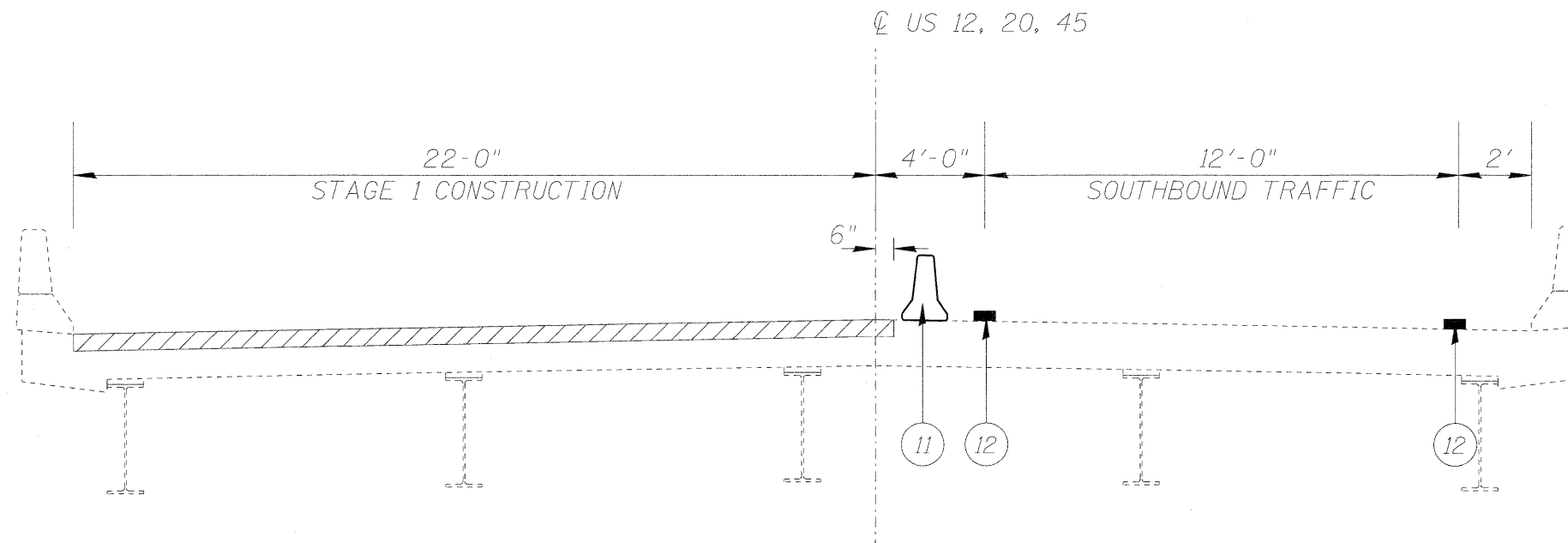
- ① EXISTING HMA OVERLAY
- ② EXISTING BASE COURSE
- ③ EXISTING WF STEEL BEAMS
- ④ BRIDGE DECK HYDRO-SCARIFICATION, 1/2"
- ⑤ EXISTING PARAPET WALLS
- ⑥ PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH
- ⑦ PROPOSED POLYMERIZED HMA SURFACE COURSE, MIX "F", N90, 1 3/4"
- ⑧ PROPOSED LEVELING BINDER (MACHINE METHOD), N70, 3/4"
- ⑨ PROPOSED BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/4"
- ⑩ HMA SURFACE REMOVAL, 1 1/2"

| HOT-MIX ASPHALT MIXTURE REQUIREMENTS | | |
|--------------------------------------|--|------------------|
| OPERATION | MIXTURE TYPE | DESIGN AIR VOIDS |
| ROADWAY | POLYMERIZED HMA SURFACE COURSE, MIX "F", N90 (IL 9.5 mm) | 4% @ 90 GYR |
| | LEVELING BINDER (MACHINE METHOD), N70 | 4% @ 70 GYR |
| SHOULDER | POLYMERIZED HMA SURFACE COURSE, MIX "F", N90 (IL 9.5 mm) | 4% @ 90 GYR |

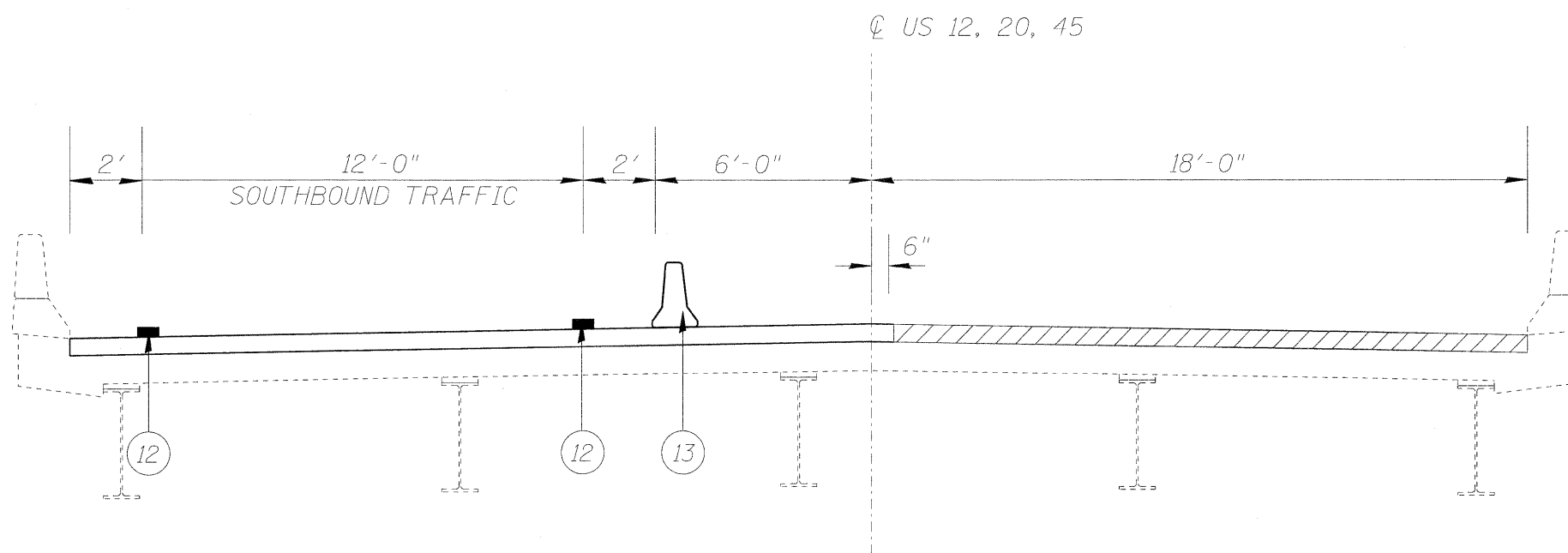
NOTES:

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE COURSE MIXTURES IS 112 LBS/SQ-YD/IN.

FOR "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 70 -22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64 -22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR "PERCENT OF RAP" SEE DISTRICT ONE SPECIAL PROVISIONS.



STAGE 1 TYPICAL SECTION

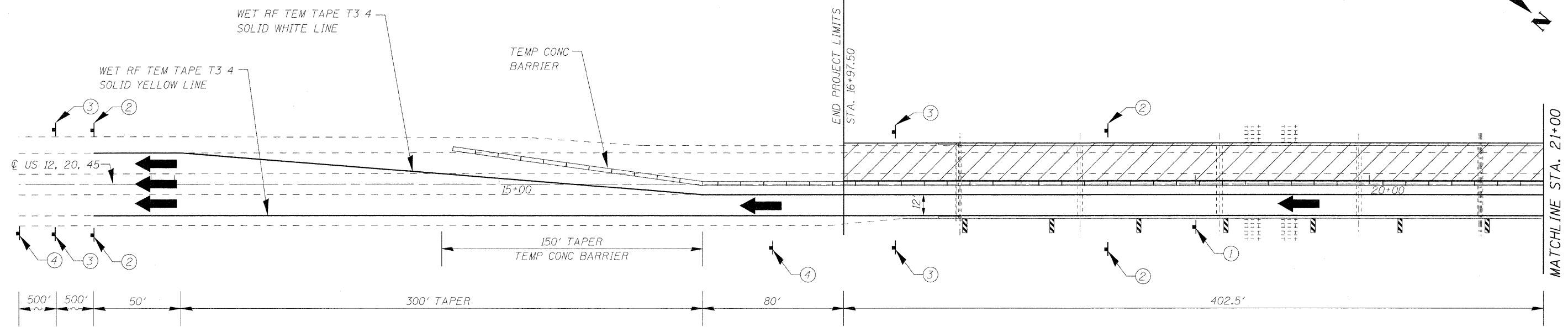


STAGE 2 TYPICAL SECTION

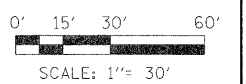
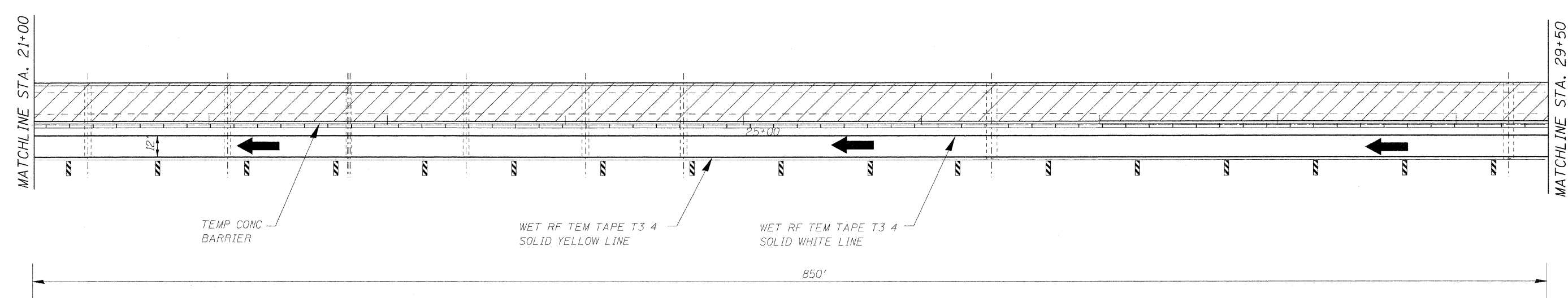
- ① TEMPORARY CONCRETE BARRIER
- ② WET REFLECTIVE TEMPORARY TAPE, TYPE III, 4"
- ③ RELOCATE TEMPORARY CONCRETE BARRIER

| | |
|-------------------|-----------|
| DESIGNED - MJY | REVISED - |
| DRAWN - ST, TSC | REVISED - |
| CHECKED - MJY, DC | REVISED - |
| DATE - 01/29/2010 | REVISED - |

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------|-------------|---------------------------|--------------------|-----------|
| 330 | 462 X-B-I-1 | COOK | 41 | 6 |
| D-91-228-10 | | | CONTRACT NO. 60J38 | |
| FED. ROAD DIST. NO. | | ILLINOIS FED. AID PROJECT | | |



| | | | | | | | |
|---|---|---|---|---|--|---|---------------------------|
| ① | WORK ZONE W2-1115(0)-3618 SPEED LIMIT 35 R-1-3648 | ② | WORK ZONE W2-1115(0)-3618 SPEED LIMIT 45 RESUMES W2-1113(0)-3612 | ③ | END WORK ZONE SPEED LIMIT G20-1103(0)-3660 | ④ | END CONSTRUCTION G20-2 |
|---|---|---|---|---|--|---|---------------------------|



LOCO, INC.
CONSULTING ENGINEERS
1560 WALL ST, SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

| | |
|---------------------|-----------|
| DESIGNED - M.J.Y. | REVISED - |
| DRAWN - ST, TSC | REVISED - |
| CHECKED - M.J.Y, DC | REVISED - |
| DATE - 01/29/2010 | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CONSTRUCTION STAGING PLAN - STAGE 1
US 12, 20, 45 SB (LA GRANGE RD) OVER CN RR AND CANALS
SCALE: 1" = 30' SHEET NO. 7 OF 41 SHEETS STA. 16+97.50 TO STA. 31+99.36

| | | | | |
|---------------------|-------------|---------------------------|--------------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 330 | 462 X-B-I-1 | COOK | 41 | 7 |
| D-91-229-10 | | | CONTRACT NO. 60J38 | |
| FED. ROAD DIST. NO. | | ILLINOIS FED. AID PROJECT | | |

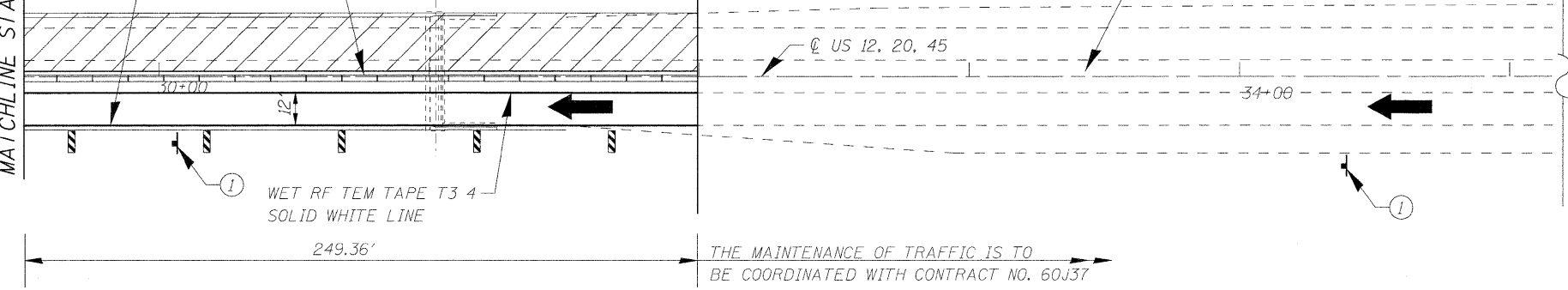
WET RF TEM TAPE T3 4
SOLID YELLOW LINE

TEMP CONC
BARRIER

MATCHLINE STA. 29+50

BEGIN PROJECT LIMITS
STA. 31+99.36

NOTE: TEMPORARY CONCRETE BARRIER, TEMPORARY STRIPING AND
TEMPORARY MAINTENANCE OF TRAFFIC WILL CONTINUE FOR
CONTRACTO NO. 60J37.



LEGEND

- WORK ZONE
- BARRICADE W/ STEADY BURN LIGHT
- TYPE III BARRICADE WITH FLASHING LIGHTS
- SIGN
- IMPACT ATTENUATORS
- CONCRETE BARRIER
- SINGLE VERTICAL PANEL

NOTES:

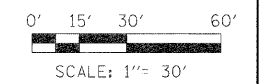
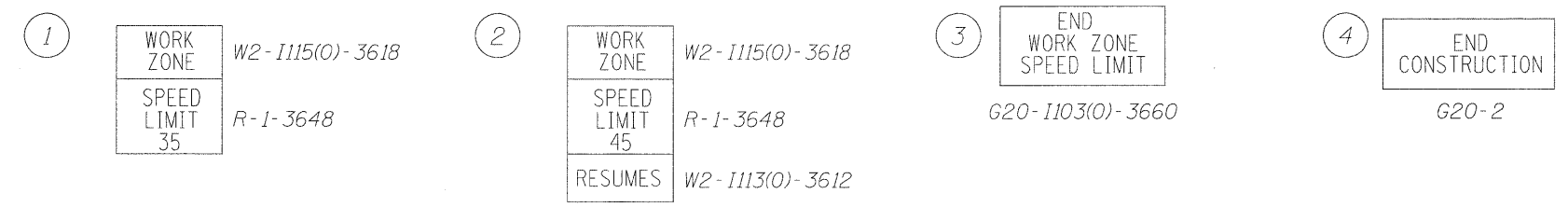
BARRICADE AND PANEL SPACING SHALL BE 25' CENTERS IN TAPER SECTIONS AND 50' CENTERS IN TANGENT SECTIONS.

VERTICAL PANELS SHALL BE USED WHEN CANNOT BE PLACED ON THE EXISTING PAVEMENT OR PAVED SHOULDER.

ALL SIGNS, BARRICADES AND OTHER TRAFFIC CONTROL DEVICES SHOWN ON THIS SHEET SHALL BE ACCORDING TO SECTION 701 OF THE STANDARD SPECIFICATIONS AND SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR "TRAFFIC CONTROL AND PROTECTION, (SPECIAL)". ALL TEMPORARY PAVEMENT MARKING WILL BE PAID FOR SEPARATELY.

STAGE 1

1. INSTALL TRAFFIC CONTROL AND TEMPORARY CONCRETE BARRIER IN ACCORDANCE WITH STAGE 1 MAINTENANCE OF TRAFFIC AND STANDARD 701400 AND 701401.
2. REMOVE TOP 1/2" OF THE WEST PORTION OF THE EXISTING DECK SURFACE, AND EXISTING APPROACH PAVEMENT.
3. INSTALL NEW DECK SLAB REPAIR (FULL DEPTH, TYPE II) AND BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/4"
4. CONSTRUCT NEW APPROACH PAVEMENT.
5. CONSTRUCT ROADWAY ON WEST SIDE OF LA GRANGE ROAD IN ACCORDANCE WITH SHEET 15.



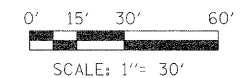
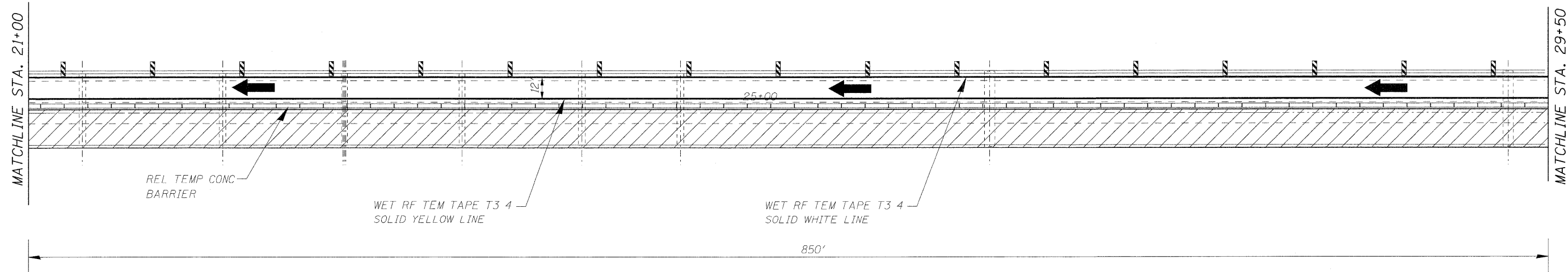
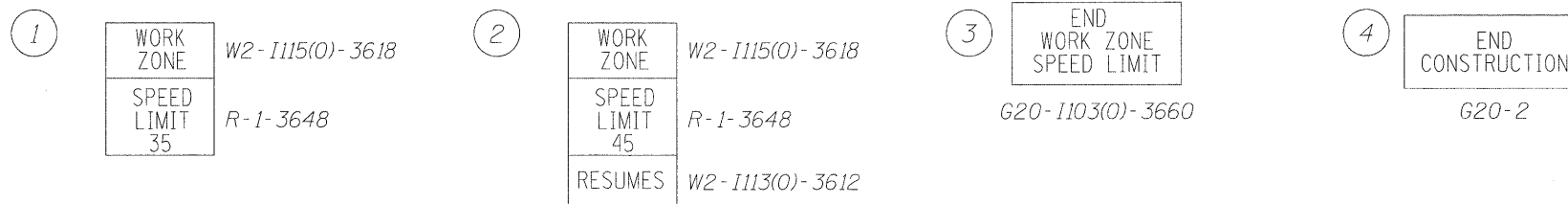
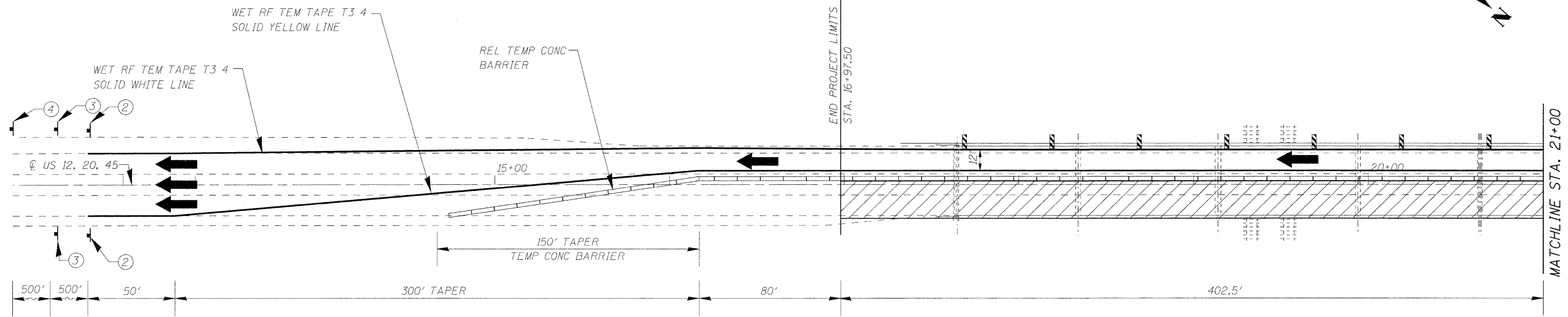
LOCO, INC.
CONSULTING ENGINEERS
1560 WALL ST, SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

| | |
|-------------------|-----------|
| DESIGNED - MJY | REVISED - |
| DRAWN - ST, TSC | REVISED - |
| CHECKED - MJY, DC | REVISED - |
| DATE - 01/29/2010 | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CONSTRUCTION STAGING PLAN - STAGE 1
US 12, 20, 45 SB (LA GRANGE RD) OVER CN RR AND CANALS**
SCALE: 1" = 30' SHEET NO. 8 OF 41 SHEETS STA. 16+97.50 TO STA. 31+99.36

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|-------------|--------|--------------------|-----------|
| 330 | 462 X-B-1-1 | COOK | 41 | 8 |
| D-91-229-10 | | | CONTRACT NO. 60J38 | |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | |



LOCO, INC.
 CONSULTING ENGINEERS
 1560 WALL ST, SUITE 222
 NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

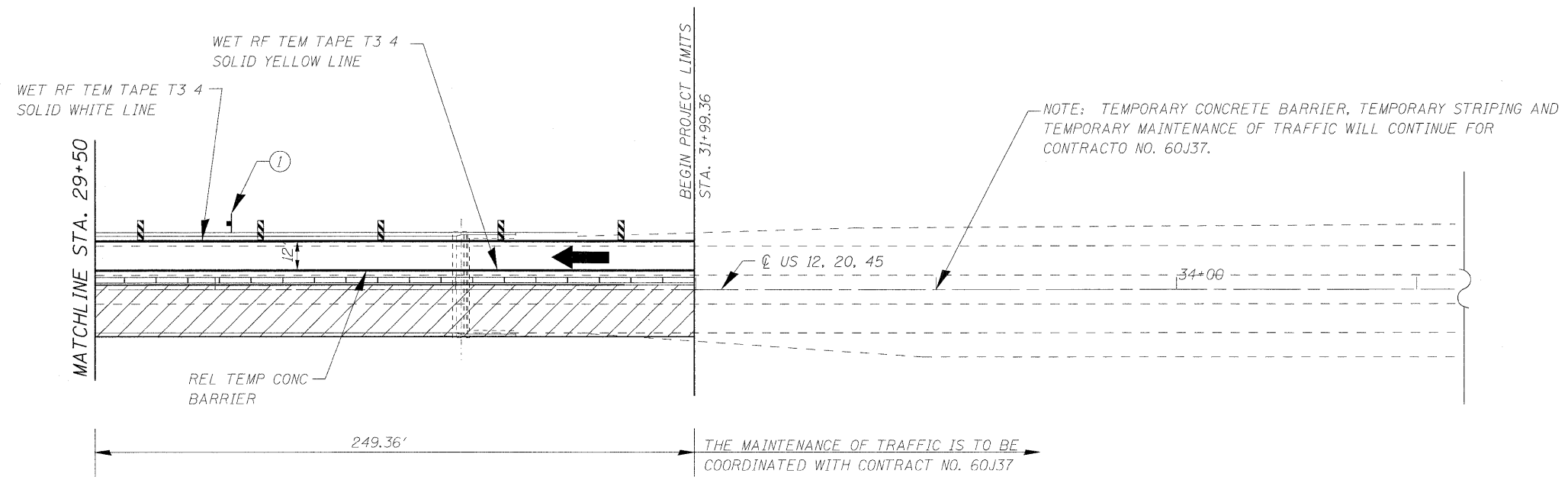
| | |
|---------------------|-----------|
| DESIGNED - M.J.Y. | REVISED - |
| DRAWN - ST, TSC | REVISED - |
| CHECKED - M.J.Y, DC | REVISED - |
| DATE - 01/29/2010 | REVISED - |

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CONSTRUCTION STAGING PLAN - STAGE 2
 US 12, 20, 45 SB (LA GRANGE RD) OVER CN RR AND CANALS**

SCALE: 1" = 30' SHEET NO. 9 OF 41 SHEETS STA. 16+97.50 TO STA. 31+99.36

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------|-------------|---------------------------|--------------|-----------|
| 330 | 462 X-B-1-1 | COOK | 41 | 9 |
| D-91-229-10 | | CONTRACT NO. 60J38 | | |
| FED. ROAD DIST. NO. | | ILLINOIS FED. AID PROJECT | | |



LEGEND

- WORK ZONE
- BARRICADE W/ STEADY BURN LIGHT
- TYPE III BARRICADE WITH FLASHING LIGHTS
- SIGN
- IMPACT ATTENUATORS
- CONCRETE BARRIER
- SINGLE VERTICAL PANEL

NOTES:

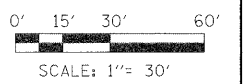
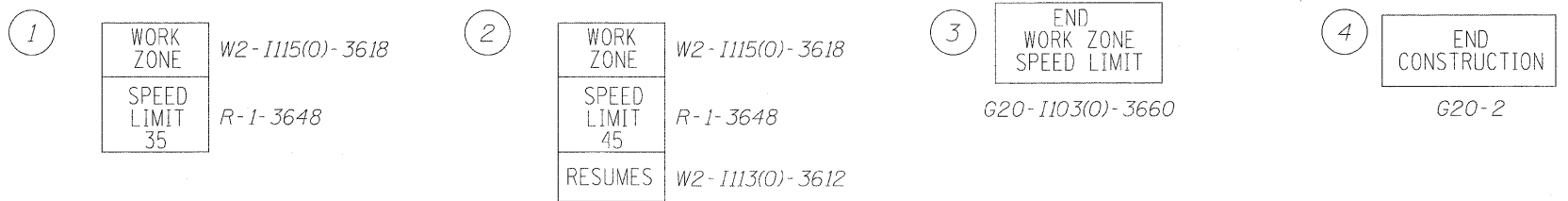
BARRICADE AND PANEL SPACING SHALL BE 25' CENTERS IN TAPER SECTIONS AND 50' CENTERS IN TANGENT SECTIONS.

VERTICAL PANELS SHALL BE USED WHEN CANNOT BE PLACED ON THE EXISTING PAVEMENT OR PAVED SHOULDER.

ALL SIGNS, BARRICADES AND OTHER TRAFFIC CONTROL DEVICES SHOWN ON THIS SHEET SHALL BE ACCORDING TO SECTION 701 OF THE STANDARD SPECIFICATIONS AND SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR "TRAFFIC CONTROL AND PROTECTION, (SPECIAL)". ALL TEMPORARY PAVEMENT MARKING WILL BE PAID FOR SEPARATELY.

STAGE 2

1. INSTALL TRAFFIC CONTROL AND TEMPORARY CONCRETE BARRIER IN ACCORDANCE WITH STAGE 2 MAINTENANCE OF TRAFFIC AND STANDARD 701400 AND 701401.
2. REMOVE TOP 1/2" EAST PORTION OF THE EXISTING DECK SURFACE, AND EXISTING APPROACH PAVEMENT.
3. INSTALL NEW DECK SLAB REPAIR (FULL DEPTH, TYPE II) AND BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/4"
4. CONSTRUCT NEW APPROACH PAVEMENT.
5. CONSTRUCT ROADWAY ON EAST SIDE OF LA GRANGE ROAD IN ACCORDANCE WITH SHEET 15.



LOCO, INC.
CONSULTING ENGINEERS
1560 WALL ST, SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: 6301 977-9100

| | |
|---------------------|-----------|
| DESIGNED - M.J.Y. | REVISED - |
| DRAWN - ST, TSC | REVISED - |
| CHECKED - M.J.Y, DC | REVISED - |
| DATE - 01/29/2010 | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

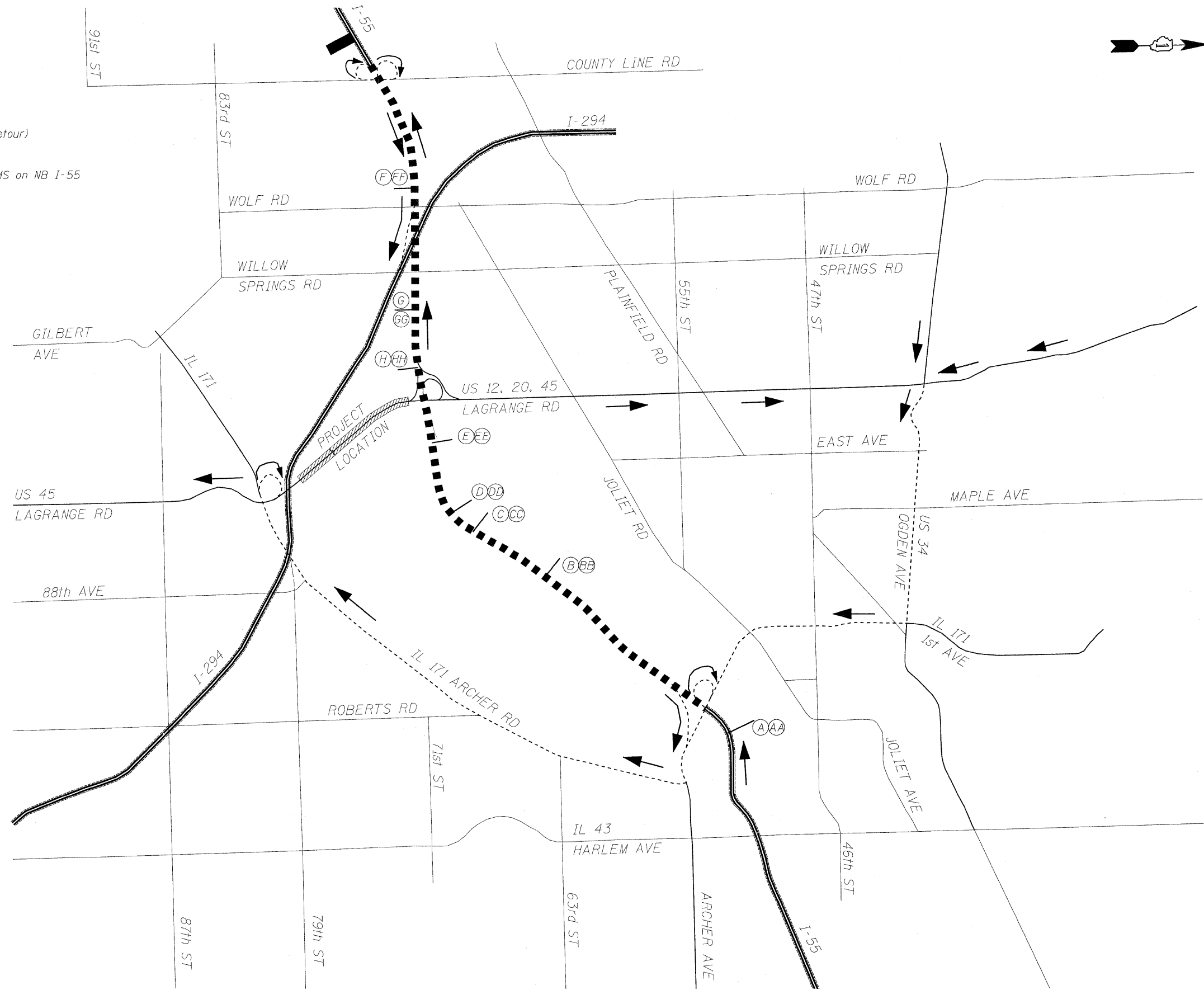
**CONSTRUCTION STAGING PLAN - STAGE 2
US 12, 20, 45 SB (LA GRANGE RD) OVER CN RR AND CANALS**

SCALE: 1" = 30' SHEET NO. 10 OF 41 SHEETS STA. 16+97.50 TO STA. 31+99.36

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------|-------------|---------------------------|--------------------|-----------|
| 330 | 462 X-B-1-1 | COOK | 41 | 10 |
| D-91-229-10 | | | CONTRACT NO. 60J38 | |
| FED. ROAD DIST. NO. | | ILLINOIS FED. AID PROJECT | | |

LEGEND

-  Interstate
-  Interstate (Detour)
-  Main Local Roads
-  Main Local Roads (Detour)
-  Collector Roads
-  Existing overhead DMS on NB I-55
-  County Line Road



LOXCO, INC.
 CONSULTING ENGINEERS
 1560 WALL ST., SUITE 222
 NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

| | |
|-------------------|-----------|
| DESIGNED - MJY | REVISED - |
| DRAWN - SLV | REVISED - |
| CHECKED - MJY, DC | REVISED - |
| DATE - 01/29/2010 | REVISED - |

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

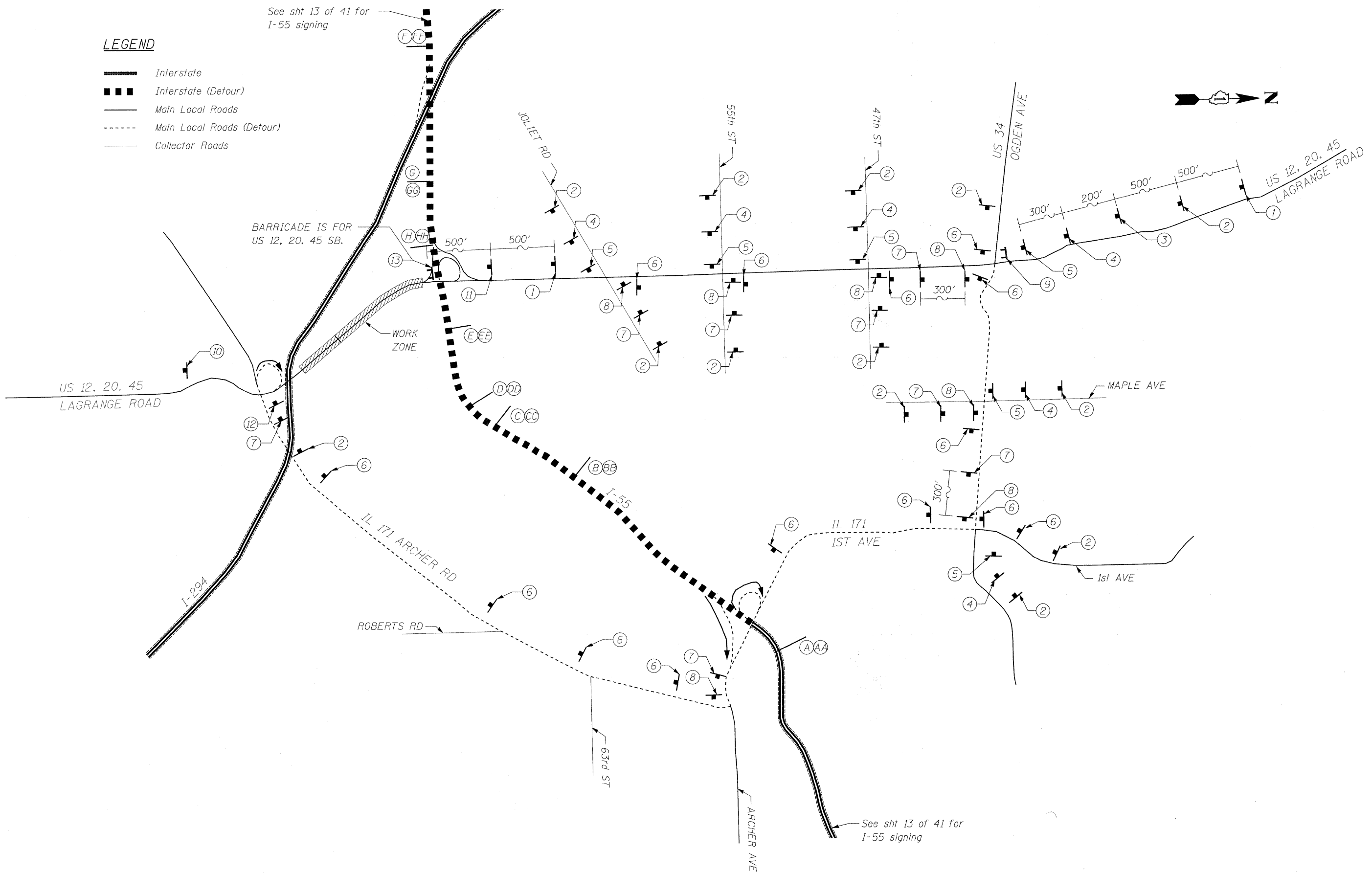
**DETOUR PLAN - OVERVIEW
 US 12, 20, 45 SB (LA GRANGE RD) OVER CN RR AND CANALS**

SCALE: NONE SHEET NO. 11 OF 41 SHEETS STA. 16+97.50 TO STA. 31+99.36

| | | | | |
|---|-------------|--------------------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 330 | 462 X-B-1-1 | COOK | 41 | 11 |
| D-91-228-10 | | CONTRACT NO. 60J38 | | |
| FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT | | | | |

LEGEND

-  Interstate
-  Interstate (Detour)
-  Main Local Roads
-  Main Local Roads (Detour)
-  Collector Roads



LOCAL ROADS DETOUR FOR LAGRANGE SB

LOXCO, INC.
CONSULTING ENGINEERS
1560 WALL ST, SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: 630/577-9100

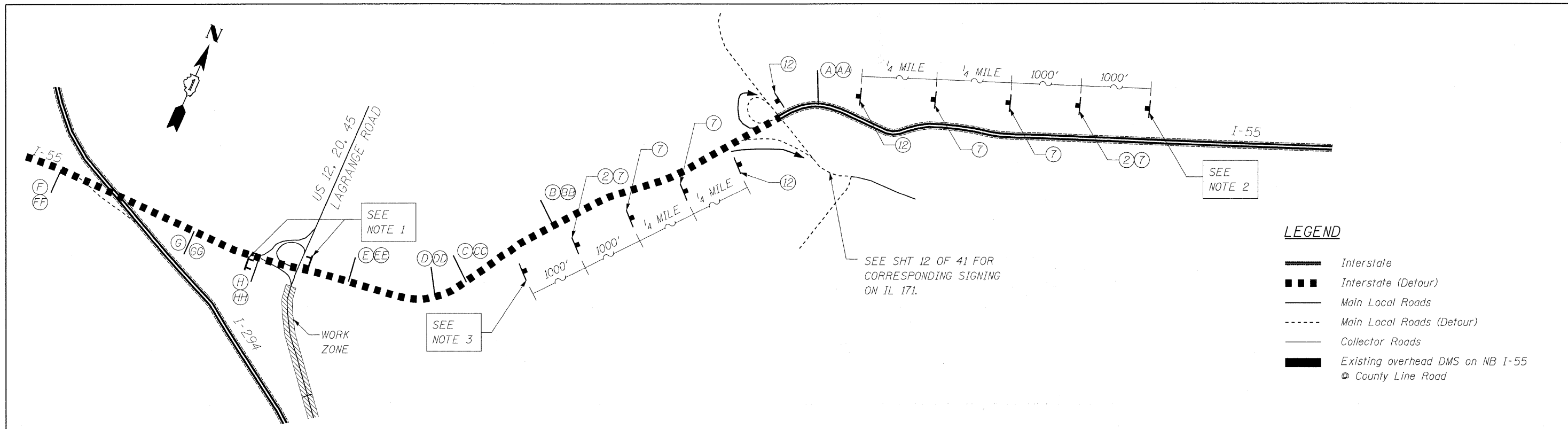
| | |
|-------------------|-----------|
| DESIGNED - MJY | REVISED - |
| DRAWN - SLV | REVISED - |
| CHECKED - MJY, DC | REVISED - |
| DATE - 01/29/2010 | REVISED - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETOUR PLAN - LOCAL ROADS
US 12, 20, 45 SB (LA GRANGE RD) OVER CN RR AND CANALS

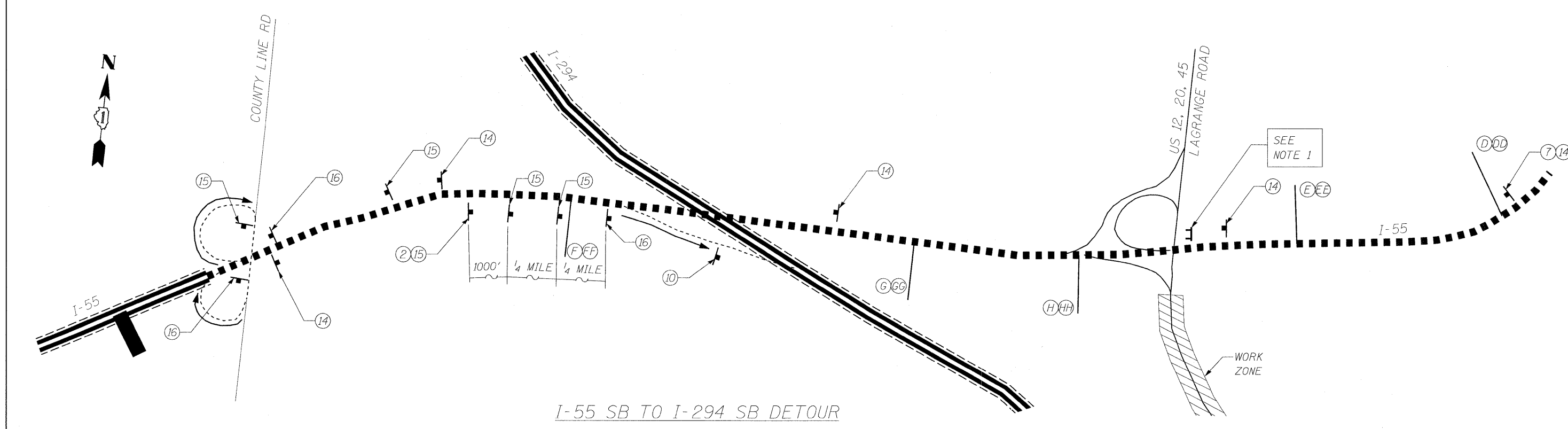
SCALE: NONE SHEET NO. 12 OF 41 SHEETS STA. 16+97.50 TO STA. 31+99.36

| | | | | |
|---------------------|---------------------|---------------------------|-----------------|--------------|
| F.A.P. RTE. 330 | SECTION 462 X-B-1-1 | COUNTY COOK | TOTAL SHEETS 41 | SHEET NO. 12 |
| D-91-228-10 | | CONTRACT NO. 60J38 | | |
| FED. ROAD DIST. NO. | | ILLINOIS FED. AID PROJECT | | |



I-55 NB & SB TO LAGRANGE RD SB DETOUR

- NOTE 1: EXIT RAMP CLOSURE TO FOLLOW DISTRICT DETAIL FOR FREEWAY ENTRANCE AND EXIT RAMP CLOSURE DETAILS (TC-8).
- NOTE 2: ADD PORTABLE CHANGEABLE MESSAGE SIGN (PCMS) AT THE EAST SIDE OF IL 171 ON SOUTHBOUND I-55.
- NOTE 3: ADD PORTABLE CHANGEABLE MESSAGE SIGN (PCMS) AT THE WEST SIDE OF IL 173 ON NORTHBOUND I-55.



I-55 SB TO I-294 SB DETOUR

LOWCO, INC.
 CONSULTING ENGINEERS
 1560 WALL ST, SUITE 222
 NAPERVILLE, ILLINOIS 60563 PH: 630/577-9100

| | |
|-------------------|-----------|
| DESIGNED - MJY | REVISED - |
| DRAWN - SLV | REVISED - |
| CHECKED - MJY, DC | REVISED - |
| DATE - 01/29/2010 | REVISED - |

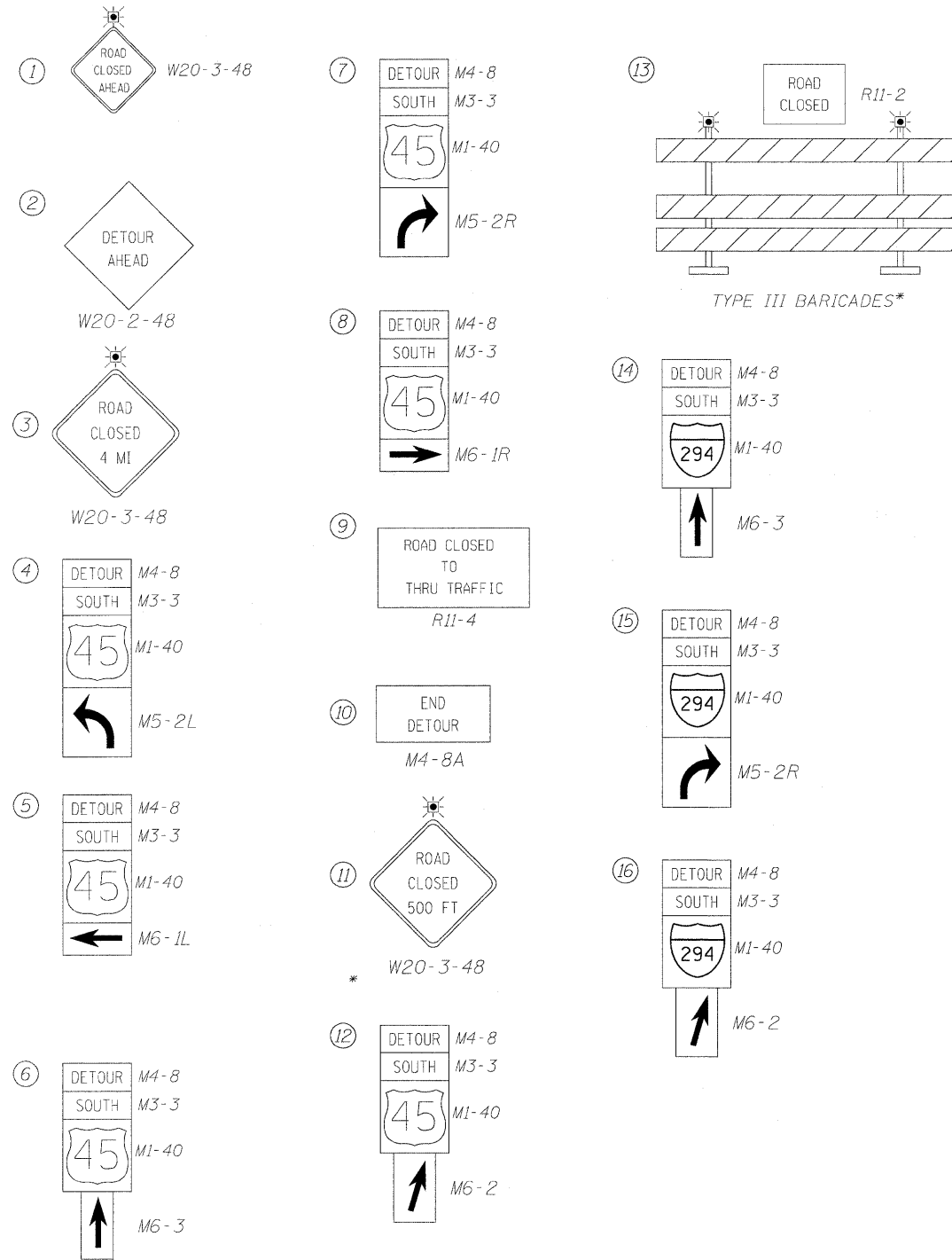
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

DETOUR PLAN - EXPRESSWAYS
US 12, 20, 45 SB (LA GRANGE RD) OVER CN RR AND CANALS
 SCALE: NONE SHEET NO. 13 OF 41 SHEETS STA. 16+97.50 TO STA. 31+99.36

| | | | | |
|---|---------------------|--------------------|-----------------|--------------|
| F.A.P. RTE. 330 | SECTION 462 X-B-I-1 | COUNTY COOK | TOTAL SHEETS 41 | SHEET NO. 13 |
| D-91-228-10 | | CONTRACT NO. 60J38 | | |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | |

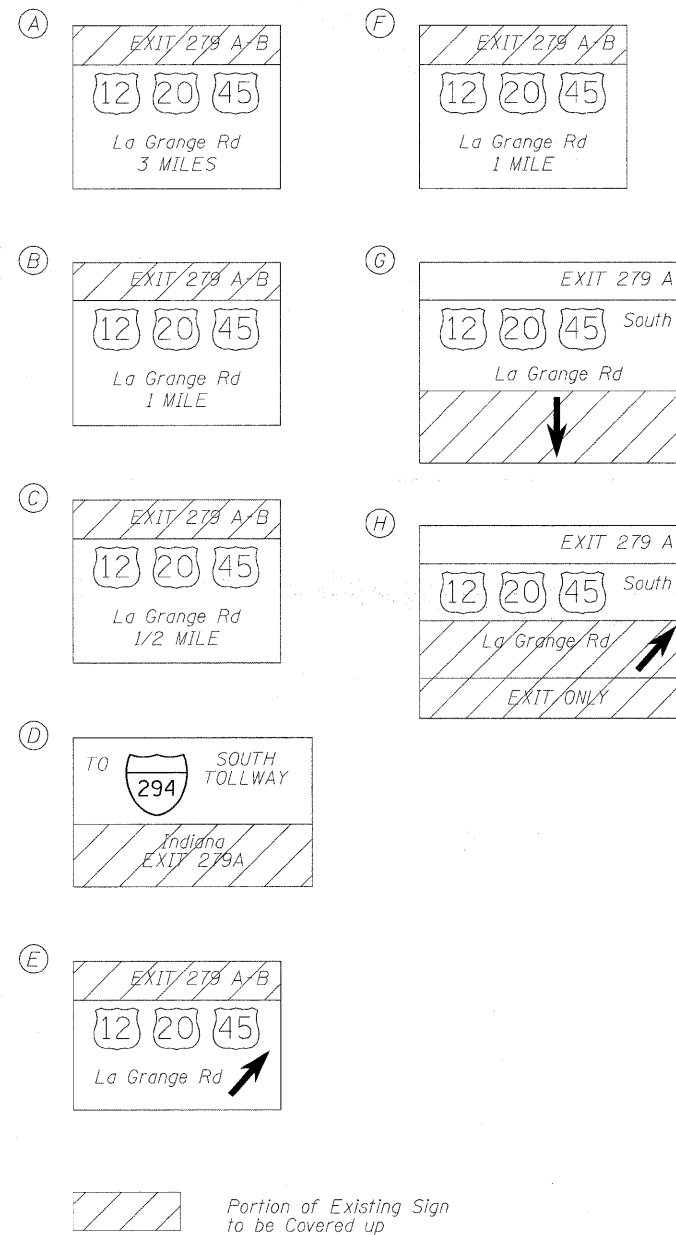
LEGEND

F - TYPE III BARRICADE WITH TWO FLASHING LIGHTS

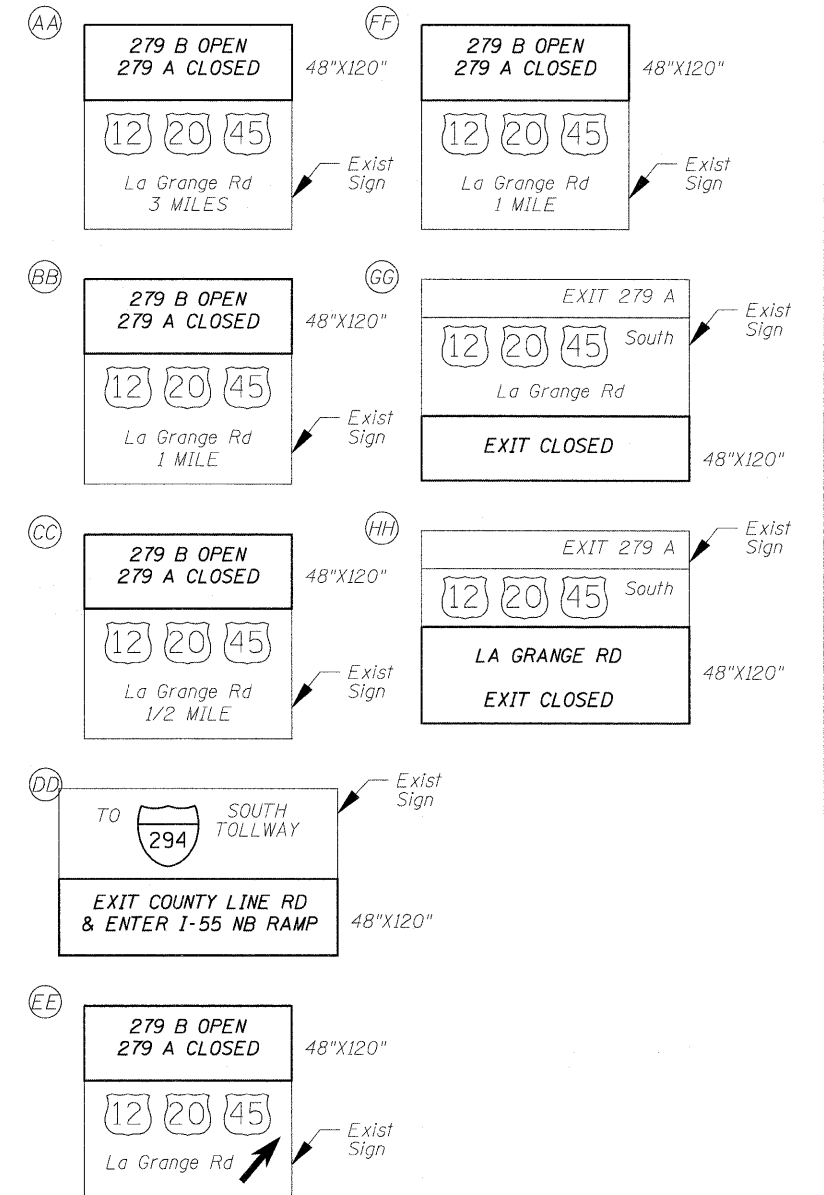


*IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 REQUIREMENTS IS NOT AVAILABLE, THE SIGNS SHALL BE MOUNTED, ABOVE THE BARRICADES, ON SEPARATE SIGNS SUPPORTS THAT MEET NCHRP 350 REQUIREMENTS.

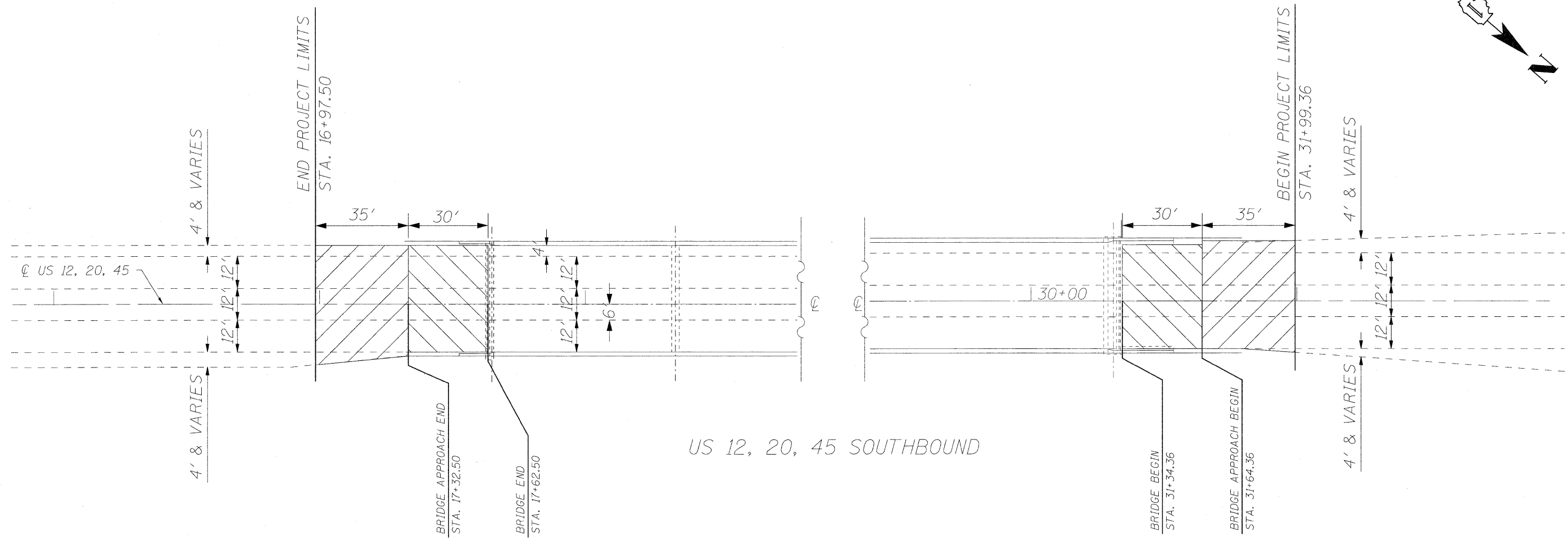
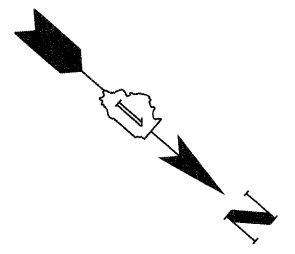
EXISTING OVERHEAD SIGNING FOR I-55 NB & SB



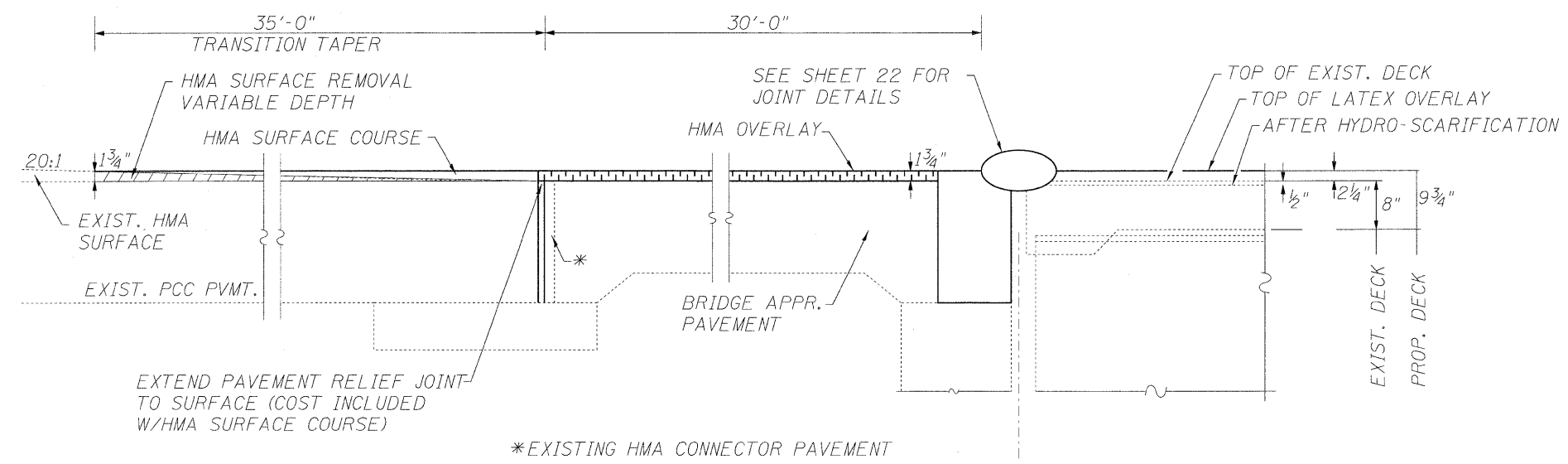
PROPOSED TEMPORARY OVERHEAD SIGNING



Portion of Existing Sign to be Covered up

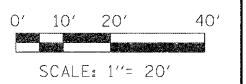


US 12, 20, 45 SOUTHBOUND



LEGEND

| | |
|--|---|
| | HMA OVERLAY 1 3/4" |
| | HMA SURF REM VAR DP & HMA OVERLAY VARIABLE DEPTH (AT BRIDGE APPROACH) |



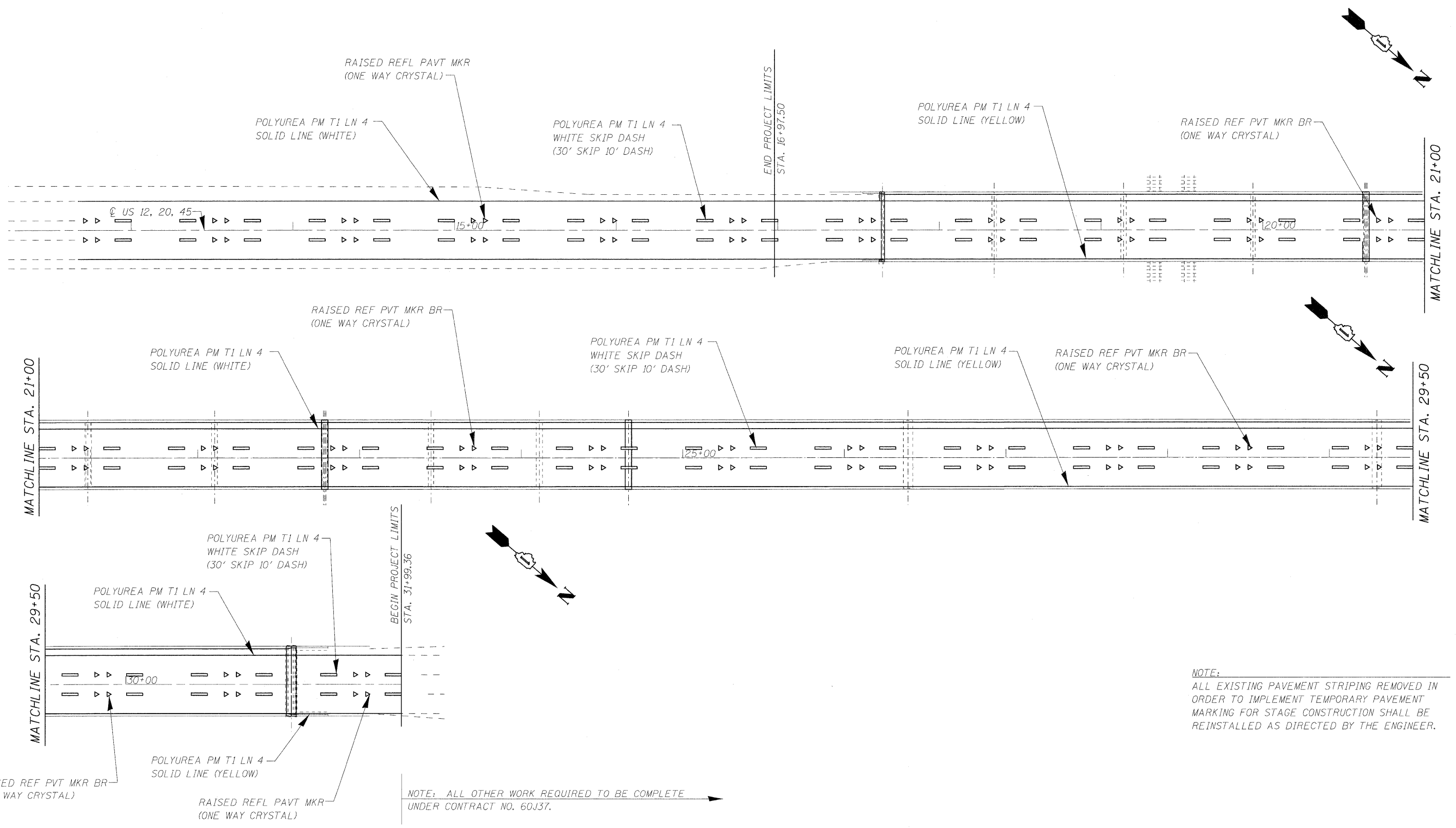
LONCO, INC.
CONSULTING ENGINEERS
1560 WALL ST, SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

| | |
|---------------------|-----------|
| DESIGNED - M.J.Y. | REVISED - |
| DRAWN - S.T. TSC | REVISED - |
| CHECKED - M.J.Y, DC | REVISED - |
| DATE - 01/29/2010 | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ROADWAY RESURFACING AND APPROACH OVERLAY PLAN
US 12, 20, 45 SB (LA GRANGE RD) OVER CN RR AND CANALS**
SCALE: 1" = 20' SHEET NO. 15 OF 41 SHEETS STA. 16+97.50 TO STA. 31+99.36

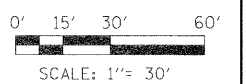
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------|-------------|---------------------------|--------------------|-----------|
| 330 | 462 X-B-I-1 | COOK | 41 | 15 |
| D-91-229-10 | | | CONTRACT NO. 60J38 | |
| FED. ROAD DIST. NO. | | ILLINOIS FED. AID PROJECT | | |



NOTE:
 ALL EXISTING PAVEMENT STRIPING REMOVED IN ORDER TO IMPLEMENT TEMPORARY PAVEMENT MARKING FOR STAGE CONSTRUCTION SHALL BE REINSTALLED AS DIRECTED BY THE ENGINEER.

NOTE: ALL OTHER WORK REQUIRED TO BE COMPLETE UNDER CONTRACT NO. 60J37.

PLACEMENT OF PERMANENT PAVEMENT STRIPING AND RELATED WORK IS TO BE COORDINATED WITH CONTRACT NO. 60J37



LONCO, INC.
 CONSULTING ENGINEERS
 1560 WALL ST, SUITE 222
 NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

DESIGNED - MJY
 DRAWN - ST, TSC
 CHECKED - MJY, DC
 DATE - 01/29/2010

REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING PLAN
 US 12, 20, 45 SB (LA GRANGE RD) OVER CN RR AND CANALS**

SCALE: 1" = 30' SHEET NO. 16 OF 41 SHEETS STA. 16+97.50 TO STA. 31+99.36

| | | | | |
|---------------------|------------------------|---------------------------|--------------------|-----------------|
| F.A.P. RTE. 330 | SECTION 462 X-B-1-1 | COUNTY COOK | TOTAL SHEETS 41 | SHEET NO. 16 |
| D-91-229-10 | | | CONTRACT NO. 60J38 | |
| FED. ROAD DIST. NO. | | ILLINOIS FED. AID PROJECT | | |

Benchmark : None

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Existing Structure: S.N. 016-2406 built in 1980 as a thirteen span steel beam bridge with concrete deck wearing surface on closed abutments and 12 piers on spread footings. The structure measures 1342'-5 1/4" back to back abutments and 43'-2" out to out deck. Traffic is to be maintained utilizing stage construction.

Salvage: None

LOADING HS-20
(Original Construction)
Allow 25 psf for future wearing surface

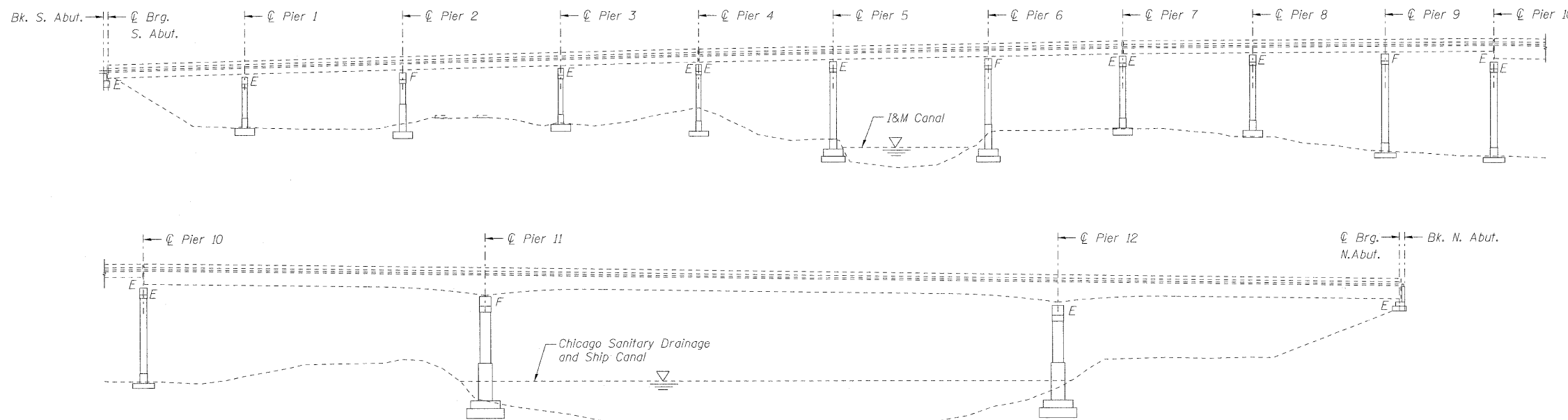
DESIGN SPECIFICATIONS

(New construction)
2002 AASHTO Standard Specifications for Highway Bridges, 17th edition.

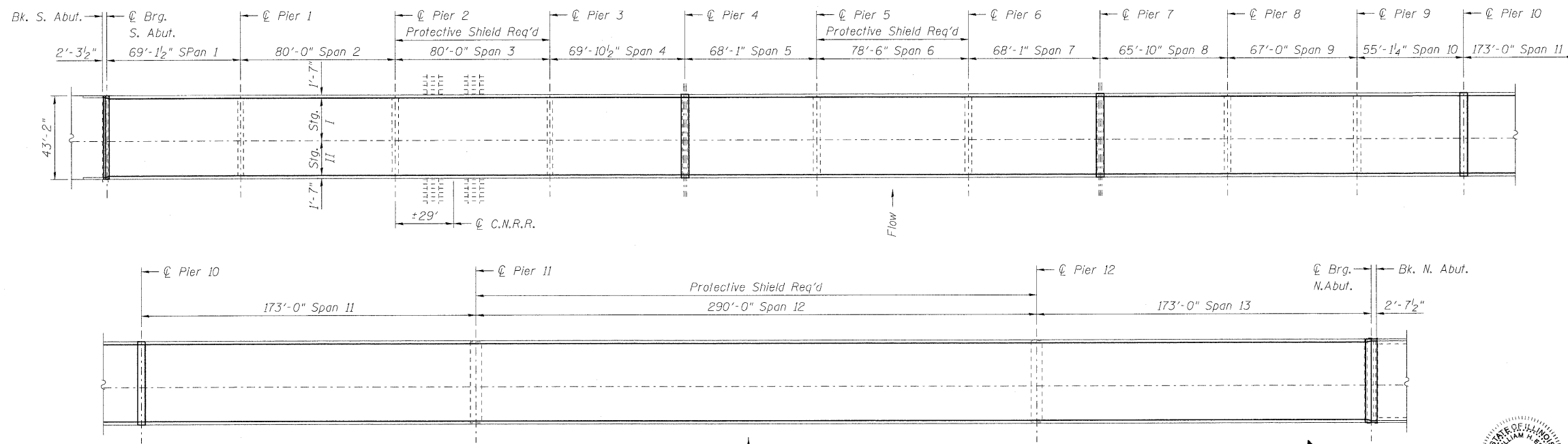
DESIGN STRESSES

FIELD UNITS

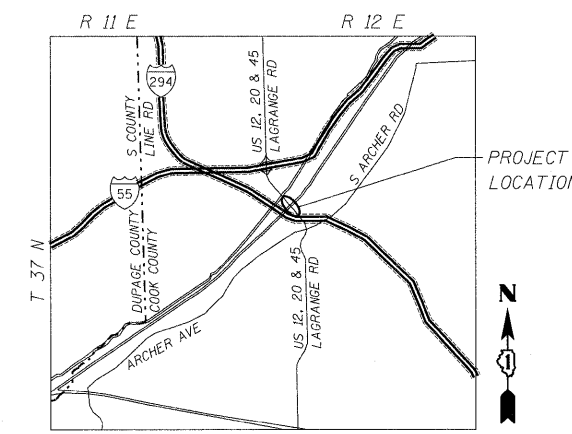
f'c = 3,500 psi
f'c = 5000 psi (Concrete Wearing Surface)
fy = 60000 psi (Reinforcement)
fy = 36000 psi (Structural Steel)



ELEVATION



PLAN



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
US 12, 20, 45 SB OVER CN RR & CANALS
F.A.P. RT. 330
SECTION 462 X-B-I-1
COOK COUNTY
STA. 24+48.43
STRUCTURE NO. 016-2406

| | |
|----------|-----|
| DESIGNED | SLV |
| CHECKED | DJB |
| DRAWN | SLV |
| CHECKED | DJB |

LOWCO, INC.
CONSULTING ENGINEERS
1560 WALL ST., SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

STATE OF ILLINOIS
SEAL OF THE ENGINEER
WILLIAM A. LEE
081-005150
WALL
Ex. 11/30/10

| | | | | | |
|---|-------------|-------------|--------|--------------------|-----------|
| SHEET NO. 1 OF 18 SHEETS | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 330 | 462 X-B-I-1 | COOK | 41 | 17 |
| | D-91-228-10 | | | CONTRACT NO. 60J38 | |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

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 and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Reinforcement bars shall conform to the requirements of ASTM A706 Grade 60. See Special Provisions.

Reinforcement Bars designated (E) shall be epoxy coated.

No in-stream work will be allowed in this project

The Contractor shall be responsible for maintaining the stability and structural integrity of the existing structure, in accordance with the project specifications.

Temporary Shoring and Cribbing required to complete bearing replacement and/or Structural Repair of Concrete (Depth Equal to or Less Than 5 inches) shall not be paid for separately but shall be included in the cost of Jack and Remove Existing Bearings. When doing the pier repair and bearing replacement at the same time, the structure shall not be jacked up from the pier, the weight must be taken off of the pier, in the area of the repair of the pier. Concrete must be cured to minimum strength for the repair before bearing can be replaced and weight put back on the pier, according to special provisions.

All structural steel shall be shop painted with the inorganic zinc rich primer per AASHTO M300, Type 1. Cost included with Furnishing and Erecting Structural Steel.

All structural steel shall conform to AASHTO Classification M-270 Gr. 36 unless otherwise noted.

Joint openings shall be adjusted according to Article 520.04 of the Std. Specs. when the deck is poured at an ambient temperature other than 50°F.

(Finger plate or Modular) expansion joints shall be assembled in their final relative position with the ends in place for shop inspection and acceptance.

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.

Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.

The existing structural steel coating contains lead. The Contractor shall take the appropriate precautions to deal with the presence of lead on this project.

The contractor shall exercise extreme care with the existing conduits in sections of the parapet to be removed and to protect and support the conduit. The Contractor will be required to repair any damage done to the conduit to the satisfaction of the Engineer at no additional cost to the Department. No splicing will be allowed to any cable damage resulting from this work, instead the Contractor will be required to repair the entire span of any damaged cable at no additional cost to the Department.

If the analysis submitted to the Contractor for the jacking/temporary support system to be used shows temporary stiffeners are required to prevent web crippling or buckling, the stiffeners shall be steel and bolted to the web. If stiffeners are not required, hardwood timbers shall be installed tightly between the top and bottom flange to prevent flange rotation.

INDEX OF SHEETS

1. General Plan and Elevation
2. General Data and Bill of Material
3. Stage Construction Details
4. Temporary Concrete Barrier Details
5. Superstructure Details
6. Expansion Joint Details
7. Deck Repair and Bearing Replacement
8. Bearing Details for South Abutment and Pier 4
9. Bearing Details for Pier 7
10. Bearing Details for Pier 10
11. Bearing Details for North Abutment
12. South Abutment Details
13. North Abutment Details 1 of 2
14. North Abutment Details 2 of 2
15. Pier 4 Repair
16. Pier 7 Repair
17. Pier 10 Repair
18. Bar Splicer Assembly Details

SCOPE OF WORK

1. Remove concrete deck and parapet adjacent to expansion joints.
2. Provide Preformed Joint Strip Seal expansion joints and Modular Expansion Joints at the correct corresponding locations provided in the plans.
3. Replace concrete deck and parapet adjacent to expansion joints.
4. Apply 1/2" scarification to deck slab.
5. Repair deck slab.
6. Place 2 1/4" Latex Concrete Overlay on bridge deck.
7. Apply protective coat and bridge deck grooving to top of bridge deck overlay and new concrete at joints.
8. Jack and remove existing bearings at expansion joints and replace with elastomeric bearings.
9. Repair deteriorated concrete at piers.

TOTAL BILL OF MATERIAL

| ITEM | UNIT | SUPER | SUB | TOTAL |
|--|---------|-------|------|-------|
| Concrete Removal | Cu. Yd. | 36.5 | | 36.5 |
| Protective Shield | Sq. Yd. | 2152 | | 2152 |
| Concrete Superstructure | Cu. Yd. | 41.8 | | 41.8 |
| Bridge Deck Grooving | Sq. Yd. | 5967 | | 5967 |
| Protective Coat | Sq. Yd. | 5985 | | 5985 |
| Furnishing and Erecting Structural Steel | Pound | | 7833 | 7833 |
| Jack and Remove Existing Bearings | Each | | 35 | 35 |
| Reinforcement Bars, Epoxy Coated | Pound | 5940 | | 5940 |
| Bar Splicers | Each | 91 | | 91 |
| Preformed Joint Strip Seal | Foot | 168 | | 168 |
| Elastomeric Bearing Assembly, Type I | Each | | 10 | 10 |
| Elastomeric Bearing Assembly, Type II | Each | | 20 | 20 |
| Elastomeric Bearing Assembly, Type III | Each | | 5 | 5 |
| Anchor Bolts, 1" | Each | | 90 | 90 |
| Bridge Deck Latex Concrete Overlay, 2 1/4" | Sq. Yd. | 5883 | | 5883 |
| Structural Repair of Concrete (Depth Equal to or Less Than 5 inches) | Sq. Ft. | | 213 | 213 |
| Bridge Deck Hydro-Scarification 1/2" | Sq. Yd. | 5883 | | 5883 |
| Deck Slab Repair (Full Depth, Type II) | Sq. Yd. | 23 | | 23 |
| Deck Slab Repair (Partial) | Sq. Yd. | 14 | | 14 |
| Modular Expansion Joint 6" | Foot | 42 | | 42 |

** Quantity of Deck Slab Repair (Partial) is for information only.

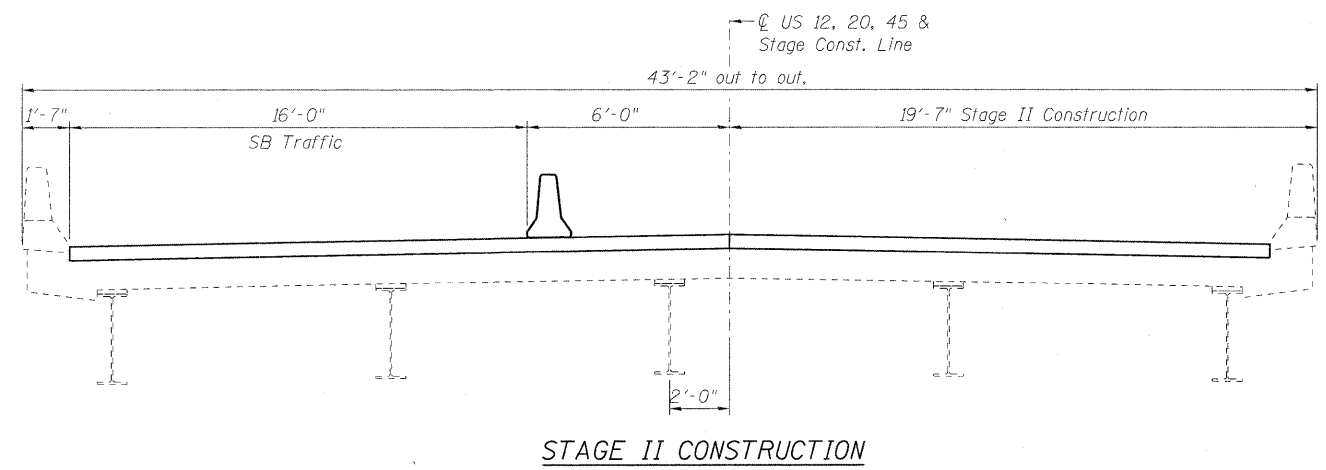
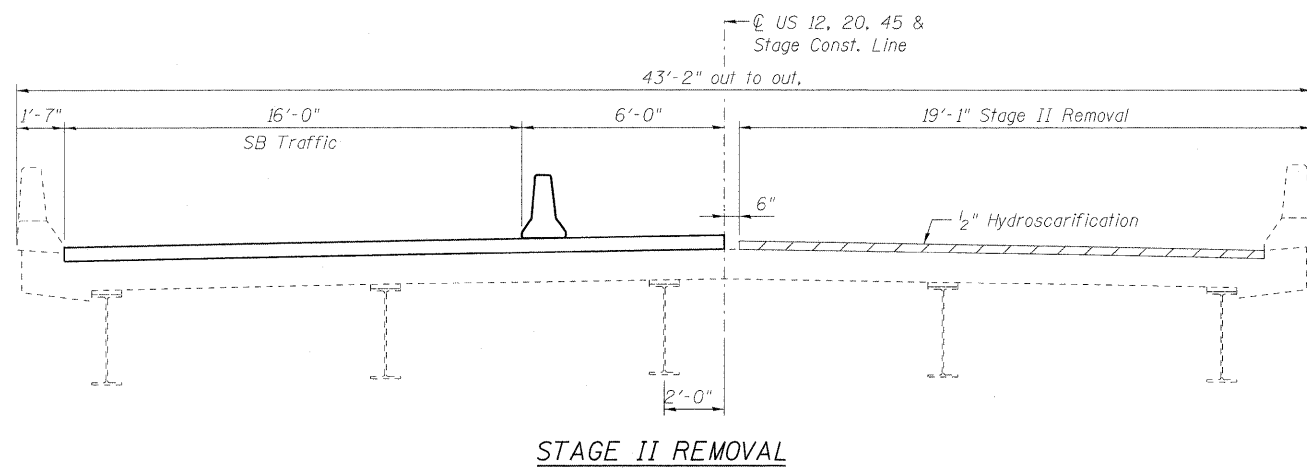
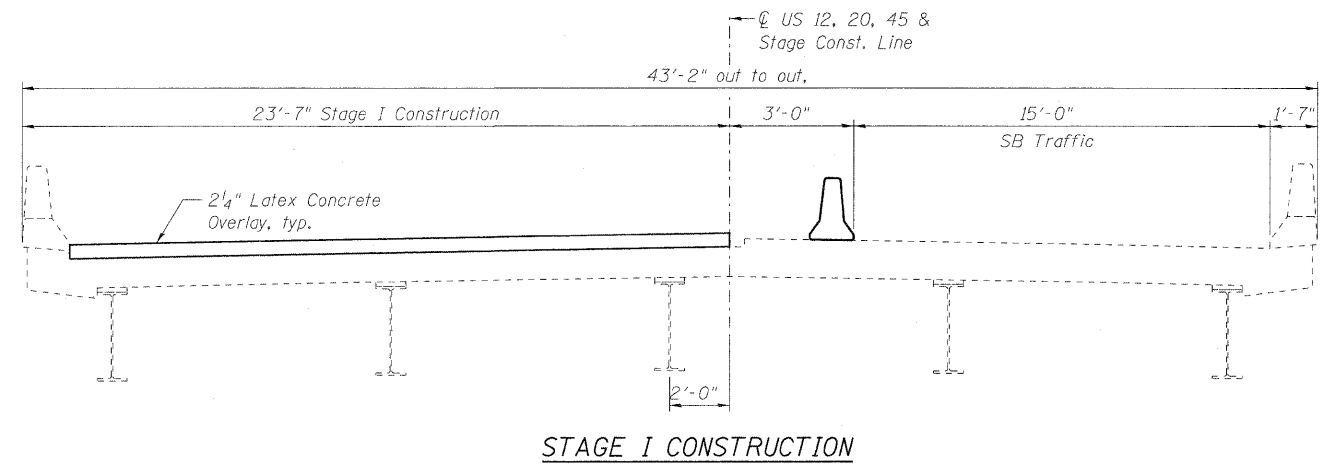
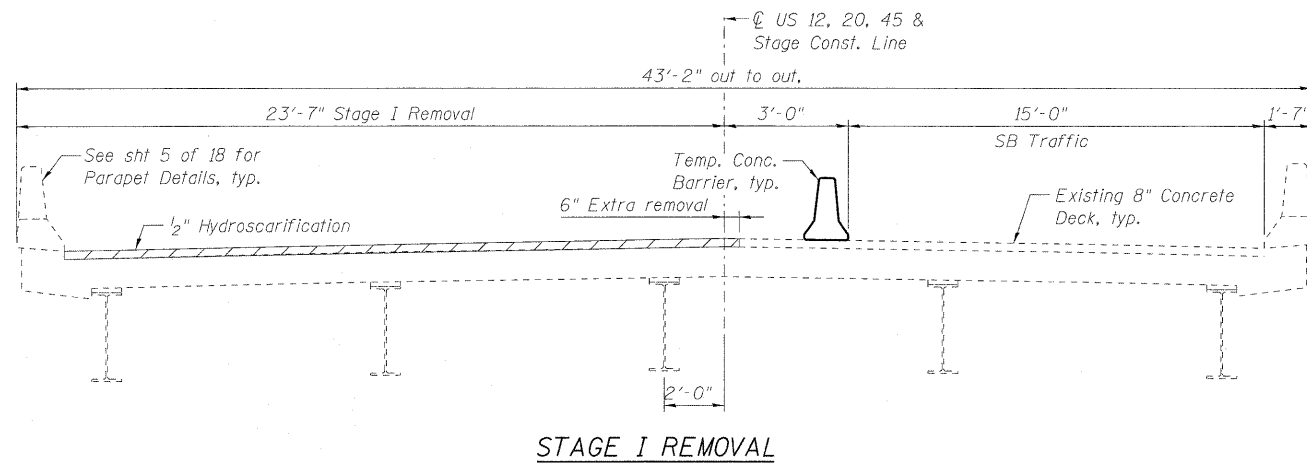
| | |
|------------|-----|
| DESIGNED - | SLV |
| CHECKED - | DJB |
| DRAWN - | SLV |
| CHECKED - | DJB |

LOXCO, INC.
CONSULTING ENGINEERS
1560 WALL ST, SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

GENERAL DATA
STRUCTURE NO. 016-2406

| | | | | | |
|---------------------------------|-------------|-------------|------------------|--------------------|-----------|
| SHEET NO. 2 OF 18 SHEETS | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 330 | 462 X-B-I-1 | COOK | 41 | 18 |
| | D-91-228-10 | | | CONTRACT NO. 60J38 | |
| FED. ROAD DIST. NO. _ | | ILLINOIS | FED. AID PROJECT | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



NOTES

All Cross Sections looking North.
For quantity of Temporary Concrete Barrier see Roadway Plans.
For Temporary Concrete Barrier details see Sheet 4 of 18.

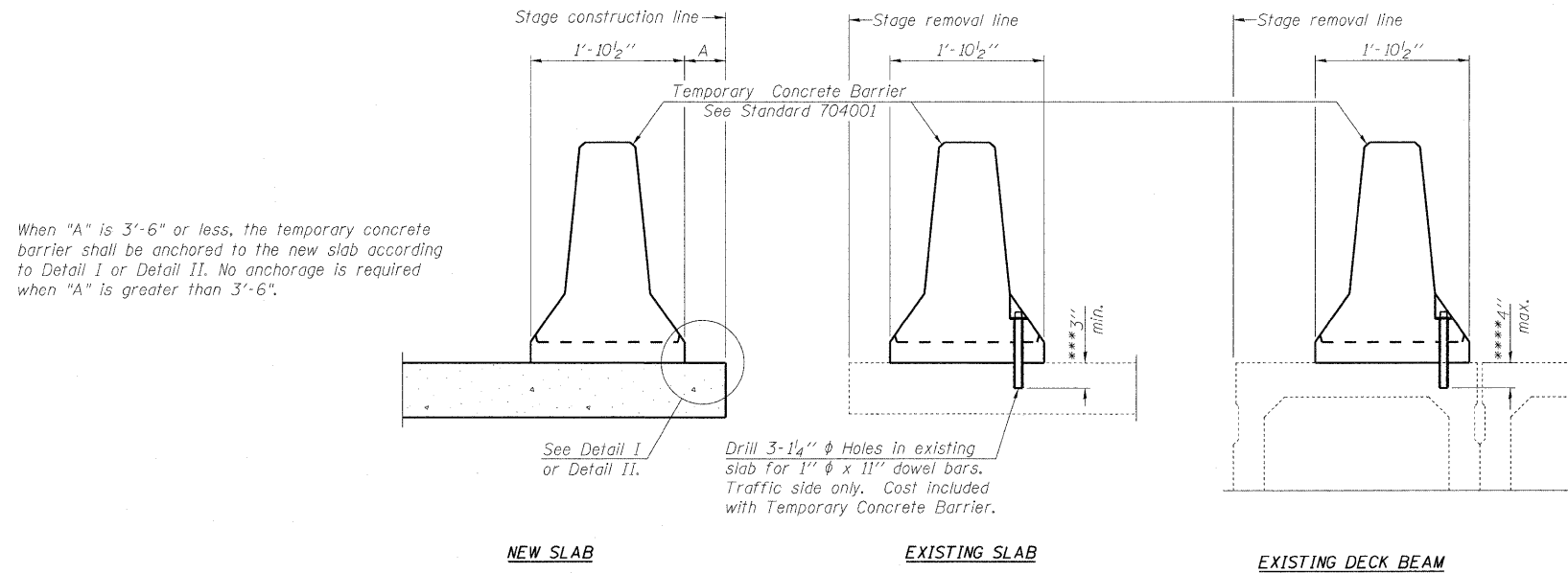
| | |
|------------|-----|
| DESIGNED - | SLV |
| CHECKED - | DJB |
| DRAWN - | SLV |
| CHECKED - | DJB |

LONCO, INC.
CONSULTING ENGINEERS
1560 WALL ST, SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

**STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 016-2406**

| | | | | | |
|---|----------------|-------------|--------------------|-----------------|--------------|
| SHEET NO. 3 OF 18 SHEETS | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 330 | 462 X-B-I-1 | COOK | 41 | 19 |
| D-91-228-10 | | | CONTRACT NO. 60J38 | | |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SECTIONS THRU SLAB OR DECK BEAM

NOTES

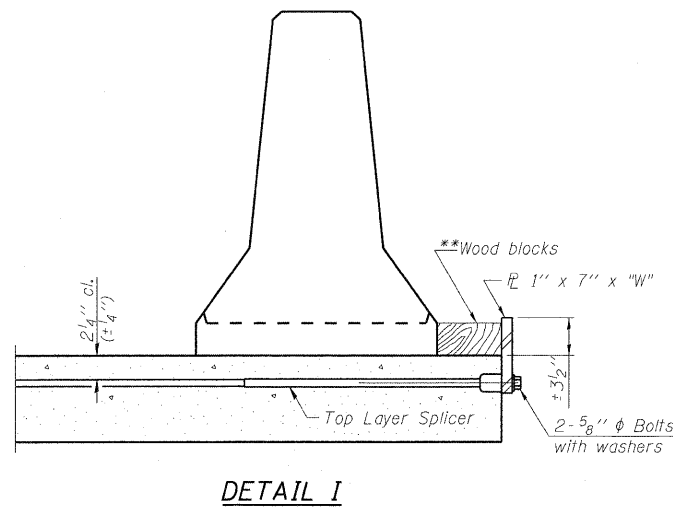
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel \bar{r} to the top layer of couplers with 2-5/8" ϕ bolts screwed to coupler at approximate \bar{c} of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel \bar{r} to the concrete slab or concrete wearing surface with 2-5/8" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate \bar{c} of each barrier panel.

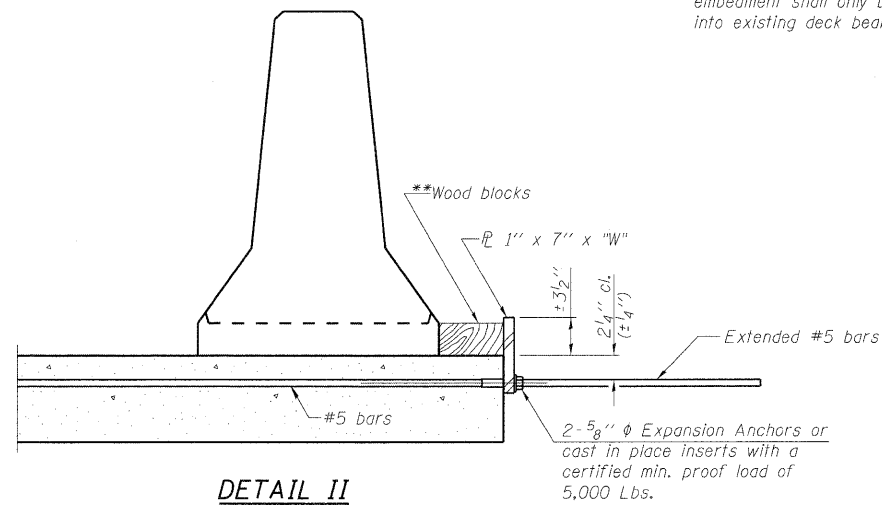
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

*** Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



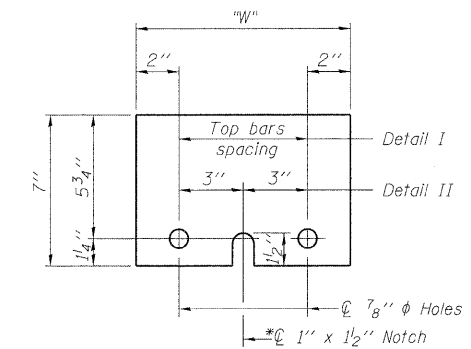
DETAIL I



DETAIL II

** Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

"W" = Top bars spacing + 4"



STEEL RETAINER \bar{r} 1" x 7" x 10"

* Required only with Detail II

| | |
|------------|-----|
| DESIGNED - | SLV |
| CHECKED - | DJB |
| DRAWN - | SLV |
| CHECKED - | DJB |

LONCO, INC.
CONSULTING ENGINEERS
1560 WALL ST, SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

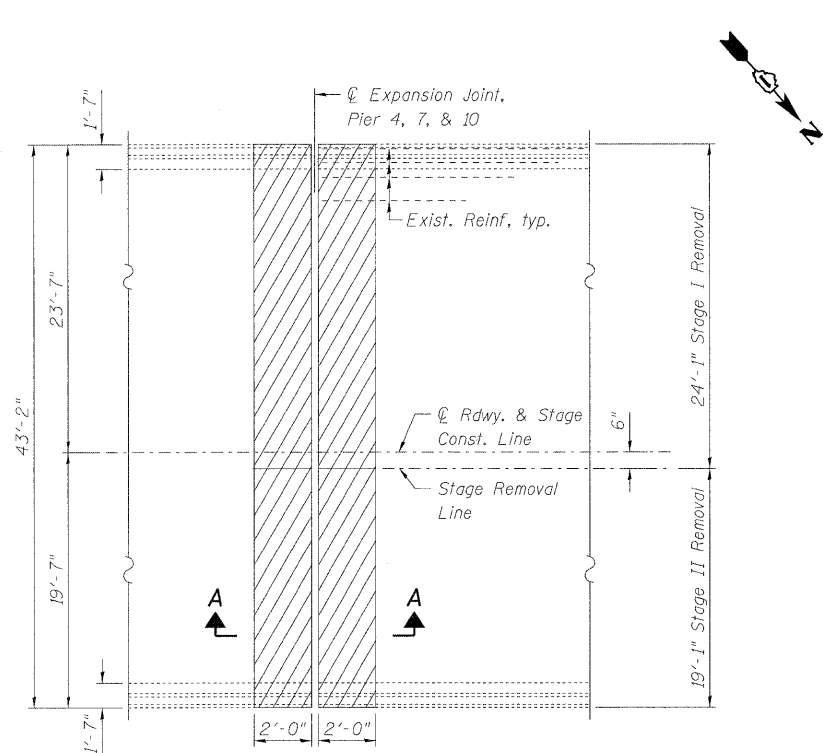
R-27

11-1-09

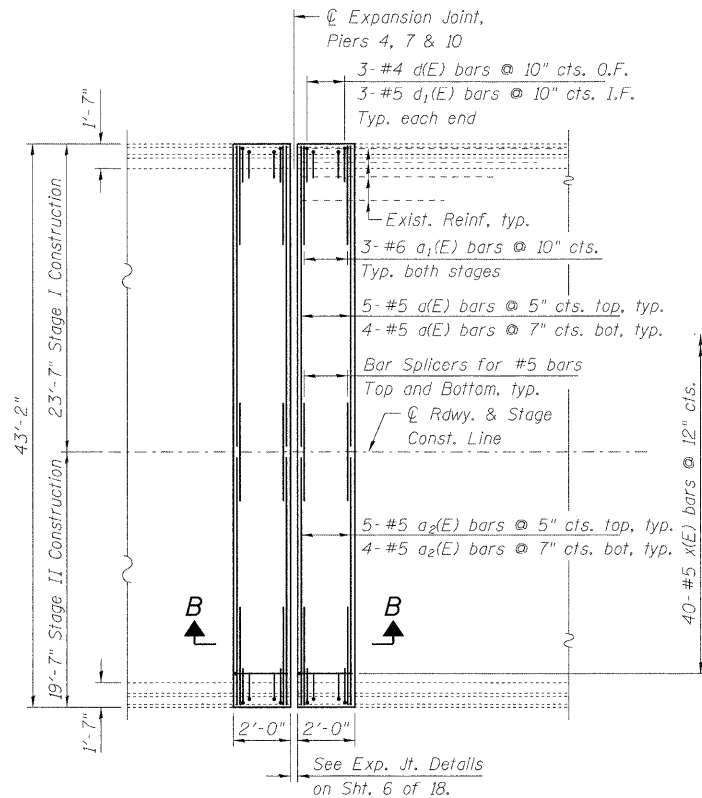
TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
STRUCTURE NO. 016-2406

| | | | | | |
|-----------------------------|-------------|-------------|--------------------|--------------|-----------|
| SHEET NO. 4 OF 18 SHEETS | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 330 | 462 X-B-I-1 | COOK | 41 | 20 |
| D-91-228-10 | | | CONTRACT NO. 60J38 | | |
| FED. ROAD DIST. NO. _ | | ILLINOIS | FED. AID PROJECT | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



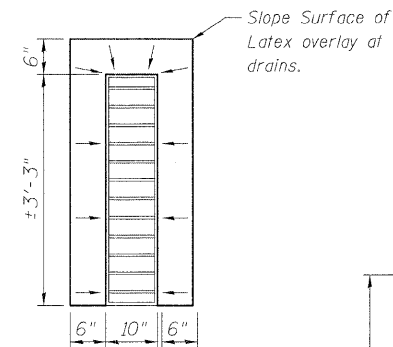
**PARTIAL PLAN SHOWING CONCRETE
REMOVAL AT PIERS 4, 7, & 10**



**PARTIAL PLAN SHOWING CONCRETE
REPLACEMENT AT PIERS 4, 7, & 10**

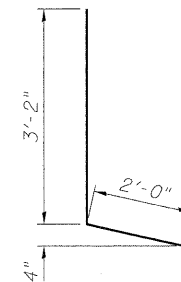
NOTES

Hatched areas indicated concrete sections to be removed and replaced. Perimeters of concrete removal areas shall be saw cut $\frac{3}{4}$ " prior to removal of the concrete. Existing reinforcement shall be cleaned, straightened (if required) and incorporated into the new construction. Cost included with Concrete Removal.

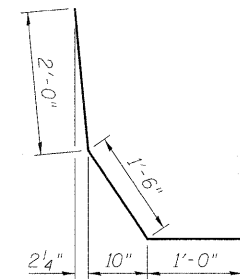


PLAN AT DRAINS

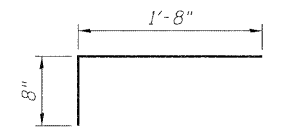
Note:
Min. thickness of overlay at drains shall be 1"



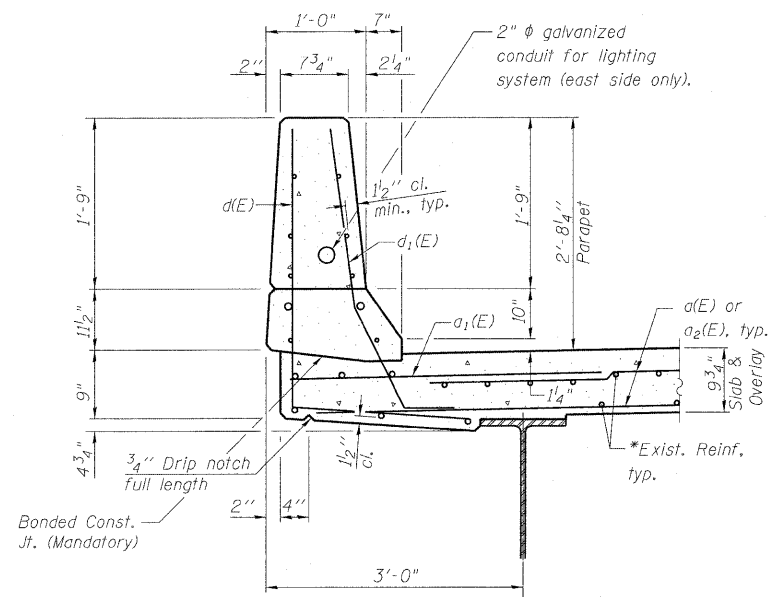
BAR d(E)



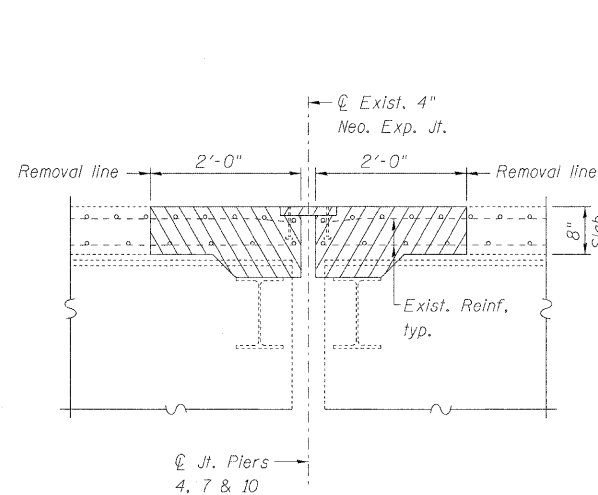
BAR d1(E)



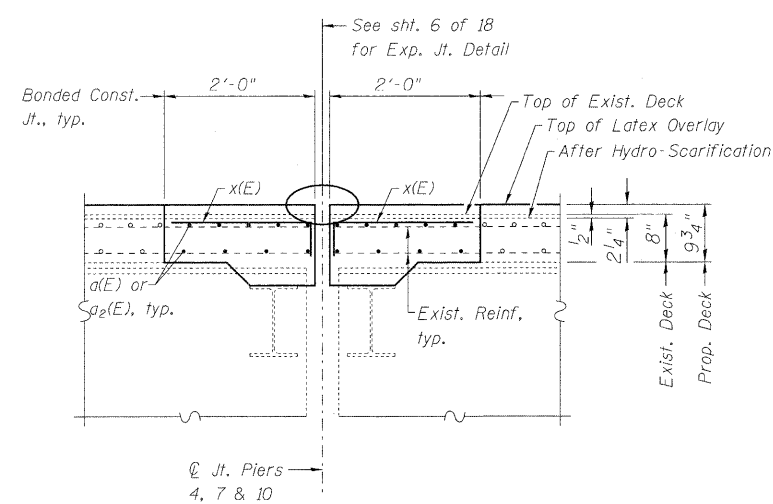
BAR x(E)



SECTION THRU PARAPET



SECTION A-A



SECTION B-B

BILL OF MATERIAL

| Bar | No. | Size | Length | Shape |
|----------------------------------|-----|------|---------|-------|
| d(E) | 54 | #5 | 22'-1" | — |
| a1(E) | 36 | #6 | 6'-0" | — |
| a2(E) | 54 | #5 | 18'-1" | — |
| d(E) | 36 | #4 | 5'-2" | — |
| d1(E) | 36 | #5 | 4'-6" | — |
| x(E) | 240 | #5 | 2'-4" | — |
| Concrete Removal | | | Cu. Yd. | 18.3 |
| Concrete Superstructure | | | Cu. Yd. | 21.4 |
| Bar Splicers | | | Each | 54 |
| Reinforcement Bars, Epoxy Coated | | | Pound | 3460 |

**SUPERSTRUCTURE DETAILS
STRUCTURE NO. 016-2406**

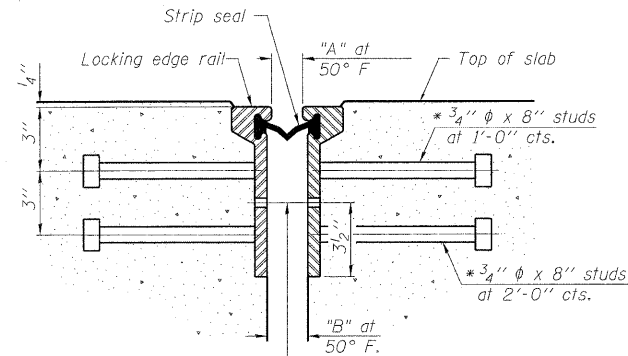
| | |
|------------|-----|
| DESIGNED - | SLV |
| CHECKED - | DJB |
| DRAWN - | SLV |
| CHECKED - | DJB |

LONCO, INC.
CONSULTING ENGINEERS
1560 WALL ST, SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

| | | | | | |
|---|----------------|-------------|--------------------|-----------------|--------------|
| SHEET NO. 5 OF 18 SHEETS | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 330 | 462 X-B-I-1 | COOK | 41 | 21 |
| D-91-228-10 | | | CONTRACT NO. 60J38 | | |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | | |

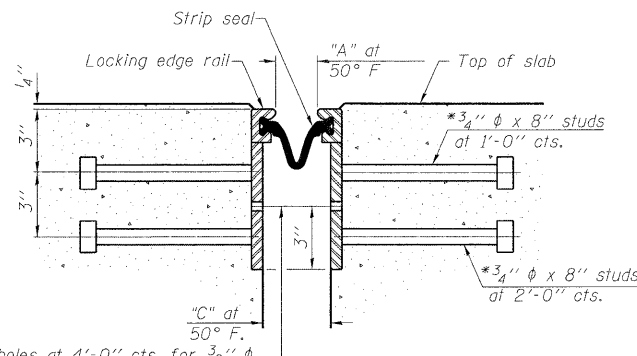
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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



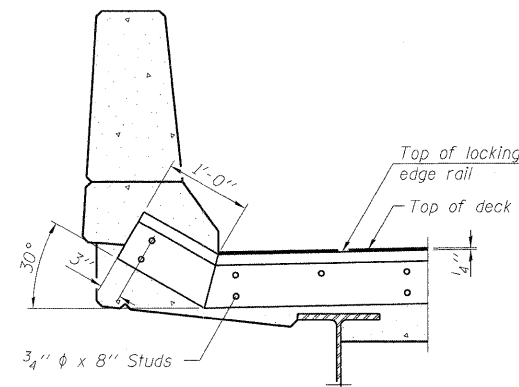
7/16 inch diameter holes at 4 foot 0 inch centers for 3/8 inch diameter bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

SECTION THRU
ROLLED RAIL JOINT



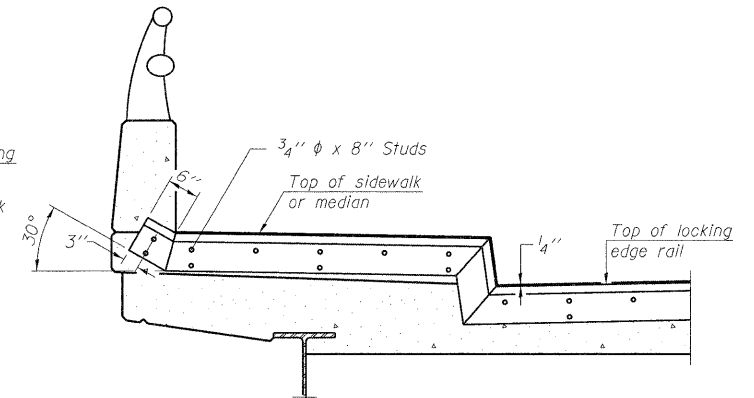
7/16 inch diameter holes at 4 foot 0 inch centers for 3/8 inch diameter bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

SECTION THRU
WELDED RAIL JOINT



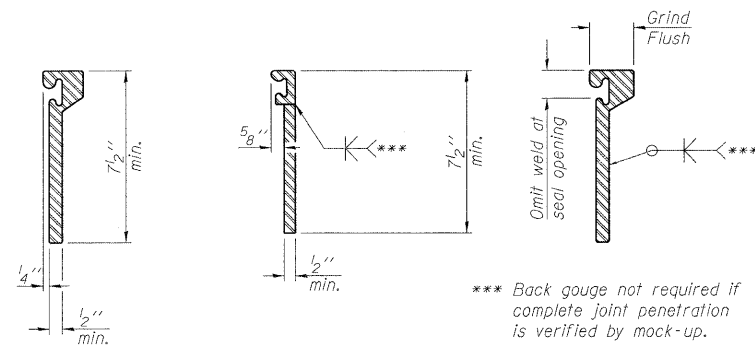
AT PARAPET

See Section A-A for end treatment of skews > 30°.



AT SIDEWALK OR MEDIAN

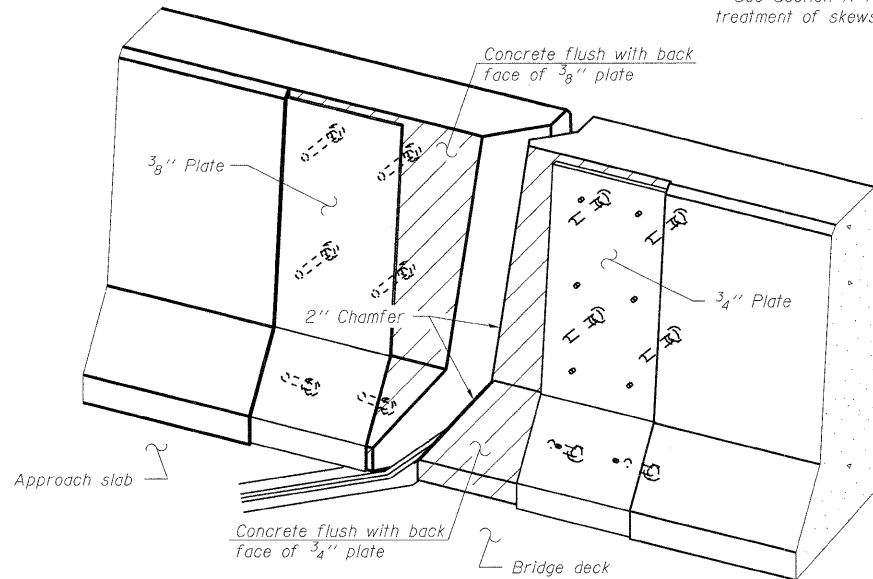
Shorter plates with a single row of studs at 12 inch centers may be necessary on medians which are shallower than 9 inches. See manufacturer's recommendation.



ROLLED
EXTRUDED RAIL WELDED RAIL

LOCKING EDGE
RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue.
Rolled rail shown, welded rail similar.

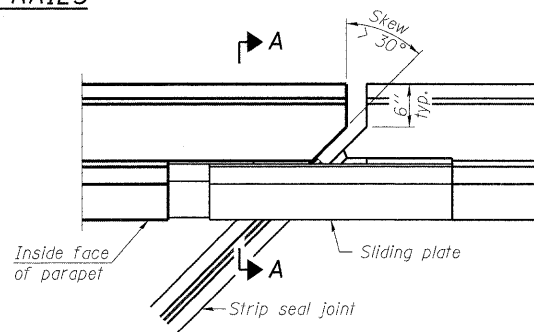


TYPICAL END TREATMENTS

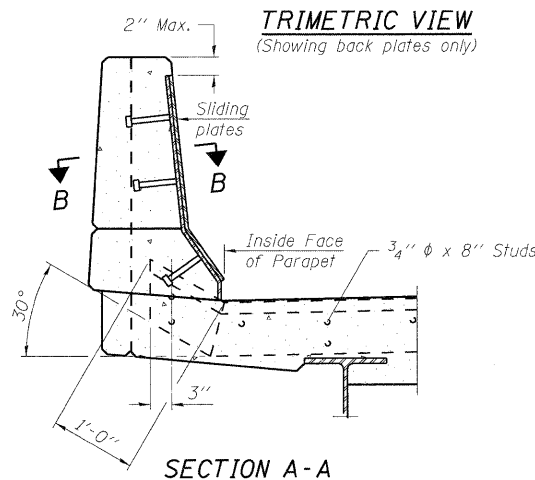
Notes:
The strip seal shall be made continuous and shall have a minimum thickness of 1/4 inch. The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.
The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.
The manufacturer's recommended installation methods shall be followed.
The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.
All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.
Maximum space between rail segments at stage lines shall be 3/16 inch, sealed with a suitable sealant.

JOINT OPENING DIMENSIONS

| Joint Location | A | B | C |
|----------------|--------|--------|--------|
| S. Abut | 1 1/2" | 2" | 2 3/4" |
| Pier 4 | 2 3/8" | 2 7/8" | 3 5/8" |
| Pier 7 | 1 3/4" | 2 1/4" | 3" |
| Pier 10 | 2" | 2 1/2" | 3 1/4" |

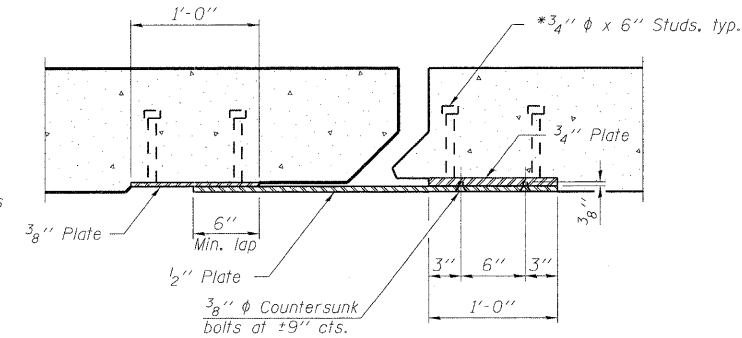


PLAN



SECTION A-A

POINT BLOCK DETAILS
(for skews > 30°)



SECTION B-B

BILL OF MATERIAL

| Item | Unit | Total |
|----------------------------|------|-------|
| Preformed Joint Strip Seal | Foot | 168 |

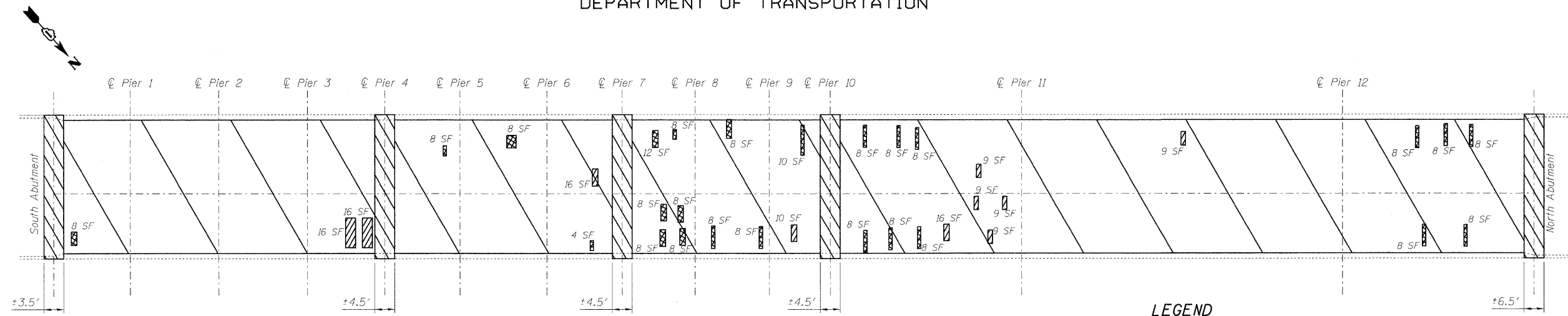
EXPANSION JOINT DETAILS
STRUCTURE NO. 016-2406

| | |
|------------|-----|
| DESIGNED - | SLV |
| CHECKED - | DJB |
| DRAWN - | SLV |
| CHECKED - | DJB |

LONGO, INC.
CONSULTING ENGINEERS
1560 WALL ST, SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

| | | | | | |
|---|----------------|-------------|--------------------|-----------------|--------------|
| SHEET NO. 6 OF 18 SHEETS | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 330 | 462 X-B-I-1 | COOK | 41 | 22 |
| D-91-228-10 | | | CONTRACT NO. 60J38 | | |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



DECK REPAIR PLAN

LEGEND

- Deck Slab Repair (Partial)
- Deck Slab Repair (Full Depth, Type II)
- Concrete Removal and Concrete Superstructure
- Bridge Deck Latex Concrete Overlay

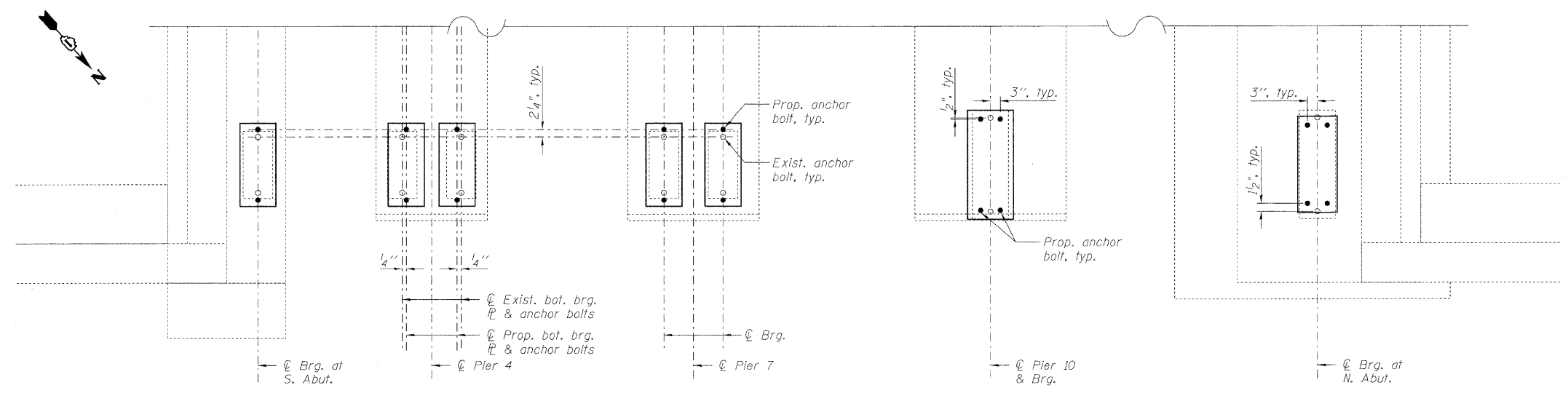
NOTES

See sht. 8-11 of 18 for bearing details for S. Abut, Pier 4, Pier 7, Pier 10 and N. Abut

BILL OF MATERIAL

| Item | Unit | Total |
|--|---------|-------|
| Deck Slab Repair (Partial) | Sq. Yd. | 14 |
| Deck Slab Repair (Full Depth, Type II) | Sq. Yd. | 23 |
| Bridge Deck Grooving | Sq. Yd. | 5967 |
| Bridge Deck Latex Concrete Overlay, 2 1/4" | Sq. Yd. | 5883 |

The Engineer shall record the actual Deck Slab Repair areas in the plans. Patches shown are taken from exist. inspection reports. Full depth patches shall only be used in areas where Hydro-Scarification reveals or produces unsound concrete as determined by the Engineer. Quantity for Deck Slab Repair (Partial) is for information only.



PARTIAL PLAN BEARING REPLACEMENTS

No. of Brg. Replacements

| Location | No. of Brg. to be Replaced |
|----------|----------------------------|
| S. Abut | 5 |
| Pier 4 | 10 |
| Pier 7 | 10 |
| Pier 10 | 5 |
| N. Abut | 5 |

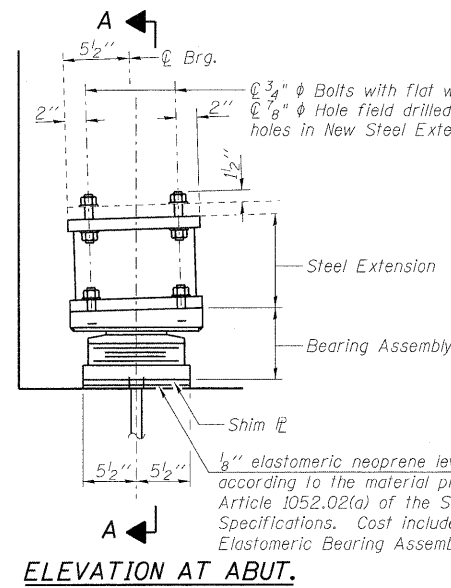
DECK REPAIR AND BEARING REPLACEMENT STRUCTURE NO. 016-2406

| | |
|------------|-----|
| DESIGNED - | SLV |
| CHECKED - | DJB |
| DRAWN - | SLV |
| CHECKED - | DJB |

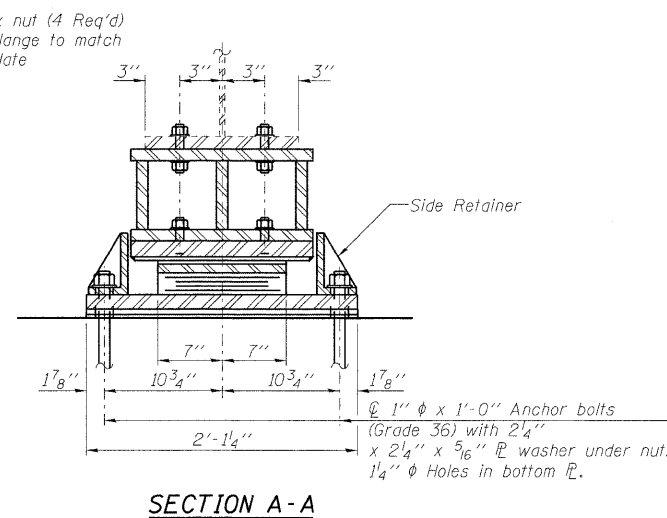
LOXCO, INC.
CONSULTING ENGINEERS
1560 WALL ST, SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

| | | | | | |
|---|-------------|-------------|--------------------|--------------|-----------|
| SHEET NO. 7 OF 18 SHEETS | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 330 | 462 X-B-I-1 | COOK | 41 | 23 |
| D-91-228-10 | | | CONTRACT NO. 60J38 | | |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | | |

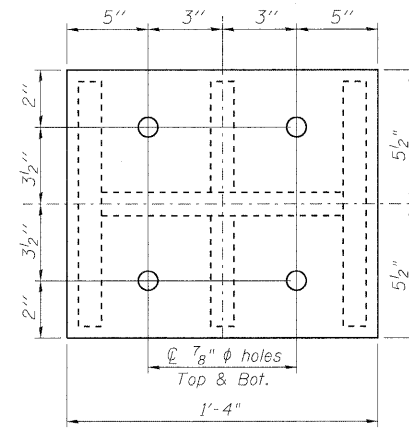
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



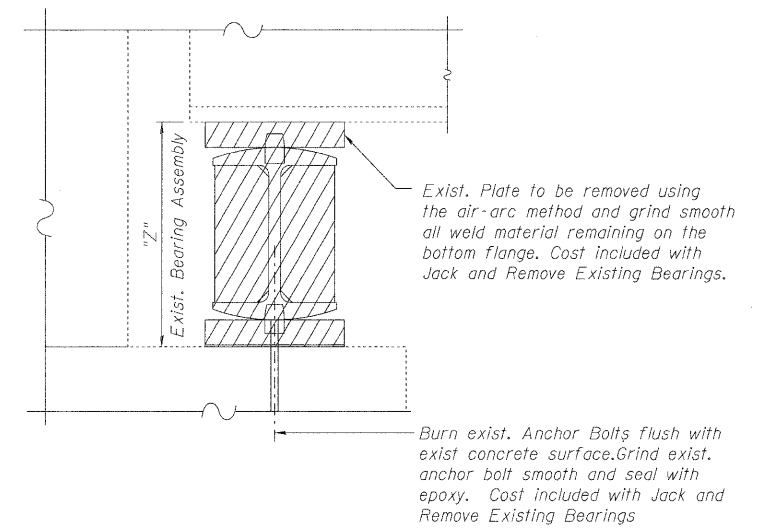
TYPE II ELASTOMERIC EXP. BRG.



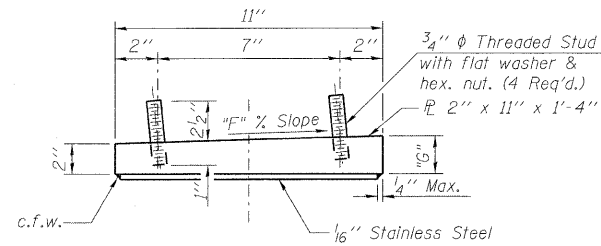
SECTION A-A



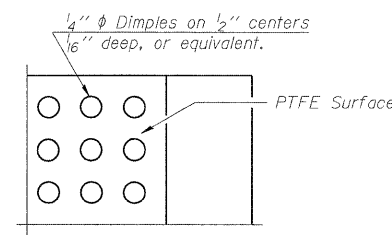
PLAN STEEL EXTENSION



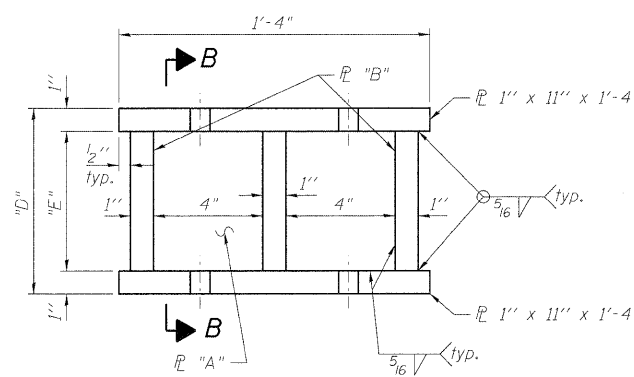
EXISTING BEARING REMOVAL DETAIL



TOP BEARING ASSEMBLY



PLAN-PTFE SURFACE



ELEVATION STEEL EXTENSION

Note:

Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.

EXISTING BEARING HEIGHTS

| Location | Z |
|-----------|-----------|
| S. Abut | 1'-2 1/2" |
| Pier 4 S. | 1'-2 1/2" |
| Pier 4 N. | 1'-2 1/8" |

NOTES

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

Anchor bolts for Type II bearings shall be placed in holes drilled in the concrete through holes in the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.

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

Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type II.

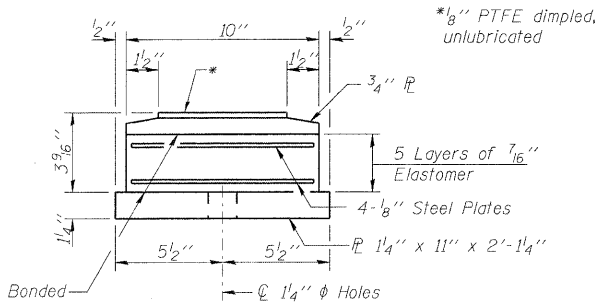
The 1/8" PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

Bonding of 1/8" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

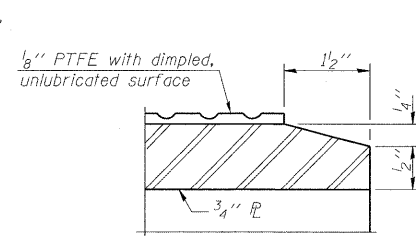
Steel Extensions and fasteners shall be included in the cost of Furnishing and Erecting Structural Steel.

Fasteners shall be AASHTO M164 Type I, mechanically galvanized bolts.

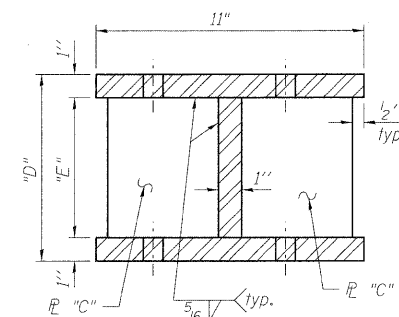
The Contractor is to verify the existing dimensions prior to fabricating the steel extensions. It is intended to keep the existing beams at their current elevation.



BOTTOM BEARING ASSEMBLY



SECTION THRU PTFE



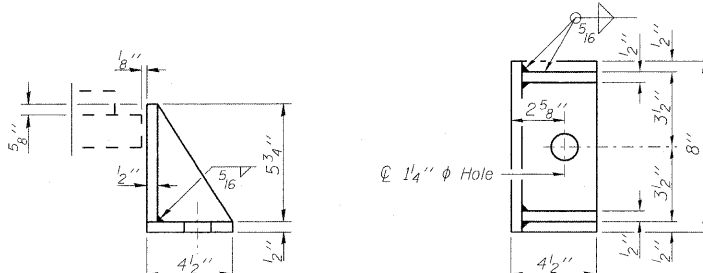
SECT B-B

STEEL EXTENSION DIMENSION TABLE

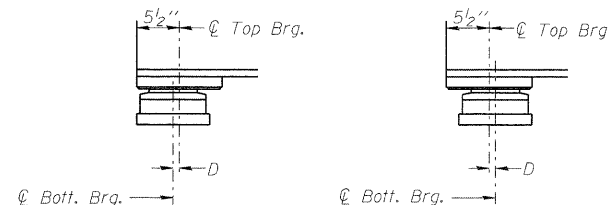
| Location | ϕ "A" | ϕ "B" | ϕ "C" | "D" | "E" | "F" % | "G" |
|-----------|---------------------|----------------------|-------------------------|--------|--------|-------|--------|
| S. Abut | 1" x 5 1/2" x 1'-1" | 1" x 5 1/2" x 0'-10" | 1" x 5 1/2" x 0'-4 1/2" | 7 1/2" | 5 1/2" | 2.76 | 2 3/8" |
| Pier 4 S. | 1" x 5 1/2" x 1'-1" | 1" x 5 1/2" x 0'-10" | 1" x 5 1/2" x 0'-4 1/2" | 7 1/2" | 5 1/2" | 2.59 | 2 3/8" |
| Pier 4 N. | 1" x 5 1/2" x 1'-1" | 1" x 5 1/2" x 0'-10" | 1" x 5 1/2" x 0'-4 1/2" | 7 1/2" | 5 1/2" | 2.20 | 2 1/4" |

GIRDER REACTION TABLE

| | S. Abut | Pier 4 S | Pier 4 N |
|---------------------------|---------|----------|----------|
| Dead Load (K) | 39.2 | 39.2 | 38.7 |
| Live Load (K) | 54.8 | 54.8 | 54.8 |
| Impact (K) | 14.2 | 14.2 | 14.3 |
| Total (K) | 108.2 | 108.2 | 107.8 |
| Min. Jack Capacity (Tons) | 56 | 56 | 56 |



SIDE RETAINER
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



BELOW 50°F.

ABOVE 50°F.

SETTING ANCHOR BOLTS AT EXP. BRG.

D=1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

| | |
|----------|-----|
| DESIGNED | SLV |
| CHECKED | DJB |
| DRAWN | SLV |
| CHECKED | DJB |

LOXCO, INC.
CONSULTING ENGINEERS
1560 WALL ST, SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

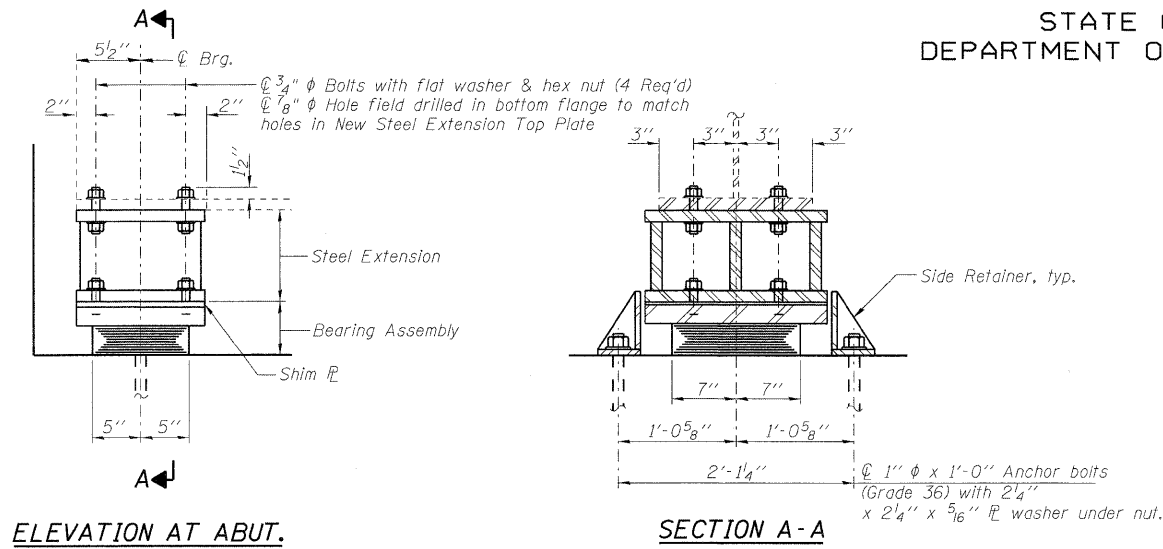
BILL OF MATERIAL

| Item | Unit | Total |
|--|-------|-------|
| Elastomeric Bearing Assembly Type II | Each | 15 |
| Anchor Bolts, 1" | Each | 30 |
| Jack and Remove Existing Bearings | Each | 15 |
| Furnishing and Erecting Structural Steel | Pound | 2502 |

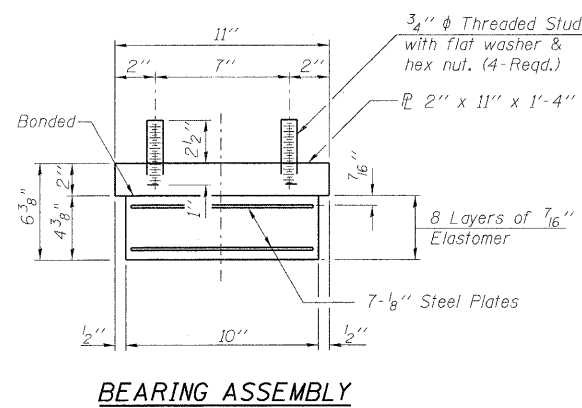
BEARING DETAILS FOR SOUTH ABUTMENT AND PIER 4 STRUCTURE NO. 016-2406

| SHEET NO. 8 OF 18 SHEETS | F.A.P. R.T.E. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---------------|-------------|--------------------|--------------|-----------|
| | 330 | 462 X-B-I-1 | COOK | 41 | 24 |
| D-91-228-10 | | | CONTRACT NO. 60J38 | | |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | | |

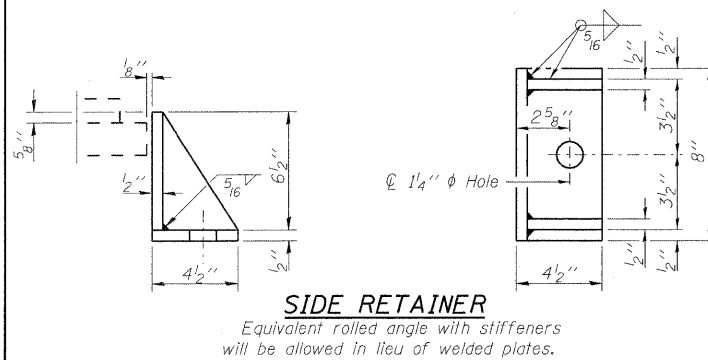
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



TYPE I ELASTOMERIC EXP. BRG.



Note:
Shim plates shall not be placed under Bearing Assembly.

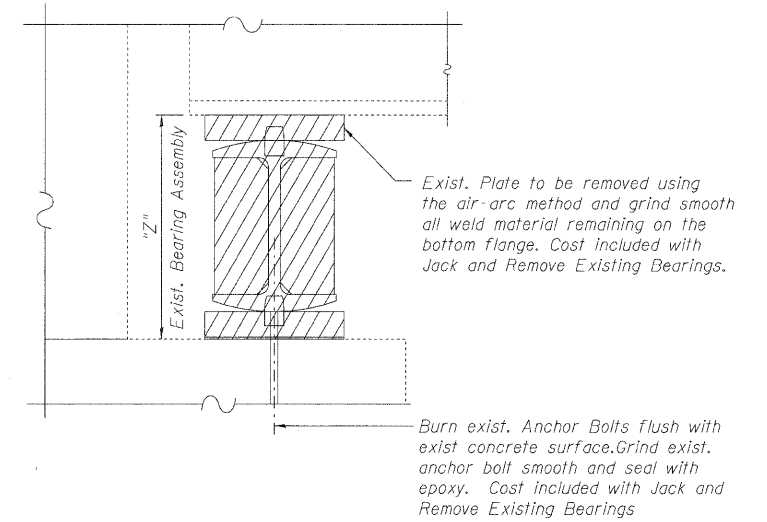
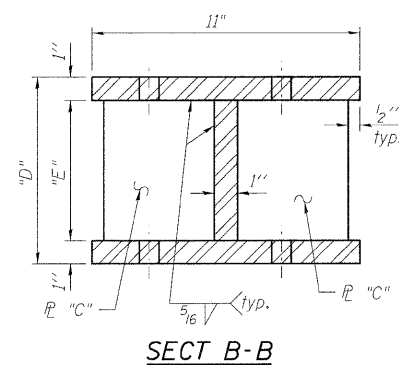
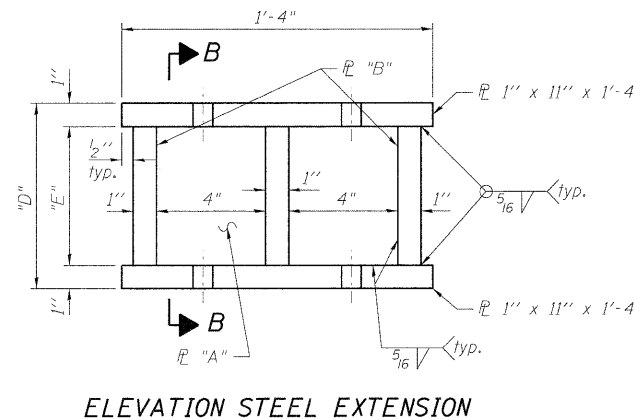
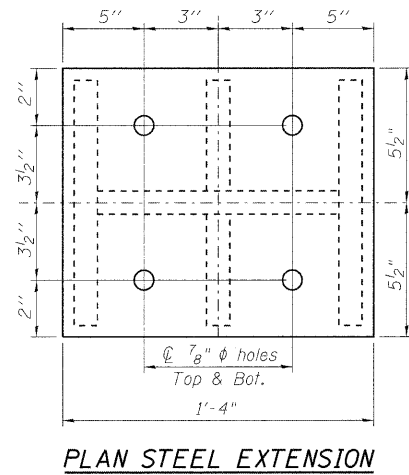


GIRDER REACTION TABLE

| | Pier 7 S | Pier 7 N |
|---------------------------|----------|----------|
| Dead Load (K) | 38.7 | 37.5 |
| Live Load (K) | 54.8 | 54.4 |
| Impact (K) | 14.3 | 14.3 |
| Total (K) | 107.8 | 106.2 |
| Min. Jack Capacity (Tons) | 56 | 56 |

STEEL EXTENSION DIMENSION TABLE

| Location | P "A" | P "B" | P "C" | Dim "D" | Dim "E" |
|-----------|---------------------|----------------------|-------------------------|---------|---------|
| Pier 7 S. | 1" x 6 1/2" x 1'-1" | 1" x 6 1/2" x 0'-10" | 1" x 6 1/2" x 0'-4 1/2" | 8 1/8" | 6 1/8" |
| Pier 7 N. | 1" x 6 3/4" x 1'-1" | 1" x 6 3/4" x 0'-10" | 1" x 6 3/4" x 0'-4 1/2" | 8 3/4" | 6 3/4" |



EXISTING BEARING REMOVAL DETAIL

Note:
Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.

EXISTING BEARING HEIGHTS

| Location | Z |
|-----------|-----------|
| Pier 7 S. | 1'-2 1/2" |
| Pier 7 N. | 1'-3 1/8" |

NOTES

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
 Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
 Anchor bolts for side retainers may be cast in place or installed in holes drilled before or after members are in place.
 Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
 Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.
 Steel Extensions and fasteners shall be included in the cost of Furnishing and Erecting Structural Steel.
 Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts.
 The Contractor is to verify the existing dimensions prior to fabricating the steel extensions. It is intended to keep the existing beams at their current elevation.

BILL OF MATERIAL

| Item | Unit | Total |
|--|-------|-------|
| Elastomeric Bearing Assembly Type I | Each | 10 |
| Anchor Bolts, 1" | Each | 20 |
| Jack and Remove Existing Bearings | Each | 10 |
| Furnishing and Erecting Structural Steel | Pound | 1765 |

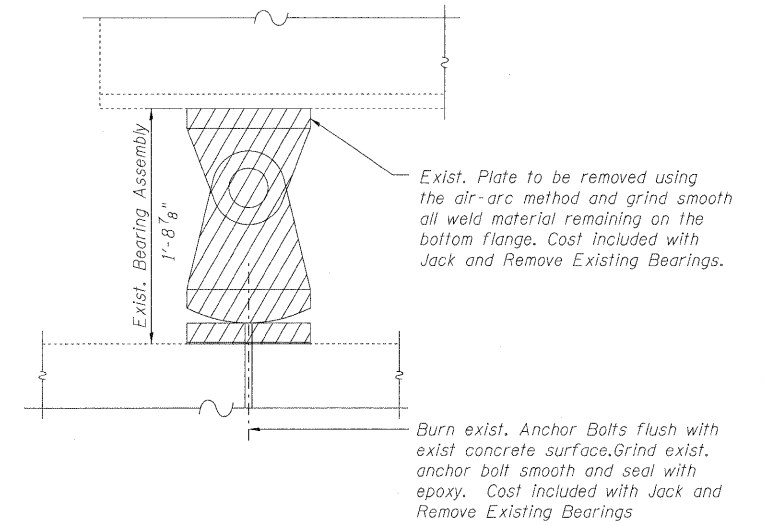
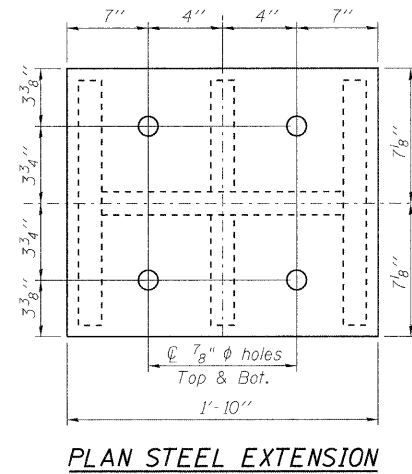
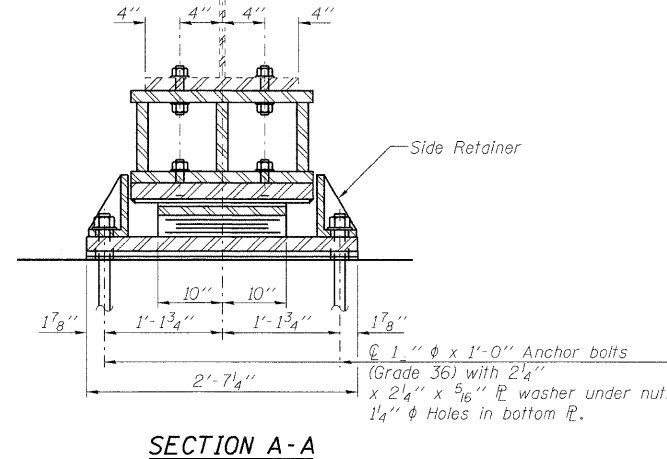
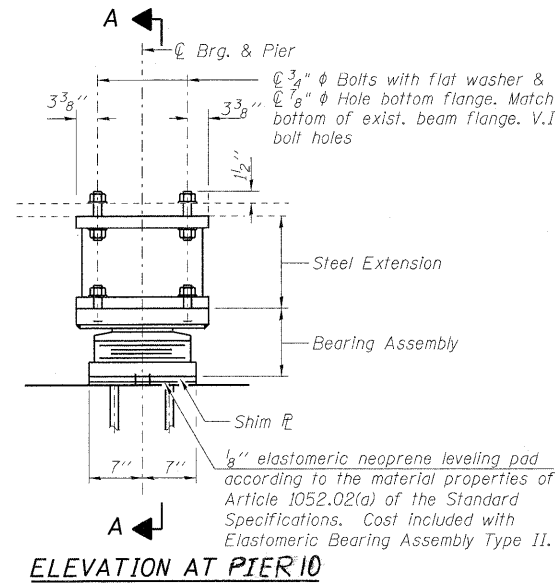
**BEARING DETAILS FOR PIER 7
STRUCTURE NO. 016-2406**

| | |
|----------|-----|
| DESIGNED | SLV |
| CHECKED | DJB |
| DRAWN | SLV |
| CHECKED | DJB |

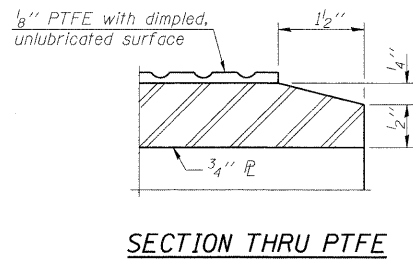
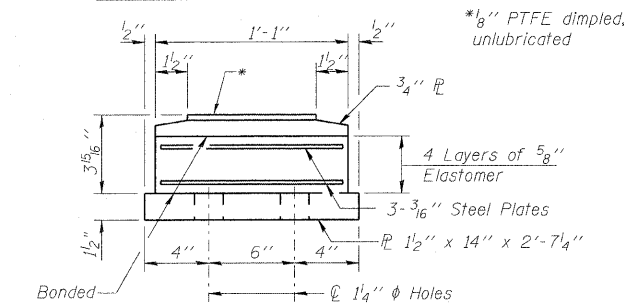
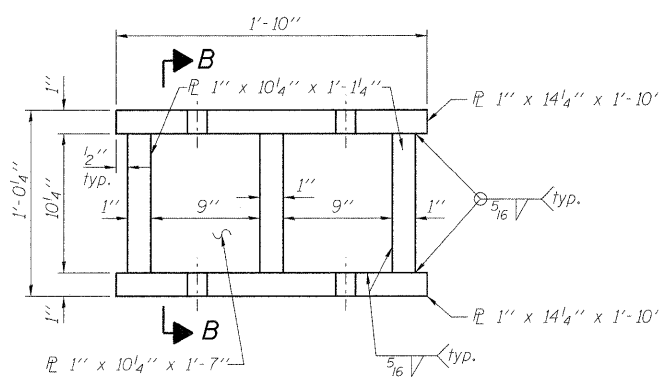
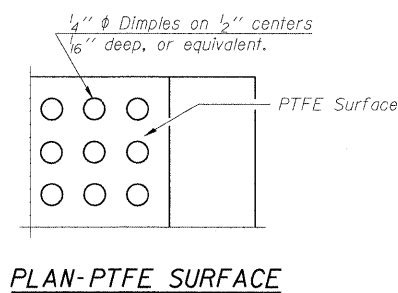
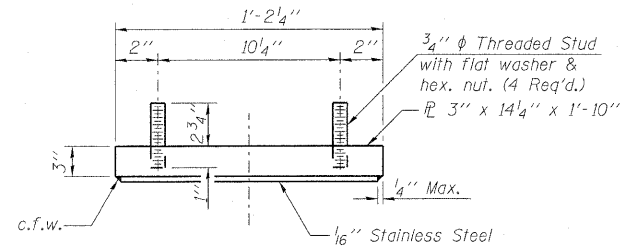
LOXCO, INC.
 CONSULTING ENGINEERS
 1560 WALL ST, SUITE 222
 NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

| | | | | | |
|-----------------------------|---|------------------------|--------------------|--------------------|-----------------|
| SHEET NO. 9 OF 18 SHEETS | F.A.P. RTE. 330 | SECTION 462 X-B-I-1 | COUNTY COOK | TOTAL SHEETS 41 | SHEET NO. 25 |
| | D-91-228-10 | | CONTRACT NO. 60J38 | | |
| | FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT | | | | |

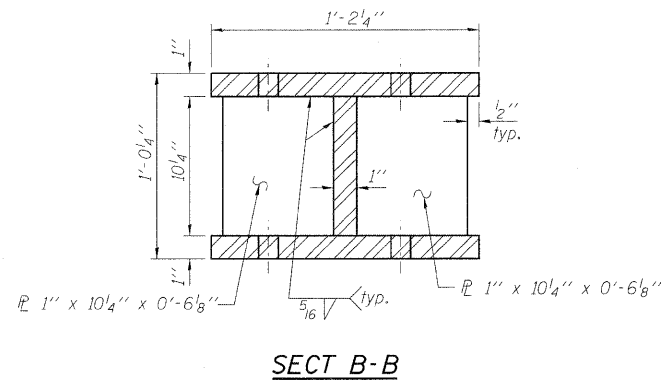
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



TYPE II ELASTOMERIC EXP. BRG.



ELEVATION STEEL EXTENSION



NOTES:
Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.

NOTES

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554. Anchor bolts for Type II bearings shall be placed in holes drilled in the concrete through holes in the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed. Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications. Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type II. The $\frac{1}{8}$ " PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces. Bonding of $\frac{1}{8}$ " PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer. Jacking of beams shall be done under built up plate girder, rather than WF beam.

BILL OF MATERIAL

| Item | Unit | Total |
|--|-------|-------|
| Elastomeric Bearing Assembly Type II | Each | 5 |
| Anchor Bolts, 1" | Each | 20 |
| Jack and Remove Existing Bearings | Each | 5 |
| Furnishing and Erecting Structural Steel | Pound | 1728 |

GIRDER REACTION TABLE

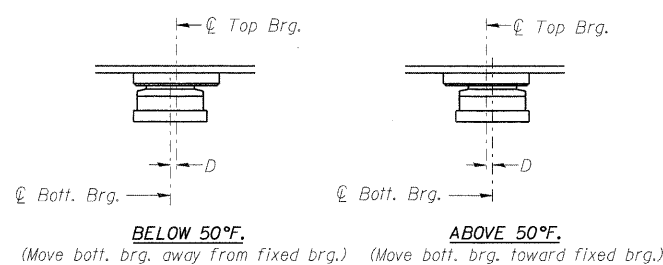
| | Pier 10 |
|---------------------------|---------|
| Dead Load (K) | 101.4 |
| Live Load (K) | 86.4 |
| Impact (K) | 12.1 |
| Total (K) | 199.9 |
| Min. Jack Capacity (Tons) | 114 |

BEARING DETAILS

**FOR PIER 10
STRUCTURE NO. 016-2406**

| | |
|------------|-----|
| DESIGNED - | SLV |
| CHECKED - | DJB |
| DRAWN - | SLV |
| CHECKED - | DJB |

LOXCO, INC.
CONSULTING ENGINEERS
1560 WALL ST, SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

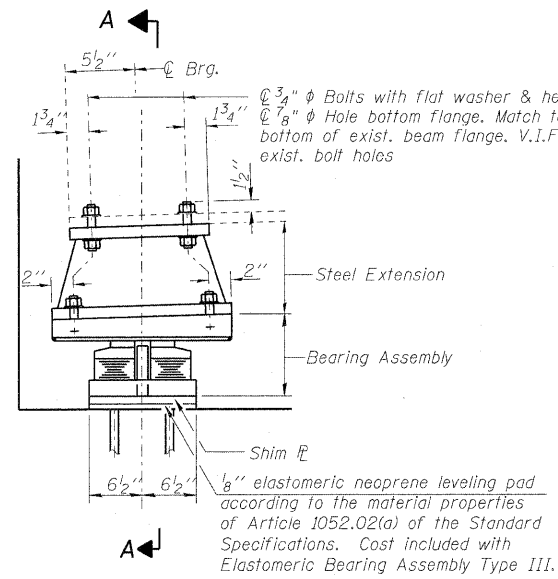


SETTING ANCHOR BOLTS AT EXP. BRG.

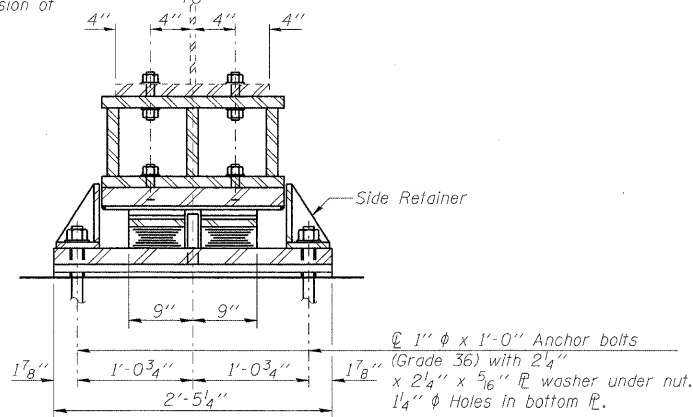
D = $\frac{1}{8}$ " per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

| SHEET NO. 10 | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|--------------|-------------|-----------------------|---------------------------|--------------|-----------|
| OF 18 SHEETS | 330 | 462 X-B-I-1 | COOK | 41 | 26 |
| | | D-91-228-10 | CONTRACT NO. 60J38 | | |
| | | FED. ROAD DIST. NO. _ | ILLINOIS FED. AID PROJECT | | |

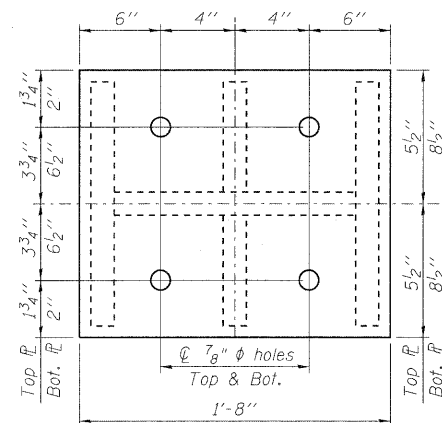
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



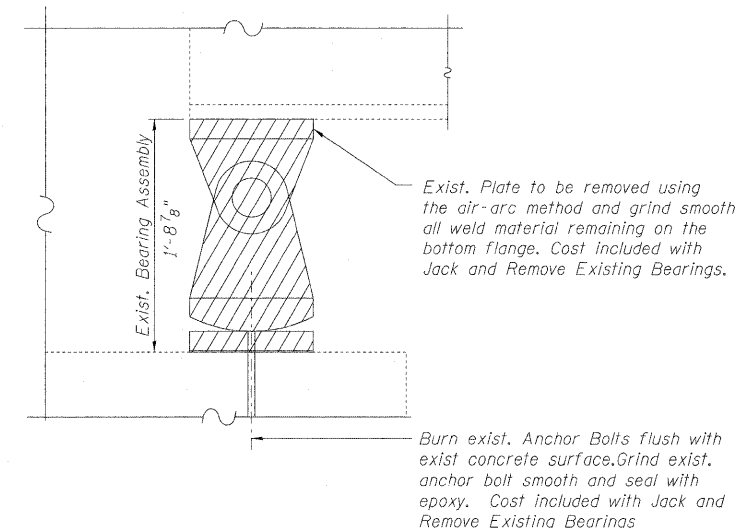
ELEVATION AT ABUT.
TYPE III ELASTOMERIC EXP. BRG.



SECTION A-A



PLAN STEEL EXTENSION

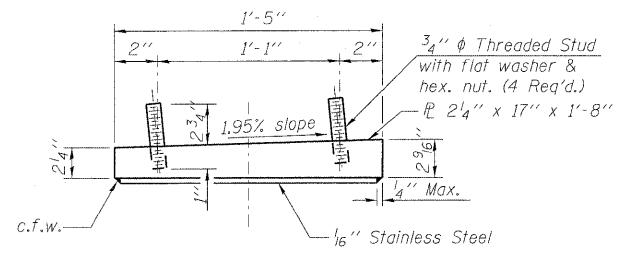


EXISTING BEARING REMOVAL DETAIL

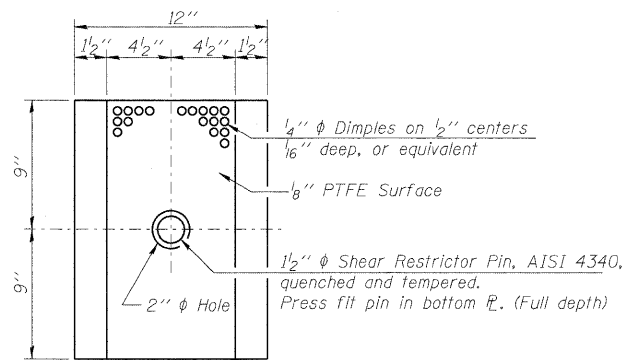
Note:
Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.

NOTES

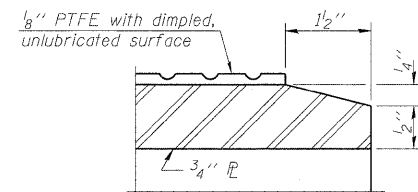
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Anchor bolts for Type III bearings shall be placed in holes drilled in the concrete through holes in the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type III.
The 1/8" PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.
Bonding of 1/8" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.



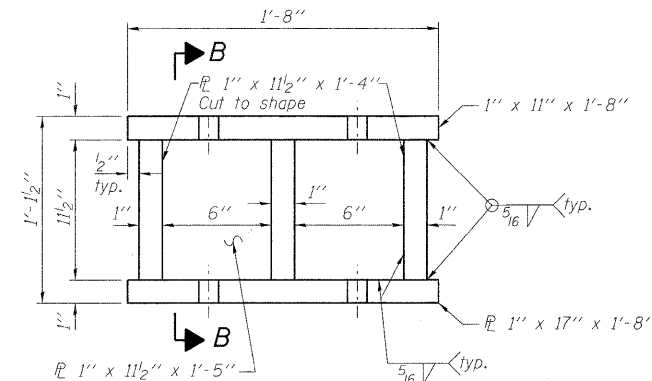
TOP BEARING ASSEMBLY



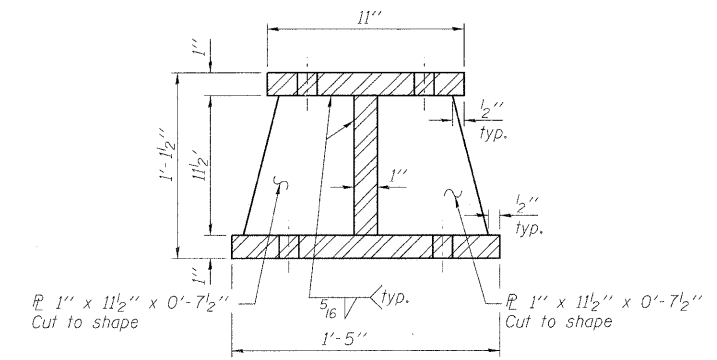
PLAN-PTFE ELASTOMERIC BRG.



SECTION THRU PTFE



ELEVATION STEEL EXTENSION



SECT B-B

BILL OF MATERIAL

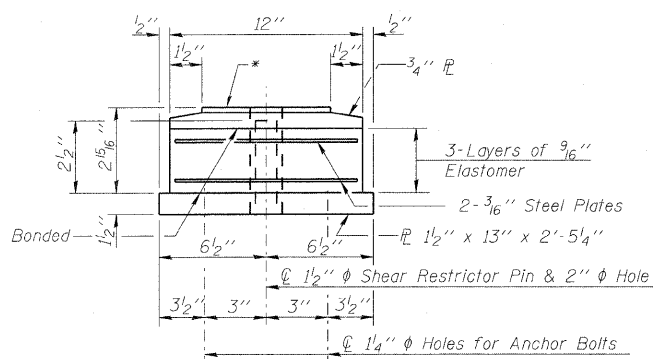
| Item | Unit | Total |
|--|-------|-------|
| Elastomeric Bearing Assembly Type III | Each | 5 |
| Anchor Bolts, 1" | Each | 20 |
| Jack and Remove Existing Bearings | Each | 5 |
| Furnishing and Erecting Structural Steel | Pound | 1838 |

BEARING DETAILS FOR
NORTH ABUTMENT
STRUCTURE NO. 016-2406

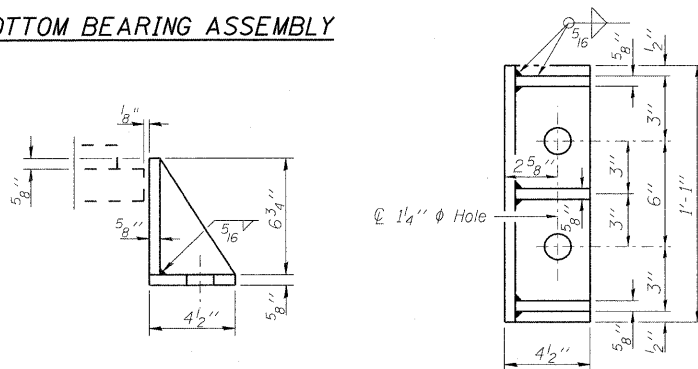
GIRDER REACTION TABLE

| | N. Abut |
|---------------------------|---------|
| Dead Load (K) | 72.6 |
| Live Load (K) | 66.7 |
| Impact (K) | 11.2 |
| Total (K) | 150.5 |
| Min. Jack Capacity (Tons) | 84 |

| SHEET NO. 11 OF 18 SHEETS | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|-------------|--------------------|--------|--------------|-----------|
| | 330 | 462 X-B-I-1 | COOK | 41 | 27 |
| D-91-228-10 | | CONTRACT NO. 60J38 | | | |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | | |



BOTTOM BEARING ASSEMBLY

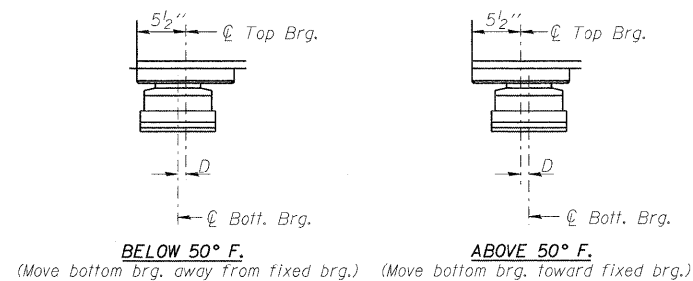


SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

LONGO, INC.
CONSULTING ENGINEERS
1560 WALL ST, SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

| | |
|----------|-----|
| DESIGNED | SLV |
| CHECKED | DJB |
| DRAWN | SLV |
| CHECKED | DJB |



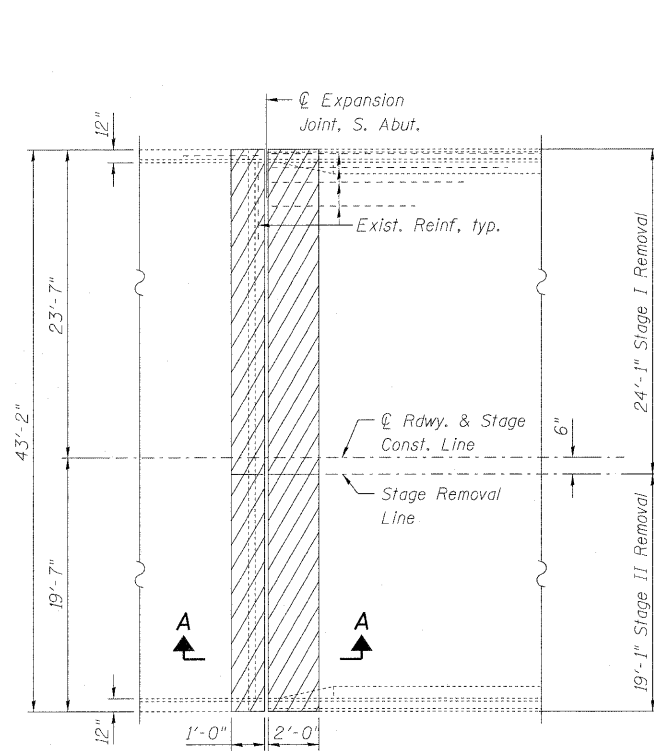
SETTING ANCHOR BOLTS AT EXP. BRG.

D=1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50° F.

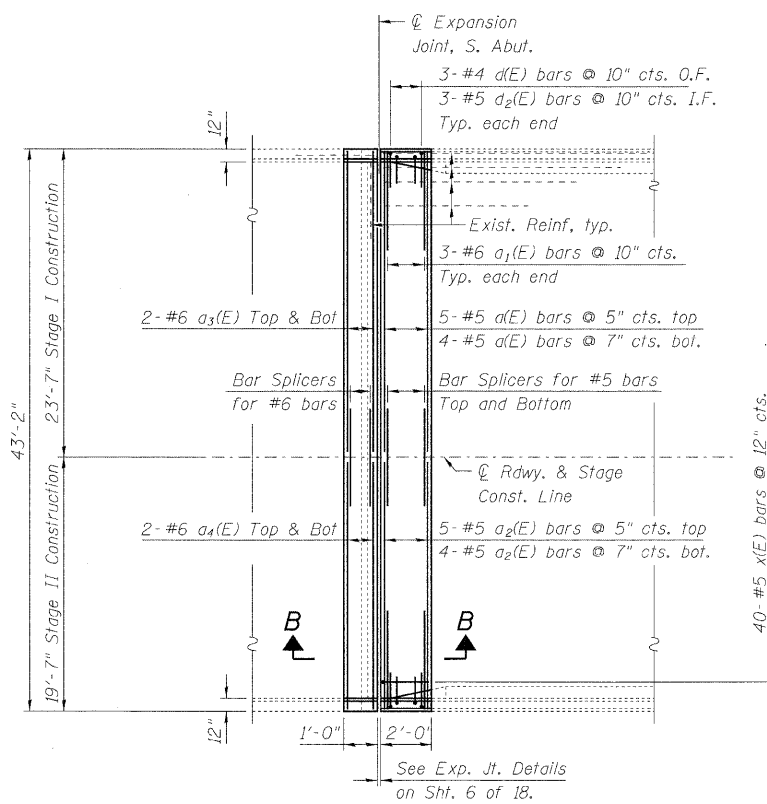
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NOTES

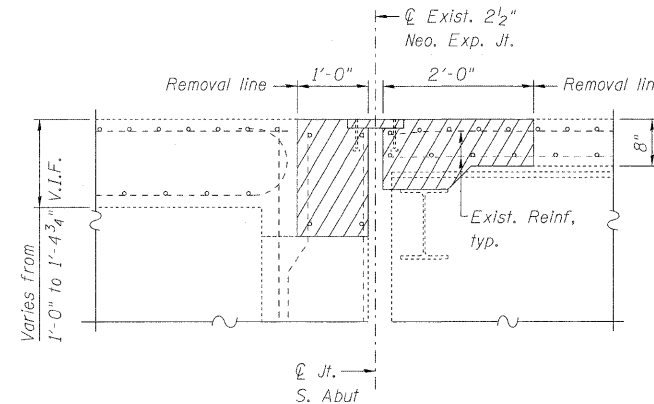
Hatched areas indicated concrete sections to be removed and replaced. Perimeters of concrete removal areas shall be saw cut 3/4" prior to removal of the concrete. Existing reinforcement shall be cleaned, straightened (if required) and incorporated into the new construction. Cost included with Concrete Removal.



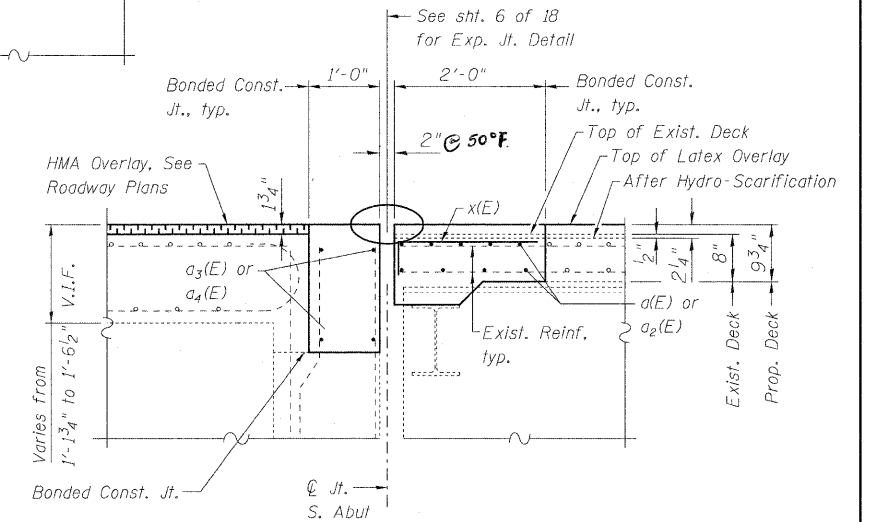
PARTIAL PLAN SHOWING CONCRETE
REMOVAL AT SOUTH ABUTMENT



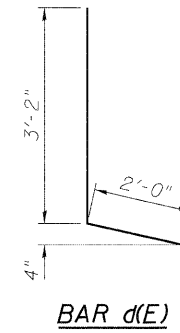
PARTIAL PLAN SHOWING CONCRETE
REPLACEMENT AT SOUTH ABUTMENT



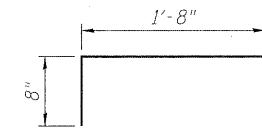
SECTION A-A



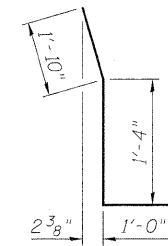
SECTION B-B



BAR d(E)



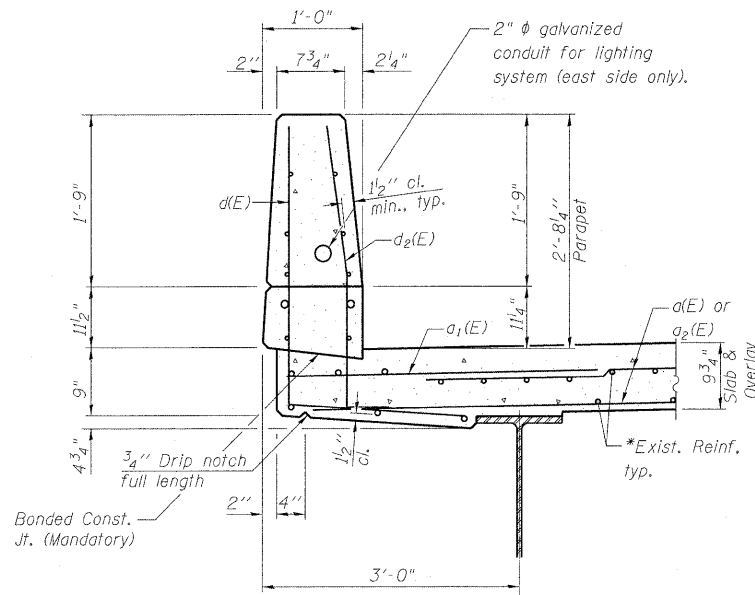
BAR x(E)



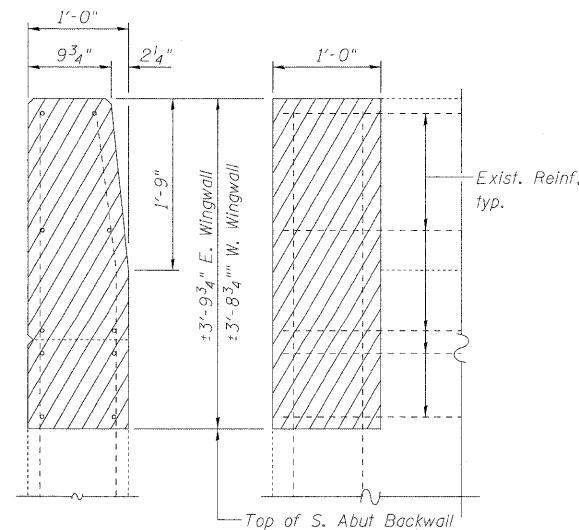
BAR d2(E)

BILL OF MATERIAL

| Bar | No. | Size | Length | Shape |
|-------------------------------------|-----|------|---------|-------|
| a(E) | 9 | #5 | 22'-1" | — |
| a1(E) | 6 | #6 | 6'-0" | — |
| a2(E) | 9 | #5 | 18'-1" | — |
| a3(E) | 4 | #6 | 23'-2" | — |
| a4(E) | 4 | #6 | 19'-2" | — |
| d(E) | 6 | #4 | 5'-2" | — |
| d2(E) | 6 | #5 | 4'-2" | — |
| x(E) | 40 | #5 | 2'-4" | — |
| Concrete Removal | | | Cu. Yd. | 6.1 |
| Concrete Superstructure | | | Cu. Yd. | 6.8 |
| Bar Splicers | | | Each | 13 |
| Reinforcement Bars, Epoxy Coated | | | Pound | 830 |



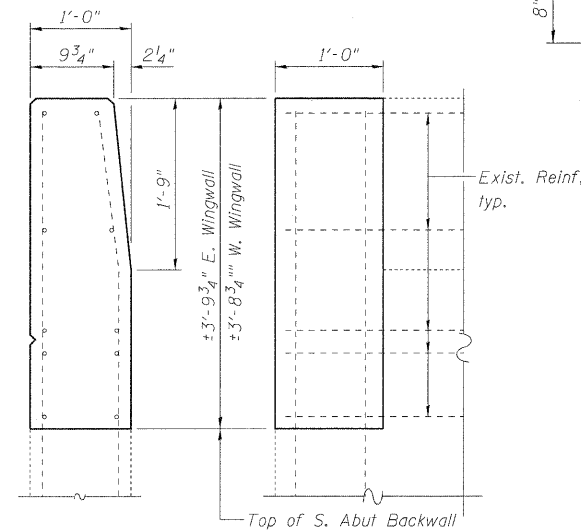
SECTION THRU PARAPET



END VIEW

ELEVATION

WINGWALL CONCRETE REMOVAL DETAIL



END VIEW

ELEVATION

WINGWALL CONCRETE REPLACEMENT DETAIL

SOUTH ABUTMENT DETAILS
STRUCTURE NO. 016-2406

| | |
|----------|-----|
| DESIGNED | SLV |
| CHECKED | DJB |
| DRAWN | SLV |
| CHECKED | DJB |

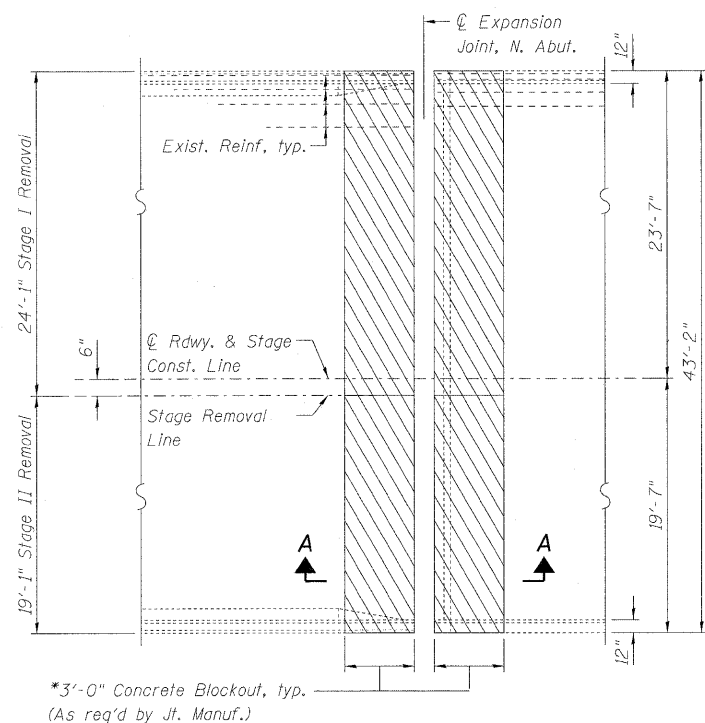
LONGO, INC.
CONSULTING ENGINEERS
1560 WALL ST, SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

| | | | | | |
|---|----------------|-------------|--------------------|-----------------|--------------|
| SHEET NO. 12 OF 18 SHEETS | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 330 | 462 X-B-I-1 | COOK | 41 | 28 |
| D-91-228-10 | | | CONTRACT NO. 60J38 | | |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | | |

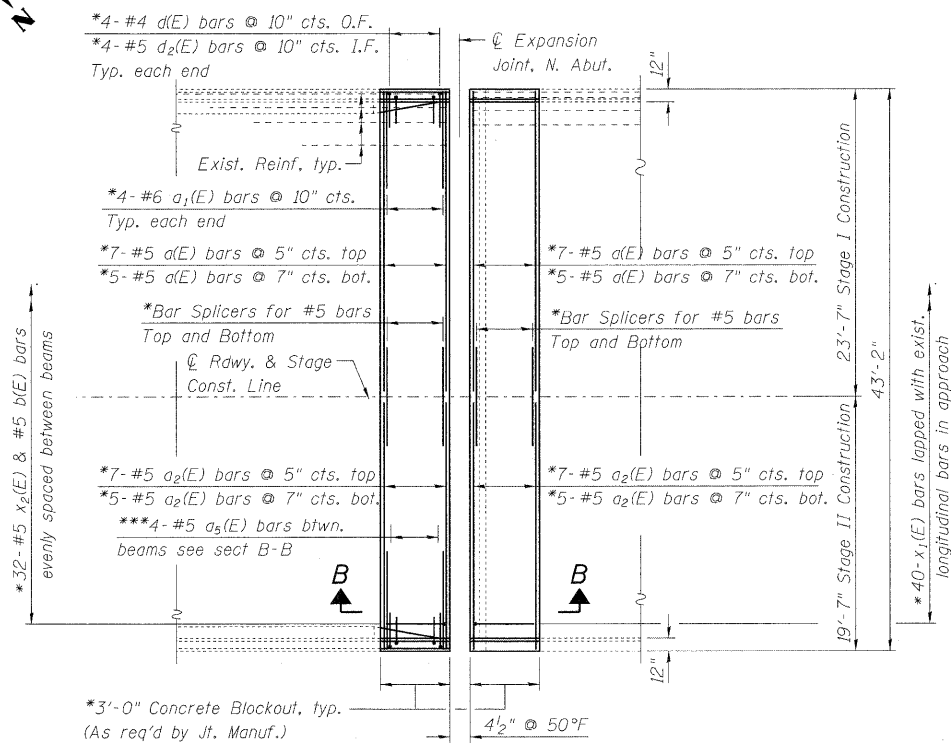
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NOTES

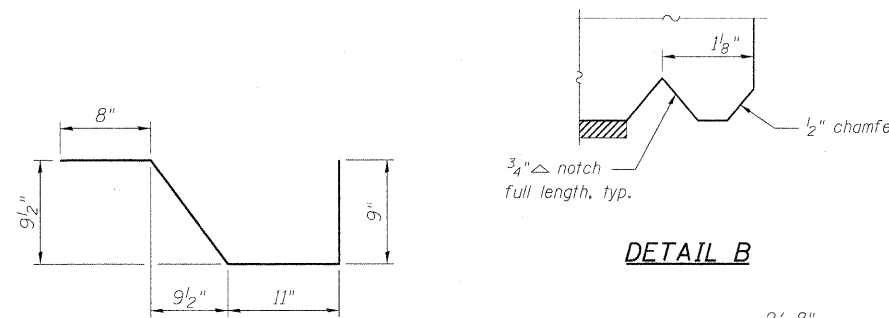
Hatched areas indicated concrete sections to be removed and replaced. Perimeters of concrete removal areas shall be saw cut $\frac{3}{4}$ " prior to removal of the concrete.
Existing reinforcement shall be cleaned, straightened (if required) and incorporated into the new construction. Cost included with Concrete Removal.
Drilling and epoxy grouting of reinforcement bars shall be in accordance with Article 584 of the Standard Specifications.
Removal of the existing joint system is included with Concrete Removal.
See Sht. 14 of 18 for Sect A-A & B-B.



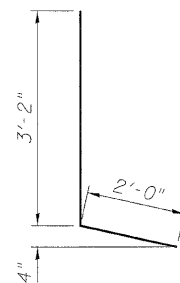
PARTIAL PLAN SHOWING CONCRETE REMOVAL AT NORTH ABUTMENT



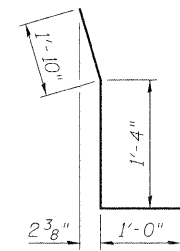
PARTIAL PLAN SHOWING CONCRETE REPLACEMENT AT NORTH ABUTMENT



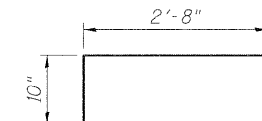
BAR b(E)



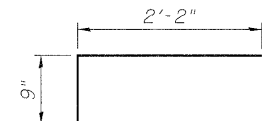
BAR d(E)



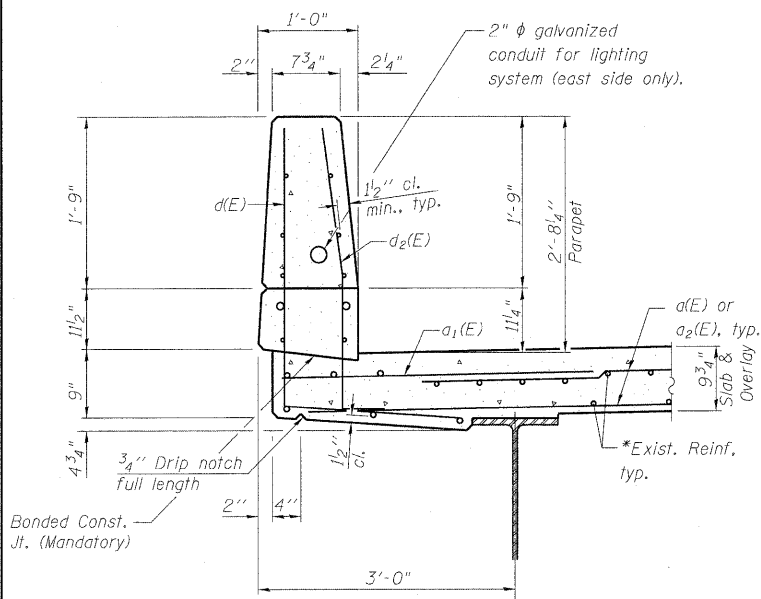
BAR d2(E)



BAR x1(E)

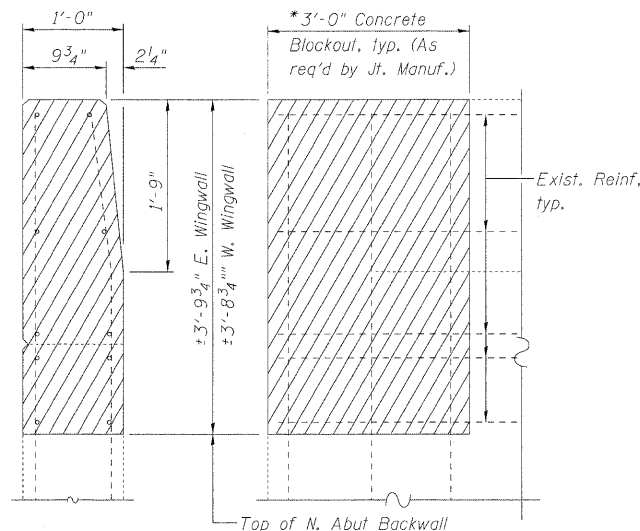


BAR x2(E)



SECTION THRU PARAPET

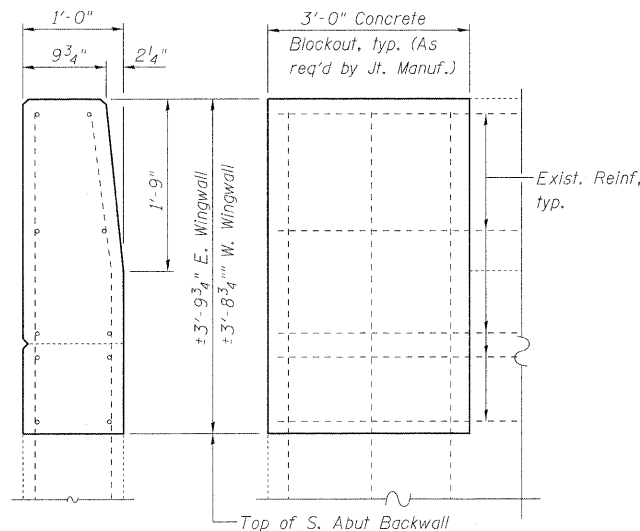
*Length of blockout, width of joint and number of reinforcement bars needed may vary as required by Joint Manufacturer.
***Bars to be placed so as to miss joint's support boxes.



END VIEW

ELEVATION

WINGWALL CONCRETE REMOVAL DETAIL



END VIEW

ELEVATION

WINGWALL CONCRETE REPLACEMENT DETAIL

BILL OF MATERIAL

| Bar | No. | Size | Length | Shape |
|----------------------------------|-----|------|---------|-------|
| a(E) | 24 | #5 | 22'-1" | — |
| a1(E) | 8 | #6 | 6'-0" | — |
| a2(E) | 24 | #5 | 18'-1" | — |
| a5(E) | 16 | #5 | 8'-10" | — |
| b(E) | 32 | #5 | 3'-5" | ⌋ |
| d(E) | 8 | #4 | 5'-2" | ⌋ |
| d2(E) | 8 | #5 | 4'-2" | ⌋ |
| x1(E) | 40 | #5 | 3'-6" | ⌋ |
| x2(E) | 32 | #5 | 2'-11" | ⌋ |
| Concrete Removal | | | Cu. Yd. | 12.1 |
| Concrete Superstructure | | | Cu. Yd. | 13.6 |
| Bar Splicers | | | Each | 24 |
| Modular Expansion Joint 6" | | | Foot | 42 |
| Reinforcement Bars, Epoxy Coated | | | Pound | 1650 |

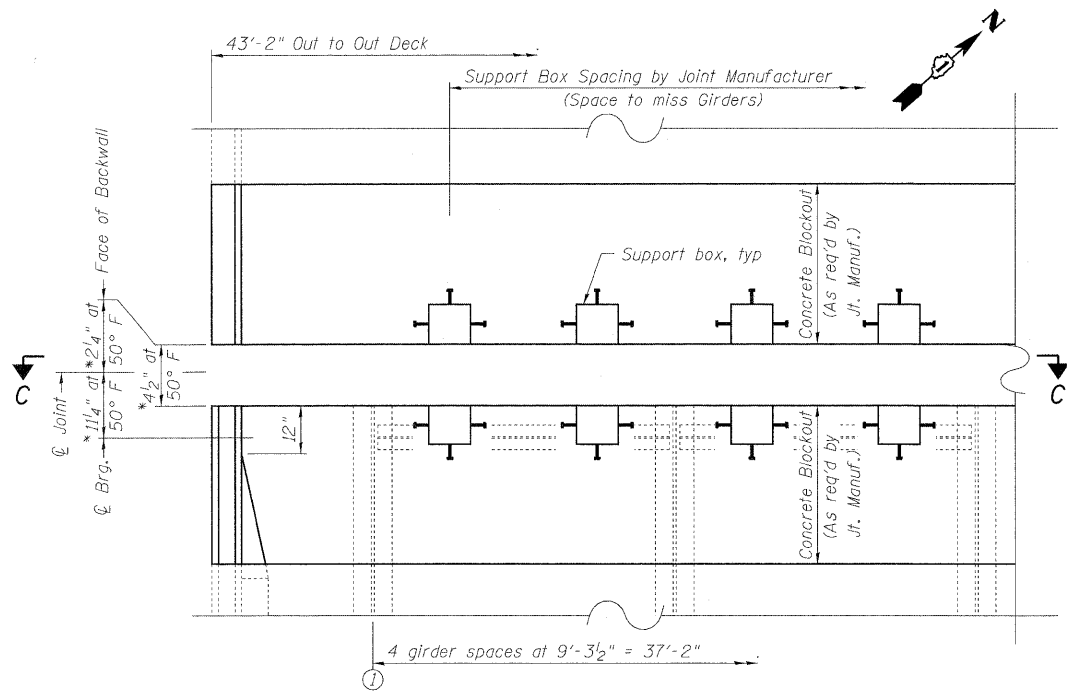
(Sheet 1 of 2)
NORTH ABUTMENT DETAILS
STRUCTURE NO. 016-2406

| | |
|----------|-----|
| DESIGNED | SLV |
| CHECKED | DJB |
| DRAWN | SLV |
| CHECKED | DJB |

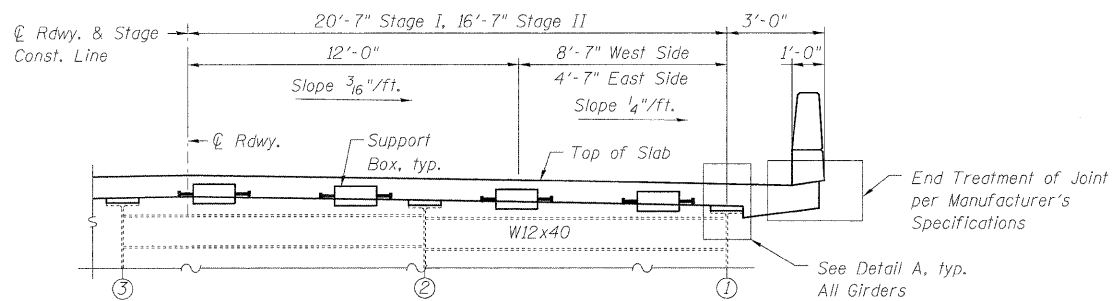
LONCO, INC.
CONSULTING ENGINEERS
1560 WALL ST, SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

| | | | | | |
|---|-------------|-------------|--------------------|--------------|-----------|
| SHEET NO. 13 OF 18 SHEETS | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 330 | 462 X-B-I-1 | COOK | 41 | 29 |
| D-91-228-10 | | | CONTRACT NO. 60J38 | | |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | | |

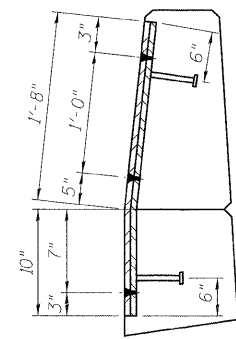
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



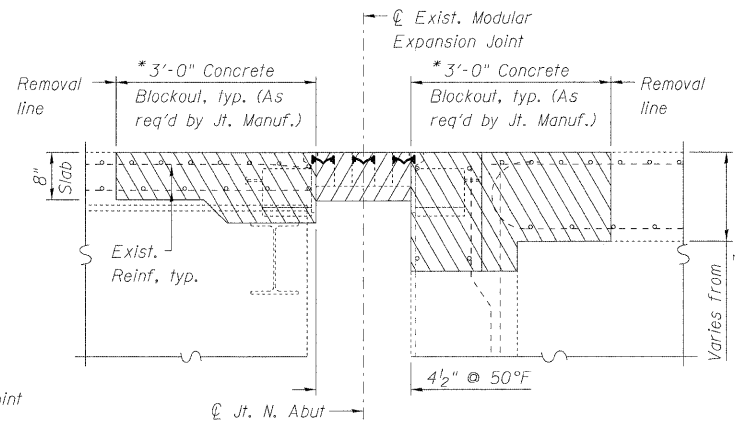
PARTIAL PLAN AT NORTH ABUTMENT



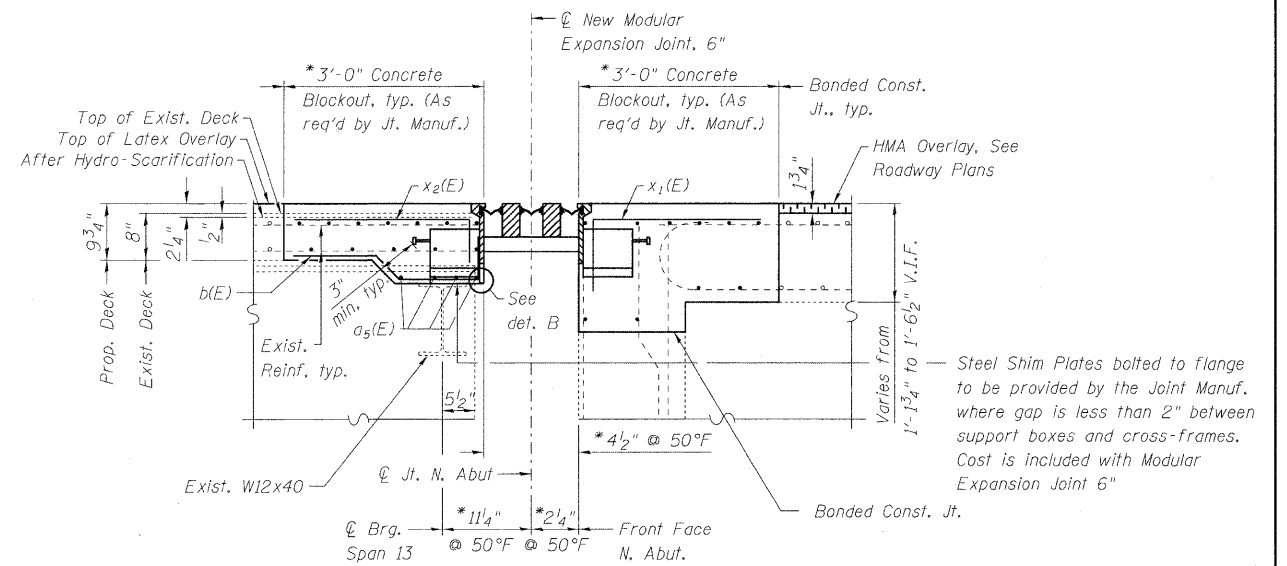
SECTION C-C



SECTION D-D

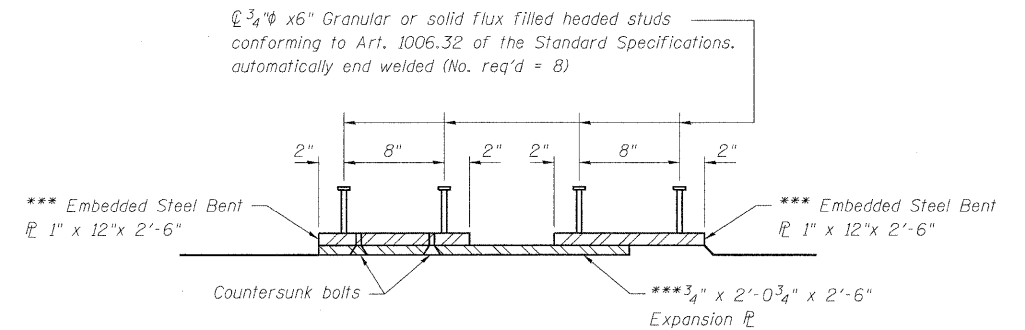


SECTION A-A



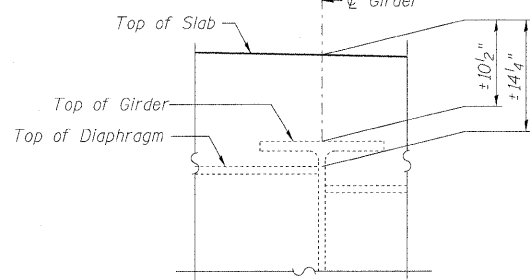
SECTION B-B

(Cut or bend reinforcement bars as req'd to miss support boxes by 1/2")

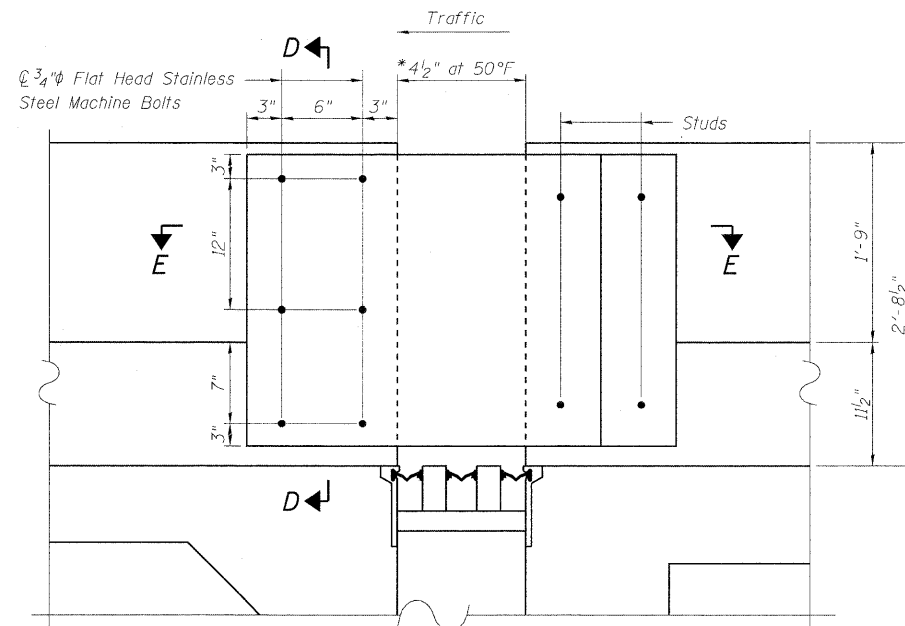


SECTION E-E

*** Expansion Plate and Embedded Plates shall be galvanized According to AASHTO M111. Cost included with Modular Expansion Joint 6"



DETAIL A



ELEVATION - PARAPET SLIDING
PLATE AT NORTH ABUTMENT

* Adjusted as required by Joint Manufacturer

NOTES

- Modular Expansion Joint shall be designed according to the latest ASTM Specifications for HL-93 Loading with 33% impact and for a minimum movement of ±3" (total of 6").
- The Modular Expansion Joint shall be either Steel flex system by D.S. Brown Company, WABO system, by Watson Bowman Acme Corp., or the LG system, by TechStar Inc.
- Joint shall be fabricated and installed according to the manufacturer's recommendations and as approved by the Engineer.
- Joint shall be fabricated to conform to the Roadway Profile and Cross-Slopes.
- Cost of all hardware and installation of Steel Bearing Shim Plates and additional reinforcement required to anchor the joint to the slab shall be included with "Modular Expansion Joint 6".
- The inorganic zinc rich primer/acrylic/acrylic paint system shall be used for shop and field painting of new structural steel except no top coat required in non-exposed areas. The color of the acrylic finish coat shall be Gray, Munsell No. 5B 7/1/1. See special Provisions.

See sht. 13 of 18 for Detail B.

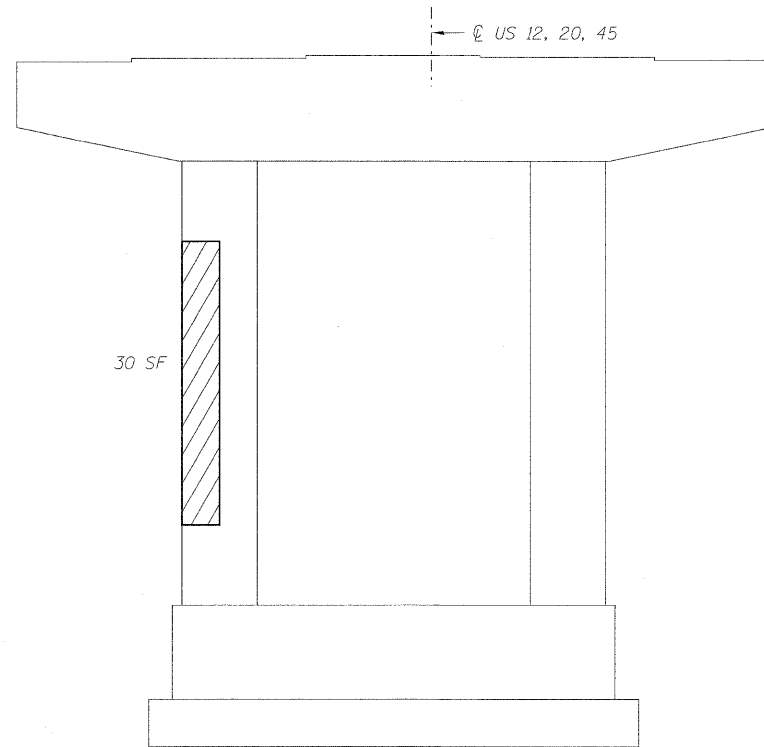
| | |
|----------|-----|
| DESIGNED | SLV |
| CHECKED | DJB |
| DRAWN | SLV |
| CHECKED | DJB |

LONCO, INC.
CONSULTING ENGINEERS
1560 WALL ST., SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

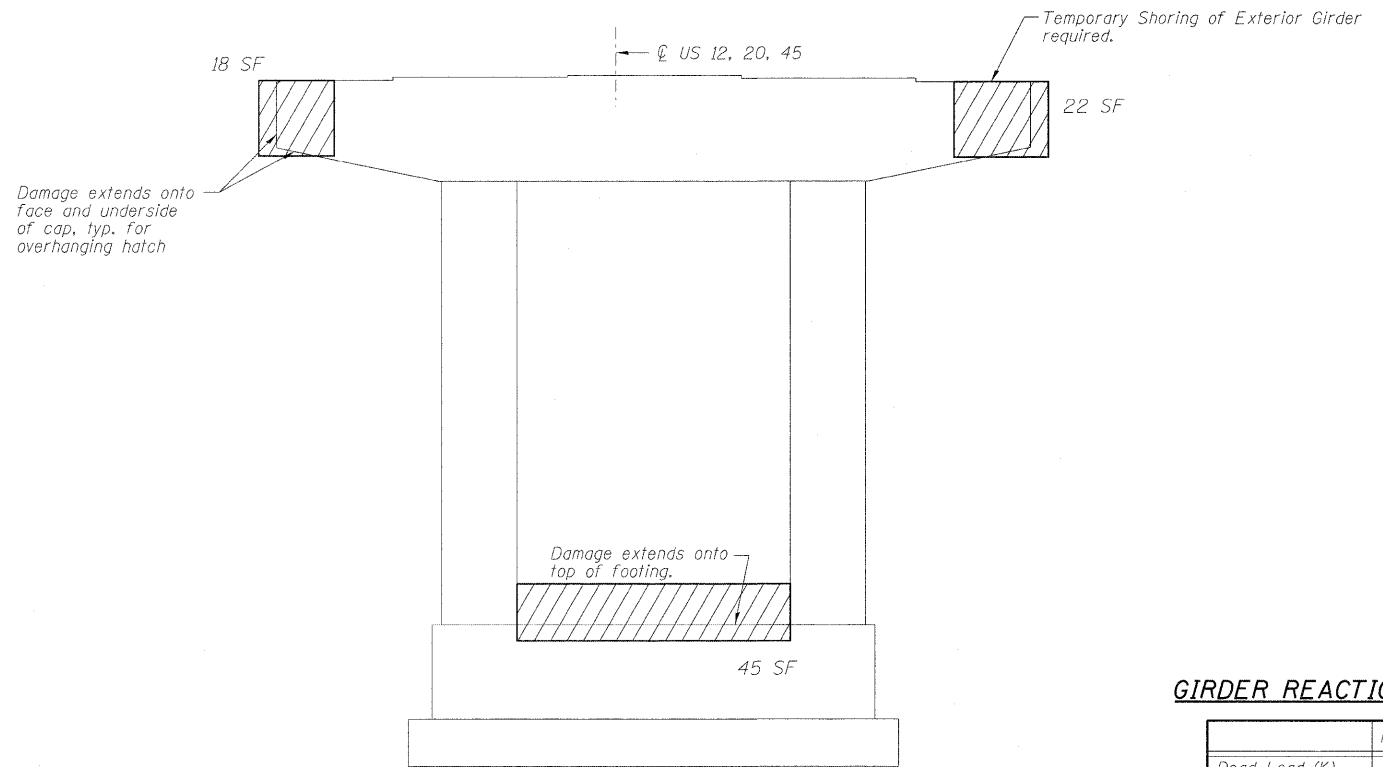
(Sheet 2 of 2)
NORTH ABUTMENT DETAILS
STRUCTURE NO. 016-2406

| | | | | | |
|---|-----------------------|------------------------|--------------------|-----------------------|--------------------|
| SHEET NO. 14 OF 18 SHEETS | F.A.P. RTE. 330 | SECTION 462 X-B-I-1 | COUNTY COOK | TOTAL SHEETS 41 | SHEET NO. 30 |
| | D-91-228-10 | | CONTRACT NO. 60J38 | | |
| FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT | | | | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PIER 4 SOUTH FACE (Looking North)




PIER 4 NORTH FACE (Looking South)

ELEVATION - REMOVAL AND REPAIR

NOTES

Temporary Shoring and Cribbing required to complete bearing replacement and/or Structural Repair of Concrete (Depth Equal to or Less Than 5 inches) shall not be paid for separately but shall be included in the cost of Jack and Remove Existing Bearings. When doing the pier repair and bearing replacement at the same time, the structure shall not be jacked up from the pier, the weight must be taken off of the pier, in the area of the repair of the pier. Concrete must be cured to minimum strength for the repair before bearing can be replaced and weight put back on the pier, according to special provisions.

LEGEND

 Structural Repair of Concrete (Depth <= 5")

GIRDER REACTION TABLE

| | Pier 4 N |
|---------------------------|----------|
| Dead Load (K) | 38.7 |
| Live Load (K) | 54.8 |
| Impact (K) | 14.3 |
| Total (K) | 107.8 |
| Min. Jack Capacity (Tons) | 56 |

BILL OF MATERIAL

| Item | Unit | Total |
|---|---------|-------|
| Structural Repair of Concrete (Depth less than equal to 5") | Sq. Ft. | 115 |

The quantities shown are for estimating purposes only. The area to be repaired will be determined by the Engineer at the time of Construction. Actual repair locations shall be shown on the as-built plans.

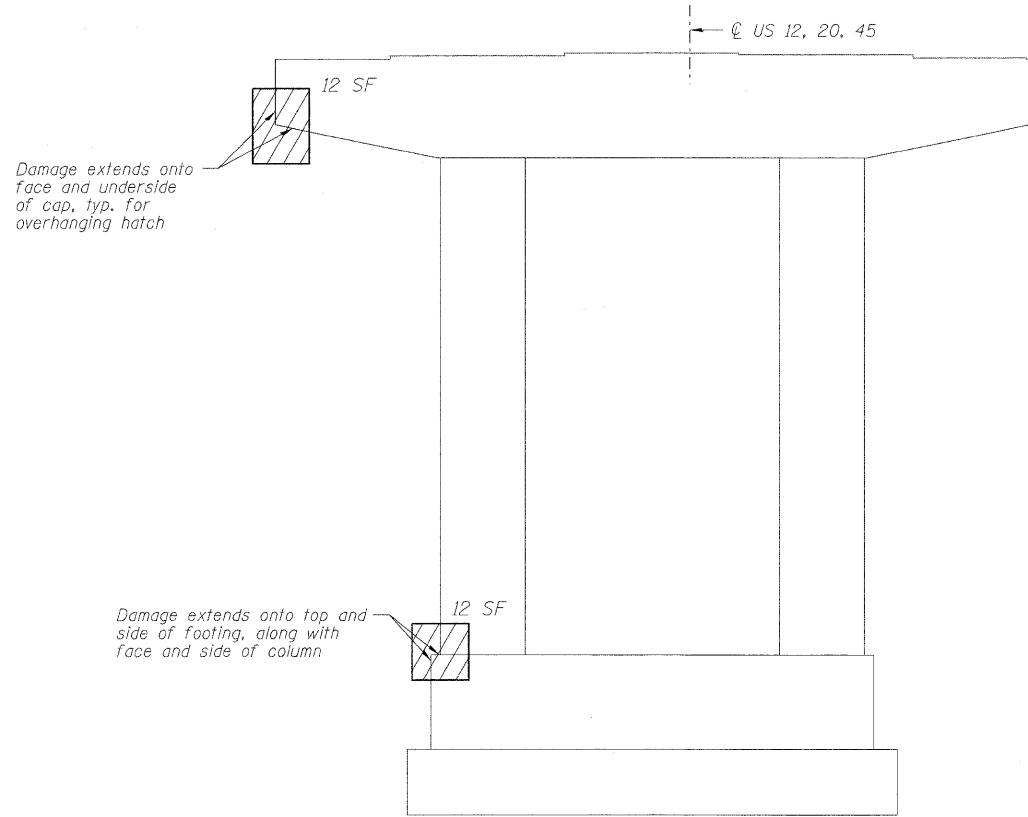
**PIER 4 REPAIR
STRUCTURE NO. 016-2406**

| | |
|------------|-----|
| DESIGNED - | SLV |
| CHECKED - | DJB |
| DRAWN - | SLV |
| CHECKED - | DJB |

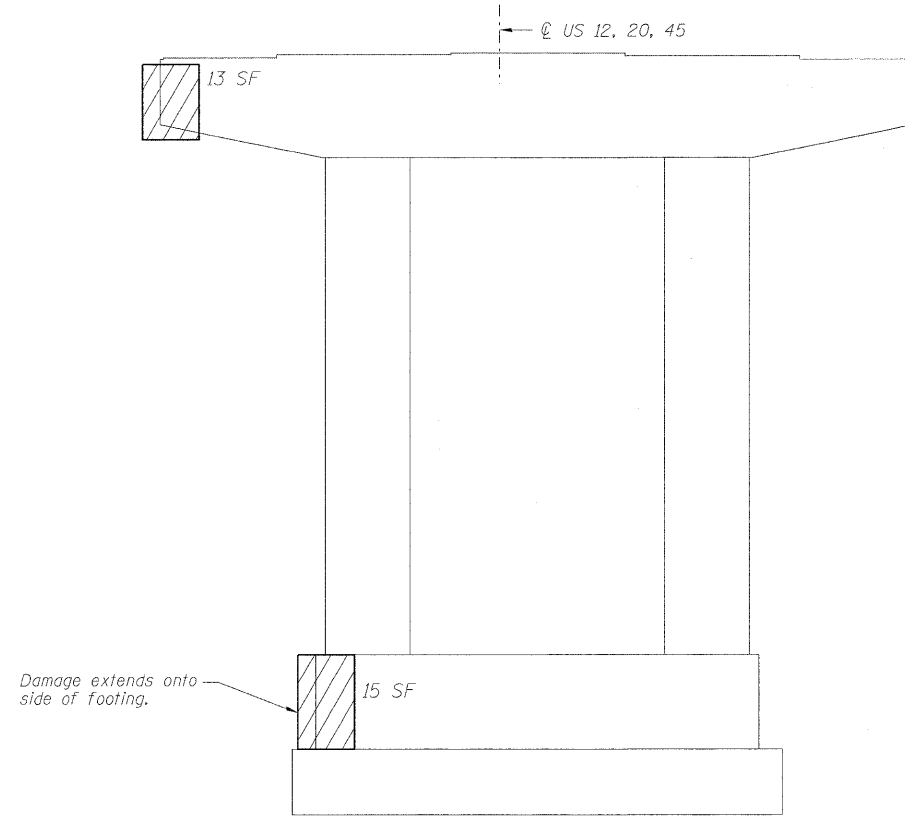
LONCO, INC.
CONSULTING ENGINEERS
1560 WALL ST, SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

| | | | | | |
|---|----------------|-------------|--------------------|-----------------|--------------|
| SHEET NO. 15 OF 18 SHEETS | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 330 | 462 X-B-I-1 | COOK | 41 | 31 |
| D-91-228-10 | | | CONTRACT NO. 60J38 | | |
| FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT | | | | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PIER 7 SOUTH FACE (Looking North)



PIER 7 NORTH FACE (Looking South)

ELEVATION - REMOVAL AND REPAIR

NOTES

Temporary Shoring and Cribbing required to complete bearing replacement and/or Structural Repair of Concrete (Depth Equal to or Less Than 5 inches) shall not be paid for separately but shall be included in the cost of Jack and Remove Existing Bearings. When doing the pier repair and bearing replacement at the same time, the structure shall not be jacked up from the pier, the weight must be taken off of the pier, in the area of the repair of the pier. Concrete must be cured to minimum strength for the repair before bearing can be replaced and weight put back on the pier, according to special provisions.

LEGEND

Structural Repair of Concrete (Depth <= 5")

BILL OF MATERIAL

| Item | Unit | Total |
|---|---------|-------|
| Structural Repair of Concrete (Depth less than equal to 5") | Sq. Ft. | 52 |

The quantities shown are for estimating purposes only. The area to be repaired will be determined by the Engineer at the time of Construction. Actual repair locations shall be shown on the as-built plans.

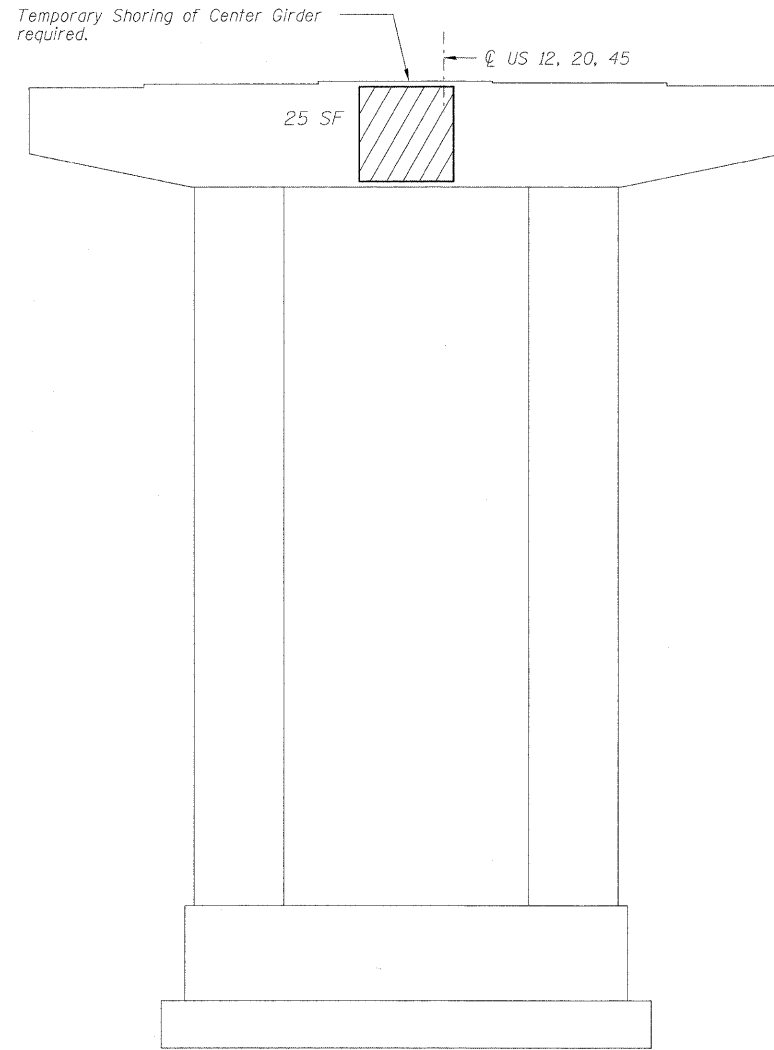
**PIER 7 REPAIR
STRUCTURE NO. 016-2406**

| | |
|----------|-----|
| DESIGNED | SLV |
| CHECKED | DJB |
| DRAWN | SLV |
| CHECKED | DJB |

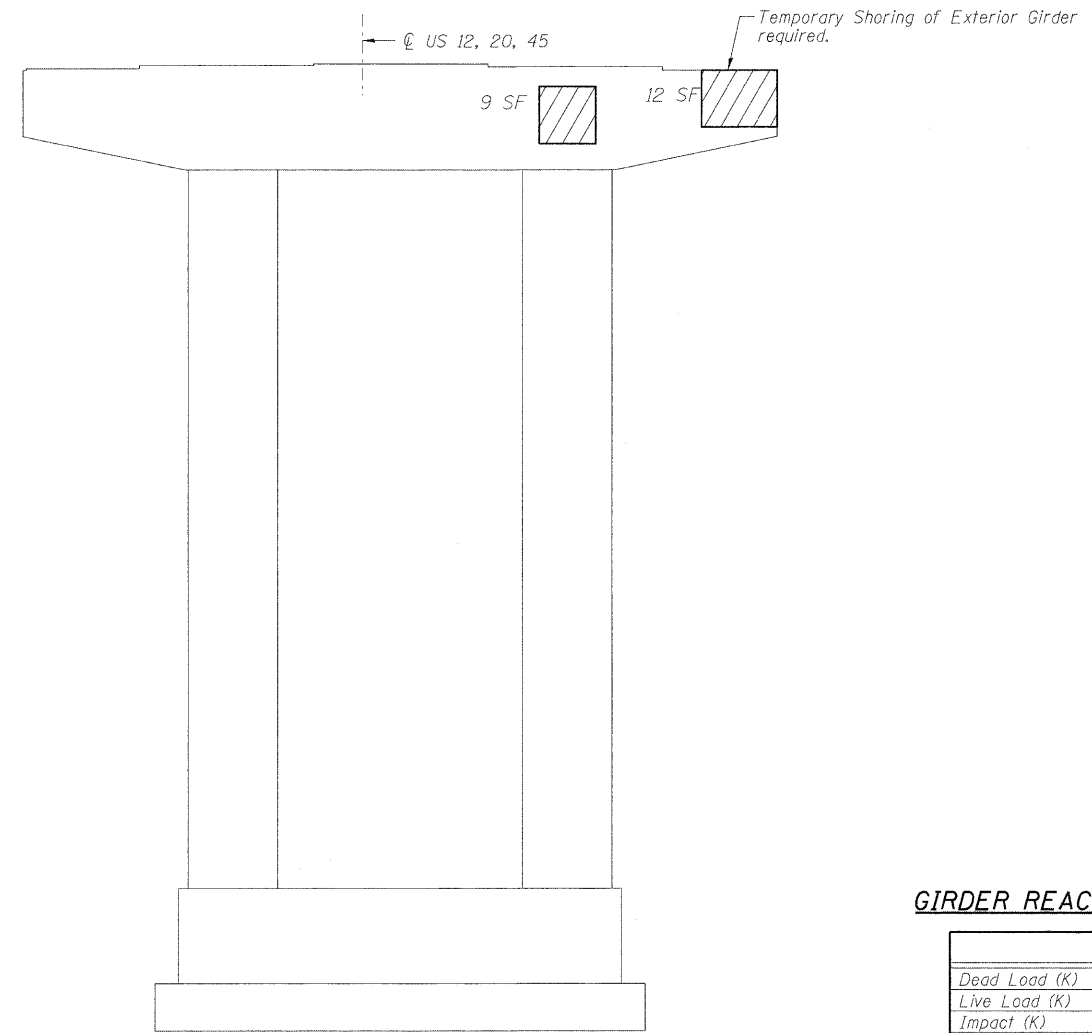
LONGO, INC.
CONSULTING ENGINEERS
1560 WALL ST, SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

| | | | | | |
|------------------------------|-------------|-------------|--------------------|--------------|-----------|
| SHEET NO. 16 OF 18 SHEETS | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 330 | 462 X-B-I-1 | COOK | 41 | 32 |
| D-91-228-10 | | | CONTRACT NO. 60J38 | | |
| FED. ROAD DIST. NO. _ | | ILLINOIS | FED. AID PROJECT | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PIER 10 SOUTH FACE (Looking North)



PIER 10 NORTH FACE (Looking South)

ELEVATION - REMOVAL AND REPAIR

NOTES

Temporary Shoring and Cribbing required to complete bearing replacement and/or Structural Repair of Concrete (Depth Equal to or Less Than 5 inches) shall not be paid for separately but shall be included in the cost of Jack and Remove Existing Bearings. When doing the pier repair and bearing replacement at the same time, the structure shall not be jacked up from the pier, the weight must be taken off of the pier, in the area of the repair of the pier. Concrete must be cured to minimum strength for the repair before bearing can be replaced and weight put back on the pier, according to special provisions.

| | |
|------------|-----|
| DESIGNED - | SLV |
| CHECKED - | DJB |
| DRAWN - | SLV |
| CHECKED - | DJB |

LOXCO, INC.
CONSULTING ENGINEERS
1560 WALL ST, SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

GIRDER REACTION TABLE

| | Pier 10 |
|---------------------------|---------|
| Dead Load (K) | 101.4 |
| Live Load (K) | 86.4 |
| Impact (K) | 12.1 |
| Total (K) | 199.9 |
| Min. Jack Capacity (Tons) | 114 |

BILL OF MATERIAL

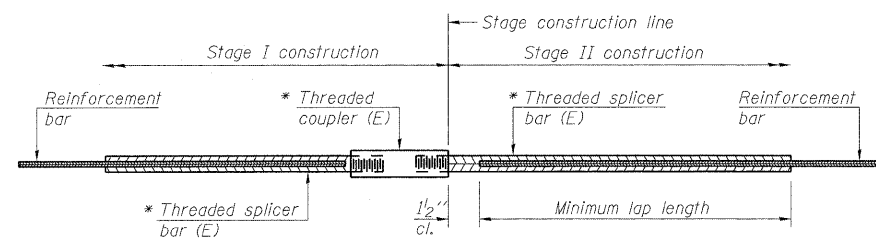
| Item | Unit | Total |
|---|---------|-------|
| Structural Repair of Concrete (Depth less than equal to 5") | Sq. Ft. | 46 |

The quantities shown are for estimating purposes only. The area to be repaired will be determined by the Engineer at the time of Construction. Actual repair locations shall be shown on the as-built plans.

PIER 10 REPAIR
STRUCTURE NO. 016-2406

| | | | | | |
|---|-------------|-------------|--------------------|--------------|-----------|
| SHEET NO. 17 OF 18 SHEETS | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 330 | 462 X-B-I-1 | COOK | 41 | 33 |
| D-91-228-10 | | | CONTRACT NO. 60J38 | | |
| FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT | | | | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



STANDARD BAR SPLICER ASSEMBLY

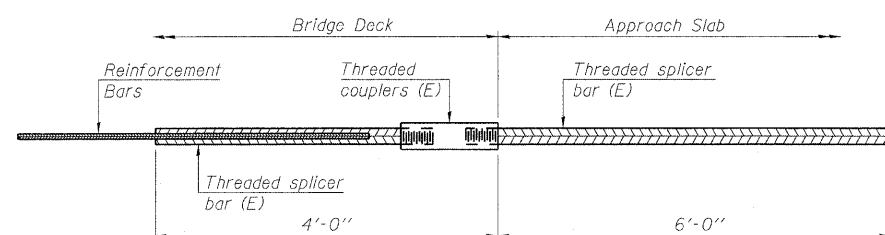
| Bar size to be spliced | Minimum Lap Lengths | | | |
|------------------------|---------------------|---------|---------|---------|
| | Table 1 | Table 2 | Table 3 | Table 4 |
| 3, 4 | 1'-5" | 1'-11" | 2'-1" | 2'-4" |
| 5 | 1'-9" | 2'-5" | 2'-7" | 2'-11" |
| 6 | 2'-1" | 2'-11" | 3'-1" | 3'-6" |
| 7 | 2'-9" | 3'-10" | 4'-2" | 4'-8" |
| 8 | 3'-8" | 5'-1" | 5'-5" | 6'-2" |
| 9 | 4'-7" | 6'-5" | 6'-10" | 7'-9" |

Table 1: Black bar, 0.8 Class C
Table 2: Black bar, Top bar lap, 0.8 Class C
Table 3: Epoxy bar, 0.8 Class C
Table 4: Epoxy bar, Top bar lap, 0.8 Class C

Threaded splicer bar length = min. lap length + 1/2" + thread length

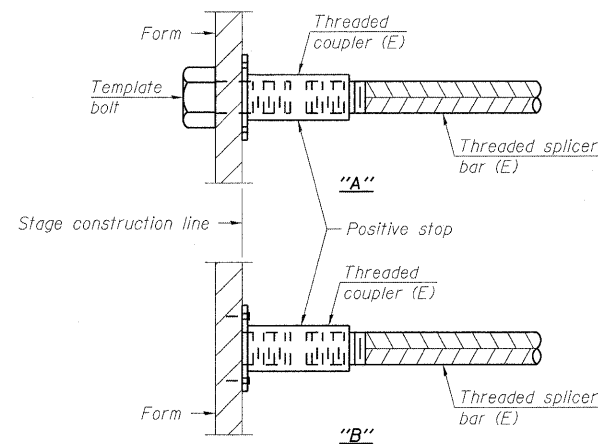
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

| Location | Bar size | No. assemblies required | Table for minimum lap length |
|----------|----------|-------------------------|------------------------------|
| S. Abut | #5 | 9 | Table 3 |
| S. Abut | #6 | 4 | Table 3 |
| Pier 4 | #5 | 18 | Table 3 |
| Pier 7 | #5 | 18 | Table 3 |
| Pier 10 | #5 | 18 | Table 3 |
| N. Abut | #5 | 24 | Table 3 |



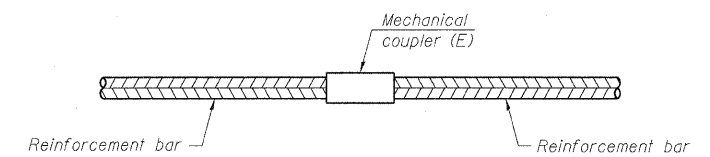
BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. required = N. A.



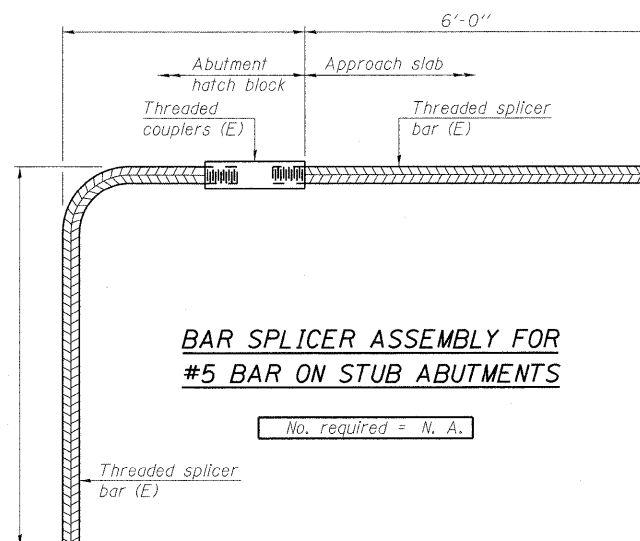
INSTALLATION AND SETTING METHODS

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



STANDARD MECHANICAL SPLICER

| Location | Bar size | No. assemblies required |
|----------|----------|-------------------------|
| | | |
| | | |
| | | |



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required = N. A.

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
All reinforcement shall be lapped and tied to the splicer bars.
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
See special provision for Mechanical Splicers.
See approved list of bar splicer assemblies and mechanical splicers for alternatives.

| | |
|----------|-----|
| DESIGNED | SLV |
| CHECKED | DJB |
| DRAWN | SLV |
| CHECKED | DJB |

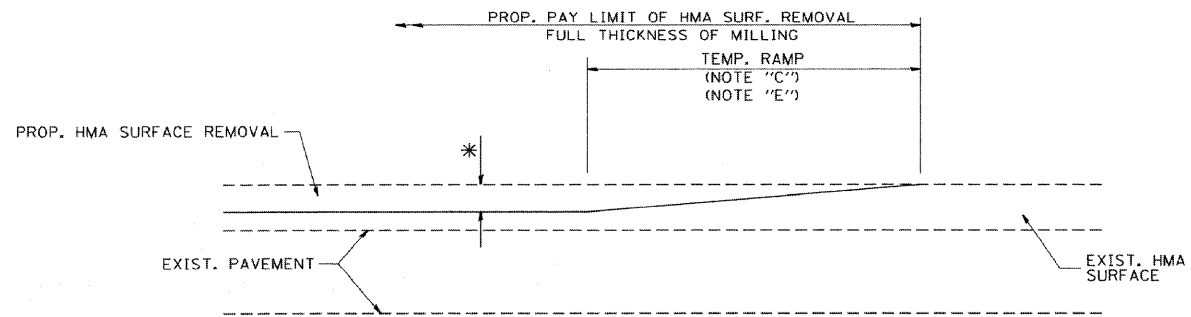
LONCO, INC.
CONSULTING ENGINEERS
1560 WALL ST, SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

BSD-1

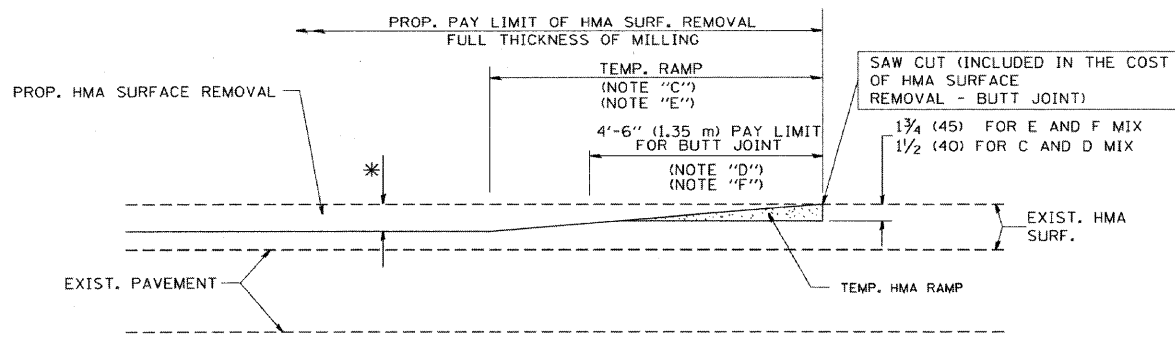
11-1-09

**BAR SPLICER ASSEMBLY DETAILS
STRUCTURE NO. 016-2406**

| | | | | | |
|---|-------------|-------------|--------------------|--------------|-----------|
| SHEET NO. 18 OF 18 SHEETS | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 330 | 462 X-B-I-1 | COOK | 41 | 34 |
| D-91-228-10 | | | CONTRACT NO. 60J38 | | |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | | |



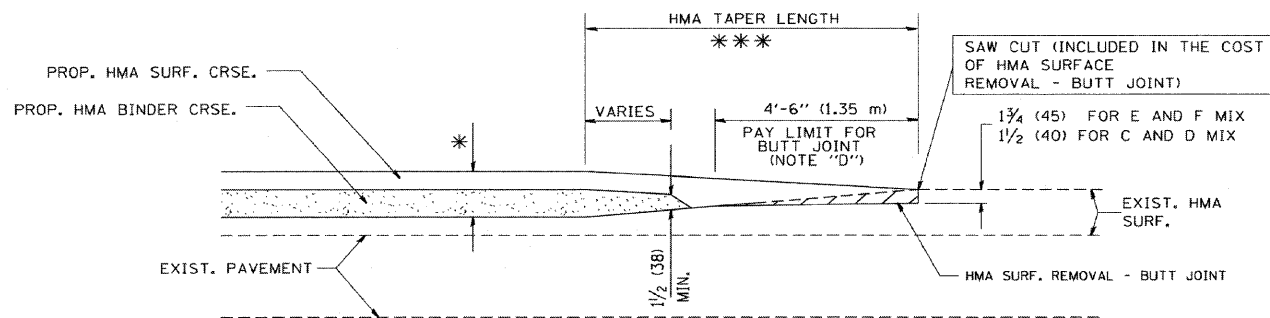
OPTION 1



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

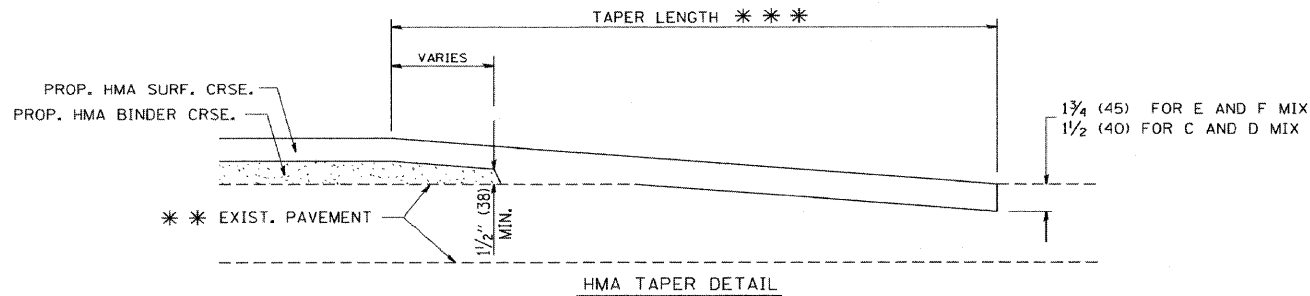
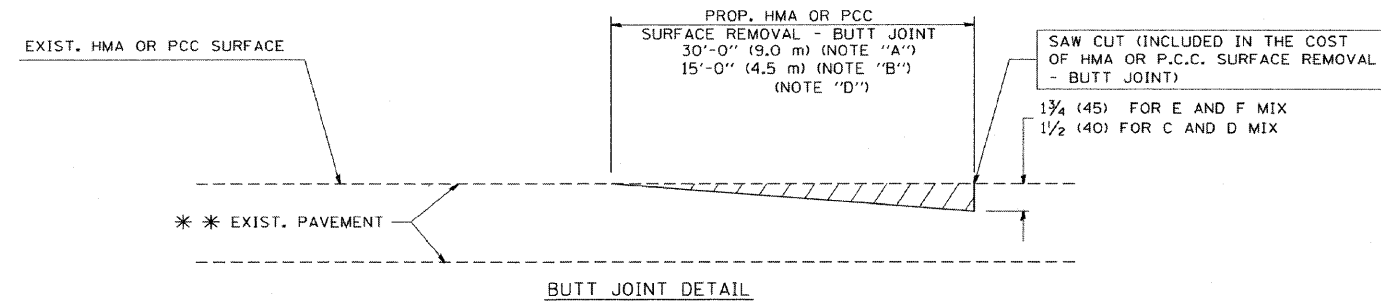
OPTION 2

TYPICAL TEMPORARY RAMP



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

| | | | |
|---------|---|----------|----------|
| REVISED | - | R. SHAH | 10-25-94 |
| REVISED | - | A. ABBAS | 03-21-97 |
| REVISED | - | M. GOMEZ | 04-06-01 |
| REVISED | - | R. BORO | 01-01-07 |



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

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

NOTES

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

BASIS OF PAYMENT:

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

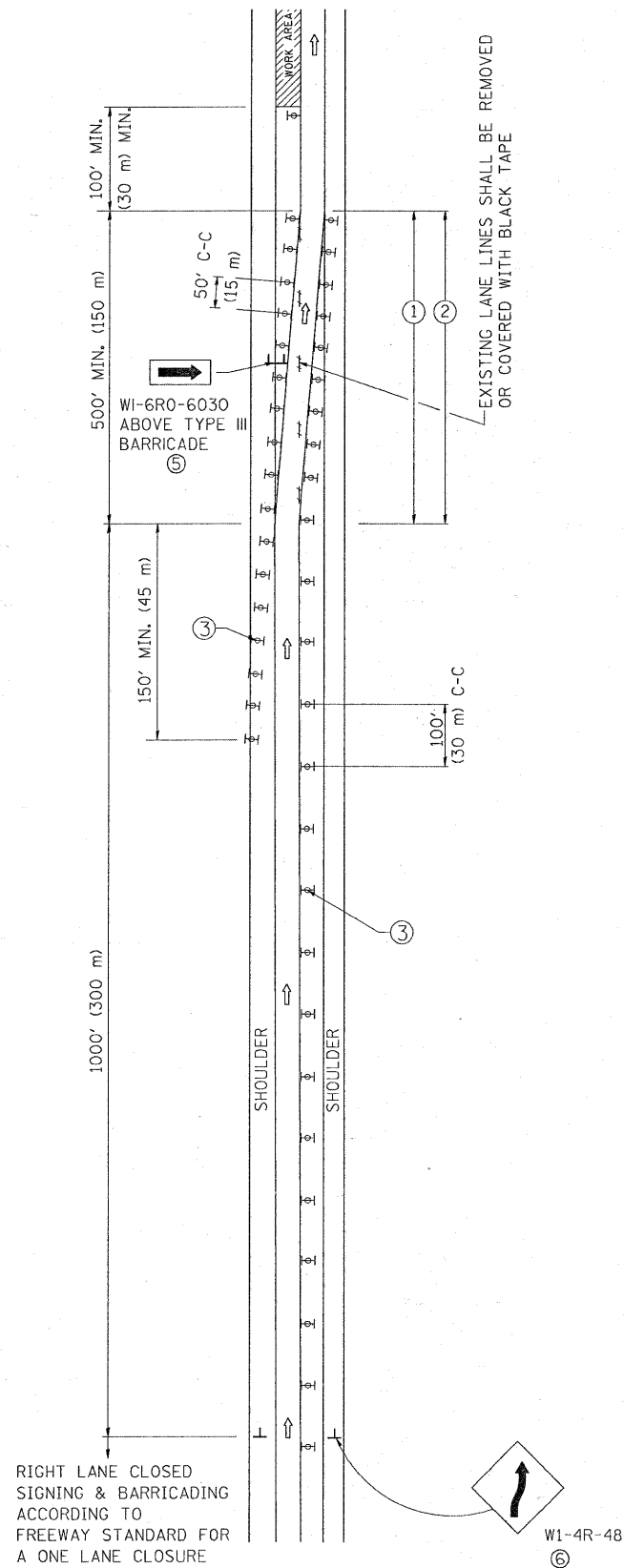
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

BUTT JOINT AND HMA TAPER DETAILS

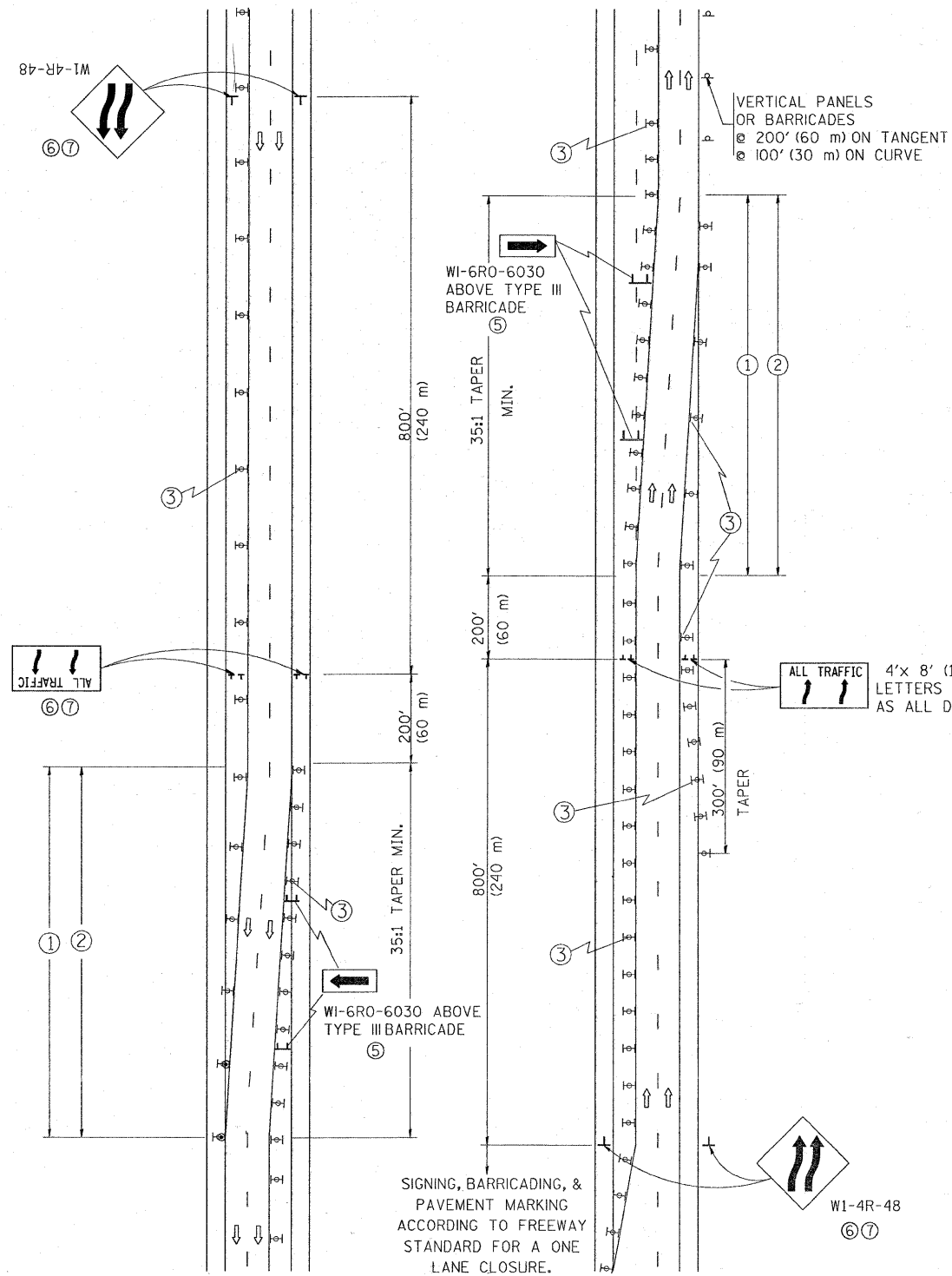
| | | | | |
|----------|---|------------|---------|---|
| DESIGNED | - | MJY | REVISED | - |
| DRAWN | - | SLV | REVISED | - |
| CHECKED | - | MJY, DC | REVISED | - |
| DATE | - | 01/29/2010 | REVISED | - |

| | | | | |
|---------------------|-------------|------------------|--------------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 330 | 462 X-B-I-1 | COOK | 41 | 35 |
| D-91-228-10 | | | CONTRACT NO. 60J38 | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

SINGLE LANE WEAVE



MULTI-LANE WEAVE



GENERAL NOTES

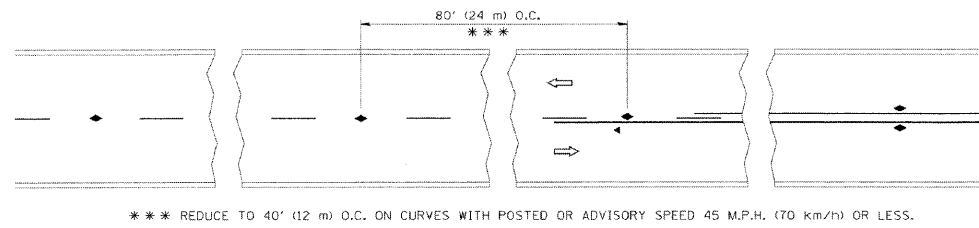
- ① EXISTING CONFLICTING PAVEMENT MARKING LINES SHALL BE REMOVED. PAVEMENT MARKING REMOVAL SHALL NOT BE REQUIRED FOR SINGLE LANE WEAVES UNDER 24 HOURS IN DURATION.
- ② CONTINUOUS REFLECTIVE TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE TAPER AND FOR 300' (90 m) ALONG SIDE THE WORK AREA WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS. THE LEFT EDGE LINE SHALL BE YELLOW AND THE RIGHT EDGE LINE SHALL BE WHITE. FOR MULTI-LANE WEAVES LANE LINES SHALL BE 5 INCH, 10'-30' (3 m-9 m) SKIP DASH, WHITE.
- ③ PLASTIC DRUMS WITH STEADY BURN LIGHTS AT 50' (15 m) C-C SPACING IN TAPERS AND 100' (30 m) C-C SPACING IN TANGENTS.
- ④ ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
- ⑤ IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 IS NOT AVAILABLE, THE SIGNS MAY BE MOUNTED ON NCHRP 350 TEMPORARY SIGN SUPPORTS. TYPE III BARRICADES MAY BE OMITTED FOR SINGLE-LANE WEAVES UNDER 24-HOURS IN DURATION. W1-6 SIGNS WILL STILL BE REQUIRED. IF THE WIDTH OF OFFSET IS LESS THAN 6' THEN THE TYPE III BARRICADE WITH ATTACHED ARROW SIGN PANEL CAN BE ELIMINATED IN THE TAPER AREAS.
- ⑥ WHEN THE LENGTH OF THE SHIFTED SEGMENT (DISTANCE BETWEEN WEAVE POINTS) IS LESS THAN 1500', DOUBLE REVERSE CURVE SIGNS (W24-1) SHOULD BE USED INSTEAD OF THE REVERSE CURVE (W1-4) SIGNS. ARROWS ON THE 4'x8' "ALL TRAFFIC" SIGNS SHALL BE THE SAME SHAPE.
- ⑦ THE NUMBER OF ARROWS ON THESE SIGNS SHALL MATCH THE NUMBER OF LANES OPEN TO TRAFFIC.

SYMBOLS

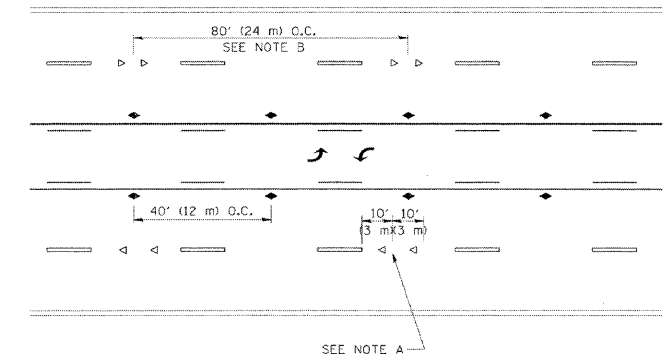
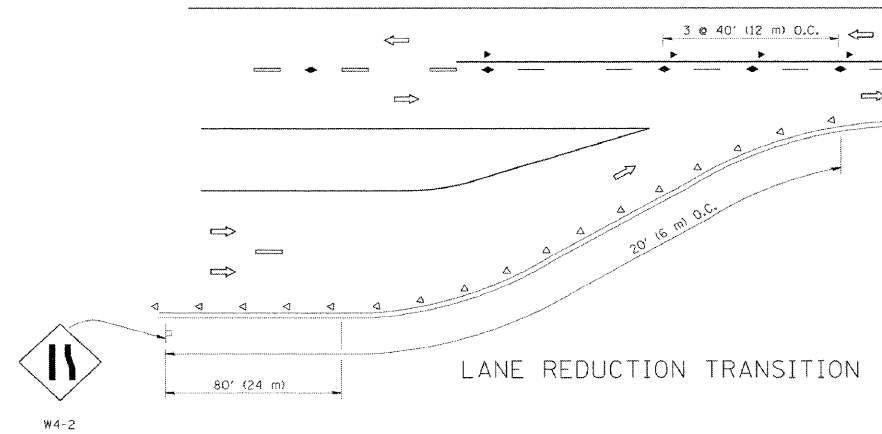
- DIRECTION OF TRAFFIC
 - WORK AREA
 - SIGN ON PORTABLE OR PERMANENT SUPPORT
 - TYPE II BARRICADE OR DRUM WITH MONO-DIRECTIONAL STEADY BURNING LIGHT
- W24-1-48

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

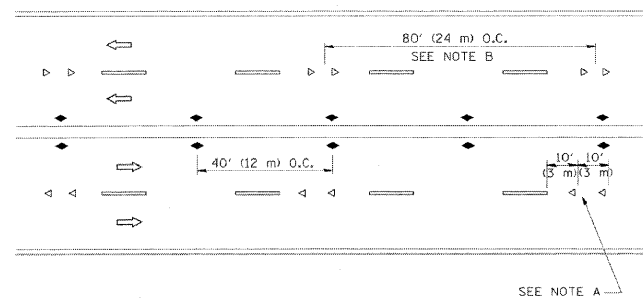
| | | | | | | | | | | | | |
|---|-----------------------------|----------------|---------------------|---|--|-------------------------|------|----------------|-----------------------|--------------|------------------|--------------|
| FILE NAME = W:\dststd\22x34\to09.dgn | USER NAME = lajso | DESIGNED - DWS | REVISED - JAF 01-03 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | TRAFFIC CONTROL DETAILS FOR FREEWAY SINGLE & MULTI-LANE WEAVE | | | F.A. - RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | PLOT SCALE = 50,000 ' / IN. | DRAWN - | REVISED - JAF 02-06 | | SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA. | TC-09 | CONTRACT NO. | 41 | 30 |
| | PLOT DATE = 1/26/2010 | CHECKED - | REVISED - SPB 01-07 | | | | | | | | | |
| | | DATE - 02-87 | REVISED - SPB 12-09 | | | | | | FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT | |



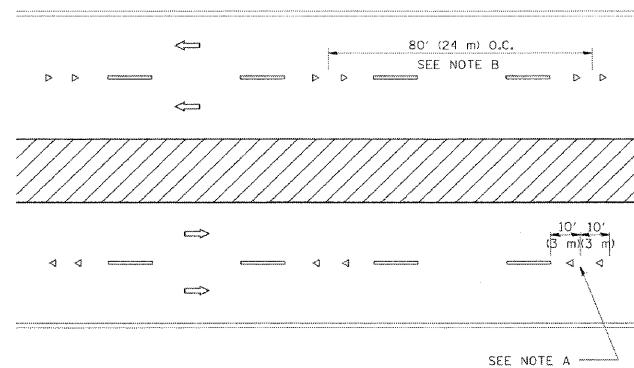
TWO-LANE/TWO-WAY



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

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

SYMBOLS

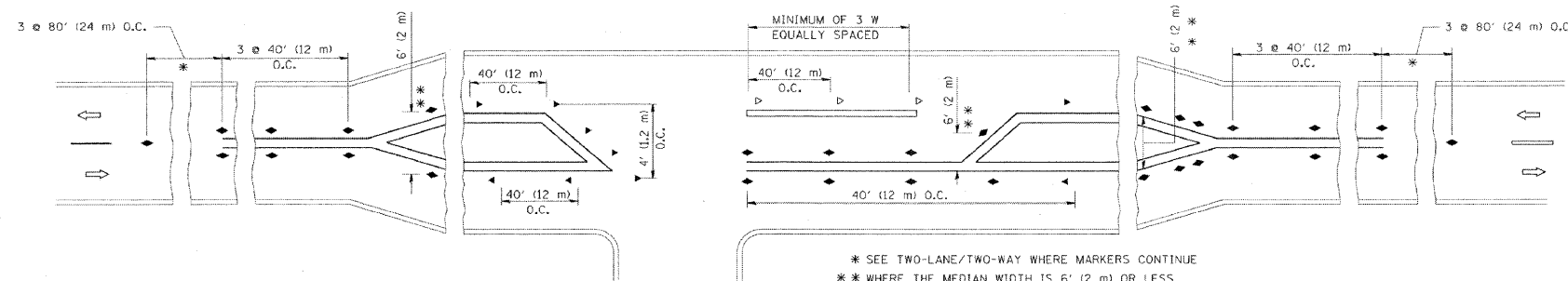
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

LANE MARKER NOTES

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

DESIGN NOTES

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

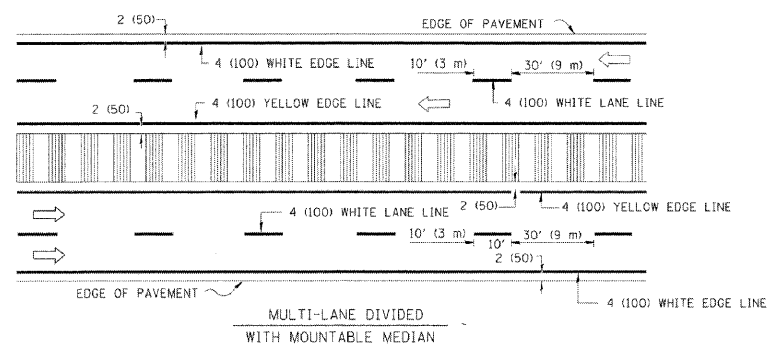
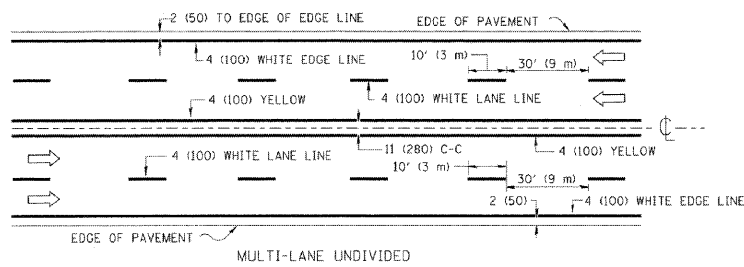
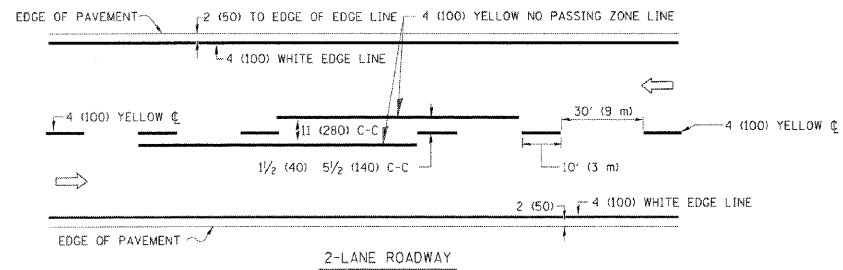


LEFT TURN

| | | |
|---------|----------------|----------|
| REVISED | - T. RAMMACHER | 09-19-94 |
| REVISED | - T. RAMMACHER | 03-12-99 |
| REVISED | - T. RAMMACHER | 01-06-00 |
| REVISED | - C. JUCIUS | 09-09-09 |

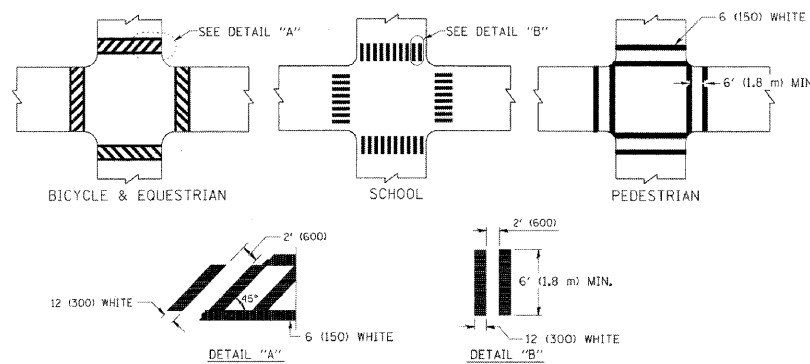
All dimensions are in inches (millimeters) unless otherwise shown.

TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)

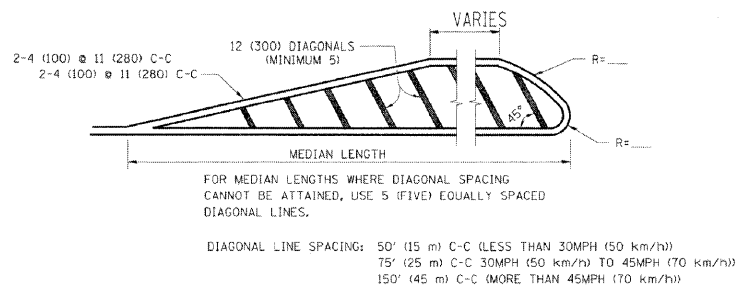
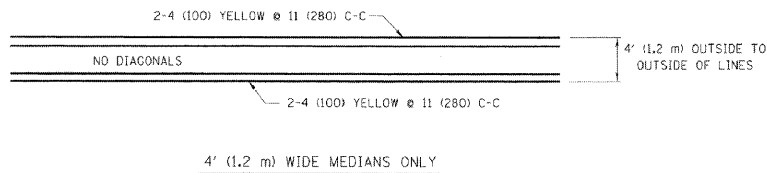


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

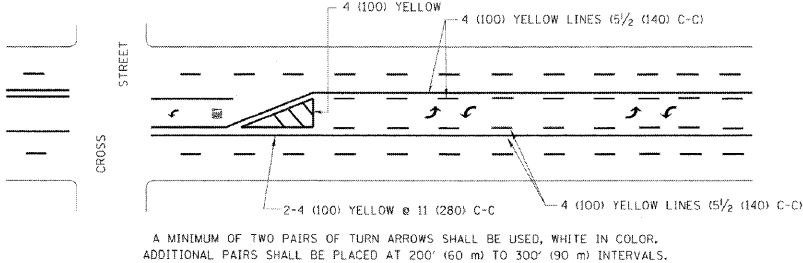
TYPICAL LANE AND EDGE LINE MARKING



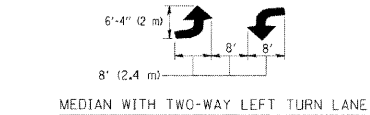
TYPICAL CROSSWALK MARKING



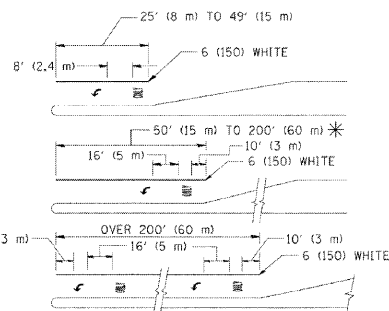
MEDIANS OVER 4' (1.2 m) WIDE



TYPICAL PAINTED MEDIAN MARKING

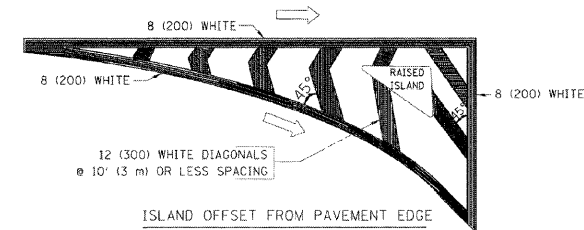


TYPICAL TURN LANE MARKING

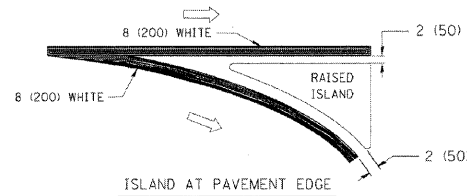


TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



TYPICAL ISLAND MARKING



ISLAND AT PAVEMENT EDGE

TYPICAL ISLAND MARKING

| TYPE OF MARKING | WIDTH OF LINE | PATTERN | COLOR | SPACING / REMARKS |
|---|--|---------------------------------|---|--|
| CENTERLINE ON 2 LANE PAVEMENT | 4 (100) | SKIP-DASH | YELLOW | 10' (3 m) LINE WITH 30' (9 m) SPACE |
| CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT | 2 @ 4 (100) | SOLID | YELLOW | 11 (280) C-C |
| NO PASSING ZONE LINES FOR ONE DIRECTION FOR BOTH DIRECTIONS | 4 (100) 2 @ 4 (100) | SOLID SOLID | YELLOW YELLOW | 5 1/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN |
| LANE LINES | 4 (100) 5 (125) ON FREEWAYS | SKIP-DASH SKIP-DASH | WHITE WHITE | 10' (3 m) LINE WITH 30' (9 m) SPACE |
| DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS) | SAME AS LINE BEING EXTENDED | SKIP-DASH | SAME AS LINE BEING EXTENDED | 2' (600) LINE WITH 6' (1.8 m) SPACE |
| EDGE LINES | 4 (100) | SOLID | YELLOW-LEFT WHITE-RIGHT | OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB |
| TURN LANE MARKINGS | 6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m)) | SOLID | WHITE | SEE TYPICAL TURN LANE MARKING DETAIL |
| TWO WAY LEFT TURN MARKING | 2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW | SKIP-DASH AND SOLID IN PAIRS | YELLOW WHITE | 10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5 1/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL |
| CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL) | 2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90° | SOLID SOLID SOLID | WHITE WHITE WHITE | NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS. |
| STOP LINES | 24 (600) | SOLID | WHITE | PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT; OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE |
| PAINTED MEDIANS | 2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS | SOLID | YELLOW; TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC | 11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING. |
| GORE MARKING AND CHANNELIZING LINES | 8 (200) WITH 12 (300) DIAGONALS @ 45° | SOLID | WHITE | DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h) 30' (9 m) C-C (OVER 45MPH (70 km/h)) |
| RAILROAD CROSSING | 24 (600) TRANSVERSE LINES; "RR" 15 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X" | SOLID | WHITE | SEE STATE STANDARD 780001 AREA OF: "R" = 3.6 SQ. FT. (0.33 m ²) EACH "X" = 54.0 SQ. FT. (5.0 m ²) |
| SHOULDER DIAGONALS | 12 (300) @ 45° | SOLID | WHITE - RIGHT YELLOW - LEFT | 50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h)) |

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

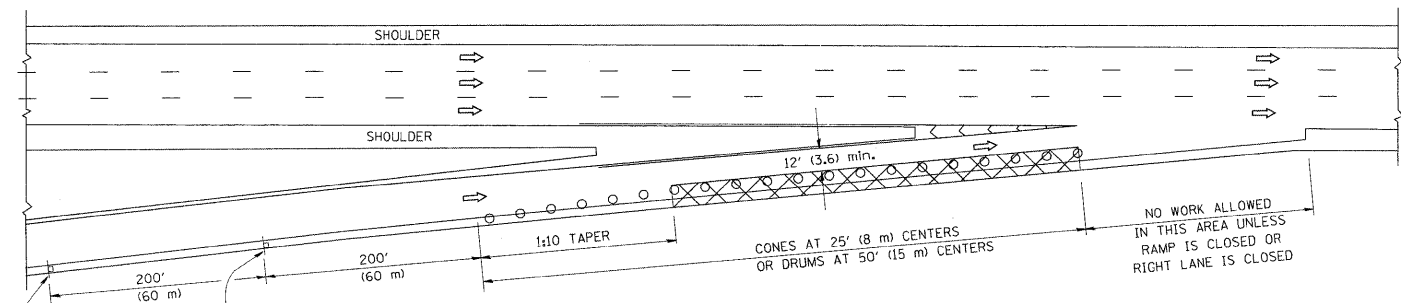
All dimensions are in inches (millimeters) unless otherwise shown.

| | | |
|---------|---------------|----------|
| REVISED | -T. RAMMACHER | 10-27-94 |
| REVISED | -C. JUCLIS | 09-09-09 |
| REVISED | - | |
| REVISED | - | |

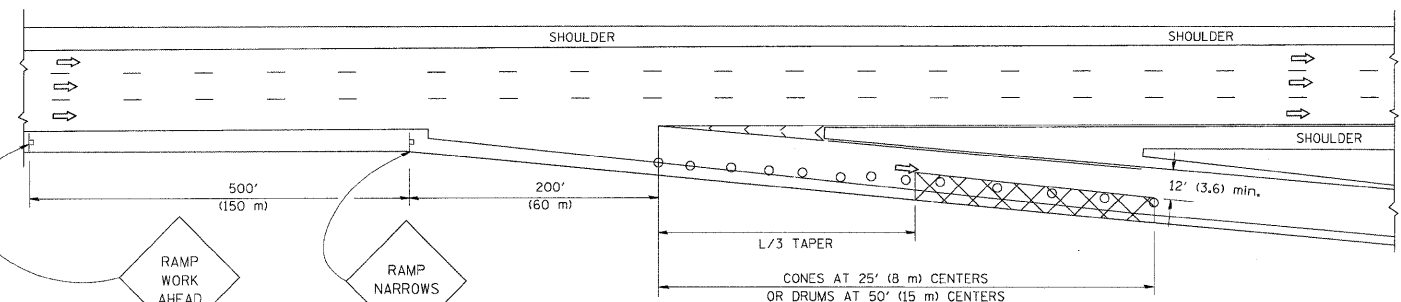
DISTRICT ONE TYPICAL PAVEMENT MARKINGS

PARTIAL RAMP CLOSURE DETAILS

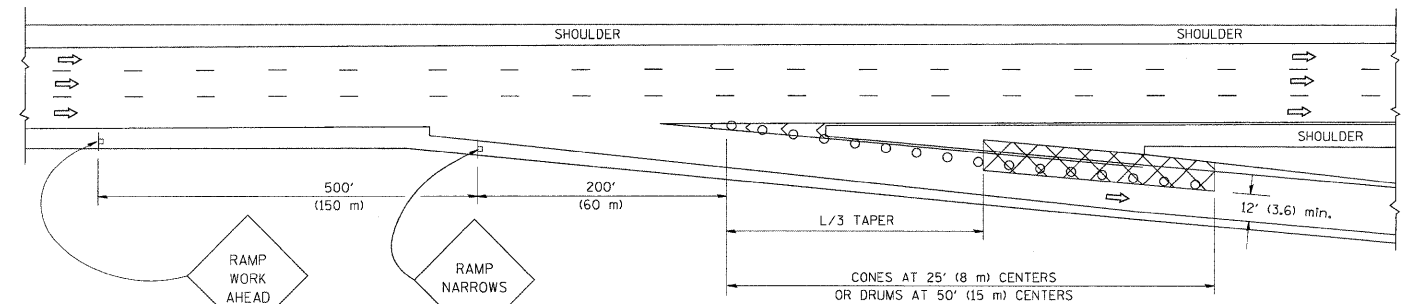
SHOULDER CLOSURE DETAILS



TYPICAL ENTRANCE RAMP



TYPICAL EXIT RAMP



TYPICAL EXIT RAMP

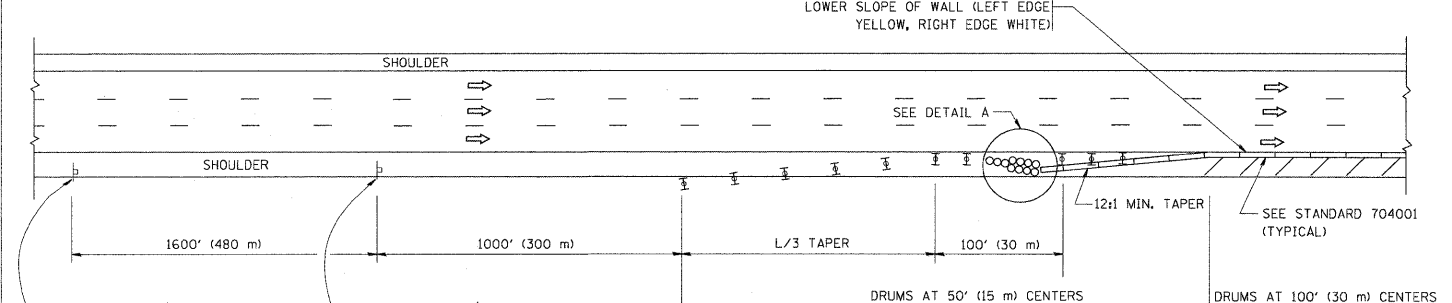
SYMBOLS

- ACTIVE WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH CONTROL SIGN
- TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONO-DIRECTIONAL LIGHT
- CONE, DRUM OR BARRICADE

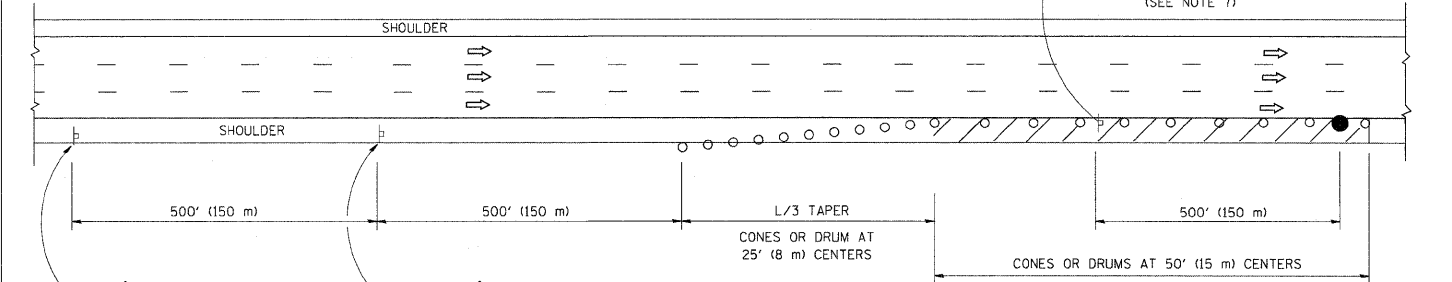
GENERAL NOTES

1. THE "L" DISTANCE EQUALS:

| | |
|--------------------------------------|---|
| SPEED LIMIT | FORMULAS |
| 45 mph (80 km/h) OR GREATER: | METRIC ENGLISH $L=0.65(W)(S)$ $L=(W)(S)$ |
| W = WIDTH OF OFFSET IN FEET (METERS) | |
| S = NORMAL POSTED SPEED MPH (KM/H) | |
2. PLASTIC DRUMS WITH HIGH PERFORMANCE REFLECTIVE SHEETING AND STEADY BURNING LIGHTS ARE REQUIRED FOR ALL NIGHTTIME CLOSURES.
3. ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
4. FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.



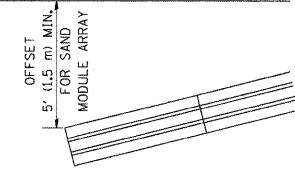
PERMANENT SHOULDER CLOSURE



DAYTIME SHOULDER CLOSURE

THIS DETAIL IS USED WHERE:
 1. VEHICLES, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCRUCH IN AN AREA CLOSER THAN 15' (4.5 m) TO THE EDGE OF PAVEMENT FOR A PERIOD IN EXCESS OF 15 MINUTES.

ARRAY DESIGN PER MANUFACTURER TO BE NCHRP 350 COMPLIANT.



DETAIL "A"
 IMPACT ATTENUATOR, TEMPORARY
 (SEE NOTE 5)

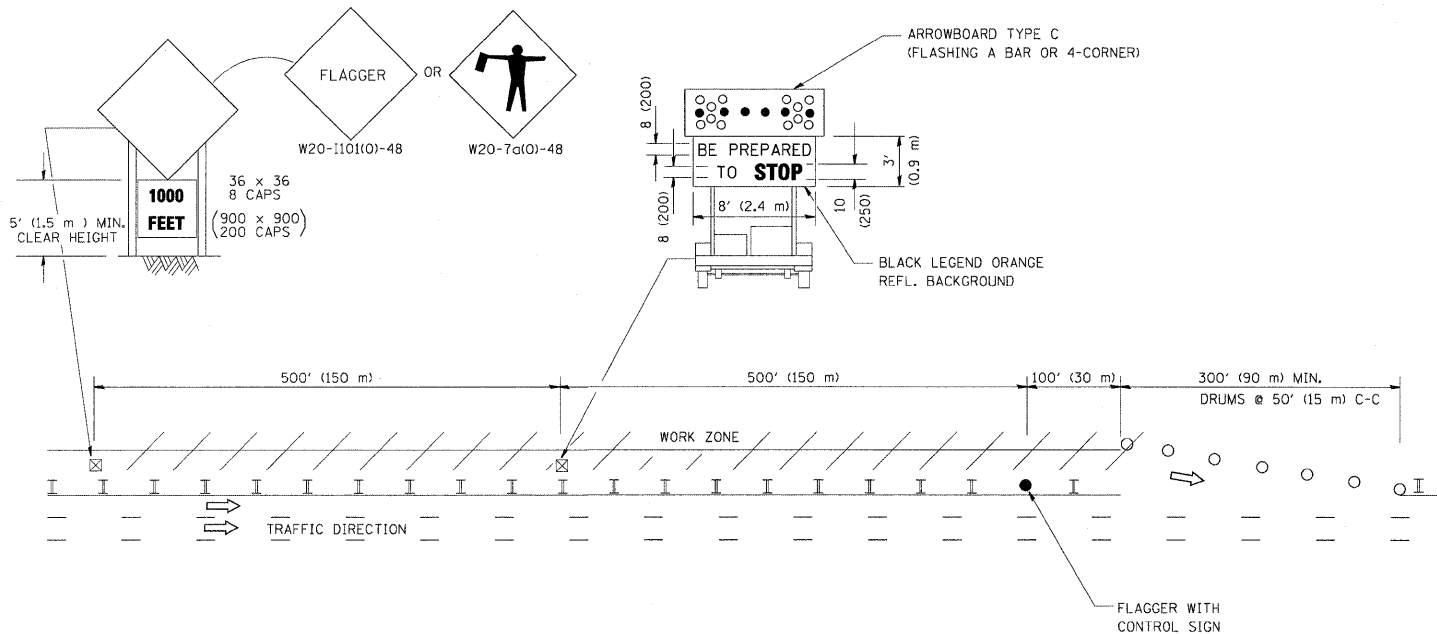
5. THE IMPACT ATTENUATOR, TEMPORARY IS NOT REQUIRED WHEN THE TEMPORARY CONCRETE BARRIER WALL IS PROTECTED BY OR IS TIED INTO THE EXISTING GUARDRAIL. IF OFFSET IS LESS THAN 5 FEET USE NARROW USE TYPE DEVICE TO MEET NCHRP350.
6. AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL FREEWAY CLOSURES.
7. THE FLAGGER AND FLAGGER SIGN ARE REQUIRED AT THE ABOVE WORK SITES WHEN:
 - a. FOUR OR MORE WORK VEHICLES ENTER THE TRAFFIC LANES IN A ONE HOUR PERIOD.
 - b. THE WORK AVTIVITY REQUIRES FREQUENT ENCRUCHMENT INTO THE LANE OPEN TO TRAFFIC.
 THE FLAGGER SHALL BE STATIONED APPROXIMATELY 100' (30 m) TO 200' (60 m) IN ADVANCE OF THE WORKERS.

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

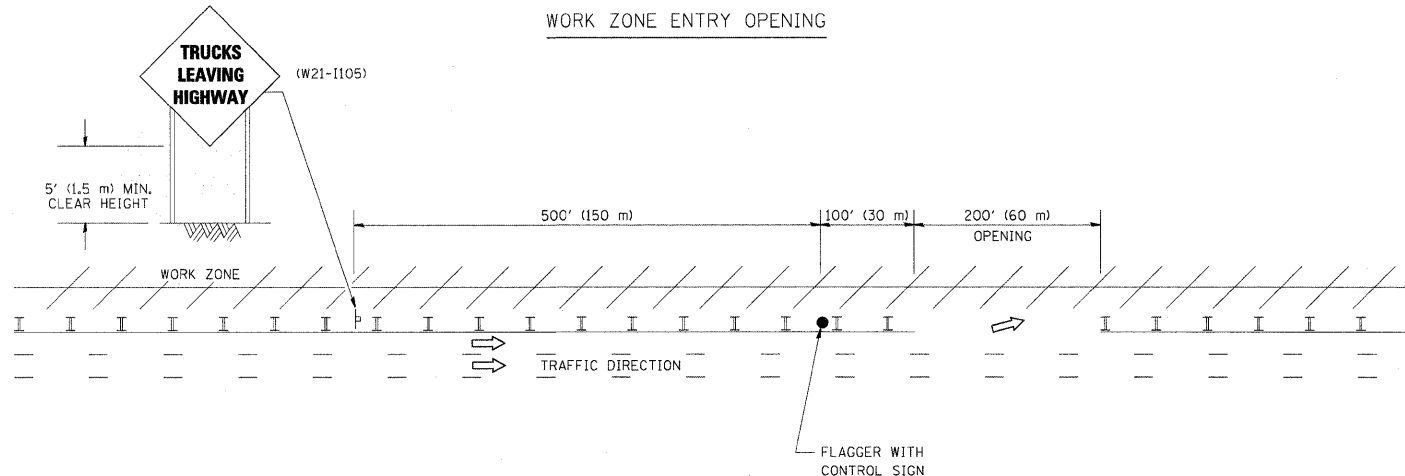
| | | | | | | | | | | | |
|---|-------------------|----------------|------------------------|---|--|-------------------------|---------|---|--------------|--------------|--|
| FILE NAME = W:\dststd\22x34\1c17.dgn | USER NAME = lqyaa | DESIGNED - | REVISED - 04-03 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | |
| | | DRAWN - D.W.S. | REVISED - J.A.F. 12-06 | | | | | | | | |
| | | CHECKED - | REVISED - S.P.B. 01-07 | | | | | | | | |
| | | DATE - 11-96 | REVISED - S.P.B. 12-09 | | | | | | | | |
| PLOT SCALE = 50.0000' / IN. | | | | SCALE: NONE | | SHEET NO. 1 OF 1 SHEETS | | STA. TO STA. | | CONTRACT NO. | |
| PLOT DATE = 1/26/2010 | | | | | | TC-17 | | FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT | | | |

SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS

WORK ZONE EXIT OPENING



WORK ZONE ENTRY OPENING



- NOTES:
1. THE ARROWBOARD, THE FLAGGER AHEAD SIGN AND THE TRUCKS LEAVING HIGHWAY SIGN SHALL BE REMOVED OR TURNED AWAY FROM TRAFFIC AND THE EXIT AND ENTRY OPENINGS SHALL BE CLOSED WHEN THE FLAGGING OPERATION CEASES. NON OPERATING EQUIPMENT SHALL COMPLY WITH ARTICLE 701.11
 2. WORK ZONE EXIT OPENINGS SHOULD BE A MINIMUM OF ONE HALF MILE APART.
 3. EXITING THE WORK ZONE AT ANY PLACE OTHER THAN AT A WORK ZONE EXIT OPENING WILL BE PROHIBITED.
 4. ALL VEHICLES SHALL ENTER THE WORK ZONE AT ENTRY OPENINGS, USING THEIR TURN SIGNALS TO WARN MOTORISTS

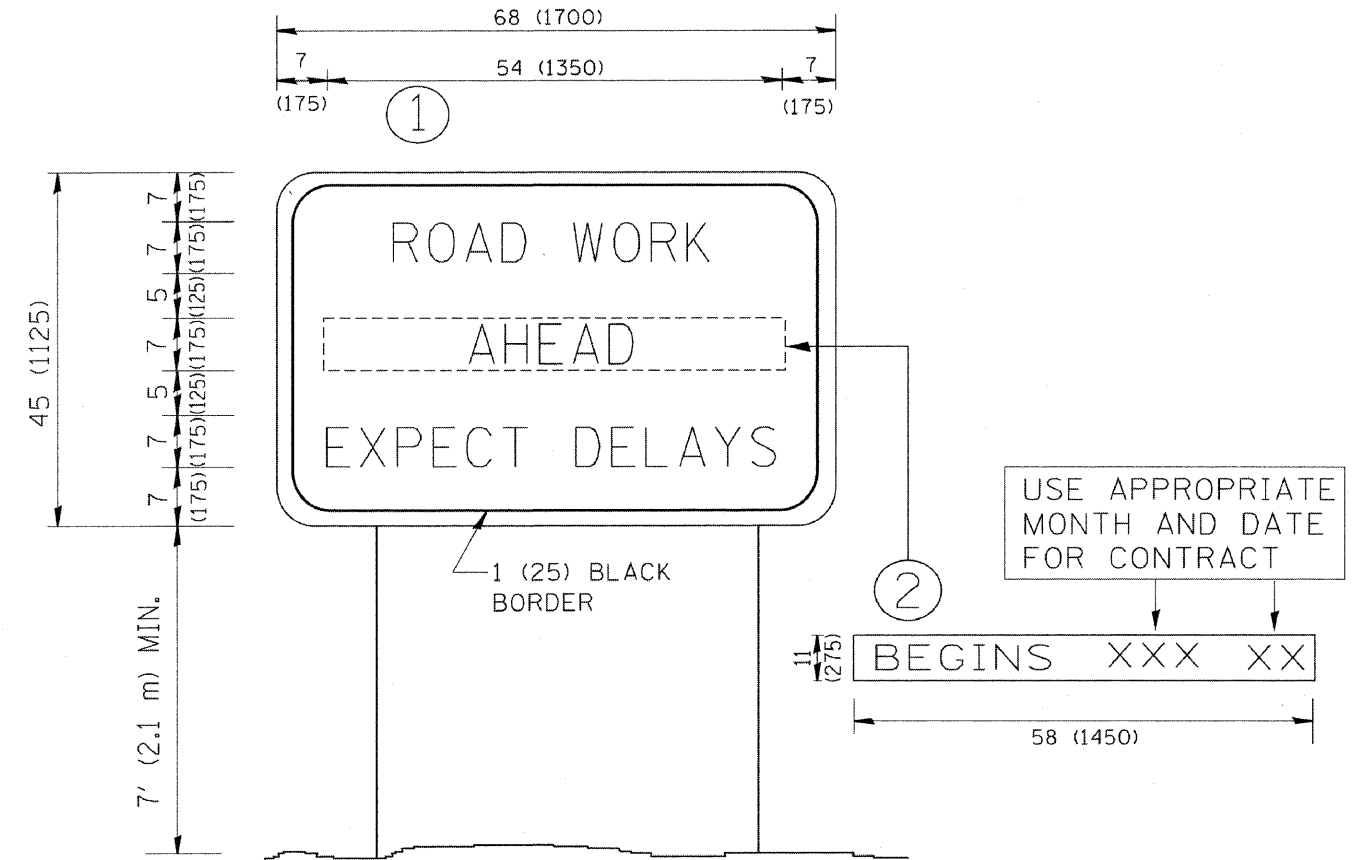
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

| | | | |
|--|----------------------------|------------|------------------------|
| FILE NAME = W:\d\ststd\22x34\tc18.dgn | USER NAME = leusa | DESIGNED - | REVISED - J.A.F. 04-03 |
| | | DRAWN - | REVISED - J.A.F. 02-06 |
| | PLOT SCALE = 50.000' / IN. | CHECKED - | REVISED - S.P.B. 01-07 |
| | PLOT DATE = 1/26/2010 | DATE - | REVISED - S.P.B. 12-09 |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | |
|--|-------------------------|--------------|
| SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS | | |
| SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. TO STA. |

| | | | | |
|---|---------|--------|--------------|-----------|
| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | TC-18 | | 41 | 40 |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |



NOTES:

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

| | | |
|---------|---|-----------------------|
| REVISED | - | R. MIRS 09-15-97 |
| REVISED | - | R. MIRS 12-11-97 |
| REVISED | - | T. RAMMACHER 02-02-99 |
| REVISED | - | C. JUCIUS 01-31-07 |

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

ARTERIAL ROAD INFORMATION SIGN

| | | | | |
|----------|---|------------|---------|---|
| DESIGNED | - | MJY | REVISED | - |
| DRAWN | - | SLV | REVISED | - |
| CHECKED | - | MJY, DC | REVISED | - |
| DATE | - | 01/29/2010 | REVISED | - |

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------|-------------|---------------------------|--------------------|-----------|
| 330 | 462 X-B-I-1 | COOK | 41 | 41 |
| D-91-228-10 | | | CONTRACT NO. 60J38 | |
| FED. ROAD DIST. NO. | | ILLINOIS FED. AID PROJECT | | |