

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

FAI 57 AT FLOSSMOOR ROAD
SECTION 0607-1007 HB-1
PROJECT NO. IM-057-7(286)342
BRIDGE DECK OVERLAY, BRIDGE JOINT REPAIR
COOK COUNTY
JOB NO. C-91-216-10

| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-----------------------|----------------|----------|--------------------|-----------|
| 57 | 0607-1007 HB-1 | COOK | 29 | 1 |
| FED. ROAD DIST. NO. 1 | | ILLINOIS | CONTRACT NO. 60J26 | |
| * 29 + 1 = 30 | | | | |

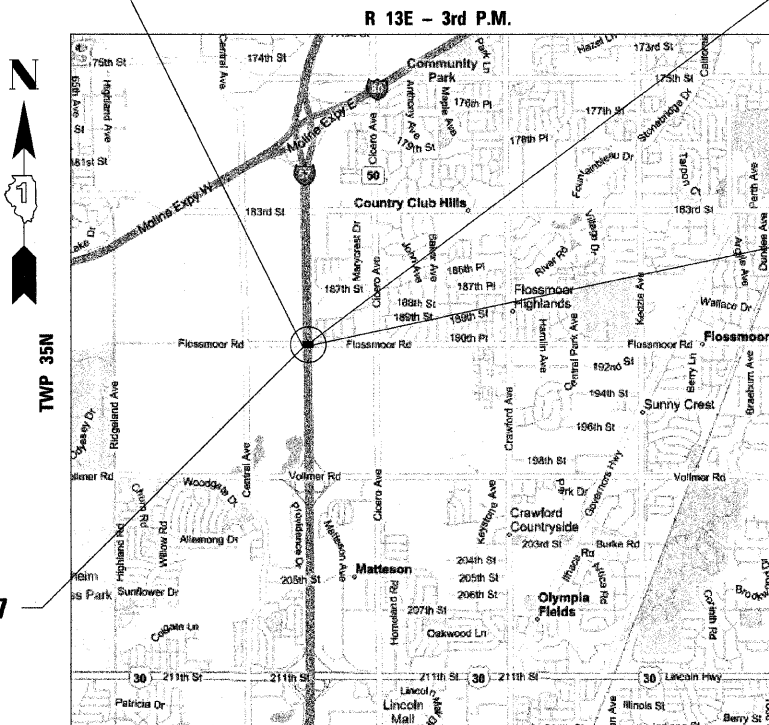
FOR INDEX OF SHEETS, SEE SHEET NO. 2
FOR LIST OF STANDARDS, SEE SHEET NO. 2

IMPROVEMENT LOCATED IN
COUNTRY CLUB HILLS, IL

S.N. 016-1099
ADT = 3,000 (2006)
POSTED SPEED: 45 MPH

IMPROVEMENT BEGINS:
STA. 26 + 59.30

PROJECT LOCATION



FLOSSMOOR RD. OVER I-57
EXISTING S.N. 016-1099

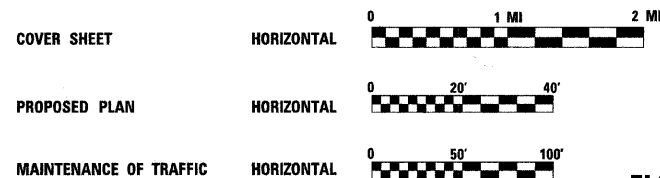
RICH TOWNSHIP
LOCATION MAP

GROSS AND NET LENGTH OF IMPROVEMENT = 253.34 FEET = 0.05 MILE



LOCATION OF SECTION INDICATED THIS: -

GRAPHIC SCALES:



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 ENGINEER: MICHELLE A. AQUINO - (847) 705-4606
PROJECT MANAGER: RAJENDRA C. SHAH - (847) 705-4555
CONTRACT NO.: 60J26

PREPARED BY:
LIN ENGINEERING, LTD.
CHATHAM, ILLINOIS 62629
(217) 483-4168

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED JANUARY 22, 2010
Diana M. O'Hara DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
March 19 2010
Scott E. Stitt, P.E. ASSISTING ENGINEER OF DESIGN AND ENVIRONMENT
March 19 2010
Christine M. Reed DIRECTOR OF HIGHWAYS, CHIEF ENGINEER



Fred M. Lin
FRED M. LIN, P.E.
ILLINOIS REGISTERED ENGINEER NO. 062-056704
REGISTRATION EXPIRES NOV. 30, 2011

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

INDEX OF SHEETS

- 1 COVER SHEET
- 2 INDEX OF SHEETS, STANDARDS,
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- 3 SUMMARY OF QUANTITIES
- 4 PROPOSED ROADWAY PLAN
- 5-6 MAINTENANCE OF TRAFFIC PLANS
- 7 PAVEMENT MARKING PLAN
- 8-17 STRUCTURAL PLANS
- 18-29 DISTRICT STANDARDS

STATE STANDARDS

- 000001-05 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 001001-02 AREA OF REINFORCEMENT BARS
- 001006 DECIMAL OF AN INCH AND OF A FOOT
- 606001-04 CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
- 630001-08 STEEL PLATE BEAM GUARDRAIL
- 631046-04 TRAFFIC BARRIER TERMINAL, TYPE 10
- 635011-02 REFLECTOR MARKER AND MOUNTING DETAILS
- 701006-03 OFF-RD OPERATIONS, 2L, 2W, 15'(4.5m) TO 24' (600mm) FROM EOP
- ~~701101-02 OFF-RD OPERATIONS, MULTILANE 15'(4.5m) TO 24'(600mm) FROM EOP~~
- 701201-03 LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS > 45 MPH
- 701311-03 LANE CLOSURE 2L, 2W MOVING OPERATIONS-DAY ONLY
- 701321-10 LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
- 701400-04 APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701401-05 LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701406-05 LANE CLOSURE, FREEWAY/EXPRESSWAY, DAY OPERATIONS ONLY
- 701901-01 TRAFFIC CONTROL DEVICES
- 704001-06 TEMPORARY CONCRETE BARRIER
- 720011-01 METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
- 728001-01 TELESCOPING STEEL SIGN SUPPORT
- 729001-01 APPLICATIONS OF TYPES A&B METAL POSTS (FOR SIGNS & MARKERS)
- ~~701001-02~~
- ~~701301-03~~

DISTRICT STANDARDS - INCLUDED AS PLAN SHEETS 18-29

- BD32 BUTT JOINT AND HMA TAPER DETAILS
- BE800 TEMPORARY LIGHT POLE DETAILS
- BE805 TEMPORARY LIGHTING AND TRAFFIC SIGNALS FOR SINGLE LANE STAGING
- TC10 TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS AND DRIVEWAYS
- TC11 TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)
- TC13 TYPICAL PAVEMENT MARKINGS
- TC16 PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING
- TC17 TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES
- TC22 ARTERIAL ROAD INFORMATION SIGN
- ~~TC26 DRIVEWAY ENTRANCE SIGNING~~

COMMITMENTS

NO COMMITMENTS HAVE BEEN MADE FOR THIS PROJECT.

GENERAL NOTES

1. THESE PLANS HAVE BEEN PREPARED FROM INFORMATION ACQUIRED FROM EXISTING PLANS AND NOTES RECEIVED FROM IDOT FIELD MAINTENANCE ENGINEERS.
2. PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO VARIATIONS FOUND IN THE FIELD. THE CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION AND MAKE NECESSARY ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING MATERIALS. ANY ADJUSTMENTS PROPOSED BY THE CONTRACTOR MUST BE APPROVED BY THE ENGINEER. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED BASED UPON THE UNIT PRICE.
3. QUANTITIES FOR DECK SLAB REPAIR ARE APPROXIMATE. LOCATIONS WILL BE DETERMINED BY THE ENGINEER FOLLOWING REMOVAL OF THE HMA SURFACE COURSE AND HYDRO-SCARIFICATION. ACTUAL REPAIR LOCATIONS SHALL BE SHOWN ON THE AS-BUILT PLANS.
4. FORTY-EIGHT HOURS BEFORE STARTING EXCAVATION. THE CONTRACTOR WILL CALL J.U.L.I.E. (1-800-892-0123) OR 811 FOR LOCATIONS OF THE EXISTING UTILITIES.
5. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
6. SAW CUTTING PRIOR TO ANY REMOVAL ITEMS NOTED ON THE PLANS OR DIRECTED BY THE ENGINEER SHALL BE CONSIDERED INCLUDED IN THE COST OF THE ITEMS BEING REMOVED.
7. DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
8. THE CONTRACTOR SHALL USE CARE IN REMOVING OR EXCAVATING NEAR ALL EXISTING ITEMS WHICH WILL REMAIN. ANY DAMAGE DONE TO EXISTING ITEMS BY THE CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
9. WHEN ARTIFICIAL LIGHTING IS UTILIZED IN NIGHT OPERATIONS, THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AS WELL AS ADJOINING RESIDENTIAL AREAS.
10. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, AS REQUIRED, PRIOR TO COMMENCING WITH CONSTRUCTION.
11. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO ASSURE THAT NO DEBRIS FALLS INTO THE UNDERPASS ROADWAY. THE COST OF THIS WORK SHALL BE INCLUDED IN THE VARIOUS PAY ITEMS.
12. THE CONTRACTOR 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.
13. THE CONTRACTOR SHALL CONTACT PATRICE HARRIS, THE AREA TRAFFIC FIELD TECHNICIAN, AT (708) 597-9800 TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.
14. ALL DAMAGE TO EXISTING PAVEMENT MARKINGS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
15. ALL RAISED REFLECTIVE PAVEMENT MARKS (BRIDGE) SHALL BE LOW PROFILE.
16. ACCESS SHALL BE PROVIDED AT ALL TIMES TO PROPERTIES ABUTTING THE PROPOSED IMPROVEMENT.
17. BEFORE BEGINNING ANY WORK THE CONTRACTOR SHALL RETAIN ANY RECORD FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES (AND RAISED REFLECTIVE PAVEMENT MARKERS) IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER.

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

| MIXTURE TYPE | AIR VOIDS |
|---|--------------|
| SURFACE COURSE | |
| HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL 9.5 mm) - 1 3/4" | 4% @ 50 Gyr. |
| BINDER COURSE | |
| LEVEING BINDER (MACHINE METHOD), N50 - 3/4" | 4% @ 50 Gyr. |
| HOT-MIX ASPHALT SHOULDERS | |
| HOT-MIX ASPHALT SHOULDERS, 8' | 2% @ 30 Gyr. |

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.
THE "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.

| | | | | | | | | | | | | |
|-------------|----------------------|----------------|-----------|---|---|--|--|--------------------|----------------|--------|-----------------|--------------|
| FILE NAME = | USER NAME = #USER# | DESIGNED - DPS | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | INDEX OF SHEETS, STANDARDS, GENERAL NOTES & COMMITMENTS FLOSSMOOR ROAD OVER I-57 | | | F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| #FILE# | | DRAWN - DPS | REVISED - | | | | | 57 | 0607-1007 HB-1 | COOK | 29 | 2 |
| | PLOT SCALE = #SCALE# | CHECKED - FL | REVISED - | | SCALE: NONE SHEET NO. OF SHEETS STA. TO STA. | | | CONTRACT NO. 60J26 | | | | |
| | PLOT DATE = #DATE# | DATE - 1/2010 | REVISED - | | FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | | | | |

URBAN
80% FED.
20% STATE

SUMMARY OF QUANTITIES

URBAN
80% FED.
20% STATE

| CODE NUMBER | ITEM | UNIT | TOTAL QUANTITY | X243-2A STRUCTURE | 1000-2A ROADWAY |
|---------------------|---|----------------|----------------|-------------------|-----------------|
| 20200100 | EARTH EXCAVATION | CU YD | 532 | | 532 |
| 40600100 | BITUMINOUS MATERIALS (PRIME COAT) | GALLON | 451 | 33 | 418 |
| 40600625 | LEVELING BINDER (MACHINE METHOD), N50 | TON | 7 | 7 | |
| 40603335 | HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 | TON | 19 | 19 | |
| 42001300 | PROTECTIVE COAT | SQ YD | 120 | | 120 |
| 44000156 | HOT-MIX ASPHALT SURFACE REMOVAL, 1 3/4" | SQ YD | 107 | 107 | |
| 44000915 | HOT-MIX ASPHALT SURFACE REMOVAL (DECK) | SQ YD | 760 | 760 | |
| 48101600 | AGGREGATE SHOULDER, TYPE B, 8" | SQ YD | 597 | | 597 |
| 48203029 | HOT-MIX ASPHALT SHOULDERS, 8" | SQ YD | 597 | | 597 |
| 50102400 | CONCRETE REMOVAL | CU YD | 9.7 | 9.7 | |
| 50157301 | PROTECTIVE SHIELD (PERMANENT) | SQ YD | 400 | 400 | |
| 50300255 | CONCRETE SUPERSTRUCTURE | CU YD | 9.6 | 9.6 | |
| 50300260 | BRIDGE DECK GROOVING | SQ YD | 726 | 726 | |
| 50300300 | PROTECTIVE COAT | SQ YD | 795 | 795 | |
| 50500405 | FURNISHING AND ERECTING STRUCTURAL STEEL | POUND | 1990 | 1990 | |
| 50500715 | JACK AND REMOVE EXISTING BEARINGS | EACH | 12 | 12 | |
| 50800205 | REINFORCEMENT BARS, EPOXY COATED | POUND | 1320 | 1320 | |
| 50800515 | BAR SPLICERS | EACH | 16 | 16 | |
| 52000110 | PREFORMED JOINT STRIP SEAL | FOOT | 85 | 85 | |
| 52100010 | ELASTOMERIC BEARING ASSEMBLY, TYPE I | EACH | 12 | 12 | |
| 52100520 | ANCHOR BOLTS, 1" | EACH | 24 | 24 | |
| 58700300 | CONCRETE SEALER | SQ FT | 3670 | 3670 | |
| 60603800 | COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12 | FOOT | 756 | | 756 |
| 63300115 | REMOVAL AND REINSTALLATION OF EXIST'NG STEEL PLATE BEAM GUARD RAIL, SINGLE RAIL | FOOT | 825 | | 825 |
| 67000400 | ENGINEER'S FIELD OFFICE, TYPE A | CAL MO | 3 | | 3 |
| 67100100 | MOBILIZATION | L SUM | 1 | | 1 |
| 70101800 | TRAFFIC CONTROL AND PROTECTION, (SPECIAL) | L SUM | 1 | | 1 |
| 70103815 | TRAFFIC CONTROL SURVEILLANCE | CAL DA | 20 | | 20 |
| 70106500 | TEMPORARY BRIDGE TRAFFIC SIGNALS | EACH | 1 | | 1 |
| 70106800 | CHANGEABLE MESSAGE SIGN | CAL MO | 3 | | 3 |
| 70301000 | WORK ZONE PAVEMENT MARKING REMOVAL | SQ FT | 904 | | 904 |
| 70400100 | TEMPORARY CONCRETE BARRIER | FOOT | 462.5 | | 462.5 |
| 70400200 | RELOCATE TEMPORARY CONCRETE BARRIER | FOOT | 462.5 | | 462.5 |
| * 78000200 | THERMOPLASTIC PAVEMENT MARKING - LINE 4" | FOOT | 1084 | | 1084 |
| * 78000210 | EPOXY POLYUREA PAVEMENT MARKING - LINE 4" | FOOT | 2264 | | 2264 |
| * 78100100 | RAISED REFLECTIVE PAVEMENT MARKER | EACH | 29 | | 29 |

| CODE NUMBER | ITEM | UNIT | TOTAL QUANTITY | X243-2A STRUCTURE | 1000-2A ROADWAY |
|-------------|---|--------|----------------|-------------------|-----------------|
| * 78100105 | RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE) | EACH | 14 | | 14 |
| * 78200530 | BARRIER WALL MARKERS, TYPE C | EACH | 148 | | 148 |
| 78300100 | PAVEMENT MARKING REMOVAL | SQ FT | 1116 | | 1116 |
| 78300200 | RAISED REFLECTIVE PAVEMENT MARKER REMOVAL | EACH | 43 | | 43 |
| X0322185 | BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/4 INCHES | SQ YD | 760 | 760 | |
| X0322256 | TEMPORARY INFORMATION SIGNING | SQ FT | 116 | | 116 |
| X0325303 | STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES) | SQ FT | 111 | 111 | |
| X0325305 | STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES) | SQ FT | 88 | 88 | |
| X0325775 | WET REFLECTIVE TEMPORARY TAPE, TYPE III, 4 INCH | FOOT | 2448 | | 2448 |
| X0325841 | WET REFLECTIVE TEMPORARY TAPE, TYPE III, 24 INCH | FOOT | 48 | | 48 |
| X0326276 | TEMPORARY LIGHTING FOR SINGLE LANE STAGING | L SUM | 1 | | 1 |
| X0326766 | CLEAN & RE SEAL RELIEF JOINT | FOOT | 82 | 82 | |
| X7011015 | TRAFFIC CONTROL AND PROTECTION, (EXPRESSWAYS) | L SUM | 1 | | 1 |
| X7013820 | TRAFFIC CONTROL SURVEILLANCE, EXPRESSWAYS | CAL DA | 10 | | 10 |
| Z0001800 | APPROACH SLAB REPAIR (PARTIAL DEPTH) | SQ YD | 8.2 | 8.2 | |
| Z0006204 | BRIDGE DECK HYDRO-SCARIFICATION 1/2" | SQ YD | 760 | 760 | |
| Z0030260 | IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3 | EACH | 2 | | 2 |
| Z0030330 | IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE), TEST LEVEL 3 | EACH | 2 | | 2 |
| Z0016002 | DECK SLAB REPAIR (FULL DEPTH, TYPE II) | SQ YD | 35.8 | 35.8 | |

*Specialty Items

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PLOT DATE = #DATE#

DESIGNED - SEW
DRAWN - SEW
CHECKED - FML
DATE - 1/2010

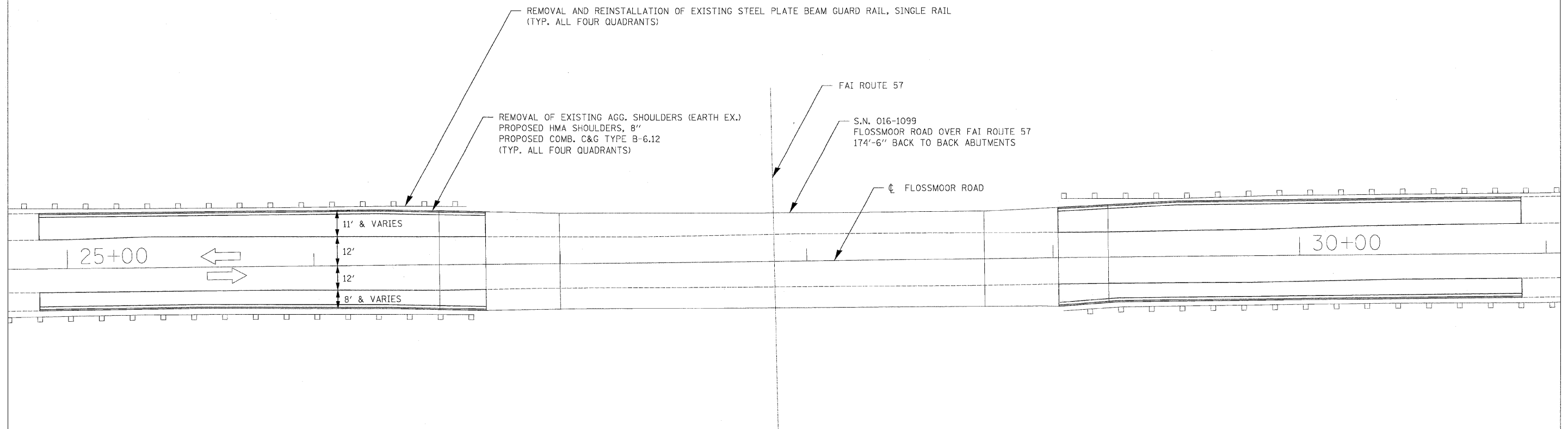
REVISED -
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REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
FLOSSMOOR ROAD OVER I-57

SCALE: SHEET NO. OF SHEETS STA. TO STA.

Rev.
F.A.I. RTE. SECTION COUNTY TOTAL SHEETS SHEET NO.
57 0607-1007 HB-1 COOK 29 3
ILLINOIS FED. AID PROJECT CONTRACT NO. 60J26



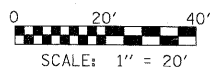
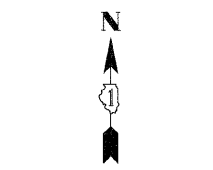
LIMITS OF PROPOSED IMPROVEMENTS:

REMOVAL AND REINSTALLATION OF EXISTING STEEL PLATE BEAM GUARD RAIL, SINGLE RAIL
 STA. 24+65.00 TO STA. 26+69.80 LT
 STA. 24+65.00 TO STA. 26+69.80 RT
 STA. 29+02.10 TO STA. 31+05.00 LT
 STA. 29+02.10 TO STA. 31+05.00 RT

PROPOSED HMA SHOULDERS, 8"
 STA. 24+80.00 TO STA. 26+69.80 LT
 STA. 24+80.00 TO STA. 26+69.80 RT
 STA. 29+02.10 TO STA. 30+90.00 LT
 STA. 29+02.10 TO STA. 30+90.00 RT









COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12
 STA. 24+80.00 TO STA. 26+69.80 LT
 STA. 24+80.00 TO STA. 26+69.80 RT
 STA. 29+02.10 TO STA. 30+90.00 LT
 STA. 29+02.10 TO STA. 30+90.00 RT

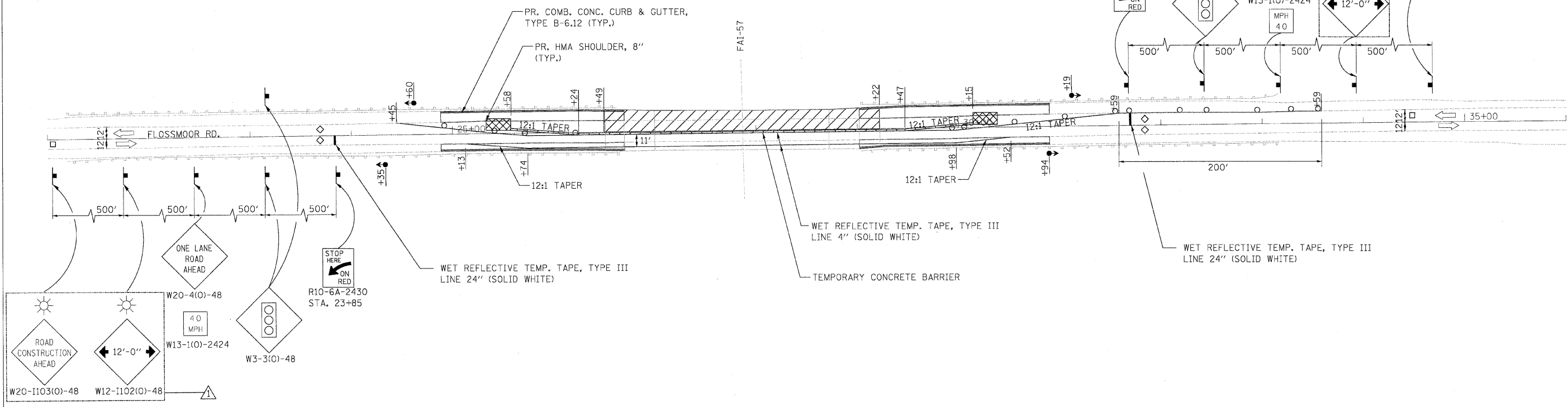
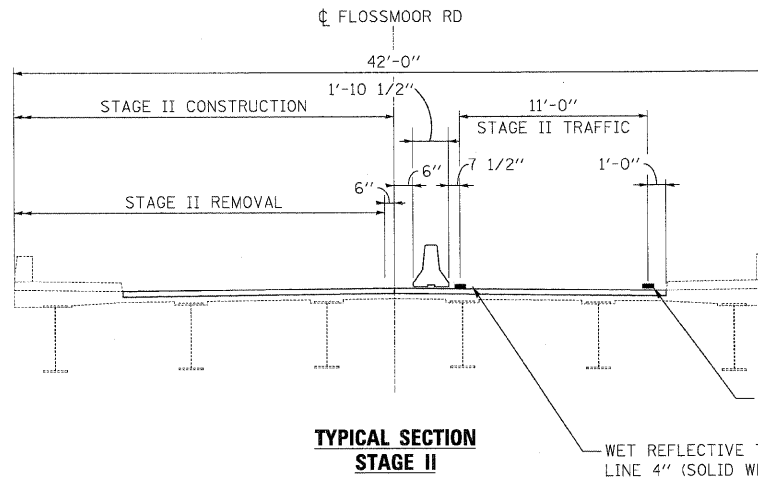
REMOVAL OF EXISTING AGGREGATE SHOULDERS
 (PAID AS EARTH EXCAVATION)
 STA. 24+80.00 TO STA. 26+69.80 LT
 STA. 24+80.00 TO STA. 26+69.80 RT
 STA. 29+02.10 TO STA. 30+90.00 LT
 STA. 29+02.10 TO STA. 30+90.00 RT



| | | | | | | | | | | | |
|------------------------|----------------------|----------------|---------------|---|---|--|--------------------|-----------------------------|--------------------------|---|--------------|
| FILE NAME = #FILEL# | USER NAME = #USER# | DESIGNED - DPS | REVISED - --- | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | PROPOSED ROADWAY PLAN FLOSSMOOR ROAD OVER I-57 | | F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | PLOT SCALE = #SCALE# | CHECKED - FML | REVISED - --- | | | | 57 | 0607-1007 HB-1 | COOK | 29 | 4 |
| | PLOT DATE = #DATE# | DATE - 1/2010 | REVISED - --- | | | | CONTRACT NO. 60J26 | | | | |
| | | | | | | | SCALE: 1"=50' | SHEET NO. ___ OF ___ SHEETS | STA. _____ TO STA. _____ | FED. ROAD DIST. NO. - [ILLINOIS] FED. AID PROJECT | |

LEGEND

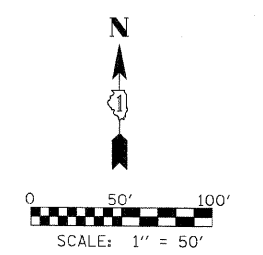
-  WORK AREA
-  IMPACT ATTENUATORS, TEMPORARY
-  TYPE III BARRICADE
-  TEMPORARY CONCRETE BARRIER
-  DRUM WITH STEADY BURN MONODIRECTIONAL LIGHT/
DIRECTION INDICATOR BARRICADE WITH STEADY BURN
MONODIRECTIONAL LIGHT (PER HWY. STD. 701321-10)
-  SIGN
-  DETECTOR LOOPS
-  TRAFFIC SIGNAL



- STAGE II CONSTRUCTION:**
- CLOSE NORTH HALF OF FLOSSMOOR ROAD IN ACCORDANCE WITH HIGHWAY STANDARD 701321 AND AS SHOWN IN THE PLANS.
 - PERFORM NORTH HALF STRUCTURAL AND APPROACH ROADWAY REPAIRS AS SHOWN IN THE PLANS.
 - APPLY PERMANENT PAVEMENT MARKINGS AND RAISED REFLECTIVE PAVEMENT MARKERS UNDER HIGHWAY STANDARD 701311.

NOTE:

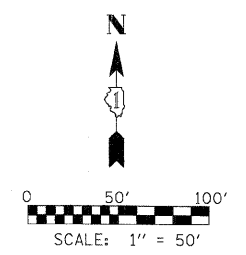
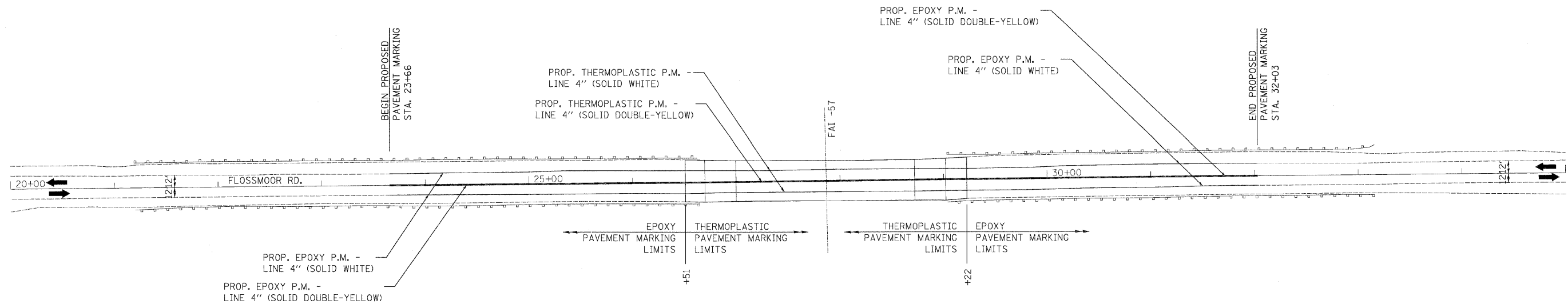
- FIRST TWO WARNING SIGNS IN EACH DIRECTION REQUIRE MONO-DIRECTIONAL FLASHING BEACONS.



| | | | | | | | | | | | | |
|-------------|--------------------|----------------|-----------|---|--|---------------------|--------------|---|------------------------|-------------|-----------------|-------------|
| FILE NAME = | USER NAME = #USER# | DESIGNED - SEW | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | MAINTENANCE OF TRAFFIC-STAGE 2 FLOSSMOOR ROAD OVER I-57 | | | F.A.I. RTE. 57 | SECTION 0607-1007 HB-1 | COUNTY COOK | TOTAL SHEETS 29 | SHEET NO. 6 |
| #FILE# | | DRAWN - SEW | REVISED - | | SCALE: 1"=50' | SHEET NO. OF SHEETS | STA. TO STA. | CONTRACT NO. 60J26 | | | | |
| | | CHECKED - FML | REVISED - | | | | | FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT | | | | |
| | | DATE - 12/2009 | REVISED - | | | | | | | | | |

NOTES:

1. ALL PROPOSED PAVEMENT MARKINGS SHALL BE PLACED IN ACCORDANCE WITH "DISTRICT ONE TYPICAL PAVEMENT MARKINGS" (TC-13).
2. IN ADDITION TO FIELD REVIEW AND AERIAL DATA, PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING FACILITIES HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD. SUCH VARIATIONS SHALL NOT BE A CAUSE FOR ADDITIONAL COMPENSATION DUE TO A CHANGE IN THE SCOPE OF THE WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE BID PRICE FOR THE WORK.



| | | | |
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| FILE NAME = | USER NAME = *USER* | DESIGNED - ST | REVISED - |
| *FILEL* | | DRAWN - ST | REVISED - |
| | PLOT SCALE = *SCALE* | CHECKED - FML | REVISED - |
| | PLOT DATE = *DATE* | DATE - 01/2010 | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

| | | | |
|---|-----------|-----------|--------------|
| PAVEMENT MARKING PLAN FLOSSMOOR ROAD OVER I-57 | | | |
| SCALE: 1"=50' | SHEET NO. | OF SHEETS | STA. TO STA. |

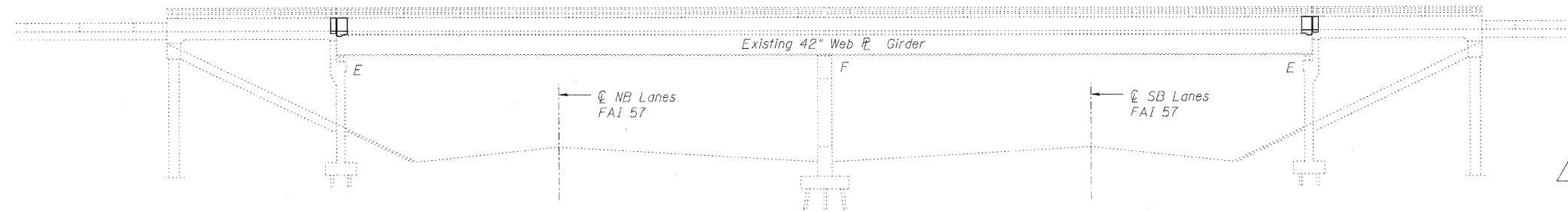
| | | | | |
|---|----------------|--------|--------------------|-----------|
| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 57 | 0607-1007 HB-1 | COOK | 29 | 7 |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | CONTRACT NO. 60J26 | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

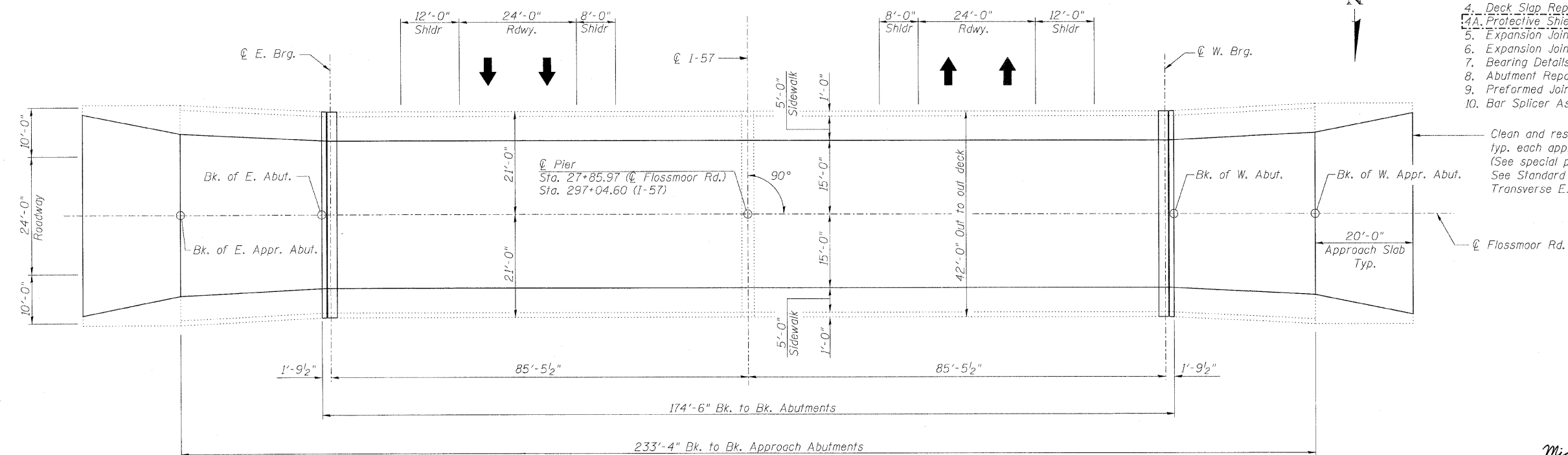
Existing Structure:
Structure No. 016-1099 was built in 1966 as F.A.I. Rte. 57, Section 0607-1007 HB. In 1977, bituminous overlay was placed on the bridge. In 1993, the bituminous surface was replaced with bituminous concrete surface and waterproofing membrane system, and the neoprene expansion joint was replaced with strip seal joint. Existing structure is a two span continuous steel superstructure with a 7" reinforced concrete deck supported by a multi column pier and vaulted abutments, 174'-6" bk. to bk. abutments, 42'-0" out to out deck with no skew. Stage construction shall be utilized to maintain traffic during construction.

SCOPE OF WORK

1. Remove concrete deck and parapet adjacent to expansion joints
2. Remove existing bituminous overlay
3. Apply 1/2" hydro-scarification on deck
4. Repair deck slab
5. Replace concrete deck and parapet adjacent to expansion joints
6. Remove and replace strip seal at expansion joints
7. Apply protective coat to new concrete slab and top and traffic faces of new parapet
8. Place 2 1/4" latex concrete overlay
9. Patch and overlay approaches
10. Apply protective coat and bridge deck grooving to top of overlay
11. Provide preformed joint strip seal expansion joints at abutments
12. Clean and reseal relief joints
13. Repair deteriorated concrete on abutments
14. Jack and remove existing abutment bearings and replace with elastomeric bearings.
15. Install permanent protective shield.
16. Apply Concrete Sealer to existing top and inside vertical faces of sidewalks and parapets.



ELEVATION

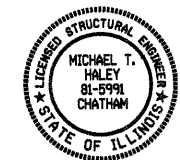


PLAN

INDEX OF SHEETS

1. General Plan and Elevation
2. General Notes and Details
3. Temporary Concrete Barrier for Stage Construction
4. Deck Slab Repair
- 4A. Protective Shield Details
5. Expansion Joint Concrete Removal
6. Expansion Joint Concrete Details
7. Bearing Details
8. Abutment Repair
9. Preformed Joint Strip Seal
10. Bar Splicer Assembly and Mechanical Splicer Details

Clean and reseal relief joint, typ. each approach (See special provision) See Standard 420001 for Transverse Expansion Joint



Michael J. Haley 1/27/10
Michael T. Haley Date
Licensed Structural Engineer
State of Illinois No. 81-5991
Expires 11/30/2010

DESIGN SPECIFICATIONS

(New Construction)
2002 AASHTO "Standard Specifications for Highway Bridges"

LOADING HS 20-44

(Original Construction)

DESIGN STRESSES

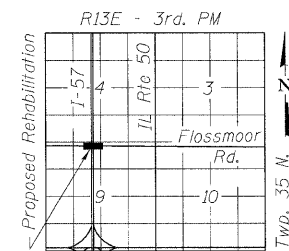
FIELD UNITS

Existing Construction

$f_c = 1,400$ psi (Substructure & Superstructure)
 $f_s = 20,000$ psi (Reinforcement)
 $f_s = 20,000$ psi (Structural Steel)

New Construction

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 36,000$ psi (Structural Steel) (M270 Gr. 36)



LOCATION SKETCH

**GENERAL PLAN AND ELEVATION
FLOSSMOOR RD. OVER F.A.I. RTE 57
F.A.I. RTE 57 - SECTION 0607-1007 HB-I
COOK COUNTY
STATION 297+04.60
STRUCTURE NO. 016-1099**

| | | | | | | |
|--|------------------------------------|---|------------------------|-------------|-----------------|-------------|
| LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois | SHEET NO. 1 | F.A.I. RTE. 57 | SECTION 0607-1007 HB-I | COUNTY COOK | TOTAL SHEETS 29 | SHEET NO. 8 |
| | 10 SHEETS | CONTRACT NO. 60J26 | | | | |
| Designed By: YMK Checked By: MTH Date: 1/2010 | Drawn By: YMK File: 08-K099.dgn | FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT | | | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated.

Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.

As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer. Any cracks that can not be removed by grinding 1/4 in. deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.

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.

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

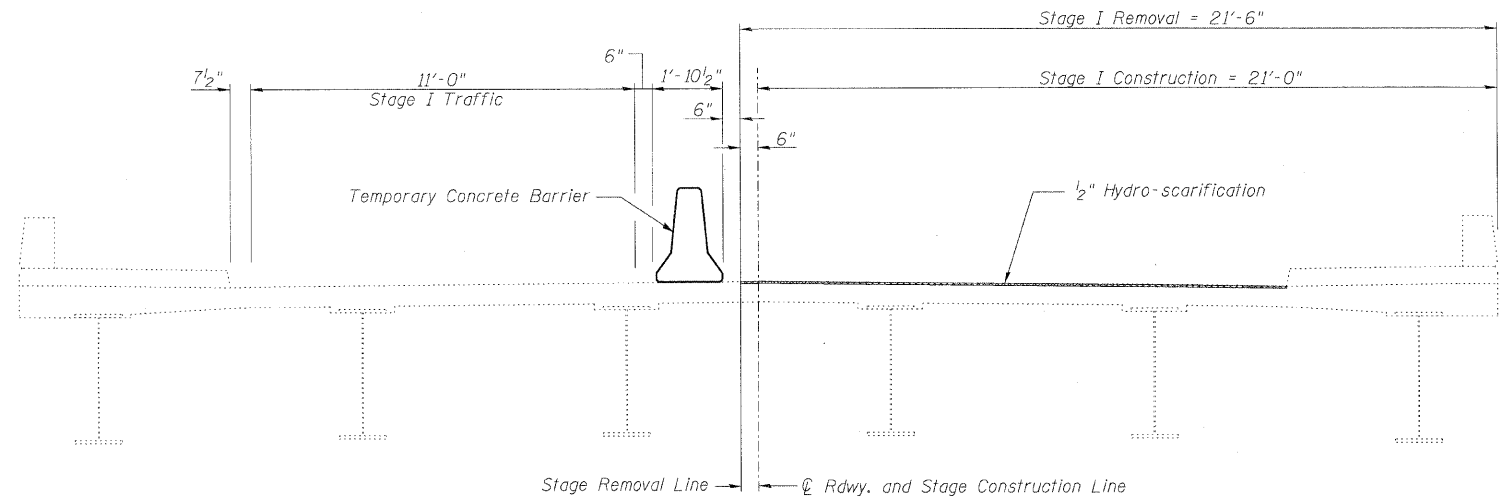
All new structural steel shall be shop painted with the inorganic zinc rich primer per AASHTO M300, Type I. Cost included with Furnishing & Erecting Structural Steel.

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 Standard Specs. when the deck is poured at an ambient temperature other than 50°F.

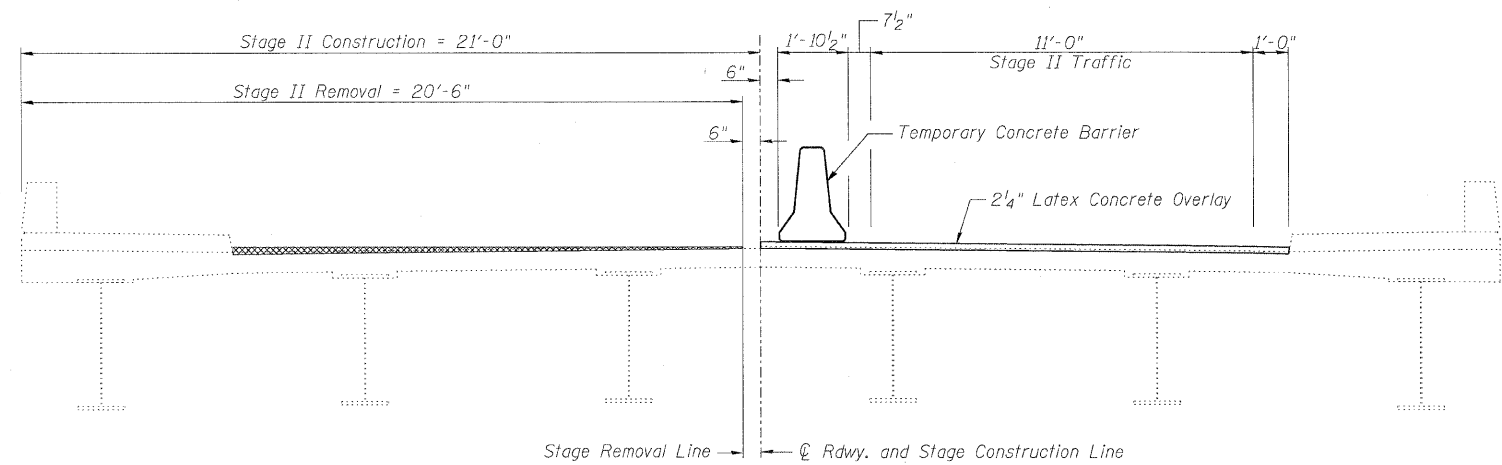
TOTAL BILL OF MATERIAL

| ITEM | UNIT | SUPER | SUB | TOTAL |
|--|---------|-------|-----|-------|
| Bituminous Materials (Prime Coat) | Gallon | 33 | - | 33 |
| Hot Mix Asphalt Surface Course, Mix "D", NSO, 1 3/4" | Tons | 19 | - | 19 |
| Protective Coat | Sq. Yd. | 795 | - | 795 |
| Hot Mix Asphalt Surface Removal, 1 3/4" | Sq. Yd. | 107 | - | 107 |
| Hot Mix Asphalt Surface Removal (Deck) | Sq. Yd. | 760 | - | 760 |
| Concrete Removal | Cu. Yd. | 9.7 | - | 9.7 |
| Protective Shield (Permanent) | Sq. Yd. | 400 | - | 400 |
| Concrete Superstructure | Cu. Yd. | 9.6 | - | 9.6 |
| Bridge Deck Grooving | Sq. Yd. | 726 | - | 726 |
| Jack and Remove Existing Bearings | Each | - | 12 | 12 |
| Reinforcement Bars, Epoxy Coated | Pound | 1,320 | - | 1,320 |
| Bar Splicers | Each | 16 | - | 16 |
| Preformed Joint Strip Seal | Foot | 85 | - | 85 |
| Elastomeric Bearing Assembly, Type I | Each | - | 12 | 12 |
| Anchor Bolts, 1" | Each | - | 24 | 24 |
| Concrete Sealer | Sq. Ft. | 3670 | - | 3670 |
| Approach Slab Repair (Partial Depth) | Sq. Yd. | 8.2 | - | 8.2 |
| Bridge Deck Hydro-scarification 1/2" | Sq. Yd. | 760 | - | 760 |
| Deck Slab Repair (Full Depth, Type II) | Sq. Yd. | 35.8 | - | 35.8 |
| Bridge Deck Latex Concrete Overlay, 2 1/4" | Sq. Yd. | 760 | - | 760 |
| Structural Repair Concrete (Depth Greater Than 5 in.) | Sq. Ft. | 50 | 61 | 111 |
| Structural Repair Concrete (Depth Equal To or Less Than 5 in.) | Sq. Ft. | - | 88 | 88 |
| Clean and Reseal Relief Joint | Foot | 82 | - | 82 |
| Furnishing and Erecting Structural Steel | Pound | 1990 | - | 1990 |



STAGE I REMOVAL & CONSTRUCTION

(Looking East)



STAGE II REMOVAL & CONSTRUCTION

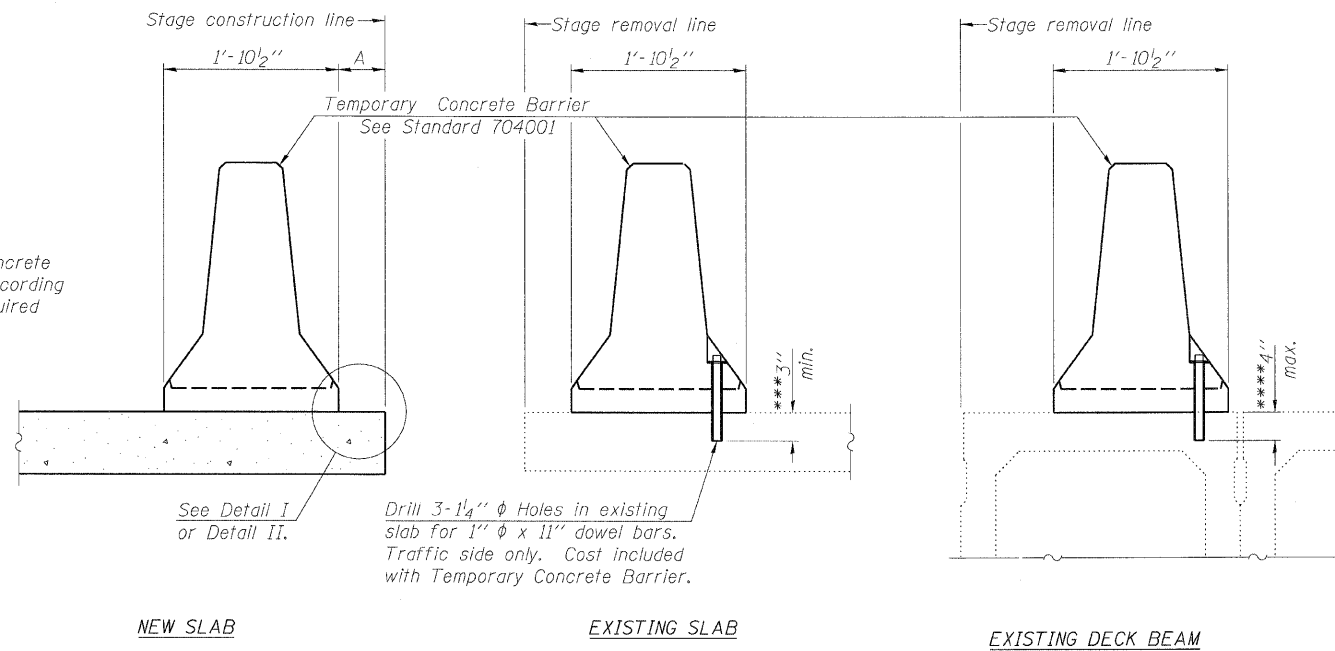
(Looking East)

GENERAL NOTES & DETAILS
STRUCTURE NO. 016-1099

| | | | | | | |
|---|------------------------------|-------------|----------------|--------|--------------------|-----------|
| LIN ENGINEERING LTD. Consulting Engineers Chatham, Illinois <small>Designed By: YMK Checked By: MTH Drawn By: YMK</small> <small>Date: 12/2010 File: 016-1099.dgn</small> | SHEET NO. 2 10 SHEETS | F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | | 57 | 0607-1007 HB-I | COOK | 29 | 9 |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | | CONTRACT NO. 60J26 | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



SECTIONS THRU SLAB OR DECK BEAM

NOTES

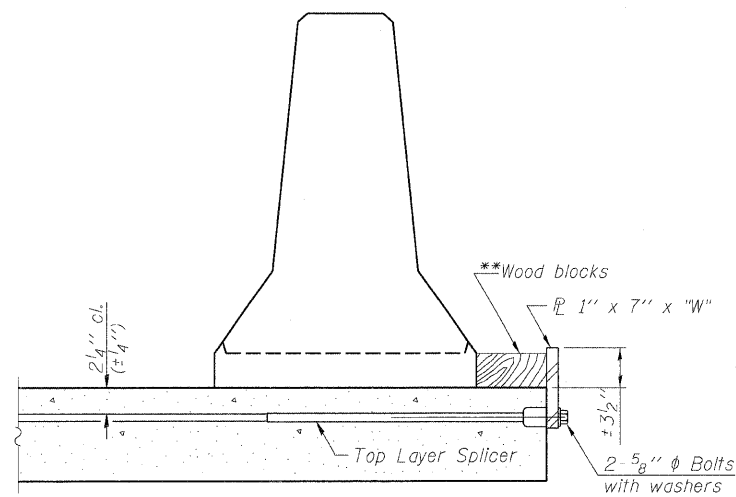
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel \bar{P} to the top layer of couplers with 2-5/8" ϕ bolts screwed to coupler at approximate \bar{C} of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel \bar{P} 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.

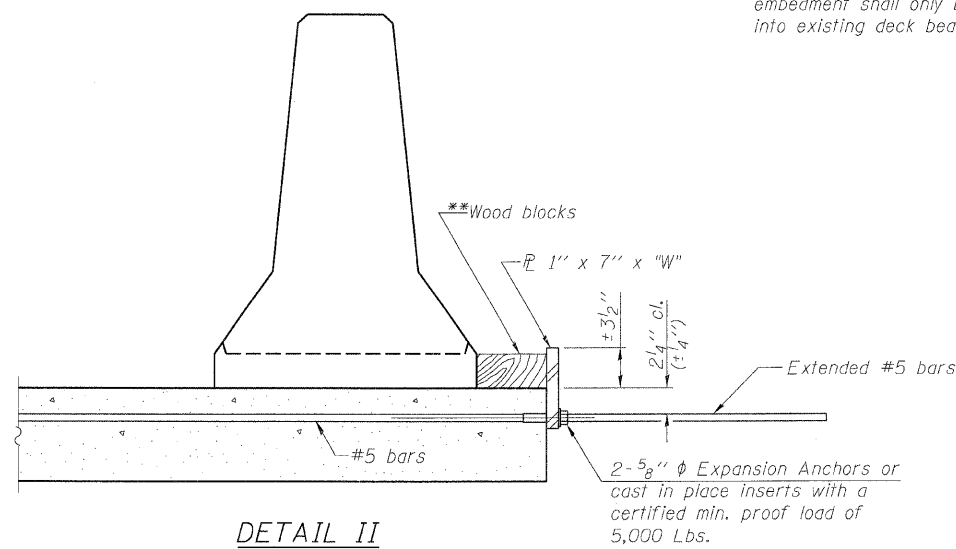
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

*** 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.

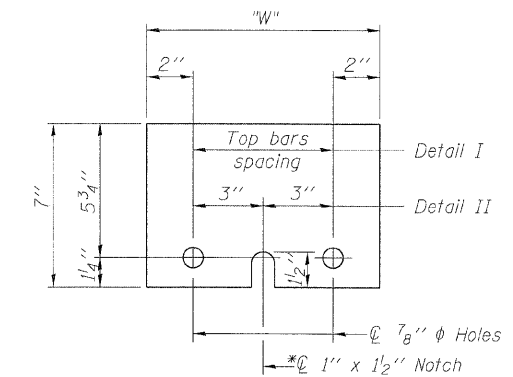
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



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

* Required only with Detail II

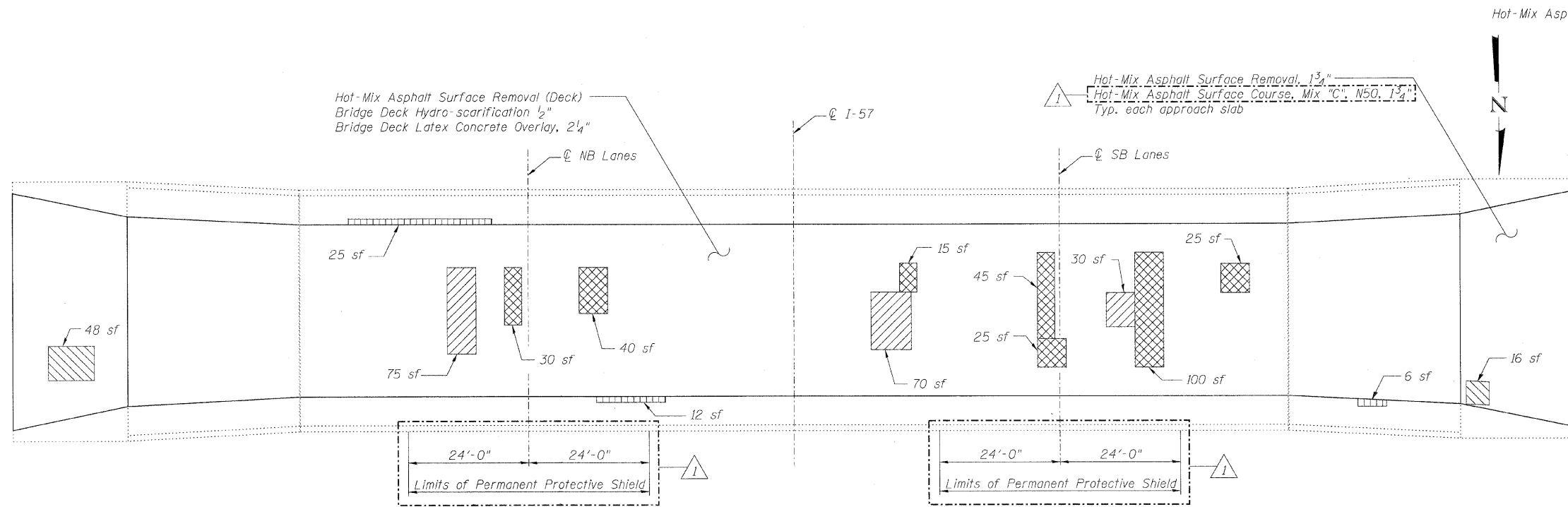
** Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

"W" = Top bars spacing + 4"

TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
STRUCTURE NO. 016-1099

| | | | | | | |
|---|-------------|---|----------------|--------|--------------|-----------|
| <p>LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois</p> | SHEET NO. 3 | F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 10 SHEETS | 57 | 0607-1007 HB-I | COOK | 29 | 10 |
| | | CONTRACT NO. 60J26 | | | | |
| | | FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



LEGEND

- Indicates Approach Slab Repair (Partial Depth)
- Indicates Deck Slab Repair (Partial) (For information only)
- Indicates Deck Slab Repair (Full Depth, Type II)
- Indicates Structural Repair of Concrete (Depth Greater Than 5 in.)
- sf Square Feet

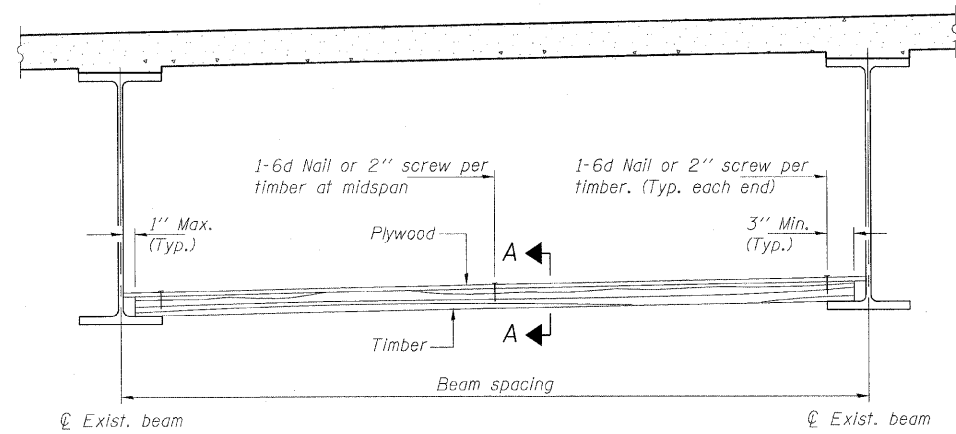
BILL OF MATERIAL

| Item | Unit | Total |
|--|---------|-------|
| Approach Slab Repair (Partial Depth) | Sq. Yd. | 8.2 |
| Deck Slab Repair (Full Depth, Type II) | Sq. Yd. | 35.8 |
| Hot-Mix Asphalt Surface Removal (Deck) | Sq. Yd. | 760 |
| Structural Repair of Concrete (Depth Greater Than 5 in.) | Sq. Ft. | 50 |
| Bridge Deck Latex Concrete Overlay, 2 1/4" | Sq. Yd. | 760 |
| Bridge Deck Hydro-scarification 1/2" | Sq. Yd. | 760 |
| Hot-Mix Asphalt Surface Removal, 1 3/4" | Sq. Yd. | 107 |
| Hot-Mix Asphalt Surface Course, Mix "D", N50, 1 3/4" | Tons | 19 |
| Concrete Sealer | Sq. Ft. | 3670 |

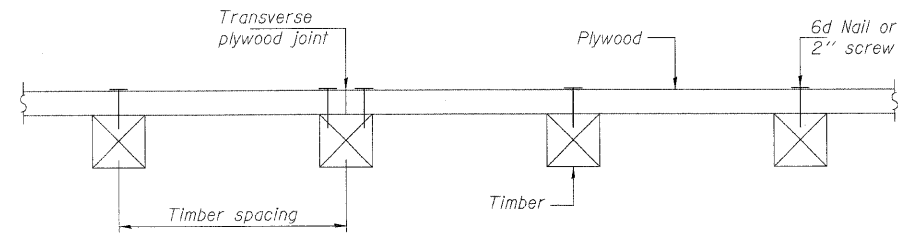
DECK SLAB REPAIR
STRUCTURE NO. 016-1099

| | | | | | | |
|--|-------------|---|----------------|--------------------|--------------|-----------|
| LIN ENGINEERING LTD. Consulting Engineers Chatham, Illinois | SHEET NO. 4 | F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 10 SHEETS | 57 | 0607-1007 HB-I | COOK | 29 | 11 |
| | | | | CONTRACT NO. 60J26 | | |
| | | FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



STEEL BEAMS



SECTION A-A

TIMBER SPACING

| Beam Spacing (ft.) | Timber Sizes (in.) | | |
|--------------------|---|---|---|
| | 4" x 4" with min. Fb=775 psi Fv=135 psi | 4" x 6" with min. Fb=775 psi Fv=135 psi | 6" x 6" with min. Fb=575 psi Fv=125 psi |
| | Maximum Timber Spacing (in.) | | |
| 4.5 | 16 | 16 | 16 |
| 4.75 | 16 | 16 | 16 |
| 5.0 | 16 | 16 | 16 |
| 5.25 | 16 | 16 | 16 |
| 5.5 | 16 | 16 | 16 |
| 5.75 | 16 | 16 | 16 |
| 6.0 | 16 | 16 | 16 |
| 6.25 | 12 | 16 | 16 |
| 6.5 | 12 | 16 | 16 |
| 6.75 | 12 | 16 | 16 |
| 7.0 | 8 | 16 | 16 |
| 7.25 | 8 | 16 | 16 |
| 7.5 | 8 | 16 | 16 |
| 7.75 | 8 | 16 | 16 |
| 8.0 | 8 | 12 | 16 |
| 8.25 | 8 | 12 | 16 |
| 8.5 | 6 | 12 | 12 |
| 8.75 | 6 | 12 | 12 |
| 9.0 | 6 | 8 | 12 |

Notes: See special provision for Permanent Protective Shield System.
Timber sizes shown are nominal sizes. Rough sawn timber of the dimensions shown will also be considered acceptable.
The minimum Fb and Fv values shown are the tabulated design values given in the National Design Specification for Wood Construction for No. 2 Spruce-Pine-Fir without adjustment factors applied. Better grades or other species with equal or higher allowable stresses will also be considered acceptable.
The timber spacings shown have been determined using allowable stresses with all adjustment factors necessary for the anticipated service conditions.
All timber shall be treated.
Plywood shall be 5/8" rated Exterior type plywood by APA.
Plywood shall be placed such that the face grain is perpendicular to the timber supports. When less than a full sheet (4' width) of plywood is used, the width of the strip used shall not be less than 2'.
Transverse plywood joints shall be supported by timbers.
When 4" x 6" timbers are used, they shall be placed such that the wide face is horizontal and the narrow face is vertical.
Design load = 200 psf.

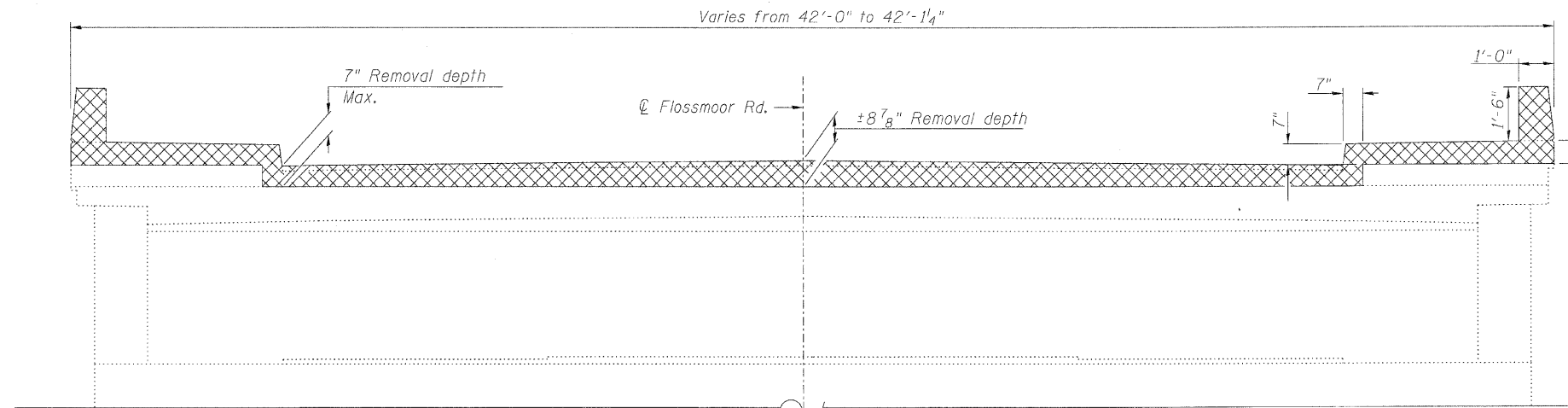
BILL OF MATERIAL

| Item | Unit | Total |
|-------------------------------|---------|-------|
| Protective Shield (Permanent) | Sq. Yd. | 400 |

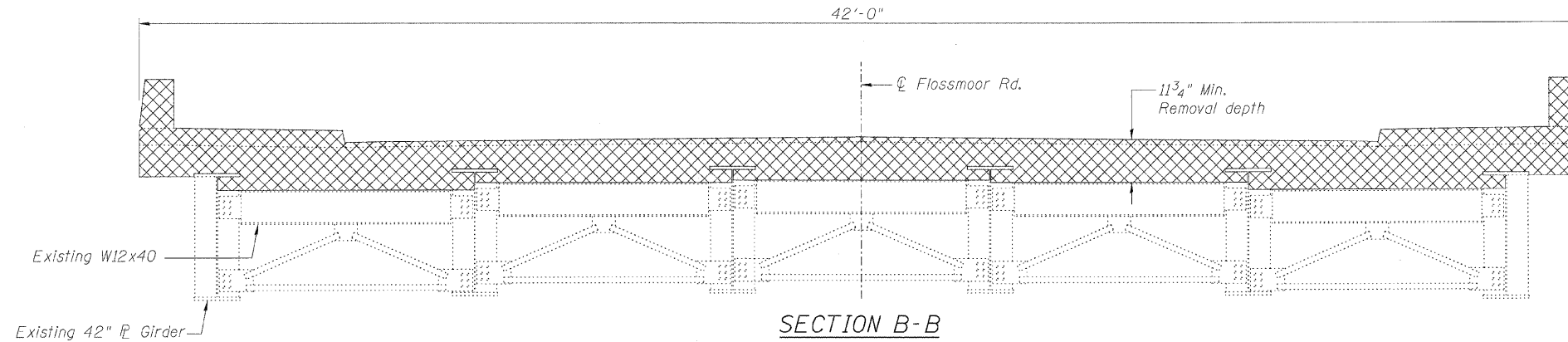
PROTECTIVE SHIELD DETAILS
STRUCTURE NO. 016-1099

| | | | | | | |
|--|--------------|-------------|----------------|--------|--------------------|-----------|
| LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois | SHEET NO. 4A | F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 10 SHEETS | 57 | 0607-1007 HB-I | COOK | 29 | 11A |
| | | | | | CONTRACT NO. 60J26 | |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | | | |

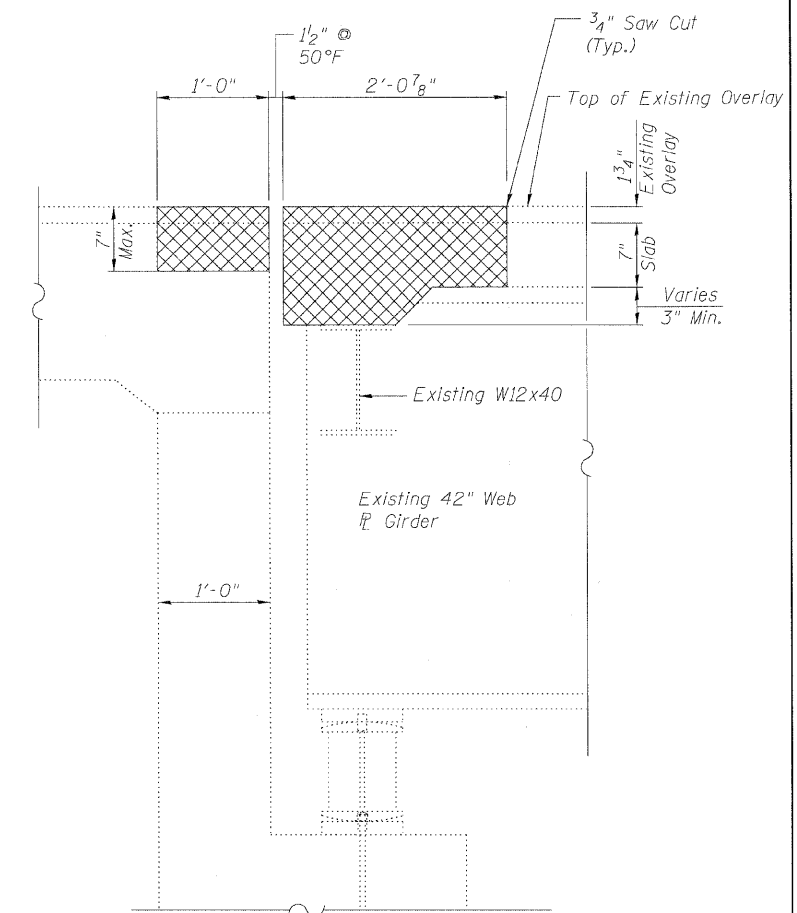
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



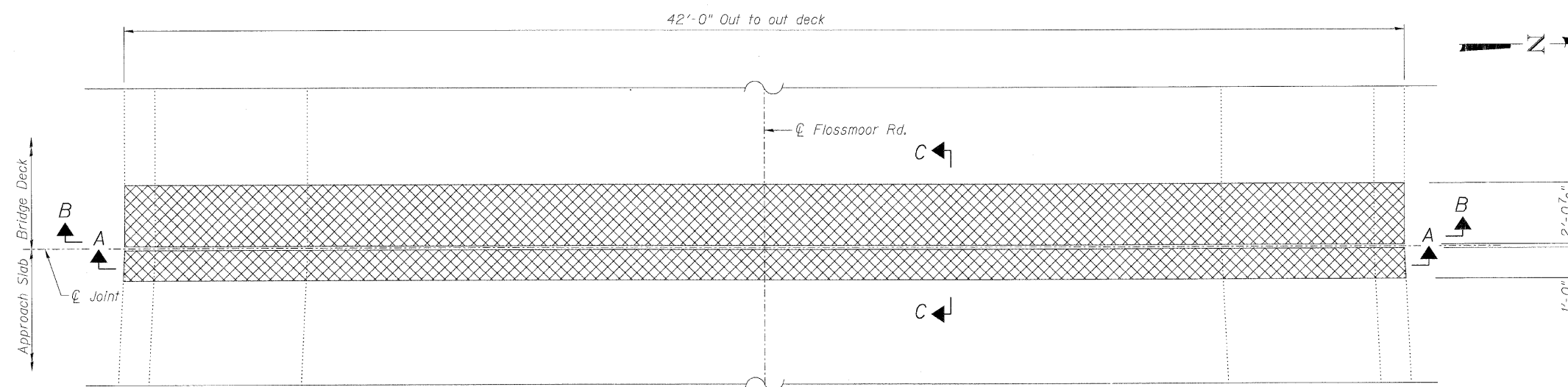
SECTION A-A



SECTION B-B



SECTION C-C



PLAN

(East abutment shown, west abutment mirrored about C Joint)

Notes:

1. Cross hatched area indicates concrete removal.
2. Existing reinforcement bars in the concrete removal area extending in new construction shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.
3. Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system, in accordance with IDOT Standard Specifications Article 501.03. Cost included in "Concrete Removal"
4. See sheet 2 or 10 for Stage Removal Details.

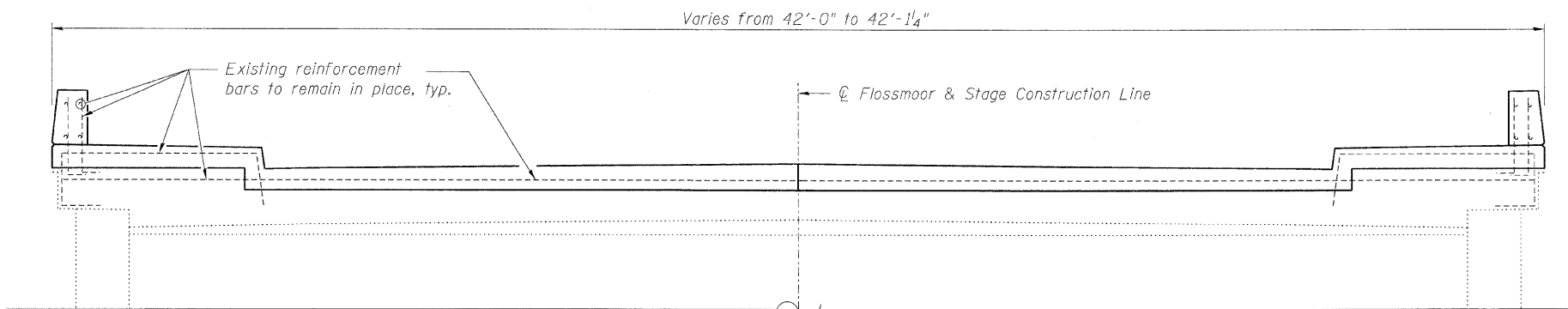
BILL OF MATERIAL

| Item | Unit | Total |
|------------------|---------|-------|
| Concrete Removal | Cu. Yd. | 9.7 |

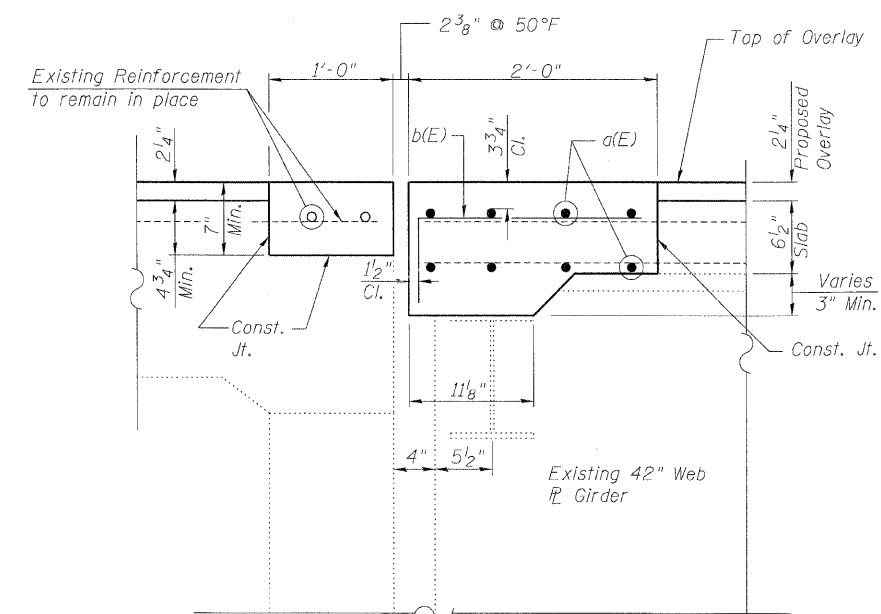
EXPANSION JOINT CONCRETE REMOVAL
STRUCTURE NO. 016-1099

| | | | | | | |
|--|-------------|-------------|----------------|--------------------|--------------|-----------|
| LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois | SHEET NO. 5 | F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 10 SHEETS | 57 | 0607-1007 HB-I | COOK | 29 | 12 |
| | | | | CONTRACT NO. 60J26 | | |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | | | |

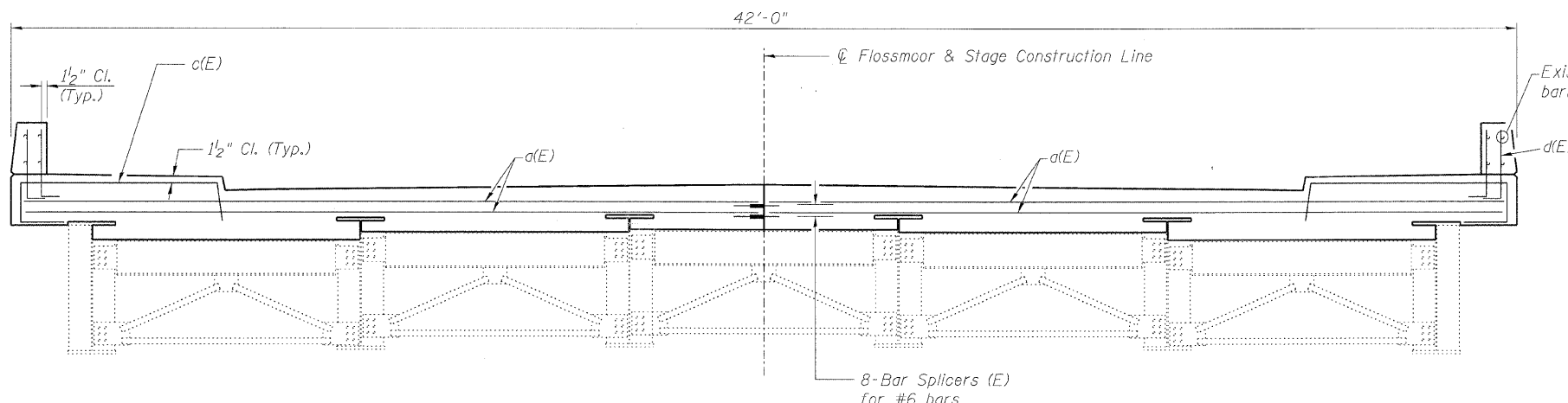
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



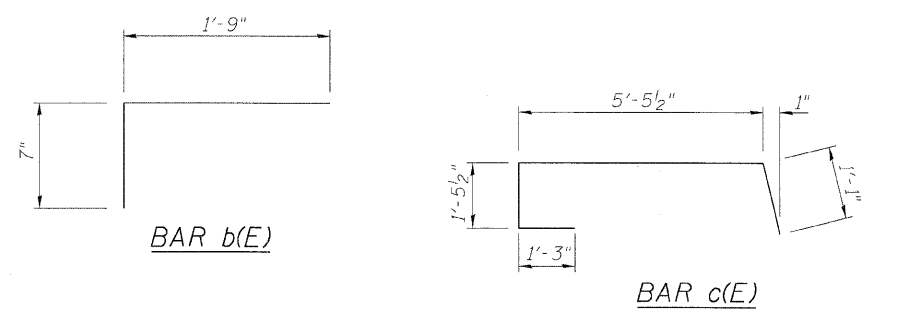
SECTION A-A



SECTION C-C

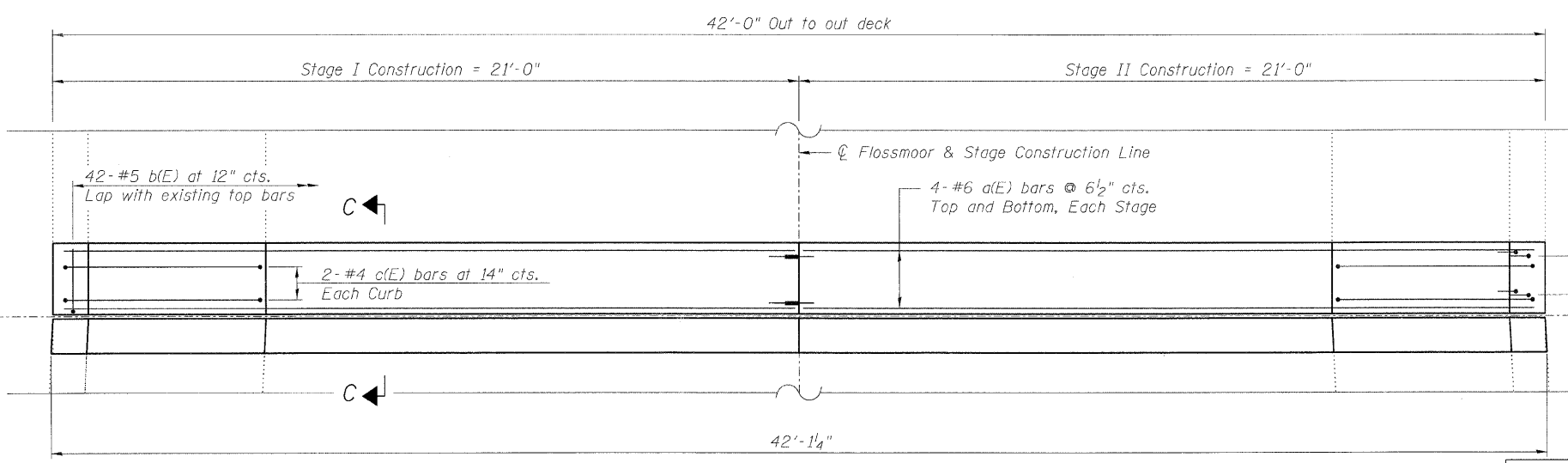


SECTION B-B



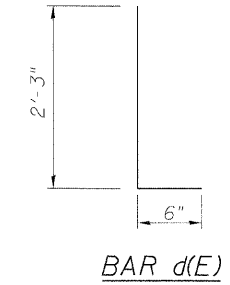
BAR b(E)

BAR c(E)



PLAN

(East abutment shown, west abutment mirrored about ϕ Joint)



BAR d(E)

BILL OF MATERIAL

| Bar | No. | Size | Length | Shape | |
|----------------------------------|-----|------|--------|----------|------|
| d(E) | 32 | #6 | 20'-9" | — | |
| b(E) | 84 | #5 | 2'-4" | ┌ | |
| c(E) | 8 | #4 | 9'-3" | ┌ | |
| d(E) | 24 | #5 | 2'-9" | └ | |
| Reinforcement Bars, Epoxy Coated | | | | Pound | 1320 |
| Concrete Superstructure | | | | Cu. Yds. | 9.6 |

EXPANSION JOINT CONCRETE DETAILS
STRUCTURE NO. 016-1099

E LIN ENGINEERING, LTD.
Consulting Engineers
Chatham, Illinois

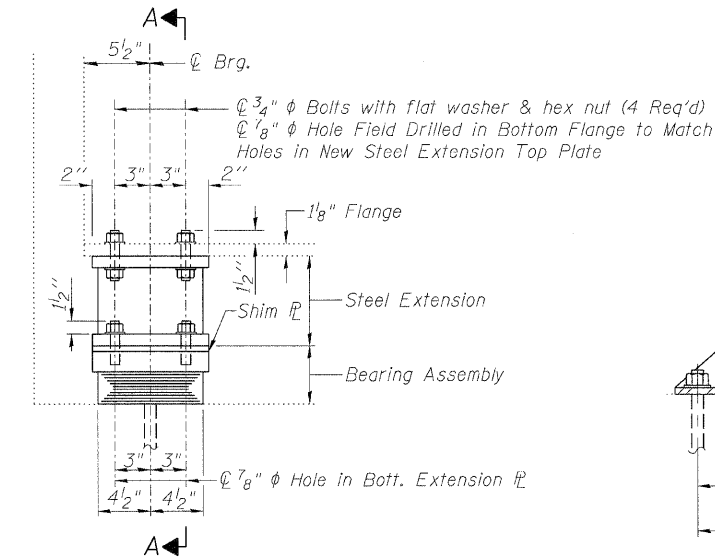
Designed By: YMK
Checked By: MTH
Date: 1/2010

Drawn By: YMK
File: 016-1099.dgn

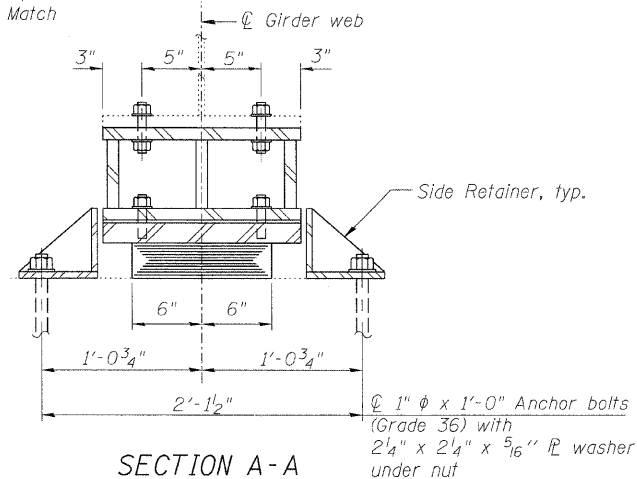
SHEET NO. 6
10 SHEETS

| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|----------------|--------|--------------|-----------|
| 57 | 0607-1007 HB-I | COOK | 29 | 13 |
| CONTRACT NO. 60J26 | | | | |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

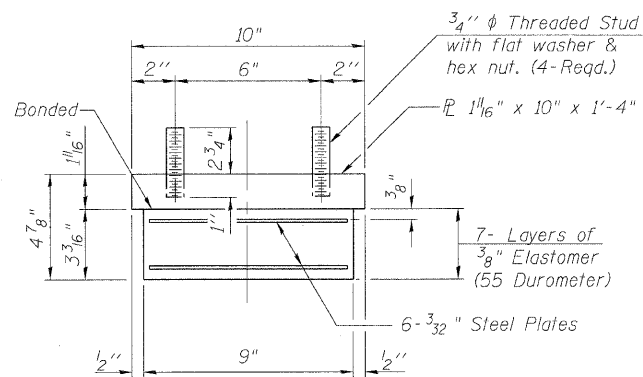


ELEVATION AT ABUT.



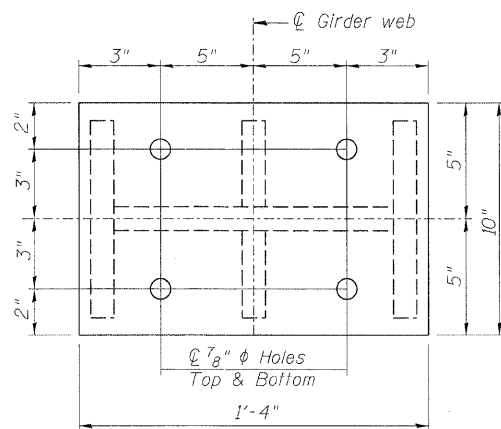
SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.



BEARING ASSEMBLY

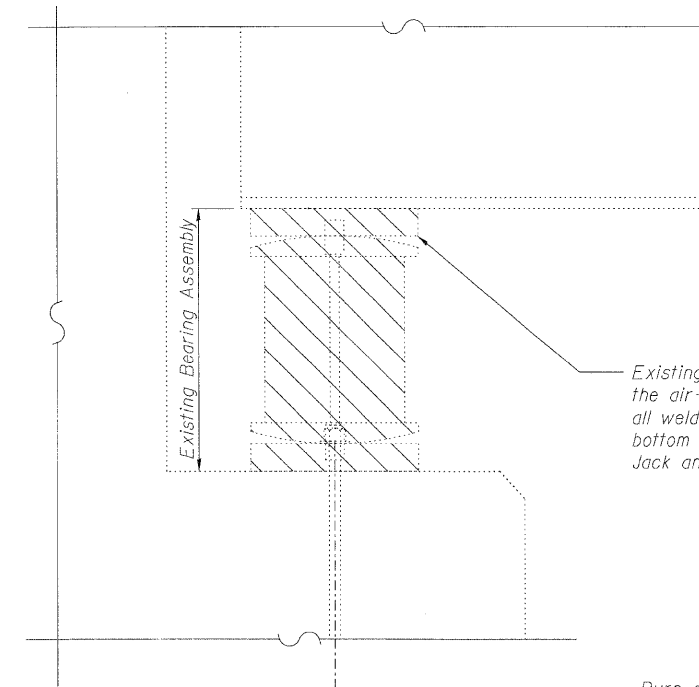
Note:
Shim plates shall not be placed under Bearing Assembly.



PLAN STEEL EXTENSION

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.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
The 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.
Side retainers, Fasteners and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.
Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts.

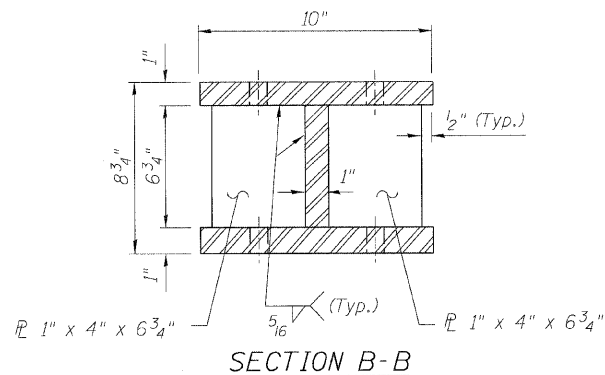
Cost of steel extensions is included with Furnishing and Erecting Structural Steel



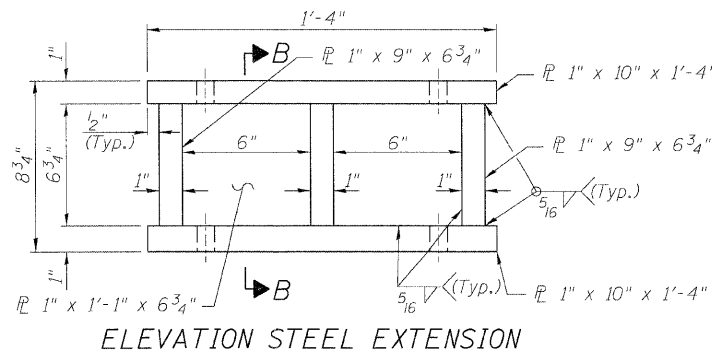
EXISTING BEARING REMOVAL DETAIL

Existing Plate to be removed using the air-arc method and grind smooth all weld material remaining on the bottom flange. Cost included with Jack and Remove Existing Bearings.

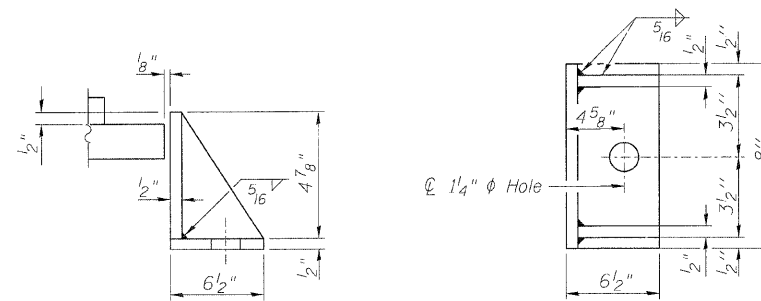
Burn existing Anchor Bolts flush with existing concrete surface. Grind existing anchor bolt smooth and seal with epoxy. Cost included with Jack and Remove Existing Bearings.



SECTION B-B



ELEVATION STEEL EXTENSION



SIDE RETAINER

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

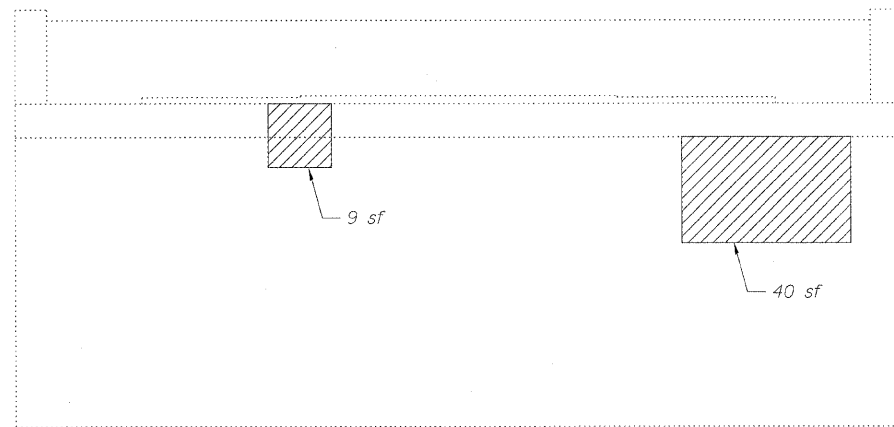
BILL OF MATERIAL

| Item | Unit | Total |
|--|-------|-------|
| Elastomeric Bearing Assembly Type I | Each | 12 |
| Anchor Bolts, 1" | Each | 24 |
| Jack and Remove Existing Bearings | Each | 12 |
| Furnishing and Erecting Structural Steel | Pound | 1990 |

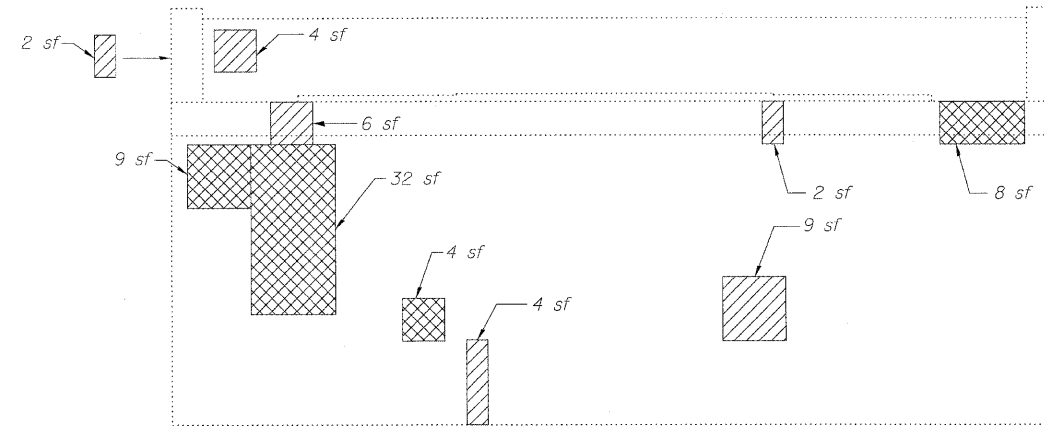
BEARING DETAILS
STRUCTURE NO. 016-1099

| | | | | | | |
|---|-------------|---------------------------------------|---|--------|--------------|-----------|
| LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois | SHEET NO. 7 | F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 10 SHEETS | 57 | 0607-1007 HB-I | COOK | 29 | 14 |
| | | | CONTRACT NO. 60J26 | | | |
| Designed By: YMK Date: 1/2010 | | Checked By: MTH File: 016-1099.dgn | FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



EAST ABUTMENT ELEVATION
(Looking East)



WEST ABUTMENT ELEVATION
(Looking West)

LEGEND

- Structural Repair of Concrete (Depth Equal To or Less Than 5 in.)
- Structural Repair of Concrete (Depth Greater Than 5 in.)

sf Square Feet

Note:
Repair of the existing abutments shall include but may not be limited to the areas shown. The actual areas to be repaired will be determined by the Engineer at the time of construction.

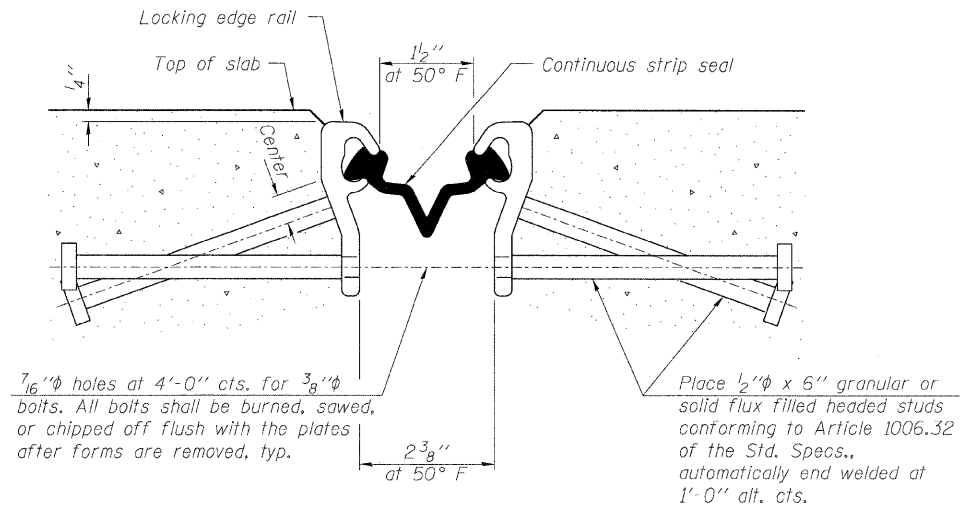
BILL OF MATERIAL

| Item | Unit | Total |
|---|---------|-------|
| Structural Repair of Concrete (Depth Equal To or Less Than 5 in.) | Sq. Ft. | 88 |
| Structural Repair of Concrete (Depth Greater Than 5 in.) | Sq. Ft. | 61 |

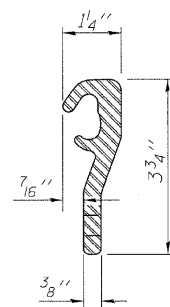
**ABUTMENT REPAIR
STRUCTURE NO. 016-1099**

| | | | | | | |
|---|-------------|-------------|----------------|--------|--------------------|-----------|
| LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois | SHEET NO. 8 | F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 10 SHEETS | 57 | 0607-1007 HB-1 | COOK | 29 | 15 |
| | | | | | CONTRACT NO. 60J26 | |
| FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT | | | | | | |

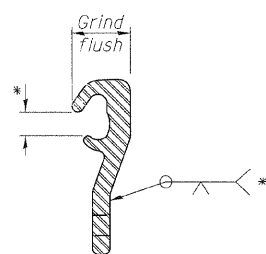
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SECTION THRU STRIP SEAL JOINT

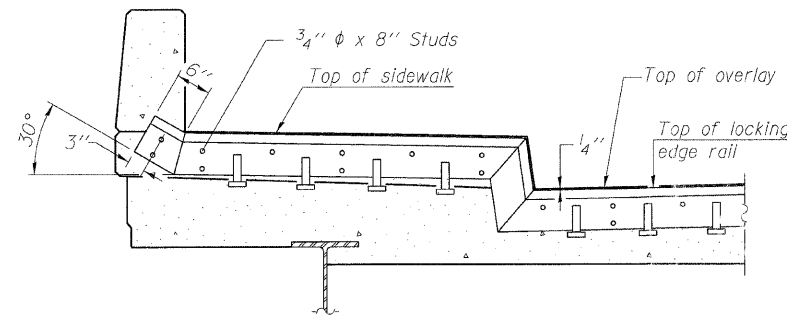


LOCKING EDGE RAIL



LOCKING EDGE RAIL SPLICE

* Omit weld at seal opening.



AT SIDEWALK

Notes:
The strip seal shall be made continuous and shall have a minimum thickness of $\frac{1}{4}''$. The configuration of the strip seal shall match the configuration of the Locking Edge Rails.
The height and thickness of the Locking Edge Rails shown are minimum dimensions. 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.
The inside of the Locking Edge Rail groove shall be free of weld residue. Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.
The manufacturer's recommended installation methods shall be followed.

BILL OF MATERIAL

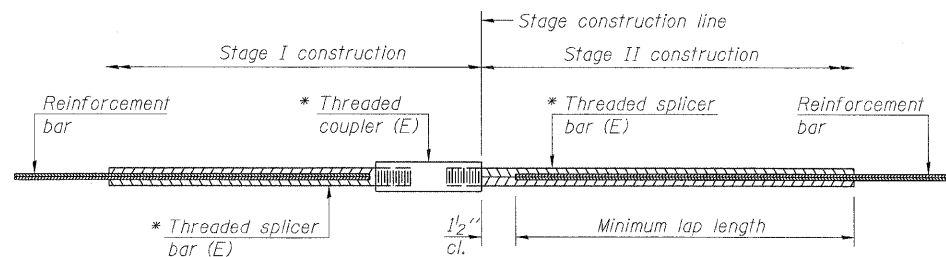
| Item | Unit | Total |
|----------------------------|------|-------|
| Preformed Joint Strip Seal | Foot | 85 |

PREFORMED JOINT STRIP SEAL
STRUCTURE NO. 016-1099

| | | | | | | |
|---|------------------------------|---|----------------|--------|--------------|-----------|
| <p>LIN ENGINEERING, LTD. Consulting Engineers Channah, Illinois</p> | SHEET NO. 9 10 SHEETS | F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | | 57 | 0607-1007 HB-I | COOK | 29 | 16 |
| | | CONTRACT NO. 60J26 | | | | |
| | | FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT | | | | |

Designed By: YWK
Checked By: MTH
Date: 1/2010
File: 016-1099.dwg

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



STANDARD BAR SPLICER ASSEMBLY

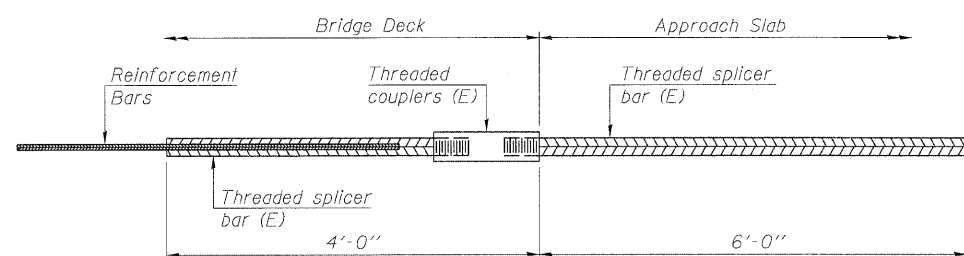
| Bar size to be spliced | Minimum Lap Lengths | | | |
|------------------------|---------------------|---------|---------|---------|
| | Table 1 | Table 2 | Table 3 | Table 4 |
| 3, 4 | 1'-5" | 1'-11" | 2'-1" | 2'-4" |
| 5 | 1'-9" | 2'-5" | 2'-7" | 2'-11" |
| 6 | 2'-1" | 2'-11" | 3'-1" | 3'-6" |
| 7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

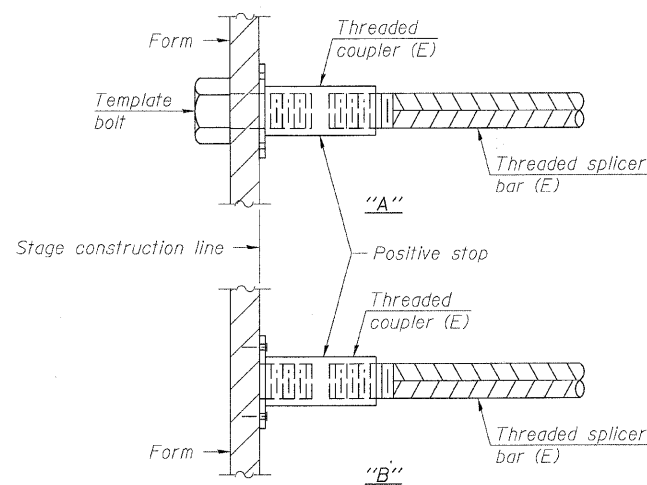
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

| Location | Bar size | No. assemblies required | Table for minimum lap length |
|----------|----------|-------------------------|------------------------------|
| Deck | #6 | 16 | Table 3 |
| | | | |
| | | | |
| | | | |



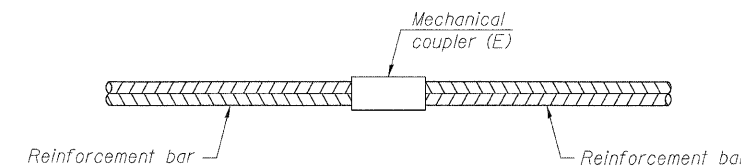
BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. required =



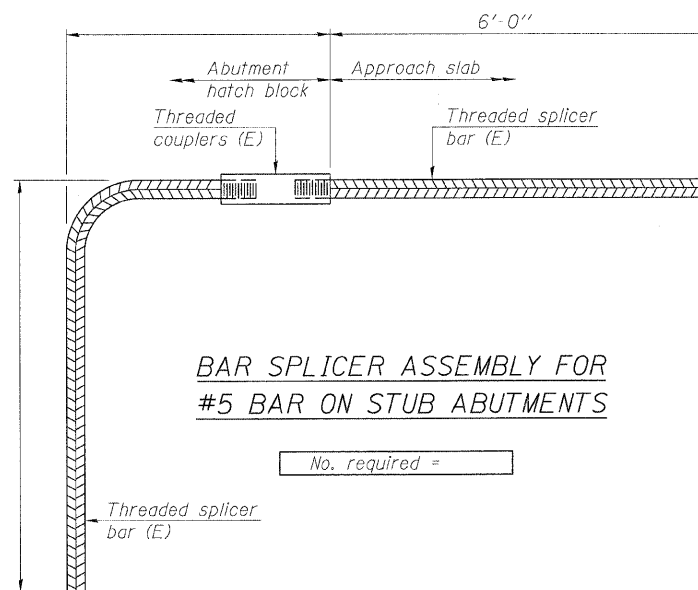
INSTALLATION AND SETTING METHODS

"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

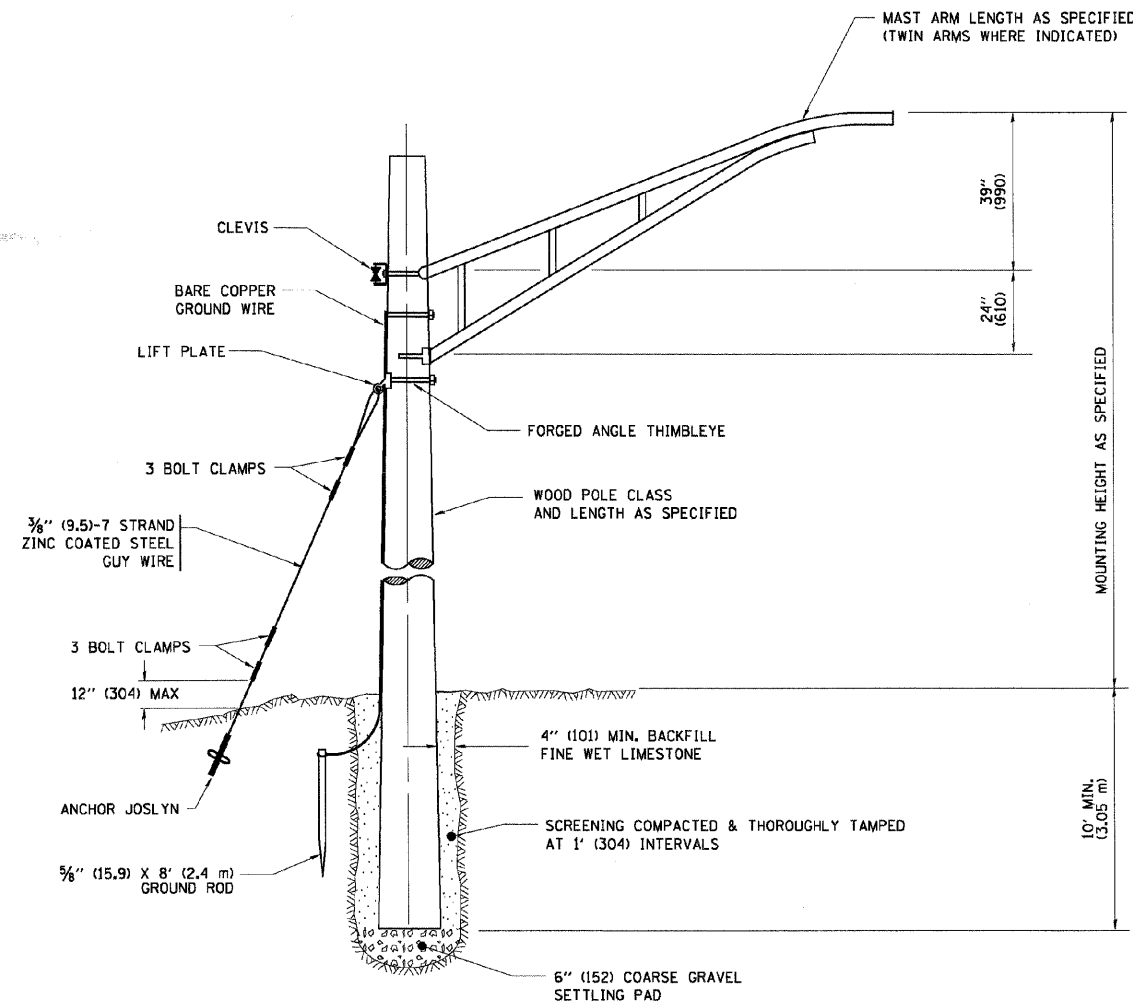
No. required =

NOTES

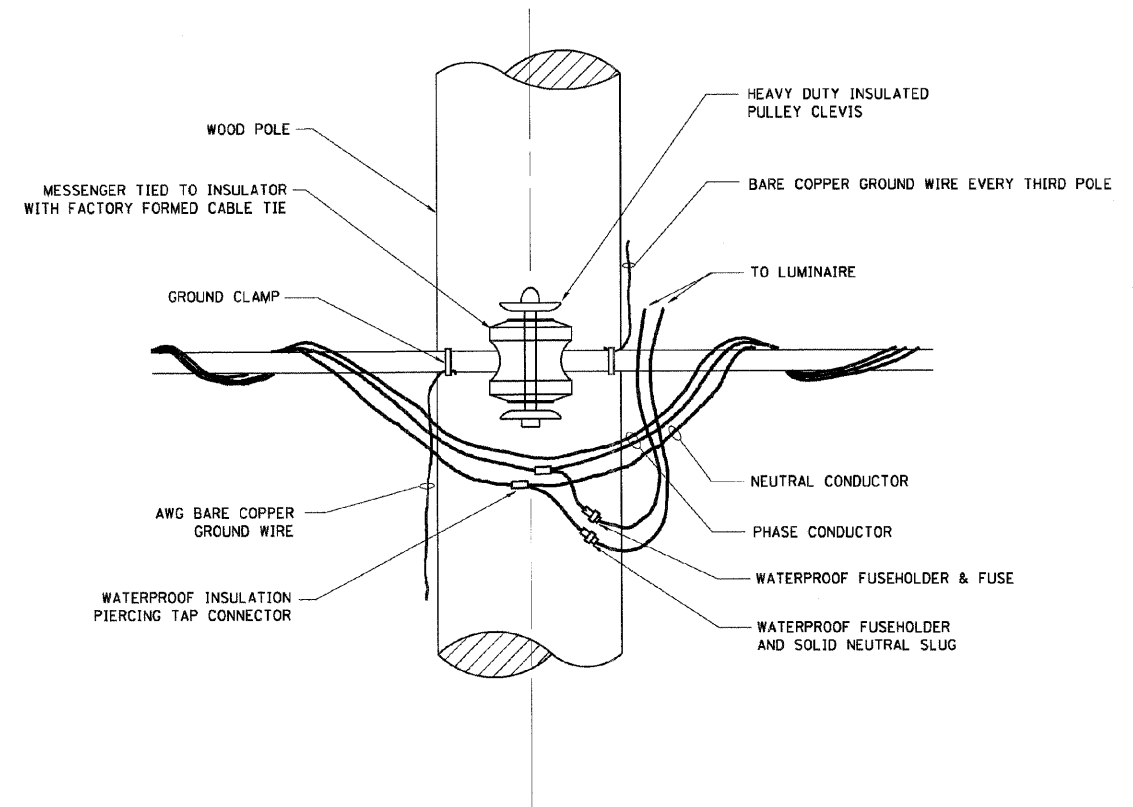
Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
All reinforcement shall be lapped and tied to the splicer bars.
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.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

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 016-1099

| | | | | | | |
|--|-------------|---|--------------------|--------|--------------|-----------|
| LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois | SHEET NO.10 | F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 10 SHEETS | 57 | 0607-1007 HB-I | COOK | 29 | 17 |
| | | | CONTRACT NO. 60J26 | | | |
| | | FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | |



TEMPORARY LIGHT POLE DETAIL



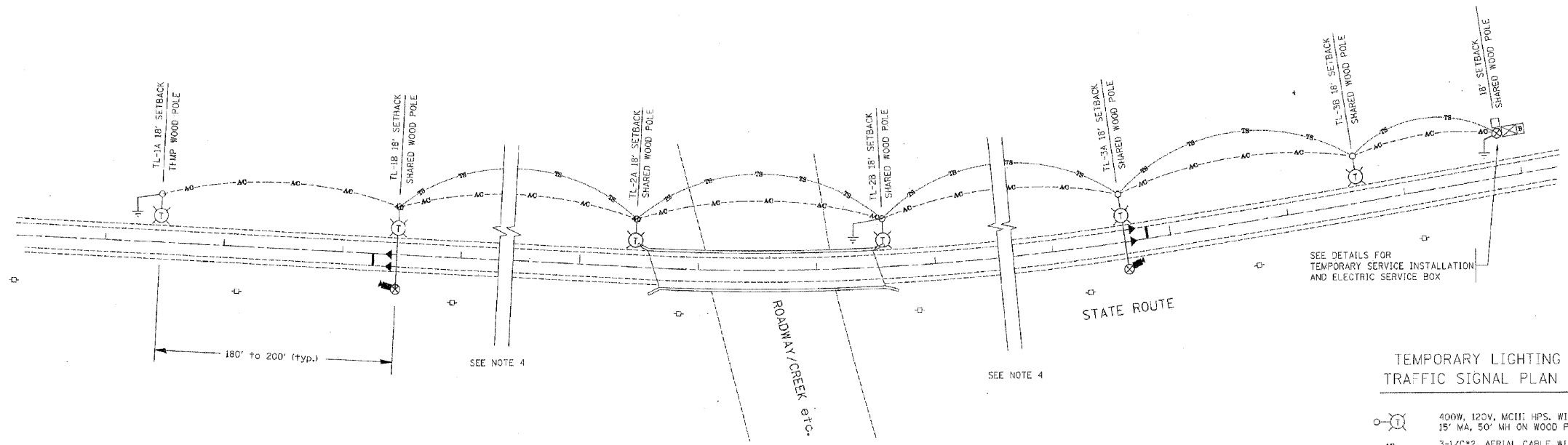
TEMPORARY LIGHT POLE ATTACHMENT DETAIL

NOTES:

1. ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE INDICATED

TEMPORARY LIGHT POLE DETAILS

| | | | | | | | | | | | | | | | |
|-------------|--------------------|------------|-----------|---|--|-----------|----|----------------|---------|---------|-----------------|---------------------|--------------------|------------------|----|
| FILE NAME = | USER NAME = #USER# | DESIGNED - | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | DISTRICT STANDARDS FLOSSMOOR ROAD OVER I-57 | | | F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | | | |
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| | | CHECKED - | REVISED - | | | | | | | | | BE-800 | CONTRACT NO. 60J26 | | |
| | | DATE - | REVISED - | | | | | | | | | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | |



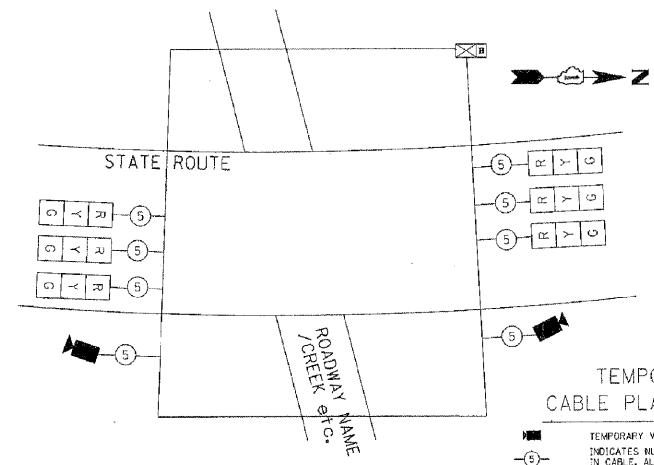
TYPICAL LAYOUT FOR TEMPORARY LIGHTING AND TRAFFIC SIGNALS
NOT TO SCALE

TEMPORARY LIGHTING AND TRAFFIC SIGNAL PLAN LEGEND

- 400W, 120V, MCII; HPS. WITH PHOTO CELL 15' MA, 50' MH ON WOOD POLE, CLASS 4
- 3-1/2"x2, AERIAL CABLE WITH MESSENGER WIRE UNLESS OTHERWISE NOTED
- TL-1A TEMPORARY LIGHTING UNIT NUMBER - ONE CIRCUIT A
- GROUND ROD 5/8" DIA. x 10'
- COMBINATION LIGHTING AND TRAFFIC POLE MOUNTED ELECTRICAL SERVICE BOX
- TEMPORARY WOOD POLE - NOMINAL 60 FT., CLASS 4
- TEMPORARY LED TRAFFIC SIGNAL HEAD, NUMBER OF SECTION AND DISPLAY AS REQUIRED.
- TEMPORARY TRAFFIC SIGNAL SPAN WIRE, NUMBER OF CONDUCTORS AS REQUIRED.
- TEMPORARY TRAFFIC CONTROLLER WITH UPS AND BOTTOM PLATE MOUNTED TO WOOD POLE
- TEMPORARY VIDEO DETECTOR

GENERAL NOTES:

1. CONTACT WITH THE ELECTRIC UTILITY SHALL BE INITIATED BEFORE THE PRECONSTRUCTION MEETING, AND DOCUMENTATION OF CONTACT SHALL BE PRESENTED AT THAT MEETING. NO PLACEMENT OF POLES WILL BE ALLOWED WITHOUT EVIDENCE OF A SIGNED AGREEMENT WITH THE ELECTRIC UTILITY, FURNISHED TO THE ENGINEER.
2. UNLESS OTHERWISE INDICATED, AND EXCEPT AS OTHERWISE NOTED, THIS STANDARDIZED LAYOUT SHALL APPLY FOR BRIDGES NOT EXCEEDING A 250-FOOT SPAN. FOR BRIDGE SPANS IN EXCESS OF 250 FEET, THE POLES IMMEDIATELY ADJACENT TO THE BRIDGE SHALL BE 100-FOOT POLES (90-FOOT MOUNTING HEIGHT), WITH 750-WATT TYPE III HIGH PRESSURE SODIUM HIGH-MAST LUMINAIRES AS APPROVED BY THE ENGINEER.
3. THE LAYOUT OF THE TEMPORARY EQUIPMENT WILL VARY BASED ON FIELD CONDITIONS, STAGING, UTILITY IMPACTS, AND THE ELECTRIC SERVICE LOCATION AS COORDINATED WITH THE ELECTRIC UTILITY. THE CONTRACTOR SHALL SUBMIT A PLAN INDICATING THE SETTING OF POLES, TRAFFIC SIGNALS, AND COMBINED SERVICE. THIS PLAN MUST BE APPROVED BY THE ENGINEER BEFORE ANY POLES ARE PLACED.
4. THE ELECTRIC SERVICE SHALL BE 240/120V. WHERE 240V SERVICE IS NOT AVAILABLE, THE CONTRACTOR MAY SUBMIT A PROPOSAL FOR 120V SERVICE. DROP CABLE, MAIN BREAKER, AND ALL OTHER SERVICE APPURTENANCES SHALL BE APPROPRIATELY RATED AND INCLUDED REGARDLESS OF THE SERVICE VOLTAGE APPLIED.
5. THE TEMPORARY LIGHTING AND TRAFFIC SIGNAL INSTALLATION SHALL SHARE ANY COMMON ELEMENTS SUCH AS WOOD POLES, ELECTRICAL SERVICE, CABLE, ETC. THE CONTRACTOR SHALL COORDINATE TEMPORARY LIGHTING AND TRAFFIC SIGNAL INSTALLATIONS.
6. THE LIGHT POLE SETBACK FROM THE EDGE OF TRAVEL PAVEMENT SHALL BE 18 FT. UNLESS THE LIGHT POLE IS BEHIND GUARDRAIL, THE LIGHT POLES INSTALLED BEHIND THE GUARDRAIL OR BARRIER WALL SHOULD HAVE AT LEAST 8 FT. SETBACK FROM THE BACK OF THE SHOULDER AND OR AS DIRECTED BY THE ENGINEER.
7. EACH LIGHTING UNIT SHALL BE CONTROLLED BY A PHOTO CELL MOUNTED ON EACH LUMINAIRE WITH THE LIGHTING CIRCUIT FED FROM THE TEMPORARY SERVICE DISCONNECT BOX. OTHER MEANS OF LUMINAIRE CONTROL CAN BE CONSIDERED IF APPROVED BY THE ENGINEER.
8. THE CONTRACTOR SHALL SPLICE AERIAL CABLE AT THE LIGHT POLE USING HEAT SHRINKABLE CAPS WITH THE FACTORY APPLIED WATERPROOF SEALANT OR AN APPROVED UL LISTED AERIAL TAP DEVICE.
9. ALL AREAS DISTURBED UNDER THIS CONTRACT SHALL BE RESTORED TO THE ORIGINAL CONDITION OR BETTER, TO THE SATISFACTION OF THE ENGINEER.



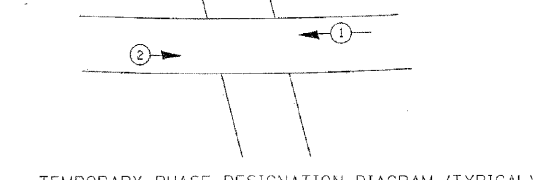
TEMPORARY CABLE PLAN (TYPICAL)
NOT TO SCALE

TEMPORARY CABLE PLAN LEGEND

- TEMPORARY VIDEO DETECTOR
- INDICATES NUMBER OF CONDUCTORS IN CABLE. ALL CONDUCTORS TO BE NUMBER 14 AWG WIRE UNLESS OTHERWISE NOTED.
- TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION, 12" (300 mm)

TEMPORARY PHASE DESIGNATION DIAGRAM LEGEND

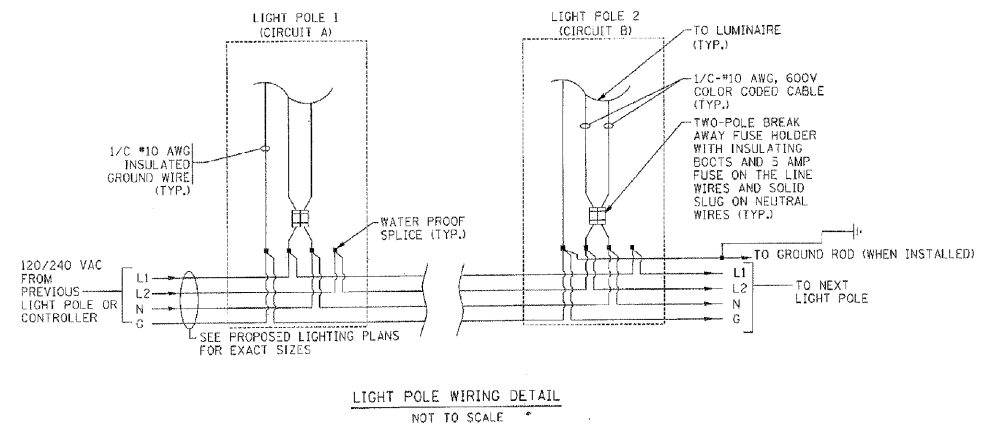
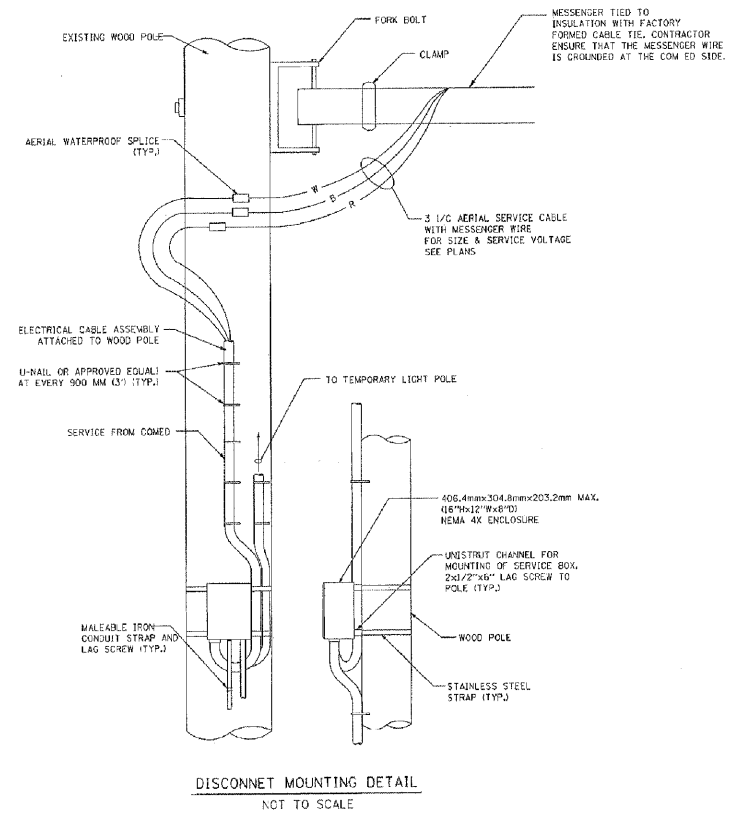
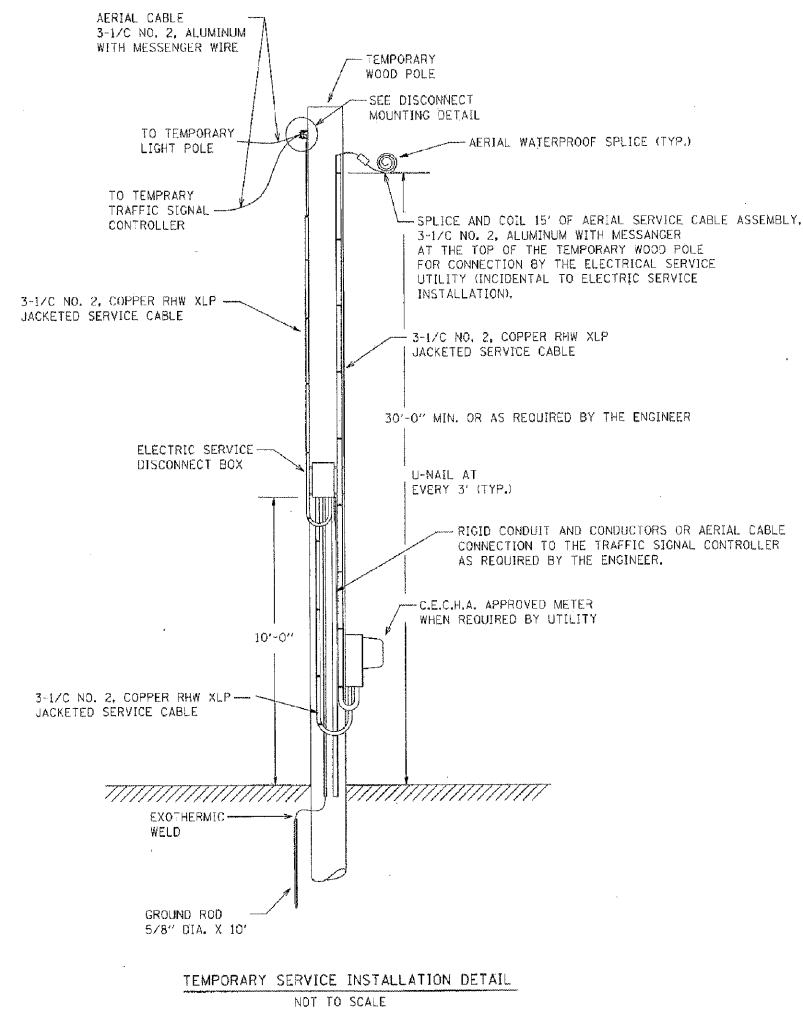
- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- OVERLAP
- PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE



TEMPORARY PHASE DESIGNATION DIAGRAM (TYPICAL)
NOT TO SCALE

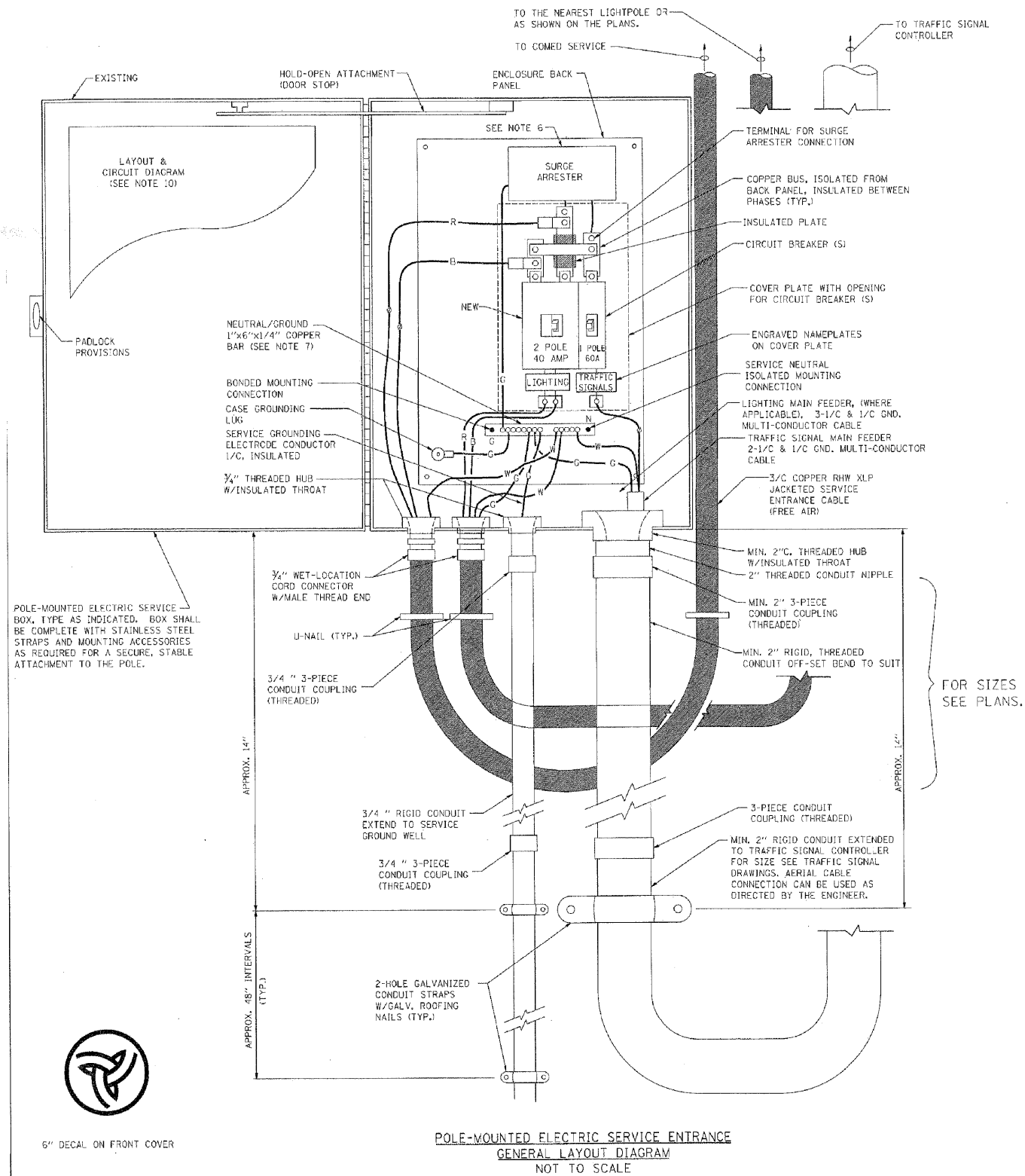
TEMPORARY LIGHTING AND TRAFFIC SIGNALS FOR SINGLE LANE STAGING (SHEET I)

| | | | | | | | | | | | | | | | |
|--------------------------|----------------------|------------|-----------|---|--|-----------|----|--------|-------------|---------|---------------------|---------------------------|-----------|----|----|
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| | PLOT DATE = #DATE* | CHECKED - | REVISED - | | | | | | | | BE-805 | CONTRACT NO. 60J26 | | | |
| | | DATE - | REVISED - | | | | | | | | FED. ROAD DIST. NO. | ILLINOIS FED. AID PROJECT | | | |



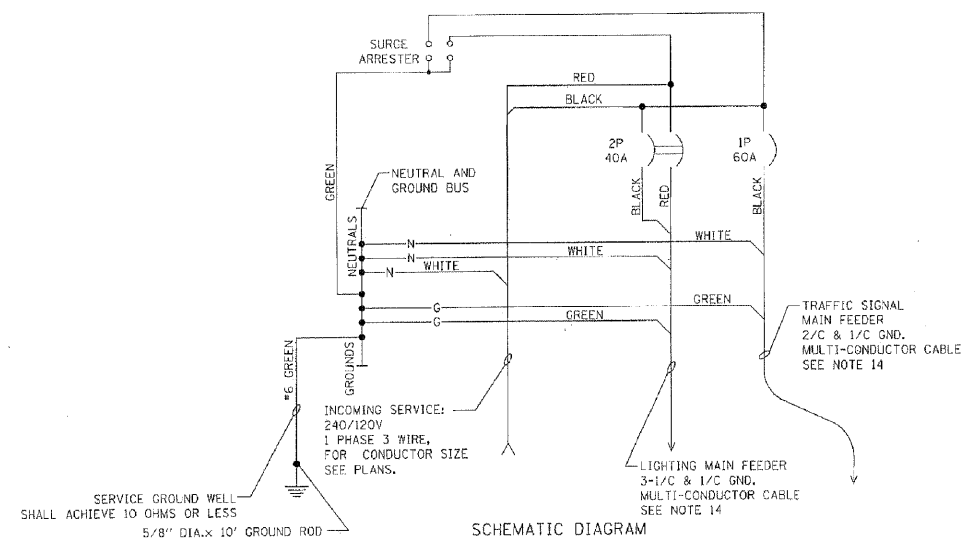
TEMPORARY LIGHTING AND TRAFFIC SIGNALS FOR SINGLE LANE STAGING (SHEET II)

| | | | | | | | | | | | |
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| #FILE# | | DRAWN - | REVISED - | | | 57 | 0607-1007 HB-I | COOK | 29 | 21 | |
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| | PLOT DATE = #DATE# | DATE - | REVISED - | | | FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT | | | | | |
| | | | | | SCALE: NONE | SHEET NO. OF SHEETS | STA. TO STA. | | | | |



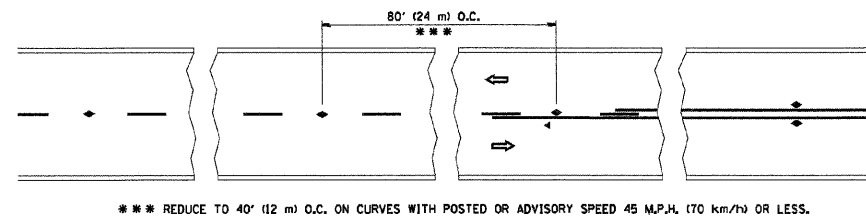
NOTES:

1. ELECTRIC SERVICE SHALL BE OF THE VOLTAGE INDICATED OR DESIGNATED BY THE ENGINEER, AND SERVICE DROP CABLE SHALL BE COMPATIBLE WITH THE SERVICE ACCORDINGLY. SOME INSTALLATIONS MAY CALL FOR SERVICE ENTRANCE EQUIPMENT SUITABLE FOR 3-WIRE SERVICE EVEN THOUGH INITIALLY WIRED FOR 2-WIRE SERVICE.
2. THE POLE-MOUNTED ELECTRIC SERVICE BOX SHALL BE CONFIGURED AND FULLY EQUIPPED FOR 240/120V 3W SERVICE, COMPLETE WITH LIGHTING MAIN BREAKER AND TRAFFIC SIGNALS MAIN BREAKER AS REQUIRED.
3. THE ELECTRIC SERVICE EQUIPMENT ASSEMBLY SHALL BE UL LISTED AS SUITABLE FOR USE AS SERVICE ENTRANCE EQUIPMENT.
4. THE ELECTRIC SERVICE EQUIPMENT ENCLOSURE SHALL BE NEMA 4X STAINLESS STEEL, NOMINALLY 12"W X 16"H X 8"D, WITH A PIANO-HINGED DOOR, STEEL BACK PANEL, FAST-ACTING STAINLESS STEEL ENCLOSURE CLAMPS, PADLOCK PROVISIONS AND DOOR STOP, HOFFMAN CATALOG NO. A-16H20B556LP/A-16 P12/A-DSTOPK/C-PMK12, OR APPROVED EQUAL.
5. CIRCUIT BREAKERS SHALL BE THERMAL MAGNETIC BOLT-ON TYPE WITH A MINIMUM INTERRUPTING CAPACITY OF 25,000 SYMMETRICAL AMPERES AT 240 VOLTS. THEY SHALL BE LOCKABLE IN THE "OFF" POSITION FOR COMPLIANCE WITH OSHA LOCK-OUT/TAG-OUT REQUIREMENTS. HANDLES SHALL BE TRIP FREE.
6. THE SURGE PROTECTOR SHALL BE SUITABLE FOR THE SERVICE VOLTAGE SINGLE PHASE 60HZ AC, WITH A SURGE ENERGY CAPABILITY OF 2160 JOULES OR BETTER AT 8/20 MICRO-SECONDS, RATED -40 TO 60 DEGREES C., WITH LED OPERATING INDICATORS, AND SHALL BE UL LISTED PER UL 1449, CUTLER-HAMMER CNDV230L06SXST OR APPROVED EQUAL.
7. BUS BARS, CONNECTORS, AND LUGS SHALL BE COPPER, INSULATED AND ISOLATED, AND CONFIGURED TO PREVENT SHORTED CONDITIONS FROM TIGHTENING TERMINATIONS, ETC. THE OVERALL BUS SECTION SHALL BE CONFIGURED BEHIND AN INSULATING BARRIER SHIELD WHICH IS REMOVABLE FOR ACCESS TO CONNECTIONS, OR THE ASSEMBLY SHALL BE A MANUFACTURED SPECIALTY PANELBOARD, CUTLER-HAMMER PRL2A OR APPROVED EQUAL.
8. THE COMBINATION GROUND AND NEUTRAL BAR SHALL BE CONFIGURED WITH SEPARATE GROUND AND NEUTRAL SECTIONS AND SPARE TERMINALS AS INDICATED. THE HEADS OF GROUND SCREWS SHALL BE PAINTED GREEN. THE HEADS OF NEUTRAL SCREWS SHALL BE PAINTED WHITE. THE SERVICE NEUTRAL AND SERVICE GROUNDING ELECTRODE CONDUCTOR SHALL BE TERMINATED ADJACENT TO EACH OTHER AT THE DIVIDE BETWEEN THE SECTIONS AND WIRING SHALL BE TERMINATED ONLY UPON THE APPROPRIATE SECTION.
9. THE WIRING TERMINALS, INCLUDING THE GROUND/NEUTRAL BAR SHALL BE ARRANGED TO PROVIDE ADEQUATE ROOM FOR PERFORMING FIELD TERMINATIONS.
10. A PLASTIC LAMINATED LAYOUT AND CIRCUIT DIAGRAM SHALL BE MECHANICALLY SECURED TO THE INTERIOR SIDE OF THE ENCLOSURE DOOR.
11. A 2-COLOR ENGRAVED PLASTIC NAMEPLATE, ATTACHED WITH SCREWS, AND ENGRAVED AS INDICATED, SHALL BE PROVIDED FOR EACH MAIN BREAKER.
12. LUGS AND CONNECTORS SHALL BE RATED FOR 75 C CONDUCTOR.
13. THE EXACT MOUNTING HEIGHT OF THE BOX SHALL BE FIELD DETERMINED TO AVOID OBSTRUCTIONS AND PUBLIC ACCESS. TYPICAL HEIGHT SHALL BE APPROXIMATELY 10 FEET ABOVE GRADE.

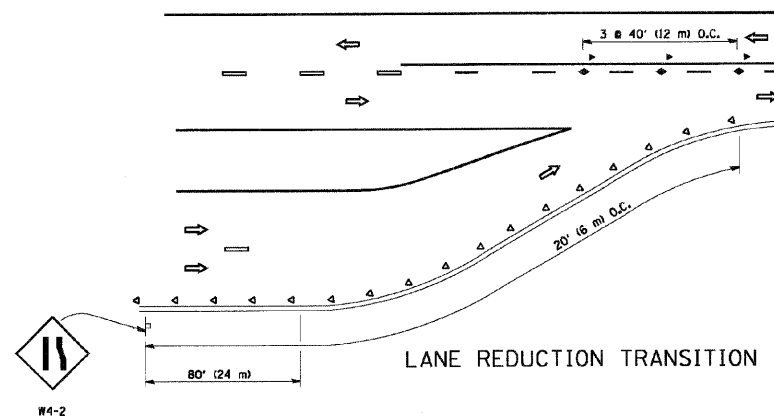


TEMPORARY LIGHTING AND TRAFFIC SIGNALS FOR SINGLE LANE STAGING (SHEET III)

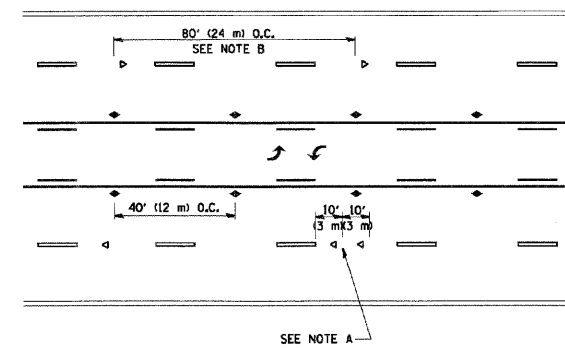
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| | | DRAWN - | REVISED - | | | 57 | 0607-1007 HB-1 | COOK | 29 | 22 | |
| | | CHECKED - | REVISED - | | | BE-805 | | CONTRACT NO. 60J26 | | | |
| | | DATE - | REVISED - | | | SCALE: NONE | SHEET NO. OF SHEETS | STA. | TO STA. | FED. ROAD DIST. NO. | ILLINOIS FED. AID PROJECT |



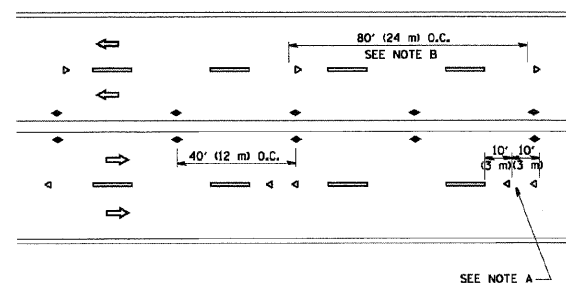
TWO-LANE/TWO-WAY



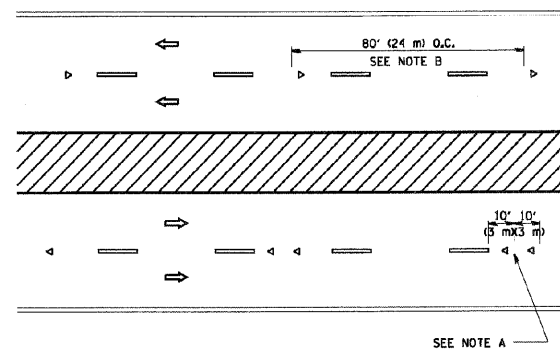
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

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

SYMBOLS

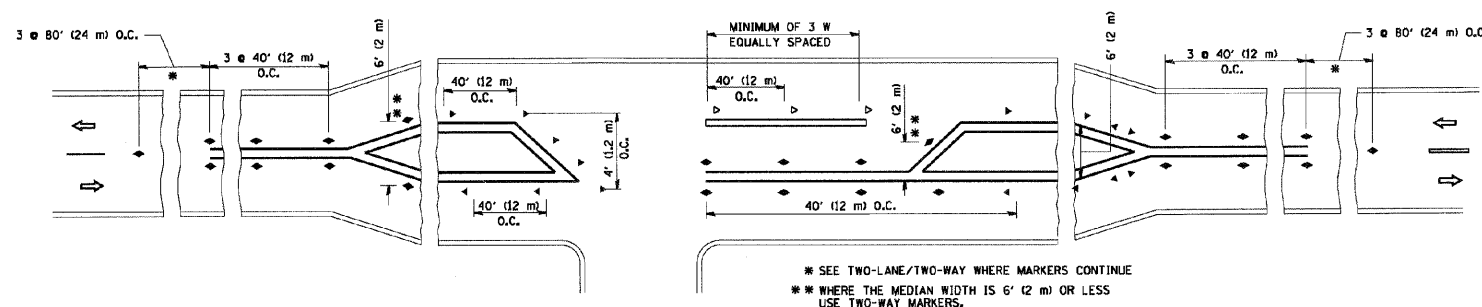
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◀ ONE-WAY CRYSTAL MARKER (W/O)
- ◀ TWO-WAY AMBER MARKER

LANE MARKER NOTES

- 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.

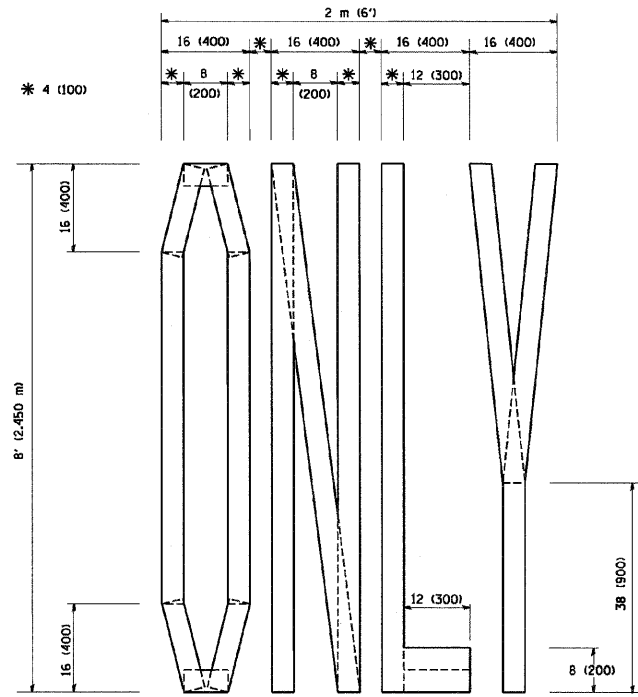


LEFT TURN

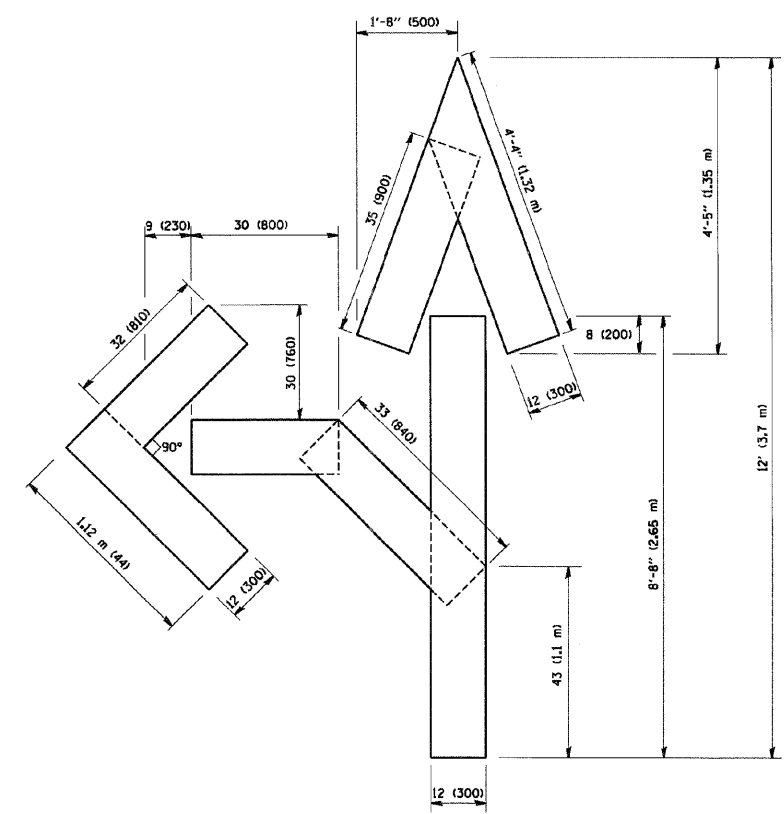
All dimensions are in inches (millimeters) unless otherwise shown.

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

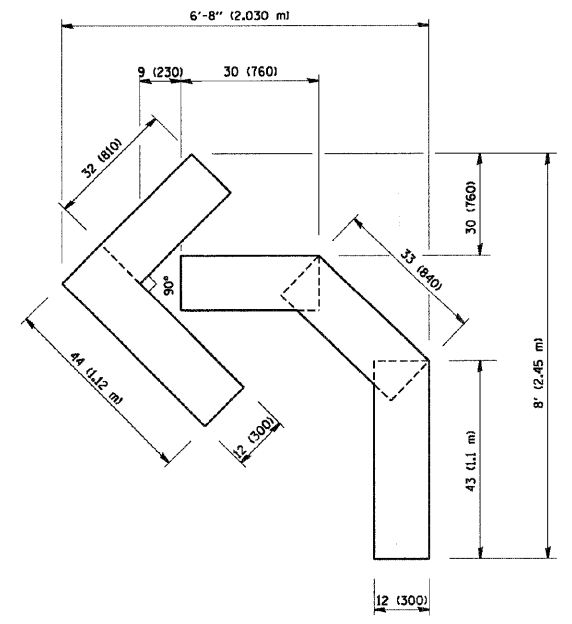
| | | | | | | | | | | | | | |
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| FILE NAME = #FILEL# | USER NAME = #USER# | DESIGNED - | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | DISTRICT STANDARDS FLOSSMOOR ROAD OVER I-57 | | | F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | |
| | PLOT SCALE = #SCALE# | DRAWN - | REVISED - | | SCALE: NONE | SHEET NO. | OF | SHEETS | STA. | TO STA. | 57 | 0607-1007 HB-1 | COOK |
| PLOT DATE = #DATE# | DATE - | CHECKED - | REVISED - | | | | | TC-11 | | | | CONTRACT NO. 60J26 | |
| | | DATE - | REVISED - | | | | | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | | |



QUANTITY
 4 (100) LINE = 64.1 ft. (19.7 m)
 21.1 sq. ft. (1.97 sq. m)



QUANTITY
 4 (100) LINE = 82.5 ft. (25.3 m)
 27.5 sq. ft. (2.53 sq. m)



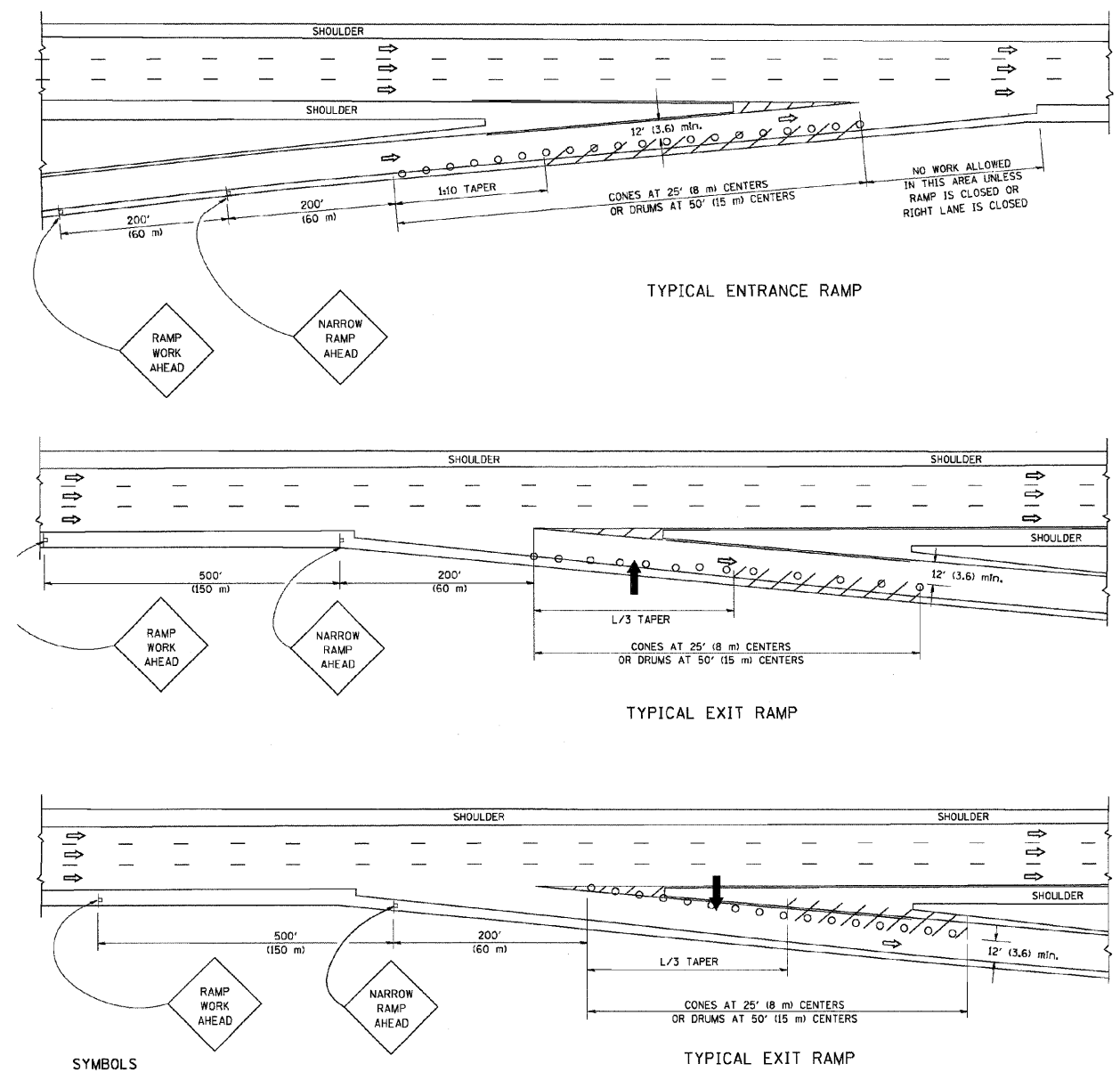
QUANTITY
 4 (100) LINE = 45.5 ft. (13.9 m)
 15.2 sq. ft. (1.39 sq. m)

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

PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING

| | | | | | | | | | | |
|-------------|--------------------|------------|-----------|---|--|----------------|----------------|--------|-----------------|---|
| FILE NAME = | USER NAME = #USER# | DESIGNED - | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | DISTRICT STANDARDS FLOSSMOOR ROAD OVER I-57 | F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| #FILEL# | | DRAWN - | REVISED - | | | 57 | 0607-1007 HB-1 | COOK | 29 | 26 |
| | | CHECKED - | REVISED - | | | | TC-16 | | | CONTRACT NO. 60J26 |
| | | DATE - | REVISED - | | SCALE: NONE | SHEET NO. | OF | SHEETS | STA. | TO STA. |
| | | | | | | | | | | FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT |

PARTIAL RAMP CLOSURE DETAILS



SYMBOLS

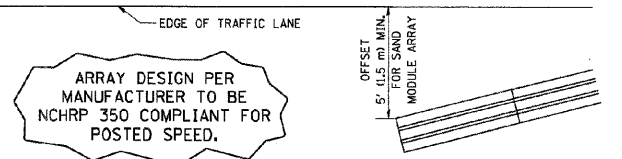
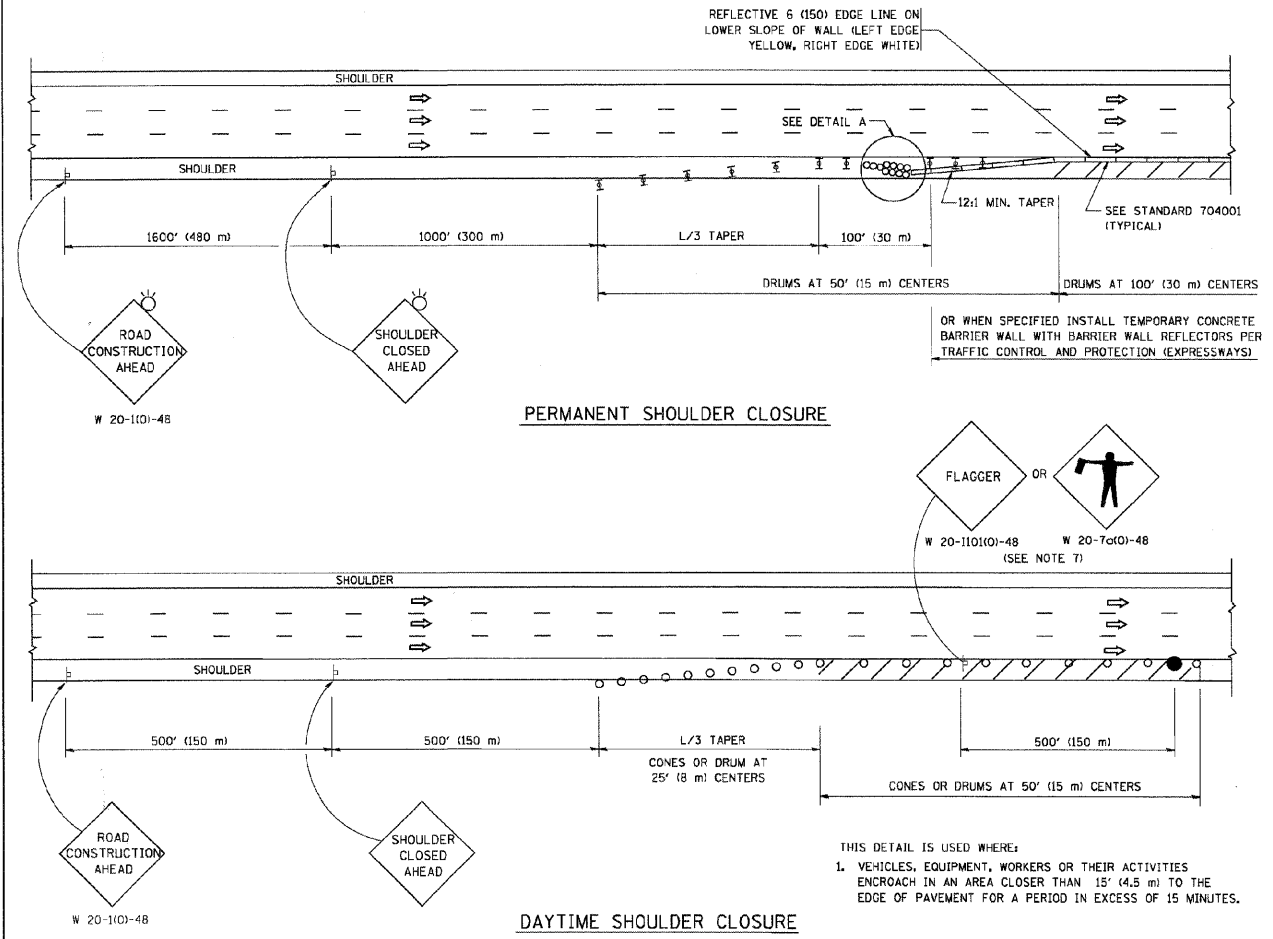
- ➔ ARROWBOARD
- ▨ WORK AREA
- ⊥ SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH CONTROL SIGN
- ⊥ TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONO-DIRECTIONAL LIGHT
- CONE, DRUM OR BARRICADE

GENERAL NOTES

1. THE "L" DISTANCE EQUALS:

| | |
|--------------------------------------|--|
| SPEED LIMIT | FORMULAS |
| 45 mph (80 km/h) OR GREATER: | METRIC $L=0.65(WHS)$ ENGLISH $L=(WHS)$ |
| 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.
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 "TRAFFIC BARRIER TERMINAL, TYPE III, TEMPORARY" DEVICE TO MEET NCHRP 350 FOR POSTED SPEED.
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 ACTIVITY REQUIRES FREQUENT ENCROACHMENT INTO THE LANE OPEN TO TRAFFIC.
 THE FLAGGER SHALL BE STATIONED APPROXIMATELY 100' (30 m) TO 200' (60 m) IN ADVANCE OF THE WORKERS.

SHOULDER CLOSURE DETAILS

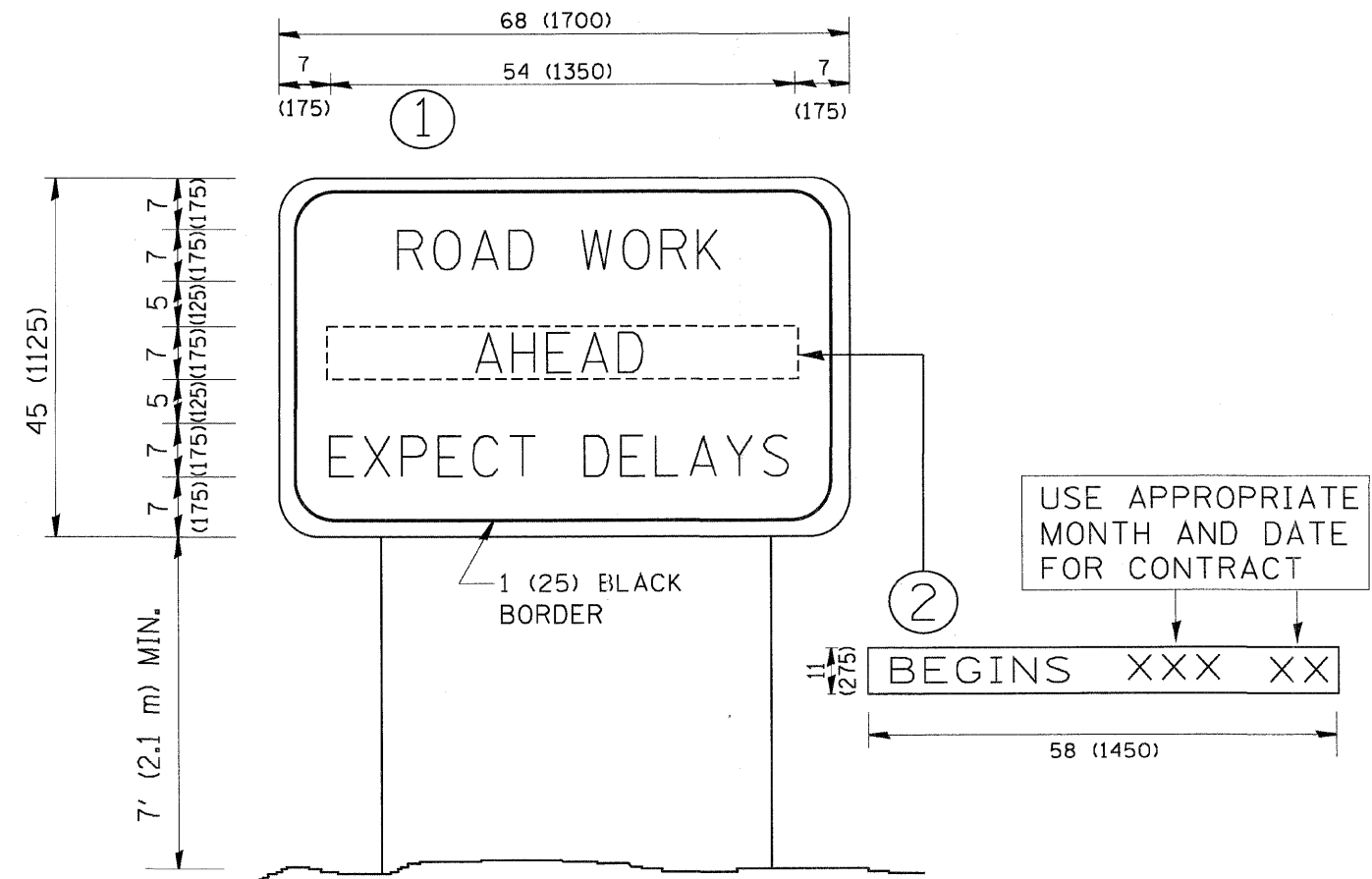


DETAIL "A" IMPACT ATTENUATOR, TEMPORARY (SEE NOTE 5)

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

TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES

| | | | | | | | | | | | |
|-------------|--------------------|------------|-----------|---|--------------------------|-------------|----------------|--------|--------------|-----------|---|
| FILE NAME = | USER NAME = #USER# | DESIGNED - | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | DISTRICT STANDARDS | F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | |
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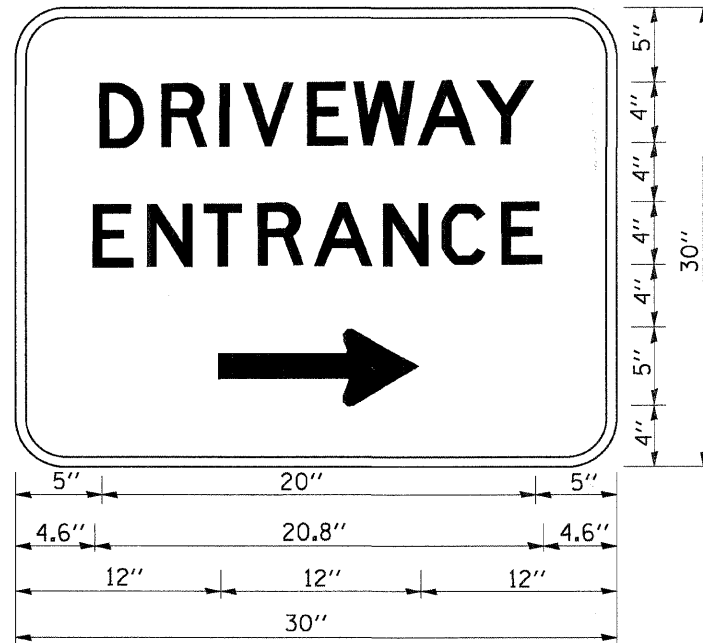


NOTES:

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.

ARTERIAL ROAD INFORMATION SIGN

| | | | | | | | | | | |
|-------------|----------------------|------------|-----------|---|--|----------------|---------------------|--------------------|---------------------|---------------------------|
| FILE NAME = | USER NAME = #USER# | DESIGNED - | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | DISTRICT STANDARDS FLOSSMOOR ROAD OVER I-57 | F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
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| | PLOT DATE = #DATE# | DATE - | REVISED - | | | SCALE: NONE | SHEET NO. OF SHEETS | STA. TO STA. | FED. ROAD DIST. NO. | ILLINOIS FED. AID PROJECT |



3.0" RADIUS, 0.5" BORDER, WHITE ON GREEN; REFLECTORIZED
 "DRIVEWAY" D; "ENTRANCE" D; STANDARD ARROW CUSTOM 12.0" x 5.0"

NOTES:

1. HALF OF THE SIGNS WILL REQUIRE A LEFT HAND FACING ARROW.
2. TWO SIGNS SHALL BE USED AT EACH COMMERCIAL ENTRANCE
 PLACED BACK-TO-BACK: ONE WITH A RIGHT HAND ARROW (SHOWN)
 SHALL BE PLACED ON THE NEAR RIGHT SIDE THE DRIVEWAY
 AND ONE WITH A LEFT HAND ARROW SHALL BE PLACED ON THE
 FAR LEFT SIDE OF THE DRIVEWAY.
3. SIGNS TO BE PAID FOR AS ITEM "TEMPORARY INFORMATION SIGNING".

DRIVEWAY ENTRANCE SIGNING

| | | | | | | | | | | | |
|-------------|----------------------|------------|-----------|---|--|----------------|---------------------|--------------------|---------------------|---------------------------|--|
| FILE NAME = | USER NAME = #USER* | DESIGNED - | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | DISTRICT STANDARDS FLOSSMOOR ROAD OVER I-57 | F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | |
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