

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	61 HB-I-6	KANE	4	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 60E17		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

F.A.P. ROUTE 573: IL 56
AT HANKES ROAD
SECTION: 61 HB-I-6
BEAM REPLACEMENT
KANE COUNTY
C-91-338-08

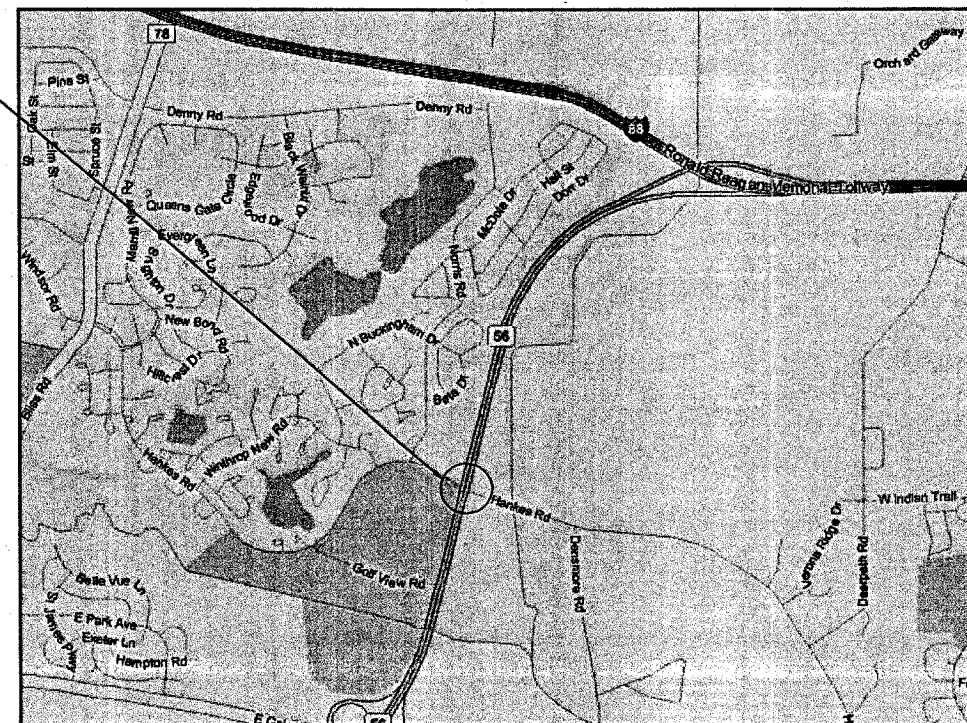
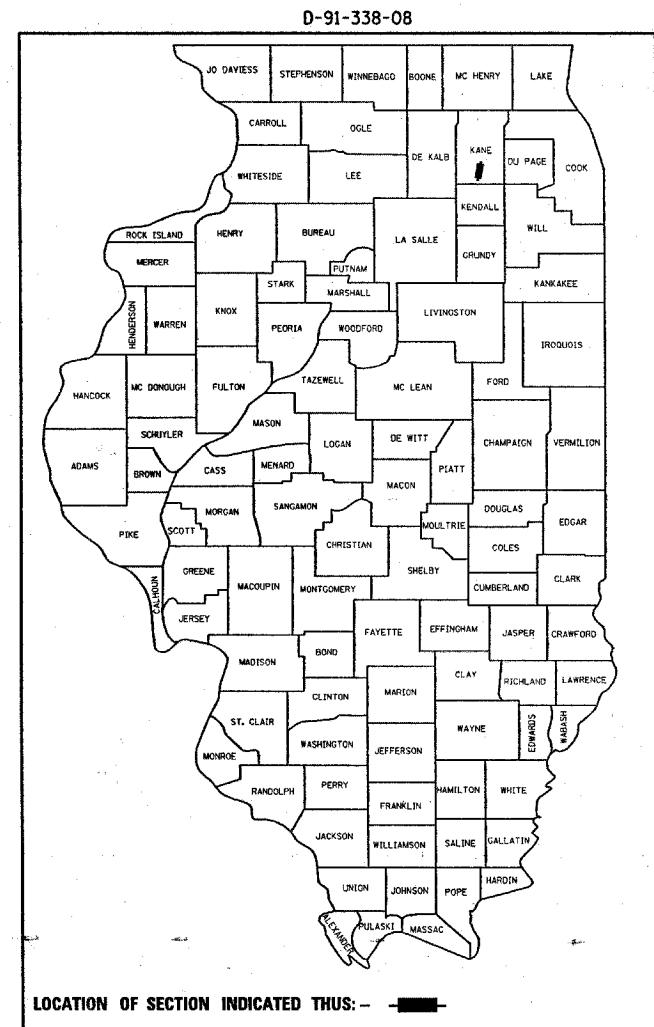
FOR INDEX OF SHEETS, SEE SHEET NO. 2

IMPROVEMENT LOCATED IN SUGAR GROVE TOWNSHIP

TRAFFIC DATA

2006 ADT (HANKES RD) = 4550
POSTED SPEED LIMIT (HANKES RD) = 40 MPH
2006 ADT (IL 56) = 19800
POSTED SPEED LIMIT (IL 56) = 55 MPH

IMPROVEMENT LOCATION
SN 045-0081



J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-392-0123
OR 811

PROJECT ENGINEER KEN ENG
PROJECT MANAGER ROBERT BORO (847) 705-4178

CONTRACT NO. 60E17

SUGAR GROVE TOWNSHIP

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED MARCH 31, 2008

Diana M. O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 9, 2008
Eric F. Hansen
ENGINEER OF DESIGN AND ENVIRONMENT

May 9, 2008
Christina M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

INDEX OF SHEETS

<u>SHEETING</u>	<u>DESCRIPTION</u>
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3	SUMMARY OF QUANTITIES
4-8	BRIDGE REPAIRS
9	TRAFFIC STAGING PLAN
10-12	TRAFFIC STAGING LIGHTING PLAN
13	DISTRICT ONE TYPICAL PAVEMENT MARKINGS (TC-13)
14	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS AND DRIVEWAYS (TC-10)

STATE STANDARDS

<u>STANDARD NO.</u>	<u>DESCRIPTION</u>
701301-02	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701321-09	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701421-01	LANE CLOSURE, MULTILANE, DAY OPERATIONS ONLY FOR SPEEDS ≥ 45 MPH TO 55 MPH
701901	TRAFFIC CONTROL DEVICES
704001-04	TEMPORARY CONCRETE BARRIER

GENERAL NOTES

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT (800) 392-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, AND GAS UTILITIES. 48 HOUR NOTIFICATION IS REQUIRED.

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH THE UTILITY COMPANIES.

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

ALL DAMAGE TO EXISTING PAVEMENT MARKINGS OR RAISED REFLECTIVE PAVEMENT MARKERS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS SHALL BE REPLACED AT NO ADDITIONAL COST TO THE DEPARTMENT.

BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND 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.

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

THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847) 741- 4470 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.

THE CONTRACTOR SHALL CONTACT DON CHIARUGI, TRAFFIC FIELD ENGINEER AT 847-741-9857 A MINIMUM OF TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.

THESE PLANS HAVE BEEN PREPARED FROM NOTES RECEIVED FROM BRIDGE INSPECTORS.

DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.

THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.

CONCRETE SUPERSTRUCTURE SHALL HAVE A SEVEN DAY MINIMUM CURE TIME.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	61 HB-1-6	KANE	14	3
FED. ROAD DIST. NO. 1		ILLINOIS	HIGHWAY PROJECT	

CONTRACT 60E17

SUMMARY OF QUANTITIES			URBAN 100% STATE	CONSTRUCTION TYPE CODE					SUMMARY OF QUANTITIES			URBAN 100% STATE	CONSTRUCTION TYPE CODE						
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	SN 045-0081 SPT-2A						CODE NO	ITEM	UNIT	TOTAL QUANTITIES	SN 045-0081 SPT-2A					
20200100	EARTH EXCAVATION	CU YD	14.2	14.2						*XX006937	GROUND ROD, 5/8" DIA. X 10 FT.	EACH	7	7					
50102400	CONCRETE REMOVAL	CU YD	1.9	1.9						Z0003600	BEAM STRAIGHTENING	L SUM	1	1					
50300255	CONCRETE SUPERSTRUCTURE	CU YD	1.9	1.9						Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2					
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	9790	9790						Z0073300	TEMPORARY SHORING AND CRIBBING	L SUM	1	1					
50501110	STRUCTURAL STEEL REMOVAL	POUND	9790	9790						Z0073351	TEMPORARY SLAB SUPPORT SYSTEM	L SUM	1	1					
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	3	3						*X0326117	TEMPORARY WOOD POLE, 18.30 METER (INSTALL ONLY)	EACH	1	1					
67100100	MOBILIZATION	L SUM	1	1															
70100310	TRAFFIC CONTROL AND PROTECTION, STANDARD 701421	L SUM	1	1															
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1	1															
70400100	TEMPORARY CONCRETE BARRIER	FOOT	300	300															
*78008210	POLYUREA PAVEMENT MARKING TYPE I - LINE 4"	FOOT	1470	1470															
*78200200	BIDIRECTIONAL PRISMATIC BARRIER REFLECTOR	EACH	32	32															
78300100	PAVEMENT MARKING REMOVAL	SO FT	363	363															
80400100	ELECTRIC SERVICE INSTALLATION	EACH	1	1															
80400200	ELECTRIC UTILITY SERVICE CONNECTION	L SUM	1	1															
*81800320	AERIAL CABLE, 3-1/C NO. 4 WITH MESSENGER WIRE	FOOT	1500	1500															
*82103400	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, PHOTO-CELL CONTROL, 400 WATT	EACH	6	6															
*84200500	REMOVAL OF EXISTING LIGHTING UNIT, SALVAGE	EACH	6	6															
*84500120	REMOVAL OF ELECTRIC SERVICE INSTALLATION	EACH	1	1															
X0322467	TEMPORARY INFORMATION SIGNING FOR LANE CLOSURE	SO FT	96	96															
*X0323574	MAINTENANCE OF LIGHTING SYSTEM	CAL MO	6	6															
*X0324311	TEMPORARY WOOD POLE, 18.30 METER, WITH 4.5 METER MAST ARM (INSTALL ONLY)	EACH	6	6															
X0712400	TEMPORARY PAVEMENT	SO YD	65	65															
X8900005	TEMPORARY BRIDGE TRAFFIC SIGNAL INSTALLATION	EACH	1	1															

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

*Specialty Items

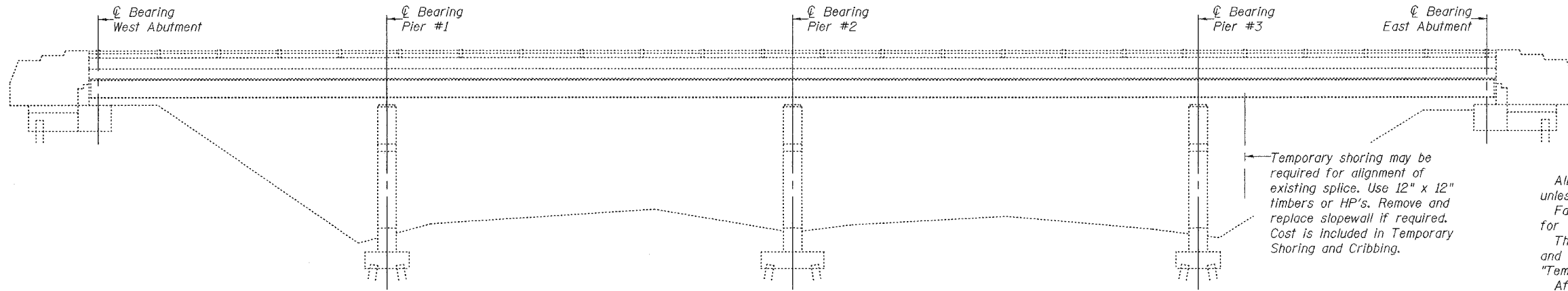
PLOT DATE: 4/4/2008

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

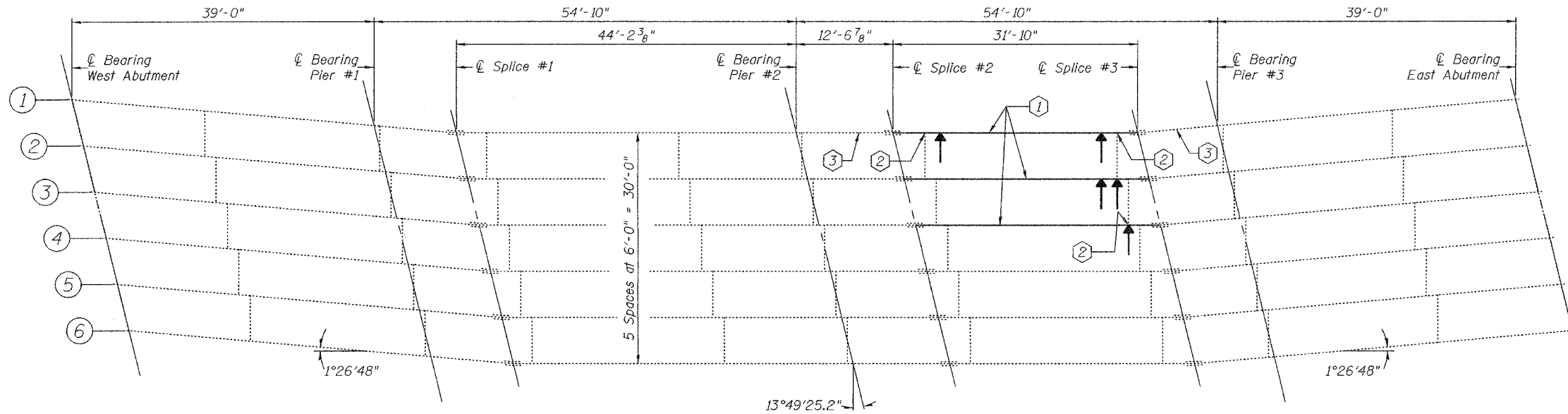
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		Kane	14	4
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 1
5 SHEETS

Contract Number: 60E17



ELEVATION



PLAN

- ① Remove and Replace Existing W30x99
- ② Replace Clip Angles.
- ③ Beam Straightening

Impact Line →

GENERAL NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.
Fasteners shall be high strength bolts. Flange splice holes shall be $1\frac{5}{16}$ " ϕ for $1\frac{1}{8}$ " ϕ bolts. Web splice holes shall be $1\frac{3}{16}$ " ϕ for $\frac{3}{4}$ " ϕ bolts.
The Contractor shall provide support and/or shoring systems for the slab and beam in the area of existing beam removal. See Special Provisions "Temporary Shoring and Cribbing" and "Temporary Slab Support System."
After the new beam is in its final position and/or beam straightening operations have been completed, the Engineer in the field shall check to see that the top flange is tight against the slab. If not, the Contractor shall inject epoxy between the existing concrete deck and the top flange of the beam. See Special Provision "Epoxy Injection".
Grind existing nicks, gouges and shallow cracks in the damaged beams as detailed. Grinding shall be done parallel to the longitudinal axis of the member. Ground surfaces shall be inspected for cracks using dye penetrant or magnetic particle testing prior to initiating any beam straightening operations. Any cracks that cannot be removed by grinding approximately $\frac{1}{4}$ " deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. Ground surfaces shall be spot cleaned and painted with an aluminum epoxy mastic primer followed by a finish coat to match the color of the existing beam. Cost of grinding, testing and spot painting included with Beam Straightening.
Plan dimensions and details relative to existing plans are subject to routine 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 based upon the unit price bid for the work.
Cost of removal and re-installation of all members necessary to complete the work as detailed on the plans and as specified in the Special Provisions shall be included with Furnishing and Erecting Structural Steel.
The inorganic zinc rich primer/acrylic/acrylic paint system shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Interstate Green, Munsell No 7.5G 4/8. See Special Provisions for Cleaning and Painting New Metal Structures.
The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".
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.
Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.
No field welding is permitted except as specified in the contract documents.

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	1.9
Concrete Superstructure	Cu. Yd.	1.9
Furnishing and Erecting Structural Steel	Pound	9790
Temporary Slab Support System	L.S.	1
Beam Straightening	L.S.	1
Temporary Shoring and Cribbing	L.S.	1
Structural Steel Removal	Pound	9790

PLAN AND ELEVATION
F.A. RT. 365
KANE COUNTY
SN.045-0081

DESIGNED	<i>Henry D. Cook</i>
CHECKED	<i>Paul A. Johnson</i>
DRAWN	<i>[Signature]</i>
CHECKED	<i>LSB P65</i>

April 17, 2008
EXAMINED *[Signature]*
ENGINEER OF STRUCTURAL SERVICES
PASSED *[Signature]*
ENGINEER OF BRIDGES AND STRUCTURES

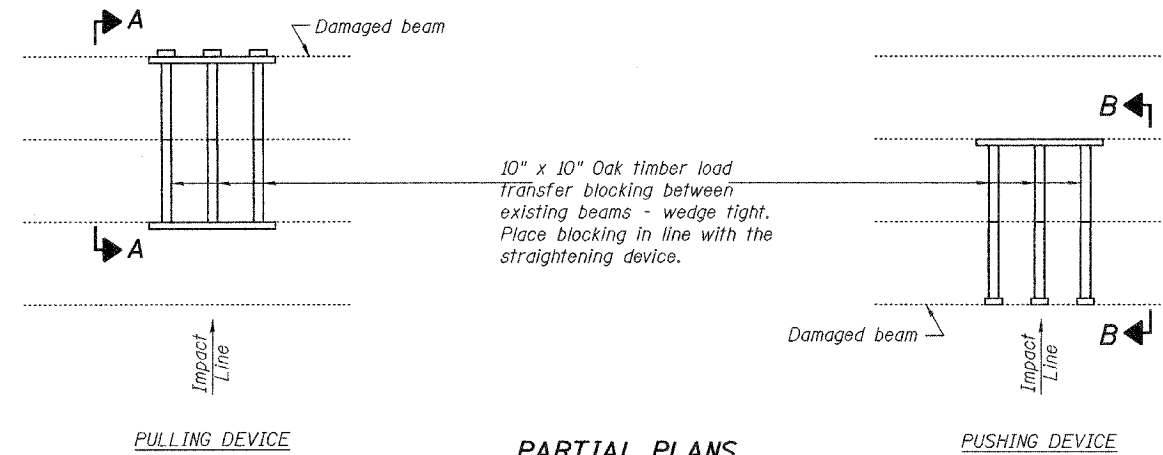


Expires: November 30, 2008

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

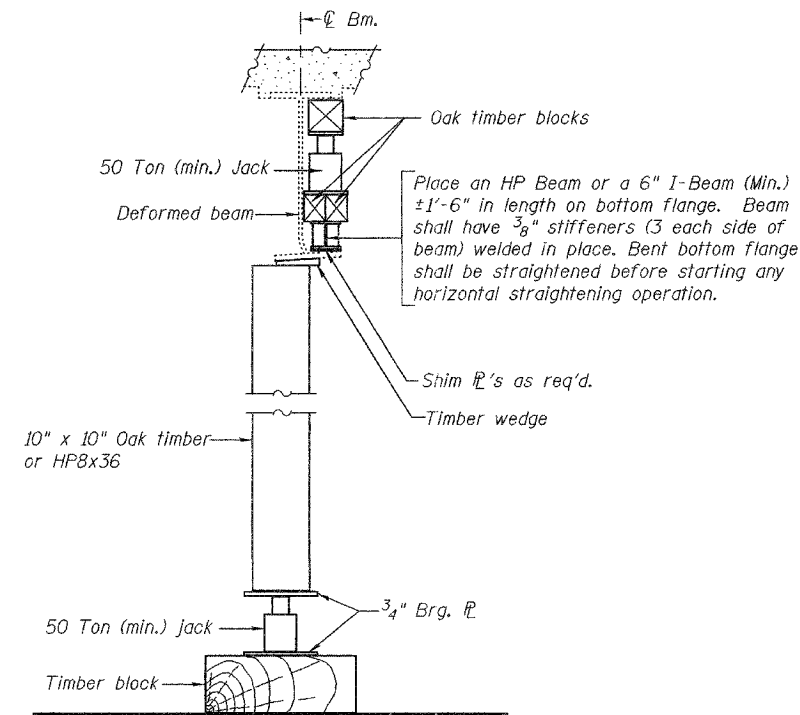
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FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 2
5 SHEETS
Contract Number: 60E17

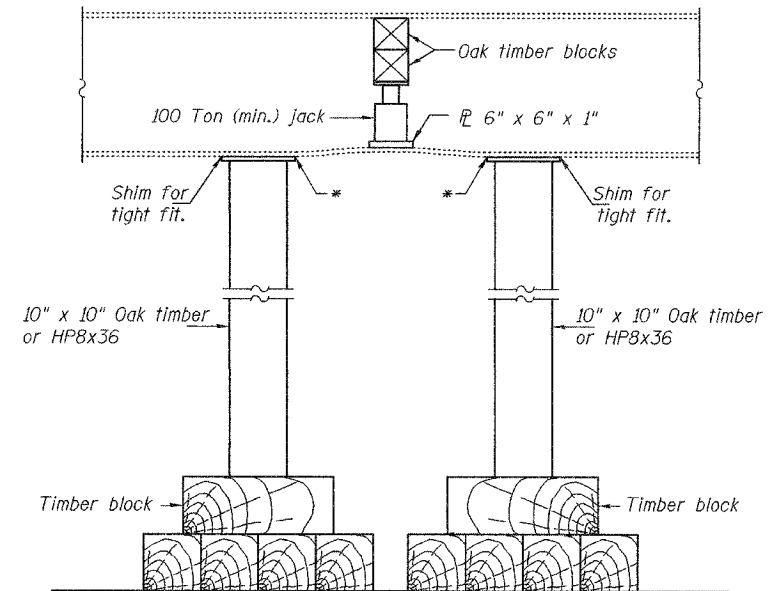


PARTIAL PLANS
SUGGESTED BEAM STRAIGHTENING METHODS

Straightening force shall be maintained on all load transfer blocking during beam straightening.



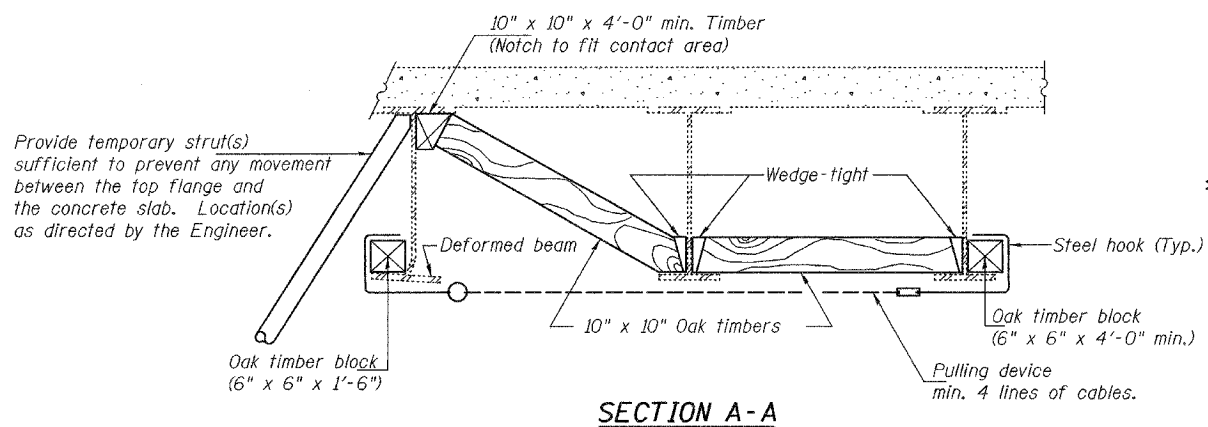
SUGGESTED VERTICAL STRAIGHTENING DETAIL
(To correct flange rotation.)



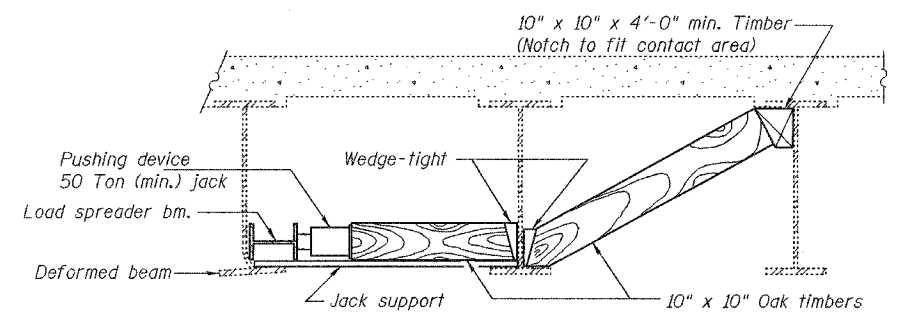
SUGGESTED VERTICAL STRAIGHTENING DETAIL
(To correct localized vertical flange deformations.)

* Edge of plate shall line up with edge of deformation.

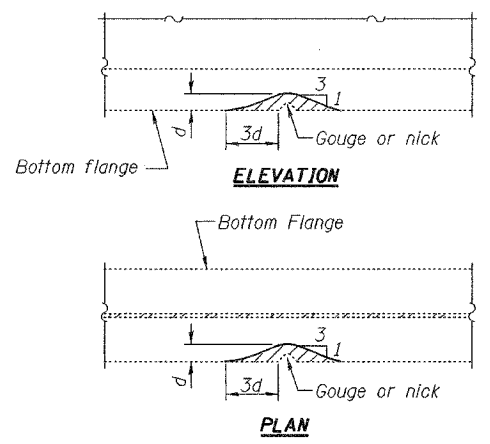
Note:
Braces and jack assembly shall be placed on same side of web.
Bent bottom flange shall be straightened before starting any horizontal straightening operations.



SECTION A-A



SECTION B-B



Grind existing nicks, gouges and shallow cracks in the damaged beams as detailed. Ground surfaces shall be inspected for cracks using magnetic particle testing prior to initiating any beam straightening operations. Any cracks that cannot be removed by grinding approximately 1/4" deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. Ground surfaces shall be spot cleaned and painted with an aluminum epoxy mastic primer followed by a finish coat to match the color of the existing beam. Cost of grinding, testing and spot painting included with Beam Straightening.

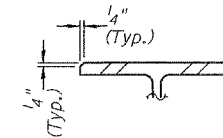
EXISTING DEFORMATION TO BE STRAIGHTENED
(Looking West)
(Approximate max. deflections)
Deflected length of beam to be straightened is approximately ±23'-0".

BEAM STRAIGHTENING DETAILS
F.A. RT. 365
KANE COUNTY
SN.045-0081

DESIGNED	J.S.B.
CHECKED	P.S.J.
DRAWN	Drew Christopher
CHECKED	J.S.B. P.S.J.

April 17, 2008
EXAMINED *Carl Krueger*
ENGINEER OF STRUCTURAL SERVICES
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

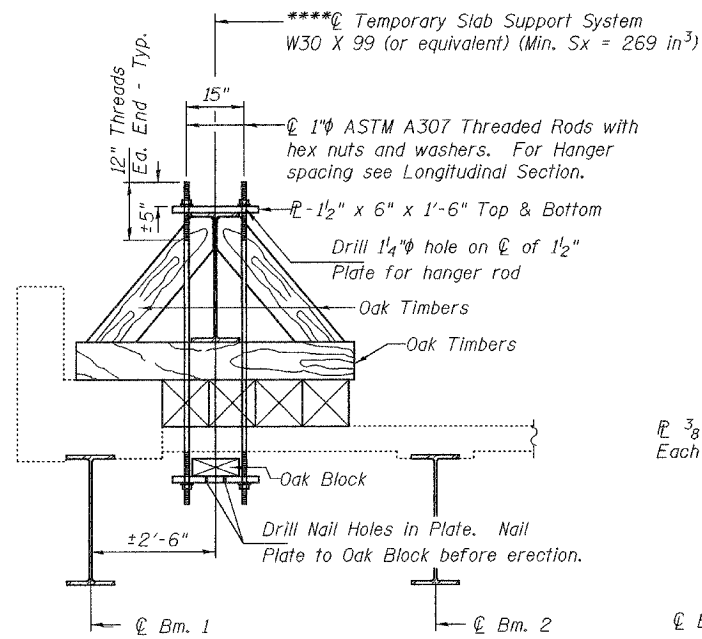
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



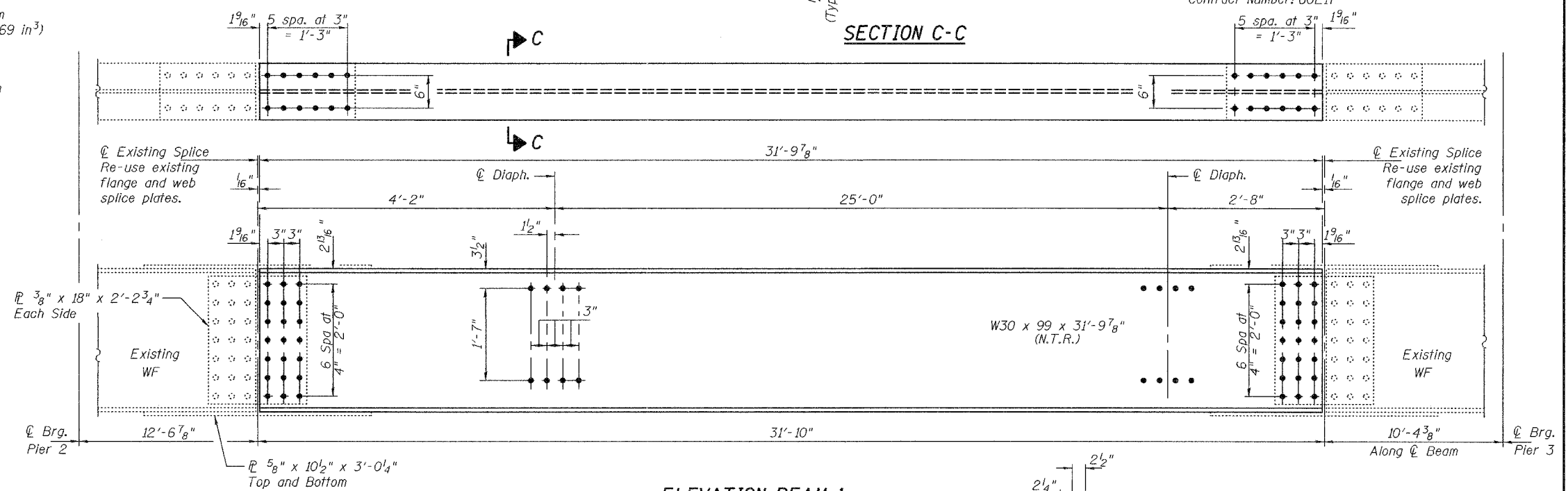
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		Kane	14	6
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

Contract Number: 60E17

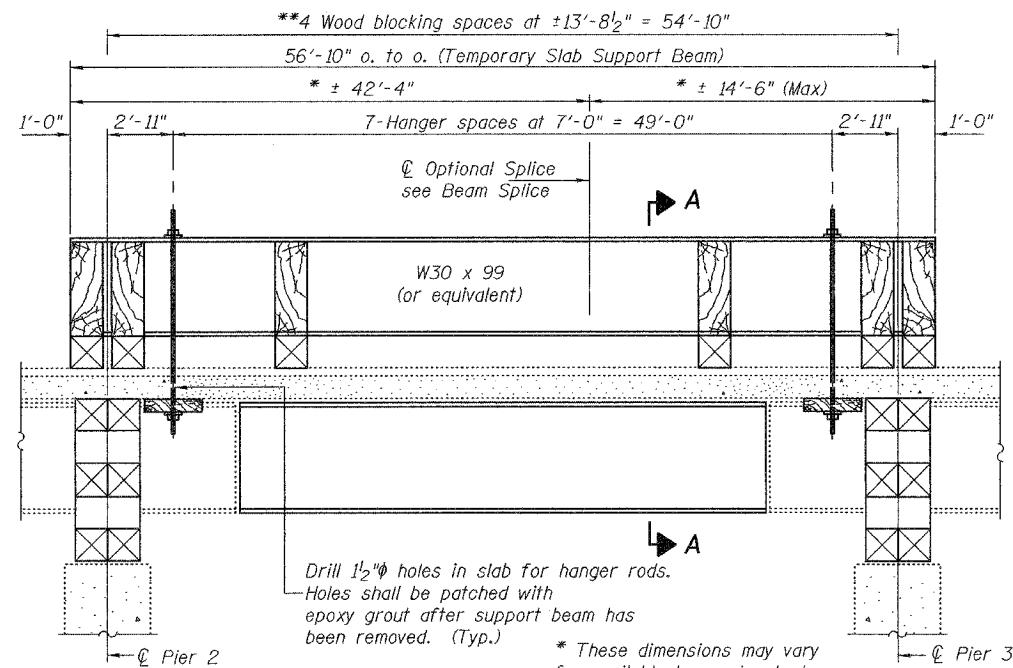
SHEET NO. 3
5 SHEETS



SECTION A-A

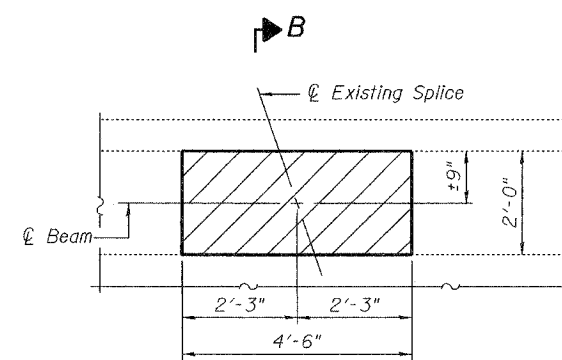


ELEVATION BEAM 1



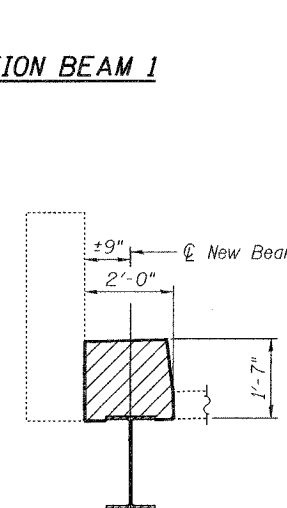
LONGITUDINAL SECTION

SUGGESTED TEMPORARY SLAB SUPPORT SYSTEM

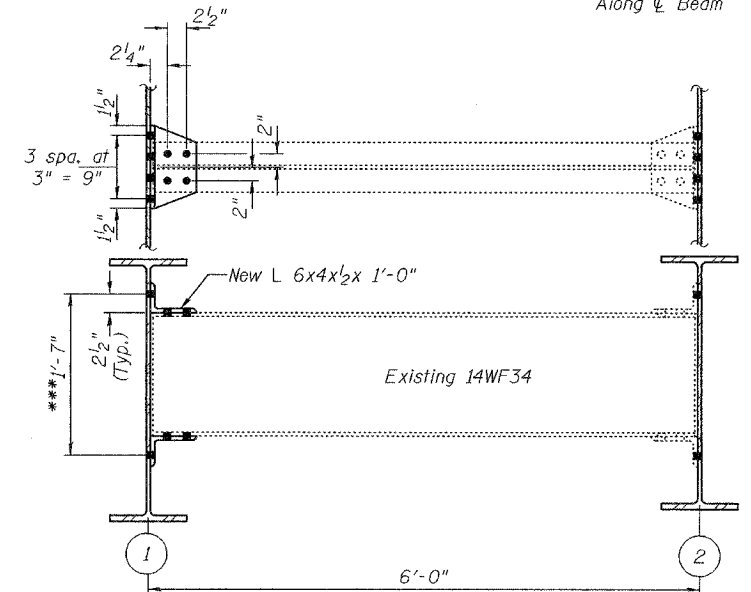


TYPICAL CONCRETE
REMOVAL AND REPLACEMENT

Hatched areas indicate concrete sections to be removed and replaced. Perimeters of concrete removal areas shall be saw cut 3/4 inch prior to the removal of concrete. Reinforcement shall be cut only if required for fitting bolts. Cut reinforcement shall be spliced as directed by the Engineer. Cost shall be included with Concrete Removal. The cost of saw cutting shall be included with Concrete Removal.



SECTION B-B



DIAPHRAGM CONNECTION DETAIL

Notes: Natural camber of new beam shall be placed upward for fabrication. Diaphragm connection holes shall be 5/16 inch for 3/4 inch bolts. Two hardened washers shall be required at diaphragm connections. **** Adjacent beam segments shall not be replaced concurrently.

***Field drill holes in web using holes in new and existing angles as a template.

DESIGNED	J.S.B.
CHECKED	P.S.J.
DRAWN	Drew Christopher
CHECKED	J.S.B. P.S.J.

EXAMINED	April 17, 2008
PASSED	Ralph E. Anderson

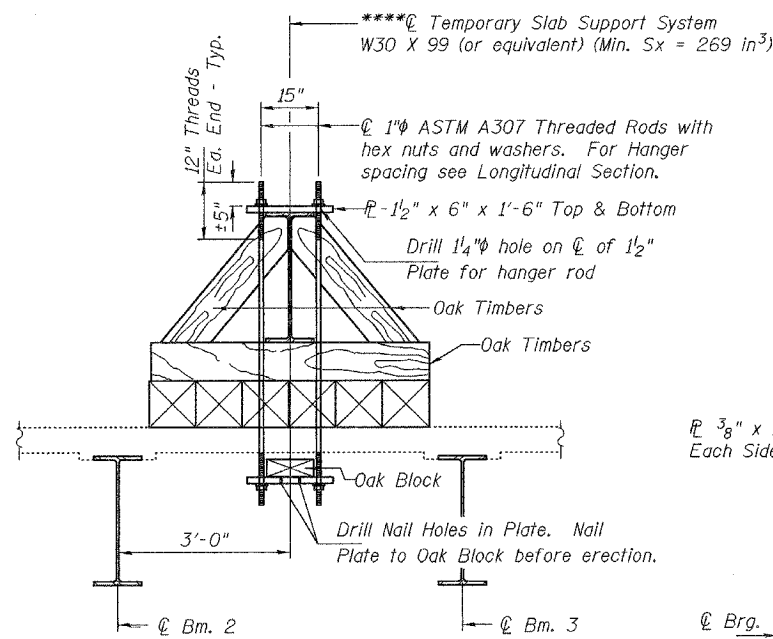
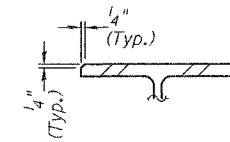
BEAM 1 DETAILS
F.A. RT. 365
KANE COUNTY
SN.045-0081

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

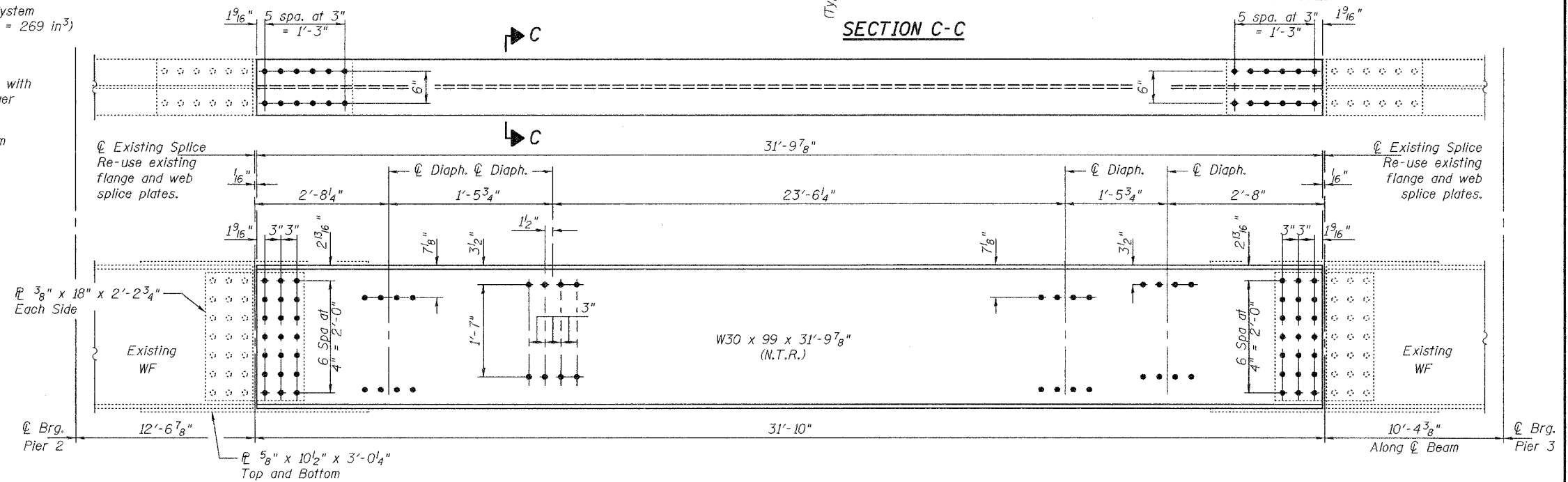
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		Kane	14	7
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT-				

Contract Number: 60E17

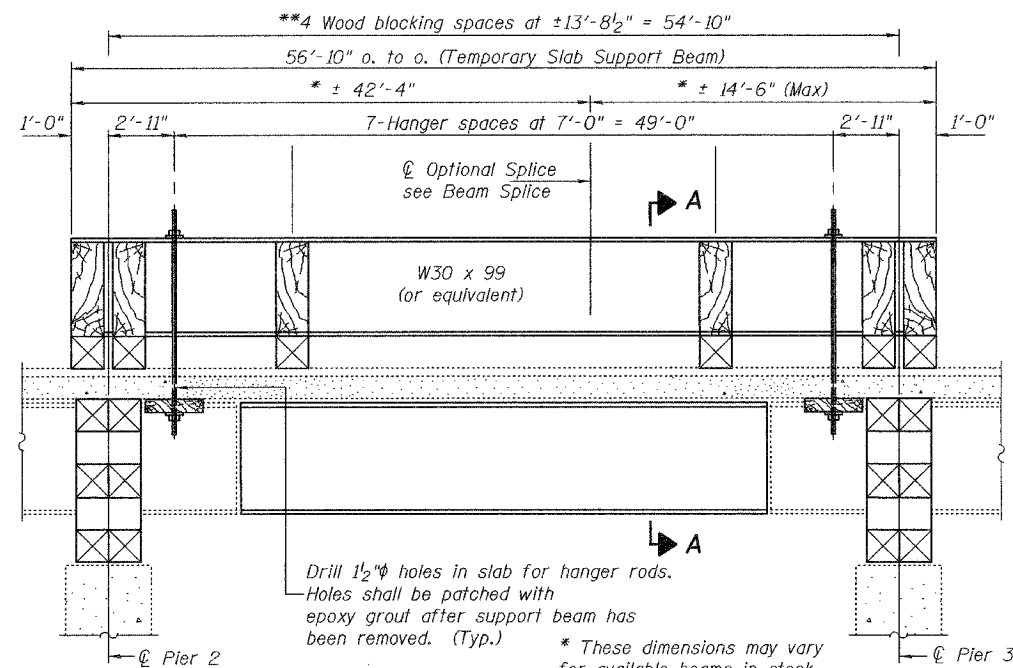
SHEET NO. 4
5 SHEETS



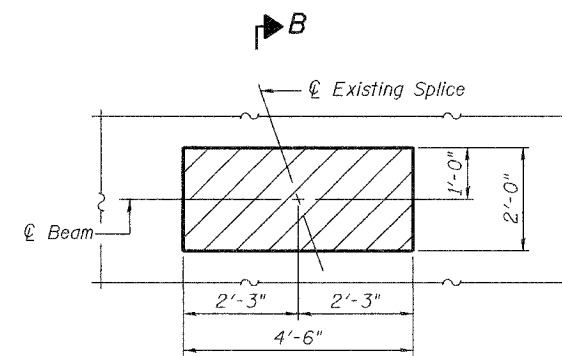
SECTION A-A



ELEVATION BEAMS 2 AND 3

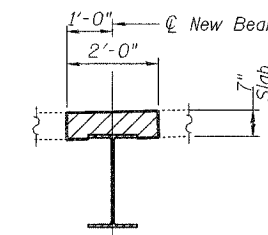


LONGITUDINAL SECTION
SUGGESTED TEMPORARY SLAB SUPPORT SYSTEM

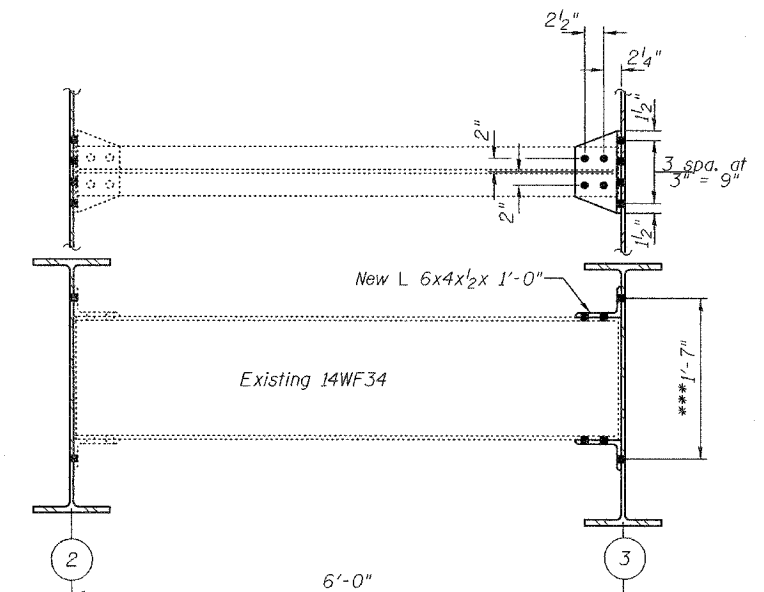


TYPICAL CONCRETE
REMOVAL AND REPLACEMENT

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Reinforcement shall be cut only if required for fitting bolts. Cut reinforcement shall be spliced as directed by the Engineer. Cost shall be included with Concrete Removal.
The cost of saw cutting shall be included with Concrete Removal.



SECTION B-B



DIAPHRAGM CONNECTION DETAIL

Notes:
Natural camber of new beam shall be placed upward for fabrication.
Diaphragm connection holes shall be 5/16 inch for 3/4 inch bolts. Two hardened washers shall be required at diaphragm connections.
***Adjacent beam segments shall not be replaced concurrently.

***Field drill holes in web using holes in new and existing angles as a template.

DESIGNED	J.S.B.
CHECKED	P.S.J.
DRAWN	Drew Christopher
CHECKED	J.S.B. P.S.J.

April 17, 2008
EXAMINED *A. Carl Krueger*
ENGINEER OF STRUCTURAL SERVICES
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

BEAMS 2 AND 3 DETAILS
F.A. RT. 365
KANE COUNTY
SN.045-0081

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

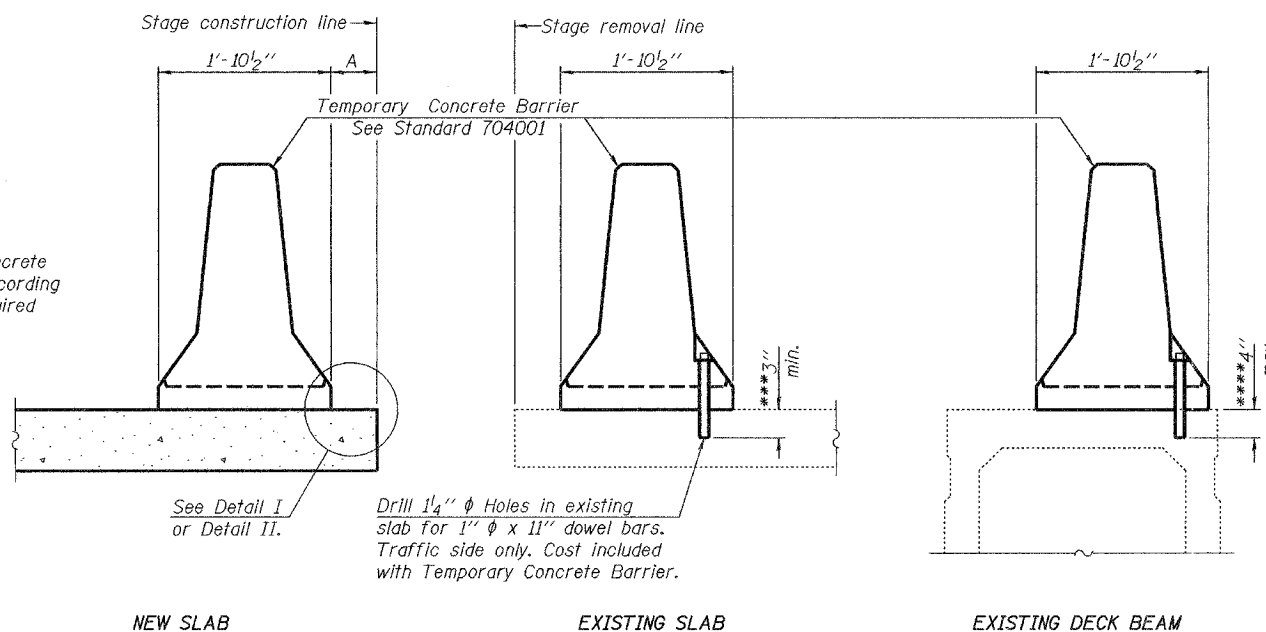
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		Kane	14	8
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 5

5 SHEETS

Contract Number: 60E17

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".



NEW SLAB

EXISTING SLAB

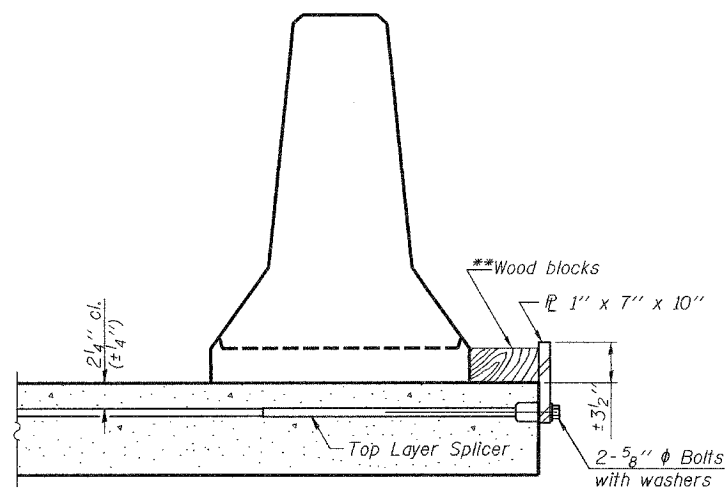
EXISTING DECK BEAM

SECTIONS THRU SLAB OR DECK BEAM

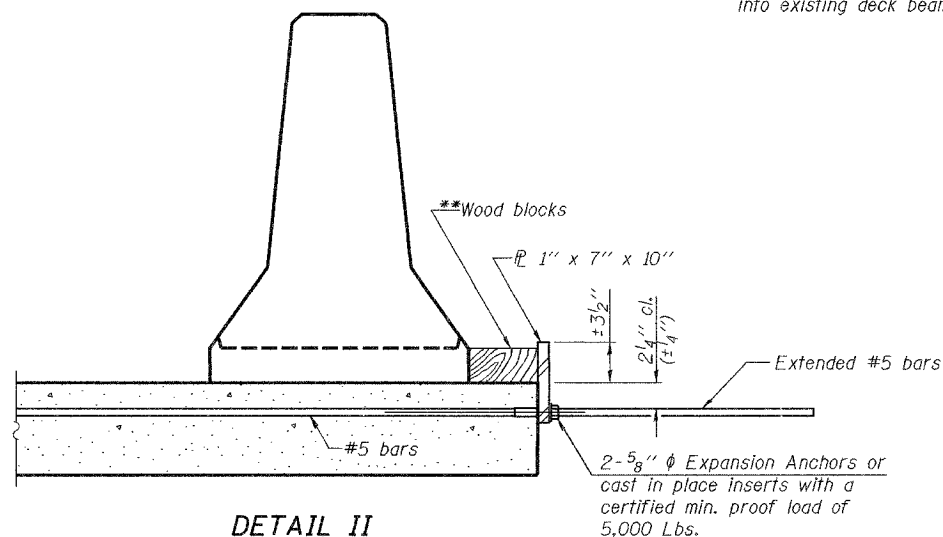
NOTES

- 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.

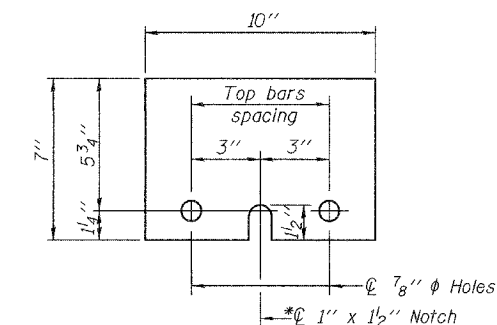
- ***Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.
- ****If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER \bar{R} 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.

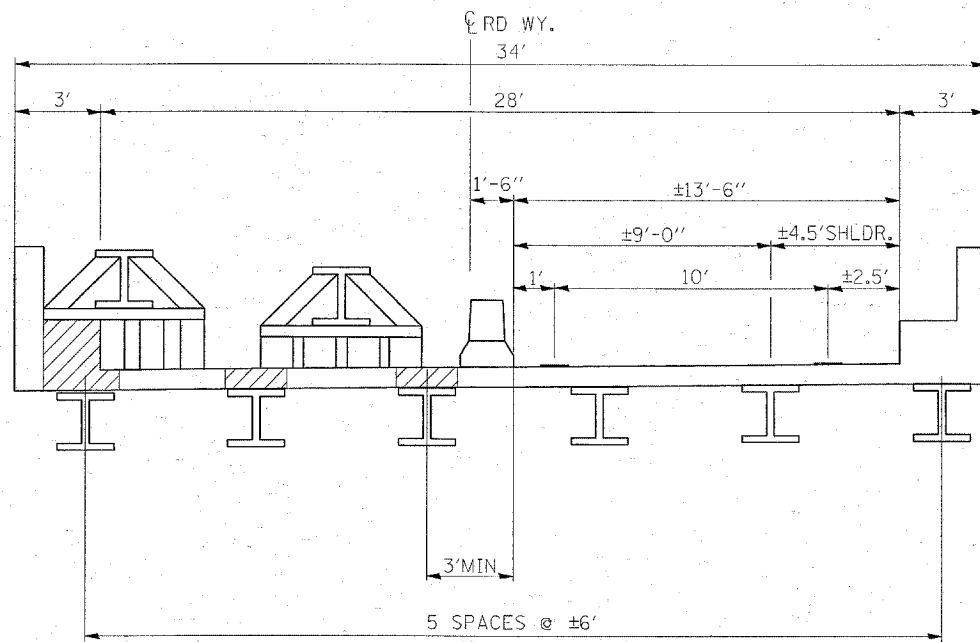
DESIGNED	J.S.B.
CHECKED	P.S.J.
DRAWN	Drew Christopher
CHECKED	J.S.B. P.S.J.

APPROVED	April 17, 2008
EXAMINED	<i>A. Carl Frey</i> ENGINEER OF STRUCTURAL SERVICES
PASSED	<i>Ralph E. Anderson</i> ENGINEER OF BRIDGES AND STRUCTURES

R-27

9-3-07

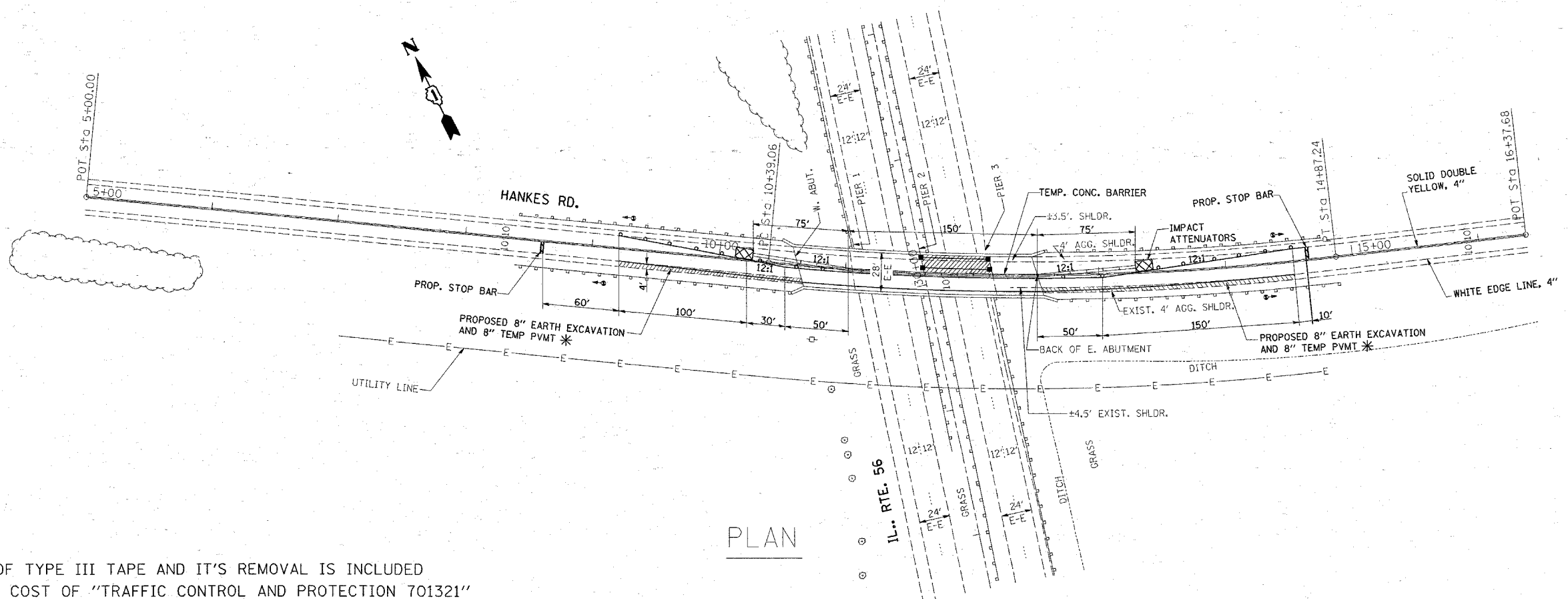
TEMPORARY CONCRETE BARRIER
F.A. RT. 365
KANE COUNTY
SN.045-0081



CROSS SECTION
(LOOKING EAST)

HOT-MIX ASPHALT MIXTURE REQUIREMENTS				
		MIXTURE TYPE	AC TYPE	AIR VOIDS
TEMPORARY PAVEMENT	TOP 2"	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL 9.5 mm)	PG 64-22	4% @ 50 GYR
	BOTT. 6"	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50 (IN 2 LIFTS)	PG 64-22**	4% @ 50 GYR

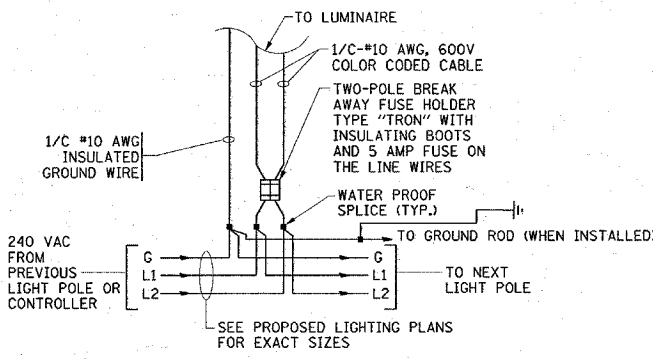
THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.
** WHEN RAP EXCEEDS 20%, THE NEW ASPHALT BINDER IN THE MIX SHALL BE PG 58-22.



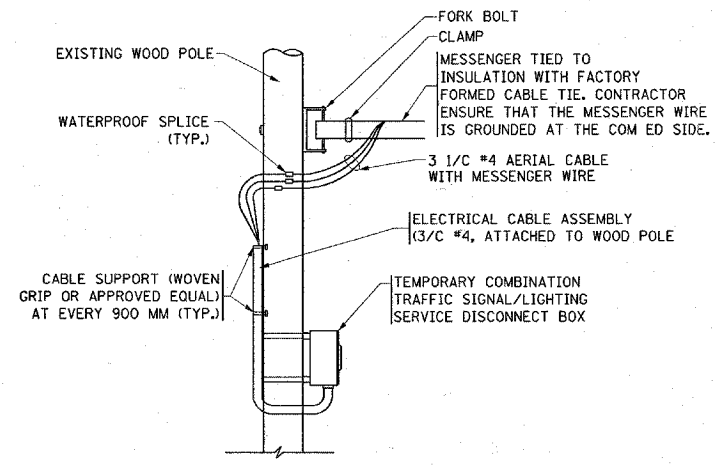
PLAN

NOTE:
COST OF TYPE III TAPE AND IT'S REMOVAL IS INCLUDED IN THE COST OF "TRAFFIC CONTROL AND PROTECTION 701321"

FILE NAME =	USER NAME = sharanu	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC STAGING PLAN			F.A. RTE. =	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ct:\pro\jacta\dl33888\design_00.dgn		DRAWN -	REVISED -					573	61 HB-I-6	KANE	14	9
PLOT SCALE = 50.0000" / IN.		CHECKED -	REVISED -		CONTRACT NO. 60E17							
PLOT DATE = 4/10/2008		DATE -	REVISED -		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							



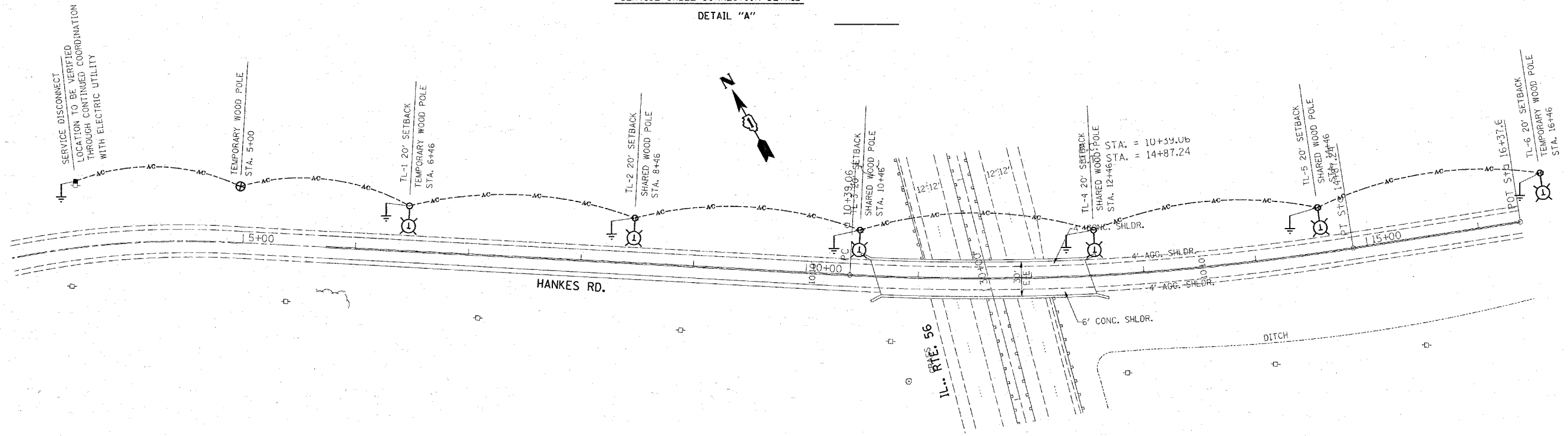
LIGHT POLE WIRING DETAIL
NOT TO SCALE (SEE NOTE 11)



SERVICE CABLE CONNECTION DETAIL
DETAIL "A"

SUMMARY OF QUANTITIES, ELECTRICAL PAY ITEMS

Pay Code	Item Description	Unit	Quantity
80400100	ELECTRIC SERVICE INSTALLATION	Each	1
80400200	ELECTRIC UTILITY SERVICE CONNECTION	Each	1
80700100	GROUND ROD, 5/8" DIA. X 10 FT	Each	7
8180019	AERIAL CABLE, 2-1/C NO. 4 WITH MESSANGER WIRE	Foot	1500
82106400	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 400 WATT (INSTALL ONLY)	Each	6
X0324311	TEMPORARY WOOD POLE, 18.3 METER, WITH 4.5 METER MAST ARM (INSTALL ONLY)	Each	6
	TEMPORARY WOOD POLE, 18.3 METER (INSTALL ONLY)	Each	1
84200500	REMOVAL OF TEMPORARY LIGHTING UNIT, SALVAGE	Each	6
84500120	REMOVAL OF ELECTRIC SERVICE INSTALLATION	Each	1
X0323574	MAINTENANCE OF LIGHTING SYSTEM	Ca. Mo.	6



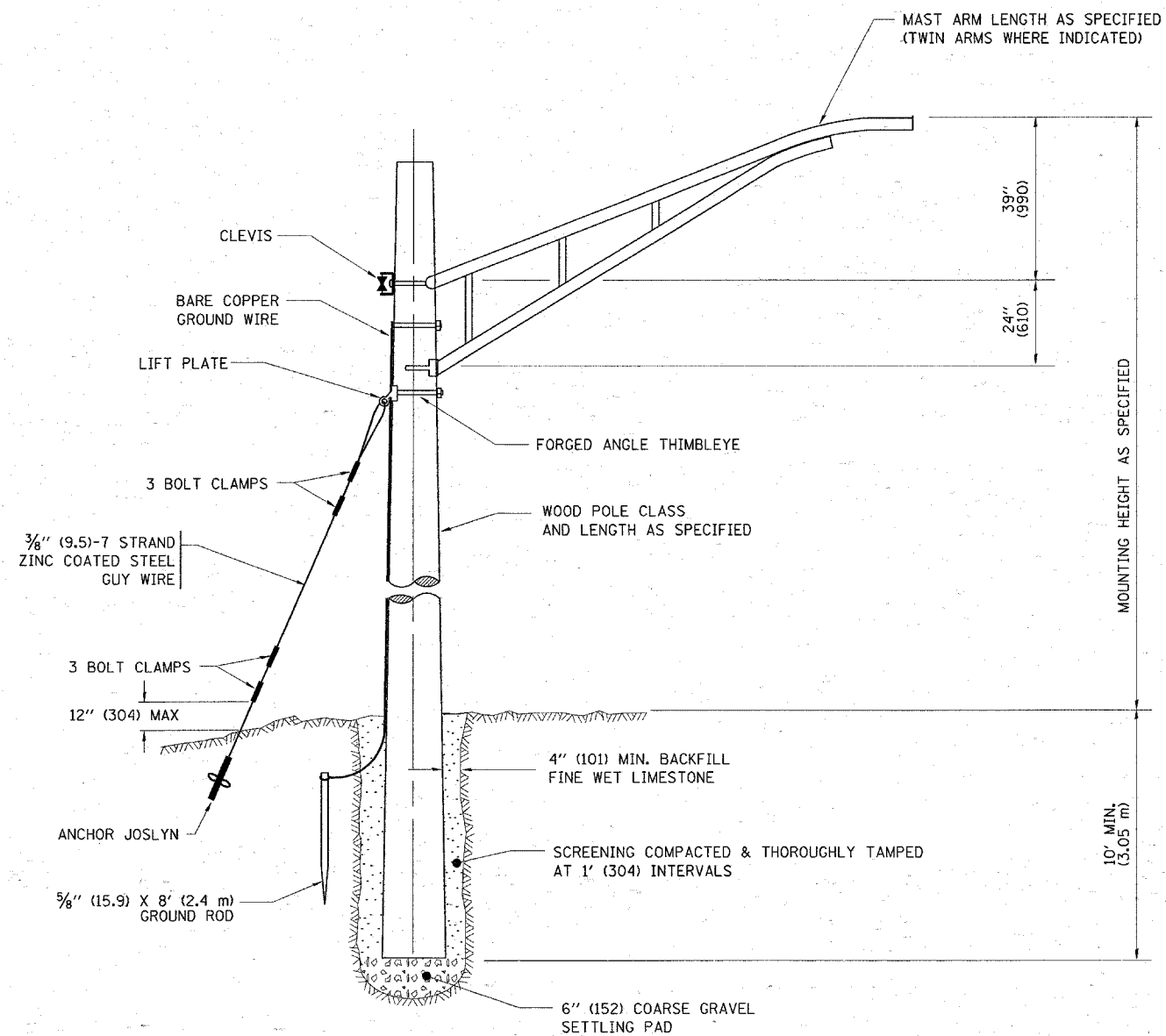
Notes:

1. Temporary combination service disconnect box shall feed a temporary traffic signal controller and the temporary lighting units.
2. A lighting controller is not proposed. Each lighting unit shall be controlled by a photo cell mounted on the associated luminaire with the lighting circuit fed directly from the temporary service disconnect box.
3. The materials and installation methods shall comply with the latest codes, standards and ordinances of Federal, State and Local governing bodies having jurisdiction. All works shown on the plans and described elsewhere shall also conform to the latest National Electrical Code.
4. All electrical equipment, components and devices shall be U/L listed.
5. All material parts of the light poles shall be grounded and bonded conforming to NEC Article 250. The equipment ground shall be part of the temporary light pole pay item.
6. The light pole setback from the edge of travel pavement shall be 30' unless the light pole is behind guardrail. The light poles when installed behind the guardrail should have at least eight foot setback from the back of the shoulder and or as directed by the engineer.
7. The plan shows four shared wooden poles that are common for lighting and traffic systems. The electrical contractor shall install only the luminaire and mast arm on the shared poles. The traffic system contractor should supply, and install these 60' Class 4 wooden poles. The electrical summary of quantities excludes these poles.
8. The temporary light poles should have identification numbers as shown on the plans.
9. Cost of splices and mounting hardware shall be included in the unit price for aerial cable.

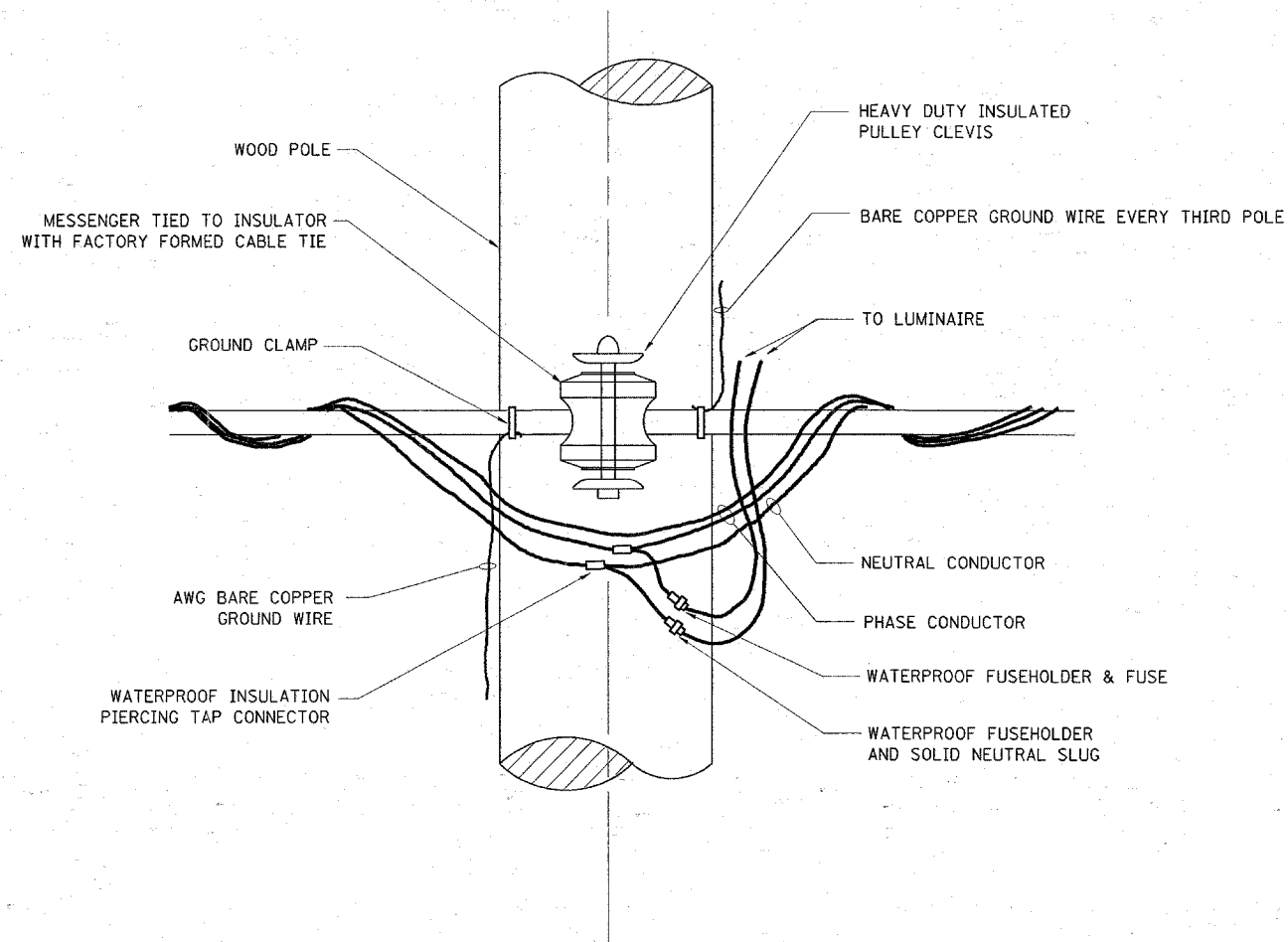
10. The contractor shall be responsible for any damage to the equipment or devices and not limited to the light system. The contractor shall not install damaged equipment or devices. Instead the contractor shall replace it with new ones at no cost to IDOT and or as directed by the Engineer.
11. The contractor shall splice aerial cable at the light pole using heat shrinkable caps with the factory applied waterproof sealant. The installation and required material shall be part of the Light Pole pay item.
12. It is the contractor's responsibility to contact J.U.L.I.E. prior to the start of construction and coordinate location of existing underground utilities. The contractor shall locate, flag and protect all underground utilities prior to and during construction. Any damage to existing utilities during construction shall be repaired immediately at no cost to IDOT.
13. The material quantities as shown in the electrical summary of quantities are approximations only. It is the contractor's responsibilities to field verify all quantities prior to ordering materials.
14. The contractor shall coordinate construction and staging activities being done in the same area by the utility companies or other contractors and setup coordination meetings if necessary without any additional financial compensation.
15. The utility company shall be contacted as soon as possible and notified of the pending electrical connections and installations to ensure continuity of night time hours of lighting operation.
16. All areas disturbed under this contract shall be restored to the original condition or better to the satisfaction of the Engineer.

LEGENDS

- 400W, 240V, MCII HPS. WITH PHOTO CELL 15' MA, 50 MH ON WOOD POLE
- 2-1/C #4, AERIAL CABLE WITH MESSANGER WIRE UNLESS OTHERWISE NOTED
- TL-1 TEMPORARY LIGHTING UNIT NUMBER - ONE
- GROUND ROD 5/8" DIA. x 10'
- COMBINATION LIGHTING AND TRAFFIC POLE MOUNTED ELECTRICAL SERVICE BOX
- WOODEN POLE



TEMPORARY LIGHT POLE DETAIL

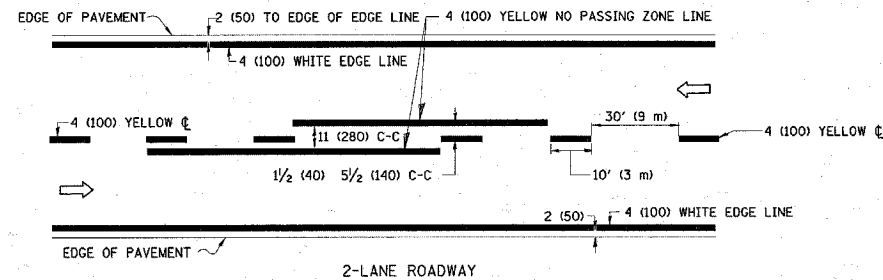


TEMPORARY LIGHT POLE ATTACHMENT DETAIL

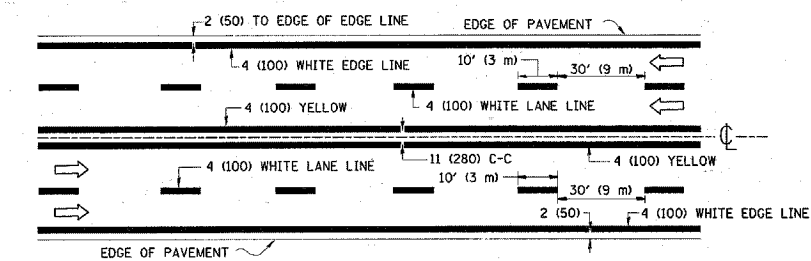
NOTES:

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

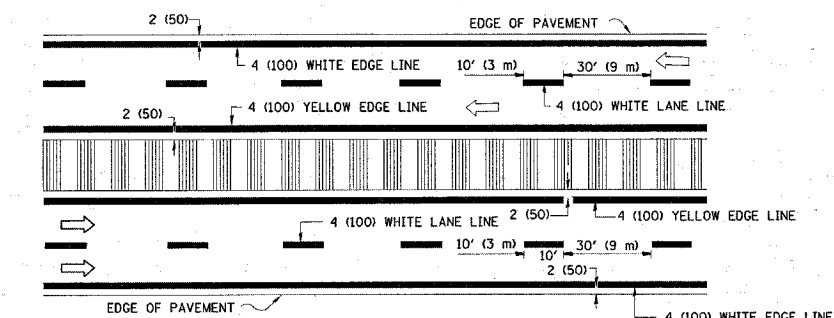
FILE NAME = M:\distatd\22x34\be800.dgn	USER NAME = shurup	DESIGNED -	REVISED - 08-08-03	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY LIGHT POLE DETAILS			F.A. RTE. 1573	SECTION 61 HB-I-6	COUNTY KANE	TOTAL SHEETS 14	SHEET NO. 11
		DRAWN -	REVISED -		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	BE-800		CONTRACT NO. 60E17	
		CHECKED -	REVISED -		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							
		DATE -	REVISED -									



2-LANE ROADWAY



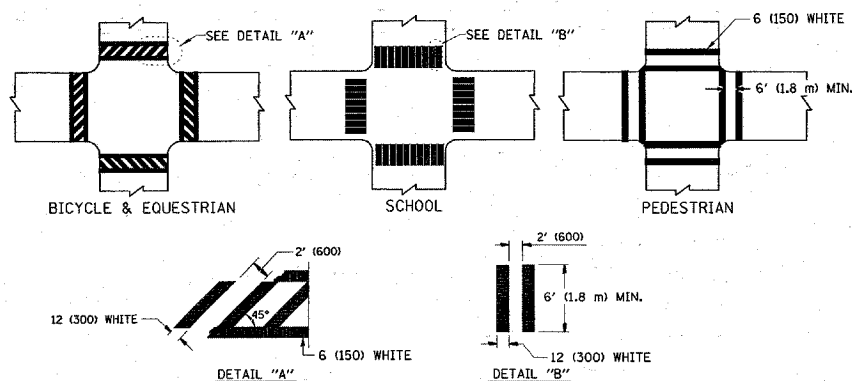
MULTI-LANE UNDIVIDED



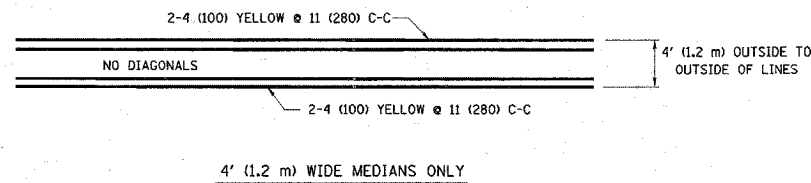
MULTI-LANE DIVIDED WITH MOUNTABLE MEDIAN

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

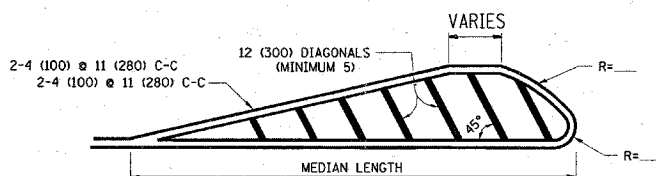
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING



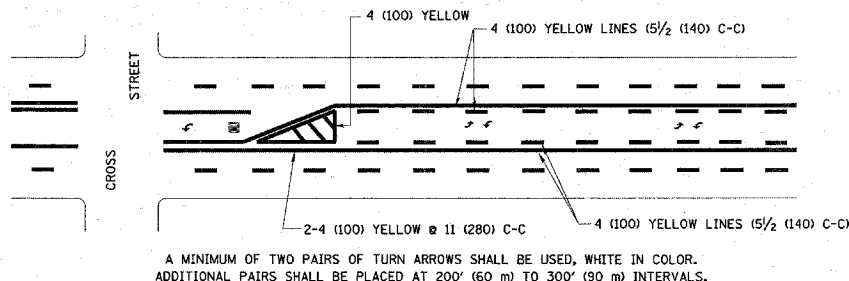
4' (1.2 m) WIDE MEDIANS ONLY



FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

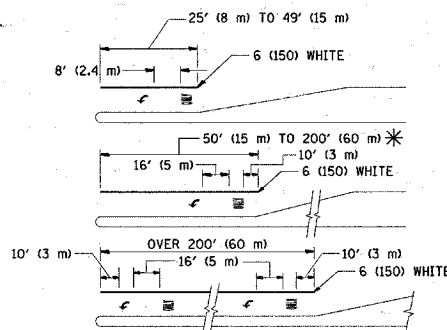
MEDIANS OVER 4' (1.2 m) WIDE



A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.

MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

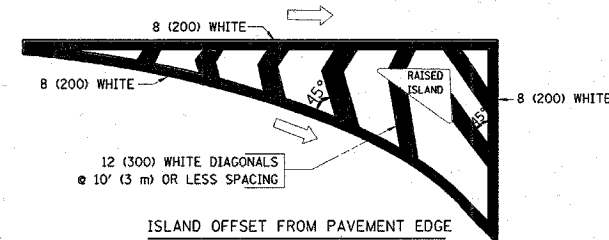


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
AREA = 15.6 SQ. FT. (1.5 m²) ONLY AREA = 20.8 SQ. FT. (1.9 m²)

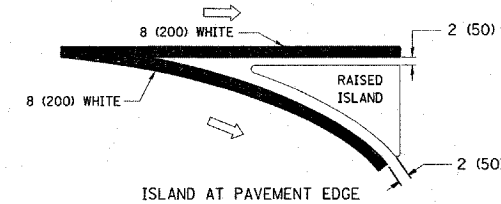
* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



ISLAND OFFSET FROM PAVEMENT EDGE



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	5/2 (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 18' (2.4m)	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
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" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m ²) EACH "X"=54.0 SQ. FT. (5.0 m ²)
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

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

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

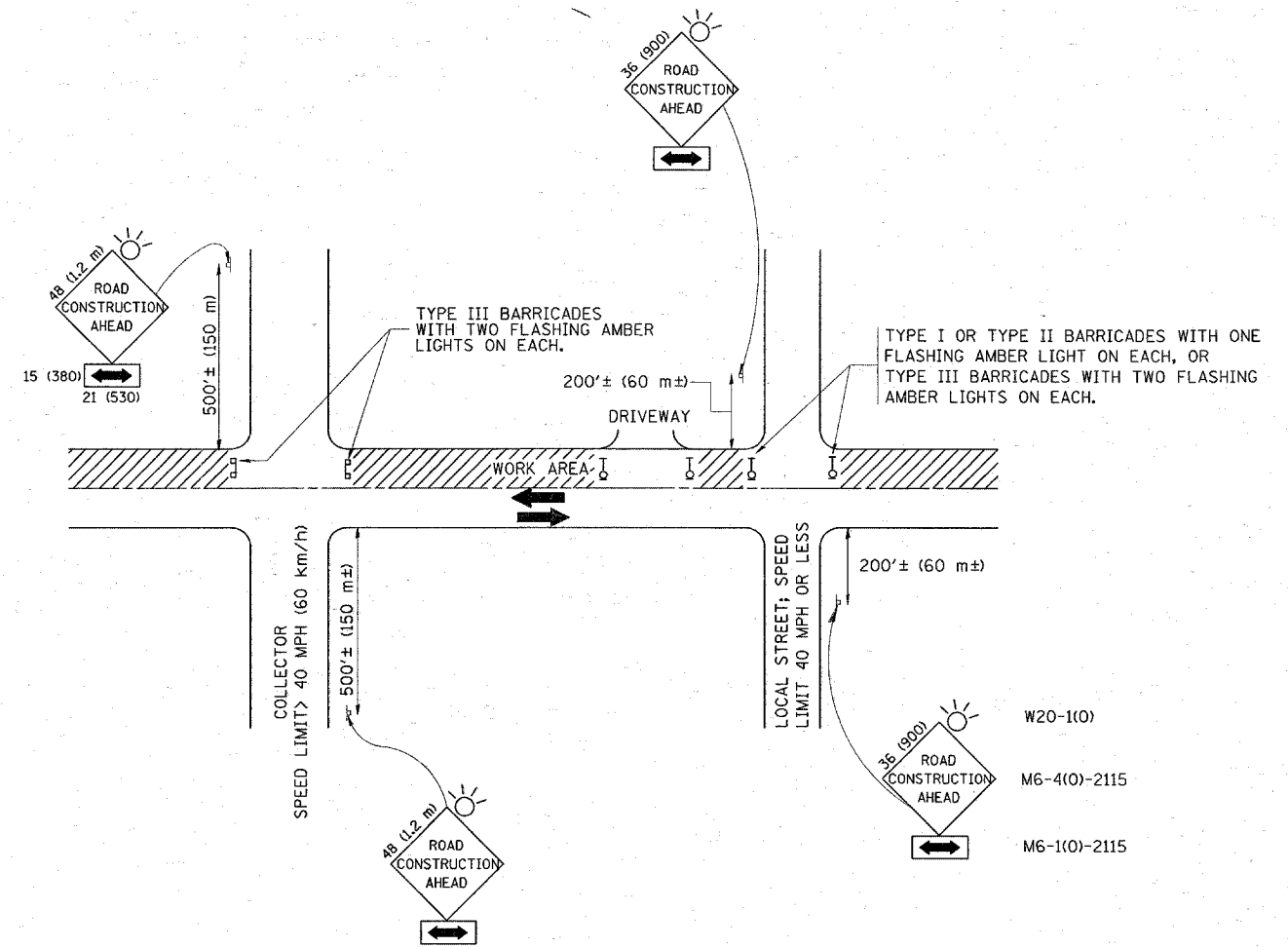
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		DRAWN -	REVISED - A. HOUSEH 10-09-96
	PLDT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED - A. HOUSEH 10-17-96
	PLDT DATE = 4/4/2008	DATE - 03-19-90	REVISED - T. RAMMACHER 01-06-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
TYPICAL PAVEMENT MARKINGS

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE. 573	SECTION 61 H8-I-6	COUNTY KANE	TOTAL SHEETS 14	SHEET NO. 13
TC-13		CONTRACT NO. 60E17		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



W20-1(0)
M6-4(0)-2115
M6-1(0)-2115

TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

NOTES:

- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS**
- SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - ONE **ROAD CONSTRUCTION AHEAD** SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
 - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
 - SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - ONE **ROAD CONSTRUCTION AHEAD** SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
 - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
 - WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
- B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:**
- USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.**
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.**

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

FILE NAME = M:\dststd\22x34\tc10.dgn	USER NAME = shironir	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
		DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 50.000 / IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 4/4/2009	DATE - 06-89	REVISED - T. RAMMACHER 01-06-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	61 HB-I-6	KANE	14	14
TC-10			CONTRACT NO. 60E17	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				