

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	539 B-1	COOK	2	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 60J36		

D-91-226-10

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED  
FEDERAL AID HIGHWAY

(F.A.P. ROUTE 351) US ROUTE 6 (159th St.)  
OVER CAL UNION DITCH (0.9 MI EAST OF ILL 1)

SECTION: 539 B-1

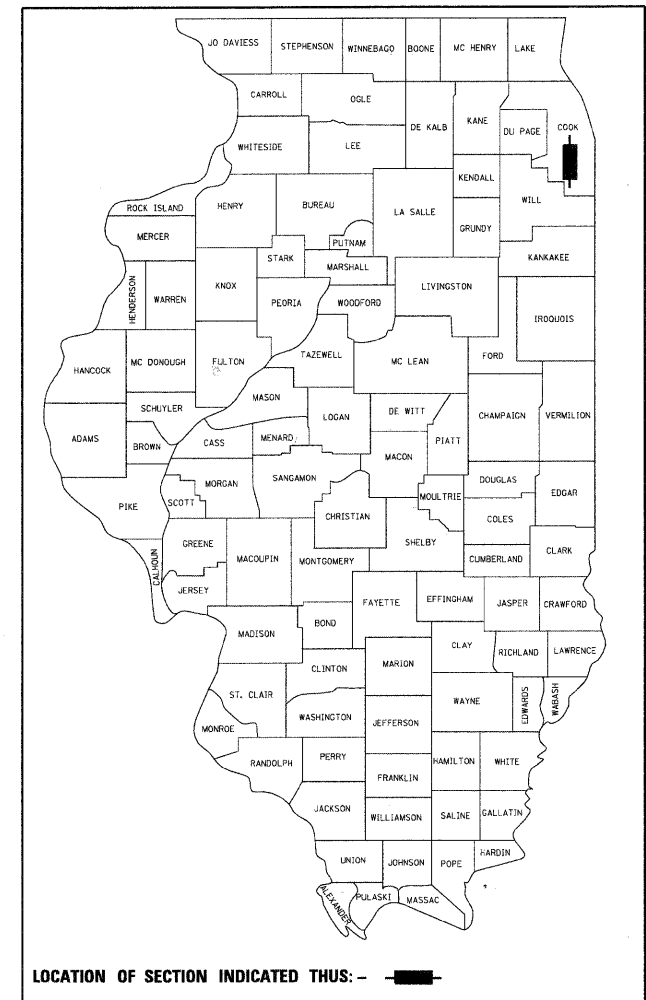
COOK COUNTY

C-91-226-10

PROJECT: NHF-0351(022)

BRIDGE REHABILITATION PROJECT

SN 016-0386



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

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED JANUARY 28, 2010

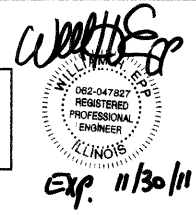
Diana M. O'Keefe *gr*  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

March 19, 2010  
Scott E. Stitt, P.E. *SD*  
Acting ENGINEER OF DESIGN AND ENVIRONMENT

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

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OF THE STATE OF ILLINOIS

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

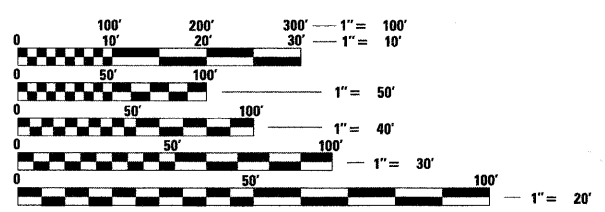


PROJECT LOCATED IN THE VILLAGE OF  
HARVEY, ILLINOIS

FOR INDEX OF SHEETS, SEE SHEET NO. 2

DESIGN DESIGNATION  
MINOR ARTERIAL

ADT 23,300 (2005)  
POSTED SPEED LIMIT 35 MPH

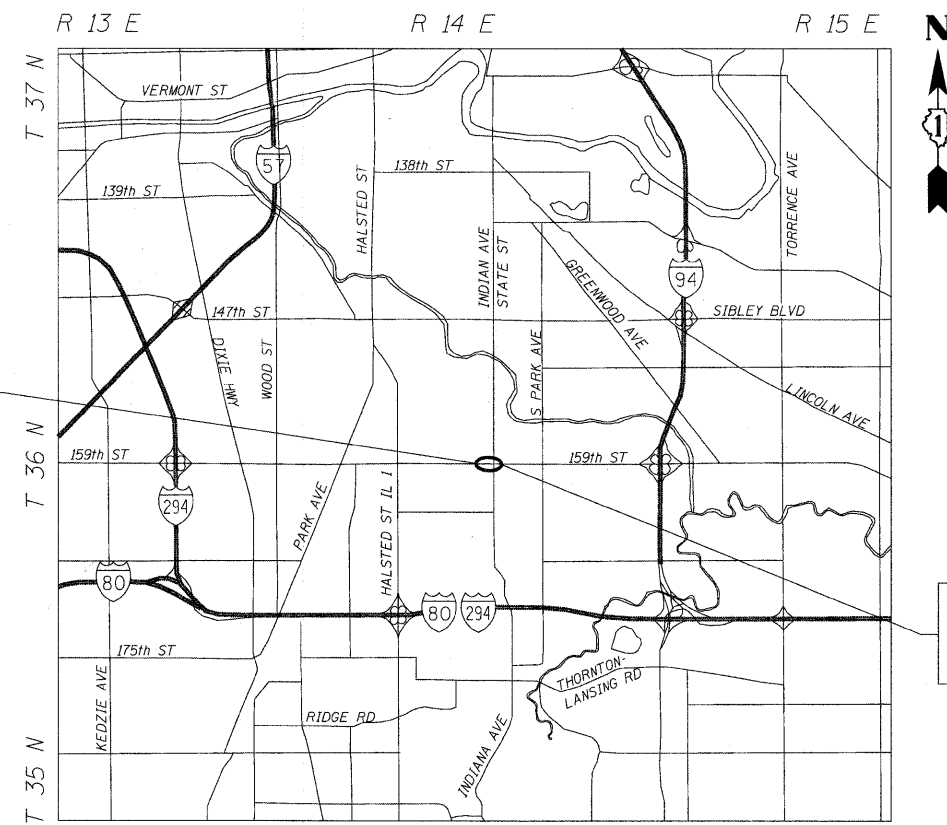


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD  
ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT  
CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS  
ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

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

CONTRACT NO. 60J36



PROJECT BEGINS  
STA. 91+81.22

PROJECT ENDS  
STA. 92+79.51

LOCATION MAP

NET AND GROSS LENGTH OF PROJECT = 98.29' = 0.019 MI

STATE STANDARDS

SHEET NO.	TITLE
1	TITLE SHEET
2	GENERAL NOTES, STATE STANDARDS AND INDEX OF SHEETS
3-4	SUMMARY OF QUANTITIES
5	TYPICAL SECTIONS
6	STAGING TYPICAL SECTIONS
7	CONSTRUCTION STAGING PLAN - STAGE 1
8	CONSTRUCTION STAGING PLAN - STAGE 2
9	ROADWAY RESURFACING AND APPROACH OVERLAY PLAN
10	PAVEMENT MARKING PLAN
11-16	STRUCTURAL PLANS
17	BUTT JOINT AND HMA TAPER DETAILS
18	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTION AND DRIVEWAYS
19	RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)
20	DISTRICT ONE TYPICAL PAVEMENT MARKINGS
21	ARTERIAL ROAD INFORMATION SIGN
	HIGHWAY STANDARDS

SHEET NO.	TITLE
000001-05	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT REBARS
606306-03	CORRUGATE PC CONCRETE MEDIAN
701602-04	URBAN LANE CLOSURE, MULTILANE, 2W WITH BIDIRECTIONAL LEFT TURN LANE
701606-06	URBAN LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701701-06	URBAN LANE CLOSURE MULTILANE INTERSECTION
701901-01	TRAFFIC CONTROL DEVICES
704001-06	TEMPORARY CONCRETE BARRIER

GENERAL NOTES

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

DIMENSIONS ARE IN ENGLISH UNITS UNLESS OTHERWISE NOTED.

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

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

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

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

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

THE RESIDENT ENGINEER SHALL CONTACT ~~MR. DON CHIARUGI~~ <sup>MS. PATRICE HARRIS</sup> AREA TRAFFIC ENGINEER, AT ~~(847) 741-9857~~ <sup>(708) 577-1800</sup> AT A MINIMUM OF 2 WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKING.

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

ALL WORK IS TO BE COMPLETED BY THE COMPLETION DATE. THE COMPLETION DATE FOR THIS CONTRACT IS SEPTEMBER 24, 2010

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



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

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES, STATE STANDARDS AND INDEX OF SHEETS  
US 6 (159th STREET) OVER CALUMET UNION DITCH

SCALE: NONE SHEET NO. 2 OF 21 SHEETS STA. 91+81.22 TO STA. 92+79.51

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	539 B-1	COOK	21	2
D-91-226-10		CONTRACT NO. 60J36		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

SUMMARY OF QUANTITIES			80% FED. 20% STATE	SUMMARY OF QUANTITIES			80% FED. 20% STATE				
CODE NO.	ITEM	UNIT	URBAN TOTAL	ROADWAY 1000	BRIDGE X020-2A	CODE NO.	ITEM	UNIT	URBAN TOTAL	ROADWAY 1000	BRIDGE X020-2A
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	1	1		* 78000100	THERMOPLASTIC PAVEMENT MARKING-LETTERS AND SYMBOLS	SQ FT	182	182	
40600635	LEVELING BINDER (MACHINE METHOD), N70	TON	25	25		* 78000200	THERMOPLASTIC PAVEMENT MARKING-LINE 4"	FOOT	7043	6909	134
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	50	50		* 78000400	THERMOPLASTIC PAVEMENT MARKING-LINE 6"	FOOT	1503	1503	
44000100	PAVEMENT REMOVAL	SQ YD	36	36		* 78000600	THERMOPLASTIC PAVEMENT MARKING-LINE 12"	FOOT	103	103	
44000198	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SQ YD	589	589		* 78000650	THERMOPLASTIC PAVEMENT MARKING-LINE 24"	FOOT	87	87	
44000915	HOT-MIX ASPHALT SURFACE REMOVAL (DECK)	SQ YD	180		180	* <del>78000810</del>	<del>POLYUREA PAVEMENT MARKING TYPE I - LINE 4"</del>	<del>FOOT</del>	<del>134</del>		<del>134</del>
44003900	<sup>SURFACE</sup> MEDIAN REMOVAL AND REPLACEMENT	SQ FT	317	317		* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	4	4	
50102400	CONCRETE REMOVAL	CU YD	21.2		21.2	* 78200530	BARRIER WALL MARKERS, TYPE C	EACH	18	18	
50300255	CONCRETE SUPERSTRUCTURE	CU YD	21.7		21.7	* 78300100	PAVEMENT MARKING REMOVAL	SQ FT	3394	3394	
50300260	BRIDGE DECK GROOVING	SQ YD	172		172	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	4		4
50300300	PROTECTIVE COAT	SQ YD	218		218	X0320887	POLYMER CONCRETE	CU FT	6.1		6.1
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	4880		4880	X0322185	BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/4 INCHES	SQ YD	182		182
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6		X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	52	52	
67100100	MOBILIZATION	L SUM	1	1		X0325303	STRUCTURAL REPAIR OF CONCRETE (GREATER THAN 5 INCHES) <sup>DEPTH</sup>	SQ FT	14		14
70101800	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1		X0325305	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	80		80
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	20	20		X0325775	WET REFLECTIVE TEMPORARY TAPE, TYPE III, 4 INCH	FOOT	12808	12808	
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	6	6		X0325837	WET REFLECTIVE TEMPORARY TAPE, TYPE III, 6 INCH	FOOT	66	66	
70400100	TEMPORARY CONCRETE BARRIER	FOOT	405	405		X0325841	WET REFLECTIVE TEMPORARY TAPE, TYPE III, 24 INCH	FOOT	64	64	
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	405	405		X0325842	WET REFLECTIVE TEMPORARY TAPE, TYPE III, LETTERS AND SYMBOLS	SQ FT	36	36	

\* SPECIALTY ITEMS

**LONCO, INC.**  
CONSULTING ENGINEERS  
1560 WALL ST, SUITE 222  
NAPERVILLE, ILLINOIS 60563 PH 630/511-9100

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

REVISED -  
REVISED -  
REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES  
US 6 (159th STREET) OVER CALUMET UNION DITCH

SCALE: NONE SHEET NO. 3 OF 21 SHEETS STA. 91+81.22 TO STA. 92+79.51

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	539 B-1	COOK	21	3
D-91-226-10		CONTRACT NO. 60J36		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

SUMMARY OF QUANTITIES			80% FED. 20% STATE	SUMMARY OF QUANTITIES			100% STATE				
CODE NO.	ITEM	UNIT		URBAN TOTAL	ROADWAY 1000	BRIDGE X020-2A	CODE NO.	ITEM	UNIT	URBAN TOTAL	ROADWAY 1000
X0712400	TEMPORARY PAVEMENT	SQ YD	36	36							
X5430100	INSERTION CULVERT LINER (SPECIAL)	FOOT	50		50						
Z0006204	BRIDGE DECK HYDRO-SCARIFICATION 1/2"	SQ YD	186		186						
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1							
Z0030240	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 2	EACH	2	2							
Z0030340	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 2	EACH	2	2							

\* SPECIALTY ITEMS

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

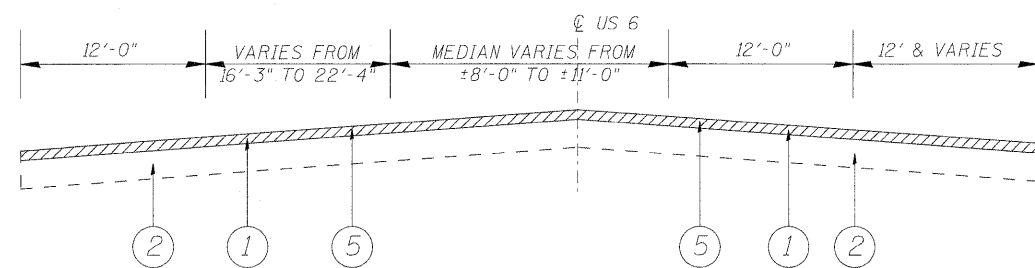
DESIGNED - MJY	REVISED -
DRAWN - ST, TSC	REVISED -
CHECKED - MJY, DC	REVISED -
DATE - 01/29/2010	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

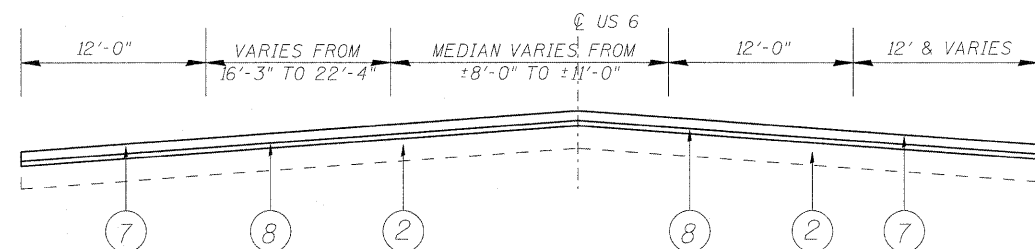
**SUMMARY OF QUANTITIES  
US 6 (159th STREET) OVER CALUMET UNION DITCH**

SCALE: NONE SHEET NO. 4 OF 21 SHEETS STA. 91+81.22 TO STA. 92+79.51

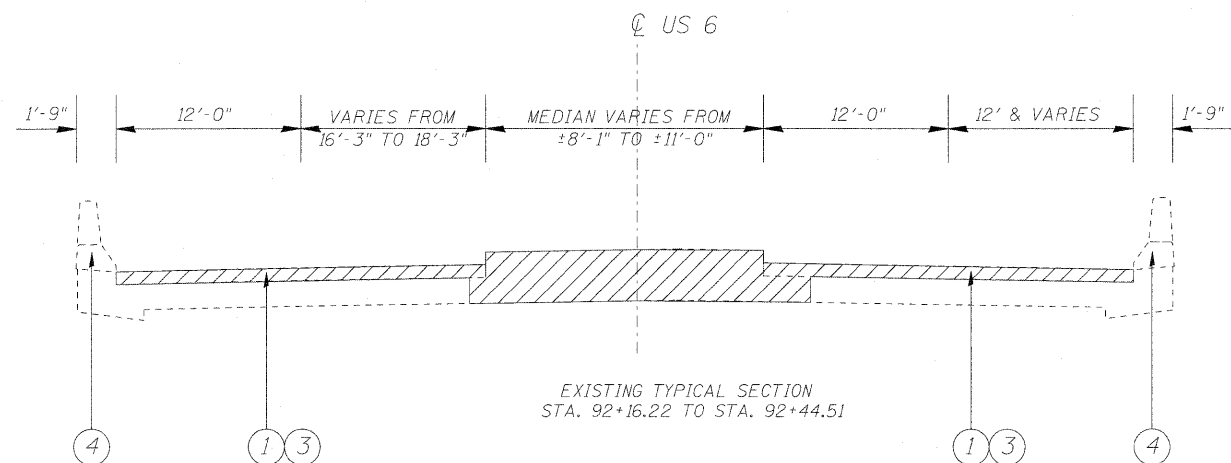
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	539 B-1	COOK	21	4
D-91-226-10			CONTRACT NO. 60J36	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



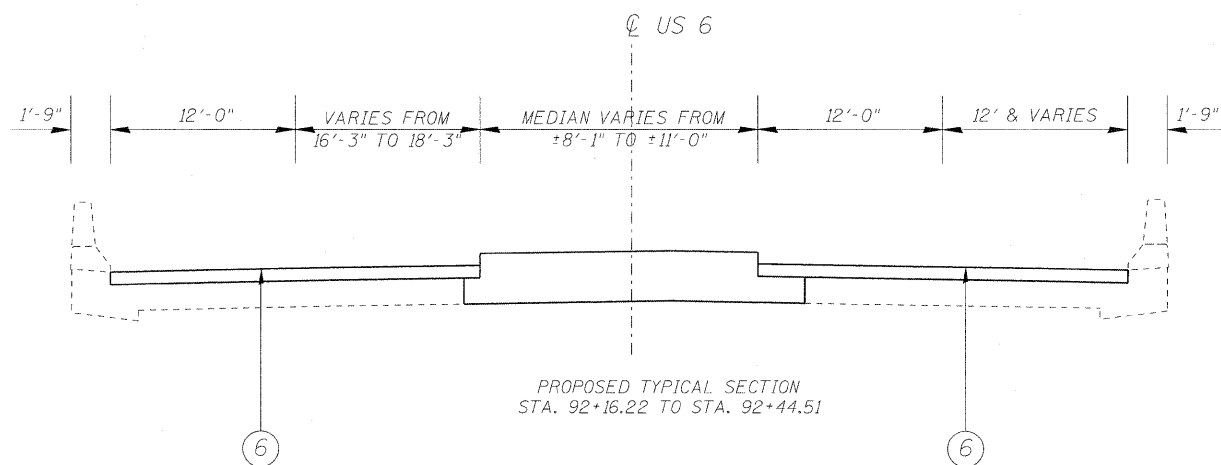
EXISTING TYPICAL SECTION  
STA. 92+81.22 TO STA. 92+16.22  
STA. 92+44.51 TO STA. 92+79.51



PROPOSED TYPICAL SECTION  
STA. 92+81.22 TO STA. 92+16.22  
STA. 92+44.51 TO STA. 92+79.51



EXISTING TYPICAL SECTION  
STA. 92+16.22 TO STA. 92+44.51



PROPOSED TYPICAL SECTION  
STA. 92+16.22 TO STA. 92+44.51

**LEGEND**

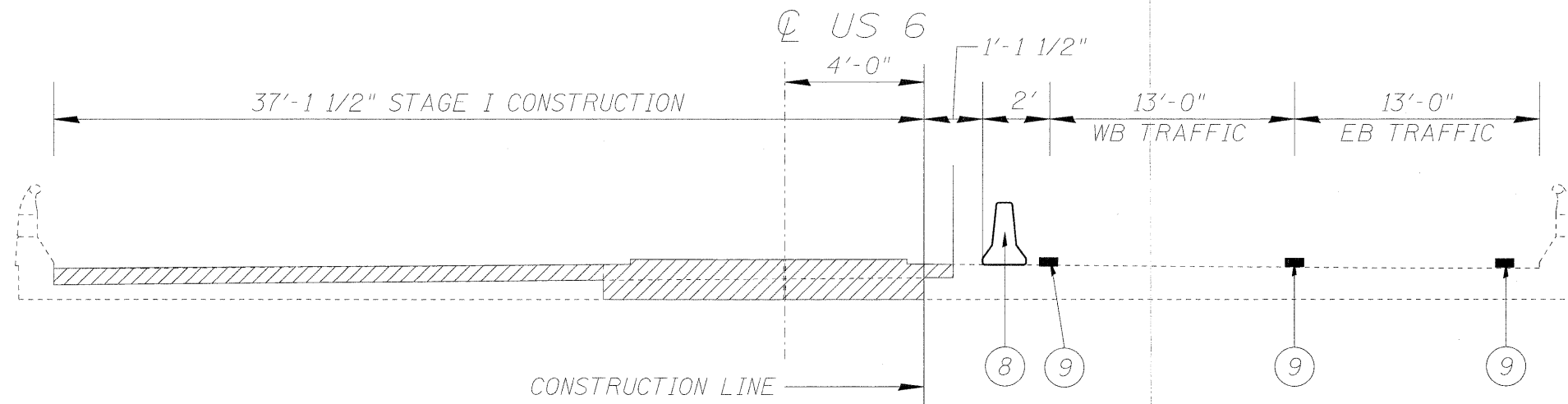
- ① EXISTING HMA OVERLAY
- ② EXISTING BASE SURFACE COURSE
- ③ EXISTING BRIDGE DECK HYDRO-SCARIFICATION, 1/2"
- ④ EXISTING PARAPET WALLS
- ⑤ HMA SURFACE REMOVAL, VARIABLE DEPTH
- ⑥ PROPOSED BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/4"
- ⑦ PROPOSED HMA SURFACE COURSE, MIX "D", N70, 1 1/2"
- ⑧ PROPOSED LEVELING BINDER (MACHINE METHOD), N70, 3/4"

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

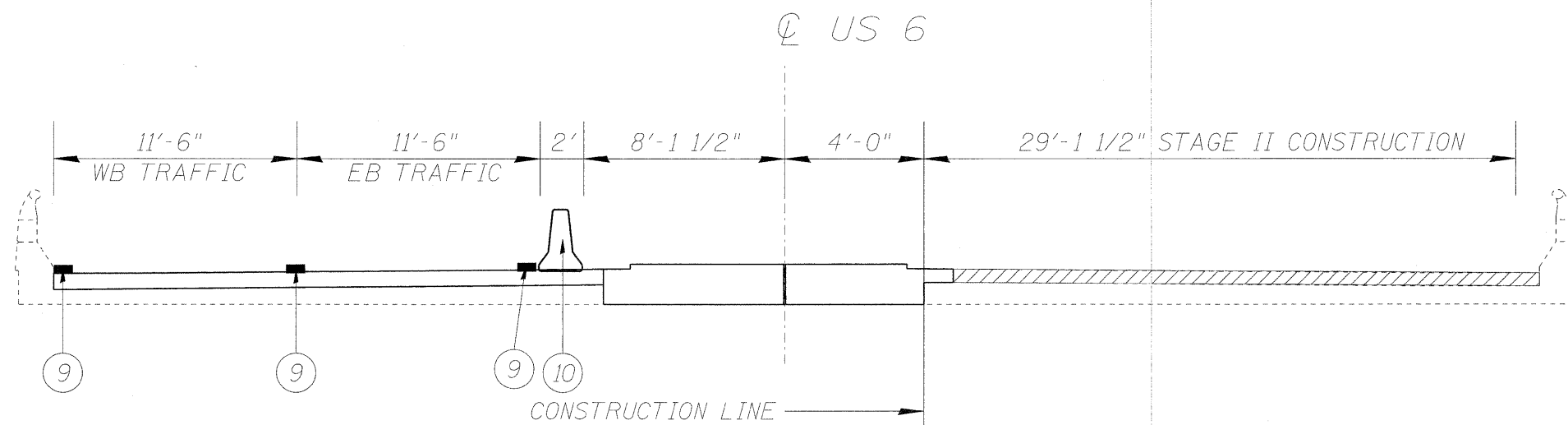
**NOTES:**

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

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

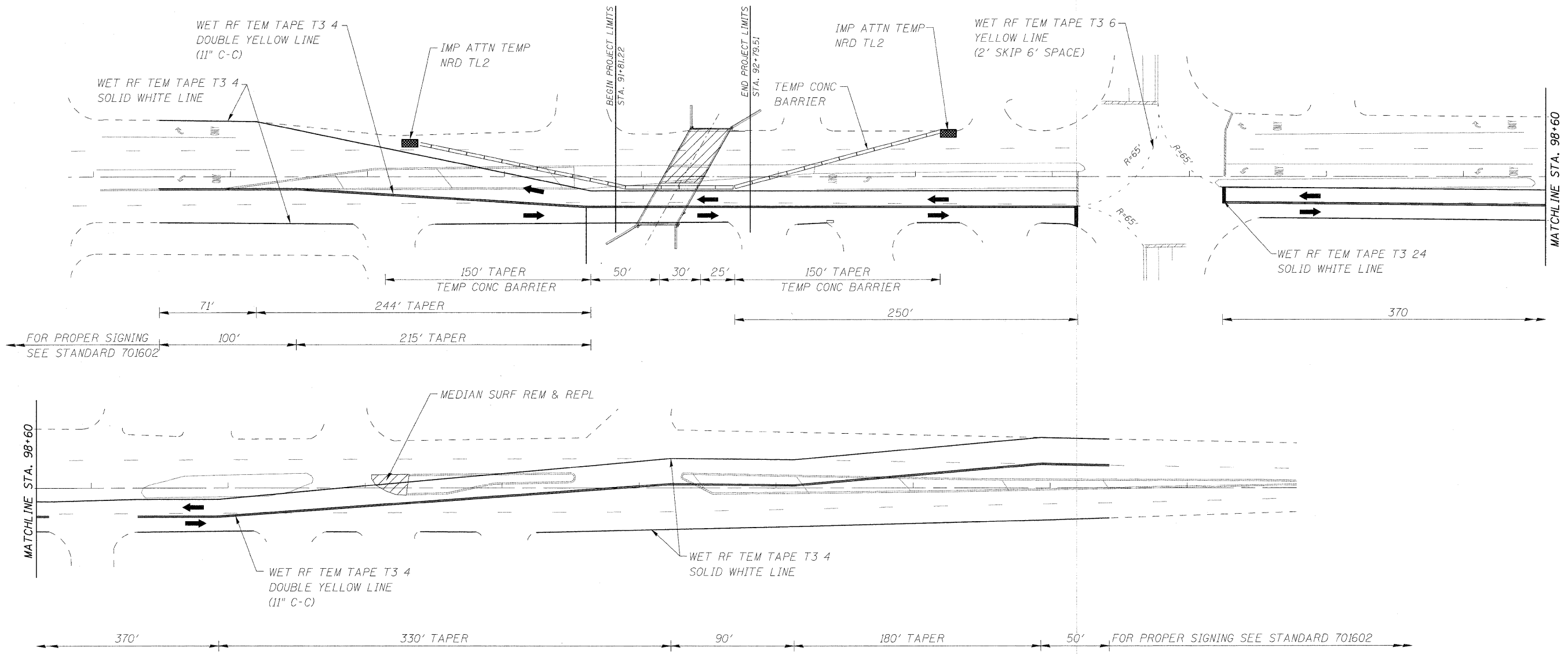


STAGE I



STAGE II

- 8 TEMPORARY CONCRETE BARRIER
- 9 WET REFLECTIVE TEMPORARY TAPE, TYPE III, 4"
- 10 RELOCATE TEMPORARY CONCRETE BARRIER



**LEGEND**

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

**NOTES:**

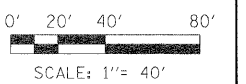
BARRICADE SPACING SHALL BE 25' CENTERS IN TAPER SECTIONS AND 50' CENTERS IN TANGENT SECTIONS.

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

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

**STAGE 1**

1. INSTALL TRAFFIC CONTROL AND TEMPORARY CONCRETE BARRIER IN ACCORDANCE WITH STAGE 1 MAINTENANCE OF TRAFFIC AND STANDARD 701602.
2. COMPLETE REMOVAL OF 1/2" OF TOP OF DECK, NORTH PORTION OF EXISTING DECK SURFACE AND EXISTING APPROACH PAVEMENT.
3. INSTALL NEW BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/4".
4. CONSTRUCT NEW APPROACH PAVEMENT.
5. CONSTRUCT ROADWAY ON NORTH SIDE OF US 6 IN ACCORDANCE WITH SHEET 9.



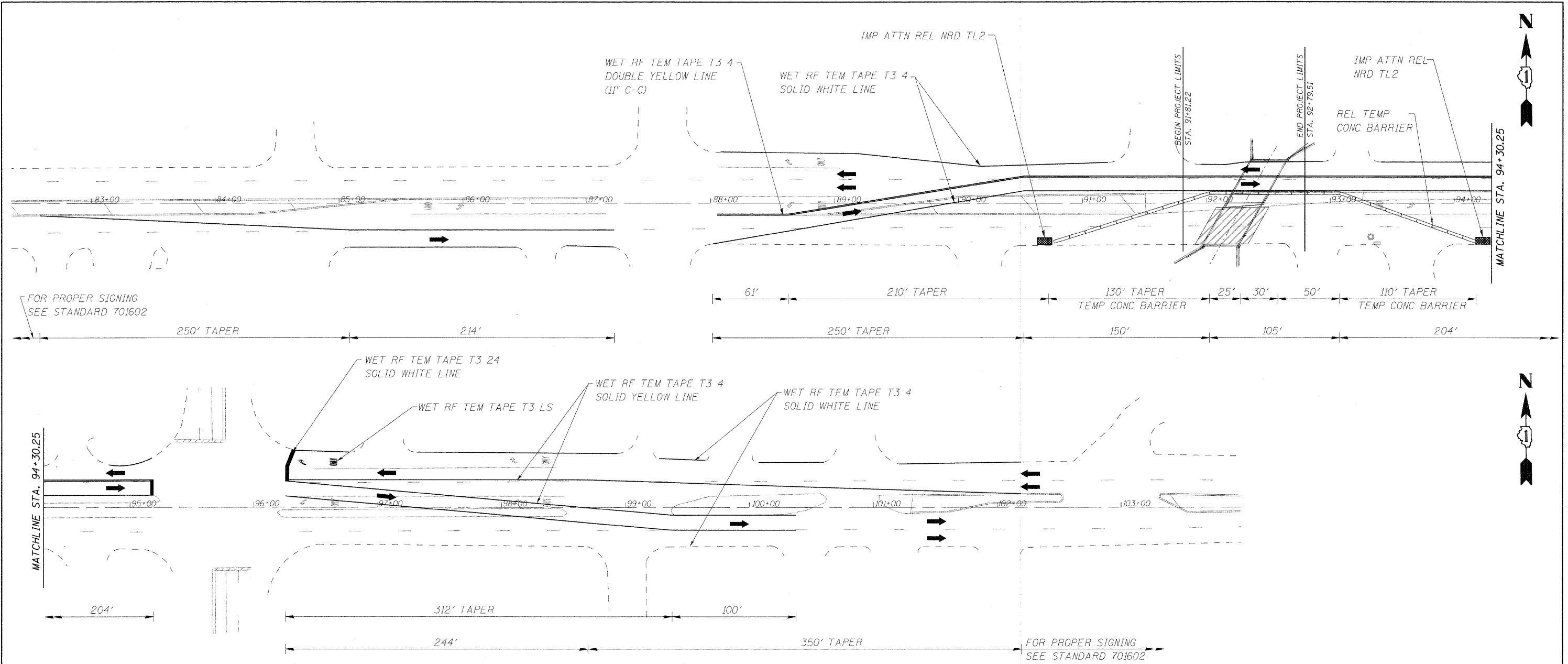
**LOWCO, INC.**  
 CONSULTING ENGINEERS  
 1560 WALL ST, SUITE 222  
 NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

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

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

<b>CONSTRUCTION STAGING PLAN - STAGE 1</b>		
<b>US 6 (159th STREET) OVER CALUMET UNION DITCH</b>		
SCALE: 1" = 40'	SHEET NO. 7 OF 21 SHEETS	STA. 91+81.22 TO STA. 92+79.51

F.A.P. RTE. 351	SECTION 539 B-1	COUNTY COOK	TOTAL SHEETS 21	SHEET NO. 7
D-91-226-10			CONTRACT NO. 60J36	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



**LEGEND**

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

**NOTES:**

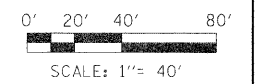
BARRICADE SPACING SHALL BE 25' CENTERS IN TAPER SECTIONS AND 50' CENTERS IN TANGENT SECTIONS.

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

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

**STAGE 2**

1. INSTALL TRAFFIC CONTROL AND TEMPORARY CONCRETE BARRIER IN ACCORDANCE WITH STAGE 2 MAINTENANCE OF TRAFFIC AND STANDARD 701602.
2. COMPLETE REMOVAL OF 1/2" OF TOP OF DECK, SOUTH PORTION OF EXISTING DECK SURFACE AND EXISTING APPROACH PAVEMENT.
3. INSTALL NEW BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/4".
4. CONSTRUCT NEW APPROACH PAVEMENT.
5. CONSTRUCT ROADWAY ON SOUTH OF US 6 IN ACCORDANCE WITH SHEET 9.



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 1560 WALL ST, SUITE 222  
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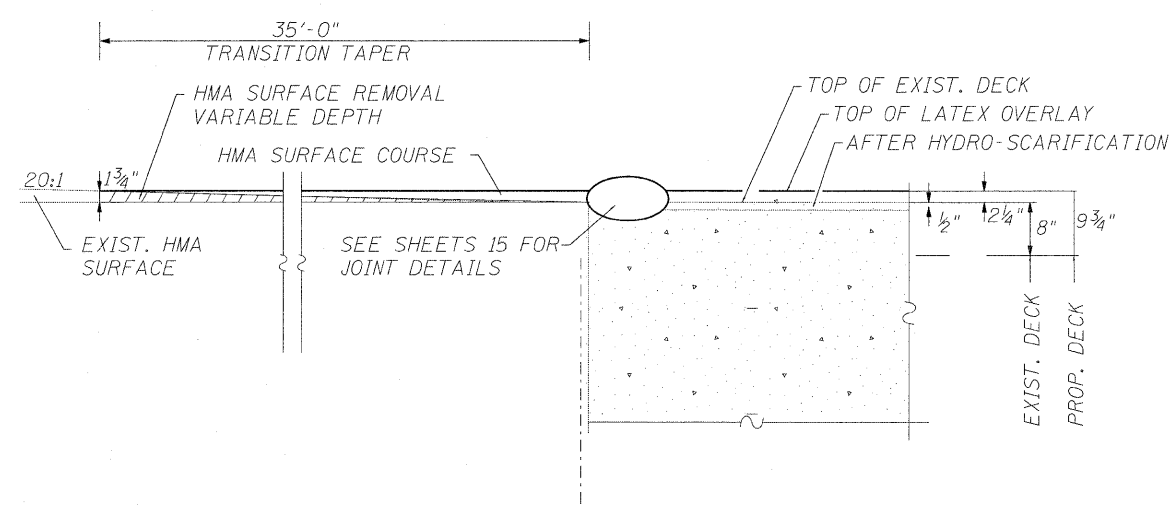
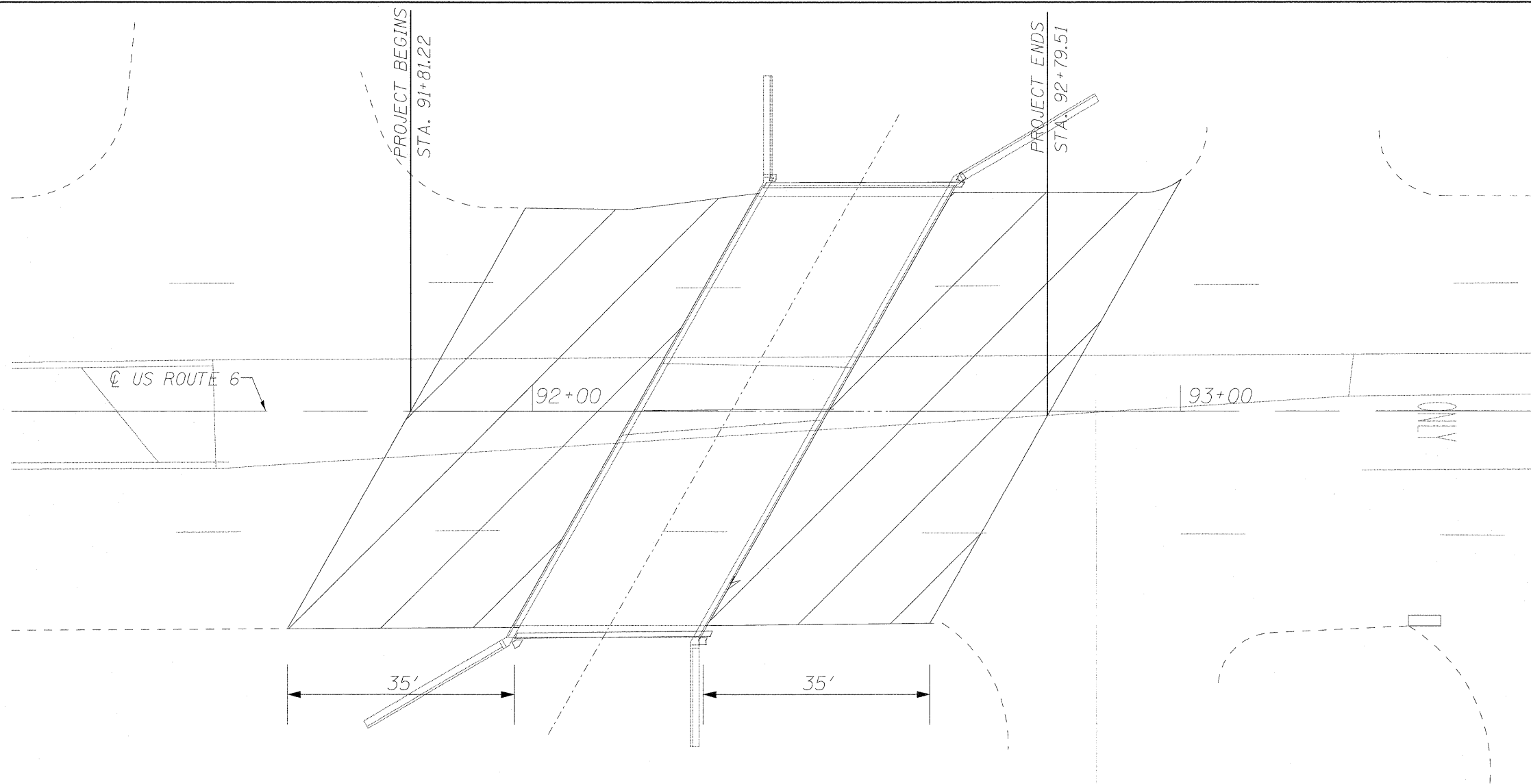
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**CONSTRUCTION STAGING PLAN - STAGE 2**  
**US 6 (159th STREET) OVER CALUMET UNION DITCH**

SCALE: 1" = 40' SHEET NO. 8 OF 21 SHEETS STA. 91+81.32 TO STA. 92+79.51

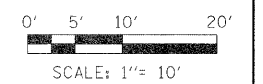
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	539 B-1	COOK	21	8
D-91-226-10			CONTRACT NO. 60J36	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		





LEGEND

- HMA SURF REM VAR DP & HMA OVERLAY VARIABLE DEPTH (AT BRIDGE APPROACH)



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

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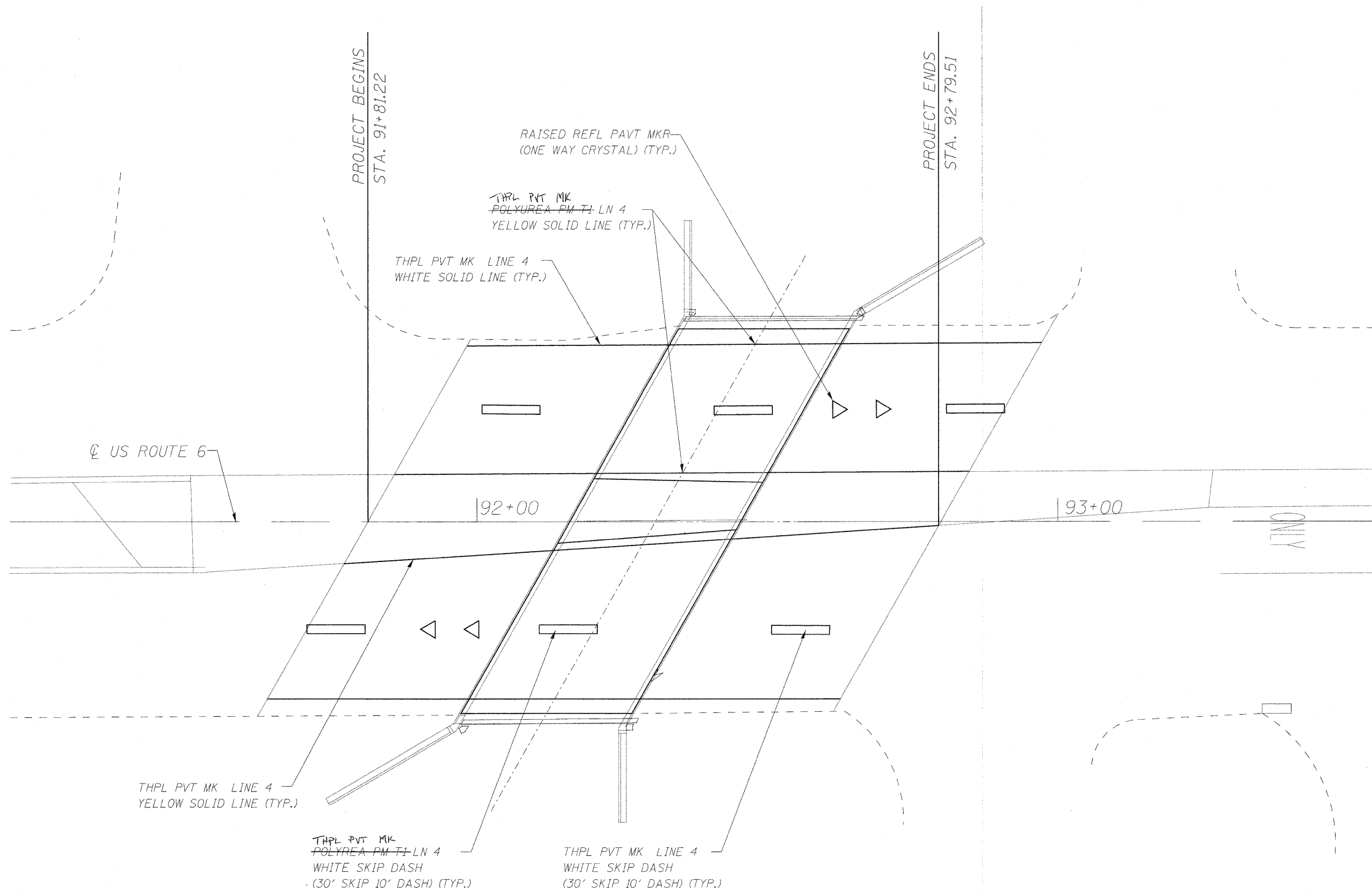
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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

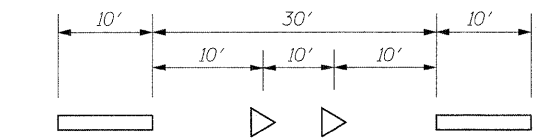
**ROADWAY RESURFACING AND APPROACH OVERLAY PLAN  
 US 6 (159th STREET) OVER CALUMET UNION DITCH**

SCALE: 1" = 10' SHEET NO. 9 OF 21 SHEETS STA. 91+81.22 TO STA. 92+79.51

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	539 B-1	COOK	21	9
D-91-226-10		CONTRACT NO. 60J36		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

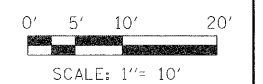
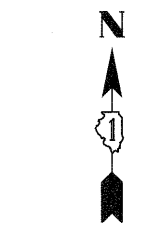


US ROUTE 6



LANE PAVEMENT MARKER DETAIL

SEE STATE STANDARD NO. 780001  
SEE DISTRICT STANDARD NO. TC-11



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

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

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING PLAN  
US 6 (159th STREET) OVER CALUMET UNION DITCH**

SCALE: 1" = 10' SHEET NO. 10 OF 21 SHEETS STA. 91+81.22 TO STA. 92+79.51

F.A.P. RTE. 351	SECTION 539 B-1	COUNTY COOK	TOTAL SHEETS 21	SHEET NO. 10
D-91-226-10			CONTRACT NO. 60J36	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

Existing Structure:  
Structure No. 016-0386 was built in 1953 at Sta. 92+30.70 as S.B.I. Route 53 (F.A. Route 62), Section 539-BY. In 1975, under Section 1974-127-N, the sidewalks were removed and roadway was widened. Existing structure is a single span reinforced concrete slab bridge on closed abutments, measuring 30'-0" bk. to bk. abutments, 69'-9" out to out deck with a left ahead skew of 29°-32'. Stage construction shall be utilized to maintain traffic during construction.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**DESIGN SPECIFICATIONS**

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

**DESIGN STRESSES**

**FIELD UNITS**

Existing Construction  
f<sub>c</sub> = 1,400 psi (Super)  
f<sub>c</sub> = 800 psi (Sub)  
f<sub>s</sub> = 20,000 psi (Reinforcement)

New Construction  
f'<sub>c</sub> = 3,500 psi  
f<sub>y</sub> = 60,000 psi (Reinforcement)

**LOADING HS 20-44**

(Original Construction)

**SCOPE OF WORK**

1. Remove existing HMA overlay
2. Hydroscarify 2" slab surface
3. Remove and replace concrete median and concrete below median within the limits of the bridge
4. Place 2 1/4" latex concrete overlay on deck
5. Repair abutment concrete
6. Repair corrugated metal pipe at the east abutment

**INDEX OF SHEETS**

1. General Plan and Elevation
2. Stage Construction Details
3. Temporary Concrete Barrier for Stage Construction
4. Concrete Removal
5. Median Concrete Details
6. Abutment Repair

**GENERAL NOTES**

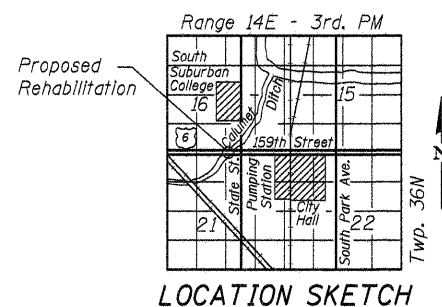
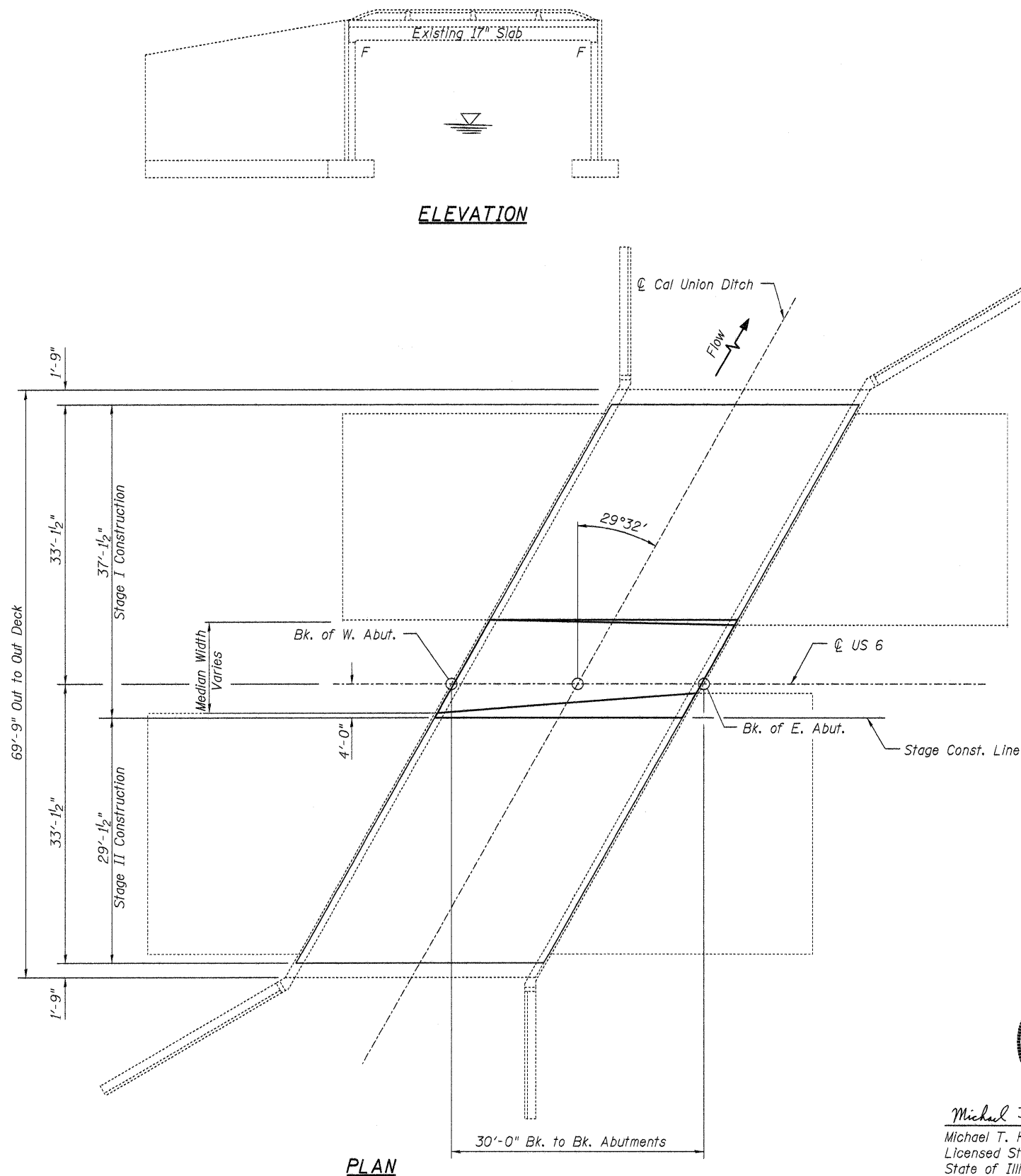
Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated.

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.

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Hot-Mix Asphalt Surface Removal (Deck)	Sq. Yd.	180	-	180
Concrete Removal	Cu. Yd.	21.2	-	21.2
Concrete Superstructure	Cu. Yd.	21.7	-	21.7
Bridge Deck Grooving	Sq. Yd.	172	-	172
Protective Coat	Sq. Yd.	218	-	218
Reinforcement Bars, Epoxy Coated	Pound	4,880	-	4,880
Polymer Concrete	Cu. Ft.	6.1	-	6.1
Bridge Deck Latex Concrete Overlay, 2 1/4"	Sq. Yd.	182	-	182
Structural Repair Concrete (Depth Greater Than 5 in.)	Sq. Ft.	-	14	14
Structural Repair Concrete (Depth Equal To or Less Than 5 in.)	Sq. Ft.	-	80	80
Insertion Culvert Liner (Special)	Foot	-	50	50
Bridge Deck Hydro-scarification 1/2"	Sq. Yd.	186	-	186



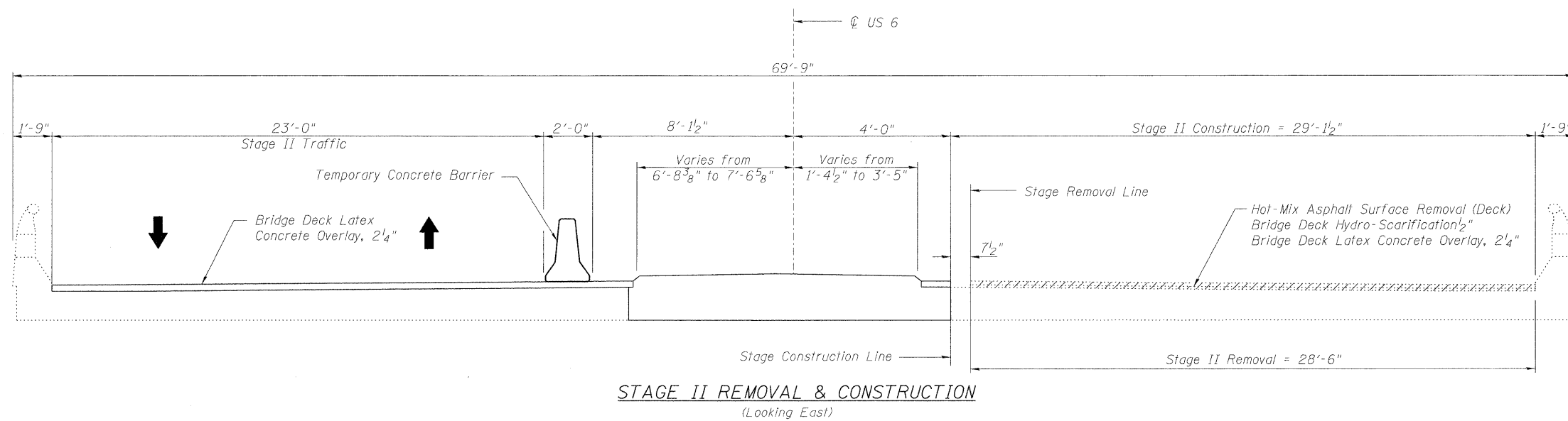
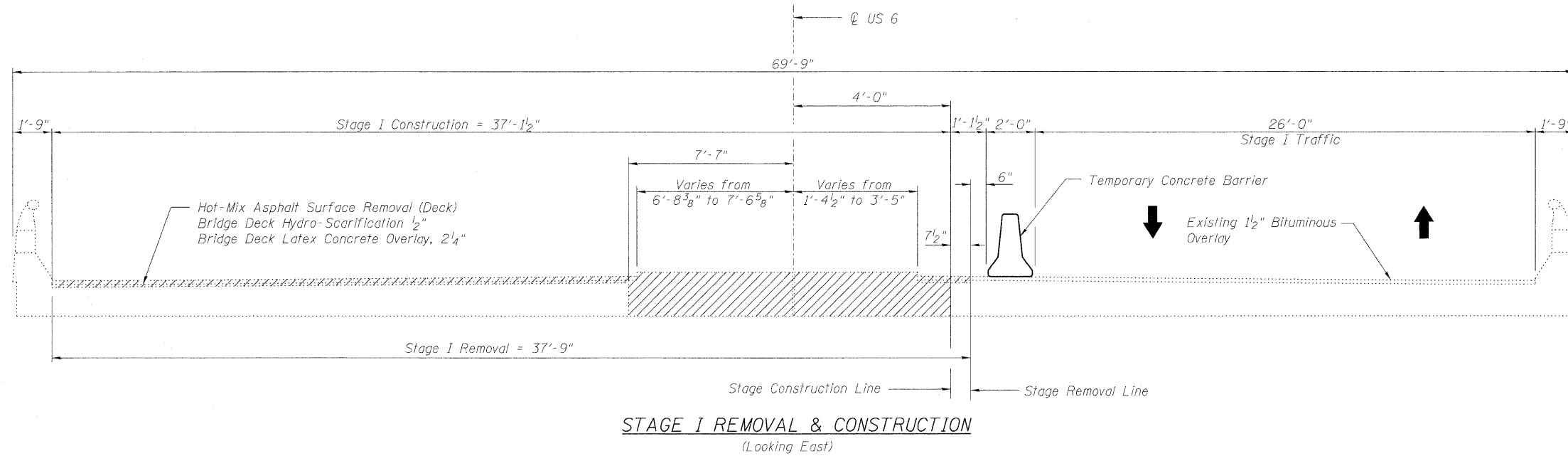
**GENERAL PLAN AND ELEVATION**  
**US RTE 6 (159th ST.) OVER CAL UNION DITCH**  
**F.A.P. RTE. 351 SECTION 539 B-I**  
**COOK COUNTY**  
**STRUCTURE NO. 016-0386**



Michael T. Haley  
Licensed Structural Engineer  
State of Illinois No. 81-5991  
Expires 11/30/2010  
Date 2/1/10

	SHEET NO. 1	F.A.P. RTE. 351	SECTION 539 B-I	COUNTY COOK	TOTAL SHEETS 21	SHEET NO. 11
	6 SHEETS	CONTRACT NO. 60J36			ILLINOIS FED. AID PROJECT	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



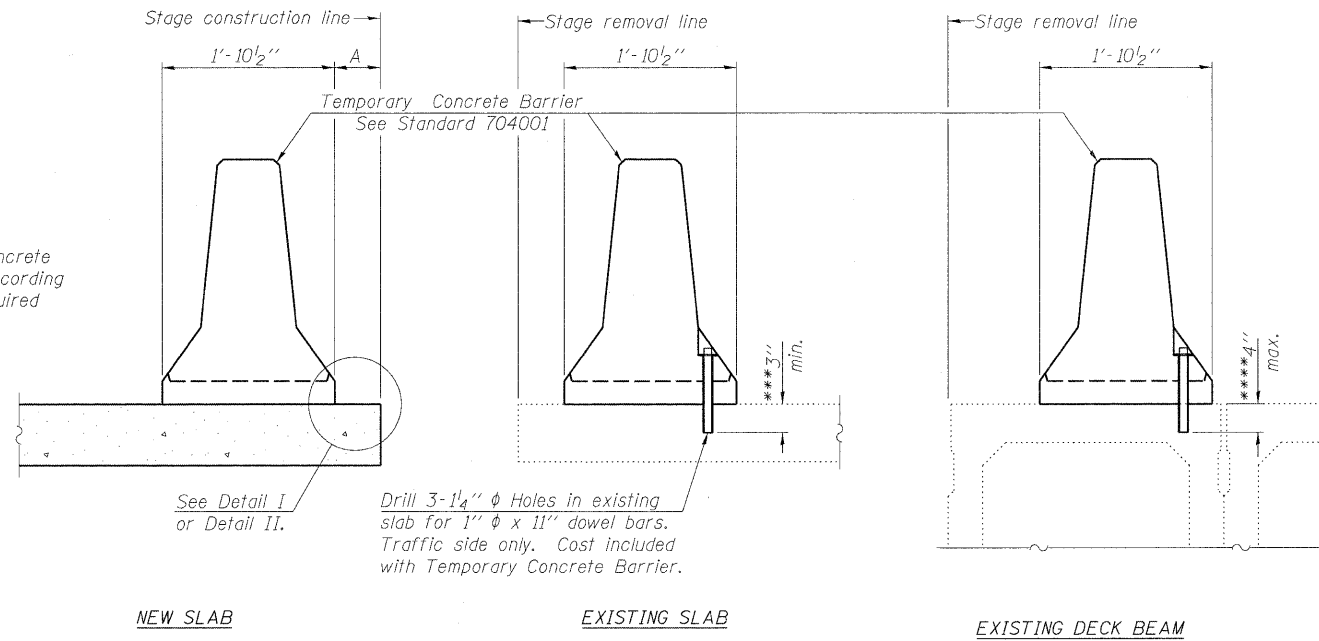
**STAGE CONSTRUCTION DETAILS**  
**STRUCTURE NO. 016-0386**

<b>Lin Engineering, Ltd.</b> Consulting Engineers Chatham, Illinois	SHEET NO. 2  6 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		351	539 B-1	COOK	21	12
		CONTRACT NO. 60J36				
		ILLINOIS FED. AID PROJECT				

Designed By: TBP    Checked By: MTH    Drawn By: TBP  
Date: 1/20/05    File: 016-0386.dgn

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

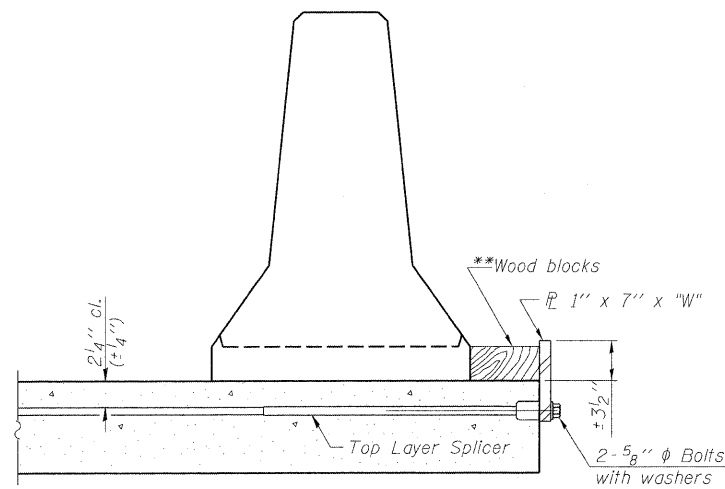
Detail I - With Bar Splicer or Couplers:  
Connect one (1) 1"x7"x10" steel  $\bar{L}$  to the top layer of couplers with 2- $\frac{5}{8}$ "  $\phi$  bolts screwed to coupler at approximate  $\bar{C}$  of each barrier panel.

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

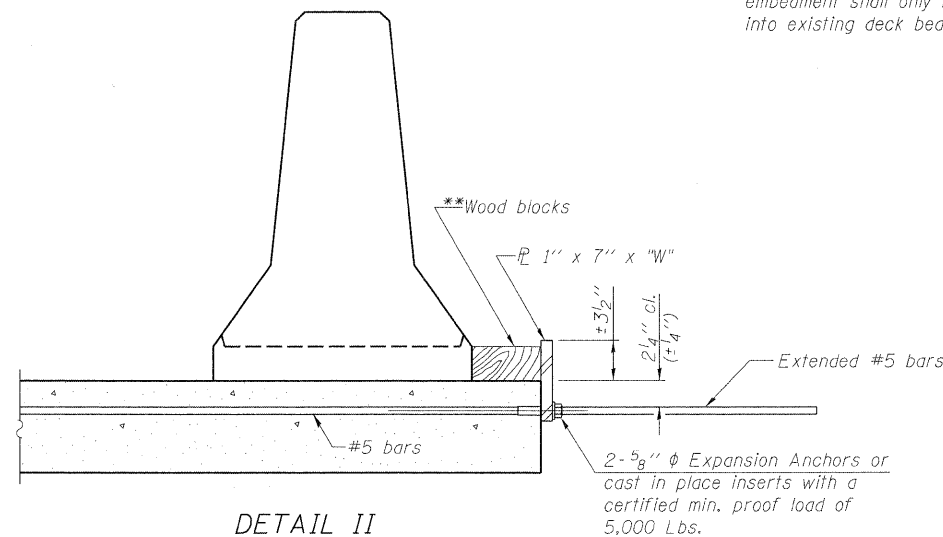
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

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

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



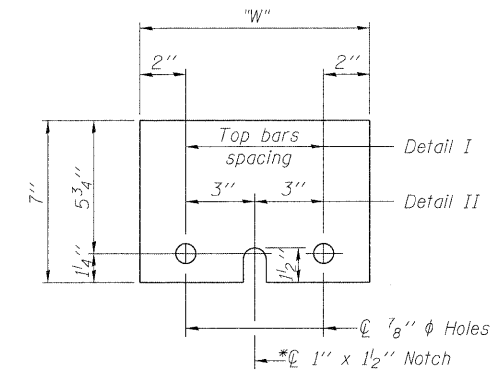
DETAIL I



DETAIL II

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

"W" = Top bars spacing + 4"



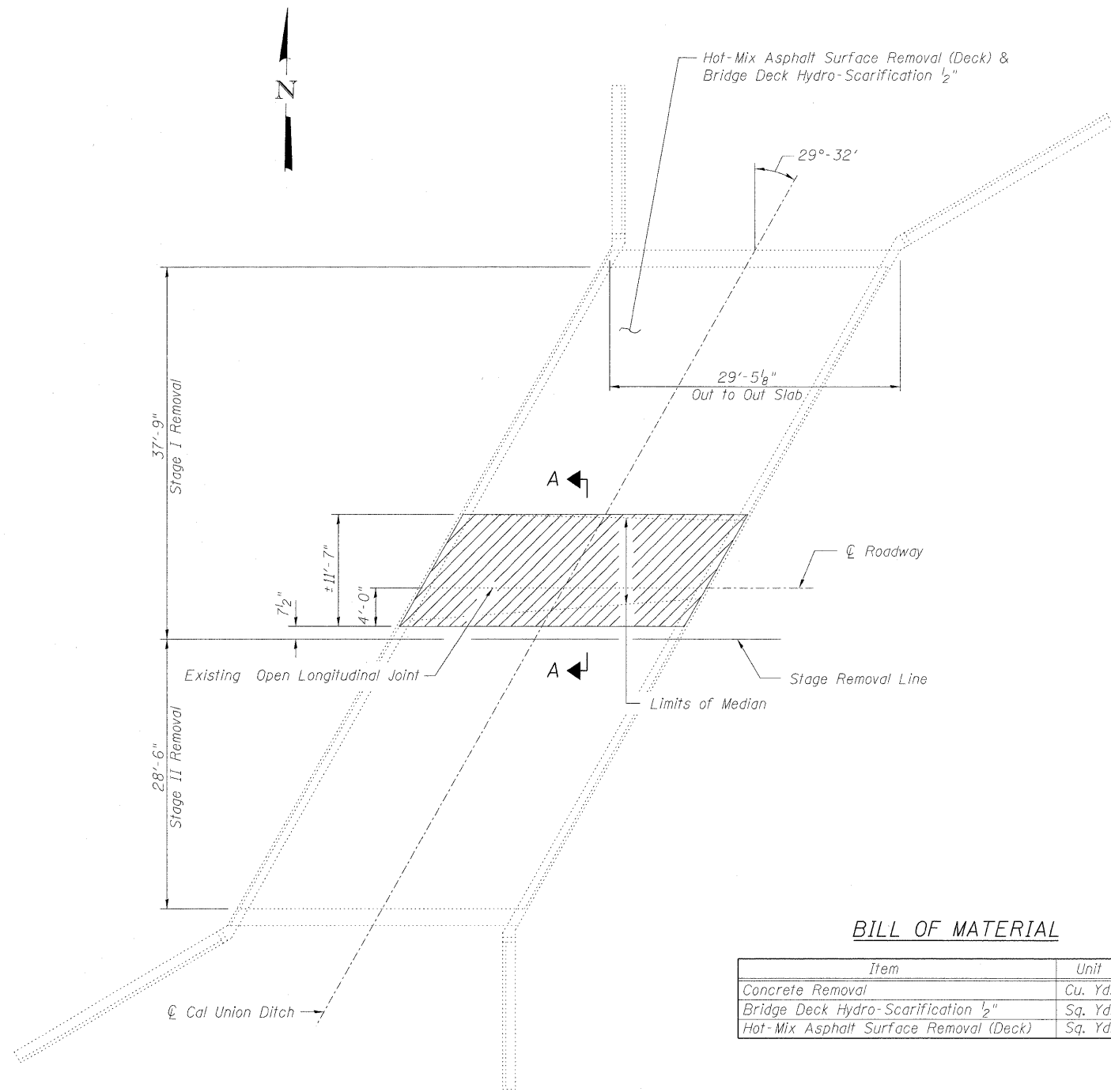
STEEL RETAINER  $\bar{L}$  1" x 7" x 10"

\* Required only with Detail II

TEMPORARY CONCRETE BARRIER  
FOR STAGE CONSTRUCTION  
STRUCTURE NO. 016-0386

<p>LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois</p>	SHEET NO. 3	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	6 SHEETS	351	539 B-1	COOK	21	13
					CONTRACT NO. 60J36	
		ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



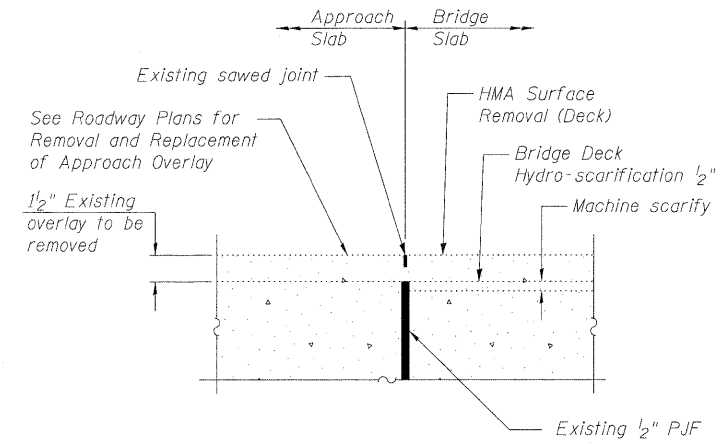
PLAN

BILL OF MATERIAL

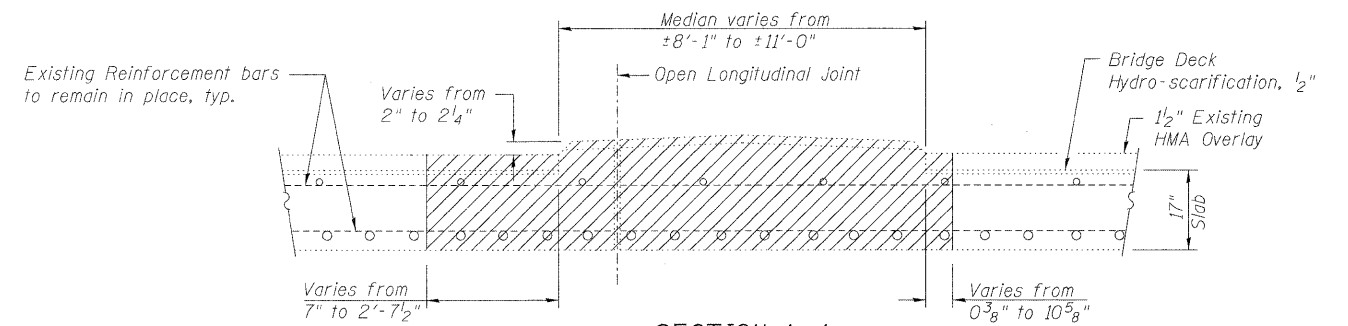
Item	Unit	Total
Concrete Removal	Cu. Yd.	21.2
Bridge Deck Hydro-Scarification 1/2"	Sq. Yd.	186
Hot-Mix Asphalt Surface Removal (Deck)	Sq. Yd.	180

Notes:

- Hatched area indicates concrete removal.
- 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.
- 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".



EXISTING FIXED JOINT DETAIL

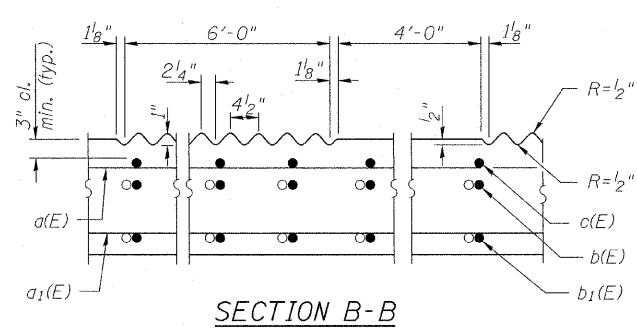
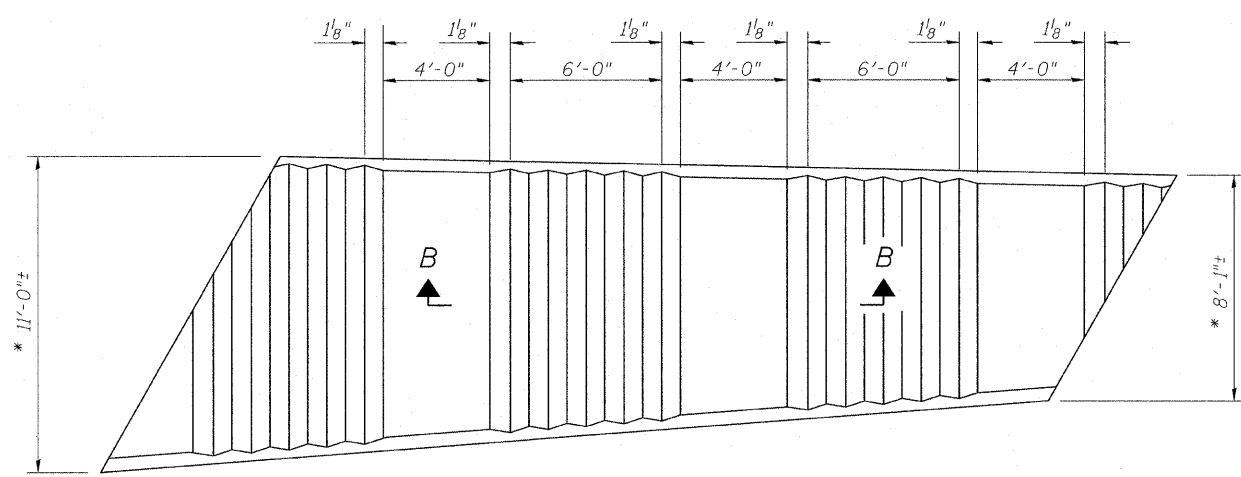
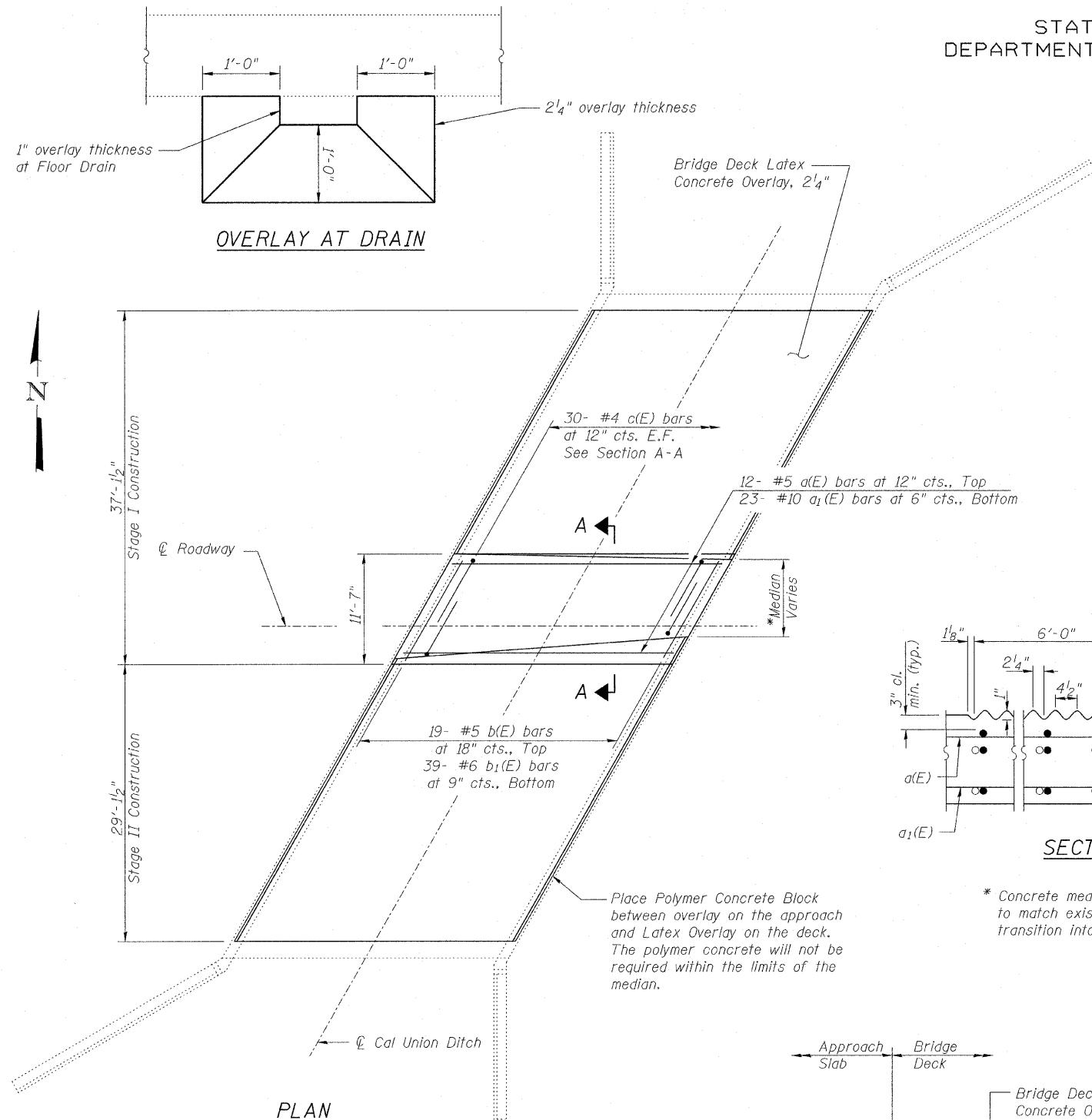


SECTION A-A

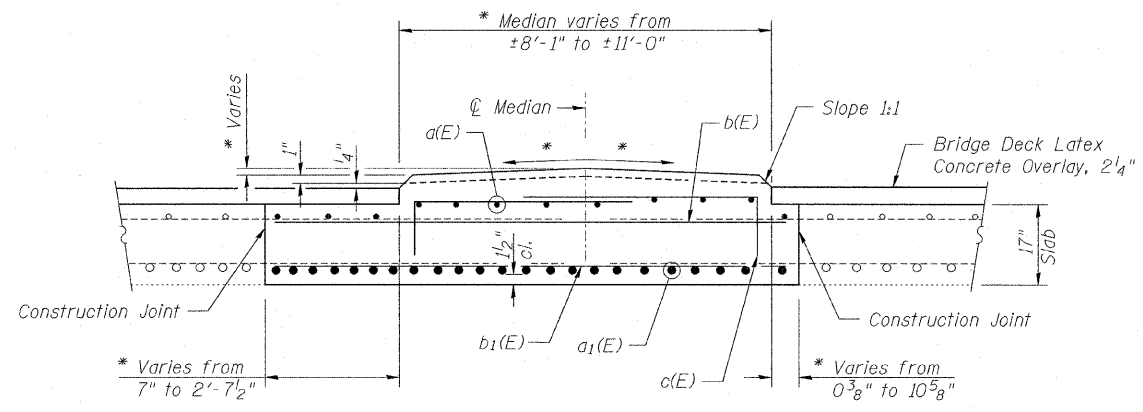
CONCRETE REMOVAL  
STRUCTURE NO. 016-0386

<p>LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois</p>	SHEET NO. 4	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	6 SHEETS	351	539 B-I	COOK	21	14
<p>Designed By: TBP    Checked By: MTH    Drawn By: TBP</p> <p>Date: 1/20/07    File: 016-0386.dgn</p>			<p>CONTRACT NO. 60J36</p>			
<p>ILLINOIS FED. AID PROJECT</p>						

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



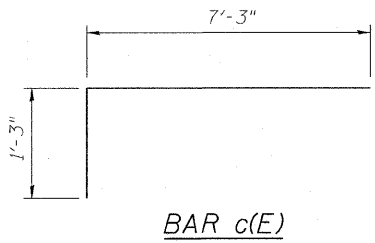
CORRUGATED MEDIAN DETAIL



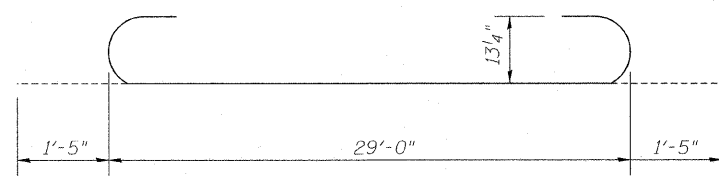
SECTION A-A

BILL OF MATERIAL

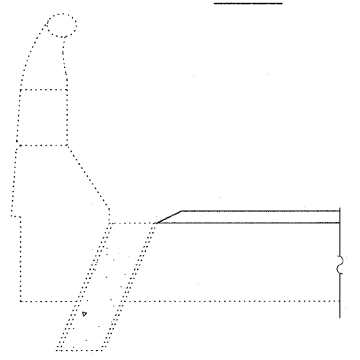
Bar	No.	Size	Length	Shape
a(E)	12	#5	29'-2"	—
a1(E)	23	#10	31'-10"	—
b(E)	19	#5	13'-0"	—
b1(E)	39	#6	13'-0"	—
c(E)	60	#4	8'-6"	—
Concrete Superstructure			Cu. Yd.	21.7
Reinforcement Bars, Epoxy Coated			Pound	4880
Bridge Deck Latex Concrete Overlay, 2 1/4"			Sq. Yd.	182
Polymer Concrete			Cu. Ft.	6.1



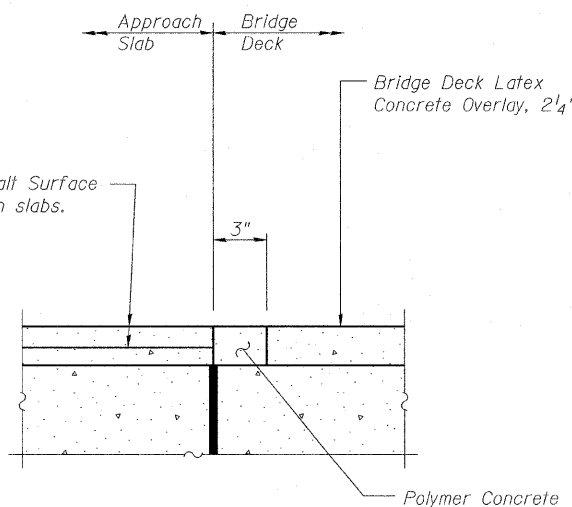
BAR c(E)



BAR a1(E)



DRAIN DETAIL



PROPOSED FIXED JOINT DETAIL

MEDIAN CONCRETE DETAILS  
STRUCTURE NO. 016-0386

**E** LIN ENGINEERING, LTD.  
Consulting Engineers  
Chatham, Illinois

SHEET NO. 5  
6 SHEETS

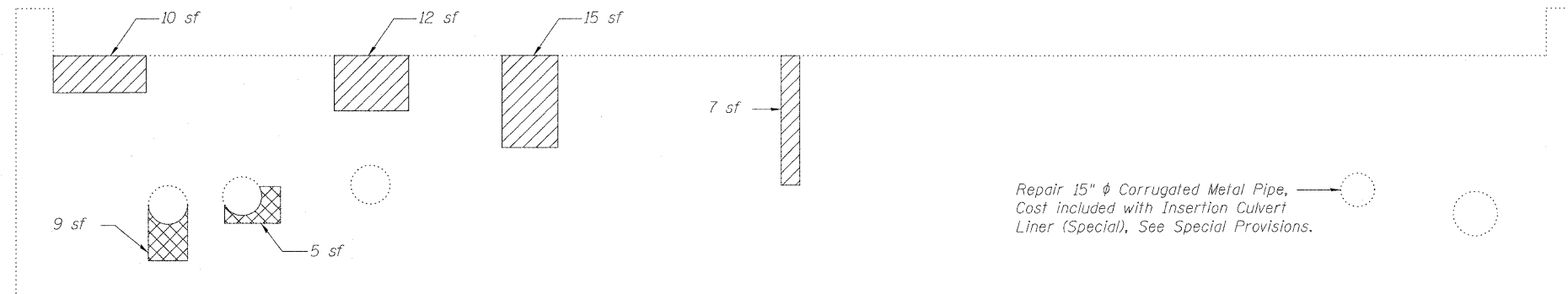
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	539 B-I	COOK	21	15
				CONTRACT NO. 60J36

ILLINOIS FED. AID PROJECT

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

Drawn By: TBP  
File: 016-0386.dgn

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION





EAST ABUTMENT ELEVATION



WEST ABUTMENT ELEVATION

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

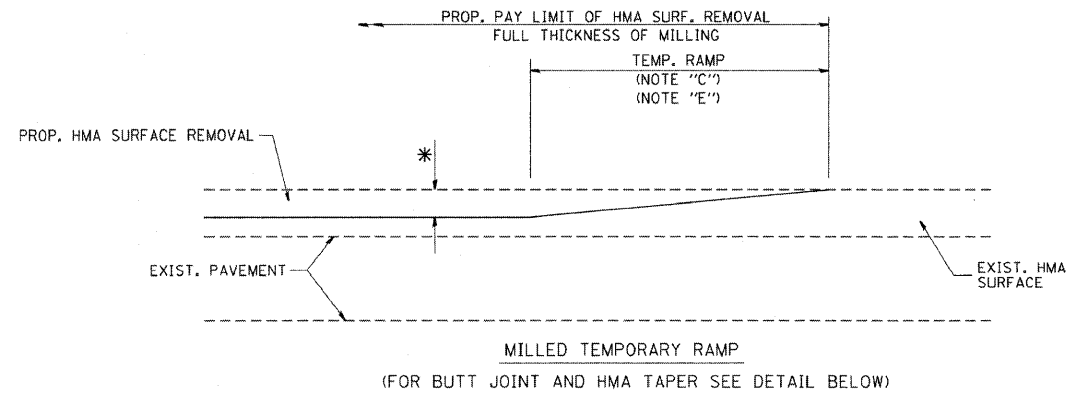
Item	Unit	Total
Structural Repair of Concrete (Depth Greater Than 5 in.)	Sq. Ft.	14
Structural Repair of Concrete (Depth Equal To or Less Than 5 in.)	Sq. Ft.	80
Insertion Culvert Liner (Special)	Foot	50

ABUTMENT REPAIR  
STRUCTURE NO. 016-0386

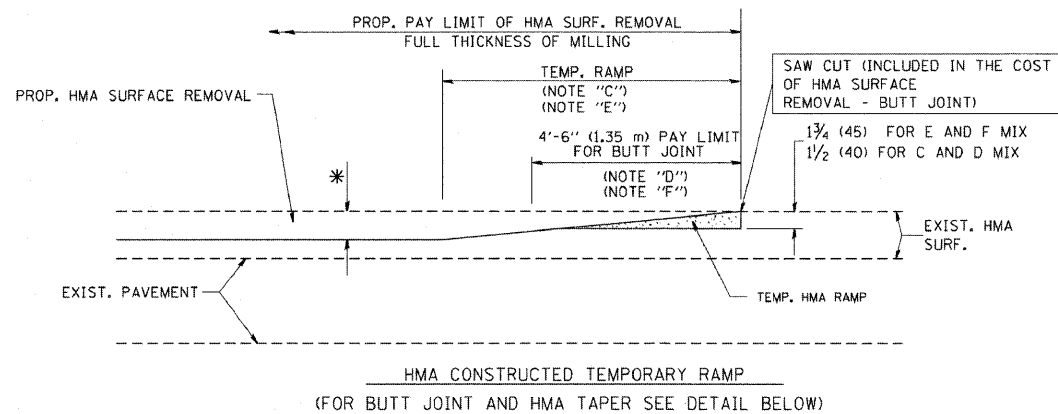
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	6 SHEETS	351	539 B-1	COOK	21	16
				CONTRACT NO. 60J36		
		ILLINOIS FED. AID PROJECT				

Designed By: YMK    Checked By: MTH    Drawn By: YMK  
Date: 1/2010    File: 016-0386.dgn

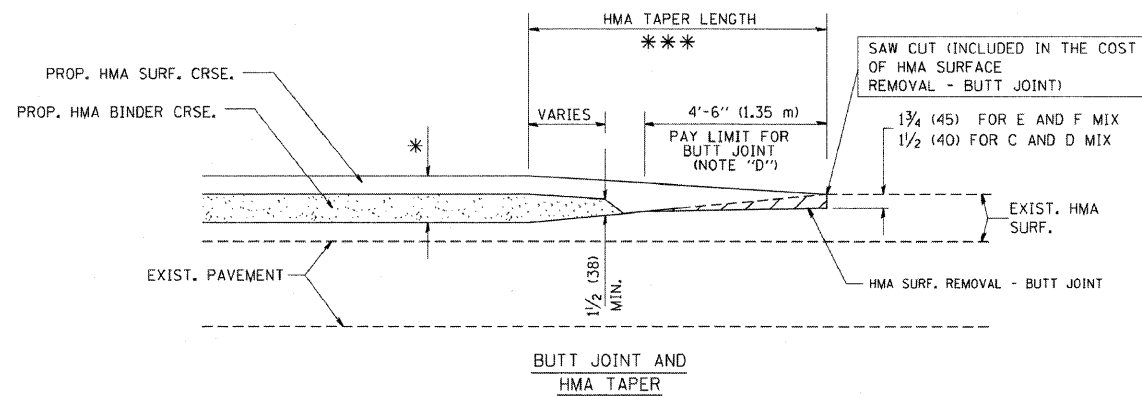




OPTION 1

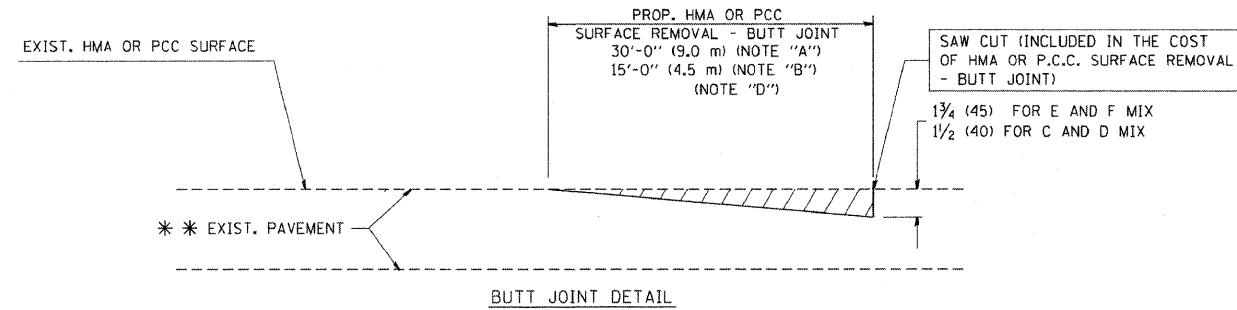


OPTION 2  
TYPICAL TEMPORARY RAMP

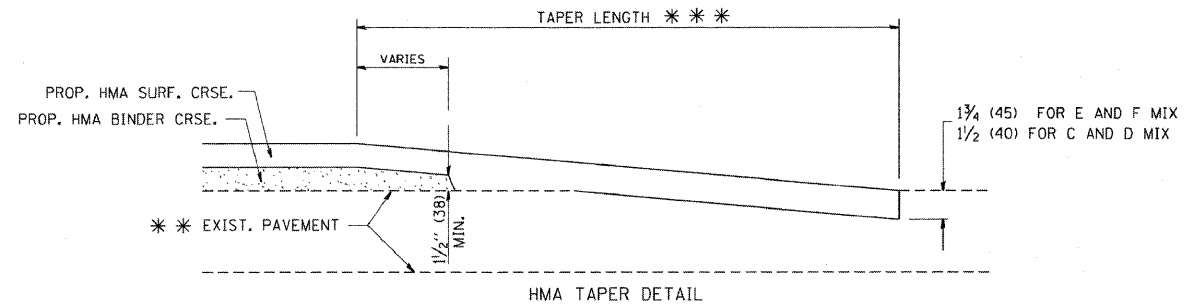


TYPICAL BUTT JOINT AND HMA TAPER  
FOR MILLING AND RESURFACING

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



BUTT JOINT DETAIL



TYPICAL BUTT JOINT AND HMA TAPER  
FOR RESURFACING ONLY

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

NOTES

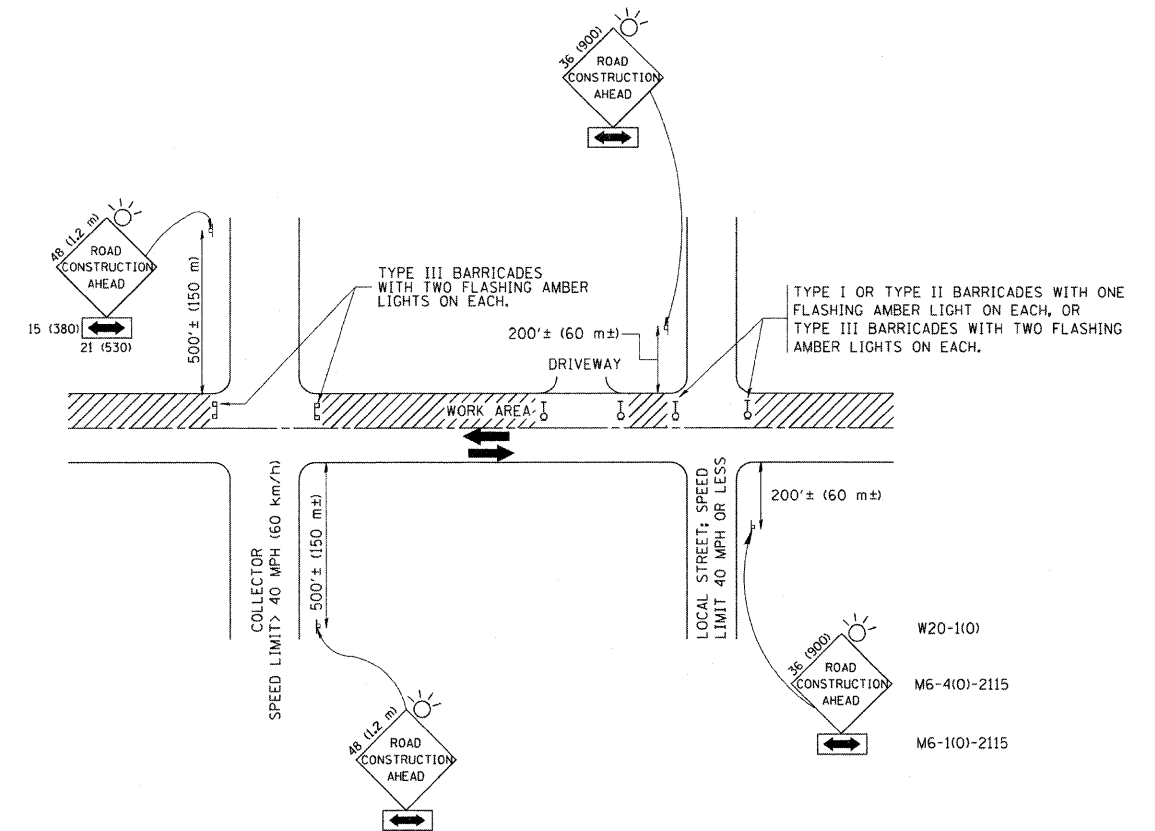
- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
- B: MINOR SIDE ROADS.
- C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
- D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
- E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0"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

BASIS OF PAYMENT:

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

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

BUTT JOINT AND HMA TAPER DETAILS



**NOTES:**

**A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS**

1. 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:
  - a) 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.
  - b) 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.
2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
  - a) 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.
  - b) 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.
3. 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.

REVISED	- J. OBERLE	10-18-95
REVISED	- A. HOUSEH	03-06-96
REVISED	- A. HOUSEH	10-15-96
REVISED	- T. RAMMACHER	01-06-00

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

**TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTION AND DRIVEWAYS**

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

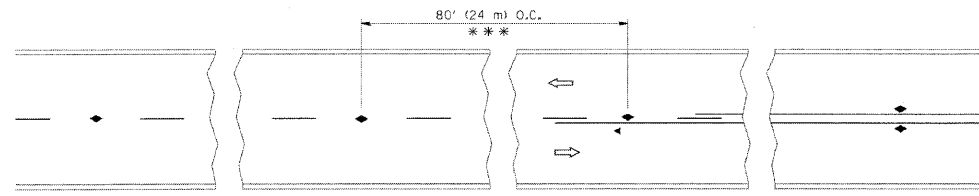
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PLOT SCALE = #SCALE#	DRAWN - ST, TSC	REVISED -
PLOT DATE = #DATE#	CHECKED - MJY	REVISED -
	DATE - 01/29/2010	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE DETAIL SHEETS  
US 6 (159th STREET) OVER CALUMET UNION DITCH**

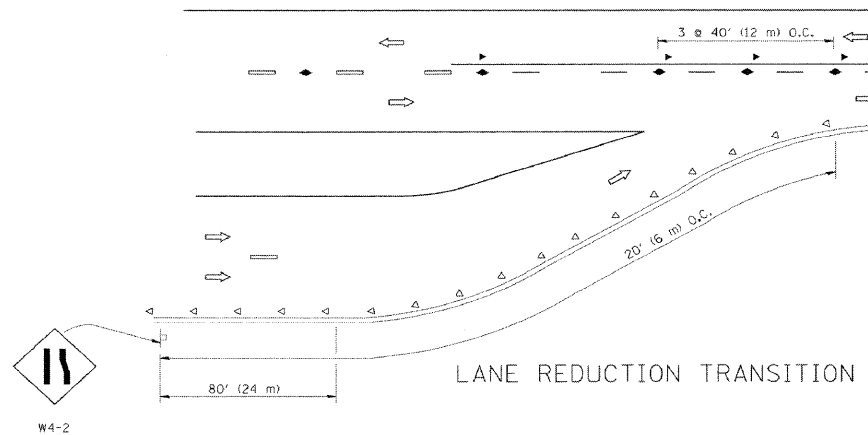
SCALE: NONE SHEET NO. 18 OF 21 SHEETS STA. 91+81.22 TO STA. 92+79.51

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	539 B-1	COOK	21	18
D-91-226-10			CONTRACT NO. 60J36	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

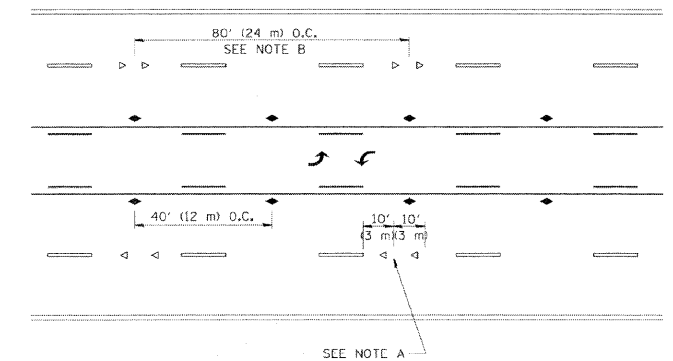


\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

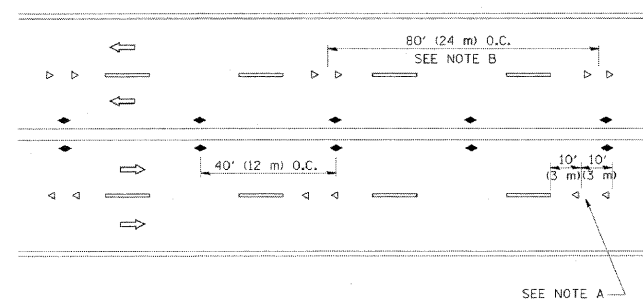
TWO-LANE/TWO-WAY



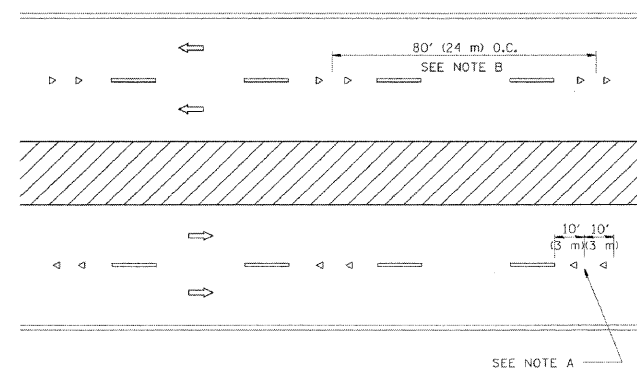
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

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

SYMBOLS

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

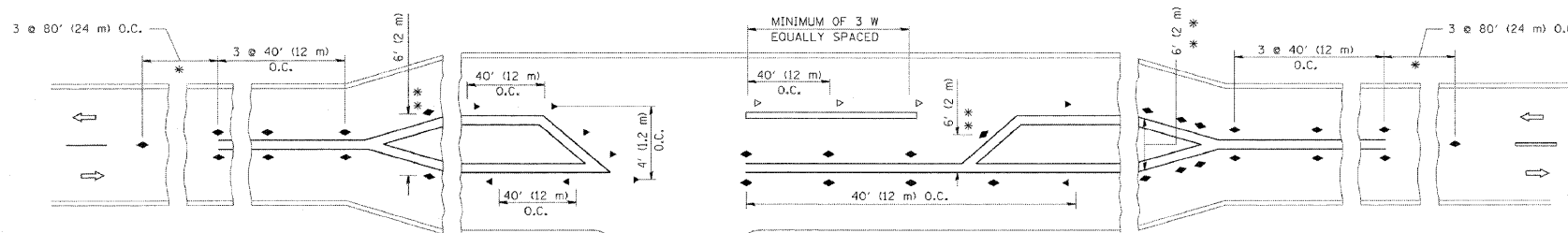
LANE MARKER NOTES

- 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.

REVISED	- T. RAMMACHER	05-19-94
REVISED	- T. RAMMACHER	03-12-99
REVISED	- T. RAMMACHER	01-06-00
REVISED	- C. JUICIUS	09-09-09



\* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE  
 \*\* WHERE THE MEDIAN WIDTH IS 6' (1.8 m) OR LESS USE TWO-WAY MARKERS.

LEFT TURN

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

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

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

USER NAME = #USER#	DESIGNED - M.J.Y.
PLOT SCALE = #SCALE#	DRAWN - ST, TSC
PLOT DATE = #DATE#	CHECKED - M.J.Y.
	DATE - 01/29/2010

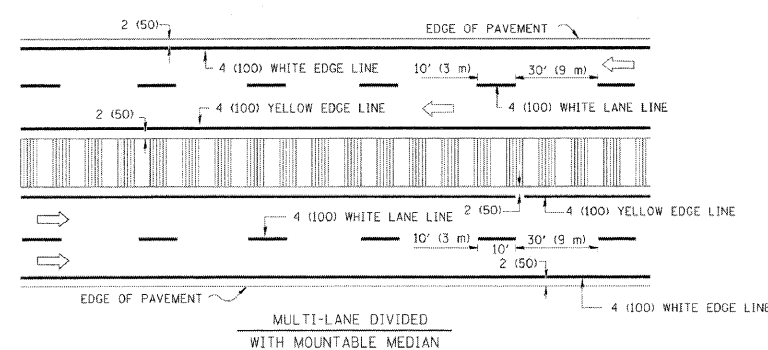
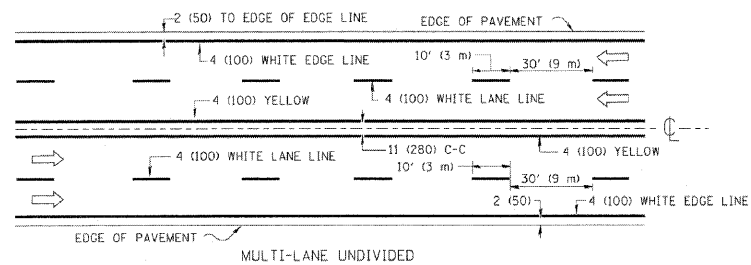
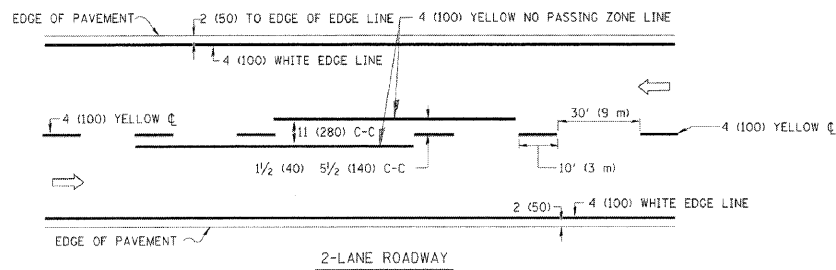
REVISED -
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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE DETAIL SHEETS  
 US 6 (159th STREET) OVER CALUMET UNION DITCH**

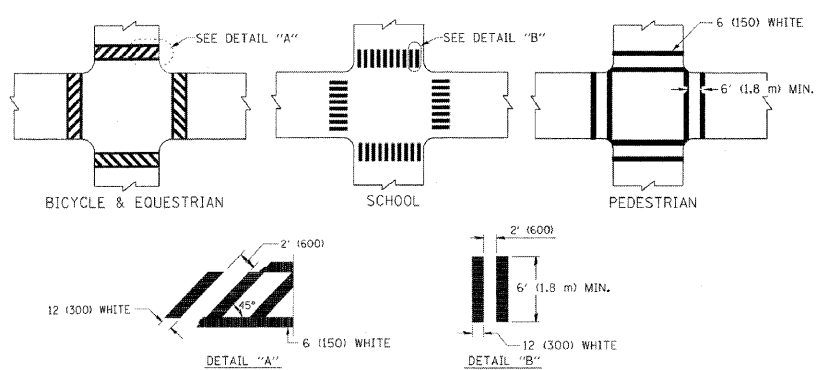
SCALE: NONE SHEET NO. 19 OF 21 SHEETS STA. 91+81.22 TO STA. 92+79.51

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	539 B-1	COOK	21	19
D-91-226-10			CONTRACT NO. 60J36	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

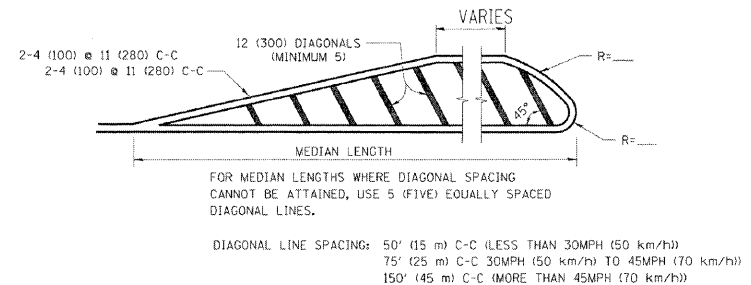
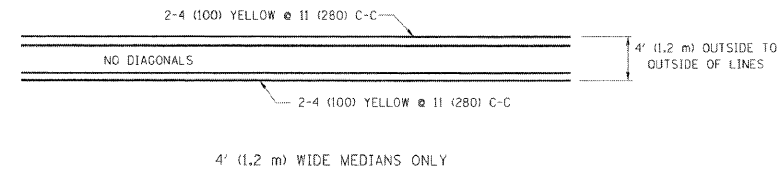


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

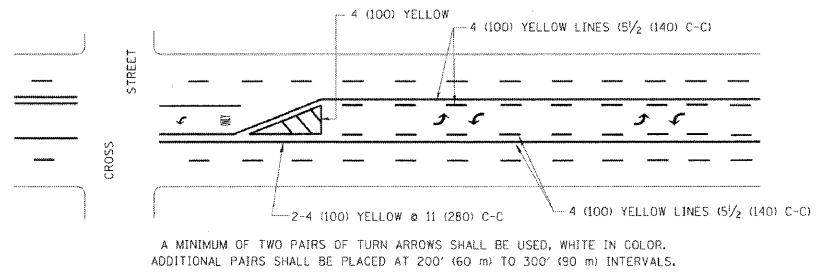
TYPICAL LANE AND EDGE LINE MARKING



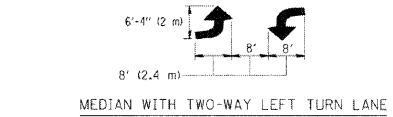
TYPICAL CROSSWALK MARKING



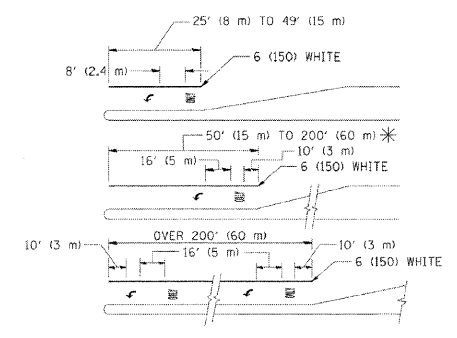
MEDIANS OVER 4' (1.2 m) WIDE



TYPICAL PAINTED MEDIAN MARKING



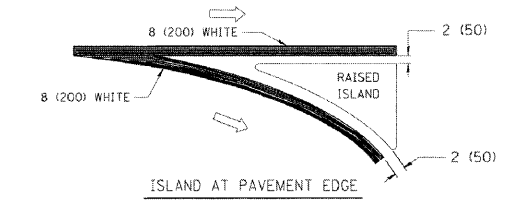
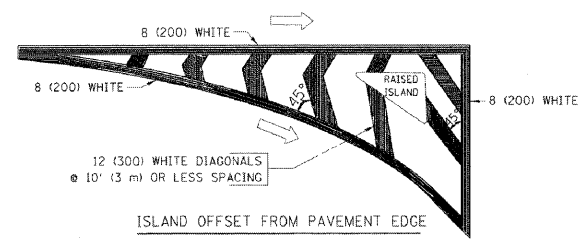
MEDIAN WITH TWO-WAY LEFT TURN LANE



FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  
 AREA = 15.6 SQ. FT. (1.5 m<sup>2</sup>) ONLY AREA = 20.8 SQ. FT. (1.9 m<sup>2</sup>)  
 \* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5/2 (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 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 <sup>2</sup> ) EACH "X"=54.0 SQ. FT. (5.0 m <sup>2</sup> )
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

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

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

REVISED	-T. RAMMACHER	10-27-94
REVISED	-C. JUCIUS	09-09-09
REVISED	-	
REVISED	-	

# DISTRICT ONE TYPICAL PAVEMENT MARKINGS

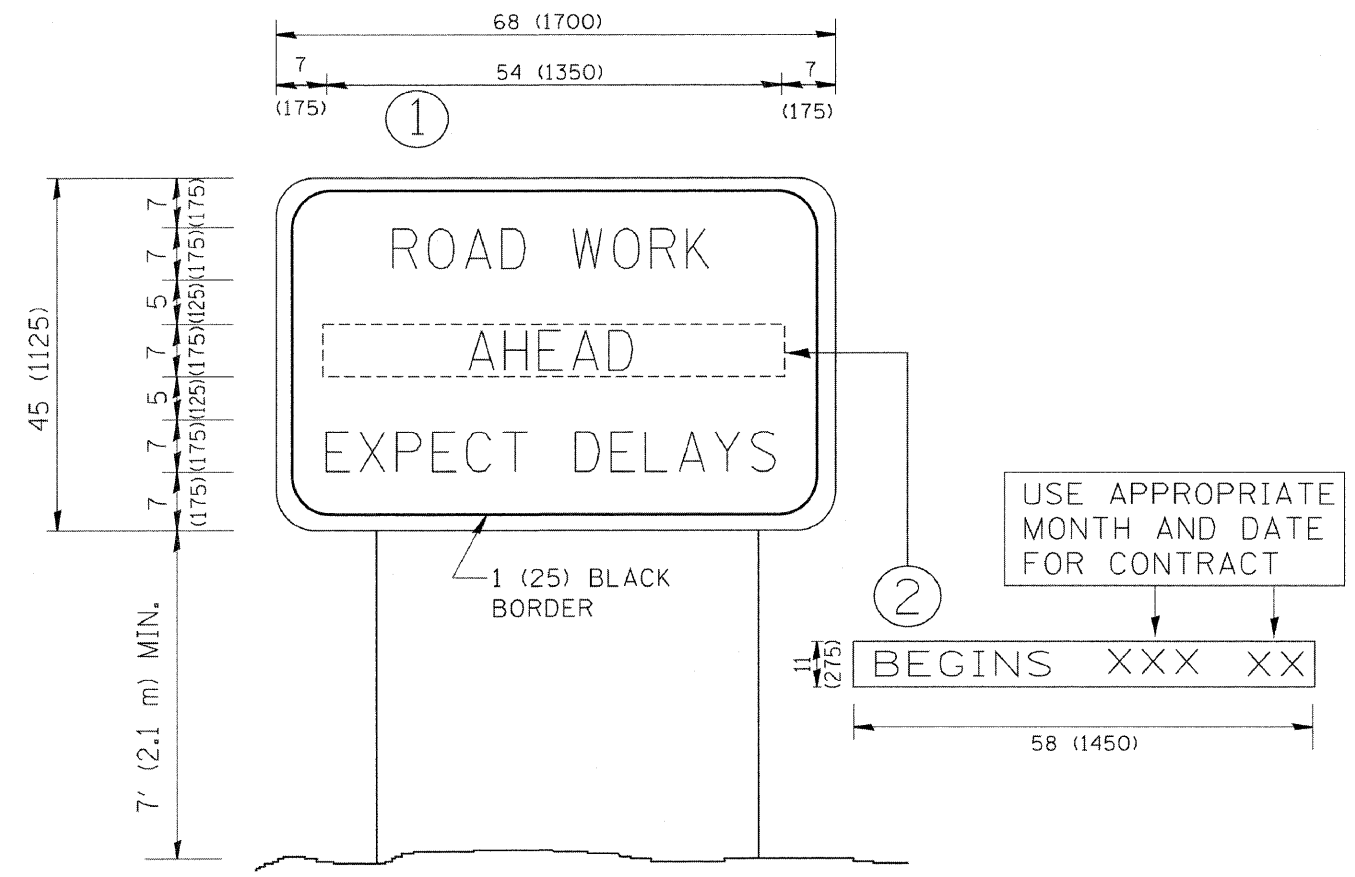
**LOWCO, INC.**  
 CONSULTING ENGINEERS  
 1560 WALL ST, SUITE 222  
 NAPERVILLE, ILLINOIS 60563 PH: 630.577.9100

USER NAME = #USER#	DESIGNED - MJY	REVISIONS
PLOT SCALE = #SCALE#	DRAWN - ST, TSC	REVISED -
PLOT DATE = #DATE#	CHECKED - MJY	REVISED -
	DATE - 01/29/2010	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

DISTRICT ONE DETAIL SHEETS  
 US 6 (159th STREET) OVER CALUMET UNION DITCH  
 SCALE: NONE SHEET NO. 20 OF 21 SHEETS STA. 91+81.22 TO STA. 92+79.51

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	539 B-1	COOK	21	20
D-91-226-10		CONTRACT NO. 60J36		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



**NOTES:**

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

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

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

**ARTERIAL ROAD INFORMATION SIGN**