

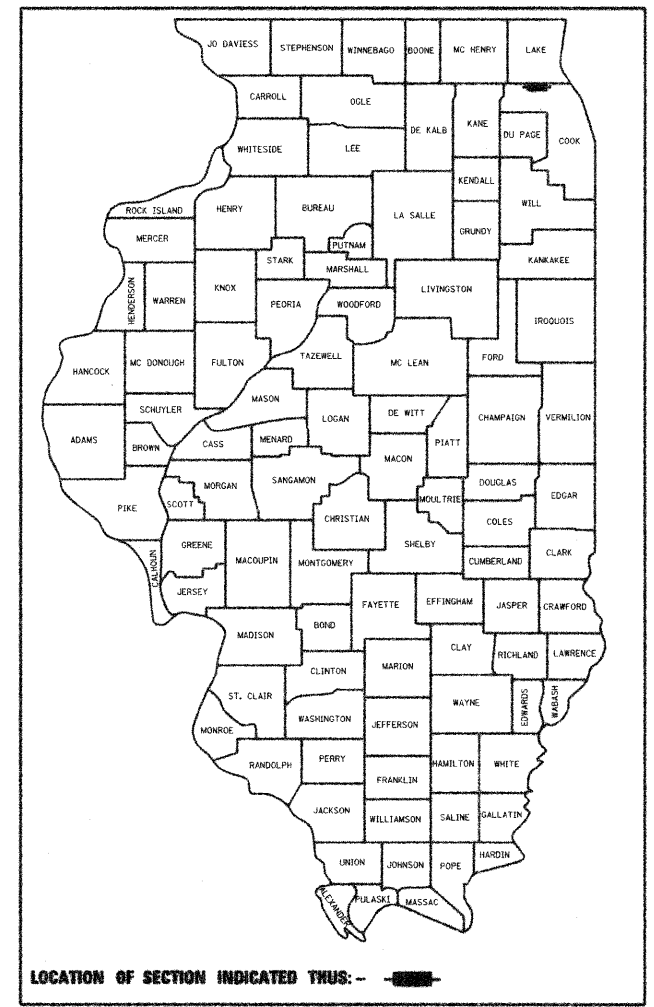
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	531-4HBK-BR-1	COOK	25	1
ILLINOIS		CONTRACT NO. 60L47		

D-91-701-10 *25 + 4 = 29

FOR INDEX OF SHEETS, SEE SHEET NO. 2

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**
FAP ROUTE 343 – IL ROUTE 68 /53 (DUNDEE RD) (SN 016-0961)
OVER IL ROUTE 53
SECTION 531-4HBK-BR-1
COOK COUNTY
**BRIDGE APPROACH PAVEMENT REPLACEMENT,
BRIDGE JOINT AND DECK REPAIRS**
C-91-701-10

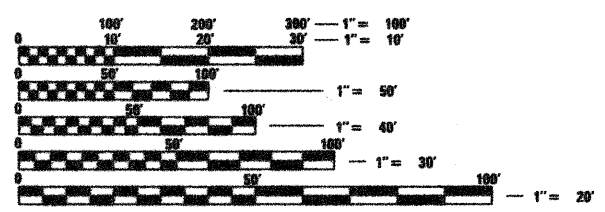


TRAFFIC DATA

IL 68 (DUNDEE RD)
EXISTING ADT : 37,000 (2009)
POSTED SPEED LIMIT 35 MPH

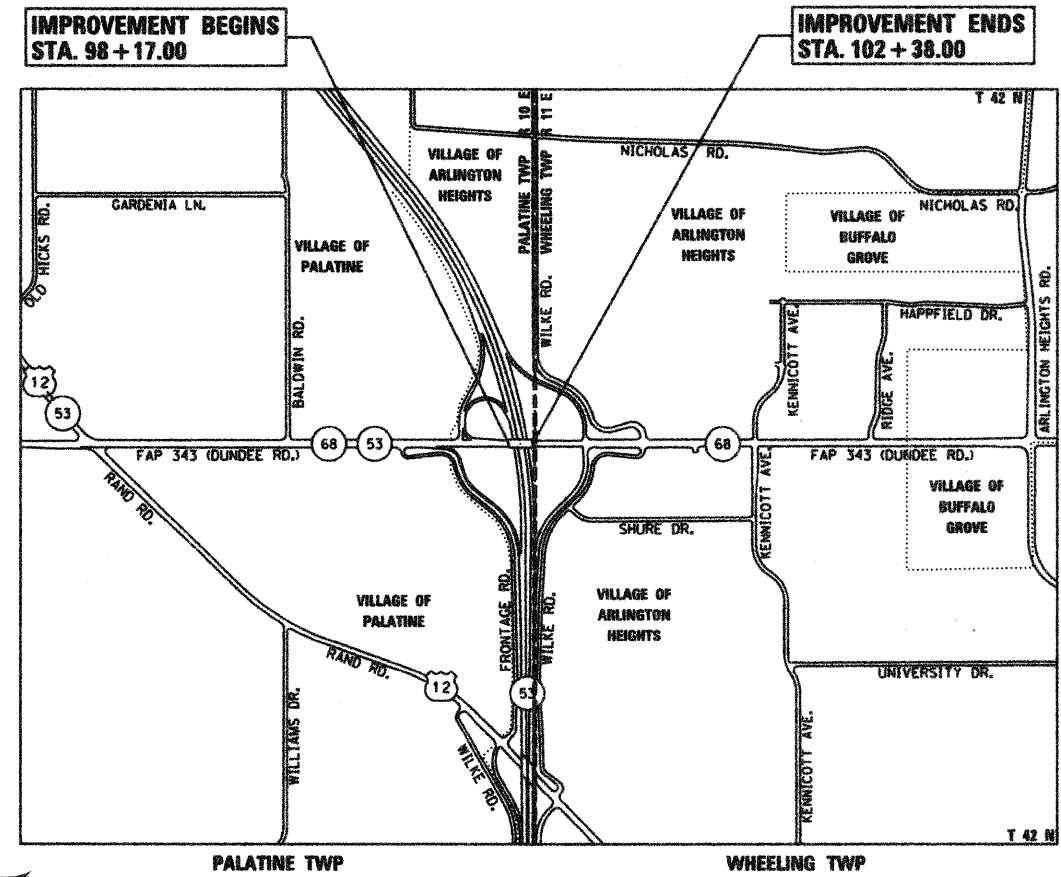
IL 53
EXISTING ADT : 85,300 (2008)
POSTED SPEED LIMIT 55 MPH

IMPROVEMENT IS LOCATED IN THE VILLAGES OF
PALATINE AND ARLINGTON HEIGHTS



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
1-800-892-8123
OR 811



LOCATION MAP
NOT TO SCALE
GROSS LENGTH = 421.00 FT. = 0.080 MILE
NET LENGTH = 421.00 FT. = 0.080 MILE



Thomas M. Hein
THOMAS M. HEIN, P. E.
IL. LIC. NO. 062-053199
EXP 11-30-2011
DATE 2-25-2011

PROJECT ENGINEER ROBERT BORO
PROJECT MANAGER ISSAM RAYYAN
CONTRACT NO. 60L47



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED FEBRUARY 25, 2011
Diane M. O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

March 05 2011
Scott E. Stitt, P.E.
Acting ENGINEER OF DESIGN AND ENVIRONMENT

March 05 2011
Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

INDEX OF SHEETS

SHEET NO. DESCRIPTION

1	TITLE SHEET
2	INDEX OF SHEETS, GENERAL NOTES & HIGHWAY STANDARDS
3	SUMMARY OF QUANTITIES
4	MAINTENANCE OF TRAFFIC - GENERAL NOTES & TYPICAL SECTIONS
5 - 8	MAINTENANCE OF TRAFFIC - SUGGESTED TRAFFIC CONTROL STAGES 1 & 2
9 - 10	PROPOSED ROADWAY & PAVEMENT MARKING PLAN
11	GENERAL PLAN AND ELEVATION
12	GENERAL NOTES, INDEX OF SHEETS & TOTAL BILL OF MATERIAL
13	BRIDGE DECK & APPROACH SLAB RESURFACING PLAN
14-14A	EXPANSION JOINT RECONSTRUCTION DETAILS
15	EAST APPROACH SLAB DETAILS
16	PREFORMED JOINT STRIP SEAL
17	BRIDGE ABUTMENT REPAIR PLAN
18	BRIDGE PIER REPAIR PLAN
19	SLOPEWALL REPAIR PLAN
20	BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
21-21A	EXISTING APPROACH SLAB DETAILS
22	DISTRICT ONE BUTT JOINT AND HMA TAPER DETAILS (BD-32)
23	DISTRICT ONE RAISED REFLECTIVE PAVEMENT MARKERS (TC-11)
24	DISTRICT ONE TYPICAL PAVEMENT MARKINGS (TC-13)
24A, 24B	DISTRICT ONE TRAFFIC CONTROL DETAILS (TC-17) & (TC-14)
25	DISTRICT ONE ARTERIAL ROAD INFORMATION SIGN (TC-22)

GENERAL NOTES

- BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 1-800-892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, AND GAS FACILITIES. (48 HOUR NOTIFICATION IS REQUIRED)
- 10 FOOT TRANSITIONS SHALL BE USED TO MATCH PROPOSED CURB AND GUTTER AND MEDIAN ITEMS OF WORK TO EXISTING CURBS AND GUTTER AND MEDIANS IN THE FIELD, UNLESS OTHERWISE SHOWN. THE TRANSITIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEMS OF WORK SPECIFIED.
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, THE VILLAGE OF PALATINE, AND THE VILLAGE OF ARLINGTON HEIGHTS.
- 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 ~~RESIDENT ENGINEER~~ ^{CONTRACTOR} SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS PRIOR TO *STARTING WORK* ~~THE PLACEMENT OF ANY TRAFFIC CONTROL DEVICES, AND THE EXPRESSWAY TRAFFIC CONTROL SUPERVISOR AT (847) 705-4155~~
- THE RESIDENT ENGINEER SHALL CONTACT MR. WALLY CZARNY, AREA TRAFFIC FIELD ENGINEER AT (847) 715-8419 A MINIMUM OF TWO WEEKS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKINGS.
- DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
- WET REFLECTIVE TEMPORARY TAPE, TYPE III SHALL BE USED FOR TEMPORARY PAVEMENT MARKINGS ON ALL FINAL SURFACES. THE COST OF THE TEMPORARY PAVEMENT MARKING TAPE REMOVAL SHALL BE INCLUDED IN THE COST OF WORK ZONE PAVEMENT MARKING REMOVAL.
- SAW CUTS WILL NOT BE PAID FOR SEPERATELY, BUT SHALL BE INCLUDED IN THE COST OF THE ITEM BEING REMOVED.

HIGHWAY STANDARDS

701427	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATION, FOR SPEEDS ? 40 MPH
701601-07	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701901-01	TRAFFIC CONTROL DEVICES

HMA MIXTURE REQUIREMENTS

MIX DESIGNS	AIR VOIDS @ NDES
PAVEMENT RESURFACING	
HMA SURFACE COURSE, MIX 'D', IL-9.5 N70; 2"	4% @ 70 GYRATIONS

NOTE: THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURES IS 112 LBS/SY/IN. THE RATE USED TO CALCULATE BITUMINOUS MATERIAL PRIME COAT IS 0.10 GAL/SY

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

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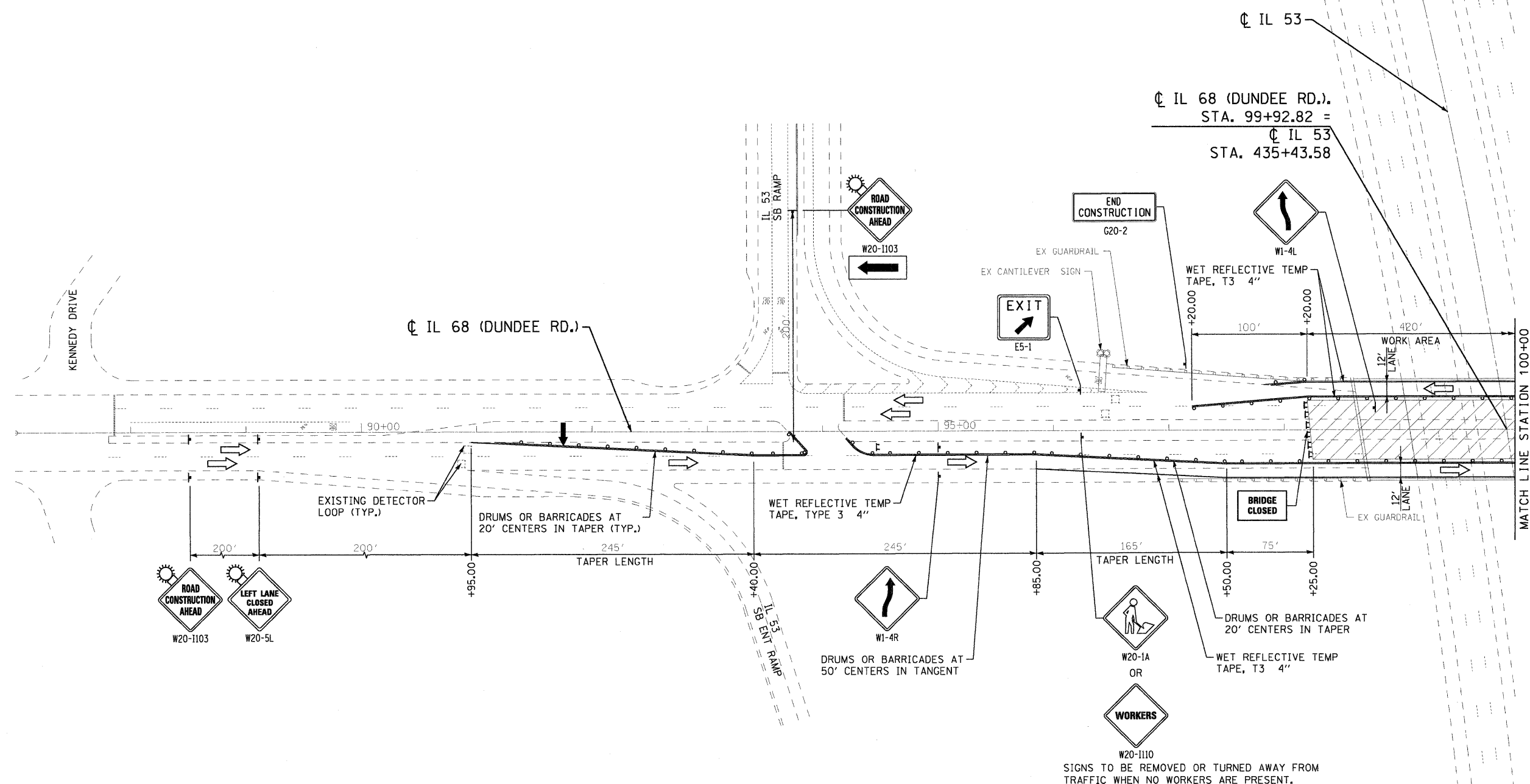
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL ROUTE 68 (DUNDEE RD.) OVER IL ROUTE 53
INDEX OF SHEETS, GENERAL NOTES & HIGHWAY STANDARDS

SCALE: 50.0000' / IN. SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE. 343	SECTION 531-4HBK-BR-1	COUNTY COOK	TOTAL SHEETS 25	TOTAL SHEET NO. 2
CONTRACT NO. 60L47			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	

Rev



- LEGEND:**
- WORK AREA
 - SIGN ON PERMANENT OR PORTABLE SUPPORT
 - DRUM WITH STEADY-BURNING MONO-DIRECTION LIGHT
 - TYPE III BARRICADE
 - ARROW BOARD

NOTE: THE CONTRACTOR SHALL COORDINATE THE EXACT PLACEMENT OF ADVANCE WARNING SIGNS WITH THE RESIDENT ENGINEER.

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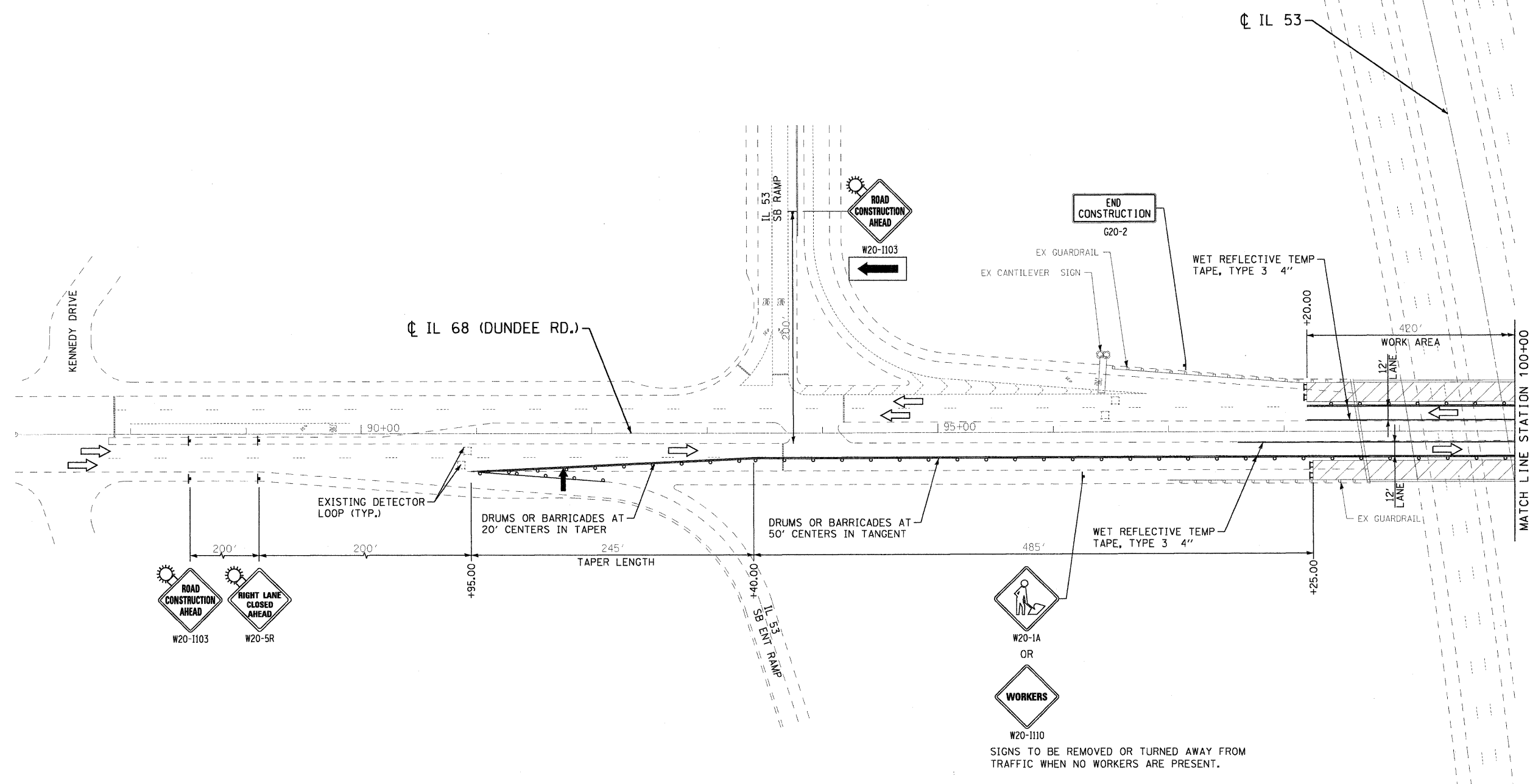
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	DATE - 02/18/11	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**IL ROUTE 68 (DUNDEE RD.) OVER IL ROUTE 53
MOT - SUGGESTED TRAFFIC CONTROL STAGE 1**

SCALE: 50.00' / IN. SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE. 343	SECTION 531-4HBK-BR-1	COUNTY COOK	TOTAL SHEETS 25	SHEET NO. 5
CONTRACT NO. 60L47				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



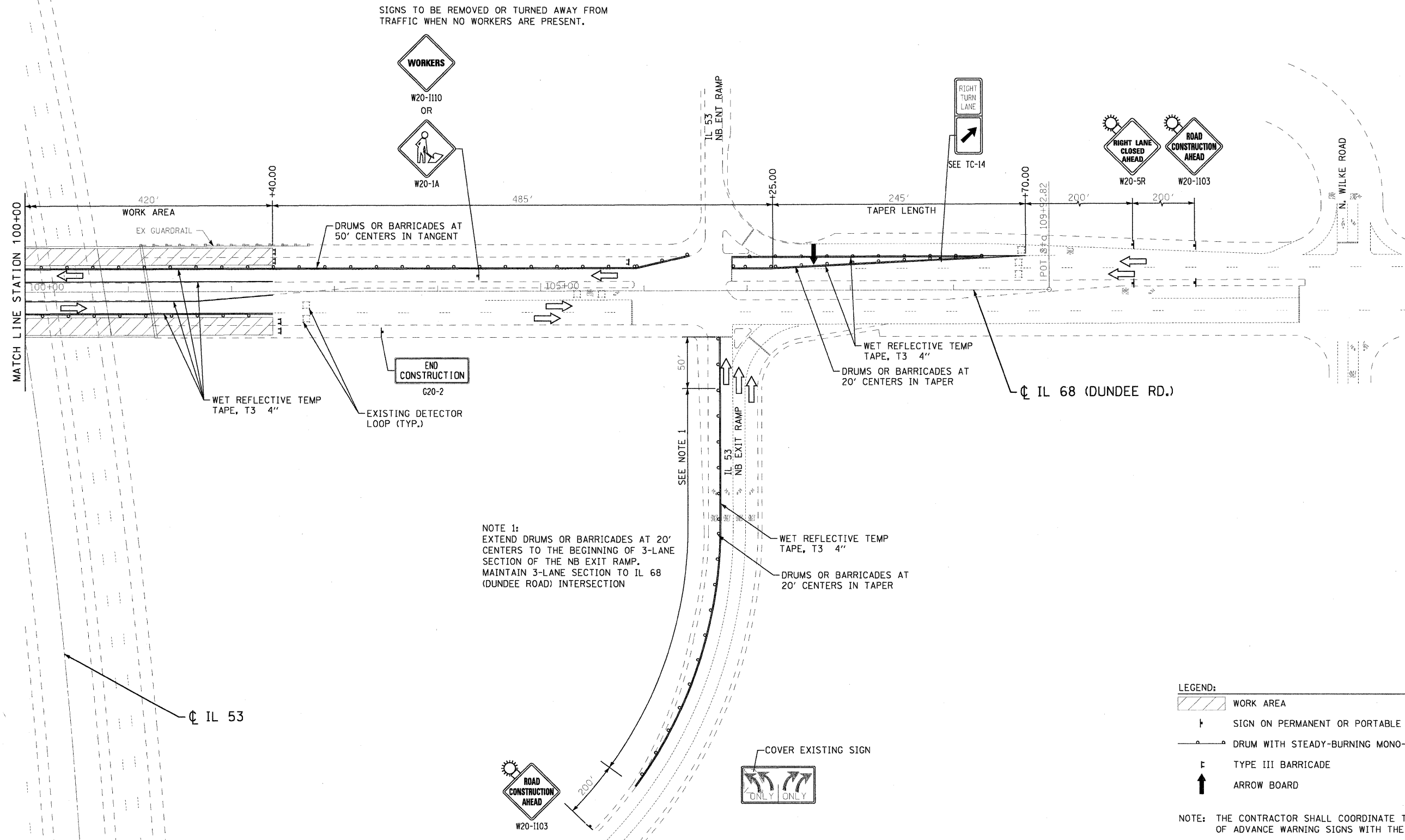
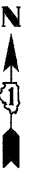
SIGNS TO BE REMOVED OR TURNED AWAY FROM TRAFFIC WHEN NO WORKERS ARE PRESENT.

- LEGEND:**
- WORK AREA
 - SIGN ON PERMANENT OR PORTABLE SUPPORT
 - DRUM WITH STEADY-BURNING MONO-DIRECTION LIGHT
 - TYPE III BARRICADE
 - ARROW BOARD

NOTE: THE CONTRACTOR SHALL COORDINATE THE EXACT PLACEMENT OF ADVANCE WARNING SIGNS WITH THE RESIDENT ENGINEER.

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	PLOT DATE = 3/30/2011	DATE - 02/18/11	REVISED -				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					



SIGNS TO BE REMOVED OR TURNED AWAY FROM TRAFFIC WHEN NO WORKERS ARE PRESENT.

NOTE 1:
EXTEND DRUMS OR BARRICADES AT 20' CENTERS TO THE BEGINNING OF 3-LANE SECTION OF THE NB EXIT RAMP. MAINTAIN 3-LANE SECTION TO IL 68 (DUNDEE ROAD) INTERSECTION

LEGEND:

	WORK AREA
	SIGN ON PERMANENT OR PORTABLE SUPPORT
	DRUM WITH STEADY-BURNING MONO-DIRECTION LIGHT
	TYPE III BARRICADE
	ARROW BOARD

NOTE: THE CONTRACTOR SHALL COORDINATE THE EXACT PLACEMENT OF ADVANCE WARNING SIGNS WITH THE RESIDENT ENGINEER.

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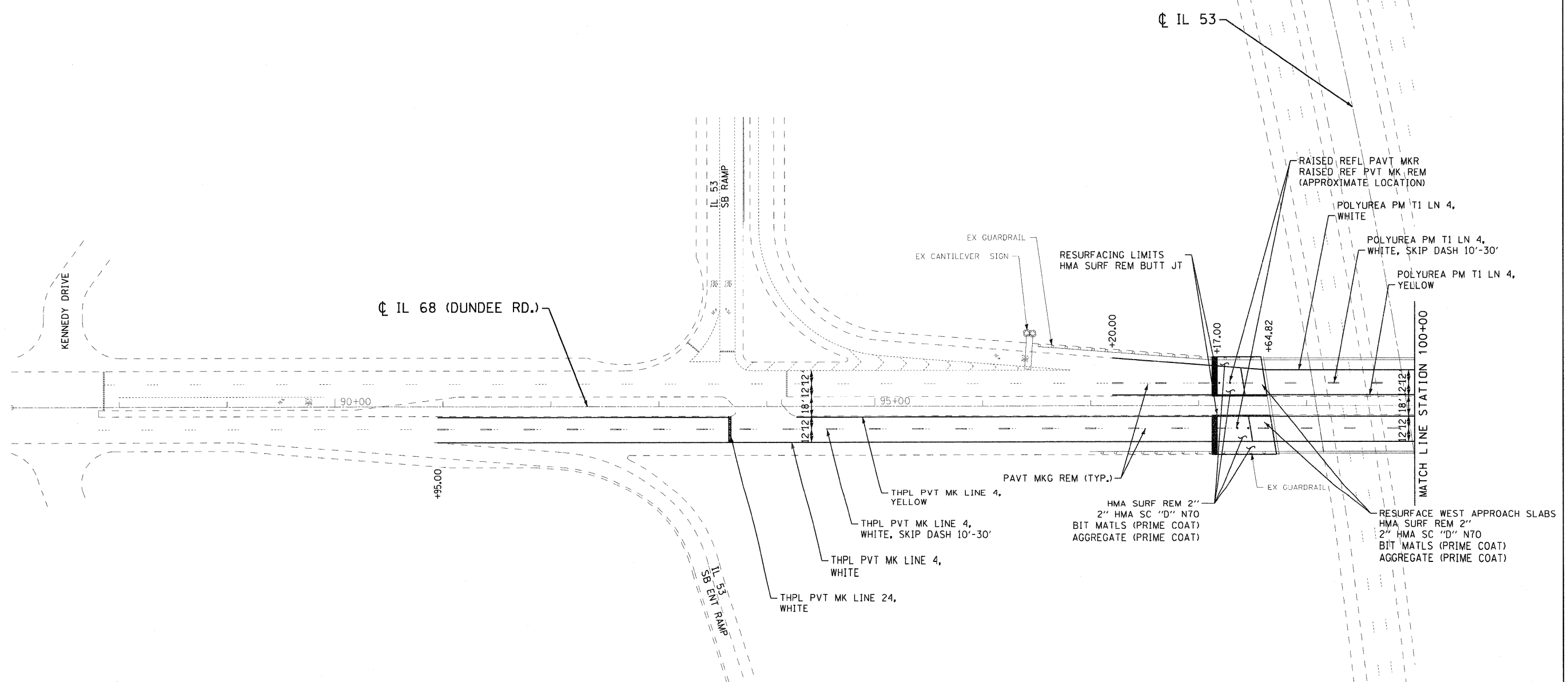
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	DATE - 02/18/11	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**IL ROUTE 68 (DUNDEE RD.) OVER IL ROUTE 53
MOT - SUGGESTED TRAFFIC CONTROL STAGE 2**

SCALE: 50.00' / IN. SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE. 343	SECTION 531-4HBK-BR-1	COUNTY COOK	TOTAL SHEETS 25	SHEET NO. 8
CONTRACT NO. 60L47				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



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DATE - 02/18/11	REVISED -	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**IL ROUTE 68 (DUNDEE RD.) OVER IL ROUTE 53
PROPOSED ROADWAY & PAVEMENT MARKING PLAN**

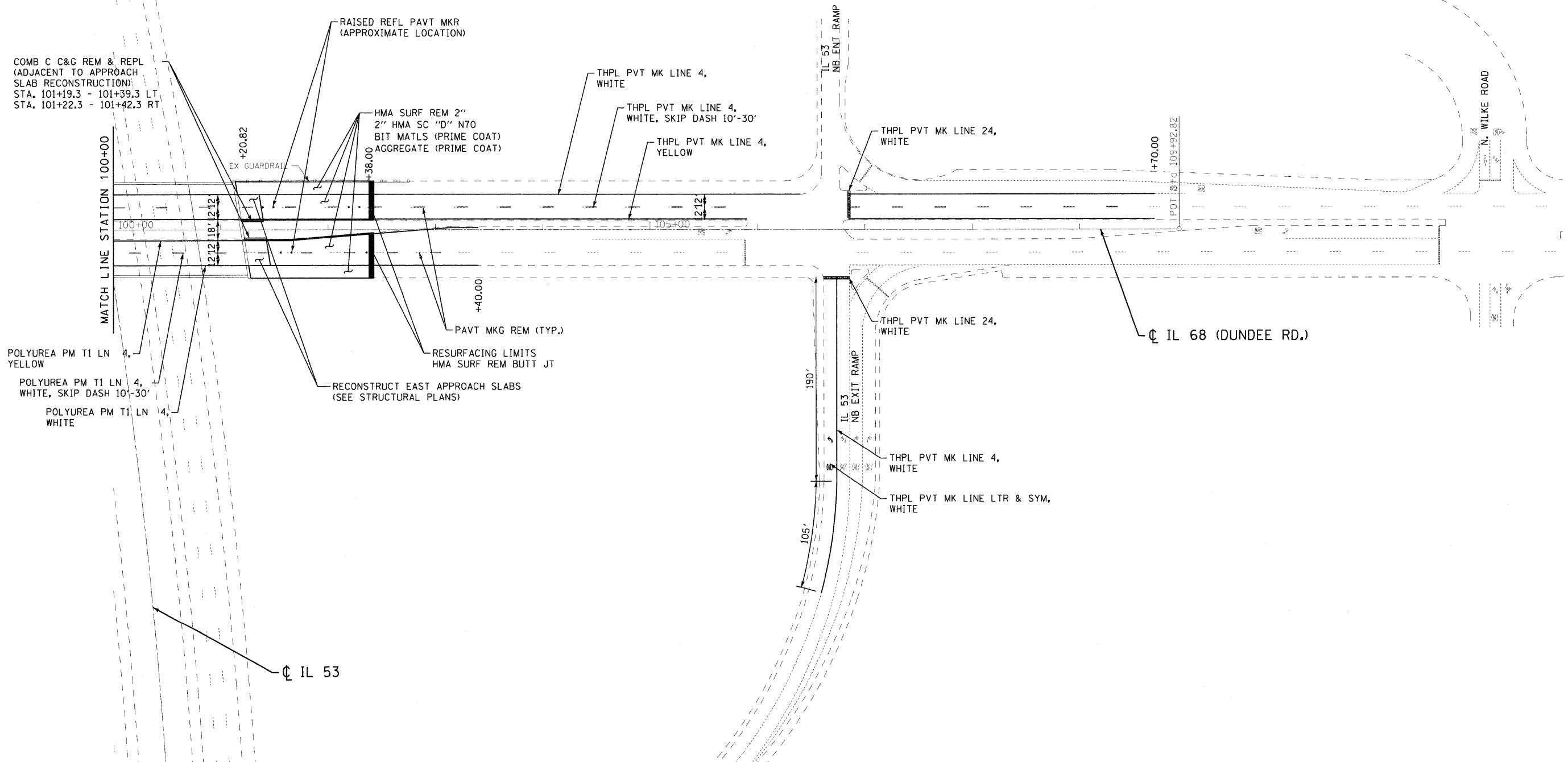
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	531-4HBK-BR-1	COOK	25	9
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

CONTRACT NO. 60L47



COMB C C&G REM & REPL
(ADJACENT TO APPROACH
SLAB RECONSTRUCTION)
STA. 101+19.3 - 101+39.3 LT
STA. 101+22.3 - 101+42.3 RT



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	DATE - 02/18/11	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

IL ROUTE 68 (DUNDEE RD.) OVER IL ROUTE 53 PROPOSED ROADWAY & PAVEMENT MARKING PLAN			
SCALE: 50.00' / IN.	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	531-4HBK-BR-1	COOK	25	10
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

Existing Structure: S.N. 016-0961 built in 1968 as F.A. Route 61 Section 531-4HBK is a four span continuous steel beam superstructure with concrete deck on reinforced concrete abutments and piers. In 1989, a bridge deck overlay was added and the bridge underwent various repairs. Beam and parapet repair was performed in 1999 and 2005 due to vehicle impact.

Traffic to be maintained using stage construction.

No salvage.

SCOPE OF WORK

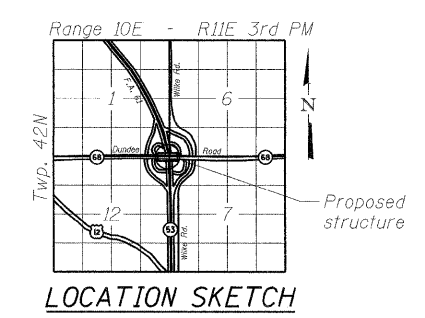
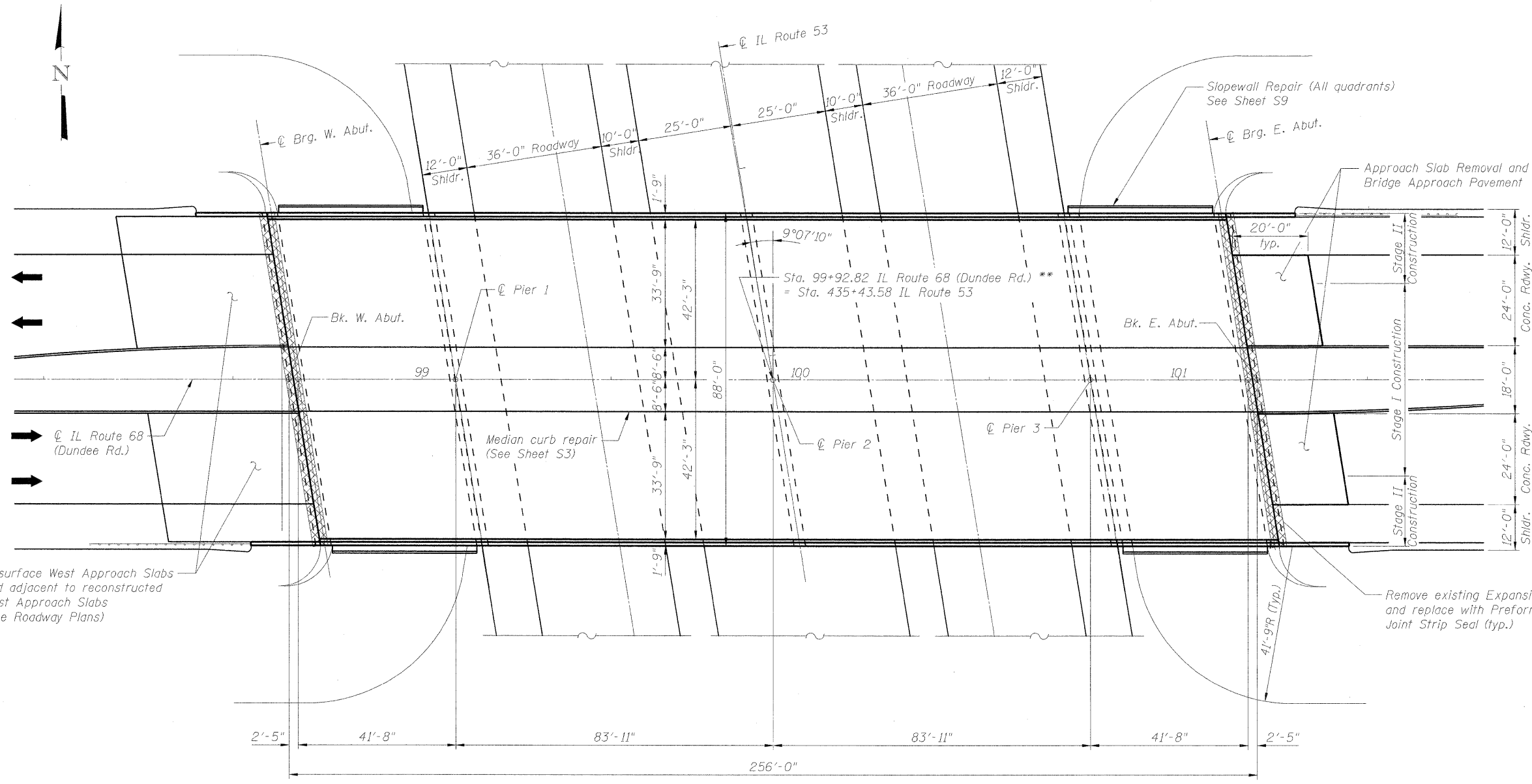
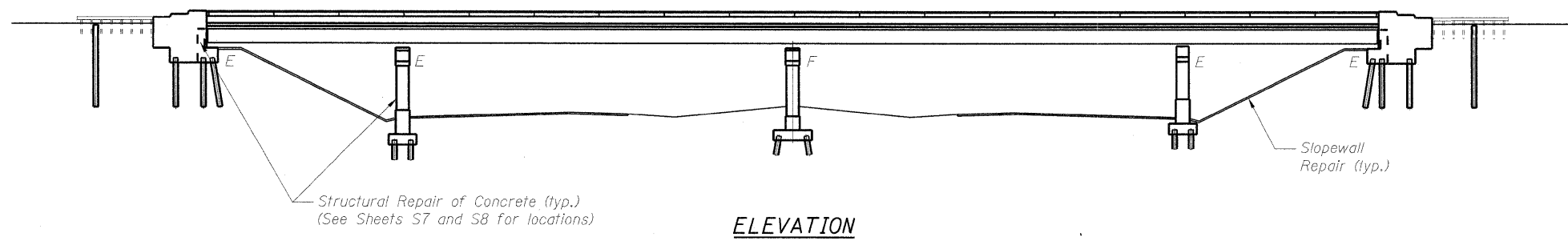
1. East Approach Slab Removal
2. East Approach Slab Reconstruction
3. Reconstruct expansion joints to strip seals
4. Structural repair of concrete on median curb
5. Partial depth concrete repair on bridge deck
6. Apply protective coat to approach slabs
7. Apply protective coat to existing bridge deck
8. Structural repair of concrete on abutments and piers
9. Slopewall repair

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges, 17th Edition

DESIGN STRESSES

FIELD UNITS
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)



Brad H. Sayers
 BRAD H. SAYERS, S.E.
 IL. LIC. NO. 081-006267
 EXP 11/30/2012
 DATE 3/21/2011

PLAN

** Stationing taken from original 1969 plans.

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	PLOT SCALE = N/A	DRAWN - MJB	REVISD -			CONTRACT NO. 60L47				
	PLOT DATE = 3/18/2011	CHECKED - GSP	REVISD -			SHEET NO. 51 OF 11 SHEETS				
							FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			

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.

Protective Coat shall be applied to the entire top surface of the existing bridge deck, median, sidewalks, and the tops and inside vertical faces of the parapets.

Stage Construction shall be utilized to maintain traffic during construction.

The Contractor shall exercise care during removal of the existing joints to ensure that the conduit, slab, beams and diaphragms' integrity will not be detrimentally impacted. The Contractor shall repair any damage to the conduit, slab, beams and diaphragms caused by his operation as directed by the Engineer at no additional cost to the Department.

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

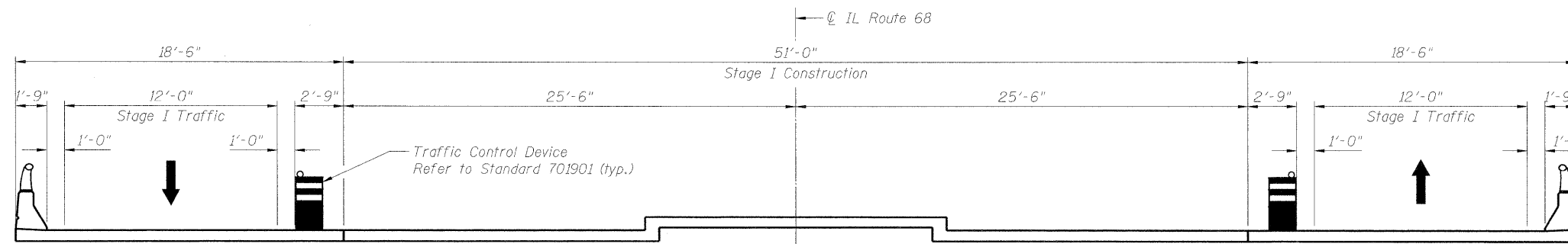
Joint openings shall be adjusted according to Article 520.04 of the Standard Specifications when the deck is poured at an ambient temperature other than 50°F.

INDEX OF SHEETS

- S1. General Plan & Elevation
- S2. General Notes, Stage Construction & Total Bill of Material
- S3. Bridge Deck & Approach Slab Resurfacing Plan
- S4. Expansion Joint Reconstruction Details (1 of 2)
- S4A. Expansion Joint Reconstruction Details (2 of 2)
- S5. East Approach Slab Reconstruction
- S6. Preformed Joint Strip Seal
- S7. Bridge Abutment Repair Plan
- S8. Bridge Pier Repair Plan
- S9. Slopewall Repair Plan
- S10. Bar Splicer Assembly
- S11. Existing Approach Slab Details
- S11A. Existing Aluminum Bridge Rail Details

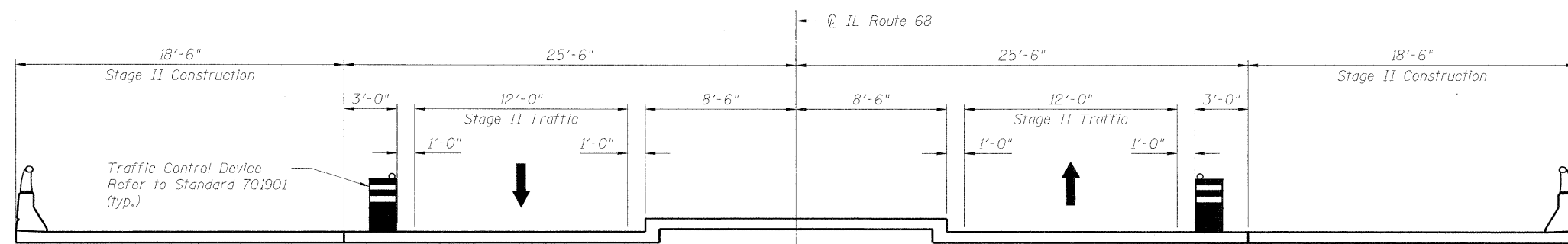
TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A4	Sq. Yd.		59	59
Filter Fabric	Sq. Yd.		59	59
Subbase Granular Material, Type B	Tons		26	26
Bridge Approach Pavement	Sq. Yd.	107		107
Concrete Removal	Cu. Yd.	36.2		36.2
Slope Wall Removal	Sq. Yd.		141	141
Concrete Superstructure	Cu. Yd.	36.2		36.2
Bridge Deck Grooving	Sq. Yd.	37		37
Protective Coat	Sq. Yd.	2715		2715
Reinforcement Bars, Epoxy Coated	Pound	3410		3410
Bar Splicers	Each	106		106
Slope Wall 4 Inch	Sq. Yd.		141	141
Preformed Joint Strip Seal	Foot	176		176
Approach Slab Removal	Sq. Yd.	107		107
Structural Repair of Concrete (Depth equal to or less than 5 inches)	Sq. Ft.	250	74	324
Structural Repair of Concrete (Depth greater than 5 inches)	Sq. Ft.		132	132
Deck Slab Repair (Partial)	Sq. Yd.	2		2



STAGE I CROSS SECTION

Looking West

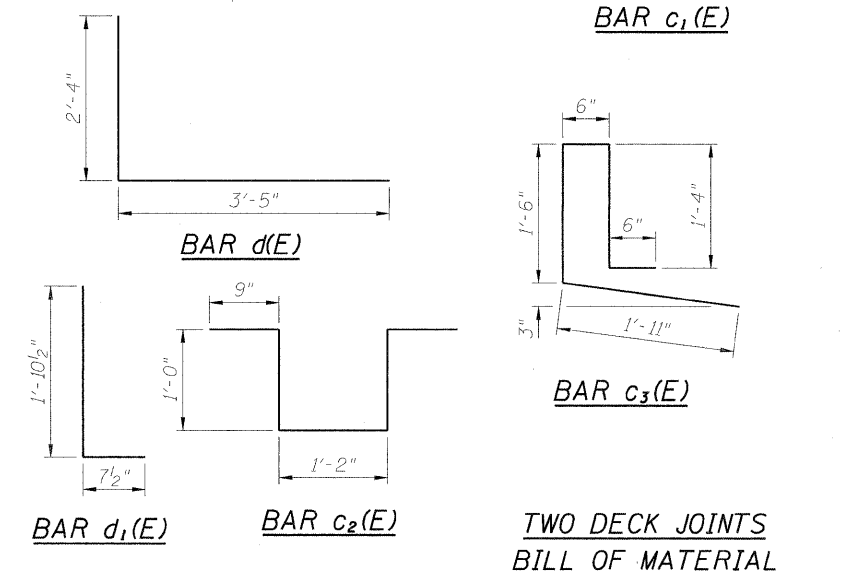
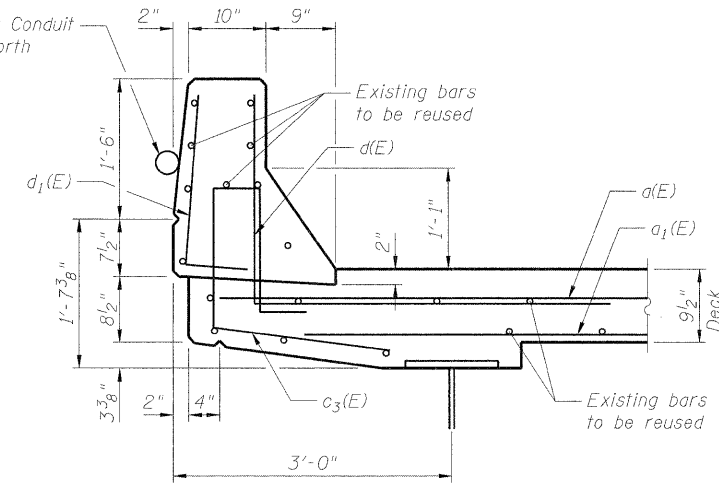
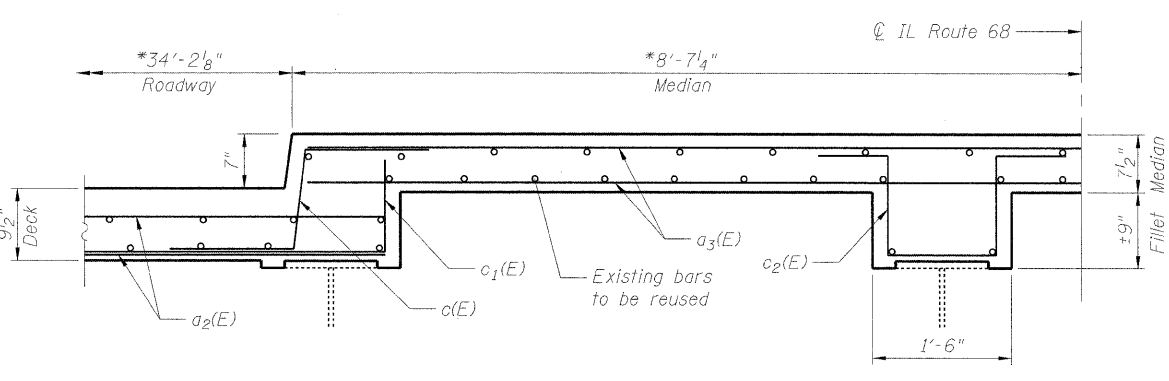
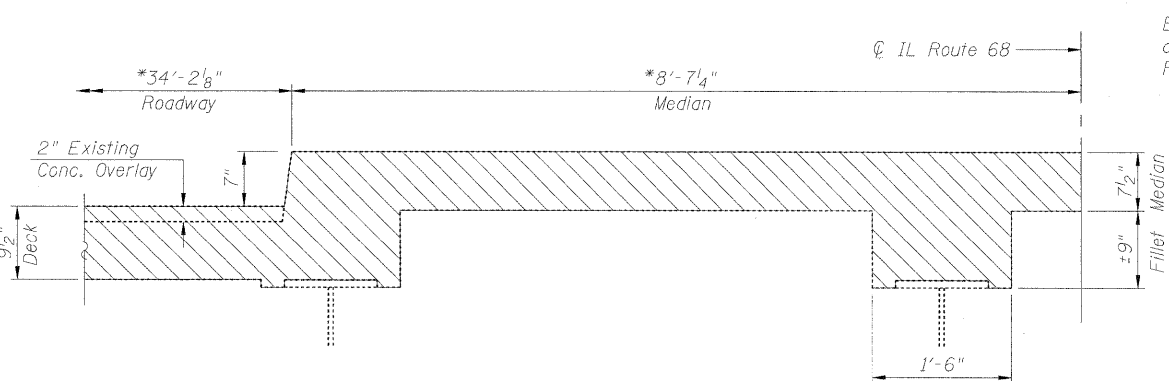
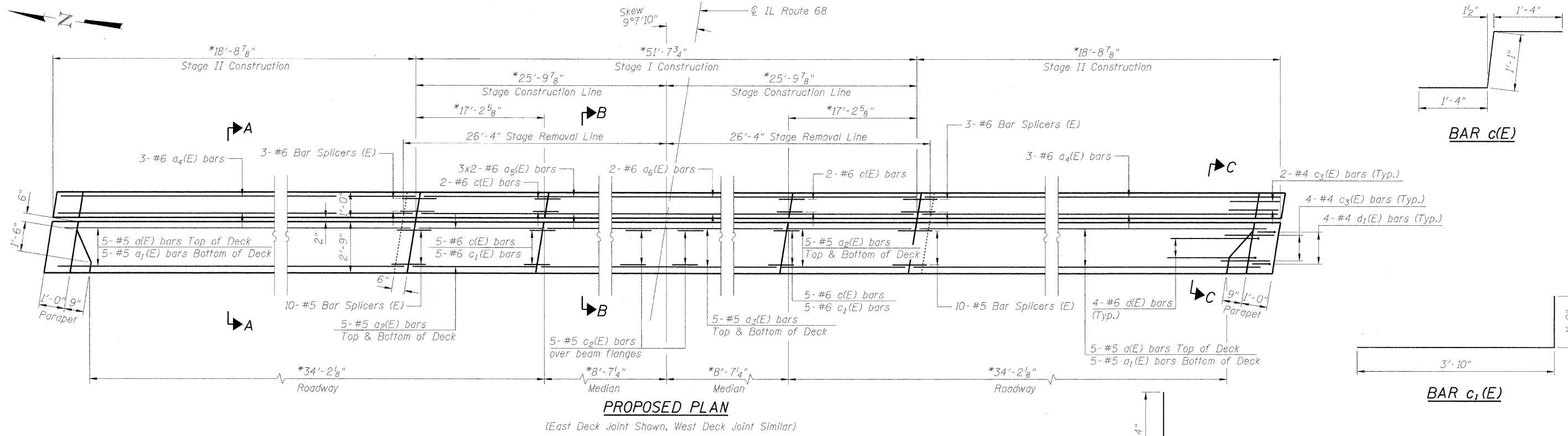


STAGE II CROSS SECTION

Looking West

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	PLOT SCALE = N/A	CHECKED - GSP	REVISED -			SHEET NO. S2 OF 11 SHEETS		CONTRACT NO. 60L47		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT
	PLOT DATE = 3/21/2011	DRAWN - MJB	REVISED -							
		CHECKED - GSP	REVISED -							

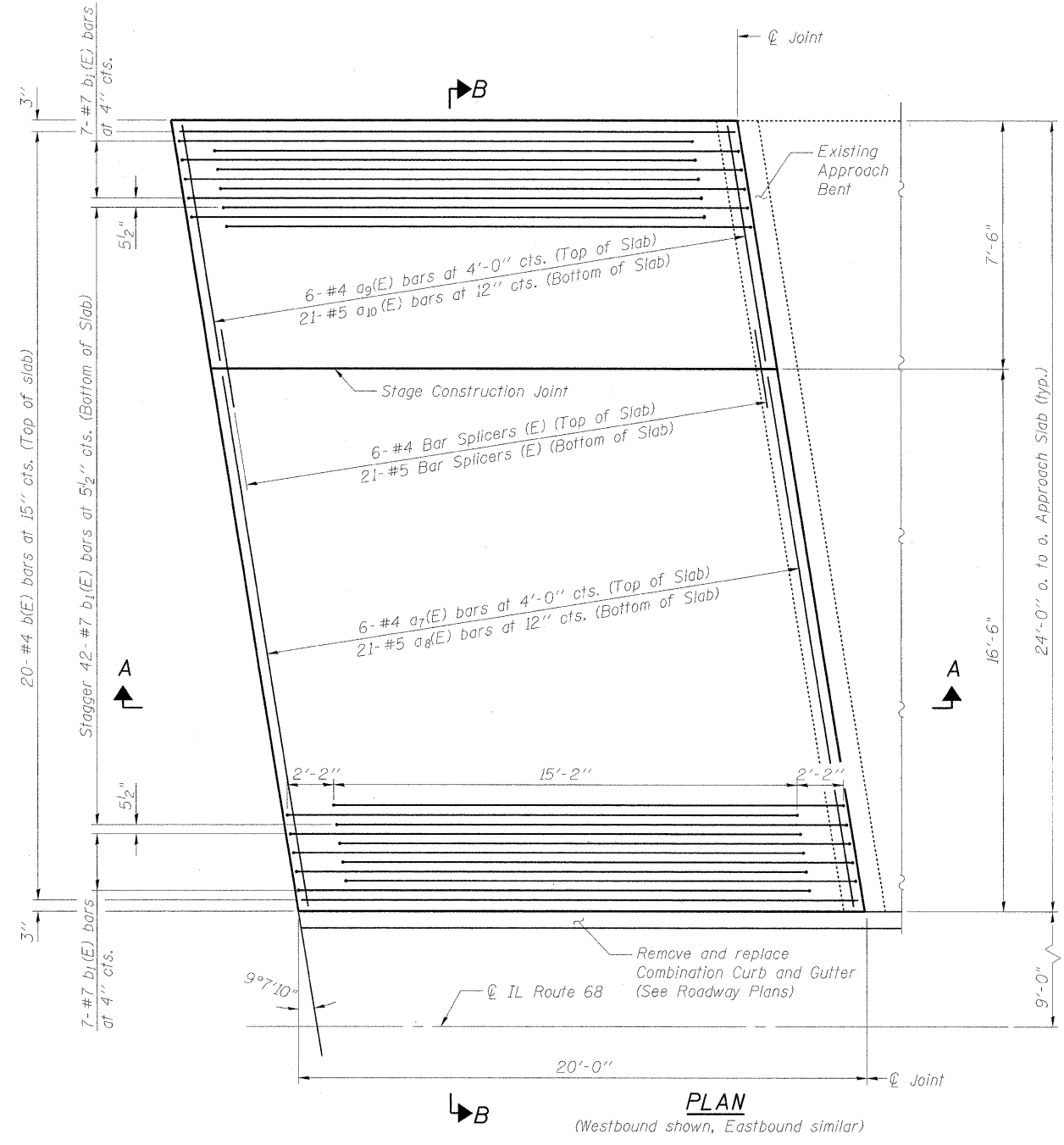


MINIMUM BAR LAPS
#6 Bar - 2'-7"

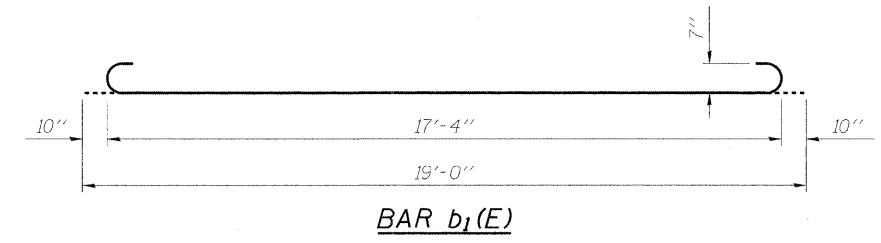
Notes:
See Sheet S-4A for Sections A-A, B-B and C-C.
See Sheet S-4A for guardrail removal and reinstallation at Northeast and Southwest corners. Cost included with Concrete Superstructure.
Cost of removal and reinstallation of aluminum handrail included with Concrete Superstructure.
* Dimensions measured along \varnothing Joint

Bar	No.	Size	Length	Shape
a(E)	20	#5	18'-0"	—
a1(E)	20	#5	17'-1"	—
a2(E)	40	#5	18'-0"	—
a3(E)	20	#5	16'-10"	—
a4(E)	12	#6	18'-4"	—
a5(E)	12	#6	26'-11"	—
a6(E)	4	#6	16'-10"	—
c(E)	28	#6	3'-9"	┌
c1(E)	20	#6	4'-10"	┌
c2(E)	20	#5	4'-8"	┌
c3(E)	24	#4	5'-9"	┌
d(E)	16	#6	5'-9"	└
d1(E)	16	#4	2'-6"	└
Concrete Removal			Cu. Yd.	36.2
Concrete Superstructure			Cu. Yd.	36.2
Bridge Deck Grooving			Sq. Yd.	37
Reinforcement Bars, Epoxy Coated			Pound	3,410

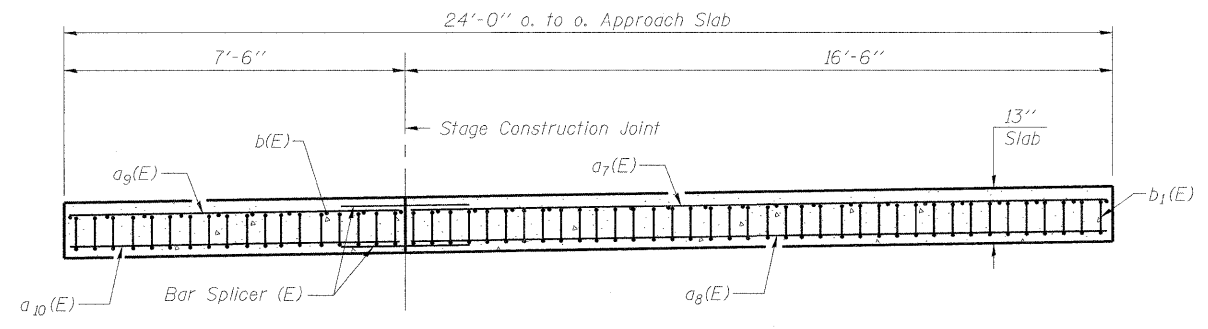
FILE NAME = s:\projects\2102155_006a\road\structure\0169\61_60\47_884_E.revision Joint 1.dgn



PLAN
(Westbound shown, Eastbound similar)



BAR b₁(E)



SECTION B-B

Notes:
 The approach footing maximum applied service bearing pressure (Q_{max}) = 2.0 ksf.
 For bar splicer details, see Sheet S10.
 The Contractor shall exercise care during removal of the existing approach slab to ensure that the approach bent and pavement connector integrity will not be detrimentally impacted. The Contractor shall repair any damage to the approach bent and pavement connector caused by his operation as directed by the Engineer at no additional cost to the Department.
 Cast of Subbase Granular Material, Concrete, and Reinforcement Bars included with Bridge Approach Pavement.

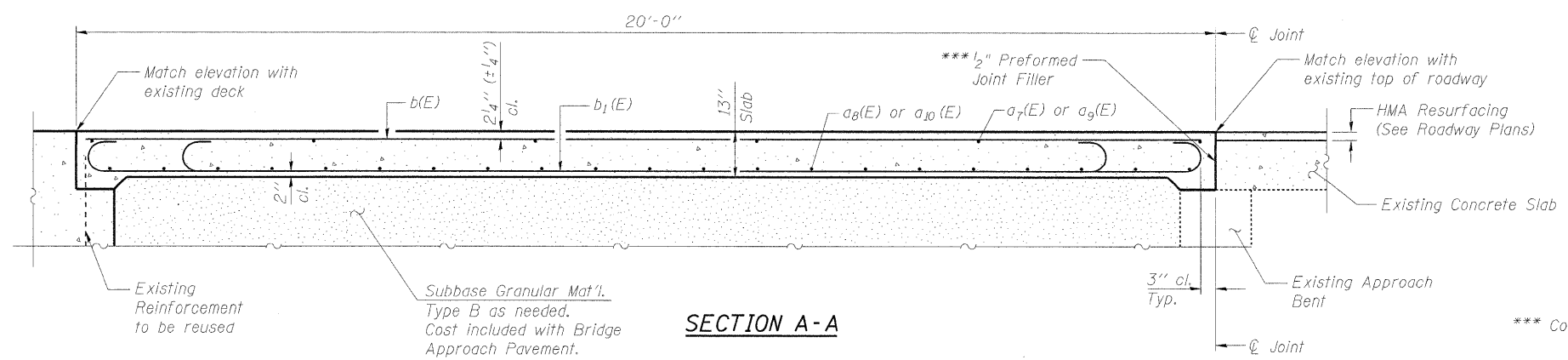
BILL OF MATERIAL

Description	Unit	Quantity
Bridge Approach Pavement	Sq. Yd.	107
Protective Coat	Sq. Yd.	107
Approach Slab Removal	Sq. Yd.	107

TWO EAST APPROACHES ESTIMATED QUANTITIES
(for information only)

Bar	No.	Size	Length	Shape	
a ₇ (E)	12	#4	16'-4"	—	
a ₈ (E)	42	#5	16'-4"	—	
a ₉ (E)	12	#4	7'-3"	—	
a ₁₀ (E)	42	#5	7'-3"	—	
b(E)	40	#4	19'-8"	—	
b ₁ (E)	112	#7	19'-0"	—	
Reinforcement Bars, Epoxy Coated				Pound	6,100

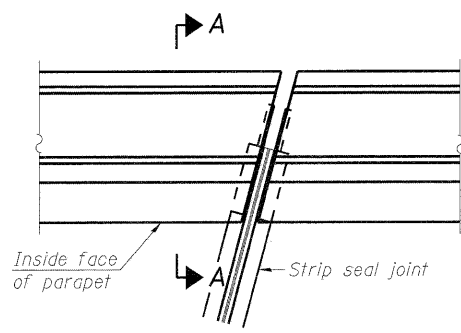
*** Cost included with Bridge Approach Pavement



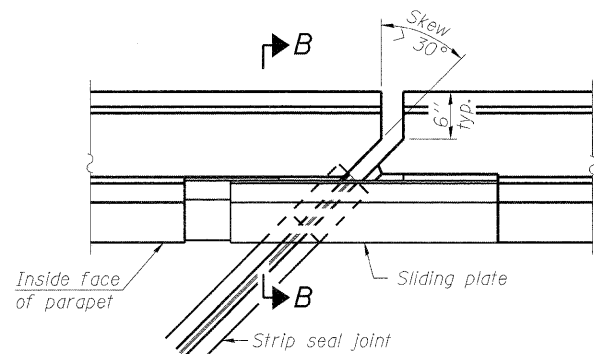
SECTION A-A

FILE NAME = G:\projects\2102155_0068A\CADD\Structure\0160761_60L47_005-Approach Slab.dgn

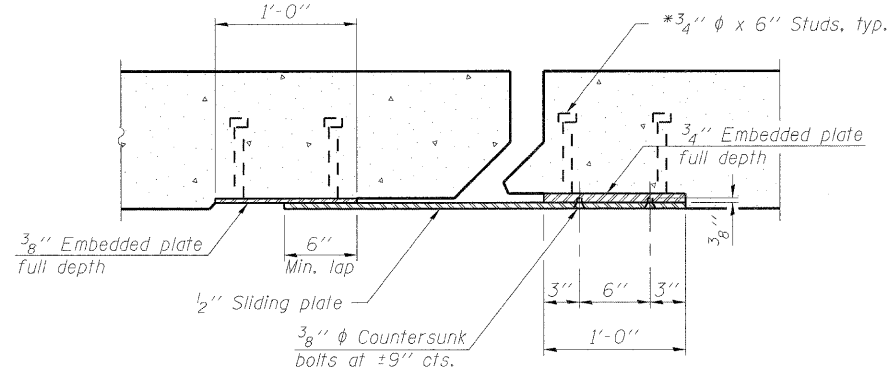
	USER NAME = zsaayrb	DESIGNED - BHS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EAST APPROACH SLAB RECONSTRUCTION S.N. 016-0961	F.A.P. RTE. 343	SECTION 531-4HBK-BR-1	COUNTY COOK	TOTAL SHEETS 25	SHEET NO. 15
	PLOT SCALE = N/A	CHECKED - GSP	REVISED -			CONTRACT NO. 60L47				
	PLOT DATE = 3/18/2011	DRAWN - MJB	REVISED -			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
	CHECKED - GSP	REVISED -		SHEET NO. S5 OF 11 SHEETS						



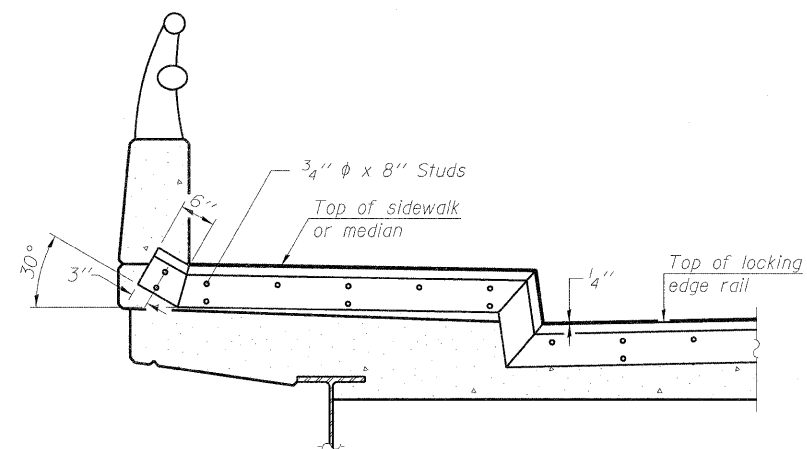
PLAN
(For skews $\leq 30^\circ$)



PLAN
(For skews $> 30^\circ$)
Showing point block



SECTION C-C



TYPICAL END TREATMENT AT SIDEWALK OR MEDIAN

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

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

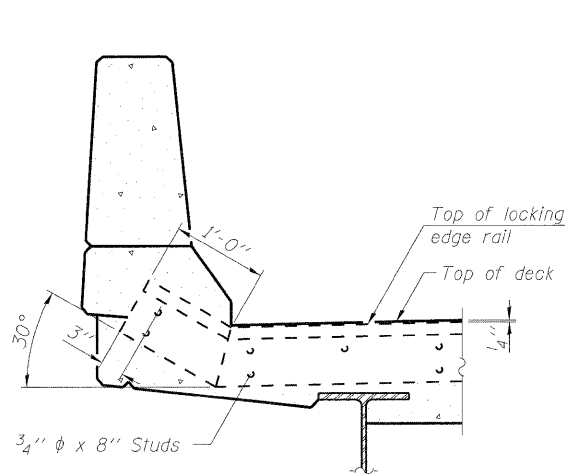
The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.

The manufacturer's recommended installation methods shall be followed.

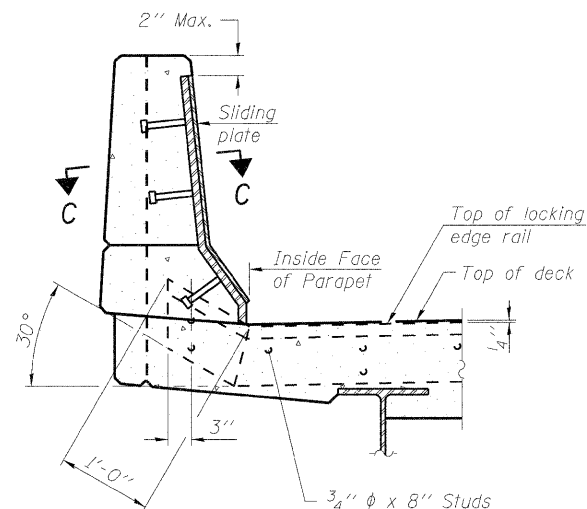
The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications. Maximum space between rail segments at stage lines shall be 3/8", sealed with a suitable sealant.

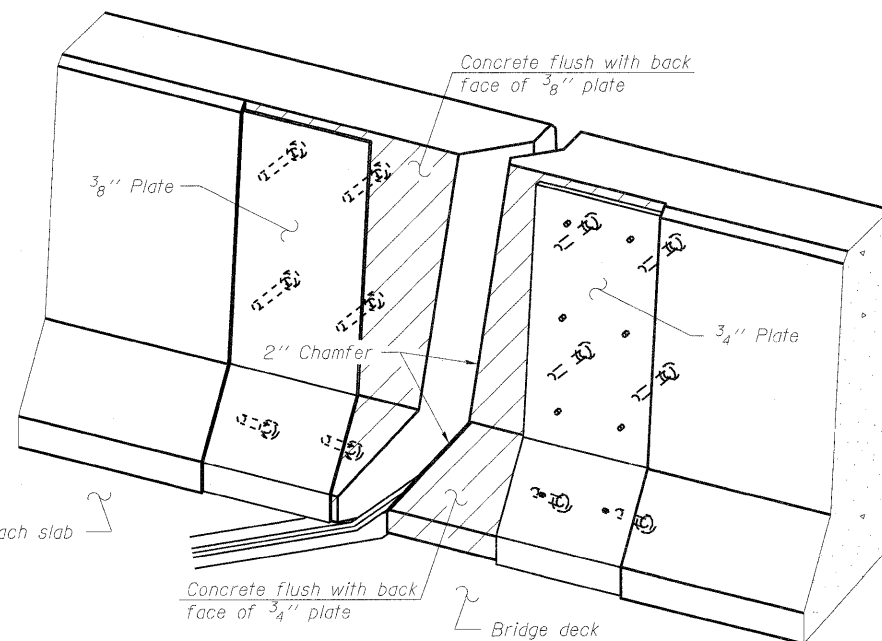
Parapet plates and anchorage studs for skews $> 30^\circ$ included in the cost of Preformed Joint Strip Seal.



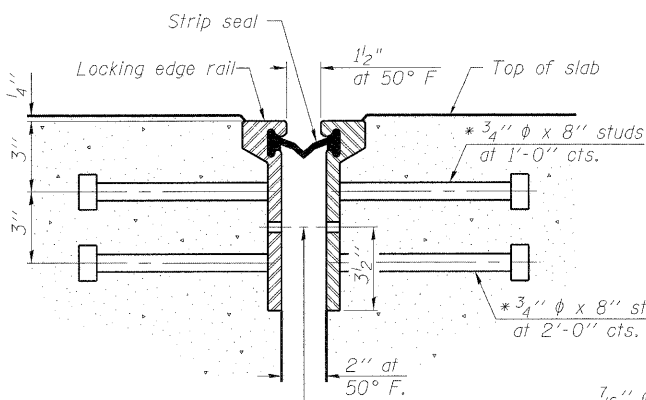
SECTION A-A



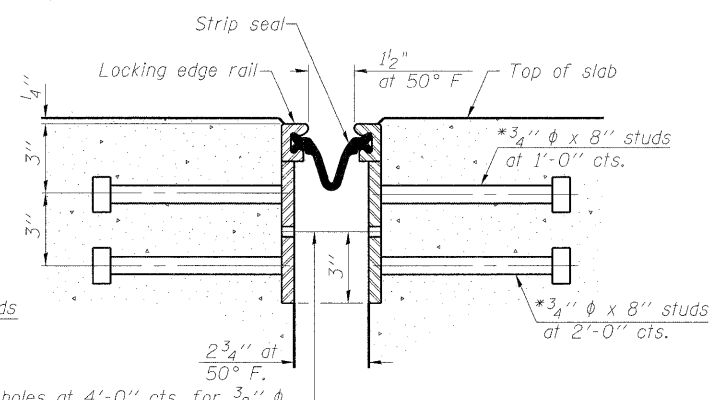
SECTION B-B



TRIMETRIC VIEW
(Showing back plates only)

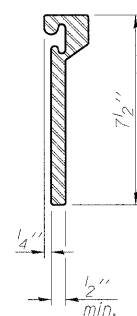


SECTION THRU ROLLED RAIL JOINT

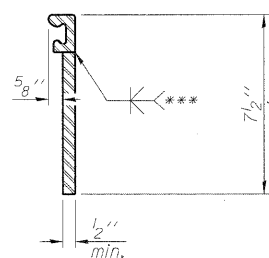


SECTION THRU WELDED RAIL JOINT

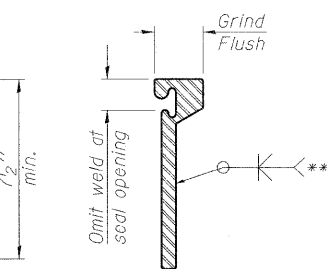
* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



ROLLED EXTRUDED RAIL



WELDED RAIL



LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue.

Rolled rail shown, welded rail similar.

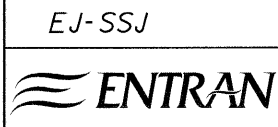
*** Back gouge not required if complete joint penetration is verified by mock-up.

LOCKING EDGE RAILS

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	176

FILE NAME: G:\proj\sect\2102195_005A\CADD\Structure\0180961_60L47_006.Strip Seal.dgn



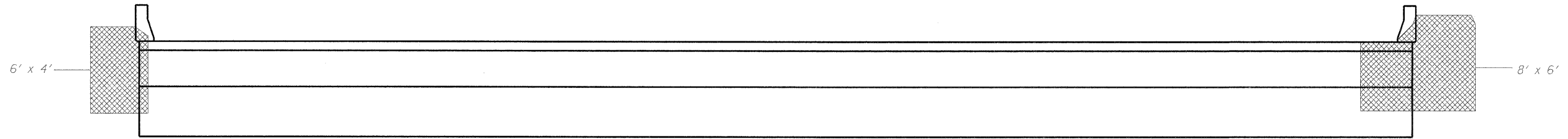
USER NAME = Zsagerb
PLOT SCALE = N/A
PLOT DATE = 2/28/2011

DESIGNED - BHS	REVISED -
CHECKED - CSP	REVISED -
DRAWN - MJB	REVISED -
CHECKED - CSP	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**


**PREFORMED JOINT STRIP SEAL
S.N. 016-0961**
SHEET NO. S6 OF 11 SHEETS

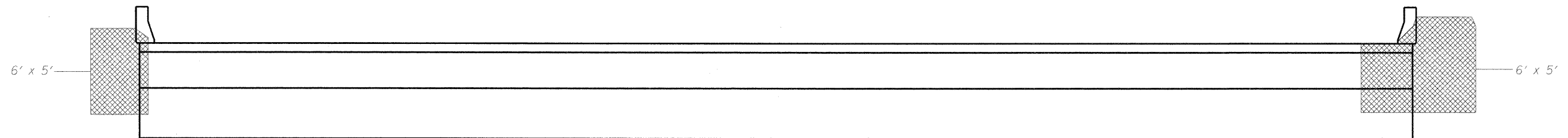
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	531-4HBK-BR-1	COOK	25	16
CONTRACT NO. 60L47				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



EAST ABUTMENT
(Looking East)

BILL OF MATERIAL

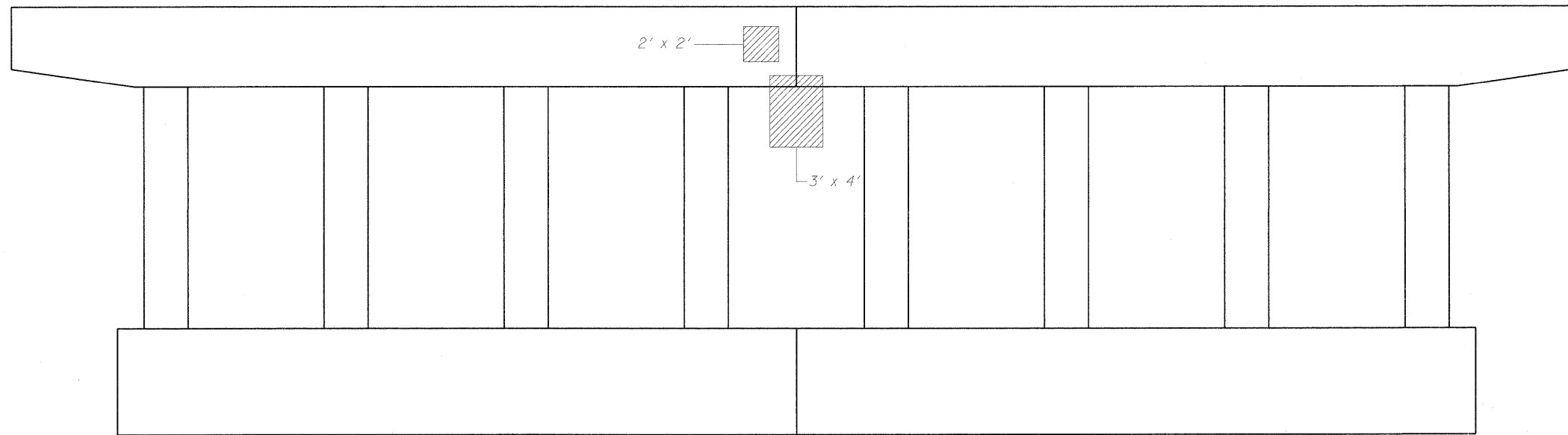
Symbol	Item Description	Unit	Quantity
	Structural Repair of Concrete (Depth Greater than 5 inches)	Sq. Ft.	132



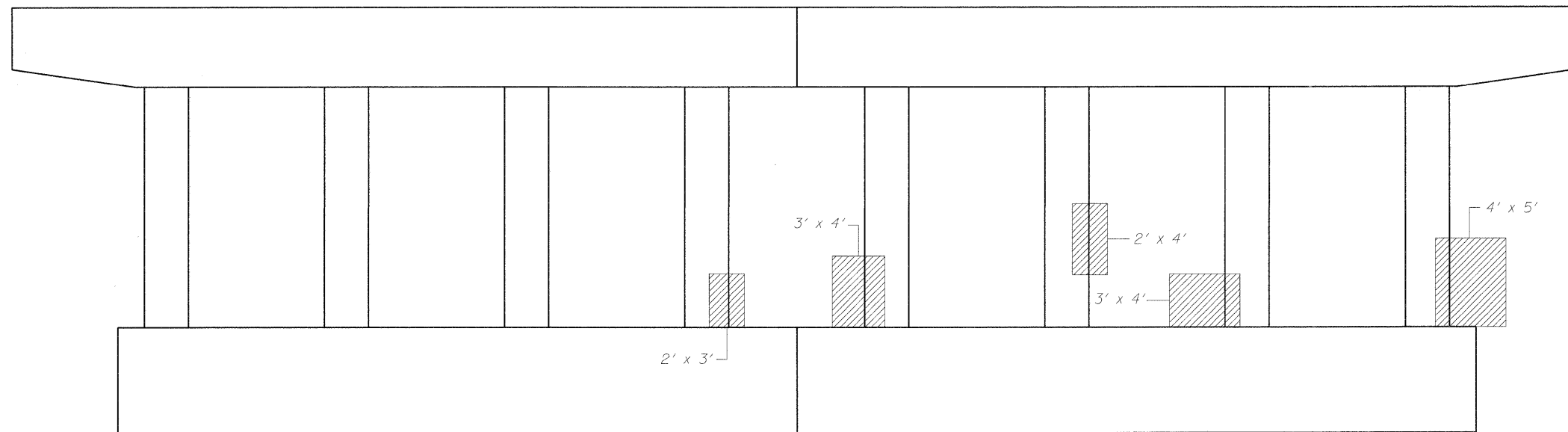
WEST ABUTMENT
(Looking West)

G:\projects\2102155_005A\CADD\Structure\0160961_60L_47_007_abutments_Repair.dgn

	USER NAME = 2sayerb	DESIGNED - BHS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BRIDGE ABUTMENT REPAIR PLAN S.N. 016-0961	F.A.P. RTE. 343	SECTION 531-4HBK-BR-1	COUNTY COOK	TOTAL SHEETS 25	SHEET NO. 17
	PLOT SCALE = N/A	DRAWN - MJB	REVISED -			CONTRACT NO. 60L47				
	PLOT DATE = 3/18/2011	CHECKED - GSP	REVISED -			SHEET NO. 57 OF 11 SHEETS				
						FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



MIDDLE PIER WEST FACE
(Looking East)



WEST PIER EAST FACE
(Looking West)

BILL OF MATERIAL

Symbol	Item Description	Unit	Quantity
	Structural Repair of Concrete (Depth equal to or less than 5 inches)	Sq. Ft.	74

FILE NAME = G:\p\p\rest\2\02156_006A\CAD\Structure\0160961_62L47_0081_Pier_Repair.dgn



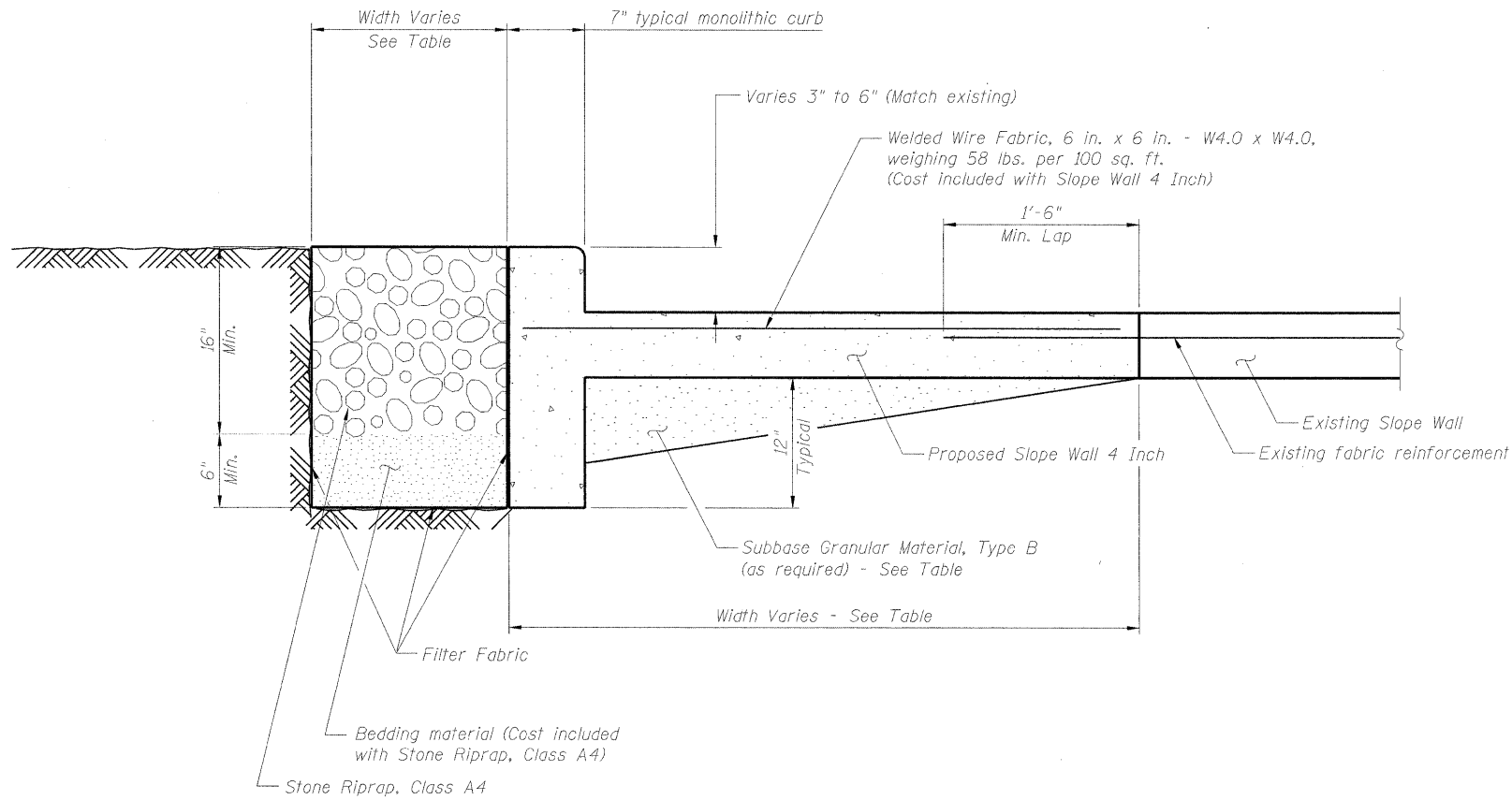
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PLDT SCALE = N/A	CHECKED - GSP	REVISED -
PLDT DATE = 2/28/2011	DRAWN - MJB	REVISED -
	CHECKED - GSP	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BRIDGE PIER REPAIR PLAN
S.N. 016-0961**

SHEET NO. 58 OF 11 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	531-4HBK-BR-1	COOK	25	18
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60L47	



DETAIL OF SLOPE WALL REPAIR

SLOPE WALL REMOVAL AND SLOPE WALL 4 INCH

Location	Length	Ave. Width	Area (Sq. Yd.)
Southeast Quadrant	41'	7.5'	34
Southwest Quadrant	41.5'	11.25'	52
Northwest Quadrant	41.5'	6.75'	31
Northeast Quadrant	41'	5.25'	24

STONE RIPRAP, CLASS A4 AND FILTER FABRIC

Location	Length	Ave. Width	Area (Sq. Yd.)
Southeast Quadrant	20'	6'	13
Southwest Quadrant	50'	4'	22
Northwest Quadrant	15'	4'	7
Northeast Quadrant	25'	6'	17

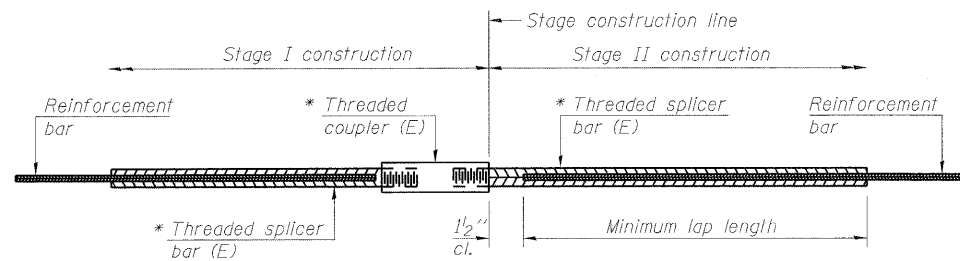
SUBBASE GRANULAR MATERIAL, TYPE B

Location	Estimated Weight (tons)
Southeast Quadrant	6
Southwest Quadrant	10
Northwest Quadrant	6
Northeast Quadrant	4

BILL OF MATERIAL

Item Description	Unit	Quantity
Stone Riprap, Class A4	Sq. Yd.	59
Filter Fabric	Sq. Yd.	59
Subbase Granular Material, Type B	Tons	26
Slope Wall Removal	Sq. Yd.	141
Slope Wall 4 Inch	Sq. Yd.	141

FILE NAME : G:\projects\21022155_005A\CADD\Structure\0150951_60L47_003\SlopedWall.dgn



STANDARD BAR SPLICER ASSEMBLY

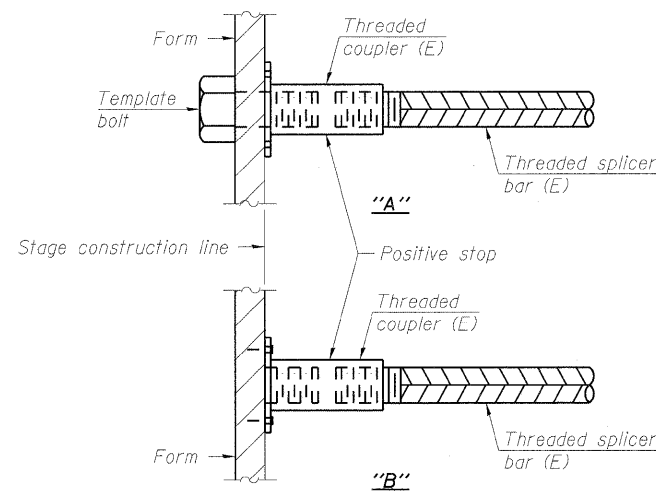
Bar size to be spliced	Minimum Lap Lengths				
	Table 1	Table 2	Table 3	Table 4	Table 5
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-3"
5	1'-9"	2'-5"	2'-7"	2'-11"	2'-10"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-4"
7	2'-9"	3'-10"	4'-2"	4'-8"	4'-6"
8	3'-8"	5'-1"	5'-5"	6'-2"	5'-10"
9	4'-7"	6'-5"	6'-10"	7'-9"	7'-5"

- Table 1: Black bar, 0.8 Class C
- Table 2: Black bar, Top bar lap, 0.8 Class C
- Table 3: Epoxy bar, 0.8 Class C
- Table 4: Epoxy bar, Top bar lap, 0.8 Class C
- Table 5: Epoxy bar, Top bar lap, Class B

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

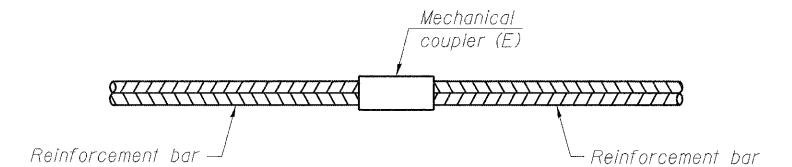
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
E. Deck Joint	5	20	Table 3
E. Deck Joint	6	6	Table 4
W. Deck Joint	5	20	Table 3
W. Deck Joint	6	6	Table 4
E. Appr. Slabs	4	12	Table 3
E. Appr. Slabs	5	42	Table 3



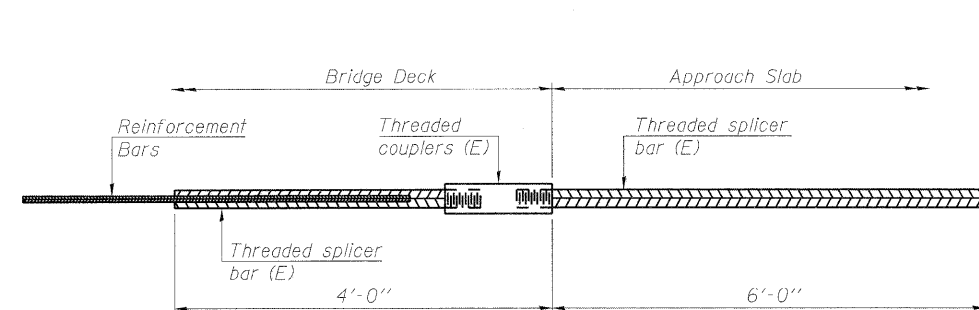
INSTALLATION AND SETTING METHODS

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



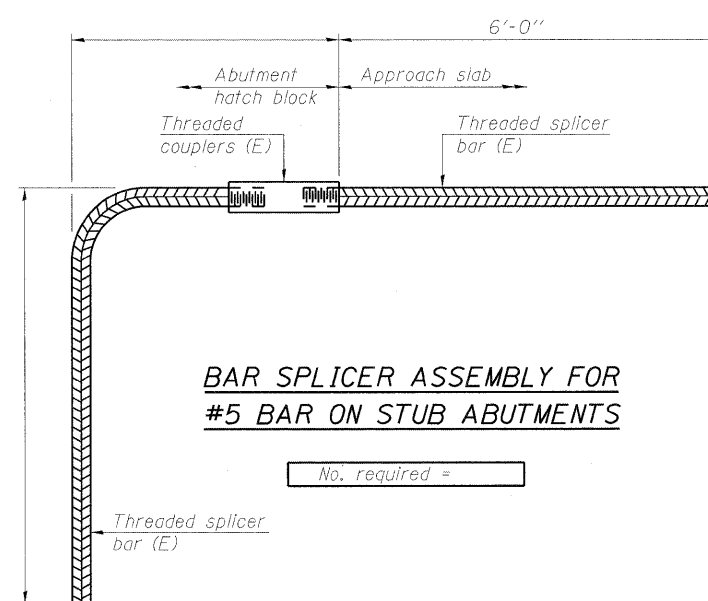
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



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

No. required =



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

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

FILE NAME = G:\p\proj\A\2102115_0065A\CADD\Structure\0160961_60L47_010_Bar_Splicer.dwg

BSD-1

7-1-10



USER NAME = 2sagerb
 PLOT SCALE = N/A
 PLOT DATE = 2/28/2011

DESIGNED - BHS
 CHECKED - GSP
 DRAWN - MJB
 CHECKED - GSP

REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

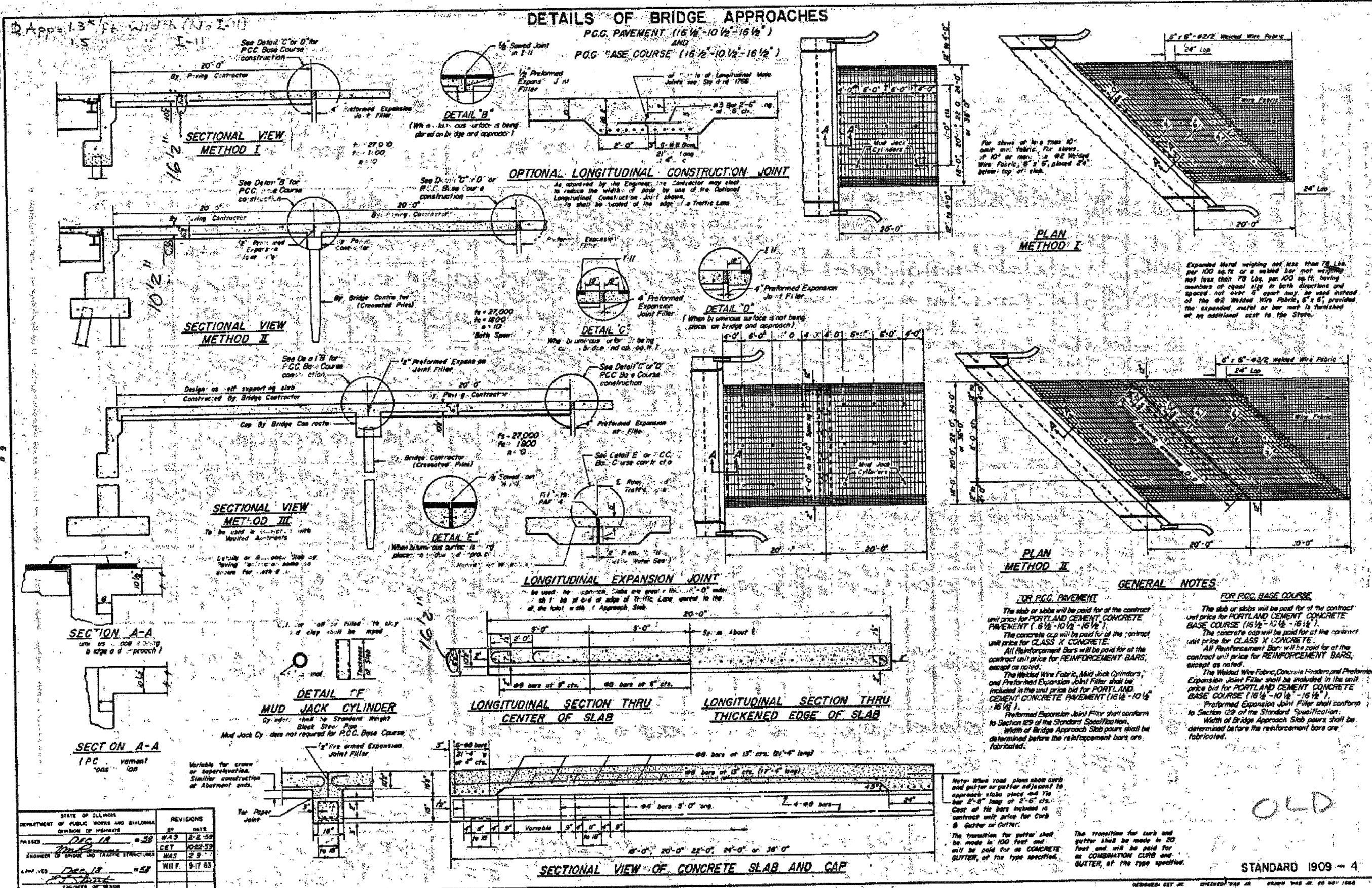
BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
 S.N. 016-0961

SHEET NO. 10 OF 11 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	531-4HBK-BR-1	COOK	25	20
FED. ROAD DIST. NO. 1			ILLINOIS FED. AID PROJECT	

CONTRACT NO. 60L47

Dec 2, 1963



STATE OF ILLINOIS DEPARTMENT OF PUBLIC WORKS AND BUILDINGS DIVISION OF HIGHWAYS		REVISIONS	
DATE	BY	NO.	DATE
DEC 18 1963	WAS	1	2-2-59
	CET	2	10-22-59
	WAS	3	2-9-63
	WHF	4	9-17-63



USER NAME = 2sajerb
 PLOT SCALE = N/A
 PLOT DATE = 3/18/2011

DESIGNED - BHS
 CHECKED - GSP
 DRAWN - MJB
 CHECKED - GSP

REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

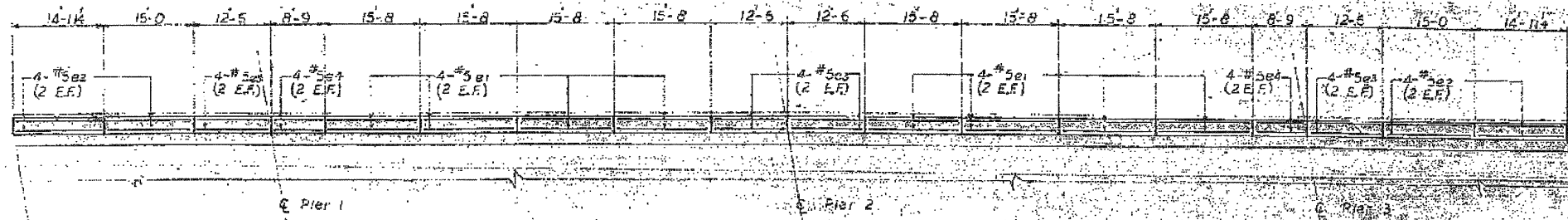
EXISTING APPROACH SLAB DETAILS
 S.N. 016-0961

SHEET NO. 211 OF 211 SHEETS

FOR INFORMATION ONLY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	531-4BK-BR-1	COOK	25	21
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60L47	

C-614

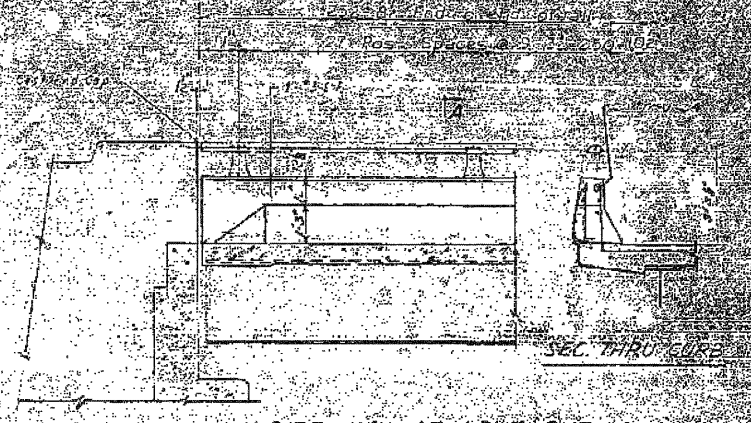
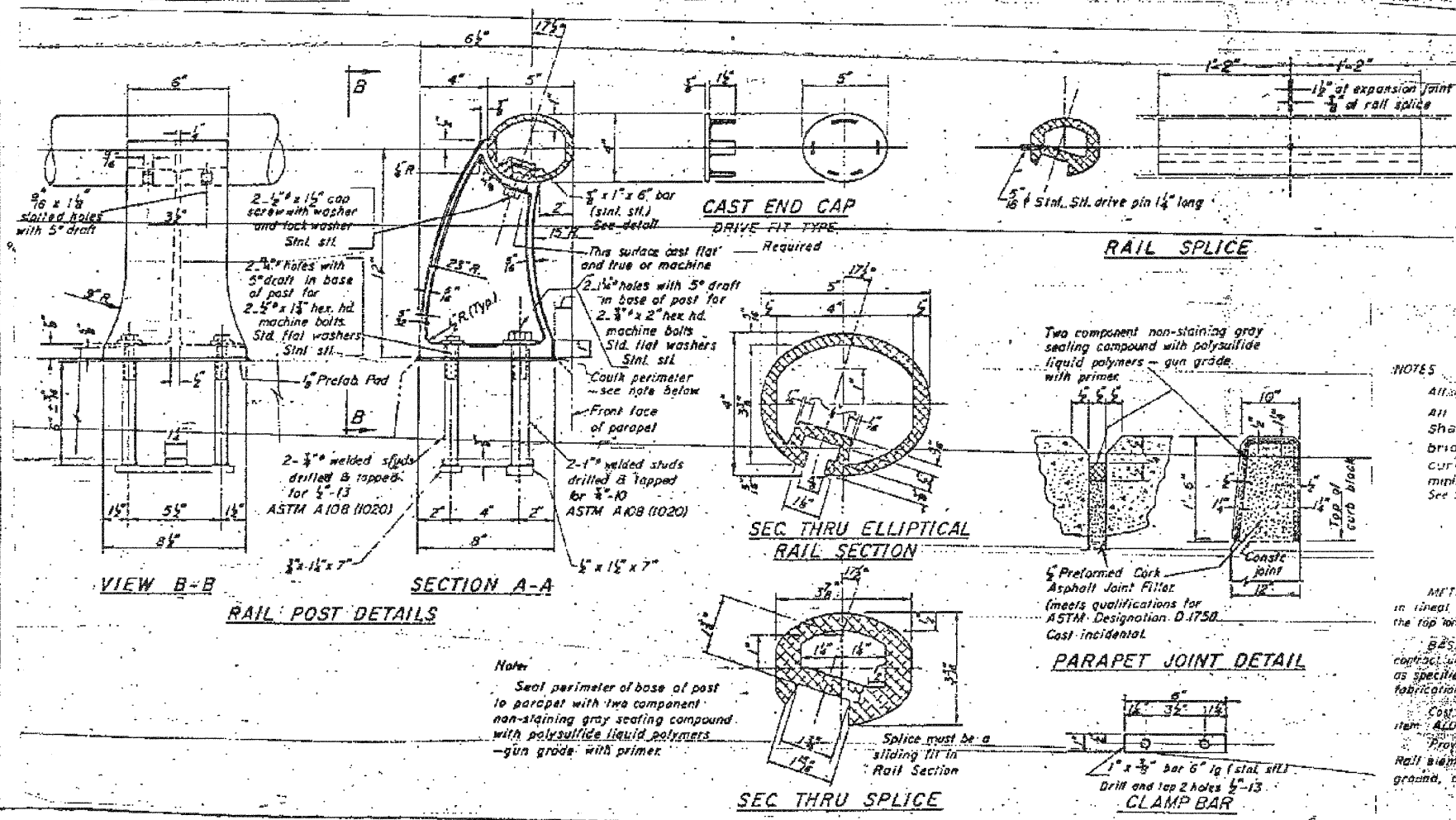


PLAN
 North Parapet as shown,
 South Parapet same by 180° rotation.

PARAPETS & RAILS

Bar	No.	Size	Length	Grade
#1	2	#5	12'-0"	A-307
#2	2	#5	12'-0"	A-307
#3	2	#5	12'-0"	A-307
#4	2	#5	12'-0"	A-307
#5	2	#5	12'-0"	A-307
#6	2	#5	12'-0"	A-307
#7	2	#5	12'-0"	A-307
#8	2	#5	12'-0"	A-307
#9	2	#5	12'-0"	A-307
#10	2	#5	12'-0"	A-307
#11	2	#5	12'-0"	A-307
#12	2	#5	12'-0"	A-307
#13	2	#5	12'-0"	A-307
#14	2	#5	12'-0"	A-307
#15	2	#5	12'-0"	A-307
#16	2	#5	12'-0"	A-307
#17	2	#5	12'-0"	A-307
#18	2	#5	12'-0"	A-307
#19	2	#5	12'-0"	A-307
#20	2	#5	12'-0"	A-307
#21	2	#5	12'-0"	A-307
#22	2	#5	12'-0"	A-307
#23	2	#5	12'-0"	A-307
#24	2	#5	12'-0"	A-307
#25	2	#5	12'-0"	A-307
#26	2	#5	12'-0"	A-307
#27	2	#5	12'-0"	A-307
#28	2	#5	12'-0"	A-307
#29	2	#5	12'-0"	A-307
#30	2	#5	12'-0"	A-307
#31	2	#5	12'-0"	A-307
#32	2	#5	12'-0"	A-307
#33	2	#5	12'-0"	A-307
#34	2	#5	12'-0"	A-307
#35	2	#5	12'-0"	A-307
#36	2	#5	12'-0"	A-307
#37	2	#5	12'-0"	A-307
#38	2	#5	12'-0"	A-307
#39	2	#5	12'-0"	A-307
#40	2	#5	12'-0"	A-307
#41	2	#5	12'-0"	A-307
#42	2	#5	12'-0"	A-307
#43	2	#5	12'-0"	A-307
#44	2	#5	12'-0"	A-307
#45	2	#5	12'-0"	A-307
#46	2	#5	12'-0"	A-307
#47	2	#5	12'-0"	A-307
#48	2	#5	12'-0"	A-307
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#54	2	#5	12'-0"	A-307
#55	2	#5	12'-0"	A-307
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#59	2	#5	12'-0"	A-307
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#61	2	#5	12'-0"	A-307
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#63	2	#5	12'-0"	A-307
#64	2	#5	12'-0"	A-307
#65	2	#5	12'-0"	A-307
#66	2	#5	12'-0"	A-307
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#68	2	#5	12'-0"	A-307
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#72	2	#5	12'-0"	A-307
#73	2	#5	12'-0"	A-307
#74	2	#5	12'-0"	A-307
#75	2	#5	12'-0"	A-307
#76	2	#5	12'-0"	A-307
#77	2	#5	12'-0"	A-307
#78	2	#5	12'-0"	A-307
#79	2	#5	12'-0"	A-307
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#81	2	#5	12'-0"	A-307
#82	2	#5	12'-0"	A-307
#83	2	#5	12'-0"	A-307
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#86	2	#5	12'-0"	A-307
#87	2	#5	12'-0"	A-307
#88	2	#5	12'-0"	A-307
#89	2	#5	12'-0"	A-307
#90	2	#5	12'-0"	A-307
#91	2	#5	12'-0"	A-307
#92	2	#5	12'-0"	A-307
#93	2	#5	12'-0"	A-307
#94	2	#5	12'-0"	A-307
#95	2	#5	12'-0"	A-307
#96	2	#5	12'-0"	A-307
#97	2	#5	12'-0"	A-307
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#99	2	#5	12'-0"	A-307
#100	2	#5	12'-0"	A-307

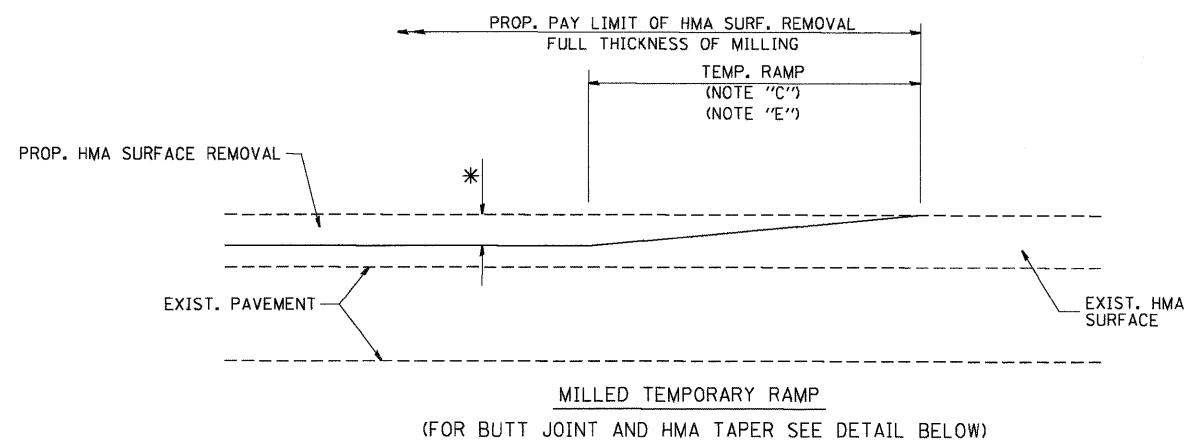
Class: Concrete
 Reinforcement Bars: #5
 Aluminum Handrail: 6061-T6



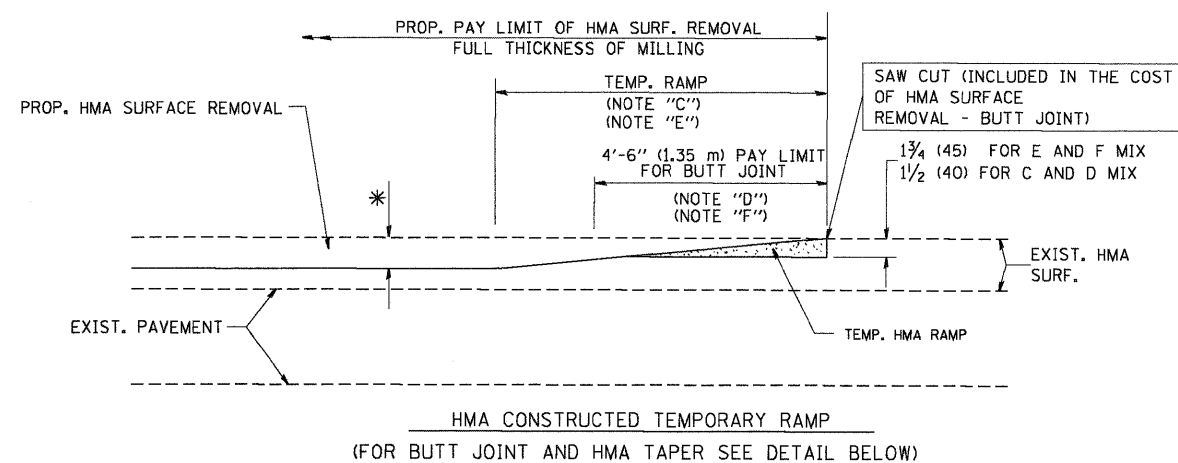
NOTES
 All posts shall be normal to parapet.
 All Aluminum Alloy Extruded Rail shall conform to ASTM Specification B-221 alloy 6061-T6 and shall be supplied in modular lengths of 30 feet except at the end of bridge or over open joints in bridge deck where the rail shall be attached to a minimum of 2 posts. If the rail is on a horizontal curve of 2300 foot radius or less the modular lengths may be reduced, but shall be attached to a minimum of 2 posts. All joints in rail shall be spliced per detail.
 See Special Provisions for following Material Specifications:
 Cast Aluminum Alloy Bridge Post - Alloy A344-T4
 Stainless Steel, Inc. Cap screws, Washers, and Lockwashers.
 Fabric Backing Pad.
 METHOD of MEASUREMENT - Aluminum handrail shall be measured in linear feet. The length paid for shall be the over all length along the top longitudinal railing member thru all posts and gaps.
 BASIS of PAYMENT - Aluminum handrail shall be paid for at the contract unit price per linear foot for ALUMINUM HANDRAIL, including as specified, when paid shall be payment in full for all materials, fabrication, transportation, and erection.
 Cost of rail splice end caps, and hardware to be incidental to item ALUMINUM HANDRAIL.
 Provide 1" x 1/2" and 2" x 1/2" Aluminum Strips for 25% of the Posts. Rail element shall be parallel to Grade - high spots shall be ground, and low spots shimmed.

FOR INFORMATION ONLY

ILLINOIS DIVISION OF HIGHWAYS
 F.A. ROUTE 61
 DUNDEE ROAD
 GRADE SEPARATION
 ALUMINUM HANDRAIL &
 PARAPET REINFORCEMENT
 DATE: AUGUST/1967
 DRAWN BY L.E.B.
 CHECKED BY L.E.B.

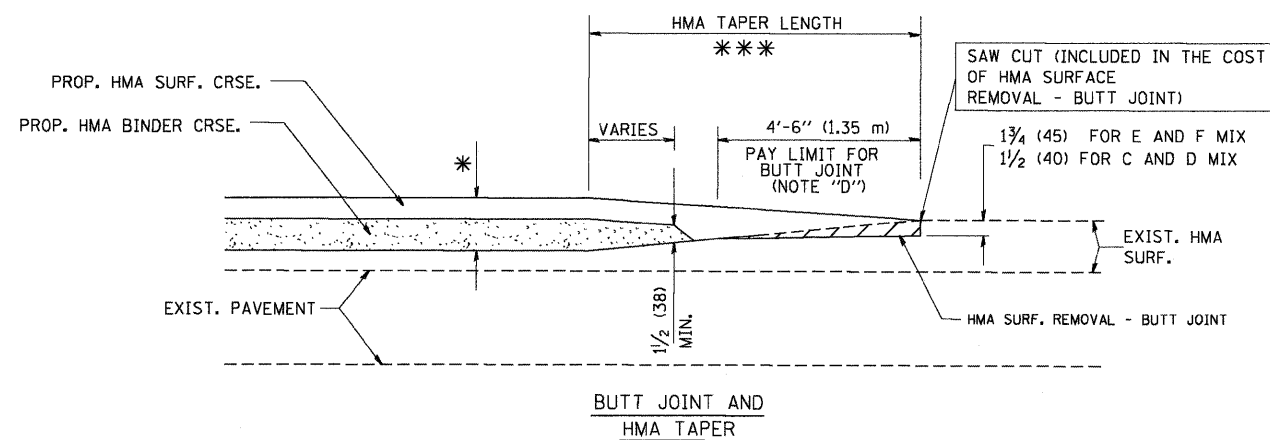


OPTION 1

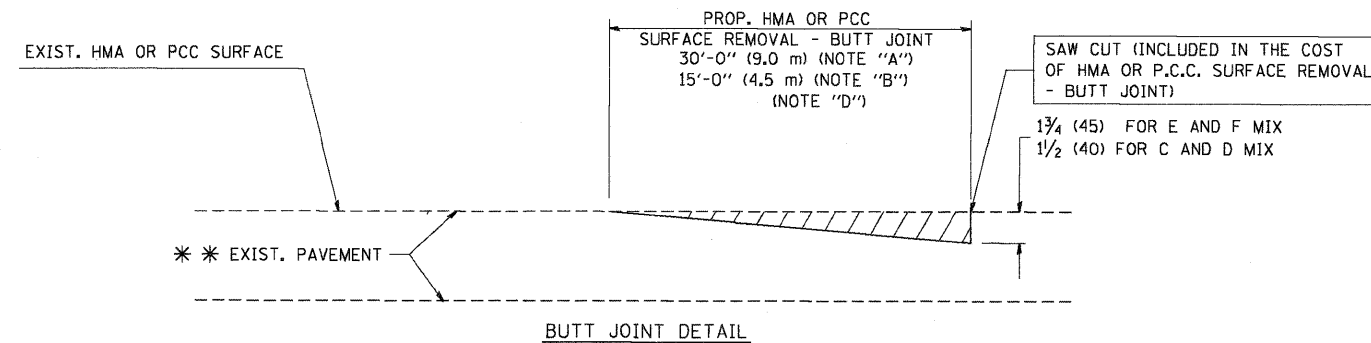


OPTION 2

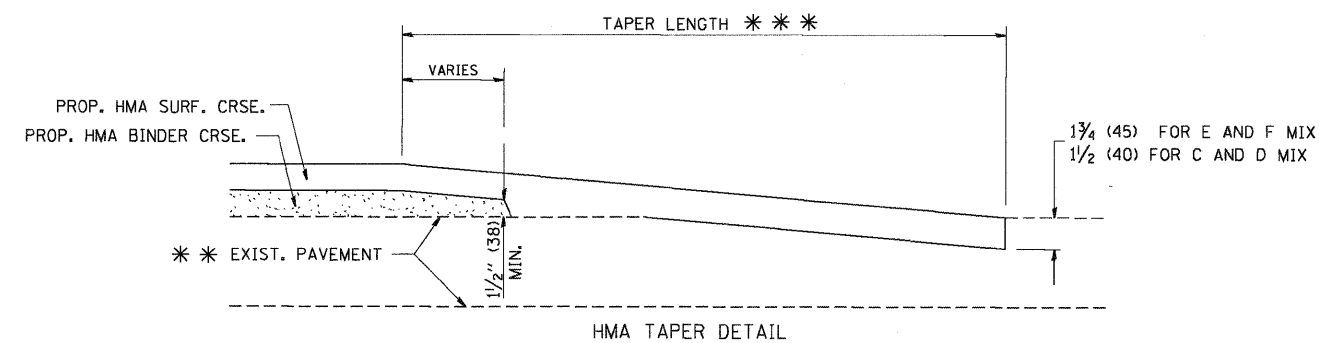
TYPICAL TEMPORARY RAMP



TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



HMA TAPER 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.

FILE NAME = W:\diststd\22x34\bd32.dgn

USER NAME = goglioribt
PLOT SCALE = 50.0000' / IN.
PLOT DATE = 1/4/2008

DESIGNED - M. DE YONG
DRAWN -
CHECKED -
DATE - 06-13-90

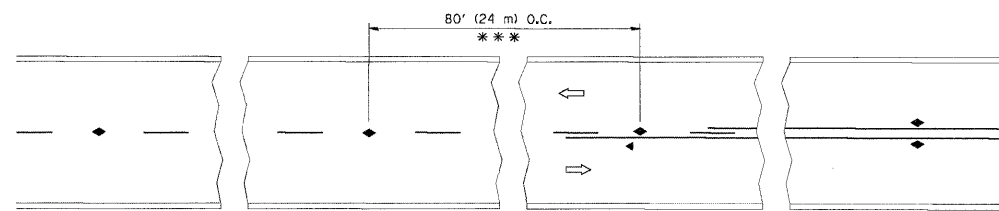
REVISED - R. SHAH 10-25-94
REVISED - A. ABBAS 03-21-97
REVISED - M. GOMEZ 04-06-01
REVISED - R. BORO 01-01-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BUTT JOINT AND
HMA TAPER DETAILS

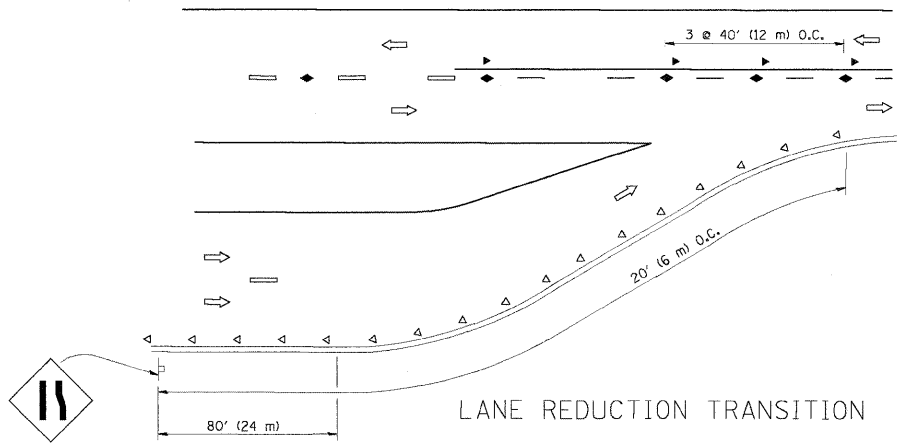
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	531-4HBK-BR-1	COOK	25	22
BD400-05 BD32			CONTRACT NO. 60L47	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

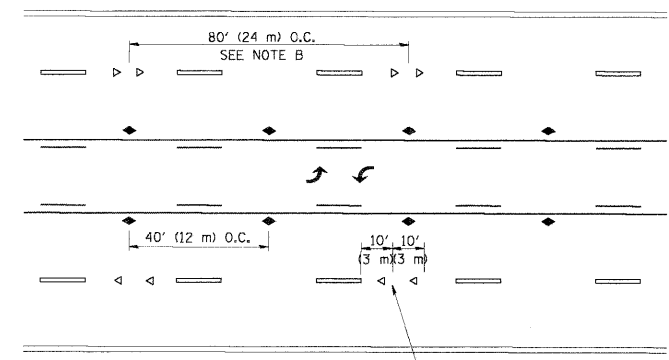


*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

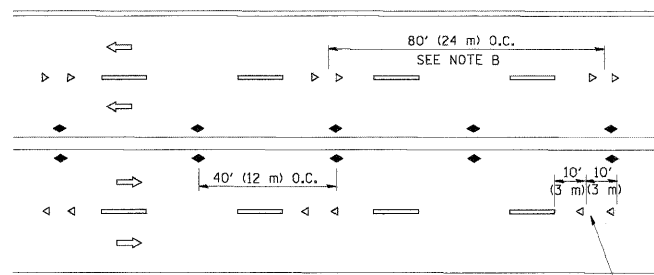
TWO-LANE/TWO-WAY



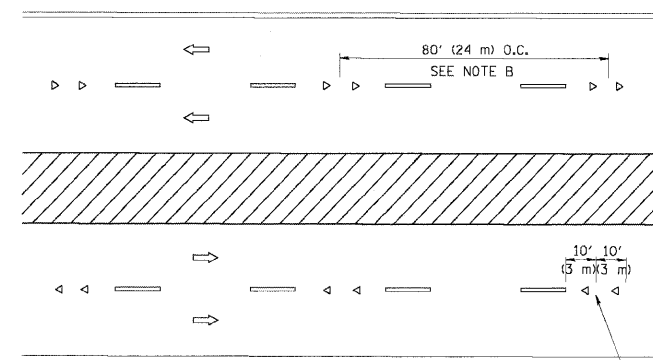
LANE REDUCTION TRANSITION



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

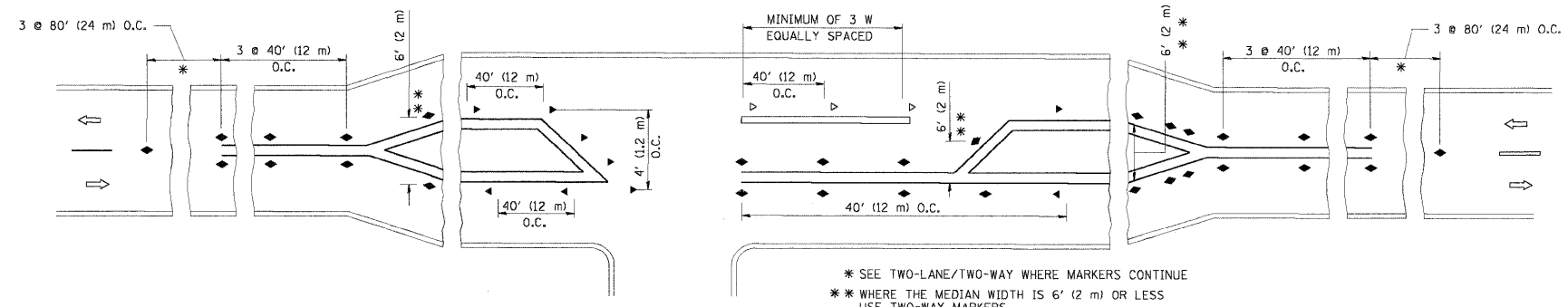
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

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.

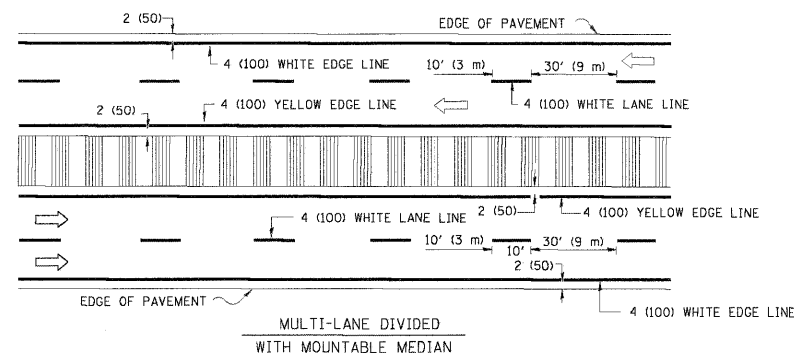
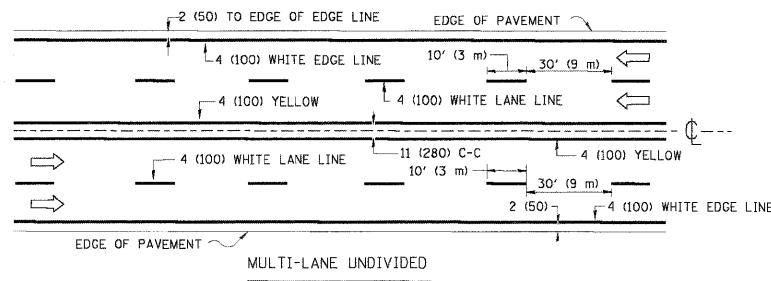
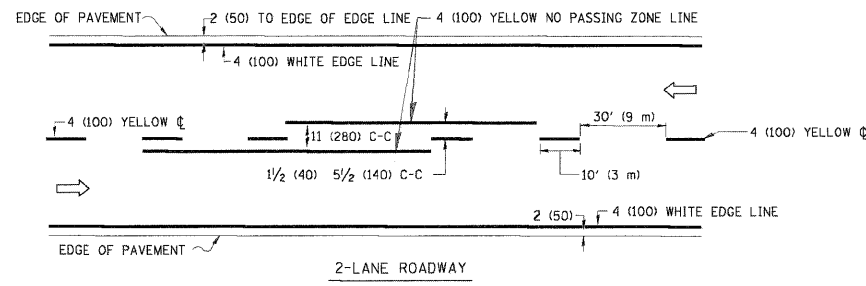


LEFT TURN

* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE
 ** WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

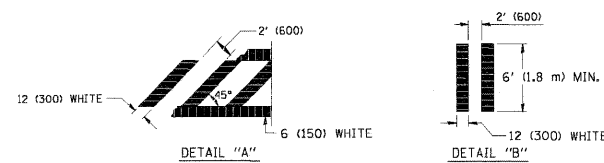
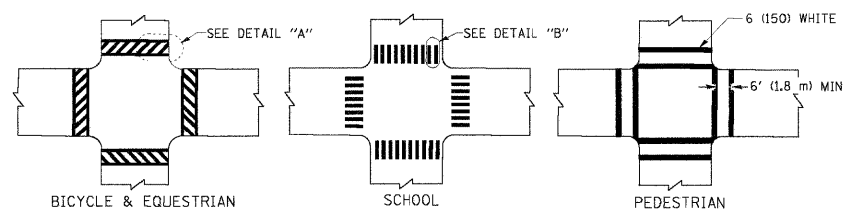
All dimensions are in Inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = drvakosgn	DESIGNED -	REVISED - T. RAMMACHER 09-19-94	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL APPLICATIONS		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwork\pwork\drvakosgn\90108315\td	1.dgn	DRAWN -	REVISED - T. RAMMACHER 03-12-99		343	531-4HBK-BR-1	COOK	25	23		
PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED - T. RAMMACHER 01-06-00	REVISED - C. JUCIUS 09-09-09		RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)		TC-11		CONTRACT NO. 60L47		
PLOT DATE = 9/9/2009	DATE -				SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		

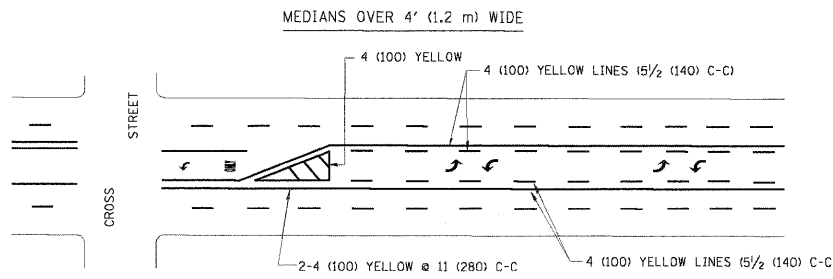
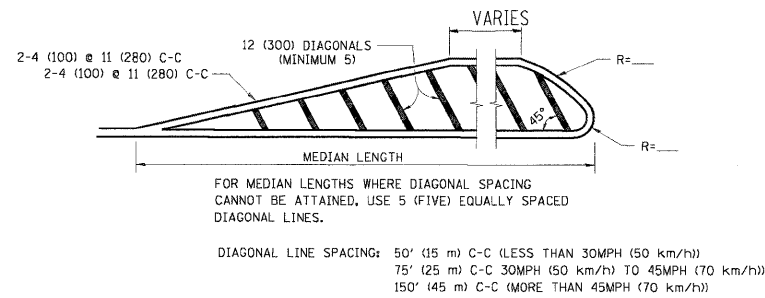
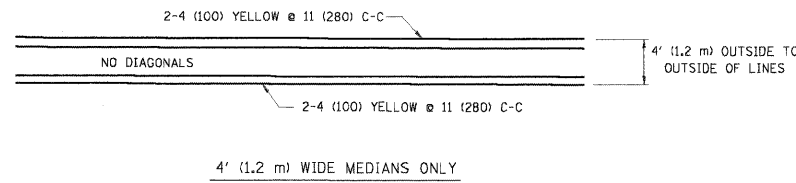


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

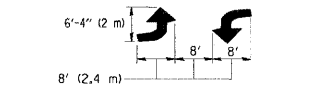
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING

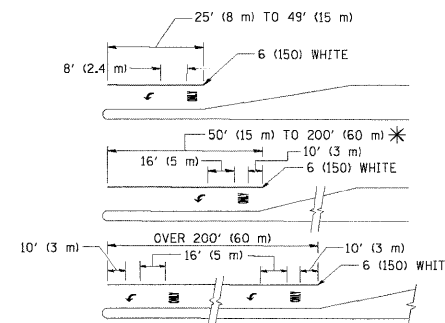


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

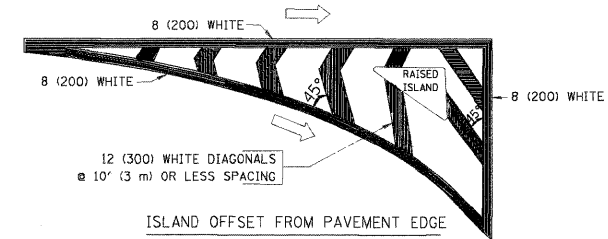


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED. AREA = 15.6 SQ. FT. (1.5 m²) ONLY AREA = 20.8 SQ. FT. (1.9 m²)

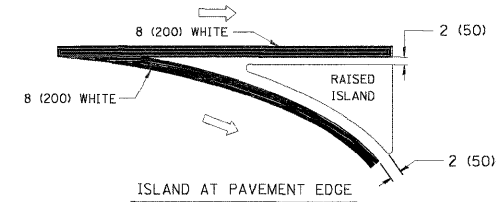
* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

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 (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 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.

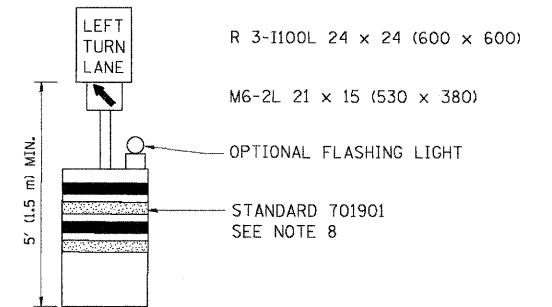
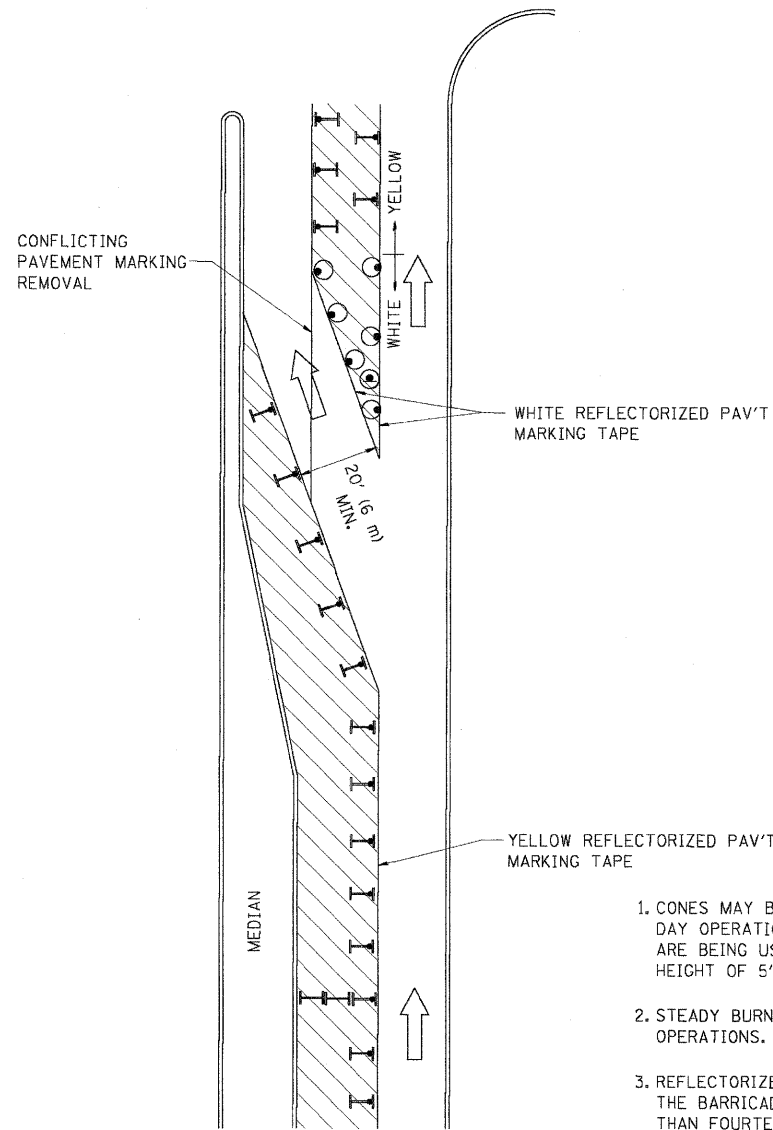
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	PLOT SCALE = 50.000 1/ IN.	CHECKED -	REVISED -
	PLOT DATE = 9/9/2009	DATE - 03-19-90	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT ONE TYPICAL PAVEMENT MARKINGS

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

F.A.P. RTE. 343	SECTION 531-4HBK-BR-1	COUNTY COOK	TOTAL SHEETS 25	SHEET NO. 24
TC-13		CONTRACT NO. 60L47		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



GENERAL NOTES

1. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT. WHEN CONES ARE BEING USED, THE "LEFT TURN LANE" SIGN MAY BE SKID MOUNTED AT A MINIMUM HEIGHT OF 5' (1.5 m).
2. STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
3. REFLECTORIZED TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE BARRICADED AREA OF EACH TURN BAY WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS.
4. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-100 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
5. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
6. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
7. FORM OPER 725 IS REQUIRED.
8. IF A DRUM OR TYPE II BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 REQUIREMENTS IS NOT AVAILABLE, THE SIGNS SHALL BE MOUNTED, ABOVE THE BARRICADES, ON SEPARATE SIGNS SUPPORTS THAT MEET NCHR 350 PREQUIREMENTS.
9. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

LEGEND

- WORK AREA
- LANE OPEN TO TRAFFIC
- TYPE I OR II BARRICADE WITH STEADY BURN LIGHT
- DRUM WITH STEADY BURN LIGHT
- DRUM WITH SIGN (WITH OPTIONAL FLASHING LIGHT) SEE DETAIL
- TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

FILE NAME =	USER NAME = drivekoegn	REVISED - T. RAMMACHER 09-08-94	REVISED - R. BORO 09-14-09
ct:\pw\work\PWIDOT\DRIVAKOSGN\d0108015\td14.dgn		REVISED - A. HOUSEH 11-07-95	REVISED -
		REVISED - A. HOUSEH 10-12-96	REVISED -
PLOT SCALE = 49.9999 1/ IN.		REVISED - T. RAMMACHER 01-06-00	REVISED -
PLOT DATE = 9/14/2009			

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

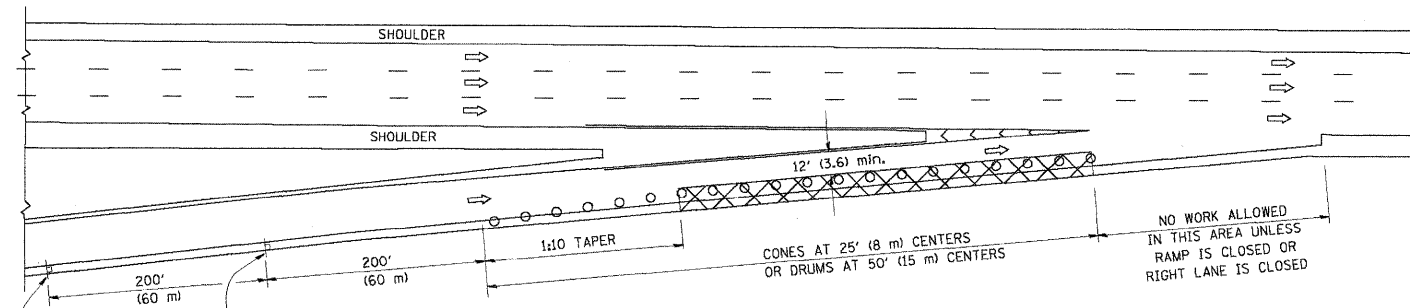
**TRAFFIC CONTROL AND PROTECTION AT TURN BAYS
(TO REMAIN OPEN TO TRAFFIC)**

F.A.P. RTE. 343	SECTION 531-4BK-BR-1	COUNTY COOK	TOTAL SHEETS 25	SHEET NO. 24A
TC-14			CONTRACT NO. 60L47	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

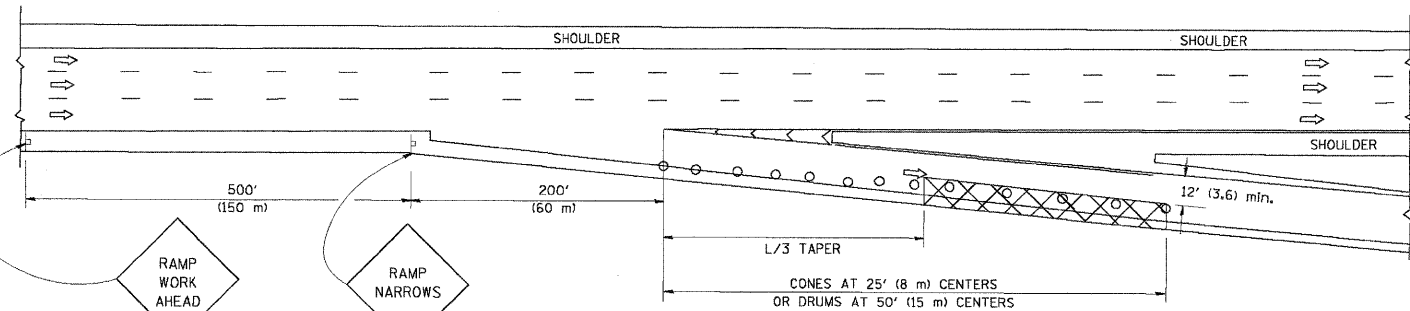
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

PARTIAL RAMP CLOSURE DETAILS

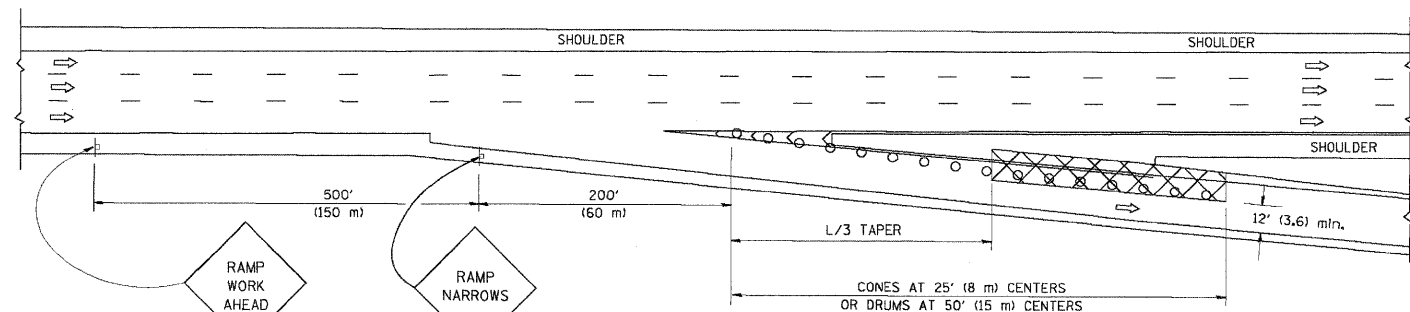
SHOULDER CLOSURE DETAILS



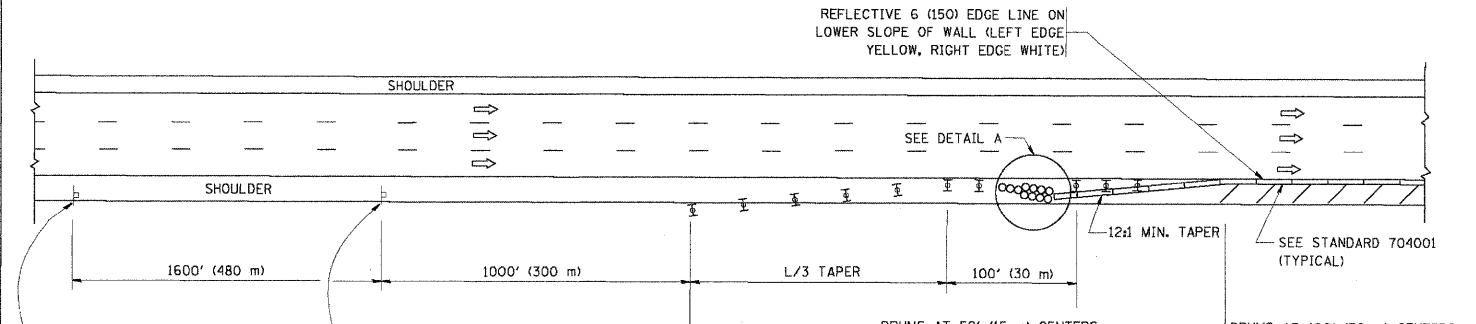
TYPICAL ENTRANCE RAMP



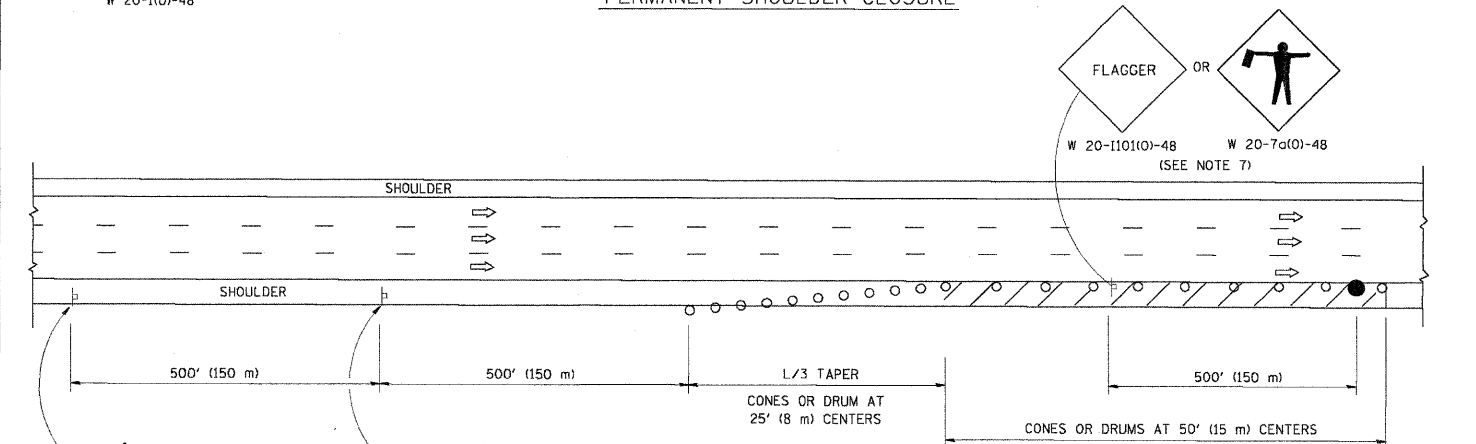
TYPICAL EXIT RAMP



TYPICAL EXIT RAMP



PERMANENT SHOULDER CLOSURE



DAYTIME SHOULDER CLOSURE

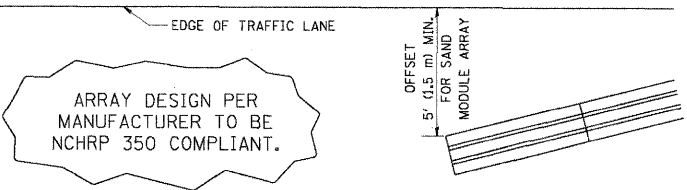
THIS DETAIL IS USED WHERE:
 1. VEHICLES, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCR OACH IN AN AREA CLOSER THAN 15' (4.5 m) TO THE EDGE OF PAVEMENT FOR A PERIOD IN EXCESS OF 15 MINUTES.

SYMBOLS

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

GENERAL NOTES

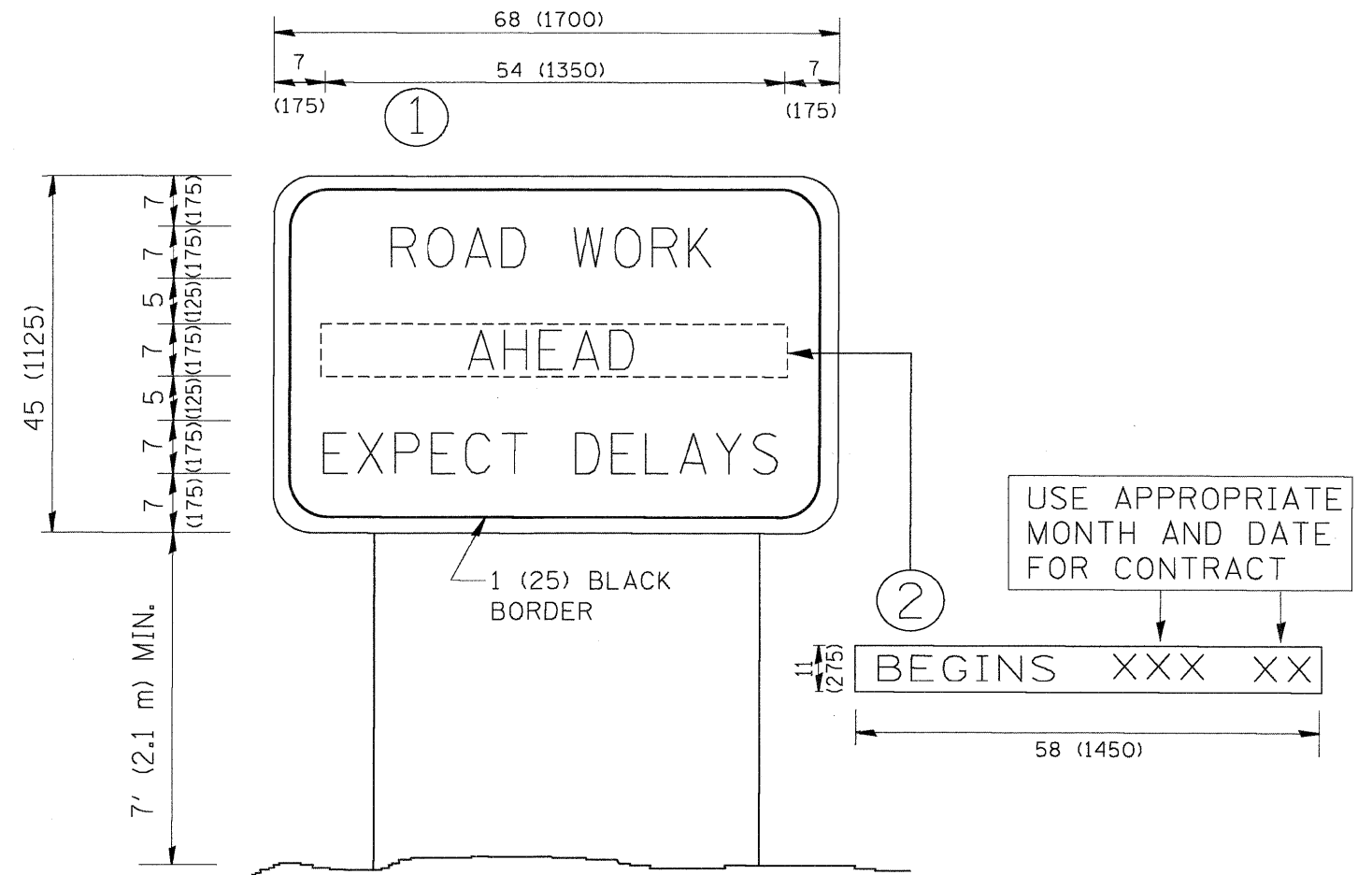
1. THE "L" DISTANCE EQUALS:
 SPEED LIMIT FORMULAS
 45 mph (80 km/h) METRIC ENGLISH
 OR GREATER: L=0.65(W/S) L=(W/S)
 W = WIDTH OF OFFSET IN FEET (METERS)
 S = NORMAL POSTED SPEED MPH (KM/H)
2. PLASTIC DRUMS WITH HIGH PERFORMANCE REFLECTIVE SHEETING AND STEADY BURNING LIGHTS ARE REQUIRED FOR ALL NIGHTIME CLOSURES.
3. ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
4. FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.
5. THE IMPACT ATTENUATOR, TEMPORARY IS NOT REQUIRED WHEN THE TEMPORARY CONCRETE BARRIER WALL IS PROTECTED BY OR IS TIED INTO THE EXISTING GUARDRAIL. IF OFFSET IS LESS THAN 5 FEET USE NARROW USE TYPE DEVICE TO MEET NCHRP350.
6. AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL FREEWAY CLOSURES.
7. THE FLAGGER AND FLAGGER SIGN ARE REQUIRED AT THE ABOVE WORK SITES WHEN:
 - a. FOUR OR MORE WORK VEHICLES ENTER THE TRAFFIC LANES IN A ONE HOUR PERIOD.
 - b. THE WORK AVTIVITY REQUIRES FREQUENT ENCR OACHMENT INTO THE LANE OPEN TO TRAFFIC.
 THE FLAGGER SHALL BE STATIONED APPROXIMATELY 100' (30 m) TO 200' (60 m) IN ADVANCE OF THE WORKERS.



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

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

FILE NAME = W:\dststd\22x34\17.dgn	USER NAME = lejoo	DESIGNED -	REVISED - 04-03	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES		F.A.P. RTE. 343	SECTION 531-4BK-BR-1	COUNTY COOK	TOTAL SHEETS 25	SHEET NO. 24B
PLOT SCALE = 5/8" = 1' IN.	DATE = 11-96	DRAWN - D.W.S.	REVISED - J.A.F. 12-06		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	TC-17		CONTRACT NO. 60L47
PLOT DATE = 1/26/2010		CHECKED -	REVISED - S.P.B. 01-07						FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		
		DATE -	REVISED - S.P.B. 12-09								



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.

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

FILE NAME = W:\diststd\22x34\to22.dgn	USER NAME = gaglionobt	DESIGNED -	REVISED - R. MIRS 09-15-97	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ARTERIAL ROAD INFORMATION SIGN		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN -	REVISED - R. MIRS 12-11-97		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	343	531-4HBK-BR-1	COOK	25 25
		PLOT SCALE = 50.000' / IN.	REVISED - T. RAMMACHER 02-02-99		TC-22		CONTRACT NO. 60L47					
		PLOT DATE = 1/4/2008	REVISED - C. JUCIUS 01-31-07		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							