

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

**PROPOSED
 HIGHWAY PLANS**

ROUTE FAI 80: I-80
 OVER DUPAGE RIVER
 SECTION 99-1-B-1-2
 BRIDGE OVERLAY & REPAIRS
 WILL COUNTY
 C-91-084-08

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99-1-B-1-2	WILL	21	1
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 60D66	

D-91-084-08

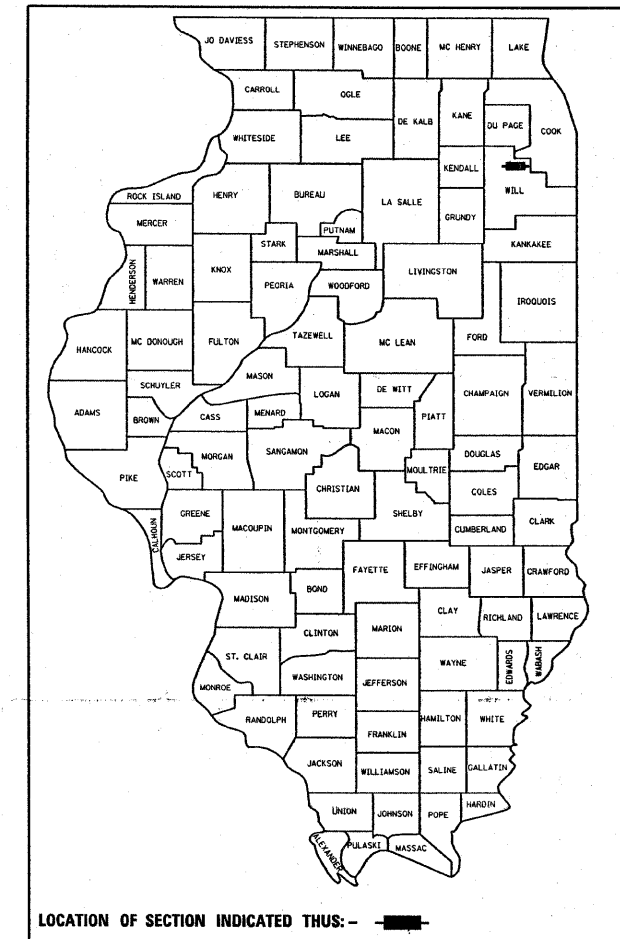
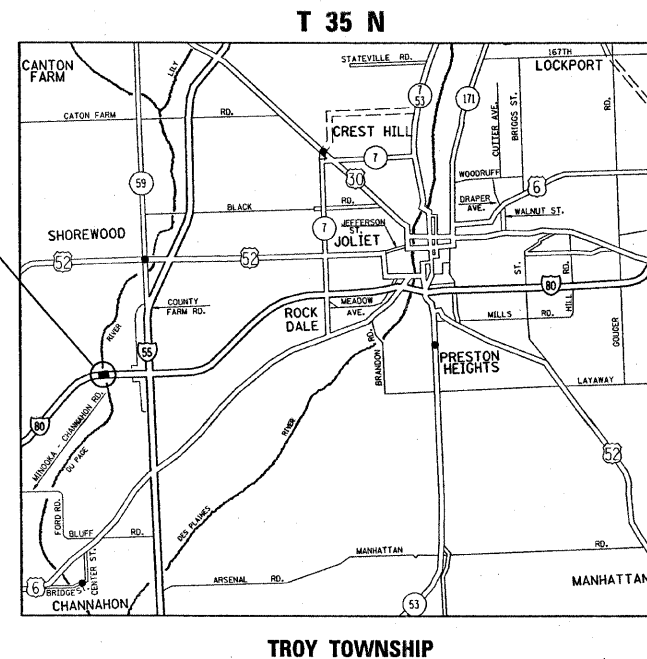
FOR INDEX OF SHEETS, SEE SHEET NO. 2

THIS IMPROVEMENT IS LOCATED
 IN TROY TOWNSHIP

TRAFFIC DATA

2005 ADT = 47,400
 SPEED LIMIT = 65 MPH

LOCATION OF IMPROVEMENT
 SN 099-0040, -0041



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

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

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

CONTRACT NO. 60D66

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

SUBMITTED OCTOBER 31, 20 08

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

December 5, 20 08
Eric E. Harn
 ENGINEER OF DESIGN AND ENVIRONMENT

December 5, 20 08
Christine M. Reed
 DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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 OF THE STATE OF ILLINOIS

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	INDEX OF SHEETS, STANDARDS, AND GENERAL NOTES
3	SUMMARY OF QUANTITIES
4-7	TRAFFIC STAGING
8	TYPICAL CONSTRUCTION SECTION
9	ROADWAY RESURFACING AND APPROACH OVERLAY PLAN
10-17A	BRIDGE REPAIR PLAN SHEETS
18-19	MULTI-LANE FREEWAY PAVEMENT MARKING DETAILS
20	TRAFFIC CONTROL DETAILS FOR FREEWAY SINGLE & MULTI-LANE WEAVE - TC-9
21	TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES - TC-17

LIST OF STATE STANDARDS

STANDARD NO.	DESCRIPTION
701400-03	APPROACH TO LANE CLOSURE, FREEWAY/ EXPRESSWAY
701401-05	LANE CLOSURE, FREEWAY/ EXPRESSWAY
701411-05	LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS \geq 45 MPH
701426-03	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATION FOR SPEEDS \geq 45 MPH
701901-01	TRAFFIC CONTROL DEVICES
704001-05	TEMPORARY CONCRETE BARRIER

GENERAL NOTES

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 800-892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS FACILITIES. (48 HOUR NOTIFICATION IS REQUIRED)

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES.

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

THE RESIDENT ENGINEER SHALL CONTACT CORA MATHIS AREA TRAFFIC FIELD ENGINEER AT (847) 485-6475 A MINIMUM OF 2 WEEKS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKING.

ALL DAMAGES 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

THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT 847-705-4151 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK

THESE PLANS HAVE BEEN PREPARED FROM NOTES RECEIVED FROM BRIDGE INSPECTORS

DO NOT SCALE PLAN FOR CONSTRUCTION DIMENSIONS

PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO ROUTINE VARIATIONS. THE CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN SCOPE OF THE WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED BASED UPON THE UNIT PRICE BID FOR THE WORK.

REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 706, GR 60 (IL MODIFIED). SEE SPECIAL PROVISIONS.

JOINT OPENING SHALL BE ADJUSTED ACCORDING TO ARTICLE 520.04 OF THE STD. SPECS. WHEN THE DECK IS POURED AT AN AMBIENT TEMPERATURE OTHER THAN 50°F

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 RESIDENTIAL AREAS

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

CONCRETE SUPERSTRUCTURE SHALL HAVE SEVEN DAY MINIMUM CURE

FILE NAME = c:\projects\dl20207\design_00.dgn	USER NAME = midyjo	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS, STATE STANDARDS & GENERAL NOTES	F.A.I RTE. 80	SECTION 99-1-B-I-2	COUNTY WILL	TOTAL SHEETS 21	SHEET NO. 2			
		DRAWN -	REVISED -			CONTRACT NO. 60D66							
		CHECKED -	REVISED -			SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT
		DATE -	REVISED -										

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99-1-B-1-2	WILL	21	3
FED. ROAD DIST. NO. 1		ILLINOIS	HIGHWAY PROJECT	

CONTRACT NO. 60D66

SUMMARY OF QUANTITIES			URBAN 100% STATE	CONSTRUCTION TYPE CODE				
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	SFTY-2A				
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	87	87				
40603595	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90	TON	57.6	57.6				
44000156	HOT-MIX ASPHALT SURFACE REMOVAL, 1 3/4"	SO YD	476	476				
44000198	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SO YD	786	786				
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	10	10				
50102400	CONCRETE REMOVAL	CU YD	76	76				
50300255	CONCRETE SUPERSTRUCTURE	CU YD	84.5	84.5				
50300260	BRIDGE DECK GROOVING	SO YD	2597	2597				
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	17560	17560				
50800515	BAR SPLICERS	EACH	84	84				
52000110	PREFORMED JOINT STRIP SEAL	FOOT	264	264				
64200105	SHOULDER RUMBLE STRIP	FOOT	2140	2140				
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6				
67100100	MOBILIZATION	L SUM	1	1				
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	1	1				
70400100	TEMPORARY CONCRETE BARRIER	FOOT	1175	1175				
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	1175	1175				
* 78008210	POLYUREA PAVEMENT MARKING TYPE I - LINE 4"	FOOT	2795	2795				
* 78008220	POLYUREA PAVEMENT MARKING TYPE I - LINE 5"	FOOT	726	726				
* 78008250	POLYUREA PAVEMENT MARKING TYPE I - LINE 12"	FOOT	40	40				
* 78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	18	18				
* 78100300	REPLACEMENT REFLECTOR	EACH	17	17				
* 78200530	BARRIER WALL MARKERS, TYPE C	EACH	68	68				
78300100	PAVEMENT MARKING REMOVAL	SO FT	552	552				
X0320887	POLYMER CONCRETE	CU FT	9.2	9.2				
X0322185	BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/4 INCHES	SO YD	2558	2558				

SUMMARY OF QUANTITIES			URBAN 100% STATE	CONSTRUCTION TYPE CODE				
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	SFTY-2A				
X0325303	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SO FT	174	174				
X0325305	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SO FT	3054	3054				
X0325775	WET REFLECTIVE TEMPORARY TAPE TYPE III, 4 INCH	FOOT	11,500	11,500				
X0325840	WET REFLECTIVE TEMPORARY TAPE, TYPE III, 12 INCH	FOOT	40	40				
X7011015	TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)	L SUM	1	1				
X7013820	TRAFFIC CONTROL SURVEILLANCE, EXPRESSWAYS	CAL DA	70	70				
Z0006204	BRIDGE DECK HYDRO-SCARIFICATION 1/2"	SO YD	2558	2558				
Z0016002	DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SO YD	9.6	9.6				
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2				
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2				
Z0073200	TEMPORARY SHORING AND CRIBBING	EACH	3	3				
X0325870	WET REFLECTIVE TEMPORARY TAPE TYPE III, 8 INCH	FOOT	880	880				

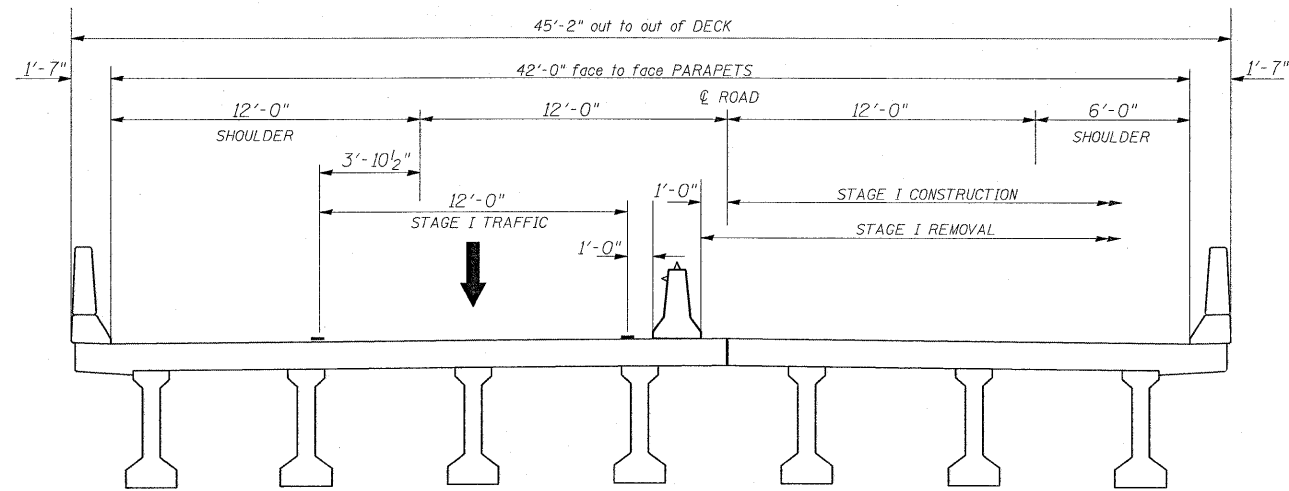
10/30/2008

REVISIONS	
NAME	DATE

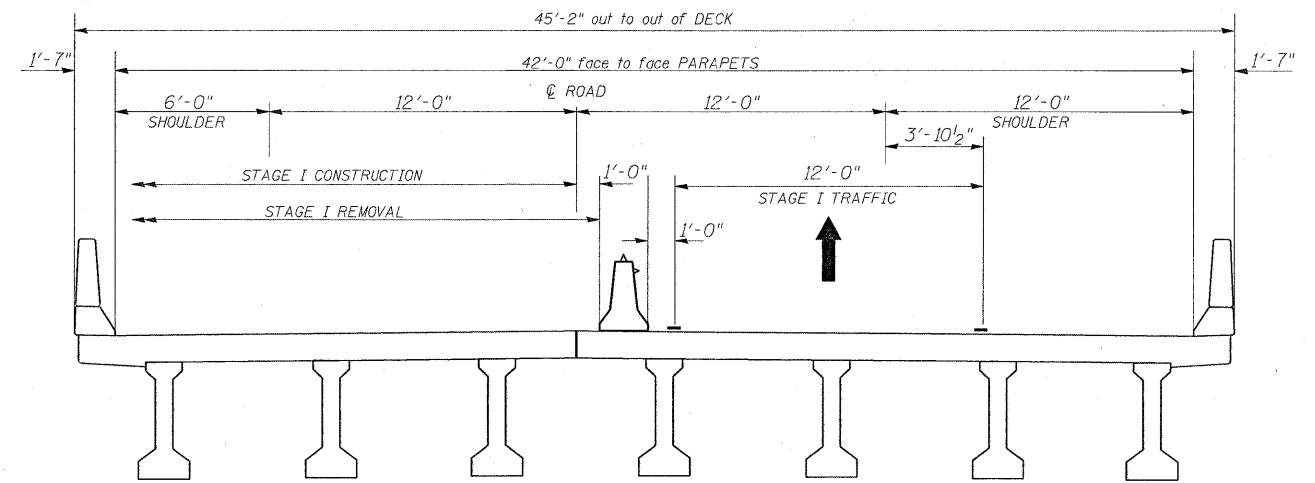
ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES

*Specialty Items Rev.

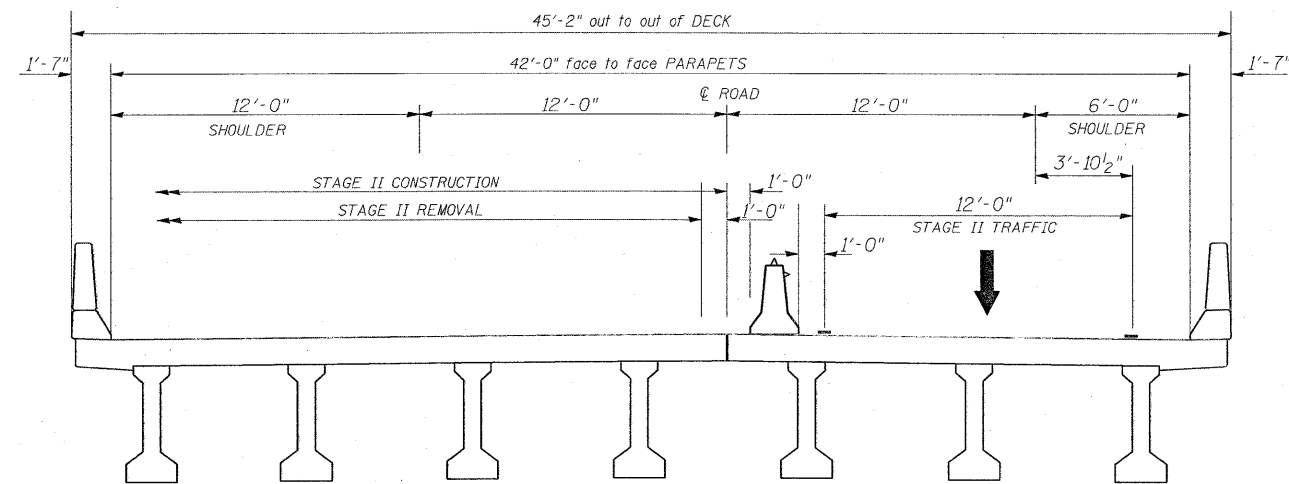
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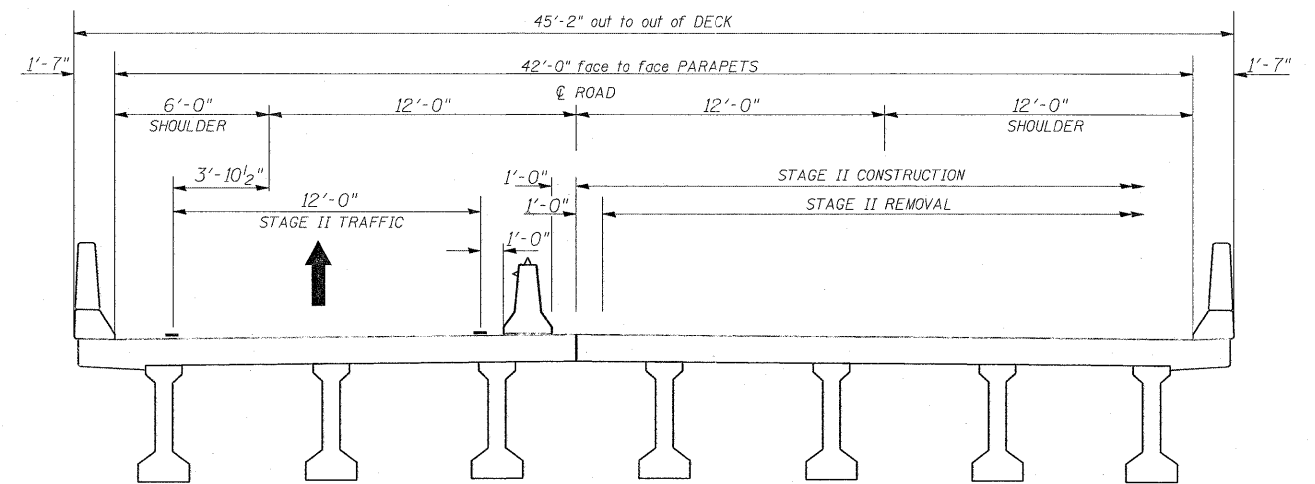
WESTBOUND
STAGE I



EASTBOUND
STAGE I



WESTBOUND
STAGE II



EASTBOUND
STAGE II

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c:\projects\dl20287\design-aa.dgn

USER NAME = mdjja

DESIGNED -

REVISED -

DRAWN -

REVISED -

CHECKED -

REVISED -

DATE -

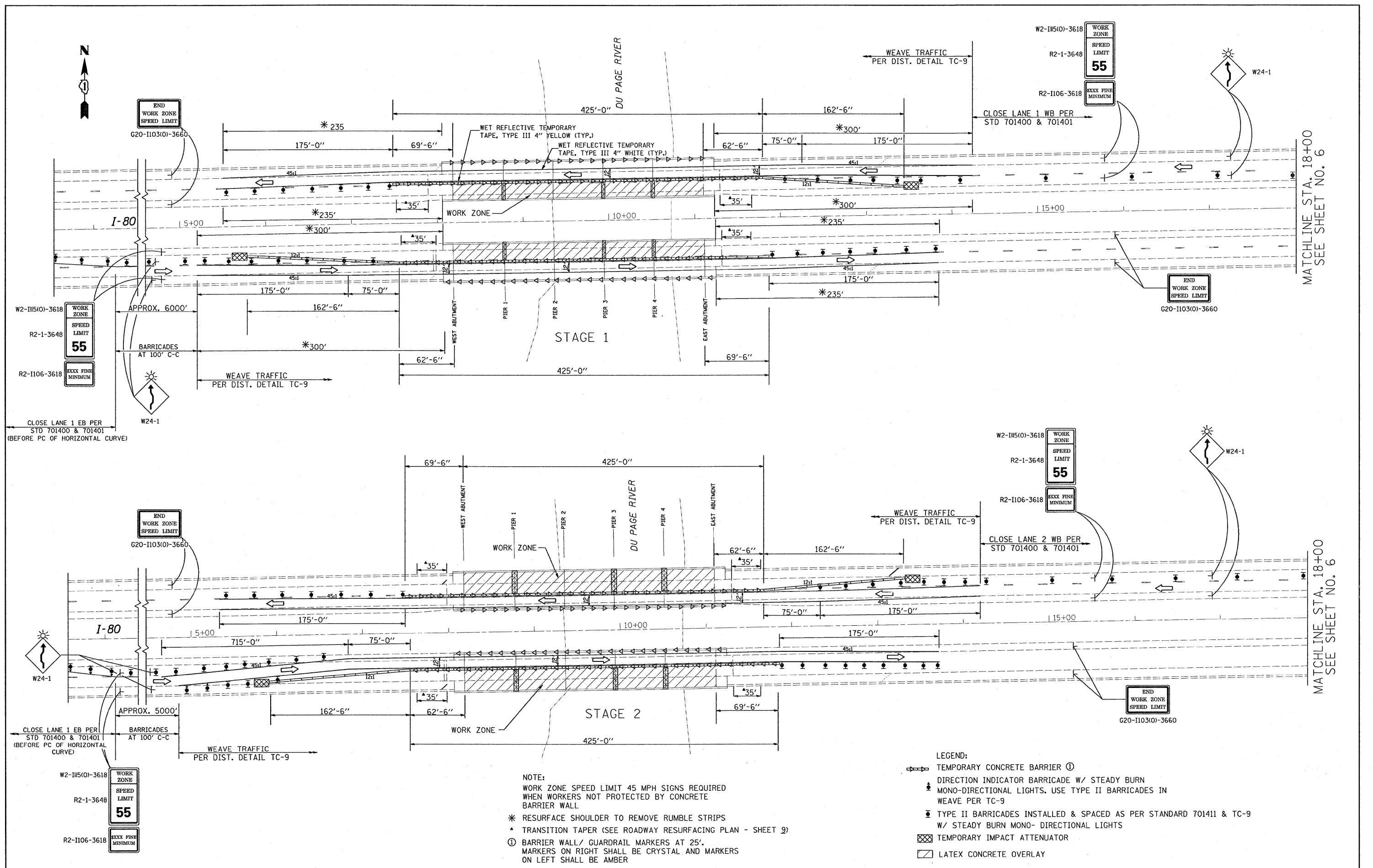
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL STAGING CROSS SECTIONS

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99-1-B-1-2	WILL	21	4
CONTRACT NO. 60D66				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



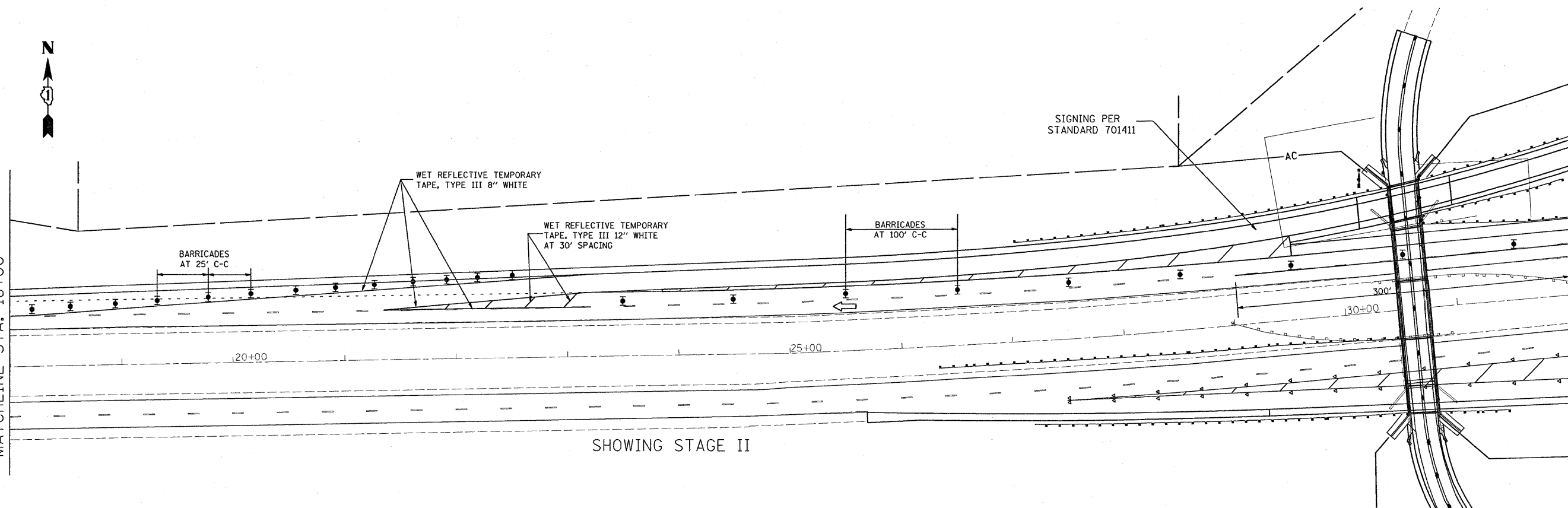
NOTE:
 WORK ZONE SPEED LIMIT 45 MPH SIGNS REQUIRED WHEN WORKERS NOT PROTECTED BY CONCRETE BARRIER WALL
 * RESURFACE SHOULDER TO REMOVE RUMBLE STRIPS
 ^ TRANSITION TAPER (SEE ROADWAY RESURFACING PLAN - SHEET 5)
 ① BARRIER WALL/ GUARDRAIL MARKERS AT 25'. MARKERS ON RIGHT SHALL BE CRYSTAL AND MARKERS ON LEFT SHALL BE AMBER

- LEGEND:**
- ① TEMPORARY CONCRETE BARRIER
 - ☀ DIRECTION INDICATOR BARRICADE W/ STEADY BURN
 - ▲ MONO-DIRECTIONAL LIGHTS. USE TYPE II BARRICADES IN WEAVE PER TC-9
 - ☒ TYPE II BARRICADES INSTALLED & SPACED AS PER STANDARD 701411 & TC-9 W/ STEADY BURN MONO- DIRECTIONAL LIGHTS
 - ☒ TEMPORARY IMPACT ATTENUATOR
 - ▨ LATEX CONCRETE OVERLAY

FILE NAME =	USER NAME = midyja	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC STAGING PLAN			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	PLOT DATE = 11/20/2008	DATE -	REVISED -					SCALE:	SHEET NO.	OF SHEETS	STA.	TO STA.

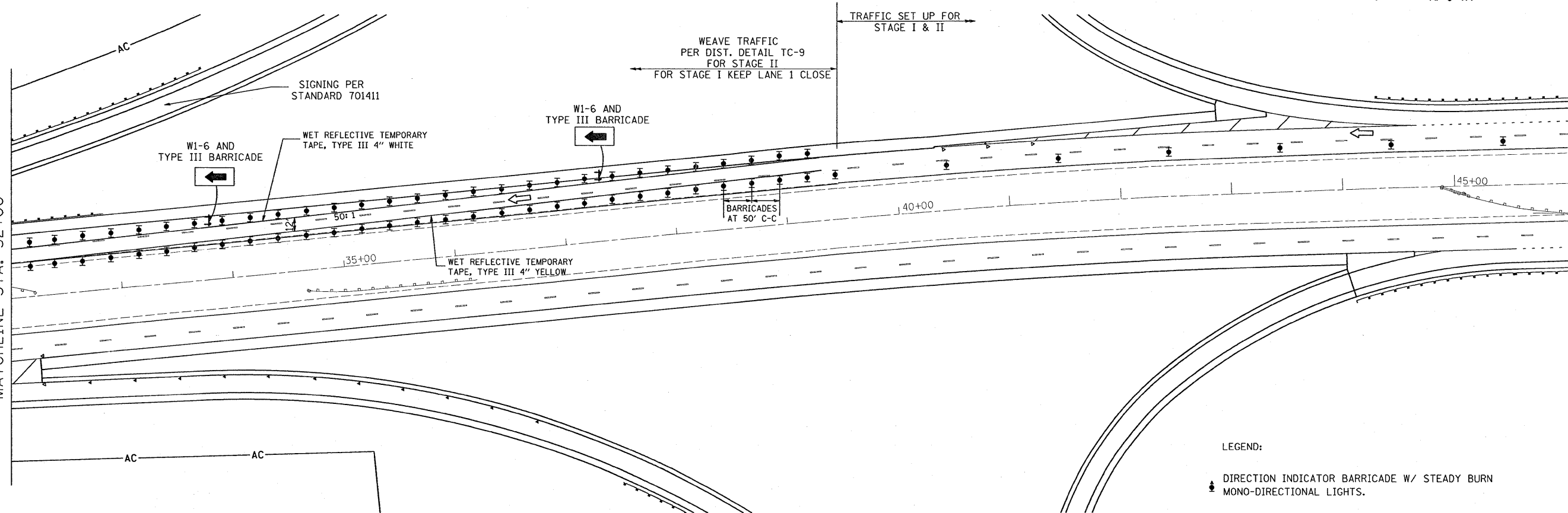


SEE SHEET NO. 5
MATCHLINE STA. 18+00



MATCHLINE STA. 32+00

MATCHLINE STA. 32+00



MATCHLINE STA. 46+00
SEE SHEET NO. 7

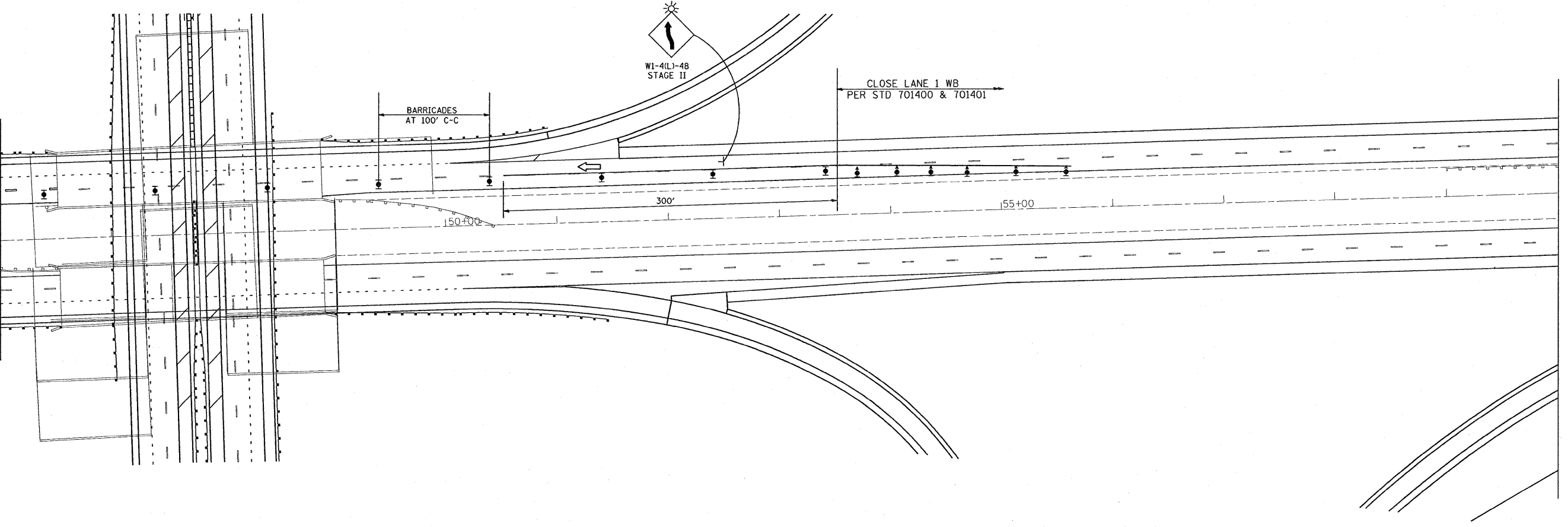
LEGEND:

- ☛ DIRECTION INDICATOR BARRICADE W/ STEADY BURN MONO-DIRECTIONAL LIGHTS.
- ☛ TYPE II BARRICADES INSTALLED & SPACED AS PER STANDARD 701411 & TC-9
- ☛ TYPE III BARRICADE W/ STEADY BURN MONO-DIRECTIONAL LIGHTS

FILE NAME =	USER NAME = mdyja	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC STAGING PLAN			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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		PLLOT SCALE = 50,0000' / IN.	CHECKED -		REVISED -	SHEET 2 OF 3			CONTRACT NO. 60D66			
		PLLOT DATE = 11/20/2008	DATE -		REVISED -	SCALE:	SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			

I-55

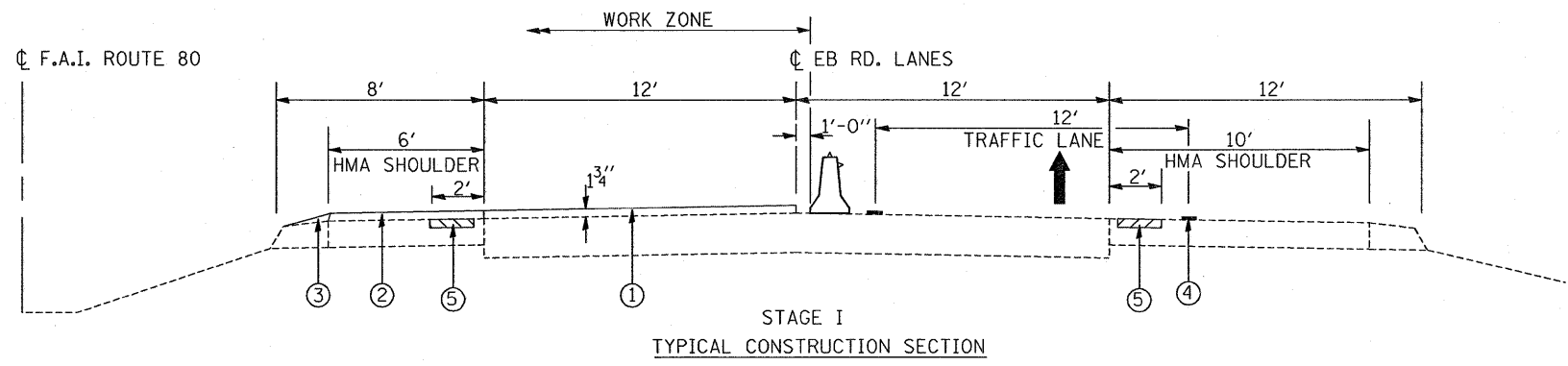
SEE SHEET NO. 6
MATCHLINE STA. 46+00



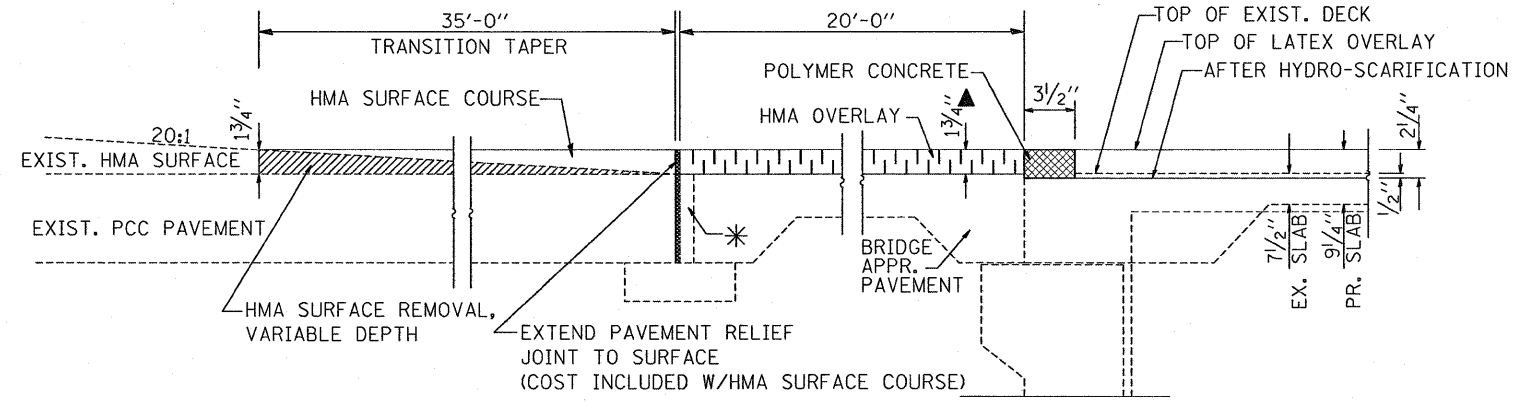
LEGEND:

- ☛ DIRECTION INDICATOR BARRICADE W/ STEADY BURN MONO-DIRECTIONAL LIGHTS.
- ☛ TYPE II BARRICADES INSTALLED & SPACED AS PER STANDARD 701411 & TC-9
- ☛ TYPE III BARRICADE W/ STEADY BURN MONO-DIRECTIONAL LIGHTS

FILE NAME = c:\pw_work\PWIDOT\MIDYJA\0101558\design	USER NAME = midyja _00.dgn	DESIGNED - DRAWN -	REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC STAGING PLAN			F.A.I. RTE. 80	SECTION 99-1-B-1-2	COUNTY WILL	TOTAL SHEETS 21	SHEET NO. 7
PLOT SCALE = 50.0000' / IN.					SHEET 3 OF 3			CONTRACT NO. 60D66				
PLOT DATE = 11/20/2008					SCALE:			FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT				
DATE -					SHEET NO. OF SHEETS STA. TO STA.							



- ① POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 1 3/4" (IL 9.5mm)
- ② HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, 1 3/4" (IL 9.5mm)
- ③ AGGREGATE WEDGE SHOULDER
- ④ TEMPORARY PAVEMENT MARKING
- ⑤ INITIAL RESURFACING TO REMOVE RUMBLE STRIPS IN PRE-STAGE (HMA SURFACE REMOVAL 1 3/4" HMA SURF. CSE, MIX "D", N70 1 3/4")

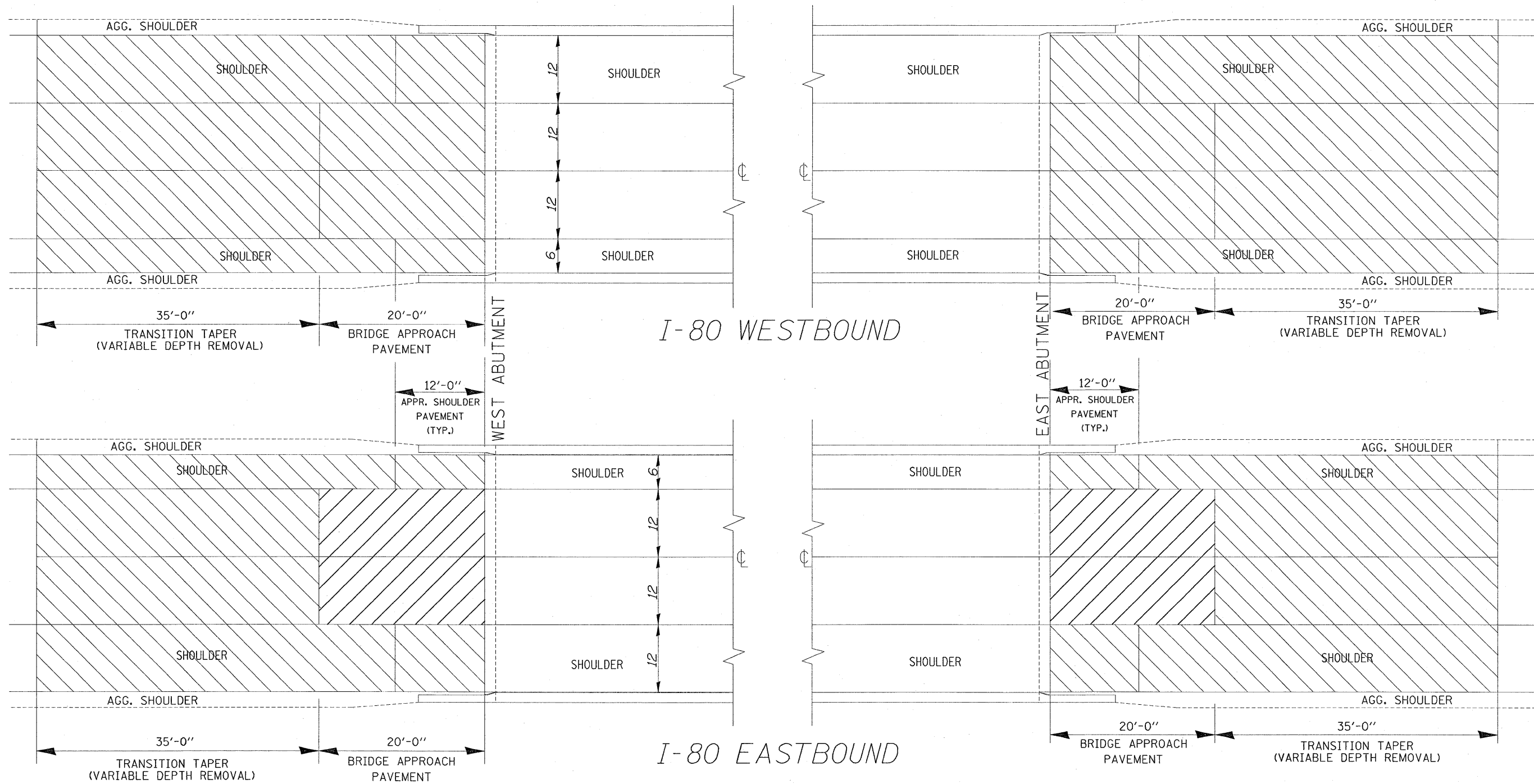


- ▲ EXCEPT AT LOCATIONS WHERE THERE IS EXIST. HMA ON BRIGE APPROACH PAVEMENT. AT THESE LOCATIONS USE HMA REMOVAL (VARIABLE DEPTH) AND HMA SURFACE COURSE (VARIABLE DEPTH)
- * EXISTING CONCRETE CONNECTOR PAVEMENT ON WEST SIDE OF WEST APPROACH PAVEMENTS

APPROACH PAVEMENT OVERLAY CROSS SECTION
WORK WITH ROADWAY RESURFACING PLAN SHEET 9

HOT-MIX ASPHALT MIXTURE REQUIREMENTS		
MIXTURE TYPE	AC TYPE	AIR VOIDS
APPROACH ROADWAY SURFACE		
POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, (IL 9.5mm)	SBS/SBR PG 70-22	4% @ 90 GYR
SHOULDER		
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, (IL 9.5mm)	PG 64-22	4% @ 70 GYR.

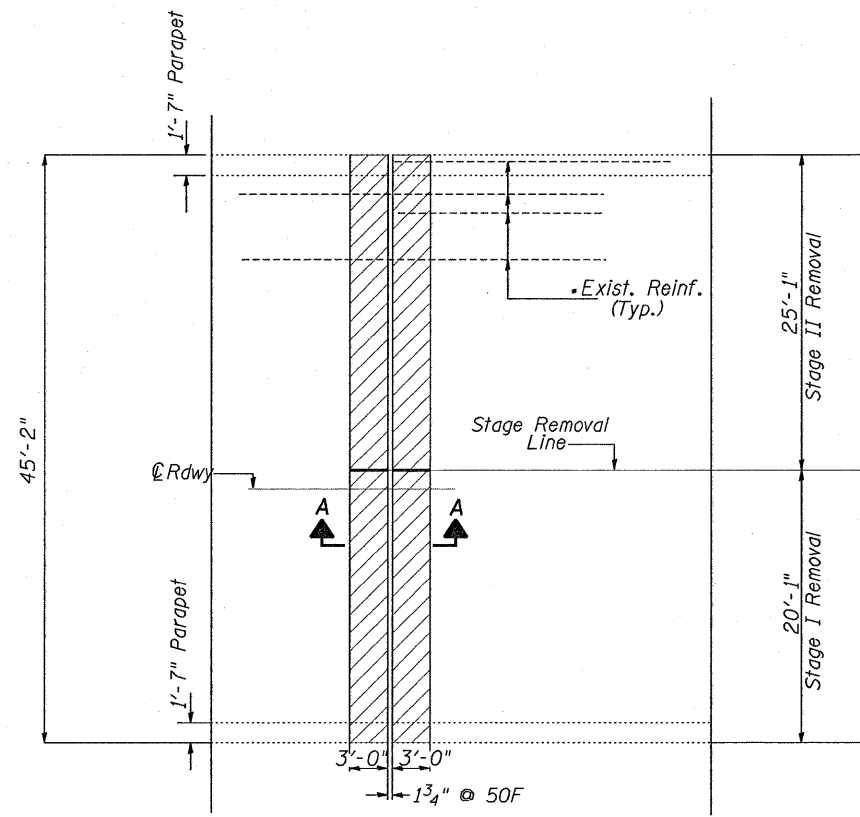
THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURES IS 112 LBS/SQ.YD/IN



- HMA OVERLAY 1 3/4"
- HMA REMOVAL VARIABLE DEPTH AND HMA OVERLAY VARIABLE DEPTH (AT BRIDGE APPROACH)

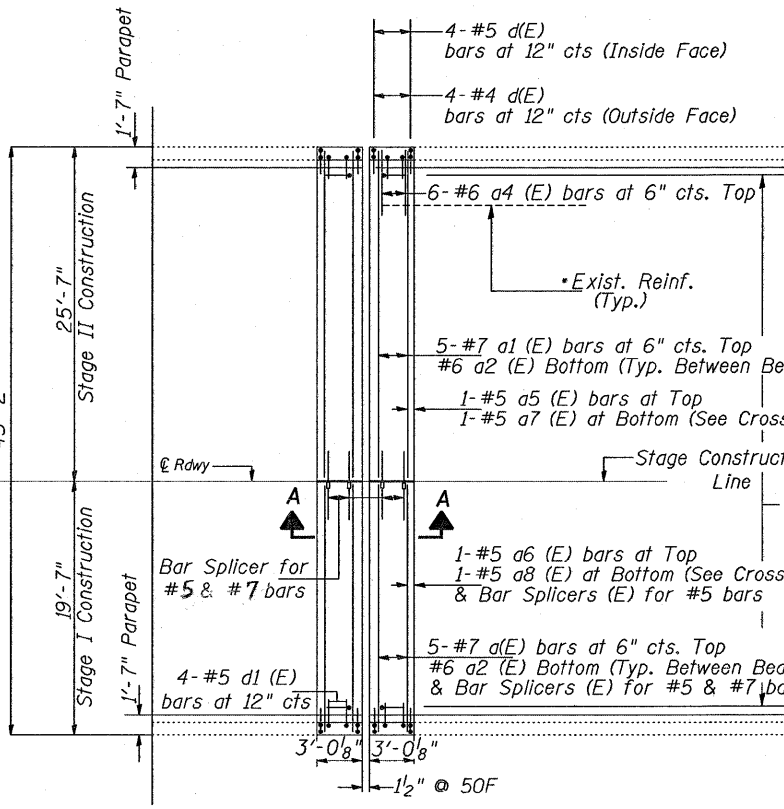
WORK WITH APPROACH PAVEMENT
OVERLAY CROSS-SECTION - SHEET 8

FILE NAME = c:\projects\120207\design_aa.dgn	USER NAME = mdy,ja	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ROADWAY RESURFACING PLAN	F.A.I. RTE. 80	SECTION 99-1-B-I-2	COUNTY WILL	TOTAL SHEETS 21	SHEET NO. 9
PLOT SCALE = 52.7795' / IN.		DRAWN -				CONTRACT NO. 60D66		ILLINOIS FED. AID PROJECT		
PLOT DATE = 10/30/2008		CHECKED -								
		DATE -		SCALE:		SHEET NO. OF SHEETS		STA. TO STA.		



PLAN SHOWING CONCRETE REMOVAL AT PIER 1, 3 AND 4

WESTBOUND BRIDGE



PLAN SHOWING CONCRETE REPLACEMENT AT PIER 1, 3 AND 4

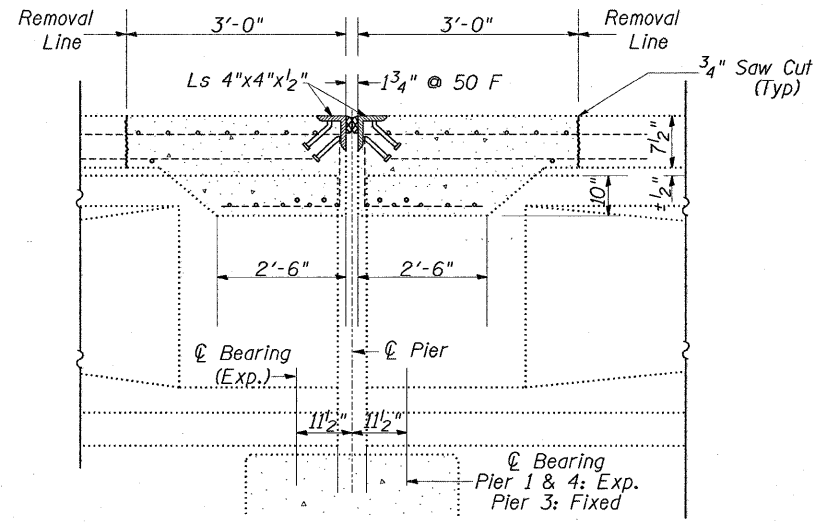
NOTES:

Skew angle varies. Place "A (E)" bars parallel to the joint.
 * Existing longitudinal reinforcement 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 shall be included with Concrete Removal.

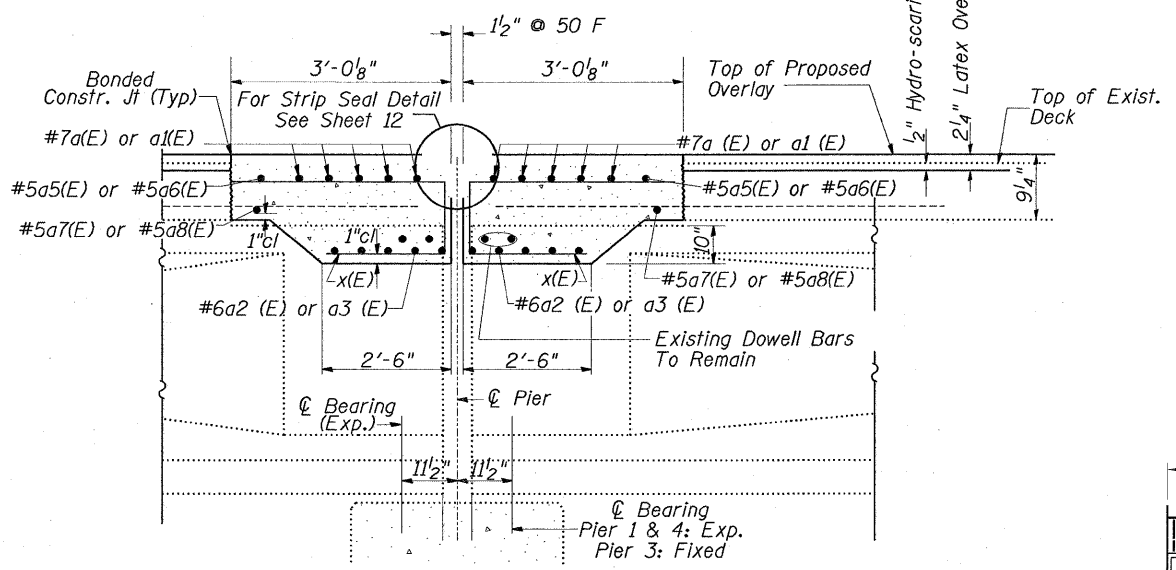
TOTAL BILL OF MATERIAL

Description	Unit	Quantity
Concrete Removal	Cu. Yd.	76.0
Concrete Superstructure	Cu. Yd.	84.5
Reinforcement Bars, Epoxy Coated	Pound	17,560
Bar Splicers	Each	84
Bridge Deck Grooving	Sq. Yd.	2597
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	9.6
Polymer Concrete	Cu. Ft.	9.2
Bridge Deck Latex Concrete Overlay, 2 1/4" inches	Sq. Yd.	2558
Bridge Deck Hydro-scarification 1/2"	Sq. Yd.	2558
Preformed Joint Strip Seal	Foot	264
Structural Repair of Concrete <= 5"	Sq. Yd.	3054
Structural Repair of Concrete > 5"	Sq. Yd.	174
Temporary Shoring and Cribbing	Each	3

Reinforcement bars designated (E) shall be epoxy coated.

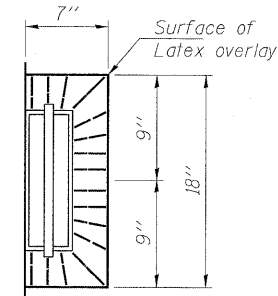


PIERS 1, 3 & 4 EXISTING



PIERS 1, 3 & 4 PROPOSED

SECTION A-A



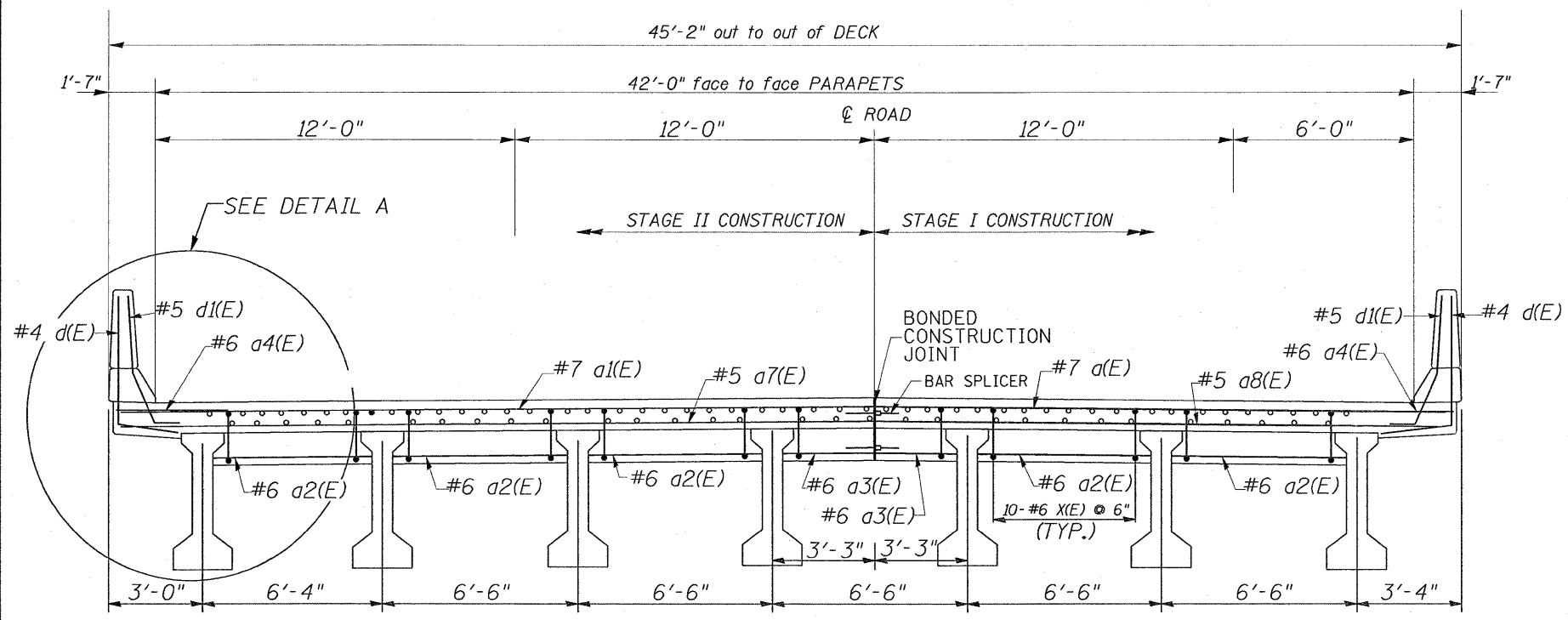
TOP PLAN
Slope Latex 2:1 at drains



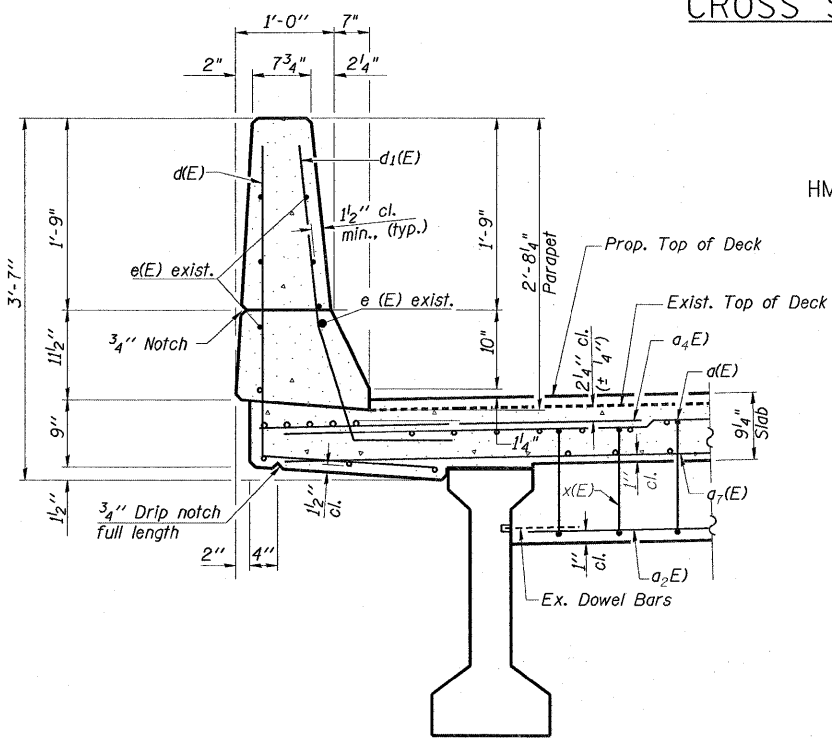
Expires Nov. 30, 2010

BAR LIST
SUPERSTRUCTURE

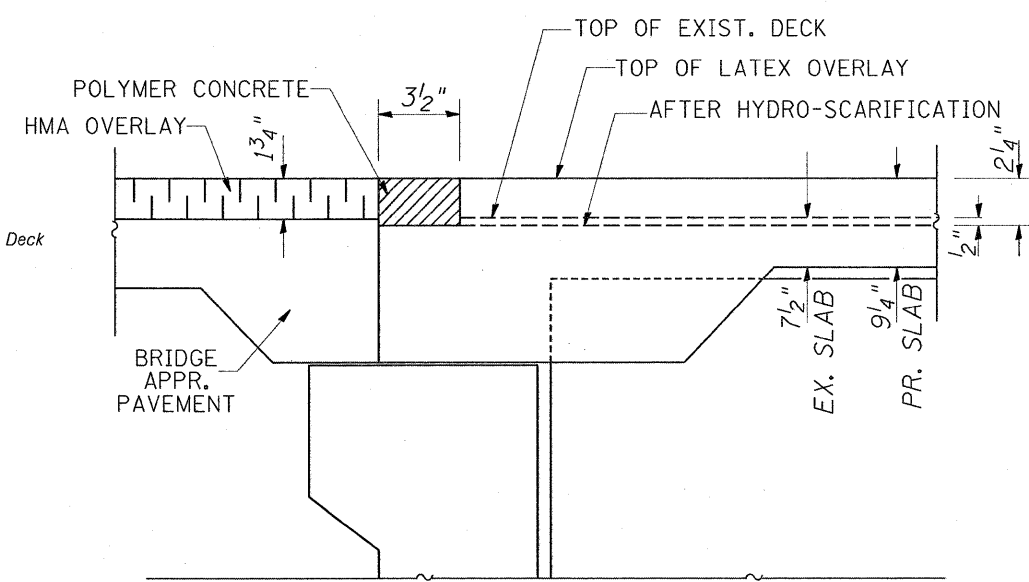
BAR	NO	SIZE	LENGTH	SHAPE
a(E)	60	#7	19'-4"	—
a1(E)	60	#7	25'-4"	—
a2(E)	300	#6	4'-10"	—
a3(E)	120	#6	2'-5"	—
a4(E)	144	#6	4'-0"	—
a5(E)	12	#5	25'-4"	—
a6(E)	12	#5	19'-4"	—
a7(E)	12	#5	25'-4"	—
a8(E)	12	#5	19'-4"	—
d(E)	96	#4	5'-2"	L
d1(E)	96	#5	3'-11"	J
x(E)	720	#6	6'-4"	□



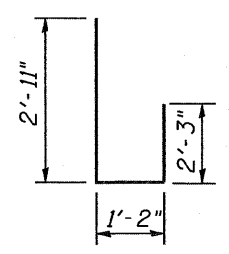
CROSS SECTION



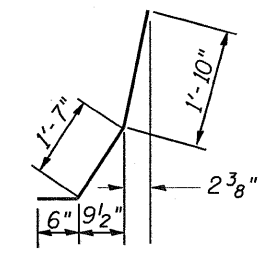
DETAIL A



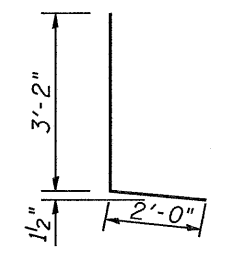
END OF DECK TREATMENT



BAR x(E)

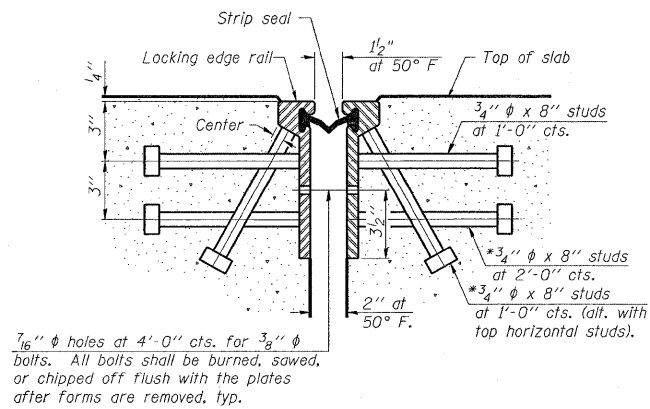


BAR d1(E)

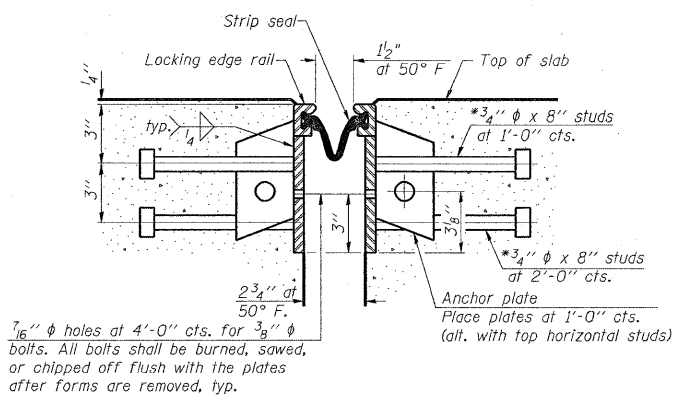


BAR d(E)

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



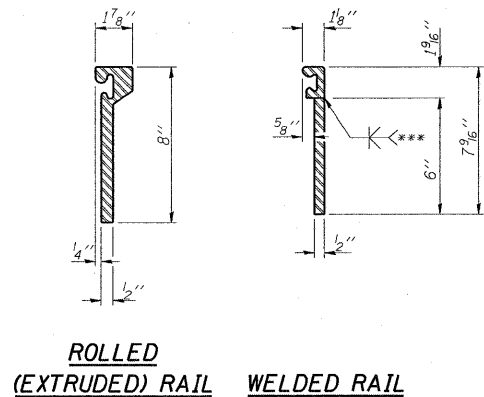
SECTION THRU ROLLED RAIL JOINT



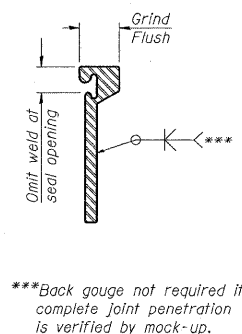
SECTION THRU WELDED RAIL JOINT

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 height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities and stage construction joints. 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.

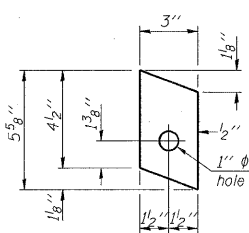


ROLLED (EXTRUDED) RAIL **WELDED RAIL**

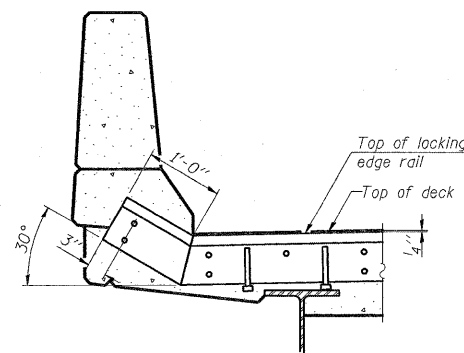


LOCKING EDGE RAIL SPLICE

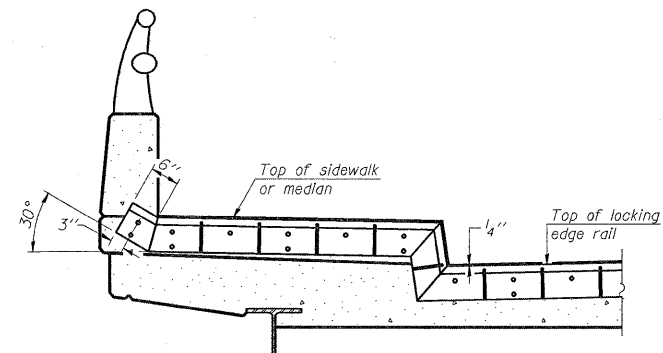
The inside of the locking edge rail groove shall be free of weld residue.



ANCHOR PLATE
(for welded rail)



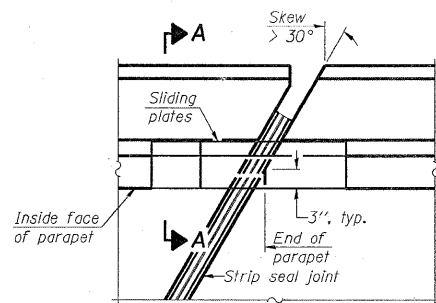
AT PARAPET



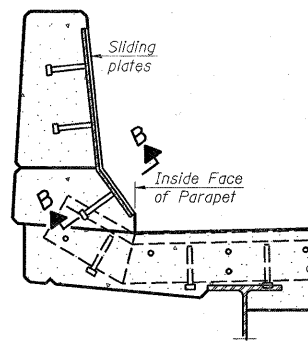
AT SIDEWALK OR MEDIAN

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.

LOCKING EDGE RAILS

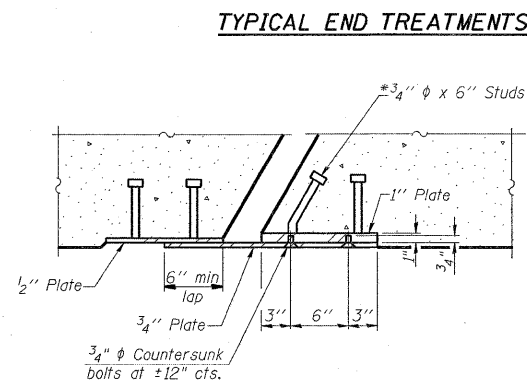


PLAN



SECTION A-A

POINT BLOCK DETAILS
(for skews > 30°)



TYPICAL END TREATMENTS

SECTION B-B

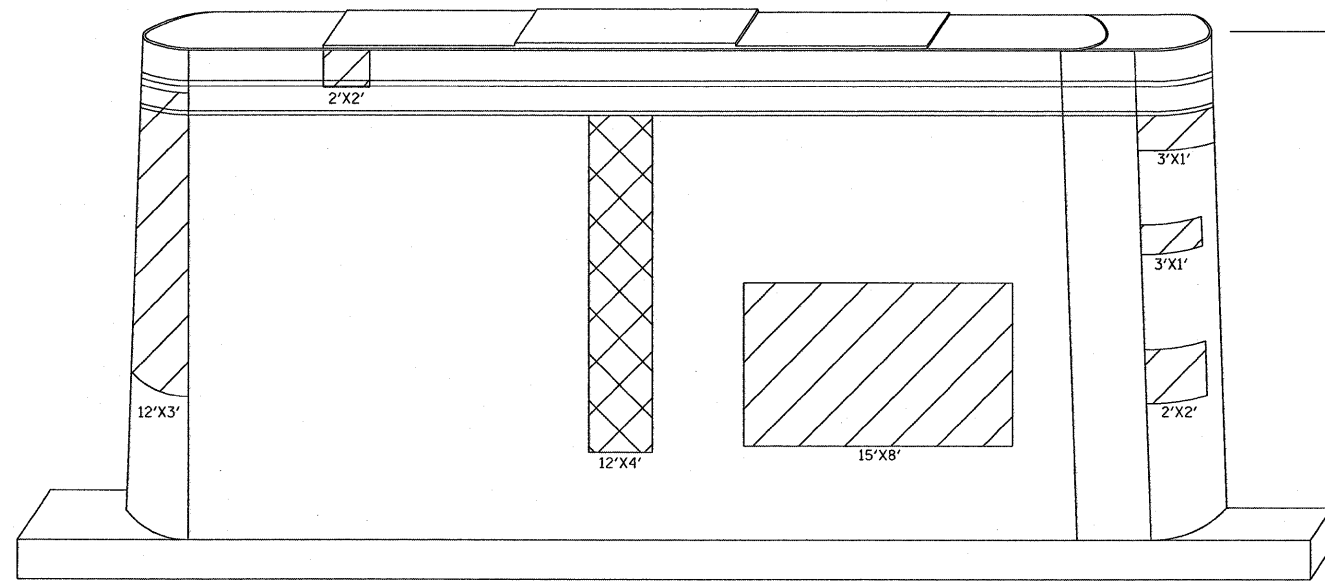
BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	264

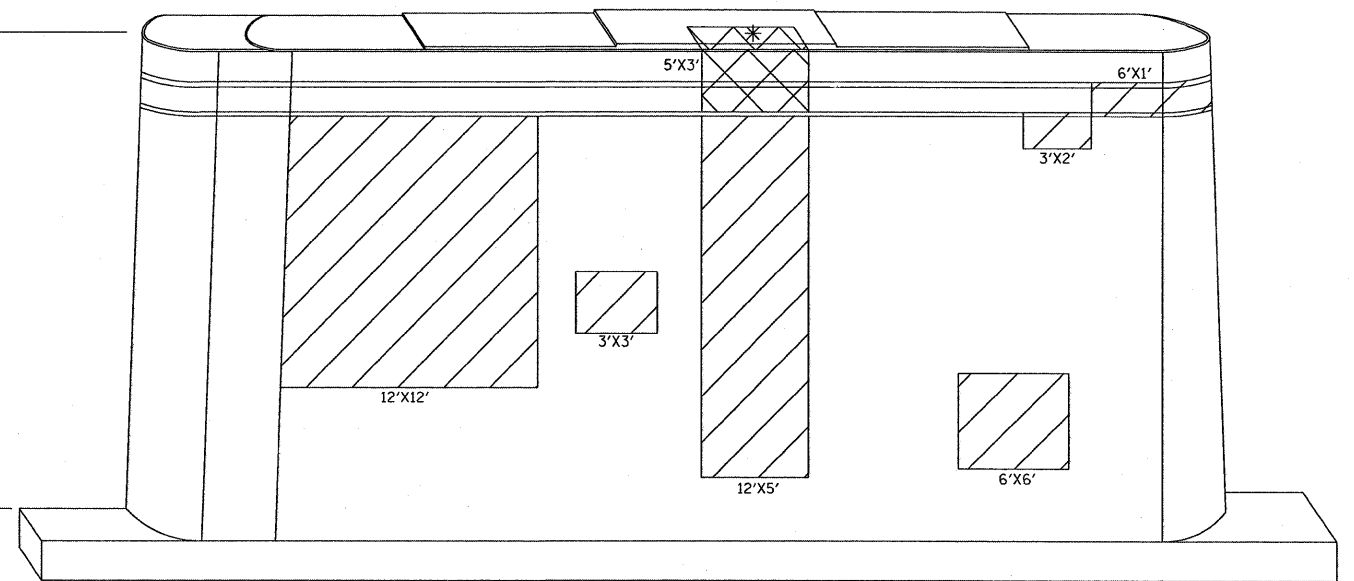
PREFORMED JOINT STRIP SEAL

EJ-SSJ

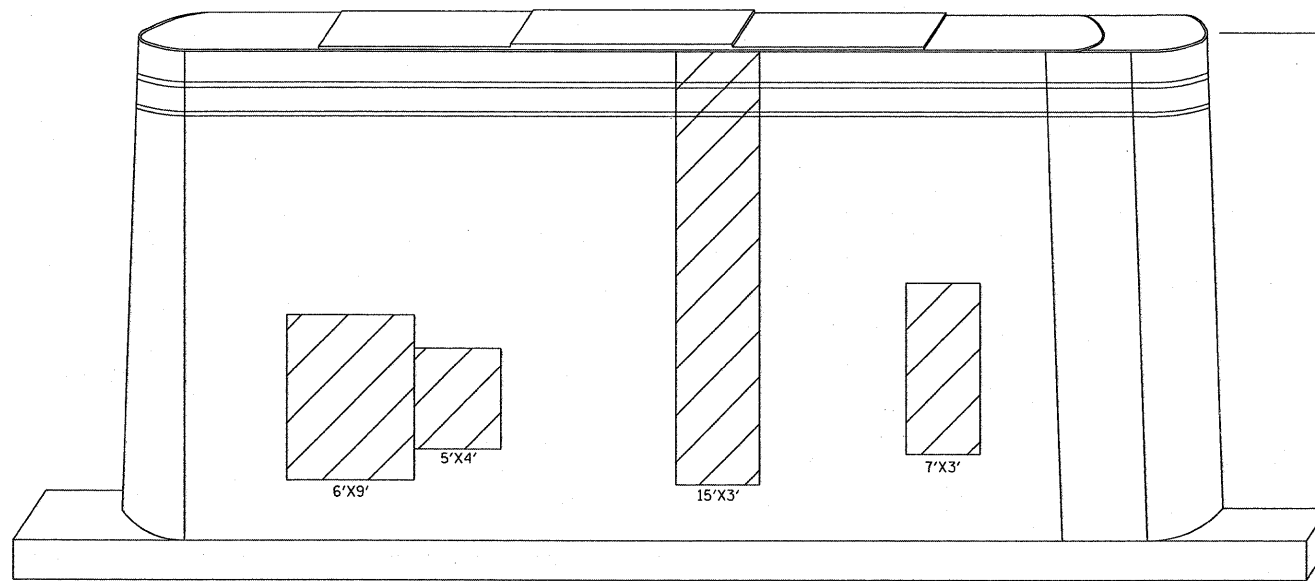
9-3-07



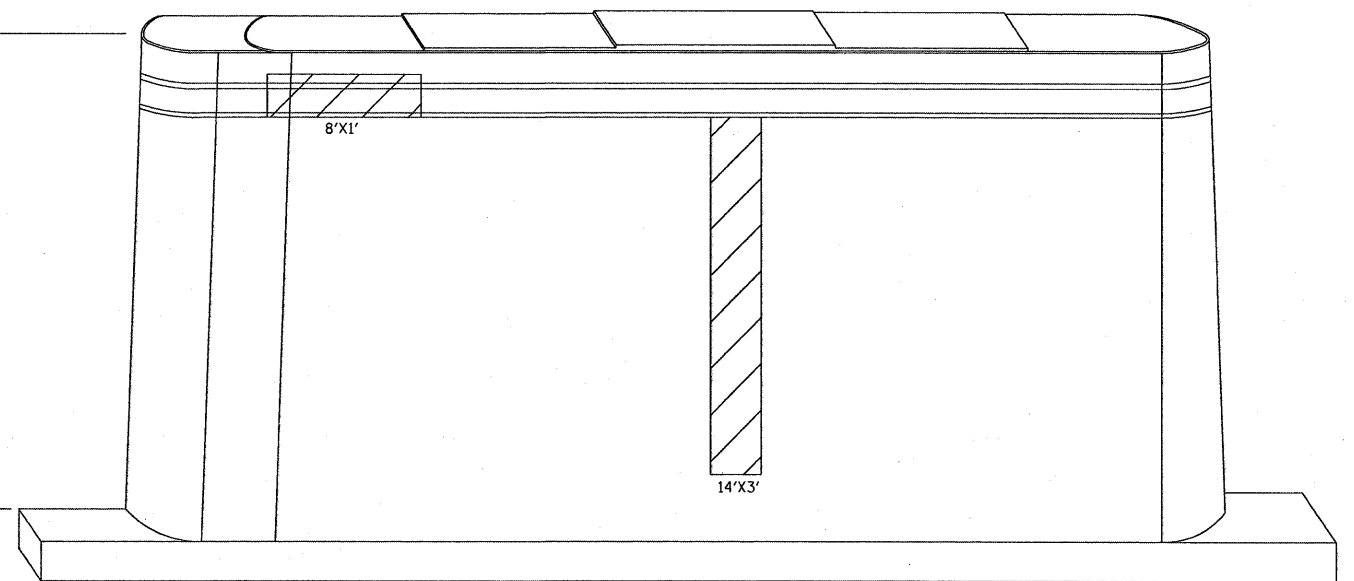
PIER 1
WEST FACE
LOOKING EAST



PIER 1
EAST FACE
LOOKING WEST



PIER 2
WEST FACE
LOOKING EAST



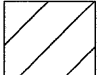
PIER 2
EAST FACE
LOOKING WEST


BEAM
REACTIONS
TABLE

D.L.	34.9 K
L.L.+IMP	45.3 K
TOTAL	80.2 K

PIER 1
SPAN 2

PIER 1 & 2 BILL OF MATERIAL	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE ≤ 5"	SQ FT	620
STRUCTURAL REPAIR OF CONCRETE > 5"	SQ FT	63
TEMPORARY SHORING AND CRIBBING	EA	1

 STRUCTURAL REPAIR OF CONCRETE ≤ 5"

 STRUCTURAL REPAIR OF CONCRETE > 5"

* TEMPORARY SHORING AND CRIBBING

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c:\projects\dl20207\design_00.dgn

USER NAME = mcdjja
PLOT SCALE = 57.6240 ' / IN.
PLOT DATE = 10/30/2008

DESIGNED -
DRAWN -
CHECKED -
DATE -

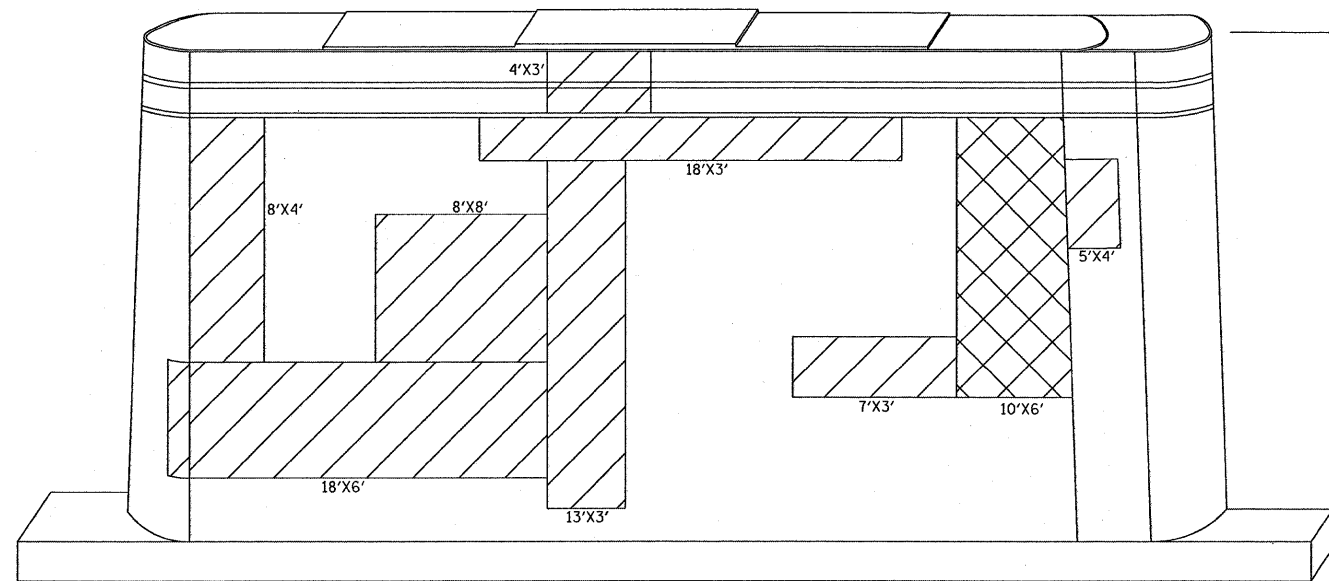
REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

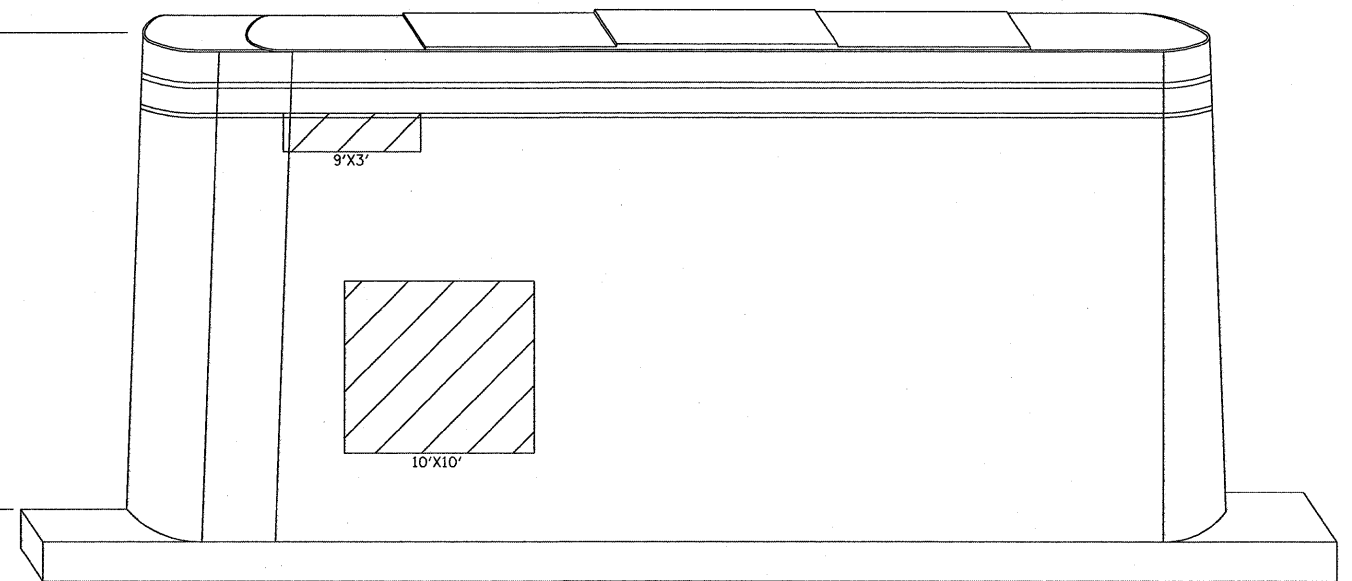
SN 099-0040
PIER 1 & 2 STRUTURAL REPAIR SHEET 1 of 2

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

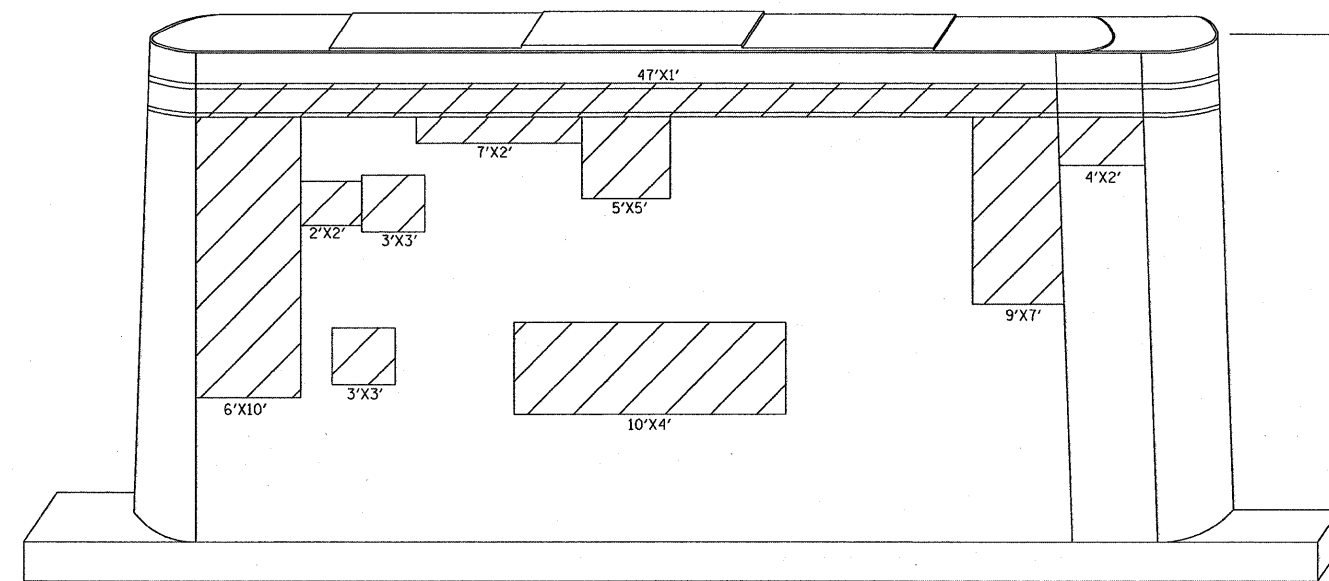
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CONTRACT NO. 60D66				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



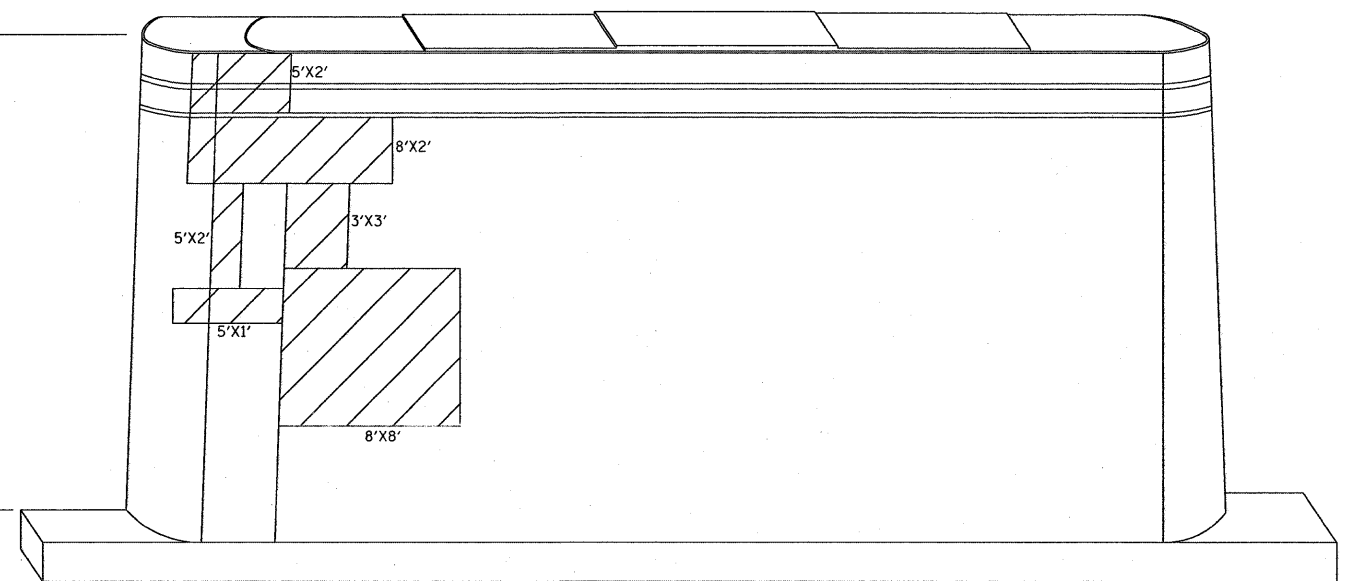
PIER 3
WEST FACE
LOOKING EAST



PIER 3
EAST FACE
LOOKING WEST



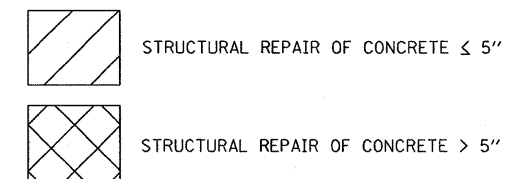
PIER 4
WEST FACE
LOOKING EAST



PIER 4
EAST FACE
LOOKING WEST

PIER 3 & 4 BILL OF MATERIAL	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE ≤ 5"	SQ FT	870
STRUCTURAL REPAIR OF CONCRETE > 5"	SQ FT	60

SN 099-0040 TOTAL BILL OF MATERIAL	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE ≤ 5"	SQ FT	1490
STRUCTURAL REPAIR OF CONCRETE > 5"	SQ FT	123



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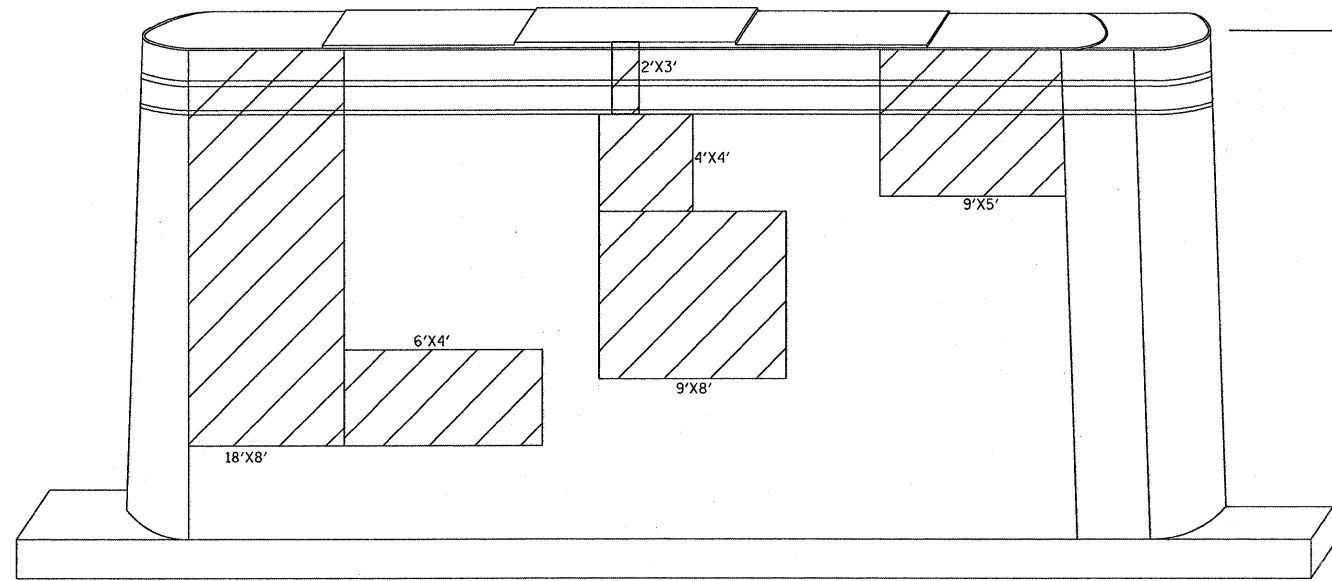
DESIGNED -
DRAWN -
CHECKED -
DATE -

REVISED -
REVISED -
REVISED -
REVISED -

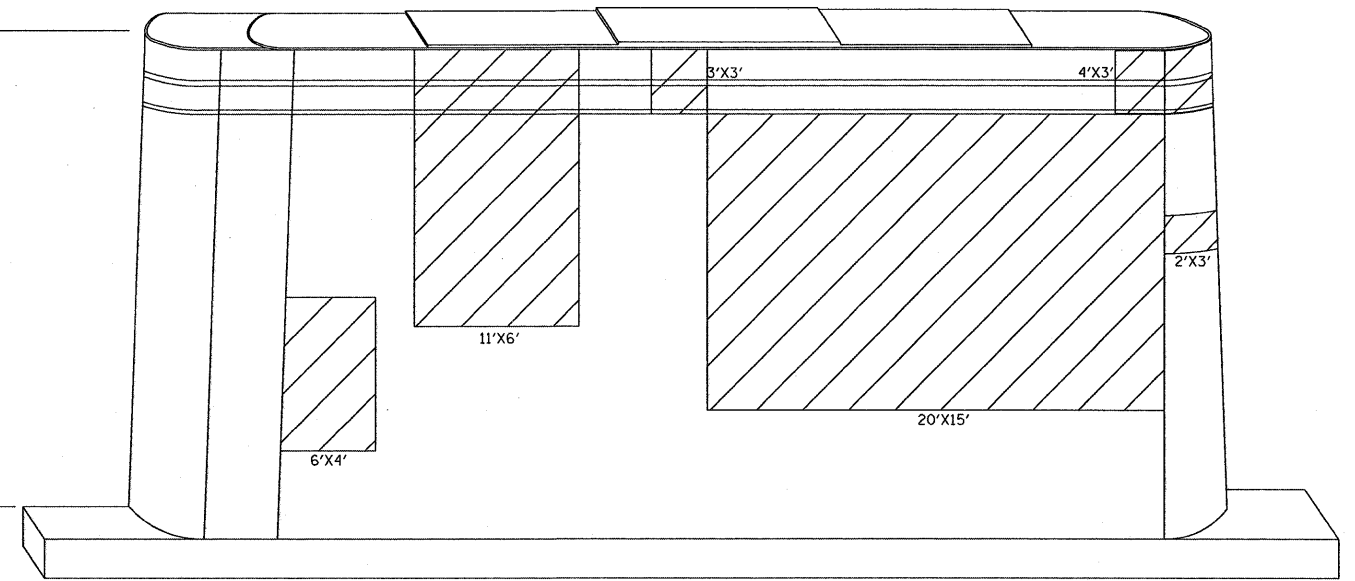
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SN 099-0040
PIER 3 & 4 STRUCTURAL REPAIR SHEET 2 of 2
SCALE: SHEET NO. OF SHEETS STA. TO STA.

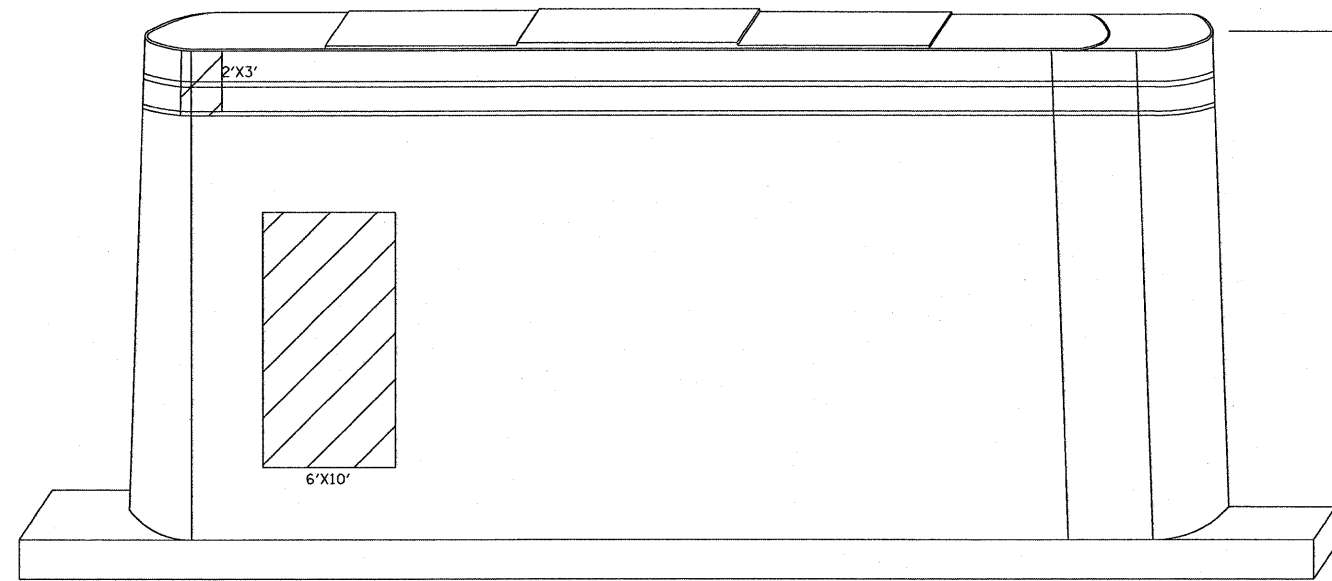
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CONTRACT NO. 60D66				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



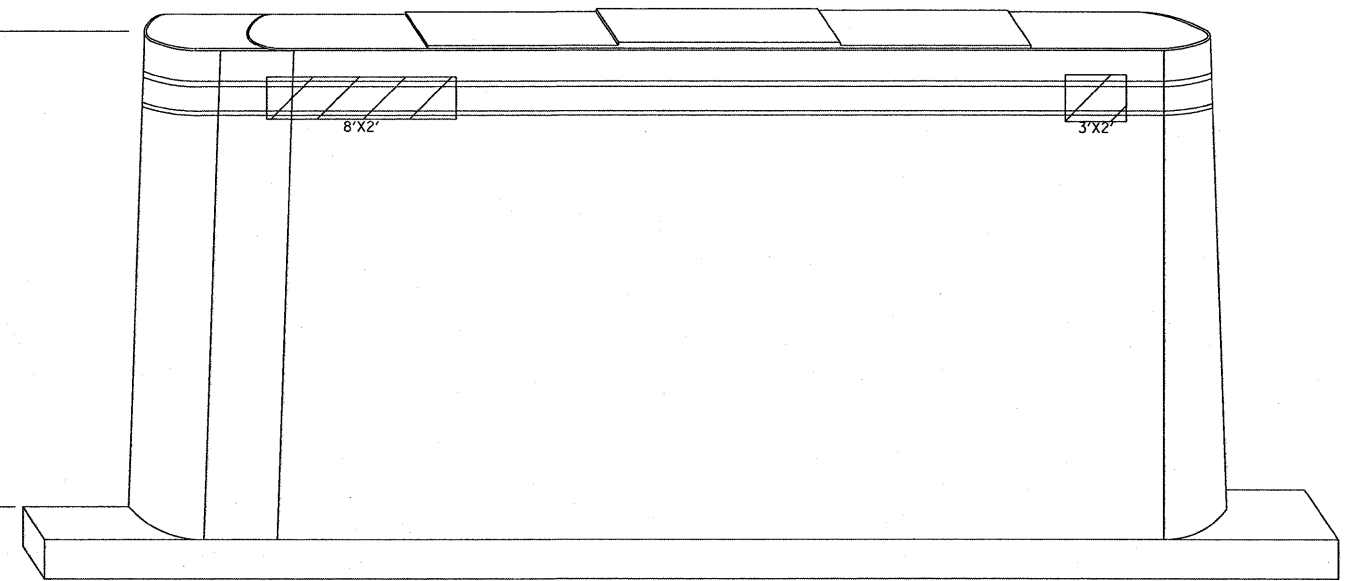
PIER 1
EAST FACE
LOOKING WEST



PIER 1
WEST FACE
LOOKING EAST

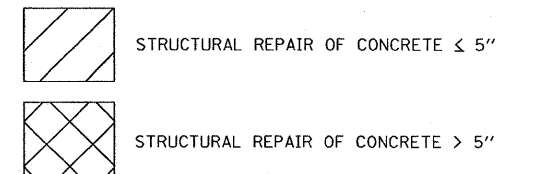


PIER 2
EAST FACE
LOOKING WEST



PIER 2
WEST FACE
LOOKING EAST

PIER 1 & 2 BILL OF MATERIAL	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE ≤ 5"	SQ FT	812



FILE NAME = c:\projects\d120207\design_ee.dgn

USER NAME = midyjo

DESIGNED -

REVISED -

DRAWN -

REVISED -

CHECKED -

REVISED -

DATE -

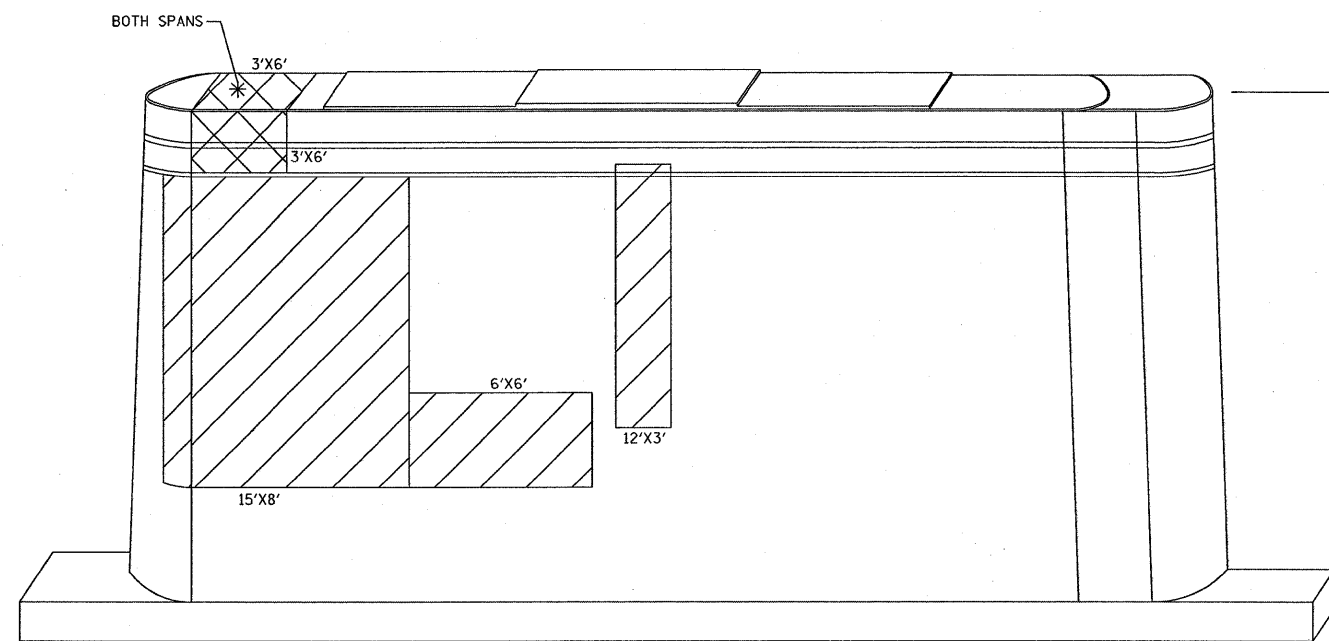
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

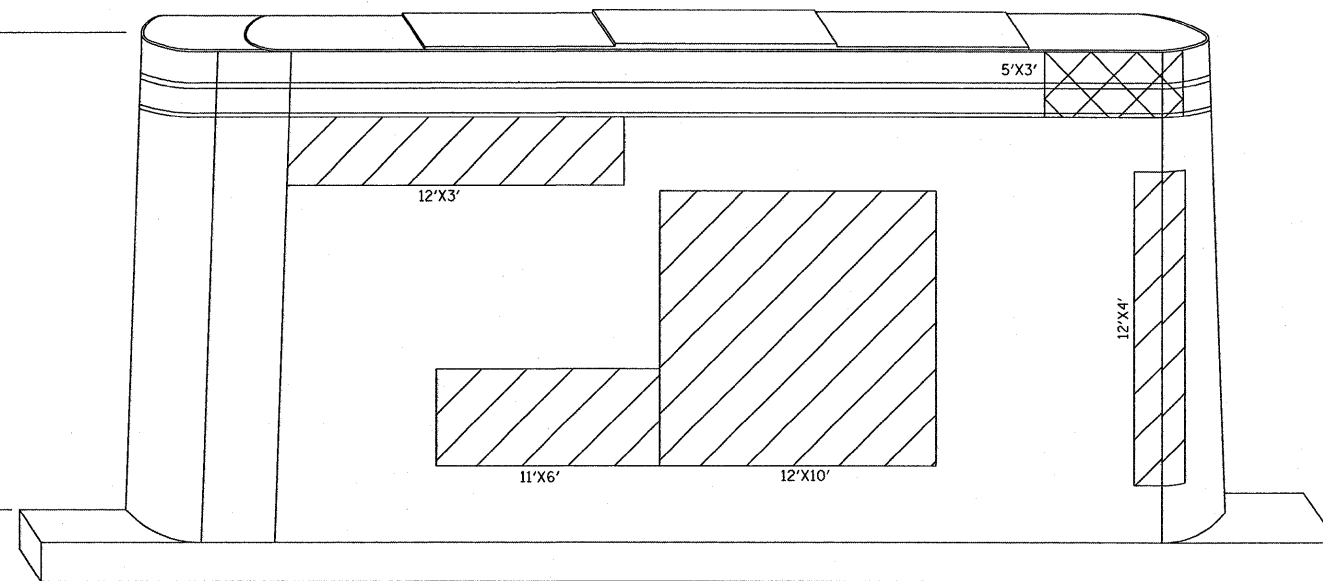
SN 099-0041
PIER 1 & 2 STRUCTURAL REPAIR SHEET 1 of 2

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 60D66				
FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT				

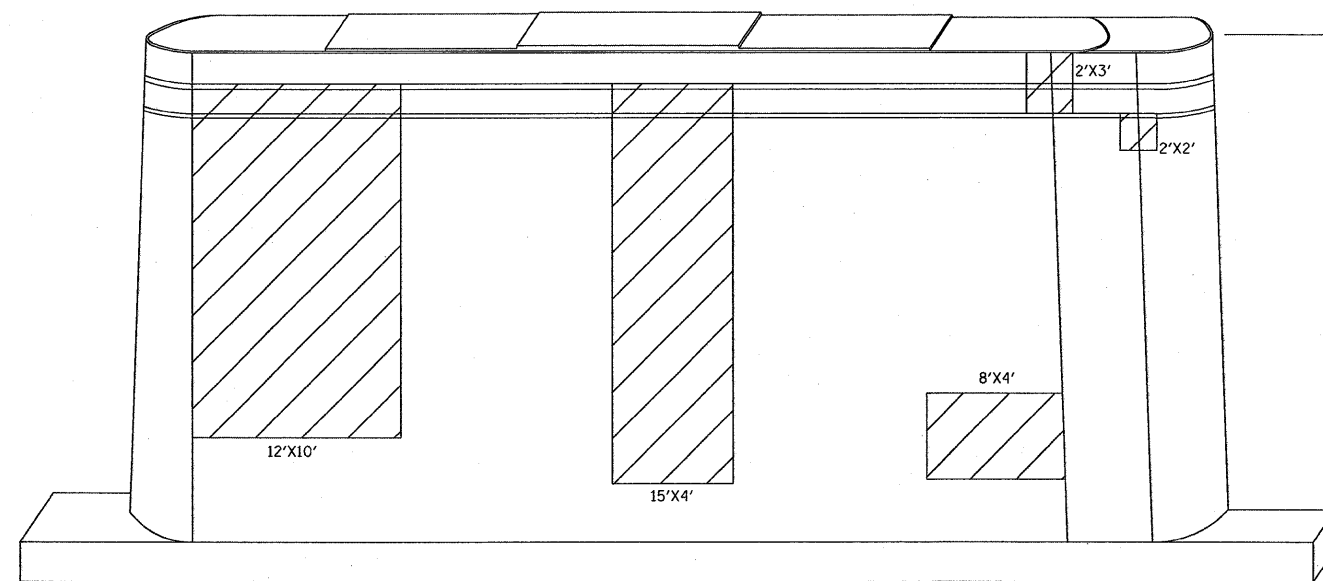
SCALE: SHEET NO. OF SHEETS STA. TO STA.



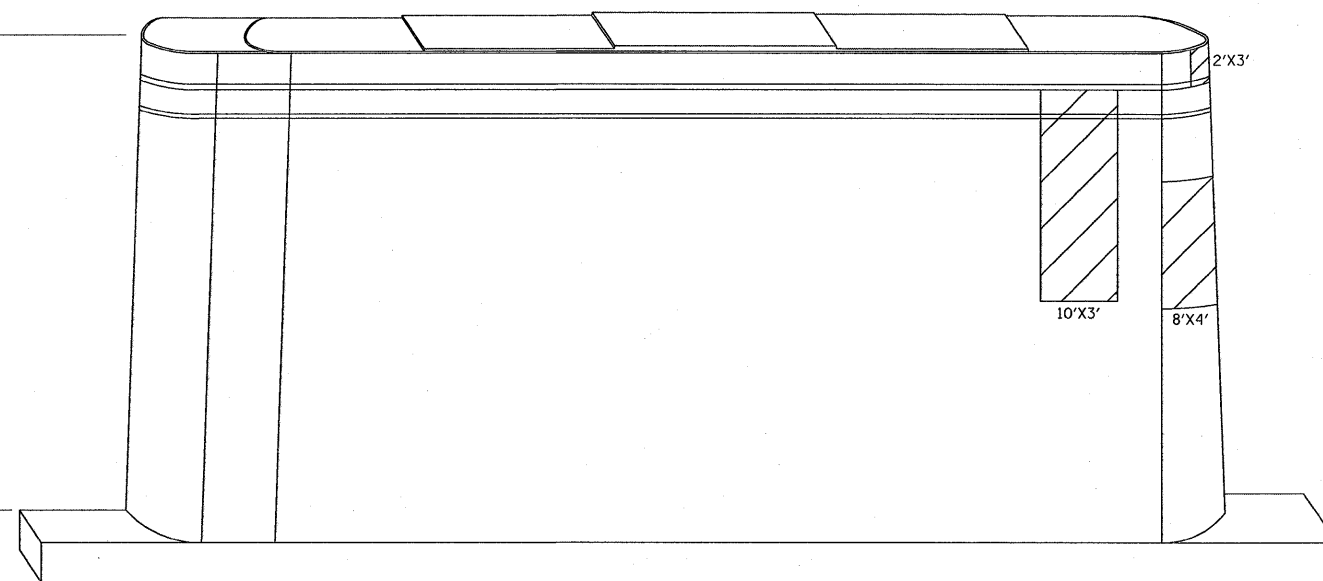
PIER 3
EAST FACE
LOOKING WEST



PIER 3
WEST FACE
LOOKING EAST



PIER 4
EAST FACE
LOOKING WEST



PIER 4
WEST FACE
LOOKING EAST

BEAM
REACTIONS
TABLE

D.L.	34.9 K
L.L.+IMP	45.3 K
TOTAL	80.2 K

PIER 3
SPAN 3 & 4

PIER 3 & 4 BILL OF MATERIAL	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE ≤ 5"	SQ FT	752
STRUCTURAL REPAIR OF CONCRETE > 5"	SQ FT	51
TEMPORARY SHORING AND CRIBBING	EA	2

SN 099-0041 TOTAL BILL OF MATERIAL	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE ≤ 5"	SQ FT	1564
STRUCTURAL REPAIR OF CONCRETE > 5"	SQ FT	51
TEMPORARY SHORING AND CRIBBING	EA	2

- STRUCTURAL REPAIR OF CONCRETE ≤ 5"
- STRUCTURAL REPAIR OF CONCRETE > 5"
- * TEMPORARY SHORING AND CRIBBING

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USER NAME = mdyjs

DESIGNED -
DRAWN -

REVISED -

PLOT SCALE = 57.6240' / IN.
PLOT DATE = 10/30/2008

CHECKED -
DATE -

REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SN 099-0041
PIER 3 & 4 STRUCTURAL REPAIR SHEET 2 of 2

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

F.A.I. RTE. 80	SECTION 99-1-B-I-2	COUNTY WILL	TOTAL SHEETS 21	SHEET NO. 17
CONTRACT NO. 60D66				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

The diameter of this part is equal or larger than the diameter of bar spliced.

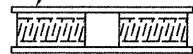
The diameter of this part is the same as the diameter of the bar spliced.

ROLLED THREAD DOWEL BAR



**** ONE PIECE**

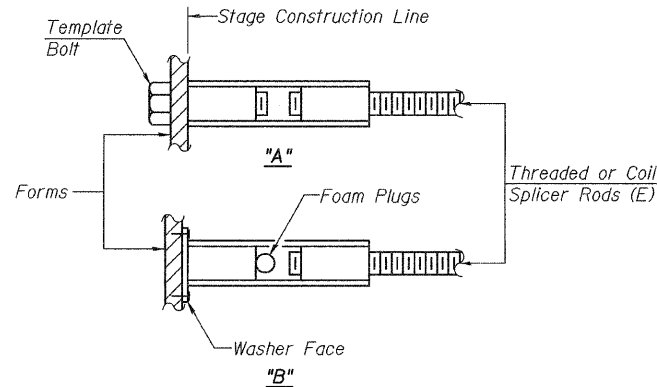
Wire Connector



WELDED SECTIONS

BAR SPLICER ASSEMBLY ALTERNATIVES

**Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



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.

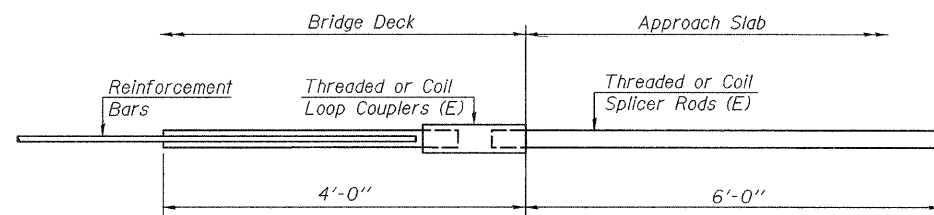
NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
 Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.
 All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.
 Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

- ① Minimum Capacity = $1.25 \times f_y \times A_t$
 (Tension in kips)
 - ② Minimum *Pull-out Strength = $0.66 \times f_y \times A_t$
 (Tension in kips)
- Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_t = Tensile stress area of lapped reinforcement bars.
 * = 28 day concrete

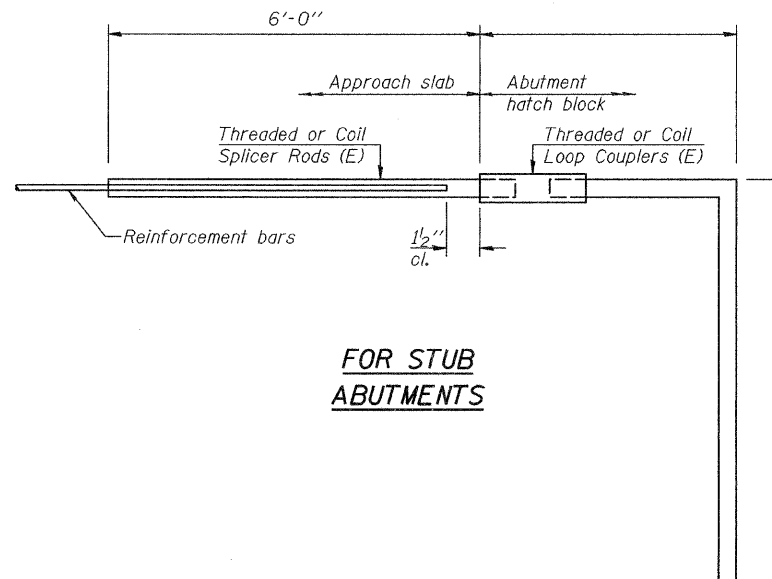
BAR SPLICER ASSEMBLIES

Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	7.9
#5	2'-2"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8



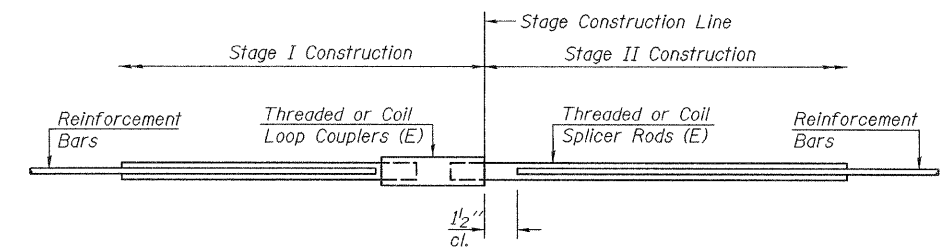
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required =



FOR STUB ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required =



STANDARD

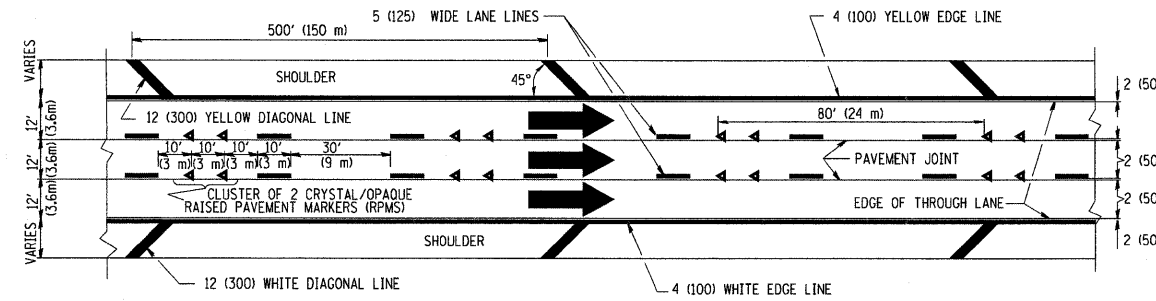
Bar Size	No. Assemblies Required	Location
#5	4	Piers 1, 3 & 4
#7	10	Piers 1, 3 & 4

BSD-1

10-1-08

FILE NAME =	USER NAME = *USER*	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STRUCTURE NO. 099-0040 & 099-0041 BAR SPLICER ASSEMBLY DETAILS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
FILEL		DRAWN -	REVISED -			80	99-1-B-I-2	WILL	21	17A	
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PLOT DATE = *DATE*		DATE -	REVISED -			ILLINOIS FED. AID PROJECT					

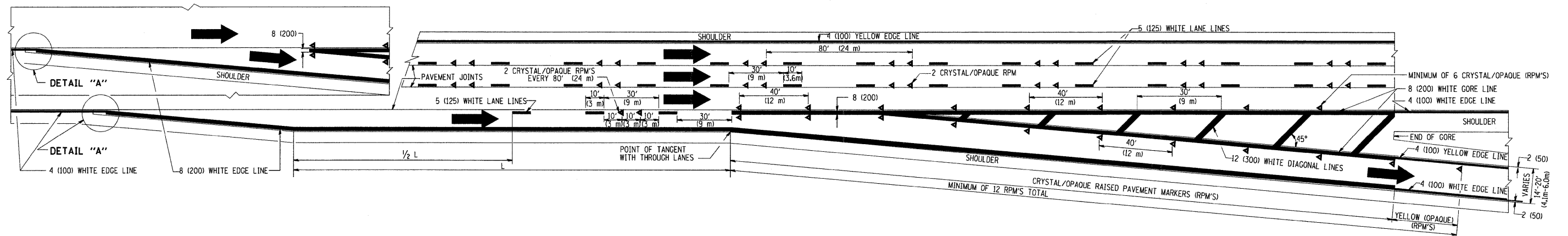
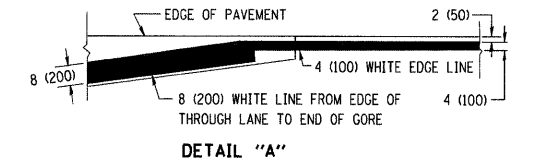
THE DIAGONAL LINES SHALL BE SPACED AT 40' (12 m) C-C ACROSS ALL STRUCTURES WHICH ARE 500' (150 m) OR LESS IN LENGTH
 THE DIAGONAL LINES ARE NOT REQUIRED ON SHOULDERS WHICH ARE 6' (1.8 m) OR LESS IN WIDTH



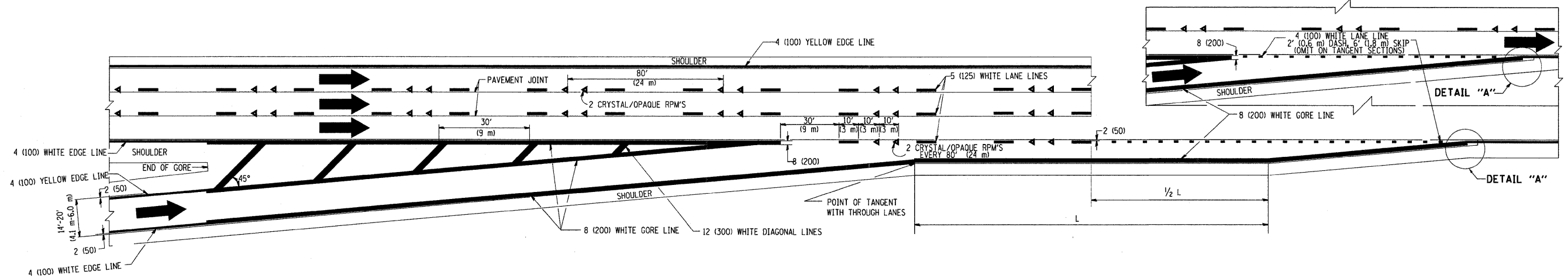
TYPICAL EDGE LINES & LANE LINES

NOTES:

1. THERMO PLASTIC PAVEMENT MARKING LINE SHALL BE USED FOR THE EDGE LINES, GORE LINES, AND DIAGONAL LINES ON BITUMINOUS PAVEMENT ONLY.
2. PREFORMED PLASTIC TYPE B PAVEMENT MARKING LINE SHALL BE USED FOR ALL LANE LINES ON BITUMINOUS PAVEMENT
3. POLYUREA PAVEMENT MARKING SHALL BE USED FOR ALL MARKINGS ON PCC



TYPICAL EXIT RAMP PAVEMENT MARKINGS



TYPICAL ENTRANCE RAMP PAVEMENT MARKINGS

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 USER NAME = gogliobt

DESIGNED - D.W.S.
 DRAWN -
 CHECKED -
 DATE - 01-90

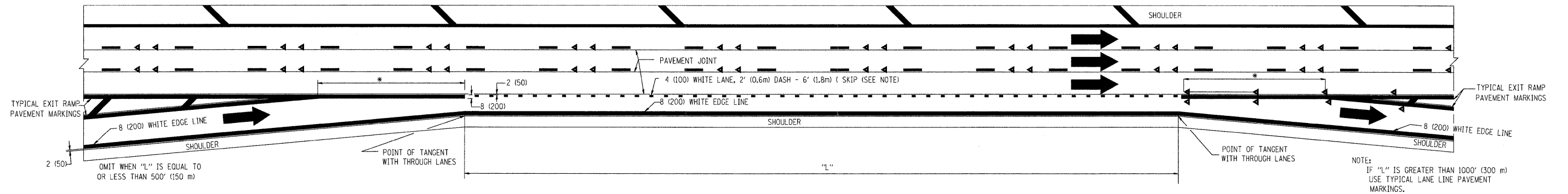
REVISOR - A.H. 03-96
 REVISOR - D.W.S. 07-96
 REVISOR - J.A.F. 02-06
 REVISOR - S.P.B. 01-07

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

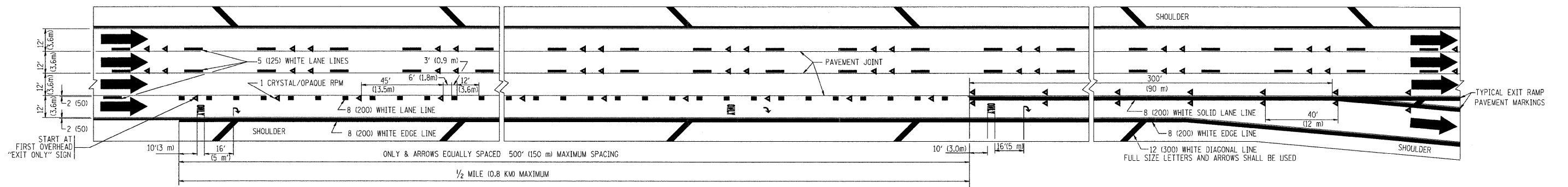
MULTI-LANE FREEWAY
 PAVEMENT MARKING DETAILS

SCALE: NONE SHEET NO. 1 OF 2 SHEETS STA. TO STA.

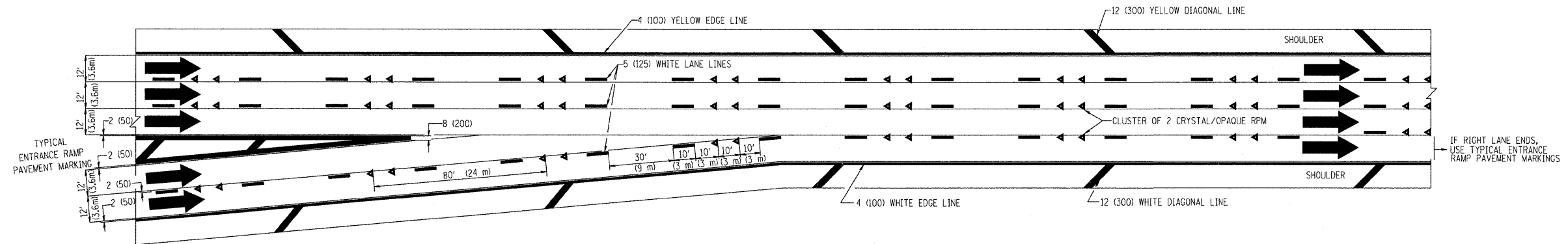
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99-1-B-1-2	WILL	21	18
TC-12			CONTRACT NO. 60066	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



TYPICAL ENTRANCE/EXIT RAMP COMBINATION PAVEMENT MARKINGS



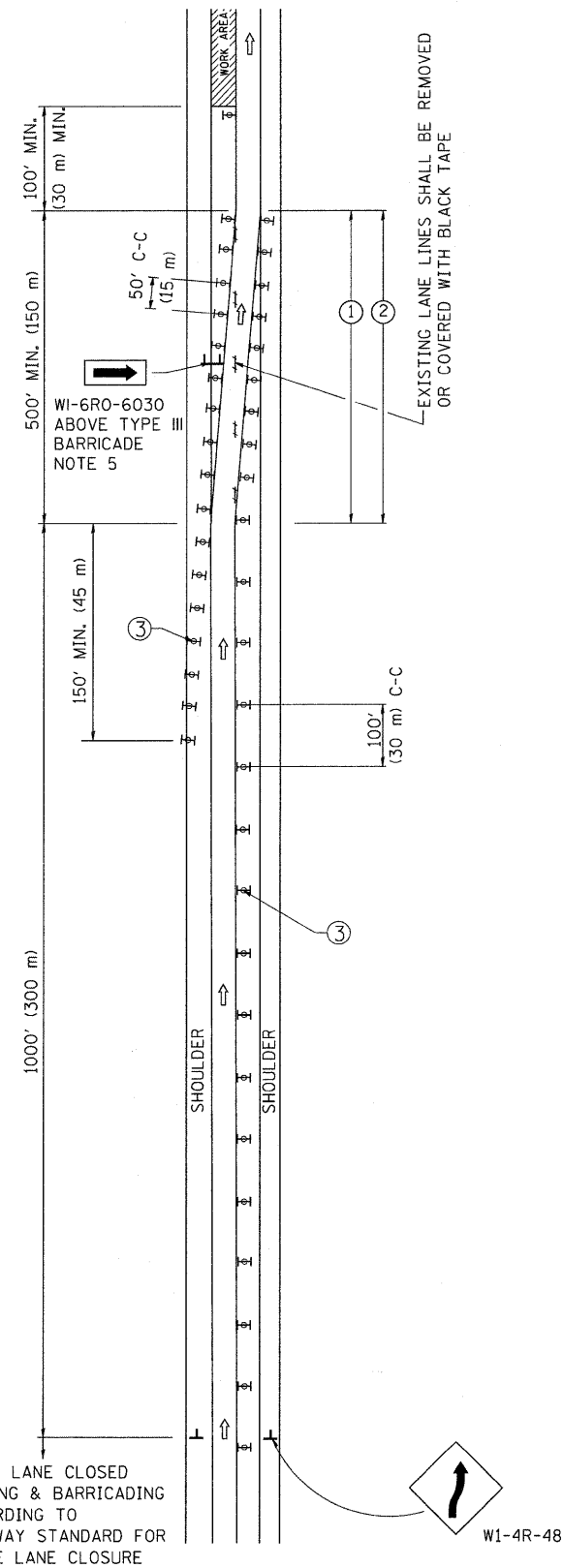
TYPICAL EXIT ONLY LANE PAVEMENT MARKINGS



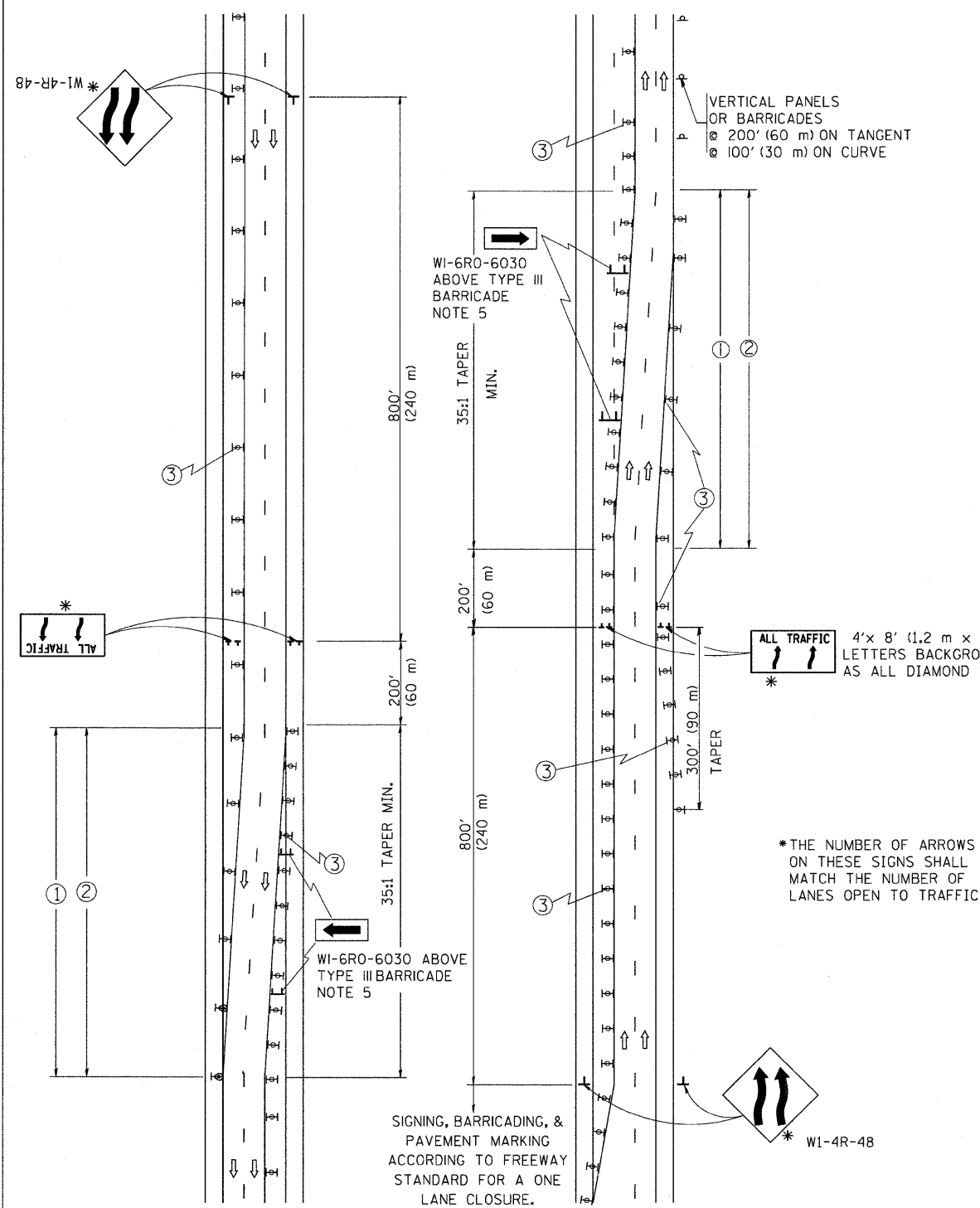
TYPICAL TWO LANE ENTRANCE RAMP PAVEMENT MARKINGS

FILE NAME = c:\projects\dsts\td22x34\tc12.dgn	USER NAME = bauerdl	DESIGNED - D.W.S.	REVISED - A.H. 03-96	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	MULTI-LANE FREEWAY PAVEMENT MARKING DETAILS			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 50,000' / IN.	DRAWN -	REVISED - D.W.S. 07-96					80	99-1-B-1-2	WILL	21	19
	PLOT DATE = 10/3/2008	CHECKED -	REVISED - J.A.F. 02-06					TC-12				CONTRACT NO. 60066
	DATE - 01-90	REVISED - S.P.B. 01-07		SCALE: NONE	SHEET NO. 2 OF 2 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

SINGLE LANE WEAVE



MULTI-LANE WEAVE



GENERAL NOTES

- ① EXISTING CONFLICTING PAVEMENT MARKING LINES SHALL BE REMOVED OR COVERED WITH BLACK TAPE. PAVEMENT MARKING REMOVAL OR BLACK TAPE SHALL NOT BE REQUIRED FOR LANE CLOSURES UNDER 24 HOURS IN DURATION.
- ② CONTINUOUS REFLECTIVE TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE TAPER AND FOR 300' (90 m) ALONG SIDE THE WORK AREA WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS. THE LEFT EDGE LINE SHALL BE YELLOW AND THE RIGHT EDGE LINE SHALL BE WHITE. FOR MULTI-LANE WEAVE LANE LINES SHALL BE 10'-30' (3 m-9 m) SKIP DASH, WHITE.
- ③ PLASTIC DRUMS WITH STEADY BURN LIGHTS AT 50' (15 m) C-C SPACING IN TAPERS AND 100' (30 m) C-C SPACING IN TANGENTS.
- ④ ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
- ⑤ IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 IS NOT AVAILABLE, THE SIGNS MAY BE MOUNTED ON NCHRP 350 TEMPORARY SIGN SUPPORTS DIRECTLY IN FRONT OF THE BARRICADE.
- ⑥ IF THE WIDTH OF OFFSET IS LESS THAN 6' THEN THE TYPE III BARRICADE WITH ATTACHED ARROW SIGN PANEL CAN BE ELIMINATED IN THE TAPER AREAS.

SYMBOLS

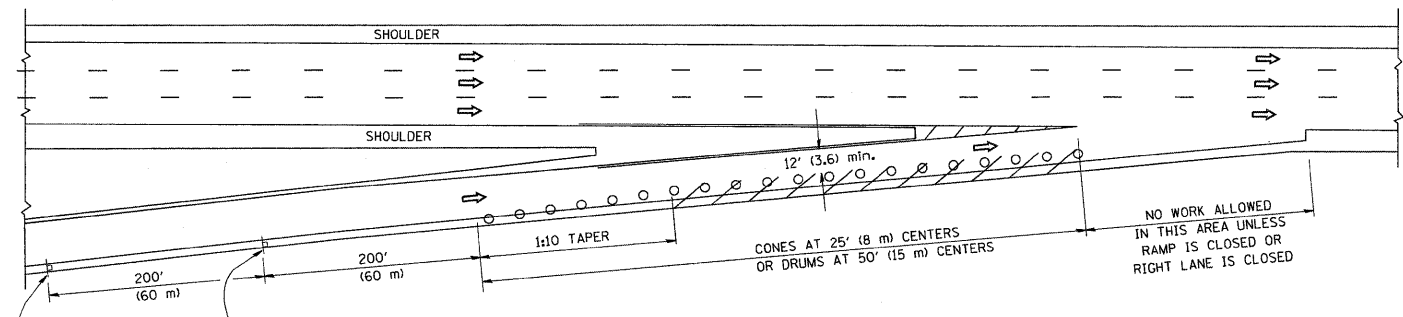
- ↑ DIRECTION OF TRAFFIC
- ▨ WORK AREA
- ┌ SIGN ON PORTABLE OR PERMANENT SUPPORT
- ⊞ TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH MONO-DIRECTIONAL STEADY BURNING LIGHT

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

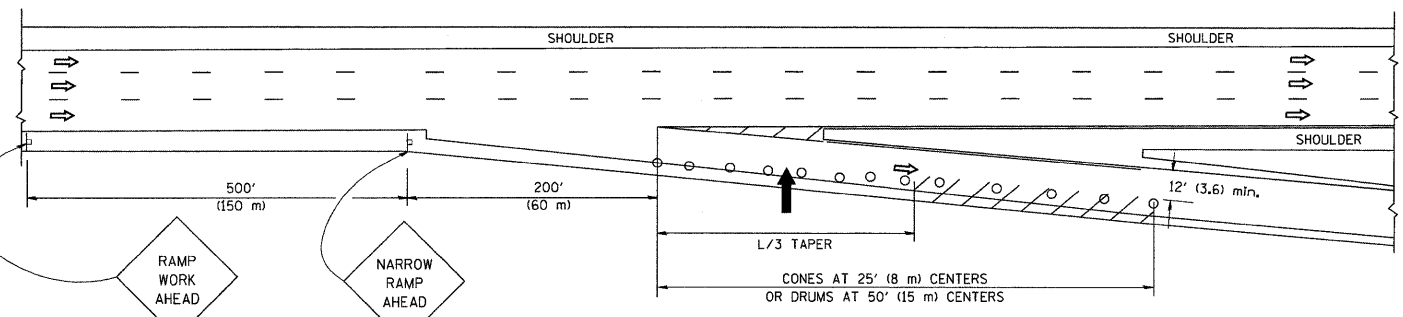
FILE NAME = W:\d\statd\22x34\to09.dgn	USER NAME = goglianobt	DESIGNED - DWS	REVISED - DWS 11-96	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL DETAILS FOR FREEWAY SINGLE & MULTI-LANE WEAVE			F.A.I. RTE. 30	SECTION 99-1-B-I-2	COUNTY WILL	TOTAL SHEETS 21	SHEET NO. 20
	PLOT SCALE = 50.000' / IN.	DRAWN -	REVISED - JAF 01-03		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	TC-09		CONTRACT NO. 60066	
	PLOT DATE = 1/4/2008	CHECKED -	REVISED - JAF 02-06						FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			
		DATE - 02-87	REVISED - SPB 01-07									

PARTIAL RAMP CLOSURE DETAILS

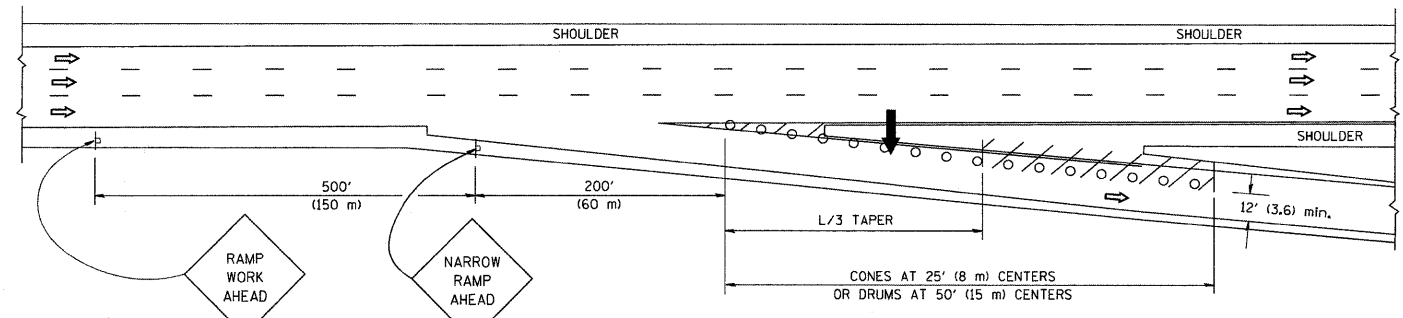
SHOULDER CLOSURE DETAILS



TYPICAL ENTRANCE RAMP



TYPICAL EXIT RAMP



TYPICAL EXIT RAMP

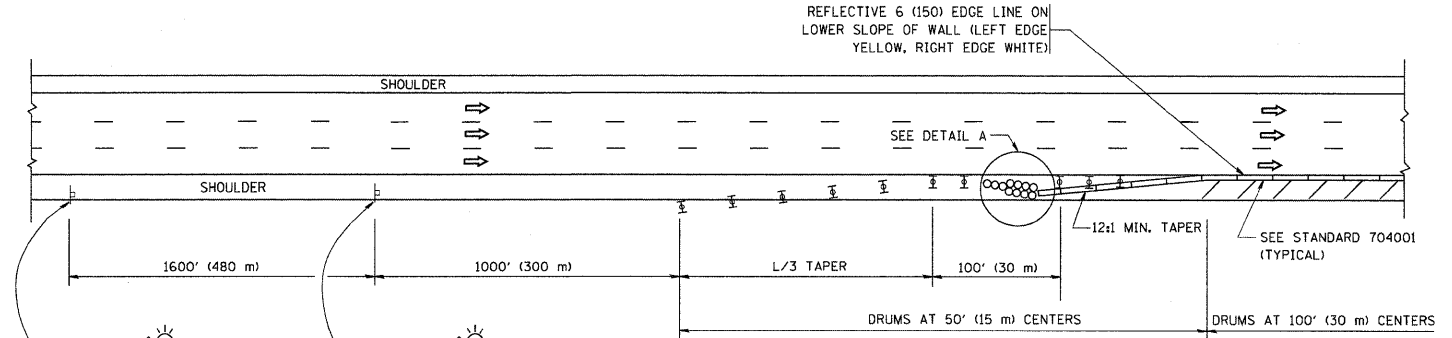
SYMBOLS

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

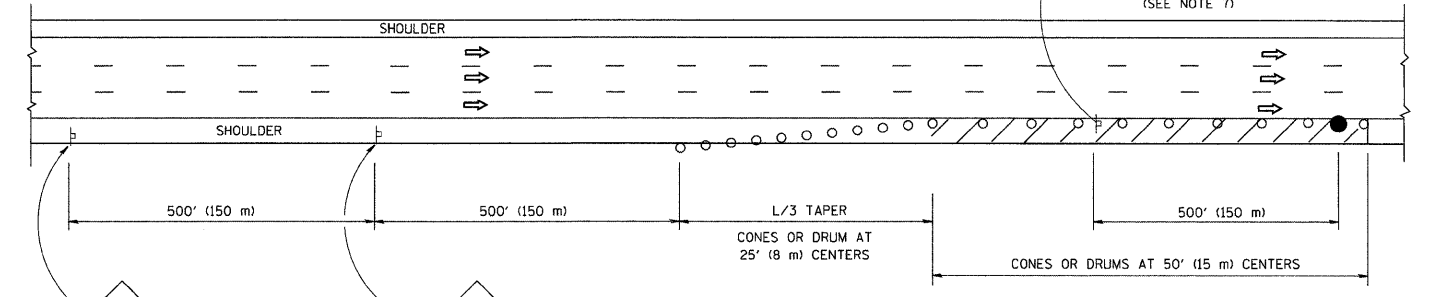
GENERAL NOTES

1. THE "L" DISTANCE EQUALS:

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



PERMANENT SHOULDER CLOSURE



DAYTIME SHOULDER CLOSURE

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

ARRAY DESIGN PER MANUFACTURER TO BE NCHRP 350 COMPLIANT FOR POSTED SPEED.

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

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

FILE NAME = w:\diststd\22x34\1c17.dgn	USER NAME = gajlionabt	DESIGNED -	REVISED - J.A.F. 12-02	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES		F.A.I. RTE. 80	SECTION 93-1-B-I-2	COUNTY WILL	TOTAL SHEETS 21	SHEET NO. 21	
PLOT SCALE = 50,0000' / IN.		DRAWN - D.W.S.	REVISED - 04-03		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	CONTRACT NO. 60D66			
PLOT DATE = 1/4/2008		CHECKED -	REVISED - J.A.F. 12-06		FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT							
		DATE - 11-96	REVISED - S.P.B. 01-07									