

PROGRAM AND OFFICE ENGINEER: CHARLES F. RIDDLER, P.E. 847-705-4406 SCHAUMBURG, IL

FOR INDEX OF SHEETS, SEE SHEET NO. 2 04-26-13 LETTING ITEM 056 STATE OF ILLINOIS

FOR LIST OF HIGHWAY STANDARDS, SEE SHEET NO. 2

**TRAFFIC DATA**

DESIGN DESIGNATION:  
F.A.U. 298 (BLACK ROAD) = (ARTERIAL)

ADT:  
F.A.U. 298 (BLACK ROAD) = 20,700 (2011)

DESIGN SPEED:  
F.A.U. 298 (BLACK ROAD) = 40 MPH

POSTED SPEED:  
F.A.U. 298 (BLACK ROAD) = 40 MPH

**BENCHMARK DATA**

BENCHMARK #1:  
CHISELED "□" ON TOP OF S.E. PARAPET  
WALL OF BRIDGE OVER DUPAGE RIVER  
ELEVATION = 601.96 (NAD83-2007)

**UTILITY CONTACT INFORMATION**

AT&T:  
JANET AHERN  
1000 COMMERCE DR.  
OAK BROOK, IL 60523  
630-573-8414

COMED:  
JOE MALAGON  
1910 S. BRIGGS ST.  
JOLIET, IL 60433  
815-724-5065

COMCAST:  
THOMAS MUNAR  
688 INDUSTRIAL DRIVE  
ELMHURST, IL 60123  
630-600-6316

NICOR GAS:  
CONSTANCE LANE  
1844 FERRY RD.  
NAPERVILLE, IL 60563  
630-388-3830

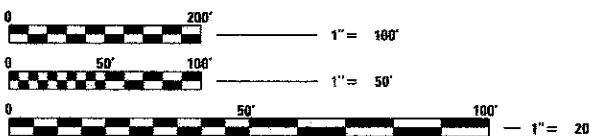
S.N. 099-3031  
STA. 15+71.25 4-SPAN WIDE-FLANGE BEAM  
STRUCTURE WITH A REINFORCED CONCRETE  
DECK ON SOLID-WALL CONCRETE PIERS WITH  
SPREAD FOOTINGS AND SPILL-THRU PILE BENT  
ABUTMENTS AND CONCRETE BUTTRESS  
ABUTMENTS

THE PROJECT CONSISTS OF THE REHABILITATION  
OF THE BLACK ROAD BRIDGE SUPERSTRUCTURE  
AND SUBSTRUCTURE OVER THE DUPAGE RIVER;  
RECONSTRUCTION OF BLACK ROAD FROM STA.  
12+00.00 TO STA. 18+72.09

CITY OF JOLIET  
JAMES TRIZNA  
150 W. JEFFERSON ST.  
JOLIET, IL 60432  
815-724-4200

FOREST PRESERVE  
DISTRICT OF WILL COUNTY:  
ANDREW HAWKINS  
17540 W. LARAWAY RD.  
JOLIET, IL 60433  
815-727-8700

J.U.L.I.E. DIG NO: X3451201 & X3451204  
JOINT UTILITY LOCATING INFORMATION FOR EXCAVATION  
1-800-892-0123

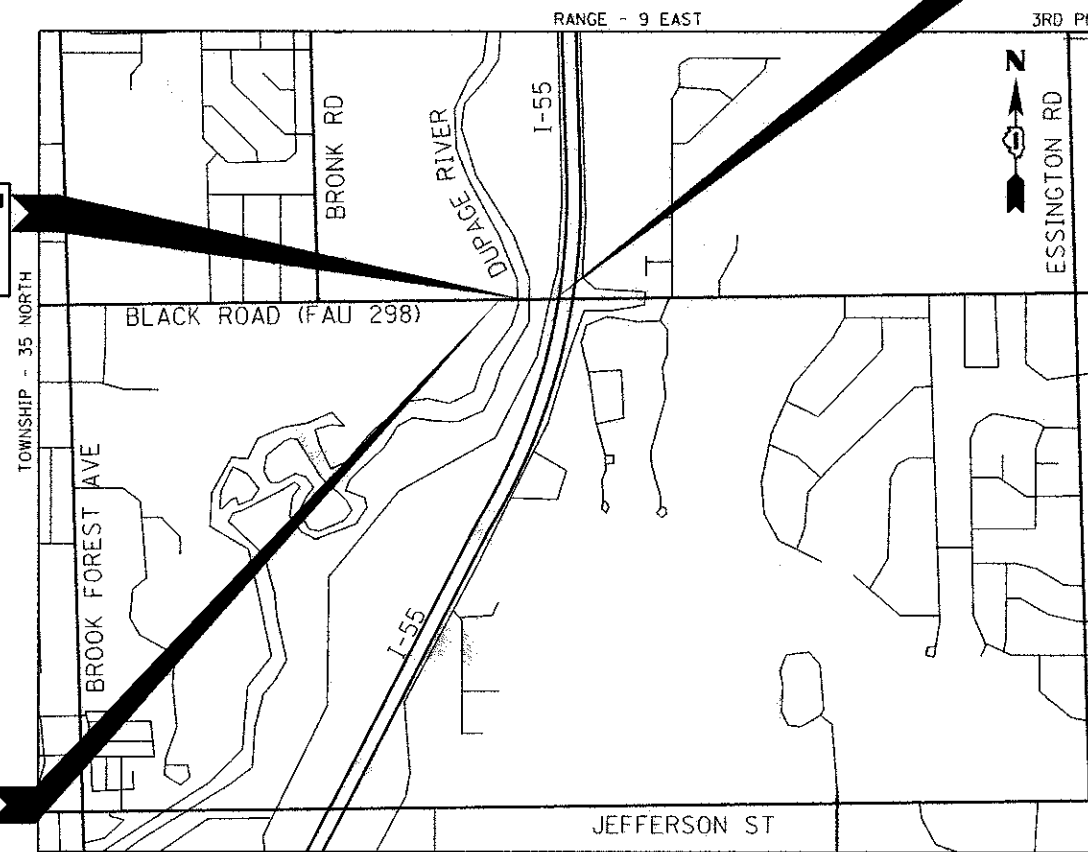


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD  
ENGINEERING SCALES, REDUCED SIZED PLANS WILL NOT  
CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS  
ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED

**CONTRACT NO. 63803**

# DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PLANS FOR PROPOSED FEDERAL-AID HIGHWAY

F.A.U. ROUTE 0298 (BLACK ROAD)  
OVER THE DUPAGE RIVER  
BRIDGE REHABILITATION  
PROJECT: BRM-9003(027)  
SECTION: 04-00069-18-BR  
WILL COUNTY  
C-91-407-08



END IMPROVEMENTS  
FAU 298 (BLACK ROAD)  
18+72.09 STA

BEGIN IMPROVEMENTS  
FAU 298 (BLACK ROAD)  
STA 12+00.00

**Ciorba Group, Inc.**

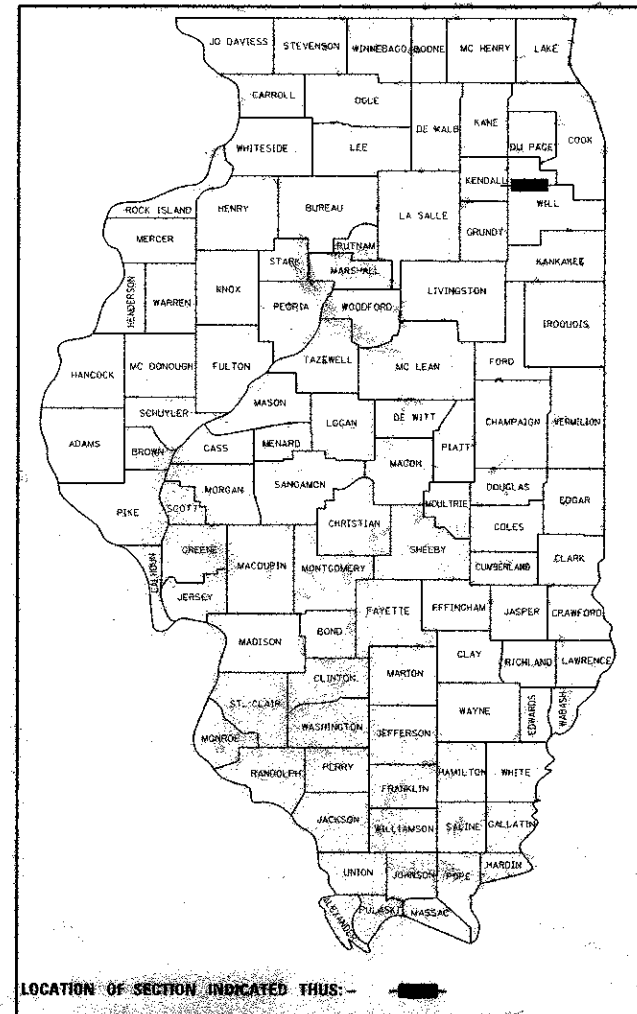
DESIGN FIRM  
REGISTRATION NUMBER

184-001016

CONSULTING ENGINEERS  
5507 NORTH CUMBERLAND AVE, SUITE 402  
CHICAGO, ILLINOIS 60656 ☎ (773) 775-4009

PROJECT GROSS AND NET LENGTH:  
F.A.U. (BLACK ROAD) = 672.09 FEET (0.13 MILES)

F.A. RTE. 298	SECTION 04-00069-18-BR	COUNTY WILL	TOTAL SHEETS 51	SHEET NO. 1
FED. ROAD DIST. NO. 1		ILLINOIS CONTRACT NO. 63803		



STATE OF ILLINOIS  
LICENSED PROFESSIONAL ENGINEER  
JOSEPH J. HOSANNA, JR.  
081-004654  
DATE: 1/29/2013  
SEAL EXPIRES: 11/30/2014

STATE OF ILLINOIS  
LICENSED PROFESSIONAL ENGINEER  
MATTHEW J. LEHAN  
082-057159  
DATE: 1/29/2013  
SEAL EXPIRES: 11/30/2013  
CIORBA GROUP, INC.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

Approved: JANUARY 30<sup>TH</sup> 2013  
*[Signature]*  
WILL COUNTY ENGINEER

Passed: 2-27-2013  
*[Signature]*  
District 1 Engineer of Local Roads & Streets

Releasing for Bid  
Based on Limited  
Review: March 4, 2013  
*[Signature]*  
District 1 Engineer of Highways, Region 1 Engineer

**PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS**

INDEX OF SHEETS

SHEET NO	DESCRIPTION
1	COVER SHEET
2	INDEX OF SHEETS, STATE STANDARDS & GENERAL NOTES
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51	ARTERIAL ROAD INFORMATION SIGN (TC-22)


STATE STANDARDS

000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
420401-09	BRIDGE APPROACH PAVEMENT CONNECTOR
515001-03	NAME PLATE FOR BRIDGES
606001-05	CONCRETE CURB TYPE B AND COMBINATION CURB AND GUTTER
630001-10	STEEL PLATE BEAM GUARDRAIL
631031-11	TRAFFIC BARRIER TERMINAL, TYPE 6
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
701501-06	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701606-08	URBAN LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIUM
701701-08	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701901-02	TRAFFIC CONTROL DEVICES
704001-07	TEMPORARY CONCRETE BARRIER
720001-01	SIGN PANEL MOUNTING DETAILS
720006-03	SIGN PANEL ERECTION DETAILS
720011-01	METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
728001-01	TELESCOPING STEEL SIGN SUPPORT
729001-01	APPLICATION OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)

GENERAL NOTES

- EXCAVATION ON BOTH SIDES OF THE PAVEMENT AT ANY ONE LOCATION AT THE SAME TIME WILL NOT BE PERMITTED PER ARTICLE 701.08 OF THE IDOT SPECS.
- PORTABLE/CHANGEABLE ELECTRONIC MESSAGE BOARDS SHALL BE USED IN ADVANCE OF THE PROJECT ACCORDING TO IDOT STANDARDS AND SHALL BE IN PLACE A MINIMUM OF 7 DAYS PRIOR TO COMMENCING THE WORK AND REMAIN THROUGHOUT THE ROADWAY CONSTRUCTION WORK.
- ALL CONSTRUCTION MATERIALS WITHIN THE COUNTY ROW MUST BE IDOT CERTIFIED. DOCUMENTATION OF MATERIAL CERTIFICATION SHALL BE SUBMITTED PRIOR TO WCDH APPROVAL. ALL CONSTRUCTION MATERIAL NEEDING INSPECTION SHALL BE DONE ACCORDING TO THE LATEST IDOT PROJECT AND PROCEDURES GUIDE.
- A PROOF ROLL OF THE SUBGRADE IS REQUIRED PRIOR TO PLACING THE AGGREGATE SUB-BASE AND MUST BE OBSERVED BY A CERTIFIED TESTING COMPANY. NOTIFY THE COUNTY PRIOR TO DOING THE PROOF ROLL.
- THE RESIDENT ENGINEER SHALL PROVIDE WCDH A LIST OF MATERIALS USED AND IDENTIFY THEIR ASSOCIATED IDOT CERTIFICATION, SHALL PROVIDE WCDH WITH A COPY OF ALL MATERIAL TESTING COMPANY RESULTS, SHALL SIGN AND PROVIDE WCDH ON A WEEKLY BASIS WEEKLY FIELD REPORTS UTILIZING THE APPROPRIATE IDOT FORM, SHALL SUBMIT TO WCDH A CERTIFICATION LETTER THAT CERTIFIES COMPLIANCE WITH THE PLANS AND SPECIFICATIONS.
- RECORD DRAWINGS SHALL BE PREPARED IN ACCORDANCE WITH WCDH REQUIREMENTS AND SHALL BE SUBMITTED IN ELECTRONIC FORMAT.
- ALL CONSTRUCTION TO BE ACCORDING TO IDOT DESIGN AND STANDARD SPECIFICATIONS, MUST ADHERE TO THE WILL COUNTY DEPARTMENT OF HIGHWAYS PERMIT REGULATIONS AND ACCESS CONTROL REGULATIONS, AND SHALL FOLLOW THE LATEST WILL COUNTY STORM WATER MANAGEMENT ORDINANCE AND WILL COUNTY WATER RESOURCE ORDINANCE AT ALL TIMES.
- ALL DISTURBED GROUND WITHIN THE COUNTY RIGHT-OF-WAY SHALL BE RE-SEEDDED (CLASS 2A), FERTILIZED, AND HAVE EXCELSIOR BLANKET INSTALLED TO THE SATISFACTION OF THE ENGINEER.
- VERTICAL HEADWALLS, DECORATIVE SIGNING, PLANTINGS, SHRUBBERY, AND TREES ARE PROHIBITED INSIDE THE COUNTY RIGHT-OF-WAY.
- THE WILL COUNTY DEPARTMENT OF HIGHWAYS MUST BE NOTIFIED A MINIMUM OF TWO (2) WORKING DAYS IN ADVANCE OF ANY CONSTRUCTION WITHIN THE COUNTY RIGHT-OF-WAY.
- ALL ELEVATIONS ARE BASED ON HORIZONTAL DATUM NAD 83 (2007).
- NO EXCAVATION OR FILL IS PERMITTED WITHIN THE DELINEATED WETLAND BOUNDARIES DESIGNATED ON THE PLAN SHEETS. DISTURBANCE WITHIN THE DUPAGE RIVER SHALL BE LIMITED TO SCAFFOLDING AND TEMPORARY SUPPORTS NEEDED FOR BRIDGE REPAIRS.
- THE CONTRACTOR SHALL NOTIFY THE VILLAGE OF SHOREWOOD A MINIMUM OF 48 HOURS BEFORE BEGINNING WORK ON THE SITE.

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 <b>Ciorba Group, Inc.</b> CONSULTING ENGINEERS 5507 North Cumberland Avenue, Suite 402 Chicago, Illinois 60656 Tel. 773.775.4009 Fax 773.775.4014	USER NAME = jkellman DESIGNED - JMK DRAWN - JMK CHECKED - MJL DATE - 1/29/2013	REVISED - REVISED - REVISED - REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>		<b>FAU 298 (BLACK ROAD) OVER THE DUPAGE RIVER INDEX OF SHEETS, STATE STANDARDS, AND GENERAL NOTES</b>		C.H. RTE: 298 SECTION: 04-00069-18-BR COUNTY: WILL ILLINOIS FED. AID PROJECT	TOTAL SHEETS: 51 SHEET NO.: 2	CONTRACT NO. 63803
	PLOT SCALE = 2.0002' / 1"	PLOT DATE = 1/29/2013	SCALE:	SHEET NO. OF SHEETS STA. TO STA.					

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE
				HBP - 80% FEDERAL, 20% LOCAL
				BRIDGE 0014
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	25	25
20200100	EARTH EXCAVATION	CU YD	131	131
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	82	82
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	731	731
25000210	SEEDING, CLASS 2A	ACRE	12.25	12.25
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	13	13
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	13	13
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	13	13
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	13	13
28000400	PERIMETER EROSION BARRIER	FOOT	803	803
28000510	INLET FILTERS	EACH	8	8
△ 30300112	AGGREGATE SUBGRADE IMPROVEMENT 12"	SO YD	2,891	2,891
40201000	AGGREGATE FOR TEMPORARY ACCESS	TON	221	221
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	2,133	2,133
40600300	AGGREGATE (PRIME COAT)	TON	24	24
40600895	CONSTRUCTING TEST STRIP	EACH	2	2
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SO YD	68	68

- (1) CONSTRUCTION TYPE CODE 0042  
• SPECIALTY ITEMS  
△ SPECIAL PROVISION

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**Ciorba Group, Inc.**  
CONSULTING ENGINEERS  
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Chicago, Illinois 60656  
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USER NAME = jkwillman	DESIGNED -	REVISED -
PLOT SCALE = 2.0000' / 1"	DRAWN -	REVISED -
PLOT DATE = 1/31/2013	CHECKED -	REVISED -
	DATE = 1/31/2013	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**FAU 298 (BLACK ROAD) OVER THE DUPAGE RIVER  
SUMMARY OF QUANTITIES**


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

C.H. RTE. 298	SECTION 04-00069-18-BR	COUNTY WILL	TOTAL SHEETS 51	SHEET NO. 3
CONTRACT NO. 63803			ILLINOIS FED. AID PROJECT	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				HBP - 80% FEDERAL, 20% LOCAL	BRIDGE 0014
40701956	HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 13 3/4"	SO YD	2,666		2,666
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SO YD	116		116
△ 44000100	PAVEMENT REMOVAL	SO YD	2,858		2,858
△ 44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	440		440
48101500	AGGREGATE SHOULDERS, TYPE B 6"	SO YD	302		302
48203021	HOT-MIX ASPHALT SHOULDERS, 6"	SO YD	128		128
50102400	CONCRETE REMOVAL	CU YD	85.6		85.6
50104720	REMOVAL OF EXISTING CONCRETE DECK	EACH	1		1
50200100	STRUCTURE EXCAVATION	CU YD	168		168
50300225	CONCRETE STRUCTURES	CU YD	121.3		121.3
50300255	CONCRETE SUPERSTRUCTURE	CU YD	696.5		696.5
50300260	BRIDGE DECK GROOVING	SO YD	1,926		1,926
50300300	PROTECTIVE COAT	SO YD	2,245		2,245
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	238,210		238,210
50500505	STUD SHEAR CONNECTORS	EACH	6,996		6,996
50606701	CLEANING AND PAINTING STRUCTURAL STEEL, LOCATION 1	L SUM	1		1
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	159,240		159,240

- (1) CONSTRUCTION TYPE CODE 0042  
• SPECIALTY ITEMS  
△ SPECIAL PROVISION

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**Ciorba Group, Inc.**  
CONSULTING ENGINEERS  
5507 North Cumberland Avenue, Suite 402  
Chicago, Illinois 60655  
Tel. 773.775.4009 Fax 773.775.4014

USER NAME = jk.jellison	DESIGNED -	REVISED -
PLOT SCALE = 2.0000' / 1"	DRAWN -	REVISED -
PLOT DATE = 1/29/2013	CHECKED -	REVISED -
	DATE = 1/29/2013	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**FAU 298 (BLACK ROAD) OVER THE DUPAGE RIVER  
SUMMARY OF QUANTITIES**

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

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
298	04-00069-18-BR	WILL	51	4
CONTRACT NO. 63803				ILLINOIS FED. AID PROJECT

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE
				HBP - 80% FEDERAL, 20% LOCAL
				BRIDGE 0014
50800515	BAR SPLICERS	EACH	941	941
51100300	SLOPE WALL 6 INCH	SQ YD	714	714
51500100	NAME PLATES	EACH	1	1
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	40	40
52100520	ANCHOR BOLTS, 1"	EACH	80	80
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	132	132
60255500	MANHOLES TO BE ADJUSTED	EACH	1	1
60260100	INLETS TO BE ADJUSTED	EACH	2	2
60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	410	410
* 63000003	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS	FOOT	887.5	887.5
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4	4
63200310	GUARDRAIL REMOVAL	FOOT	1,259	1,259
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	7	7
67100100	MOBILIZATION	L SUM	1	1
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	240	240
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	12	12

- (1) CONSTRUCTION TYPE CODE 0042  
 \* SPECIALTY ITEMS  
 △ SPECIAL PROVISION

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 <b>Ciorba Group, Inc.</b> CONSULTING ENGINEERS 5507 North Cumberland Avenue, Suite 402 Chicago, Illinois 60656 Tel. 773.775.4009 Fax 773.775.4014	USER NAME = jk.jellman	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FAU 298 (BLACK ROAD) OVER THE DUPAGE RIVER SUMMARY OF QUANTITIES	C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 2,0000' / in.	DRAWN -	REVISED -			298	04-00069-18-BR	WILL	51	5
PLOT DATE = 1/29/2013	CHECKED -	REVISED -		SCALE:	SHEET NO. OF SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT		
	DATE = 1/29/2013	REVISED -						CONTRACT NO. 63803		

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				HBP - 80% FEDERAL, 20% LOCAL	BRIDGE 0014
70300100	SHORT TERM PAVEMENT MARKING	FOOT	500		500
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	2152		2152
70400100	TEMPORARY CONCRETE BARRIER	FOOT	329		329
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	329		329
* 70600255	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 2	EACH	2		2
* 70600322	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 2	EACH	2		2
72000100	SIGN PANEL - TYPE 1	SQ FT	18		18
72400100	REMOVE SIGN PANEL ASSEMBLY - TYPE A	EACH	2		2
72900100	METAL POST - TYPE A	FOOT	2		2
• 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	4,776		4,776
• 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	30		30
• 78008210	POLYUREA PAVEMENT MARKING TYPE 1 - LINE 4"	FOOT	2,063		2,063
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	98		98
* 78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	46		46
* 78200410	GUARDRAIL MARKERS, TYPE A	EACH	21		21
* 78200530	BARRIER WALL MARKERS, TYPE C	EACH	27		27
* 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4		4

(1) CONSTRUCTION TYPE CODE 0042

• SPECIALTY ITEMS

△ SPECIAL PROVISION

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**Ciorba Group, Inc.**  
CONSULTING ENGINEERS  
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Tel. 773.775.4099 Fax 773.775.4014

USER NAME = jkjoilman	DESIGNED -	REVISED -
PLOT SCALE = 2.0000' / in.	DRAWN -	REVISED -
PLOT DATE = 1/29/2013	CHECKED -	REVISED -
	DATE = 1/29/2013	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

FAU 298 (BLACK ROAD) OVER THE DUPAGE RIVER  
SUMMARY OF QUANTITIES

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

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
298	04-00069-18-BR	WILL	51	6
ILLINOIS FED. AID PROJECT			CONTRACT NO. 63803	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				HBP - 80% FEDERAL, 20% LOCAL	BRIDGE 0014
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	76		76
△ X2070304	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	210		210
△ X2511630	EROSION CONTROL BLANKET (SPECIAL)	SQ YD	607		607
△ X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1		1
* △ X7030030	WET REFLECTIVE TEMPORARY TAPE TYPE III, 4 INCH	FOOT	8,662		8,662
* △ X7030040	WET REFLECTIVE TEMPORARY TAPE TYPE III, 6 INCH	FOOT	52		52
* △ X7030055	WET REFLECTIVE TEMPORARY TAPE TYPE III, 24 INCH	FOOT	19		19
△ Z0001899	JACK AND REMOVE EXISTING BEARINGS	EACH	10		10
△ Z0001903	STRUCTURAL STEEL REMOVAL	POUND	215,780		215,780
△ Z0004552	APPROACH SLAB REMOVAL	SQ YD	252		252
* △ Z0007112	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES	L SUM	1		1
	Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1
△ Z0018010	DRAINAGE SCUPPERS, DS-33	EACH	8		8
△ Z0026407	TEMPORARY SHEET PILING	SQ FT	521		521
△ Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	64		64
△ Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	180		180
(1) Z0076600	TRAINEES	HOUR	1,000		1,000
(1) Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	1,000		1,000

(1) CONSTRUCTION TYPE CODE 0042  
 \* SPECIALTY ITEMS  
 △ SPECIAL PROVISION

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**Ciorba Group, Inc.**  
 CONSULTING ENGINEERS  
 5507 North Cumberland Avenue, Suite 402  
 Chicago, Illinois 60656  
 Tel. 773.776.4006 Fax 773.776.4014

USER NAME = jweilman	DESIGNED -	REVISED -
PLOT SCALE = 2.0000 "/> <td>DRAWN -</td> <td>REVISED -</td>	DRAWN -	REVISED -
PLOT DATE = 1/29/2013	CHECKED -	REVISED -
	DATE = 1/29/2013	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**FAU 298 (BLACK ROAD) OVER THE DUPAGE RIVER  
 SUMMARY OF QUANTITIES**

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

C.H. RTE. 298	SECTION 04-00069-18-BR	COUNTY WILL	TOTAL SHEETS 51	SHEET NO. 7
ILLINOIS FED. AID PROJECT			CONTRACT NO. 63803	

20100110		
TREE REMOVAL (6 TO 15 UNITS DIAMETER)		
STA	LOCATION	UNIT
16+76	RT	7
16+77	RT	12
16+81	RT	6
TOTAL		25

48101500					
AGGREGATE SHOULDERS, TYPE B 6"					
STA	LOCATION	LENGTH	WIDTH	SQ YD	
17+16	NW FRONTAGE RD (N. SIDE)	LT	149	2.75	147.0
17+16	NW FRONTAGE RD (S. SIDE)	RT	91	2.75	154.6
TOTAL					302

63100167		
TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT		
STA	LOCATION	EACH
13+07.33	RT	1
12+69.83	LT	1
NW FRONTAGE RD (S. SIDE)		1
NW FRONTAGE RD (N. SIDE)		1
TOTAL		4

40701956					
HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 13 3/4"					
STA	STA	LENGTH	WIDTH 1	WIDTH 2	SQ YD
BLACK RD					
12+00	12+86	86	48.0	48.0	458.7
12+86	14+05	119	48.0	52.8	666.4
BRIDGE					
17+38	18+72	134	56.8	51.2	804.0
18+72	18+81	9	3.2	3.2	3.2
FRONTAGE RD (SOUTH OF BLACK RD)					
17+37	17+51	14	0.0	7.0	5.4
17+51	17+57	6	7.0	18.6	8.5
17+57	17+62	5	18.6	28.7	13.1
17+62	17+68	6	28.7	59.0	29.2
17+68	17+92	24	59.0	60.4	159.2
17+92	17+96	4	60.4	36.9	21.6
17+96	18+05	9	36.9	18.1	27.5
18+05	18+22	17	18.1	4.5	21.3
18+22	18+44	22	4.5	0.0	5.5
FRONTAGE RD (NORTH OF BLACK RD)					
17+63	17+78	15	0.0	5.1	4.3
17+78	17+89	11	5.1	16.5	13.2
17+89	18+26	37	16.5	82.7	203.9
18+26	18+45	19	82.7	72.3	163.6
18+45	18+48	3	72.3	28.5	16.8
18+48	18+61	13	28.5	10.7	28.3
18+61	18+81	20	10.7	0.0	11.9
TOTAL					2666

48203021					
HOT-MIX ASPHALT SHOULDERS, 6"					
STA	STA	LOCATION	LENGTH	WIDTH	SQ YD
12+72	12+96	RT	24	2.9	7.7
12+96	13+07	RT	11	5.8	7.1
13+07	13+44	RT	37	4.3	17.7
13+44	14+26	RT	82	2.8	25.5
12+35	12+59	LT	24	2.9	7.7
12+59	12+70	LT	11	5.8	7.1
12+70	13+07	LT	37	4.3	17.7
13+07	14+26	LT	119	2.8	37.0
TOTAL					128

63200310			
GUARDRAIL REMOVAL			
STA	STA	LOCATION	FOOT
12+76	14+28	LT	152
13+03	14+28	RT	125
BRIDGE			
17+14	NW FRONTAGE RD (N. SIDE)	LT	481
17+17	NW FRONTAGE RD (S. SIDE)	RT	501
TOTAL			1259

60605000			
COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24			
STA	STA	LOCATION	FOOT
12+00	14+05	LT	205
12+00	14+05	RT	205
BRIDGE			
TOTAL			410

72000100					
SIGN PANEL - TYPE 1					
TYPE	STA	LOCATION	LENGTH	WIDTH	SQ FT
R1-1	18+21	LT	3.0	3.0	9
R1-1	18+06	RT	3.0	3.0	9
TOTAL					18

42001430					
BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)					
BRIDGE	STA	STA	LENGTH	WIDTH	SQ YD
BRIDGE OVER DUPAGE RIVER	14+05	14+11	6.0	52.8	35.2
BRIDGE					
BRIDGE OVER DUPAGE RIVER	17+31	17+37	6.0	56.8	37.9
NW FRONTAGE RD					
BRIDGE OVER I-55	18+66	18+72	6.0	56.4	37.6
BRIDGE OVER I-55	18+72	18+81	9.0	5.0	5.0
TOTAL					116

63000003			
STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS			
STA	STA	LOCATION	FOOT
13+19.83	13+82.33	LT	62.5
13+57.33	13+82.33	RT	25.0
17+60.08	NW FRONTAGE RD (N. SIDE)	LT	387.5
17+53.32	NW FRONTAGE RD (S. SIDE)	RT	412.5
TOTAL			887.5

72400100			
REMOVE SIGN PANEL ASSEMBLY - TYPE A			
TYPE	STA	LOCATION	EACH
R1-1	18+21	LT	1
R1-1	18+06	RT	1
TOTAL			2

44000500			
COMBINATION CURB AND GUTTER REMOVAL			
STA	STA	LOCATION	FOOT
12+00	14+20	LT	220
12+00	14+20	RT	220
TOTAL			440

63100085		
TRAFFIC BARRIER TERMINAL, TYPE 6		
STA	LOCATION	EACH
14+26.08	LT	1
14+26.08	RT	1
BRIDGE		
17+16.42	LT	1
17+16.42	RT	1
TOTAL		4

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78000200					
THERMOPLASTIC PAVEMENT MARKING - LINE 4"					
TYPE	STA	STA	LOCATION	LENGTH X	FOOT
SOLID WHITE	12+00	14+11	LT	1.00	211
10' DASH 30' SKIP WHITE	9+91	14+11	LT	0.25	105
DBLE YELLOW	5+16	14+11	CL	2.00	1790
10' DASH 30' SKIP WHITE	5+16	14+11	RT	0.25	224
SOLID WHITE	12+00	14+11	RT	1.00	211
BRIDGE					
SOLID WHITE	17+31	17+58	LT	1.00	27
10' DASH 30' SKIP WHITE	17+31	17+60	LT	0.25	7
DBLE YELLOW	17+31	17+60	CL	2.00	58
10' DASH 30' SKIP WHITE	17+31	17+60	RT	0.25	7
SOLID WHITE	17+31	17+35	RT	1.00	4
NW FRONTAGE RD INTERSECTION					
SOLID WHITE	17+58	18+29	LT	1.00	116
SOLID WHITE	17+35	17+68	RT	1.00	78
SOLID WHITE	18+50	18+81	LT	1.00	89
SOLID WHITE	17+91	18+72	RT	1.00	120
DBLE YELLOW	18+13	18+40	LT	2.00	122
DBLE YELLOW	17+81	17+83	RT	2.00	62
I-55					
DBLE YELLOW	18+20	18+72	CL	2.00	104
10' DASH 30' SKIP WHITE	18+20	18+72	LT	0.25	13
10' DASH 30' SKIP WHITE	18+20	18+72	RT	0.25	13
I-55					
DBLE YELLOW	21+21	24+52	CL	2.00	662
DBLE YELLOW	21+21	24+52	CL	2.00	662
10' DASH 30' SKIP WHITE	21+21	24+52	LT	0.25	83
10' DASH 30' SKIP WHITE	21+21	21+51	RT	0.25	8
TOTAL					4776

78000650		
THERMOPLASTIC PAVEMENT MARKING - LINE 24"		
STA	LOCATION	FOOT
18+13	LT	15
17+83	RT	15
TOTAL		30

78008210					
POLYUREA PAVEMENT MARKING TYPE I - LINE 4"					
TYPE	STA	STA	LOCATION	LENGTH X	FOOT
SOLID WHITE	14+11	17+31	LT	1.00	320
10' DASH 30' SKIP WHITE	14+11	17+31	LT	0.25	80
DBLE YELLOW	14+11	17+31	CL	2.00	640
10' DASH 30' SKIP WHITE	14+11	17+31	LT	0.25	80
SOLID WHITE	14+11	17+31	LT	1.00	320
I-55					
10' DASH 30' SKIP WHITE	18+72	21+21	LT	0.25	62
DBLE YELLOW	18+72	21+21	CL	2.00	498
10' DASH 30' SKIP WHITE	18+72	21+21	LT	0.25	62
TOTAL					2063

78100100				
RAISED REFLECTIVE PAVEMENT MARKER				
STA	STA	LOCATION	SPACING	EACH
9+91	14+11	LT	80	6
5+16	14+11	CL	40	23
5+16	14+11	CL	40	23
5+16	14+11	RT	80	12
BRIDGE				
17+31	17+60	LT	80	1
17+31	17+60	CL	40	1
17+31	17+60	CL	40	1
17+31	17+60	RT	80	1
NW FRONTAGE ROAD				
18+20	18+72	LT	80	1
18+20	18+72	CL	40	2
18+20	18+72	CL	40	2
18+20	18+72	RT	80	1
I-55				
21+21	24+52	LT	80	5
21+21	24+52	CL	40	9
21+21	24+52	CL	40	9
21+21	21+51	RT	80	1
TOTAL				98

78100105				
RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)				
STA	STA	LOCATION	SPACING	EACH
14+11	17+31	LT	80	4
14+11	17+31	CL	40	8
14+11	17+31	CL	40	8
14+11	17+31	RT	80	4
I-55				
18+72	21+21	LT	80	4
18+72	21+21	CL	40	7
18+72	21+21	CL	40	7
18+72	21+21	RT	80	4
TOTAL				46

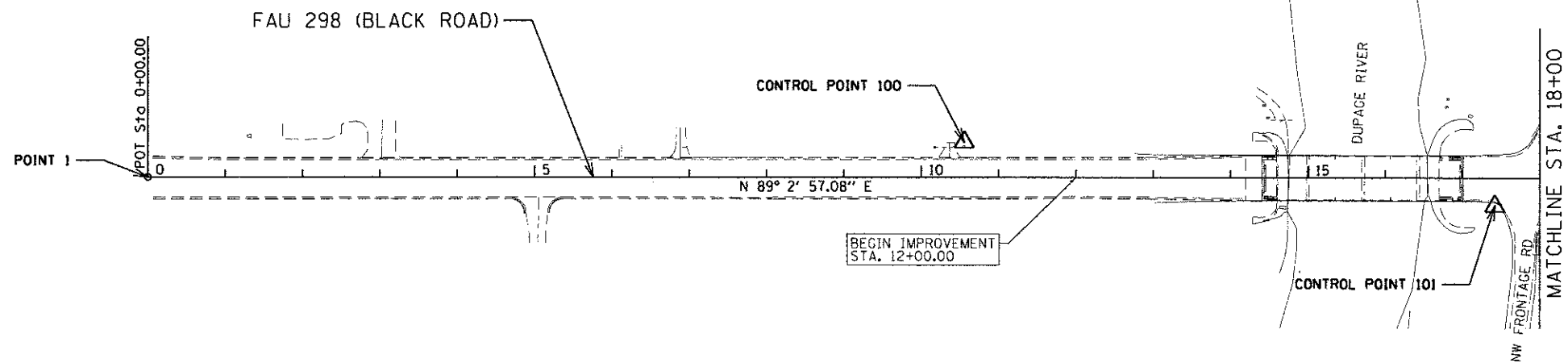
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WET REFLECTIVE TEMPORARY TAPE TYPE III, 4 INCH					
STA	STA	DIRECTION	LOCATION	TYPE	FOOT
STAGE I					
6+41	11+66	EB	INSIDE	SINGLE YELLOW	525
19+76	21+36	EB	INSIDE	SINGLE YELLOW	160
9+91	11+66	WB	INSIDE	SINGLE YELLOW	175
19+76	24+52	WB	INSIDE	SINGLE YELLOW	476
9+91	17+46	WB	OUTSIDE	SINGLE WHITE	755
17+46	17+89	WB	OUTSIDE	SINGLE WHITE	70
18+34	18+74	WB	OUTSIDE	SINGLE WHITE	129
18+74	27+31	WB	OUTSIDE	SINGLE WHITE	857
I-55					
11+66	17+46		CL	DBL YELLOW	1160
18+51	19+76		CL	DBL YELLOW	250
STAGE II					
9+91	11+66	EB	INSIDE	SINGLE YELLOW	175
19+76	21+51	EB	INSIDE	SINGLE YELLOW	175
5+16	21+51	EB	OUTSIDE	SINGLE WHITE	1635
9+91	11+66	WB	INSIDE	SINGLE YELLOW	175
19+76	25+01	WB	INSIDE	SINGLE YELLOW	525.0
I-55					
11+66	17+51		CL	DBL YELLOW	1170
18+51	19+76		CL	DBL YELLOW	250
TOTAL					8662

X7030040		
WET REFLECTIVE TEMPORARY TAPE TYPE III, 6 INCH		
STA	STA	FOOT
STAGE I		
17+46	18+51	26.3
STAGE II		
17+51	18+51	25.0
TOTAL		52

X7030055		
WET REFLECTIVE TEMPORARY TAPE TYPE III, 24 INCH		
STA	LOCATION	FOOT
STAGE 2		
17+95	LT	19
TOTAL		19

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 User: jman





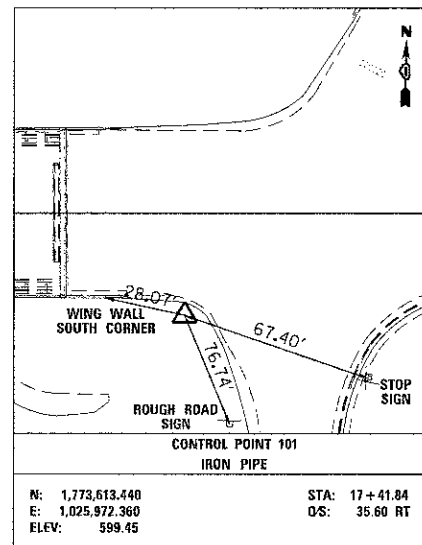
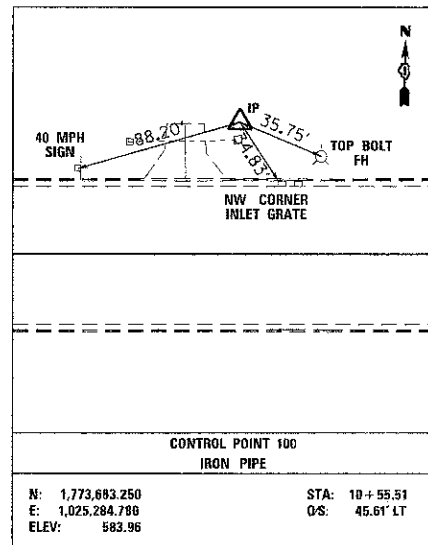
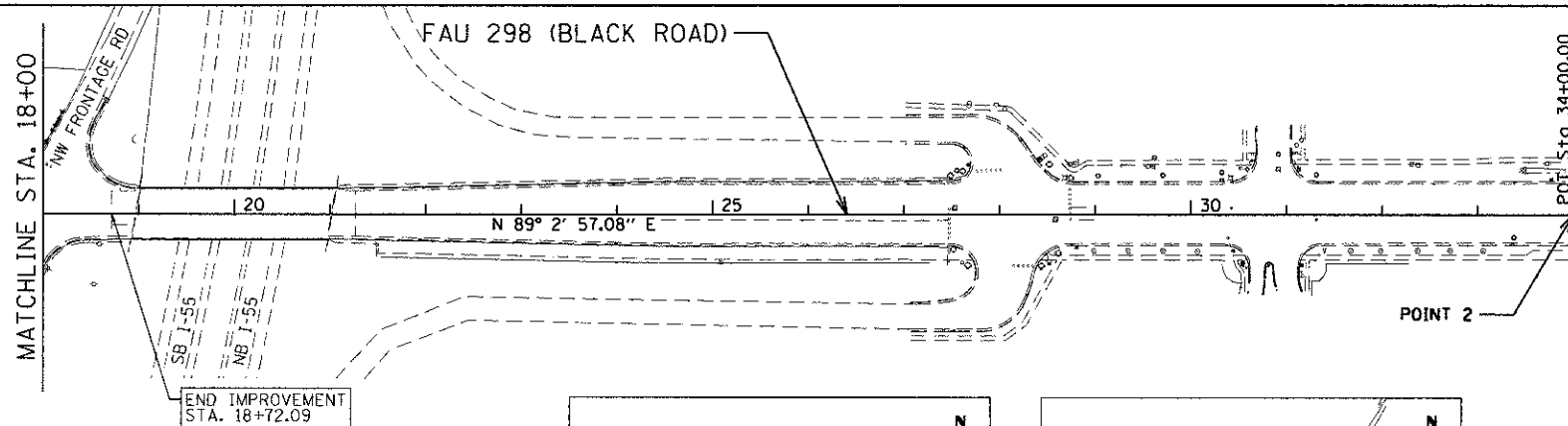
**PROJECT COORDINATES**

NUMBER	LOCATION	DESCRIPTION	STATION	NORTHING	EASTING
1	BLACK - CL	P.O.T. STATION	0+00.00	1,773,620.130	1,024,230.170
2	BLACK - CL	P.O.T. STATION	34+00.00	1,773,676.550	1,027,629.701

BM#	DESCRIPTION	ELEVATION
BM#1	CHISELED "□" ON TOP OF S.E. PARAPET WALL OF BRIDGE OVER DUPAGE RIVER	601.96



THE BASES OF BEARINGS IS NAD 83, ILLINOIS STATE PLANE COORDINATE SYSTEM



I:\PROJECTS\2013\04-00069-18-BR\Drawings\2013\04-00069-18-BR-01.dwg

**CG** Ciorba Group, Inc.  
CONSULTING ENGINEERS  
5507 North Cumberland Avenue, Suite 402  
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USER NAME = jk.jelmen	DESIGNED - JMK	REVISED -
PLGT SCALE = 208.0000' / 1"	DRAWN - JMK	REVISED -
PLCT DATE = 1/29/2013	CHECKED - MJL	REVISED -
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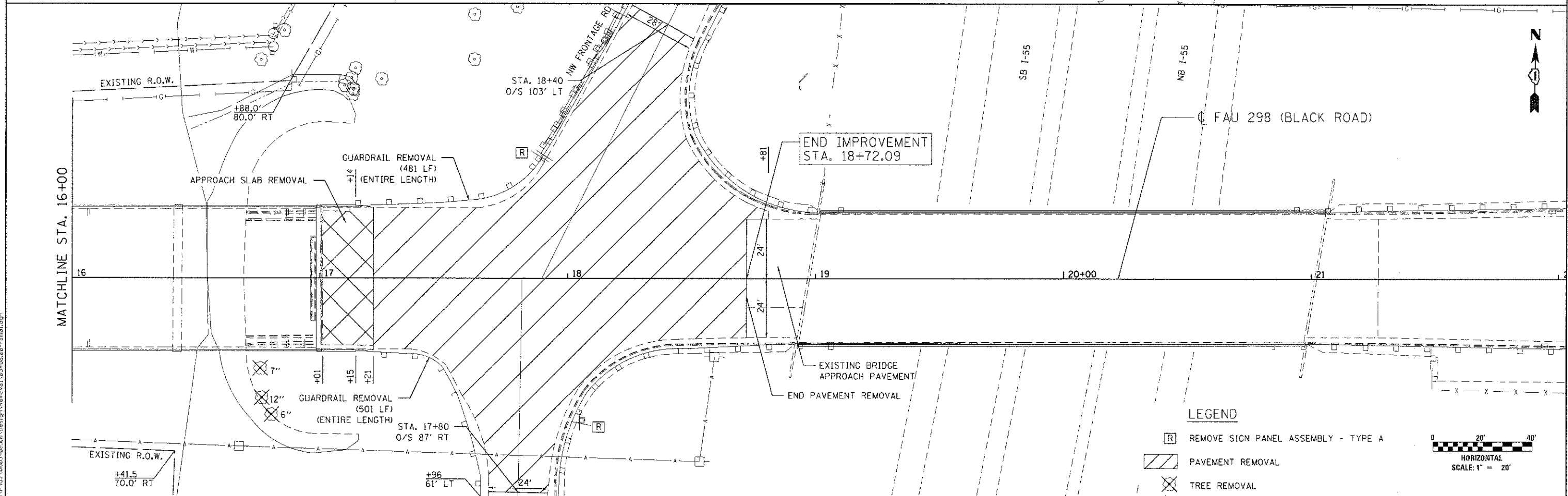
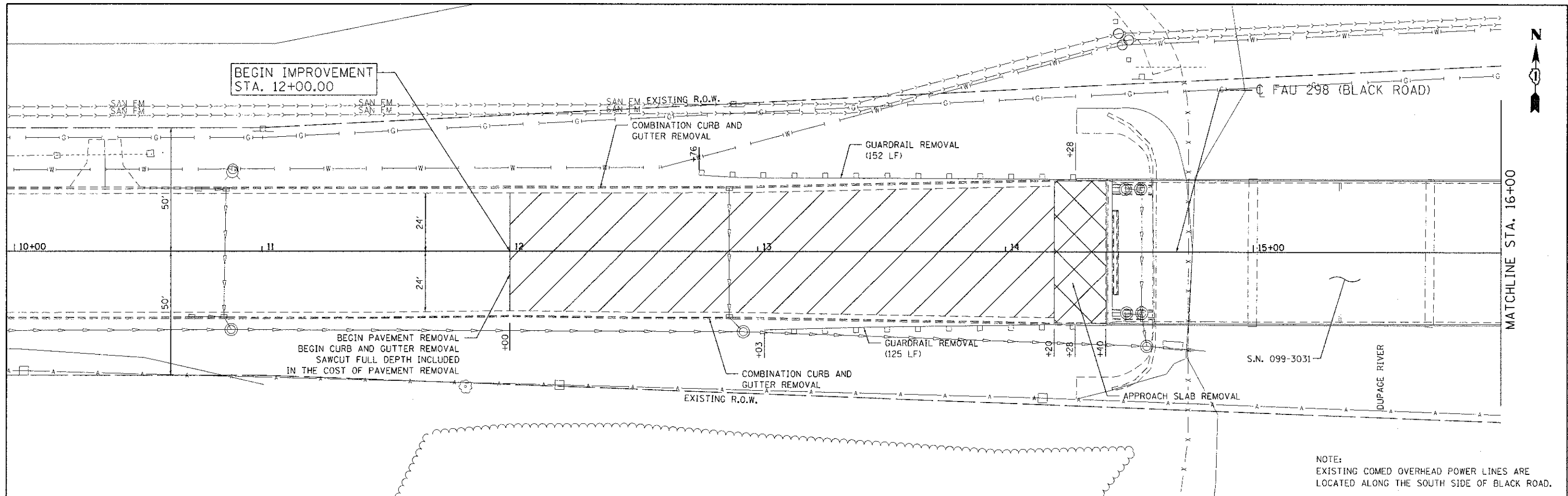
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**FAU 298 (BLACK ROAD) OVER THE DUPAGE RIVER  
ALIGNMENT, TIES AND BENCHMARKS**

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

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
298	04-00069-18-BR	WILL	51	11

CONTRACT NO. 63803  
ILLINOIS FED. AID PROJECT



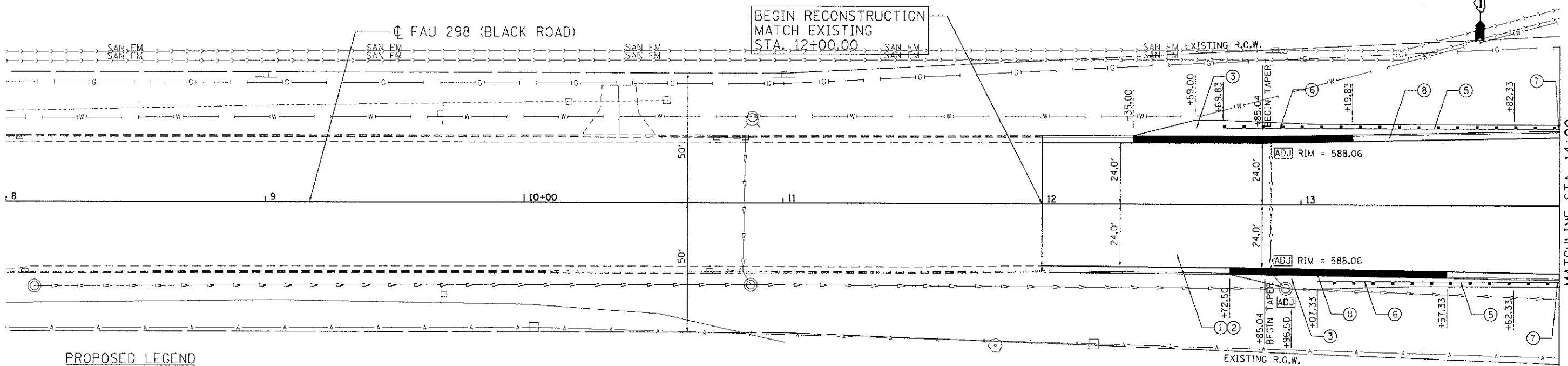
**Ciorba Group, Inc.**  
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USER NAME = jkellman	DESIGNED - JMK	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JMK	REVISED -
PLOT DATE = 1/25/2013	CHECKED - M.JL	REVISED -
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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

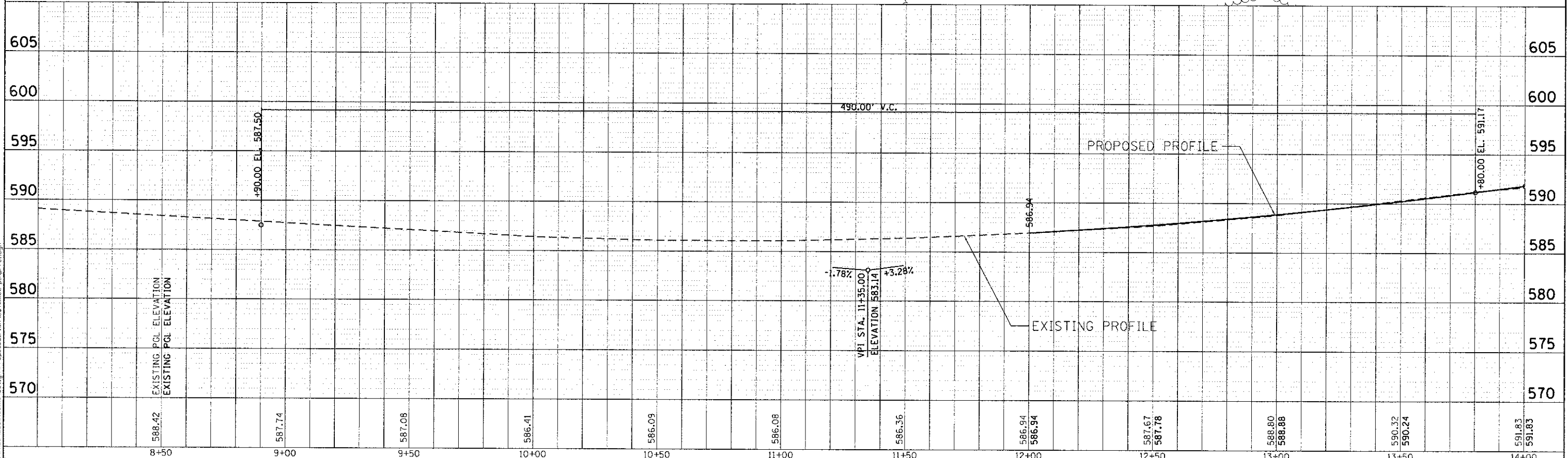
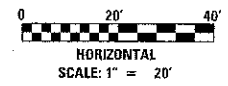
**FAU 298 (BLACK ROAD) OVER THE DUPAGE RIVER  
 EXISTING CONDITIONS AND REMOVAL PLAN**

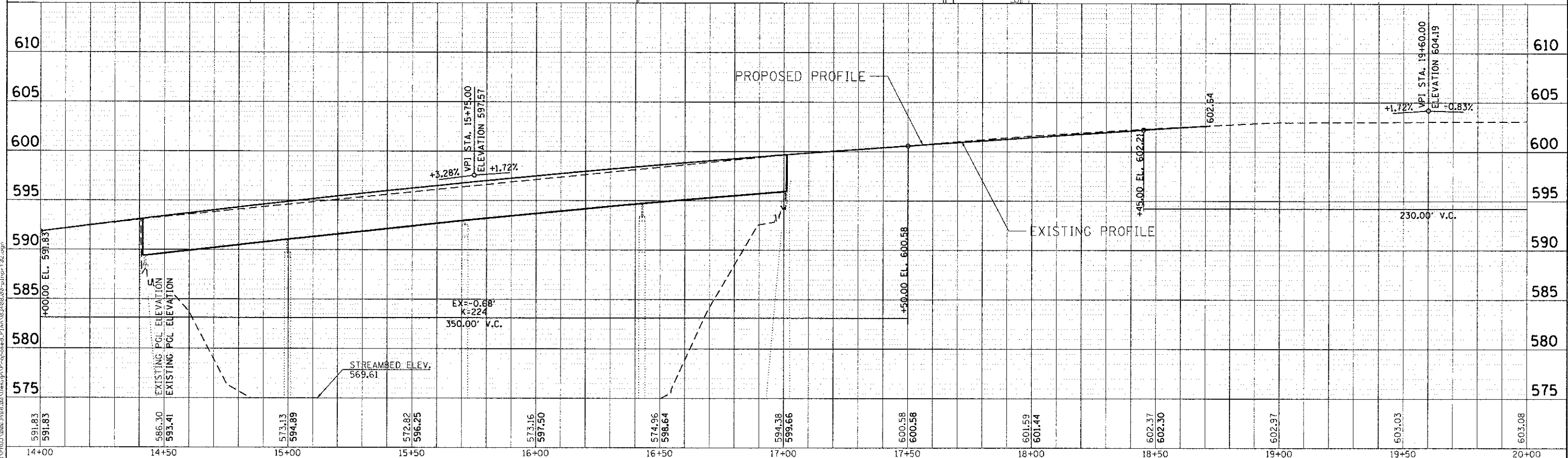
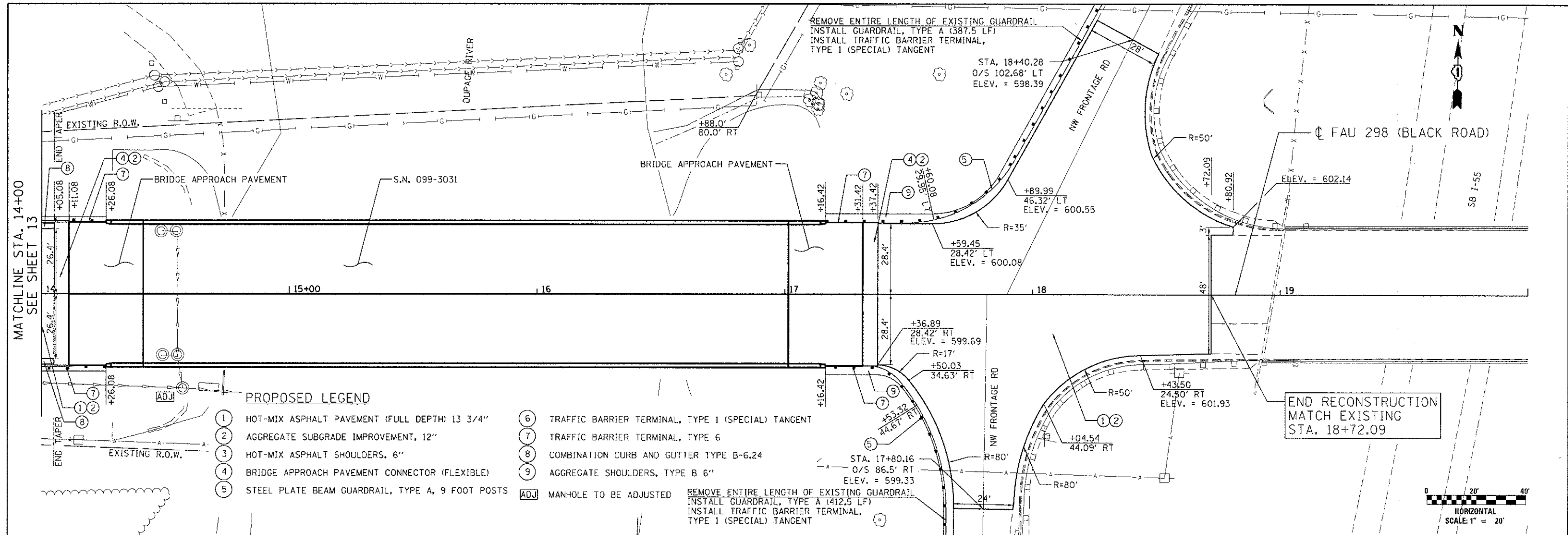
C.H. RTE. 298	SECTION 04-00069-18-BR	COUNTY WILL	TOTAL SHEETS 51	SHEET NO. 12
SCALE: SHEET NO. OF SHEETS STA. TO STA.				CONTRACT NO. 63803
ILLINOIS FED. AID PROJECT				



**PROPOSED LEGEND**

- ① HOT-MIX ASPHALT PAVEMENT (FULL DEPTH) 13 3/4"
- ② AGGREGATE SUBGRADE IMPROVEMENT, 12"
- ③ HOT-MIX ASPHALT SHOULDERS, 6"
- ④ BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)
- ⑤ STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
- ⑥ TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
- ⑦ TRAFFIC BARRIER TERMINAL, TYPE 6
- ⑧ COMBINATION CURB AND GUTTER TYPE B-6.24
- ⑨ AGGREGATE SHOULDERS, TYPE B 6"
- DEPRESSED CURB
- ADJ INLET OR MANHOLE TO BE ADJUSTED





591.83	591.83	586.30	593.41	573.13	594.89	572.82	596.25	573.16	597.50	574.96	598.64	594.38	599.66	600.58	600.58	601.59	601.44	602.37	602.30	602.97	603.03	603.08
14+00	14+50	15+00	15+50	16+00	16+50	17+00	17+50	18+00	18+50	19+00	19+50	20+00										

**Ciorba Group, Inc.**  
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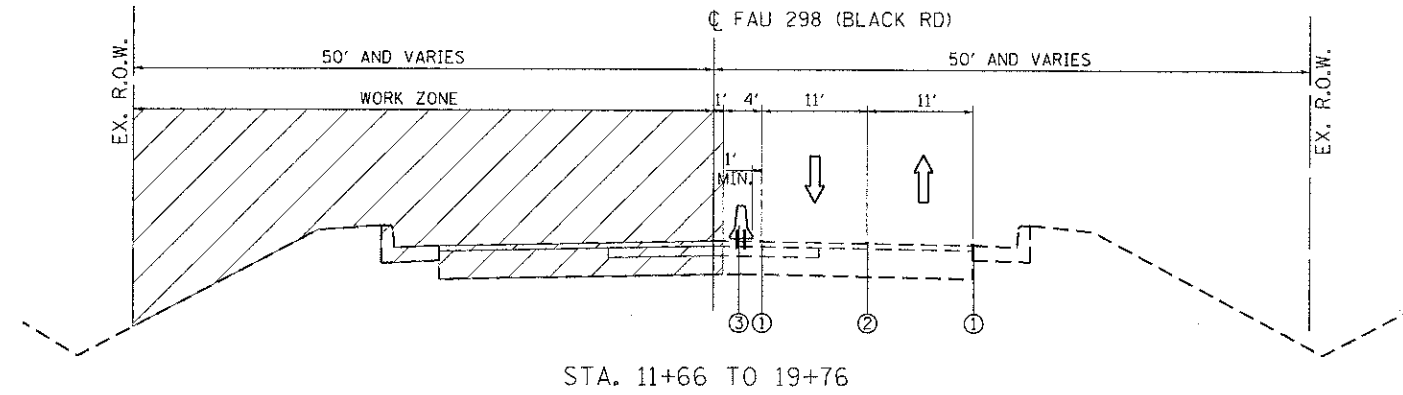
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	DATE - 1/29/2013	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

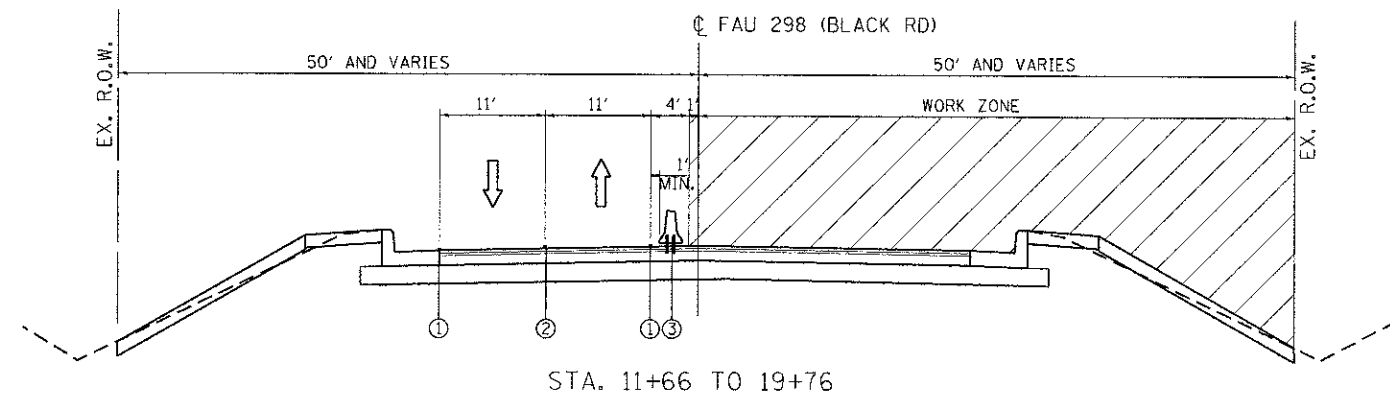
FAU 298 (BLACK ROAD) OVER THE DUPAGE RIVER  
 PROPOSED ROADWAY PLAN AND PROFILE

C.H. RTE. 298	SECTION 04-00069-18-BR	COUNTY WILL	TOTAL SHEETS 51	TOTAL SHEET NO. 14
SCALE: SHEET NO. OF SHEETS STA. TO STA.			CONTRACT NO. 63803	
ILLINOIS FED. AID PROJECT				





STA. 11+66 TO 19+76  
 STAGE 1 - TYPICAL SECTION  
 (LOOKING EAST)



STA. 11+66 TO 19+76  
 STAGE 2 - TYPICAL SECTION  
 (LOOKING EAST)

**LEGEND**

- ① WET REFLECTIVE TEMPORARY TAPE, TYPE III 4 INCH (WHITE)
- ② WET REFLECTIVE TEMPORARY TAPE, TYPE III 4 (YELLOW DOUBLE LINE)
- ③ TEMPORARY CONCRETE BARRIER WITH REFLECTORS

ALL TEMPORARY CONCRETE BARRIER WHICH IS LESS THAN 3.5' FROM THE WORK ZONE SHALL BE ANCHORED TO THE PAVEMENT WITH 6 ANCHORS PER SECTION.

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USER NAME = jk.gelmar	DESIGNED - JMK	REVISED -
PLOT SCALE = 20.0000 / 1 in.	DRAWN - JMK	REVISED -
PLOT DATE = 1/29/2013	CHECKED - MJL	REVISED -
	DATE - 1/29/2013	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

FAU 298 (BLACK ROAD) OVER THE DUPAGE RIVER  
 TRAFFIC CONTROL AND PROTECTION - TYPICAL SECTIONS

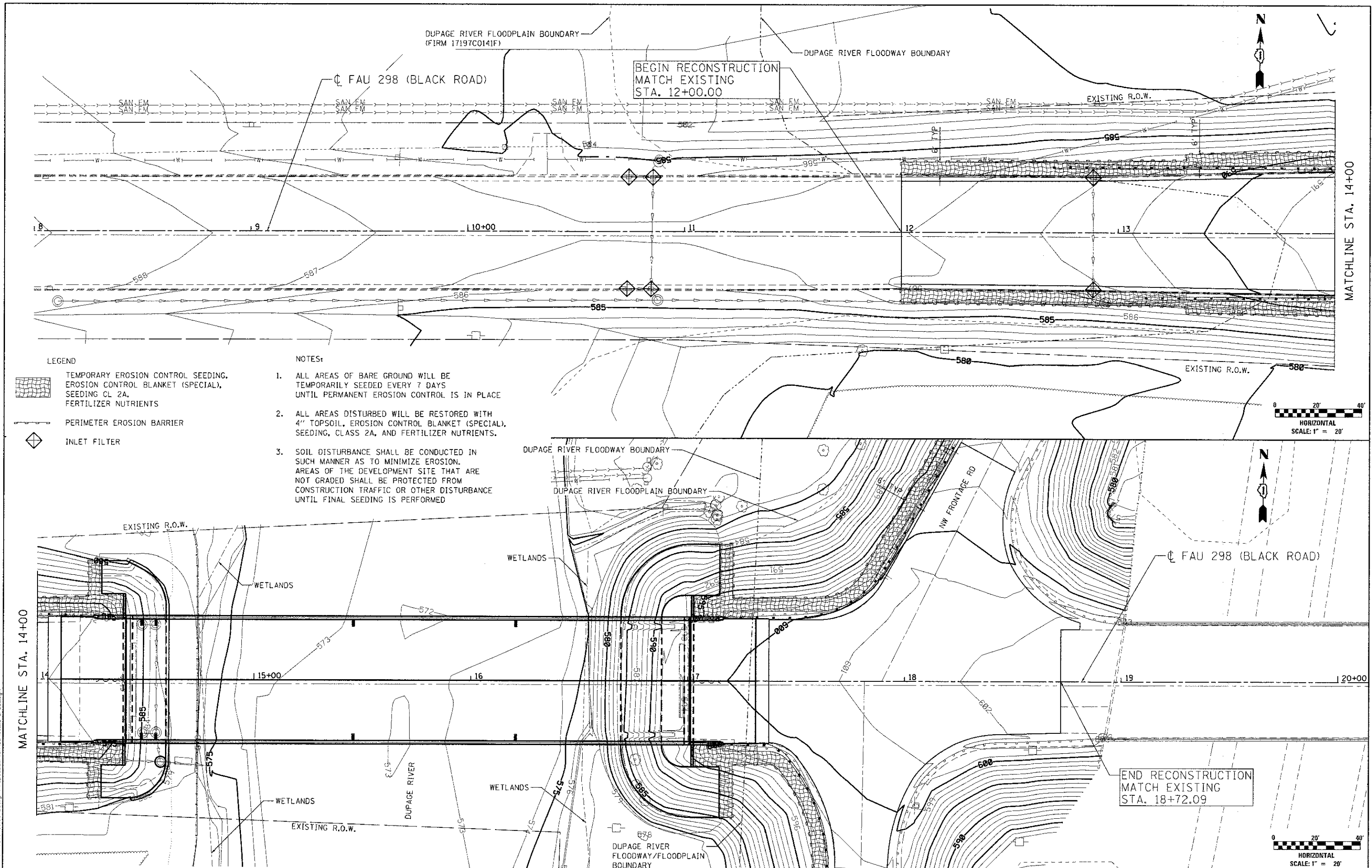
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C.H. RTE. 298	SECTION 04-00069-18-BR	COUNTY WILL	TOTAL SHEETS 53	SHEET NO. 16
ILLINOIS FED. AID PROJECT			CONTRACT NO. 63803	










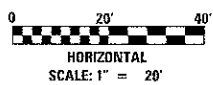
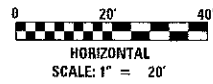


**LEGEND**

-  TEMPORARY EROSION CONTROL SEEDING, EROSION CONTROL BLANKET (SPECIAL), SEEDING CL 2A, FERTILIZER NUTRIENTS
-  PERIMETER EROSION BARRIER
-  INLET FILTER

**NOTES:**

1. ALL AREAS OF BARE GROUND WILL BE TEMPORARILY SEEDED EVERY 7 DAYS UNTIL PERMANENT EROSION CONTROL IS IN PLACE
2. ALL AREAS DISTURBED WILL BE RESTORED WITH 4" TOPSOIL, EROSION CONTROL BLANKET (SPECIAL), SEEDING, CLASS 2A, AND FERTILIZER NUTRIENTS.
3. SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH MANNER AS TO MINIMIZE EROSION. AREAS OF THE DEVELOPMENT SITE THAT ARE NOT GRADED SHALL BE PROTECTED FROM CONSTRUCTION TRAFFIC OR OTHER DISTURBANCE UNTIL FINAL SEEDING IS PERFORMED



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USER NAME = jhelman	DESIGNED - DMM	REVISED -
PLOT SCALE = 40.0000' / 1" = 1"	DRAWN - AMD	REVISED -
PLOT DATE = 1/29/2013	CHECKED - TW	REVISED -
	DATE - 1/29/2013	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**FAU 298 (BLACK ROAD) OVER THE DUPAGE RIVER  
 EROSION CONTROL AND LANDSCAPING PLAN**

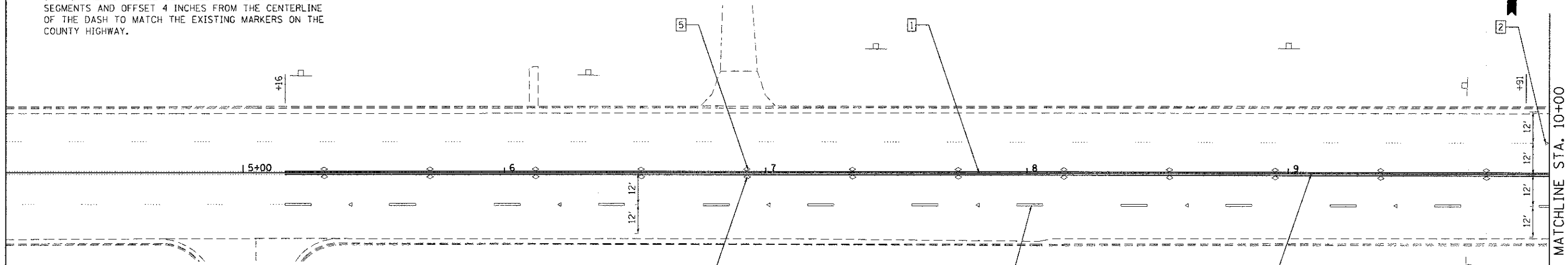
C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
298	04-00069-18-BR	WILL	51	19
CONTRACT NO. 63803				

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

(ILLINOIS) FED. AID PROJECT

**GENERAL NOTES**

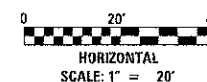
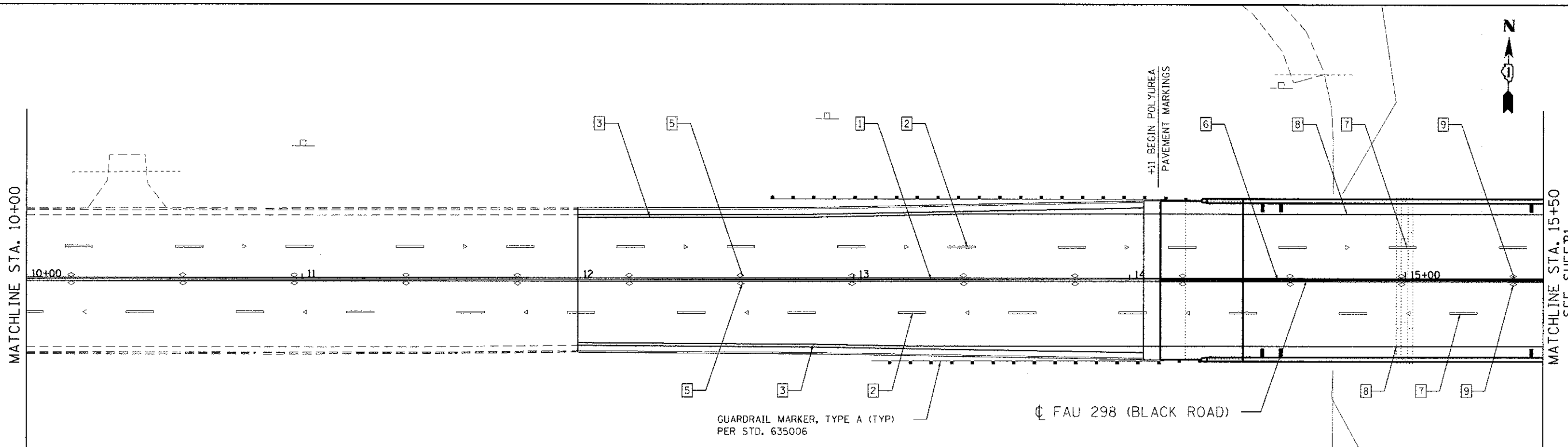
1. ALL PAVEMENT MARKINGS ON PCC PAVEMENT SHALL BE POLYUREA.
2. ALL RAISED REFLECTIVE PAVEMENT MARKERS USED WITH SKIP DASHES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS AND OFFSET 4 INCHES FROM THE CENTERLINE OF THE DASH TO MATCH THE EXISTING MARKERS ON THE COUNTY HIGHWAY.



**LEGEND:**

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>1 THERMOPLASTIC PAVEMENT MARKING - LINE 4" (DOUBLE YELLOW SOLID LINE 11" C-C)</li> <li>2 THERMOPLASTIC PAVEMENT MARKING - LINE 4" (WHITE LANE LINE - 10' DASH, 30' SKIP) WITH RAISED REFLECTIVE PAVEMENT MARKERS (1 ONE-WAY CRYSTAL MARKER) (80' C-C)</li> <li>3 THERMOPLASTIC PAVEMENT MARKING - LINE 4" (WHITE SOLID LINE)</li> <li>4 THERMOPLASTIC PAVEMENT MARKING - LINE 24" (WHITE STOP LINE)</li> <li>5 RAISED REFLECTIVE PAVEMENT MARKERS (TWO-WAY AMBER MARKER) (40' C-C)</li> <li>6 POLYUREA PAVEMENT MARKING - LINE 4" (DOUBLE YELLOW SOLID LINE 11" C-C)</li> </ul> | <ul style="list-style-type: none"> <li>7 POLYUREA PAVEMENT MARKING - LINE 4" (WHITE LANE LINE - 10' DASH, 30' SKIP) WITH RAISED REFLECTIVE PAVEMENT MARKERS (BRIDGE) (1 ONE-WAY CRYSTAL MARKER) (80' C-C)</li> <li>8 POLYUREA PAVEMENT MARKING - LINE 4" (WHITE SOLID LINE)</li> <li>9 RAISED REFLECTIVE PAVEMENT MARKERS (BRIDGE) (TWO-WAY AMBER MARKER) (40' C-C)</li> </ul> |
|--|--|

☐ FAU 298 (BLACK ROAD)



FILE NAME: M:\PROJ\0002496-200\Design\Sta\paving\Signing\031008.dwg, jmk01.dwg

**Ciorba Group, Inc.**  
 CONSULTING ENGINEERS  
 5507 North Cumberland Avenue, Suite 402  
 Chicago, Illinois 60668  
 Tel. 773.775.4009 Fax 773.775.4014

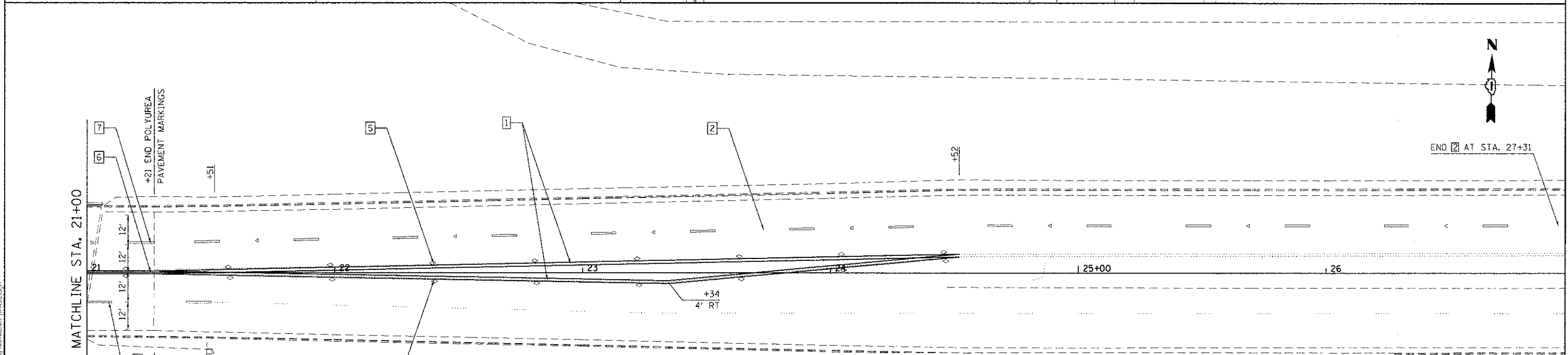
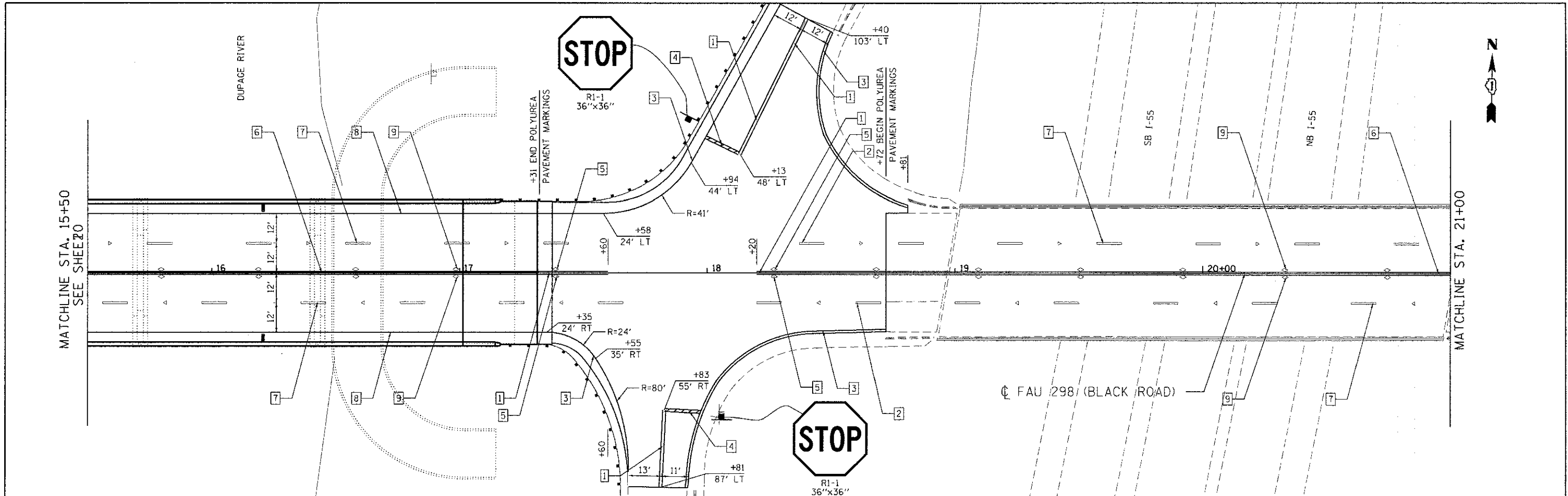
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PLOT DATE = 1/29/2013	CHECKED - _____	REVISED - _____
	DATE = 1/29/2013	REVISED - _____

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

**FAU 298 (BLACK ROAD) OVER THE DUPAGE RIVER  
 PAVEMENT MARKING AND SIGNING PLAN**

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

C.H. RTE. 298	SECTION 04-00069-18-BR	COUNTY WILL	TOTAL SHEETS 51	SHEET NO. 20
			CONTRACT NO. 63803	
ILLINOIS FED. AID PROJECT				

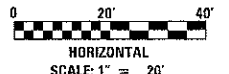


**GENERAL NOTES**

1. ALL PAVEMENT MARKINGS ON PCC PAVEMENT SHALL BE POLYUREA.
2. ALL RAISED REFLECTIVE PAVEMENT MARKERS USED WITH SKIP DASHES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS AND OFFSET 4 INCHES FROM THE CENTERLINE OF THE DASH TO MATCH THE EXISTING MARKERS ON THE COUNTY HIGHWAY.

**LEGEND:**

- |  |  |
|--|--|
| <ol style="list-style-type: none"> <li>1 THERMOPLASTIC PAVEMENT MARKING - LINE 4" (DOUBLE YELLOW SOLID LINE 11" C-C)</li> <li>2 THERMOPLASTIC PAVEMENT MARKING - LINE 4" (WHITE LANE LINE - 10' DASH, 30' SKIP) WITH RAISED REFLECTIVE PAVEMENT MARKERS (1 ONE-WAY CRYSTAL MARKER) (80' C-C)</li> <li>3 THERMOPLASTIC PAVEMENT MARKING - LINE 4" (WHITE SOLID LINE)</li> <li>4 THERMOPLASTIC PAVEMENT MARKING - LINE 24" (WHITE STOP LINE)</li> <li>5 RAISED REFLECTIVE PAVEMENT MARKERS (TWO-WAY AMBER MARKER) (40' C-C)</li> <li>6 POLYUREA PAVEMENT MARKING - LINE 4" (DOUBLE YELLOW SOLID LINE 11" C-C)</li> </ol> | <ol style="list-style-type: none"> <li>7 POLYUREA PAVEMENT MARKING - LINE 4" (WHITE LANE LINE - 10' DASH, 30' SKIP) WITH RAISED REFLECTIVE PAVEMENT MARKERS (BRIDGE) (1 ONE-WAY CRYSTAL MARKER) (80' C-C)</li> <li>8 POLYUREA PAVEMENT MARKING - LINE 4" (WHITE SOLID LINE)</li> <li>9 RAISED REFLECTIVE PAVEMENT MARKERS (BRIDGE) (TWO-WAY AMBER MARKER) (40' C-C)</li> </ol> |
|--|--|



**Ciorba Group, Inc.**  
 CONSULTING ENGINEERS  
 6507 North Cumberland Avenue, Suite 402  
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 Tel. 773.775.4009 Fax 773.775.4014

USER NAME - jkjell-man	DESIGNED -	REVISED -
PLOT SCALE - 40.0000' / 1"	DRAWN -	REVISED -
PLOT DATE - 12/29/2013	CHECKED -	REVISED -
	DATE - 1/29/2013	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**FAU 298 (BLACK ROAD) OVER THE DUPAGE RIVER  
 PAVEMENT MARKING AND SIGNING PLAN**

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

C.H. RTE. 298	SECTION 04-00069-18-BR	COUNTY WILL	TOTAL SHEETS 51	SHEET NO. 21
				CONTRACT NO. 63803
ILLINOIS FED. AID PROJECT				

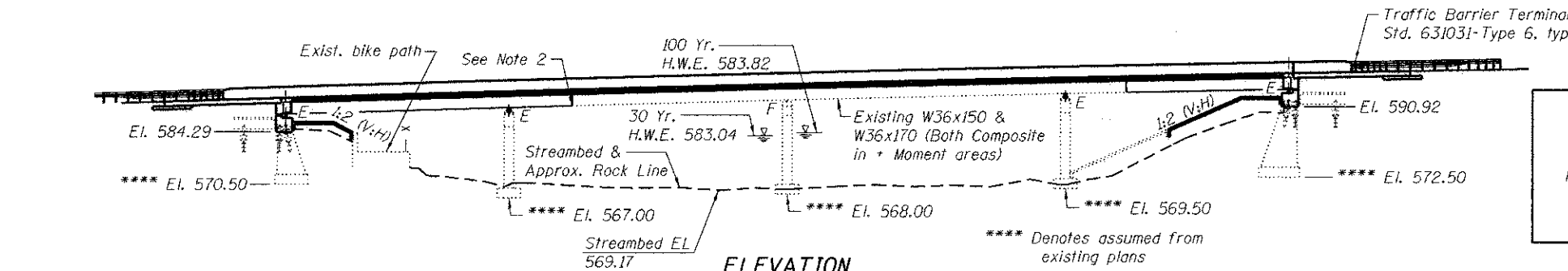
Bench Mark: Chis. "□" on top of S.E. corner of parapet wall on bridge over Du Page River. Elev. 601.96

Existing Structure: Originally constructed in 1958 as F.A.S. Route 301, Sec. 69B at Station 15+71.25 and rehabilitated in 1980 under Section 78-00069-07-BR. The structure consists of a four span (57'-6":71'-6":71'-6":57'-6") reinforced non-composite concrete deck on steel WF beams supported by spill-thru pile bent (widened portions) & buttress (original) abutments and solid wall concrete piers, all set in rock. 262'-0" back to back of abutments. 59'-2" out to out of deck. Concrete deck to be removed and replaced using stage construction.

**SCOPE OF WORK:**

1. Remove and replace existing concrete deck.
2. Make new deck composite in positive moment regions.
3. Reconfigure existing abutments and wingwalls to semi-integral configuration.
4. Extend existing concrete slopewalls to abutment caps.
5. Clean, paint and reuse fixed bearings at Pier 2.
6. Remove and replace all expansion bearings.
7. Replace steel beams and diaphragms as shown.
8. Blast clean existing structural steel to remain per SSPC-SP10 & paint with System 1 (OZ/E/U).

Note: Existing paint system contains lead. See Special Provisions.



STATION 15+71.25  
RE-BUILT 2011 BY  
WILL COUNTY  
F.A.U. RT. 298 SEC. 04-00069-18-BR  
LOADING HS20-44 & PERMIT LOAD  
STRUCTURE NO. 099-3031

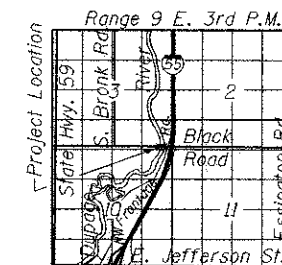
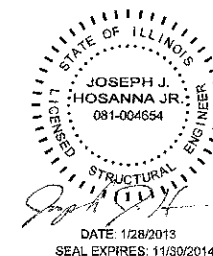
**NAME PLATE**

See Std. 515001  
Existing name plates shall be cleaned and relocated next to new Name Plate. Cost included with Name Plates.

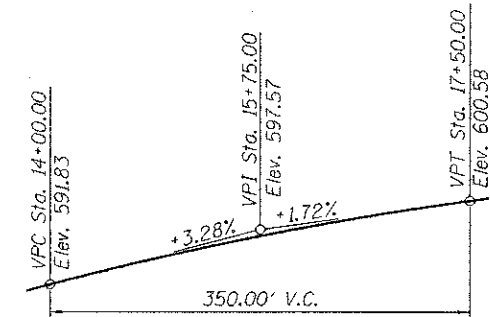
**NOTE:**

1. For Section A-A & B-B see Sheet S-23.
2. The Contractor shall support the existing beam ends for an unfactored dead load reaction of 5 kips during structural steel removal. Cost included with "Furnishing and Erecting Structural Steel".
3. Contractor shall not permit debris generated by removal of portions of the existing bridge nor construction of the proposed structure to fall or roll into the river or wetlands at any time during the demolition and construction process.

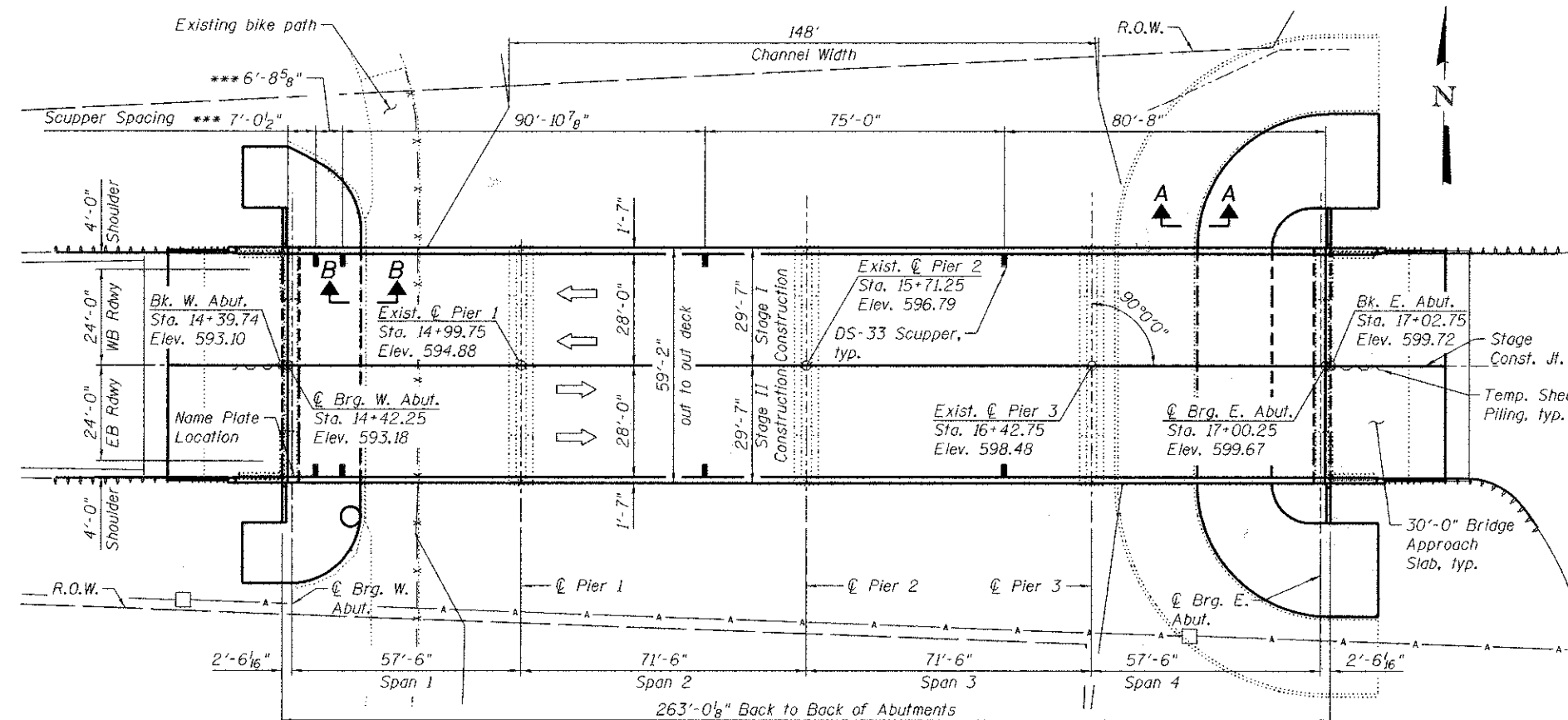
"I certify that to the best of knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the 2002 AASHTO Standard Specifications."



**LOCATION SKETCH**



**PROFILE GRADE**



**PLAN**

**WATERWAY INFORMATION**

Drainage Area = 322 sq. mi. Prop. Low Grade Elevation: 584.40 @ Sta. 11+51.25

Flood	Freq. Yr	Q C.F.S.	Opening Sq. Ft.		Nat. Head - Ft.		Headwater El.		
			Existing	Proposed	H.W.E.	Existing	Proposed	Existing	Proposed
Design	10	6,900			582.21	0.07	0.07	582.28	582.28
Design	30	9,000	2,235	2,235	583.04	0.16	0.16	583.20	583.20
Base	100	11,280	2,433	2,433	583.82	0.27	0.27	584.09	584.09
Overtopping									
Max. Calc.									

**DESIGN SCOUR ELEVATION TABLE**

Design Scour Elevation (ft.)	W. Abut.**	Pier 1*	Pier 2*	Pier 3*	E. Abut.**
	572.08	570.65	569.41	570.79	573.83

\* Top of Rock Elevation at Pier Base  
\*\* Top of Rock Elevation at Concrete Slopewall Base

**LEGEND:**

—▲— Aerial Line

**LOADING HS20-44 & IDOT 120K PERMIT TRUCK (NEW CONST.)**

Allow 50#/sq. ft. future wearing surface.

**DESIGN SPECIFICATIONS (NEW CONST.)**

2002 AASHTO Standard Specifications, 17th Edition

**SEISMIC DATA**

Seismic Performance Category (SPC) = A  
Bedrock Acceleration Coefficient (A) = 0.037  
Site Coefficient (S) = 1.2

**DESIGN STRESSES**

**FIELD UNITS (New Construction)**

f'c = 3,500 psi  
fy = 60,000 psi (Reinforcement)  
fy = 50,000 psi (M270 Grade 50)

**FIELD UNITS (Existing Construction)**

Original: f'c = 3,500 psi  
fy = 33,000 psi (Structural Steel)  
fy = 40,000 psi (Reinforcement)  
Widened: f'c = 3,500 psi  
fy = 36,000 psi (Structural Steel)  
fy = 60,000 psi (Reinforcement)

**GENERAL PLAN & ELEVATION  
BLACK ROAD OVER DU PAGE RIVER  
F.A.U 298 - SECTION 04-00069-18-BR**

WILL COUNTY  
STATION 15+71.25  
STRUCTURE NO. 099-3031

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**GENERAL NOTES:**

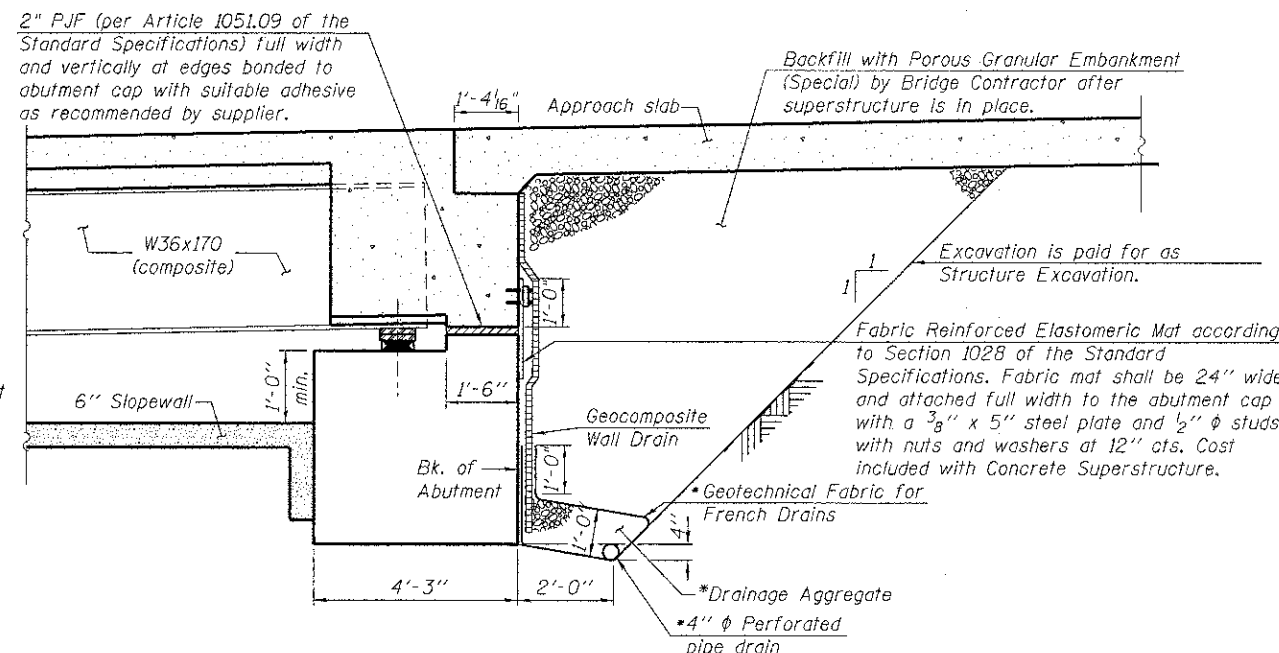
- No field welding is permitted except as specified in the contract documents.
- The Contractor shall test the existing welds by nondestructive methods within 2 ft. of the end of the existing cover plates for cracks after removal of the existing concrete deck. Dye penetrant (PT), magnetic particle (MT), or other approved testing method shall be performed by qualified personnel approved by the Engineer. If cracks are found, report them to the Bureau of Bridges and Structures for disposition. The cost of testing is included in Removal of Existing Concrete Deck. The cost of crack repair, if necessary, will be paid for according to Article 109.04 of the Standard Specifications.
- Reinforcement bars designated (E) shall be epoxy coated.
- Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of existing concrete. As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant (PT) by qualified personnel approved by the Engineer. Any cracks that cannot be removed by grinding 1/4 in. deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.
- Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering materials. Such variations shall not be cause for additional compensation for a change in scope of work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
- Bearing seat surfaces shall be constructed or adjusted to the designated elevations within tolerance of 1/8 in. (0.01 ft.). Adjustments shall be made either by grinding the surface or by shimming the bearings.
- The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
- The Organic Zinc Rich Primer / Epoxy / Urethane Paint System shall be used for painting of new structural steel except where otherwise noted. The entire system shall be shop applied, with the exception of the exterior surface and the bottom of the bottom flange of fascia beams, masked off construction surfaces, field installed fasteners and damaged areas shall be touched up in the field. The color of the final finish coat for all interior surfaces shall be Gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Reddish Brown, Munsell No. 2.5YR 3/4.
- If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.
- Cleaning and painting of the existing structural steel shall be as specified in the special provisions for "Cleaning and Painting Existing Steel Structures". All existing steel shall be cleaned per Near White Blast Cleaning - SSPC-SP10. All existing steel shall be painted according to the requirements of Paint System 1 - OZ/E/U. The color of the final finish coat for all interior steel surfaces shall be Gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Reddish Brown, Munsell No. 2.5YR 3/4.
- All new fasteners shall be high strength bolts. Holes shall be subpunched or subdrilled 11/16" dia. and reamed in the field to 13/16" dia. for 3/4" dia. bolts, unless otherwise noted. Holes for splice between existing and proposed beams shall be subpunched or subdrilled 13/16" dia. and reamed in the field to 15/16" dia. for 7/8" dia. bolts, unless otherwise noted.
- Hardwood timbers shall be installed tightly between the top and bottom flange of beams D-F at the East and West Abutments as close as possible to the center of bearing. These should be placed prior to Stage I traffic being shifted. Cost to be included with "Removal of Existing Concrete Deck".
- Permit Load refers to the combination of a 120 kip vehicle with a 80 kip vehicle present in other lanes and in front and behind the 120,000 lb. vehicle. For vehicle axle weight and spacing, see detail on this sheet.
- Slipforming of the parapets is not allowed.
- Complete original and rehabilitation plans are available upon request from the Will County Department of Highways.
- Current Ratings on File for Existing Structure  
Inventory: HS 5.7  
Operating: HS 9.7  
Live Load Restrictions: 15 Tons  
Inventory and Operating Ratings and Live Load Restrictions are provided for information only. Inventory and Operating Ratings are based on HS loading and configuration. Live Load Restrictions are based on Illinois legal loads and configurations. The Ratings and Live Load Restrictions are not necessarily representative of capacities to support the Contractor's equipment.
- The Contractor is advised that the existing structure contains members that are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the existing structure when developing construction procedures for the partial removal of the structure.

**INDEX OF SHEETS**

- S-1 General Plan & Elevation
- S-2 General Notes, Index of Sheets and Bill of Material
- S-3 Staging Details
- S-4 Temporary Concrete Barrier
- S-5 Removal Details
- S-6 Top of Slab Elevations - 1
- S-7 Top of Slab Elevations - 2
- S-8 Top of Slab Elevations - 3
- S-9 Top of West Approach Slab Elevations
- S-10 Top of East Approach Slab Elevations
- S-11 Superstructure Plan & Elevation
- S-12 Superstructure Details
- S-13 Diaphragm Details - Semi Integral Abutment
- S-14 Approach Slab Details - 1
- S-15 Approach Slab Details - 2
- S-16 Drainage Scupper, DS-33
- S-17 Framing Plan
- S-18 Structural Steel Details
- S-19 Bearing Details
- S-20 Bearing Removal Details
- S-21 West Abutment Details
- S-22 East Abutment Details
- S-23 Slope Wall Details
- S-24 Bar Splicer Details

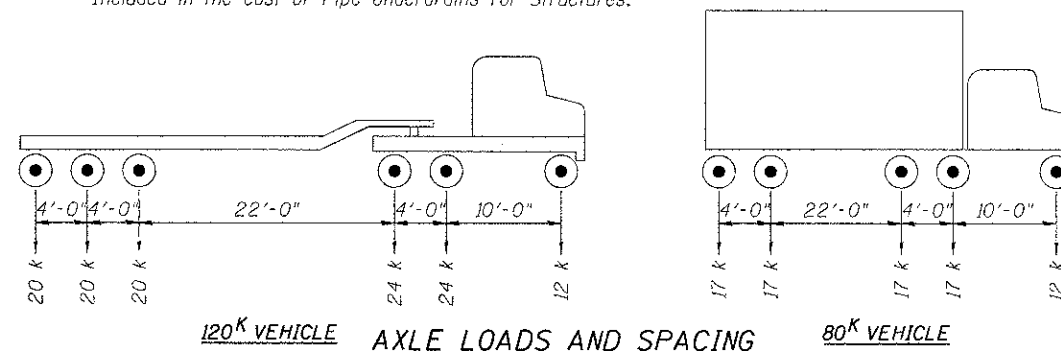
**NOTES:**

- All drainage system components shall run under the wingwall footings and shall extend to 2'-0" from the face of each wingwall except an outlet pipe shall connect with a 4" pipe drain. The pipe drain shall extend to the toe of slope where it shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).
- Porous Granular Embankment and Pipe Underdrains for Structures are billed with the abutments on sheets S-21 and S-22.



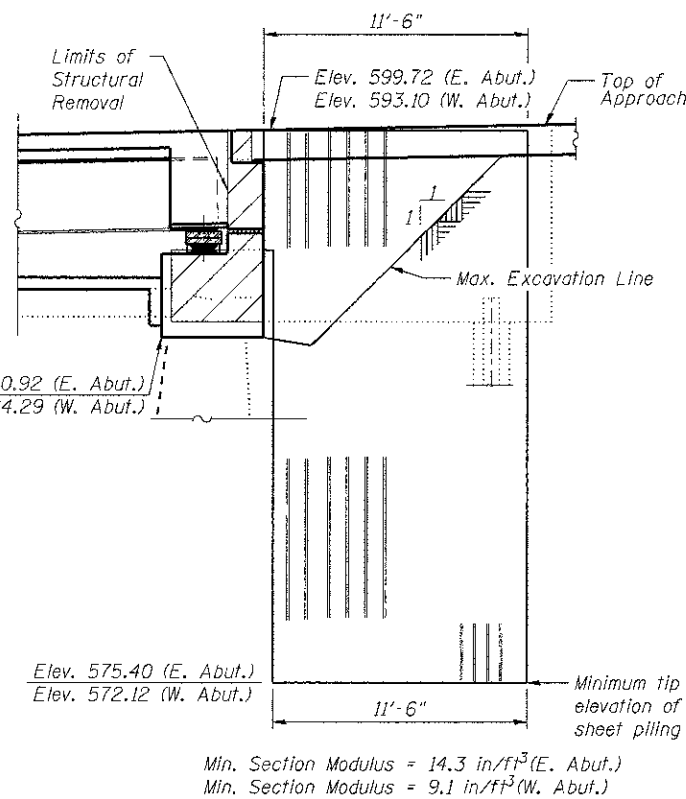
**DRAINAGE DETAILS**

(Horiz. dim. @ Rt. L's)  
\*Included in the cost of Pipe Underdrains for Structures.



**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu Yd		85.6	85.6
Removal Of Existing Concrete Deck	Each	1		1
Structure Excavation	Cu Yd		168	168
Concrete Structures	Cu Yd		121.3	121.3
Concrete Superstructure	Cu Yd	696.5		696.5
Bridge Deck Grooving	Sq Yd	1926		1926
Protective Coat	Sq Yd	2245		2245
Furnishing And Erecting Structural Steel	Pound	238210		238210
Stud Shear Connectors	Each	6996		6996
Cleaning And Painting Structural Steel, Location 1	L Sum	1		1
Reinforcement Bars, Epoxy Coated	Pound	144860	14380	159240
Bar Splicers	Each	827	114	941
Slope Wall 6 Inch	Sq Yd		714	714
Name Plates	Each	1		1
Elastomeric Bearing Assembly, Type I	Each	40		40
Anchor Bolts, 1"	Each	80		80
Geocomposite Wall Drain	Sq Yd		132	132
Porous Granular Embankment, Special	Cu Yd		210	210
Jack And Remove Existing Bearings	Each	10		10
Containment And Disposal Of Lead Paint Cleaning Residues	L Sum	1		1
Drainage Scuppers, DS-33	Each	8		8
Temporary Sheet Piling	Sq Ft		521	521
Pipe Underdrains For Structures 4"	Foot		180	180
Structural Steel Removal	Pound	215780		215780



**TEMPORARY SHEET PILING**

Min. Section Modulus = 14.3 in<sup>3</sup>/ft<sup>3</sup> (E. Abut.)  
Min. Section Modulus = 9.1 in<sup>3</sup>/ft<sup>3</sup> (W. Abut.)

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PLOT DATE = 1/28/2013	DRAWN - SRG	REVISED -
	CHECKED - BWS	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**GENERAL NOTES, INDEX OF SHEETS AND BILL OF MATERIAL  
STRUCTURE NO. 099-3031**

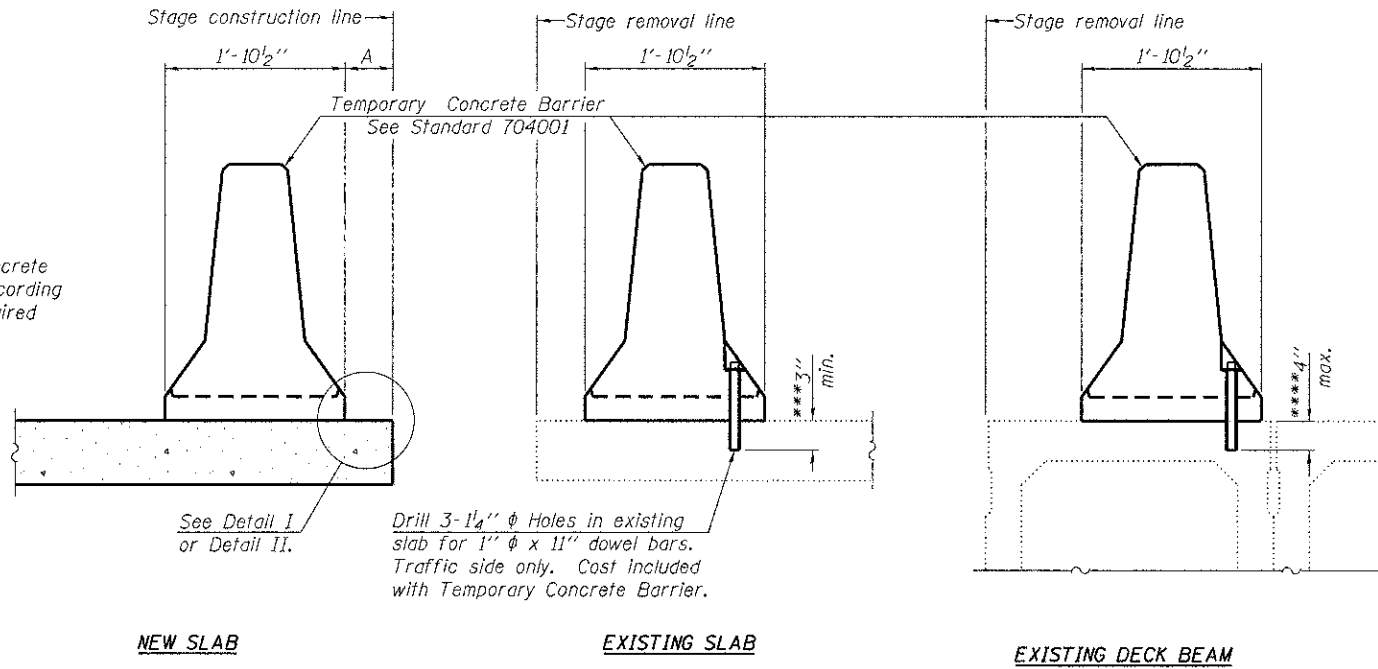
SHEET NO. S-2 OF S-24 SHEETS

F.A.I. RTE. 298	SECTION 04-0069-18-BR	COUNTY WILL	TOTAL SHEETS 51	SHEET NO. 23
CONTRACT NO. 63803			ILLINOIS FED. AID PROJECT	





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



**SECTIONS THRU SLAB OR DECK BEAM**

**NOTES**

Detail I - With Bar Splicer or Couplers:  
Connect one (1) 1" x 7" x "W" steel plate to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.

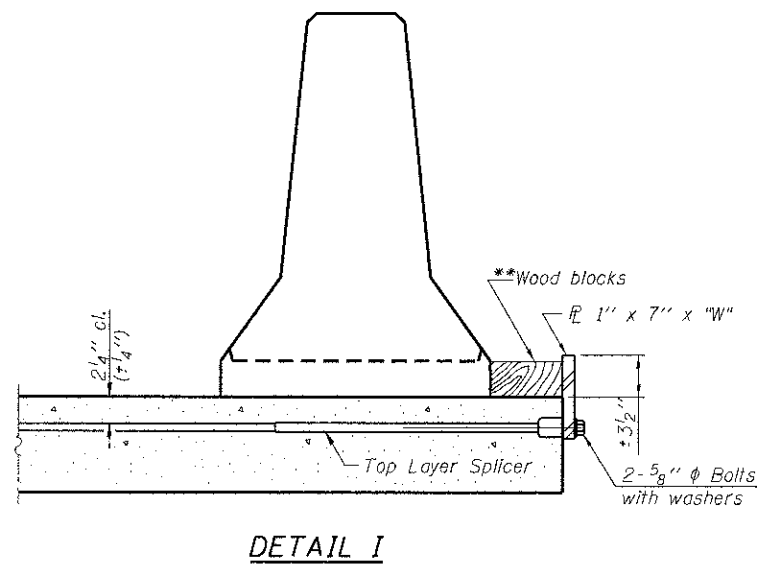
Detail II - With Extended Reinforcement Bars:  
Connect one (1) 1" x 7" x "W" steel plate to the concrete slab or concrete wearing surface with 2-5/8" φ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate C of each barrier panel.

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

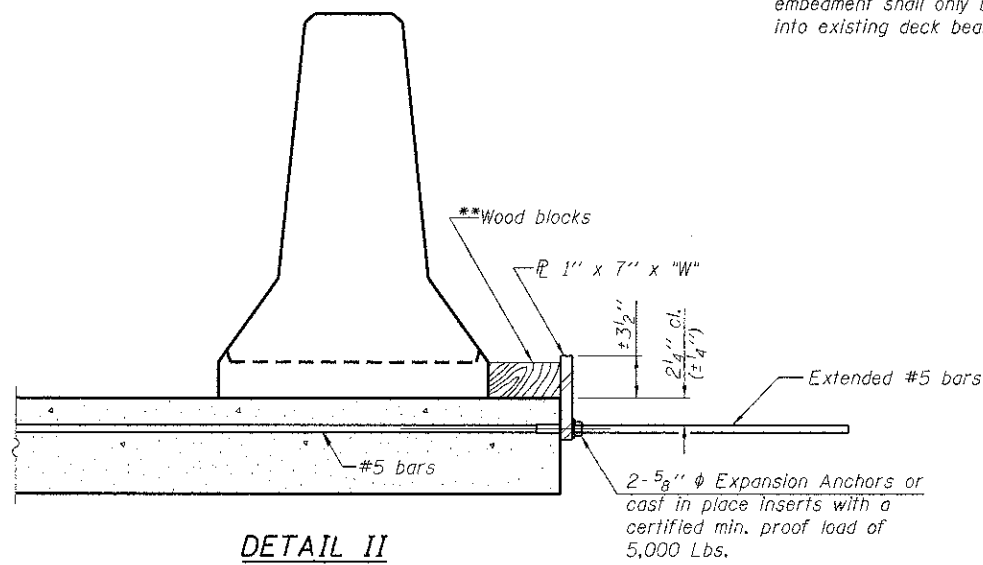
Note: The steel retainer plates should only be removed immediately prior to the concrete pour to lap top layer of reinforcement.

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

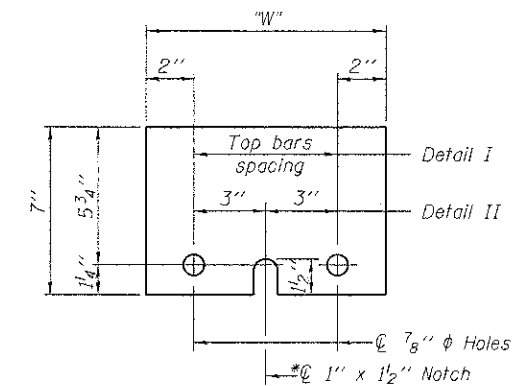
\*\*\*\* If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



**DETAIL I**



**DETAIL II**



**STEEL RETAINER 1" x 7" x "W"**

\* Required only with Detail II

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

"W" = Top bars spacing + 4"

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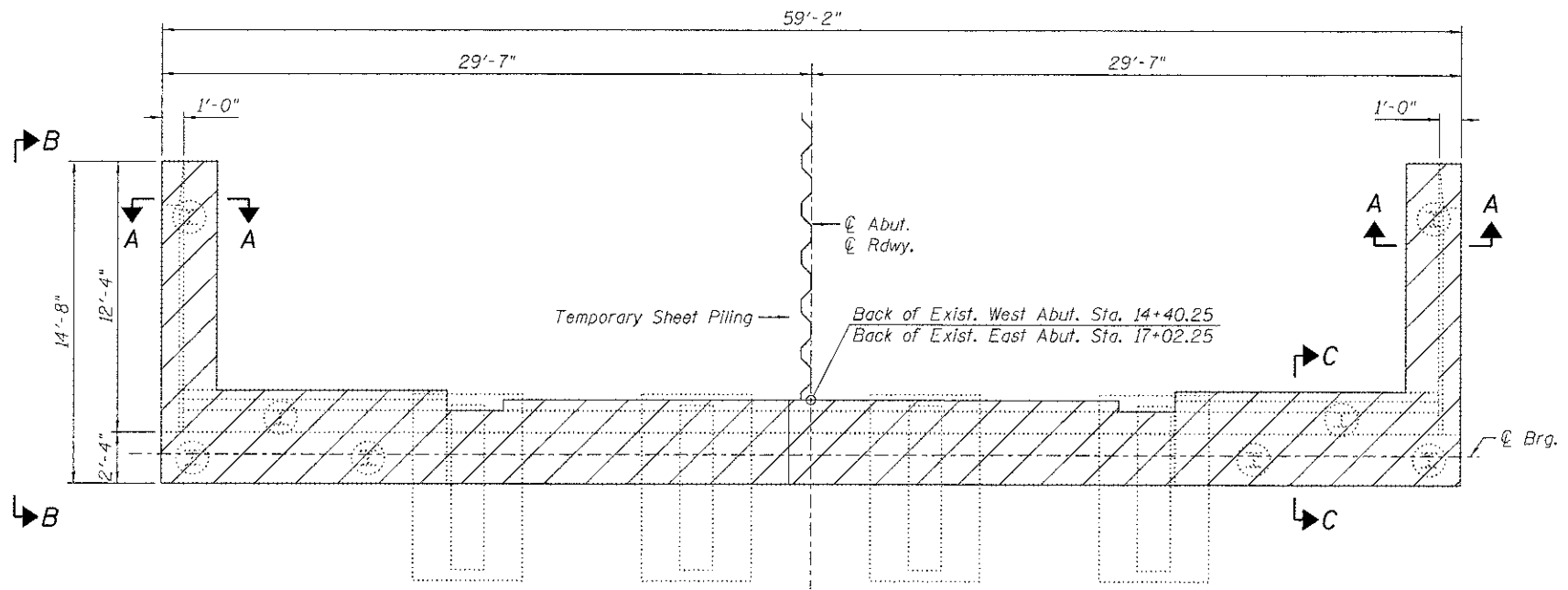
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

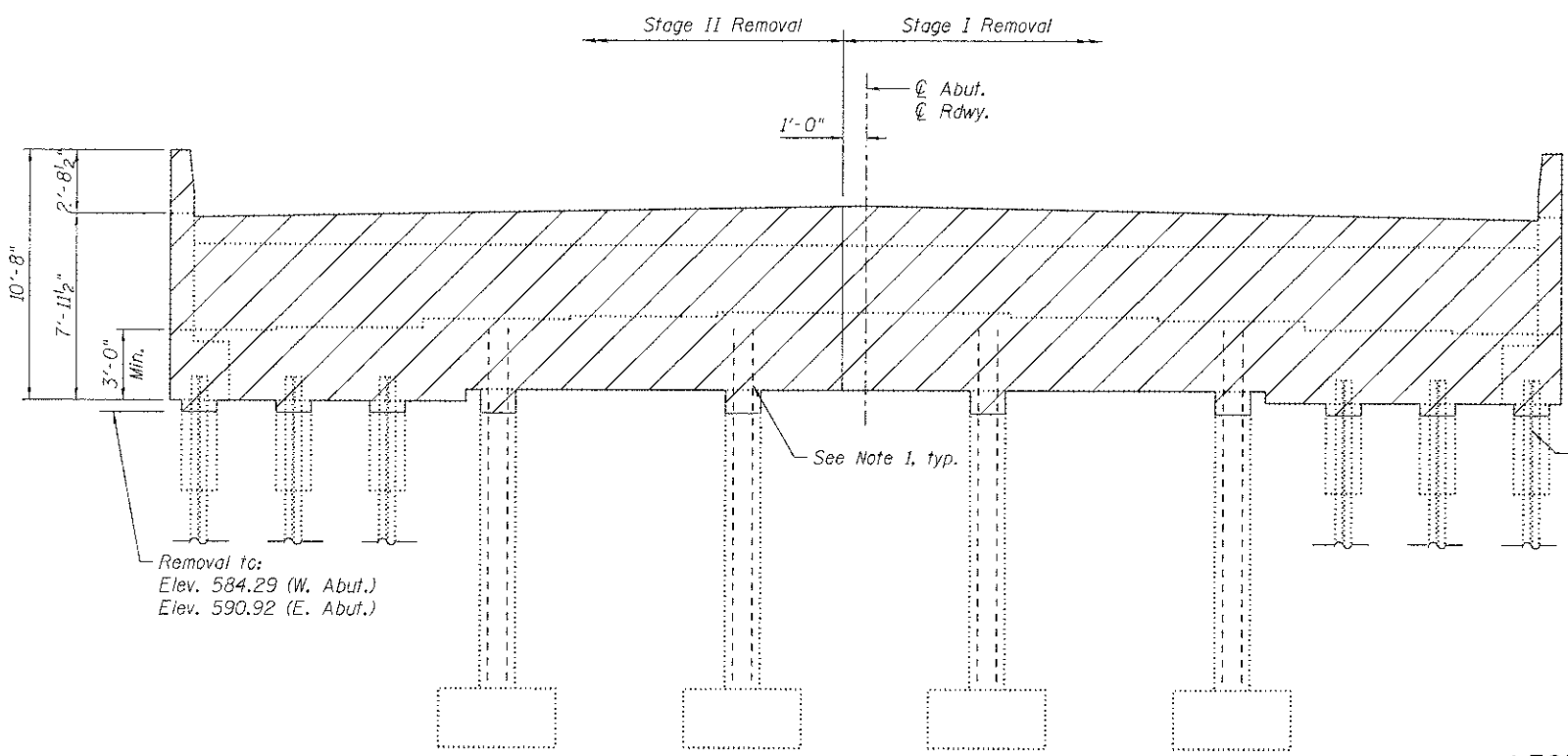
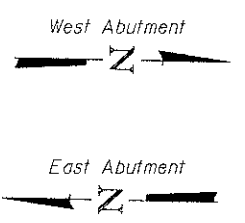
**TEMPORARY CONCRETE BARRIER  
STRUCTURE NO. 099-3031**

SHEET NO. S-4 OF S-24 SHEETS

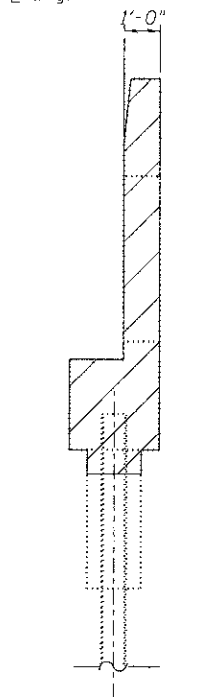
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 63803			ILLINOIS FED. AID PROJECT	



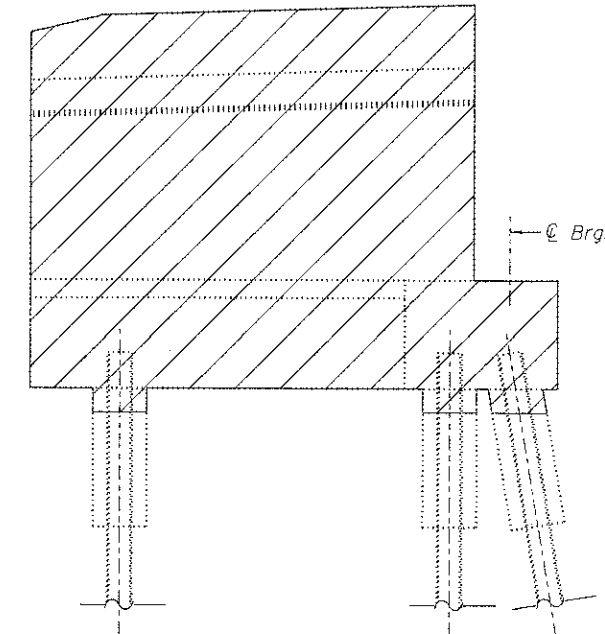
**PLAN**  
(West Abutment shown  
East Abutment similar)



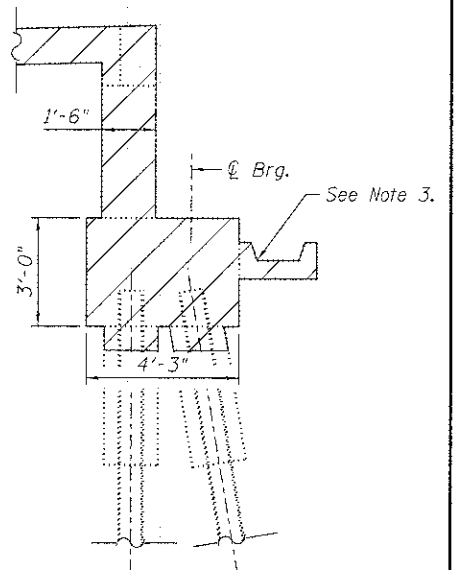
**ELEVATION**  
(West Abutment shown  
East Abutment similar)



**SECTION A-A**



**VIEW B-B**



**SECTION C-C**

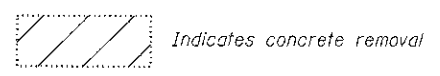
**BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Concrete Removal	Cu. Yd.	85.6

**NOTES:**

- Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with "Concrete Removal".
- Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splice or anchorage system. Cost included with "Concrete Removal".
- Existing concrete gutter to be removed during abutment removal. Cost included with "Concrete Removal".
- Full length of existing piles to remain.

**LEGEND:**



M:\PROJ\090234\09-095\Design\Structural\CAD\099-3031\_0002.dwg 05 Removal.dgn



USER NAME: rdenley	DESIGNED: MHT	REVISIONS:
PLLOT SCALE: 4.000000 / in.	CHECKED: SMY	REVISIONS:
PLLOT DATE: 1/26/2013	DRAWN: SRG	REVISIONS:
	CHECKED: BWS	REVISIONS:

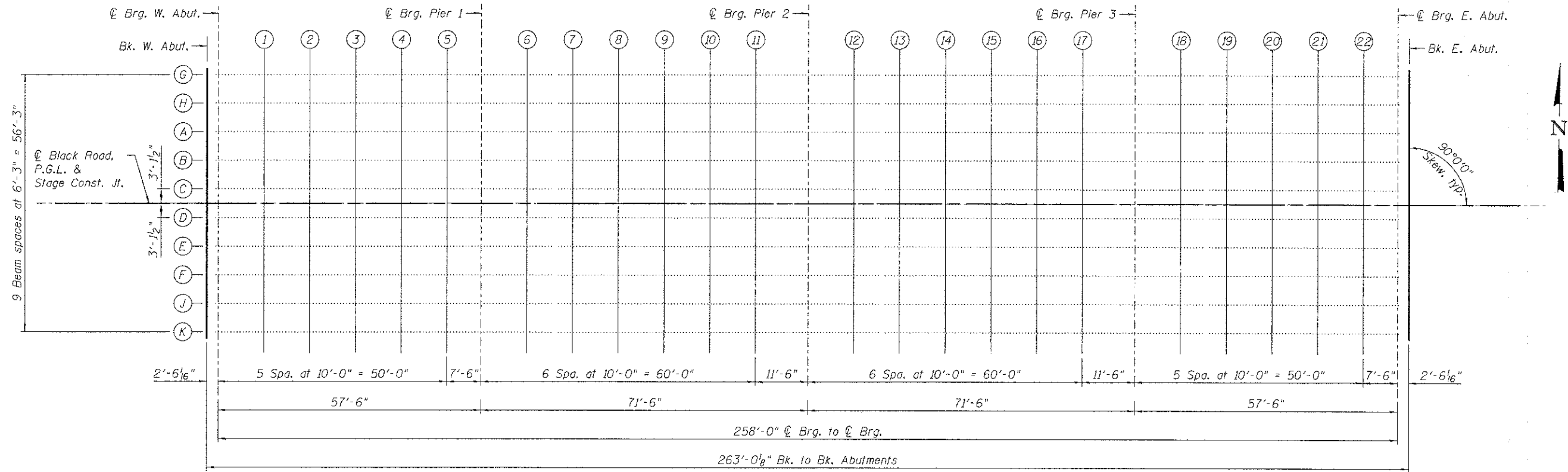
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**REMOVAL DETAILS  
STRUCTURE NO. 099-3031**

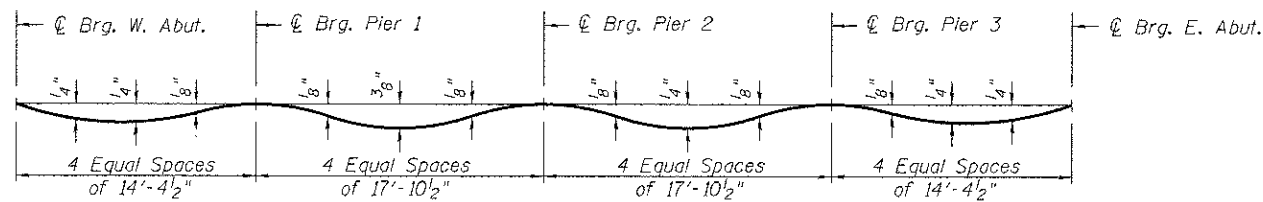
SHEET NO. S-5 OF S-24 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
298	04-00069-18-BR	WILL	51	26

CONTRACT NO. 63803  
ILLINOIS FED. AID PROJECT



PLAN

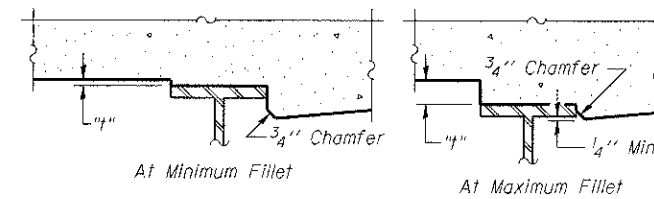


DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Note:

The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on sheets S-7 & S-8.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheets S-7 and S-8, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS

NOTE:

Work this sheet with sheets S-7 & S-8.

N:\PROJECTS\099-3031\099-3031-0003\099-3031-0003.dwg



USER NAME = rdonlay	DESIGNED - MHT	REVISED -
PLOT SCALE = 1/2" = 10'-0"	CHECKED - SMY	REVISED -
PLOT DATE = 1/28/2013	DRAWN - SRG	REVISED -
	CHECKED - BWS	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS - 1  
STRUCTURE NO. 099-3031

SHEET NO. S-6 OF S-24 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
298	04-00069-18-BR	WILL	51	27
CONTRACT NO. 63803				
ILLINOIS FED. AID PROJECT				

**BEAM G**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	14+39.74	28.13 Lt.	592.65	592.65
☉ Brg. W. Abut.	14+42.25	28.13 Lt.	592.73	592.73
1	14+52.25	28.13 Lt.	593.03	593.05
2	14+62.25	28.13 Lt.	593.34	593.35
3	14+72.25	28.13 Lt.	593.63	593.65
4	14+82.25	28.13 Lt.	593.93	593.94
5	14+92.25	28.13 Lt.	594.22	594.22
☉ Brg. Pier 1	14+99.75	28.13 Lt.	594.43	594.43
6	15+09.75	28.13 Lt.	594.71	594.72
7	15+19.75	28.13 Lt.	594.99	595.00
8	15+29.75	28.13 Lt.	595.26	595.28
9	15+39.75	28.13 Lt.	595.53	595.55
10	15+49.75	28.13 Lt.	595.79	595.81
11	15+59.75	28.13 Lt.	596.05	596.06
☉ Brg. Pier 2	15+71.25	28.13 Lt.	596.34	596.34
12	15+81.25	28.13 Lt.	596.59	596.60
13	15+91.25	28.13 Lt.	596.84	596.85
14	16+01.25	28.13 Lt.	597.08	597.10
15	16+11.25	28.13 Lt.	597.32	597.33
16	16+21.25	28.13 Lt.	597.55	597.56
17	16+31.25	28.13 Lt.	597.77	597.78
☉ Brg. Pier 3	16+42.75	28.13 Lt.	598.03	598.03
18	16+52.75	28.13 Lt.	598.25	598.25
19	16+62.75	28.13 Lt.	598.46	598.47
20	16+72.75	28.13 Lt.	598.67	598.69
21	16+82.75	28.13 Lt.	598.87	598.89
22	16+92.75	28.13 Lt.	599.07	599.08
☉ Brg. E. Abut.	17+00.25	28.13 Lt.	599.22	599.22
Bk. E. Abut.	17+02.75	28.13 Lt.	599.27	599.27

**BEAM H**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	14+39.74	21.88 Lt.	592.76	592.76
☉ Brg. W. Abut.	14+42.25	21.88 Lt.	592.83	592.83
1	14+52.25	21.88 Lt.	593.14	593.15
2	14+62.25	21.88 Lt.	593.44	593.46
3	14+72.25	21.88 Lt.	593.74	593.76
4	14+82.25	21.88 Lt.	594.04	594.05
5	14+92.25	21.88 Lt.	594.32	594.33
☉ Brg. Pier 1	14+99.75	21.88 Lt.	594.54	594.54
6	15+09.75	21.88 Lt.	594.82	594.82
7	15+19.75	21.88 Lt.	595.10	595.11
8	15+29.75	21.88 Lt.	595.37	595.39
9	15+39.75	21.88 Lt.	595.64	595.66
10	15+49.75	21.88 Lt.	595.90	595.91
11	15+59.75	21.88 Lt.	596.16	596.16
☉ Brg. Pier 2	15+71.25	21.88 Lt.	596.45	596.45
12	15+81.25	21.88 Lt.	596.70	596.71
13	15+91.25	21.88 Lt.	596.95	596.96
14	16+01.25	21.88 Lt.	597.19	597.20
15	16+11.25	21.88 Lt.	597.42	597.44
16	16+21.25	21.88 Lt.	597.65	597.67
17	16+31.25	21.88 Lt.	597.88	597.89
☉ Brg. Pier 3	16+42.75	21.88 Lt.	598.14	598.14
18	16+52.75	21.88 Lt.	598.35	598.36
19	16+62.75	21.88 Lt.	598.57	598.58
20	16+72.75	21.88 Lt.	598.78	598.79
21	16+82.75	21.88 Lt.	598.98	599.00
22	16+92.75	21.88 Lt.	599.18	599.19
☉ Brg. E. Abut.	17+00.25	21.88 Lt.	599.33	599.33
Bk. E. Abut.	17+02.75	21.88 Lt.	599.38	599.38

**BEAM A**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	14+39.74	15.63 Lt.	592.85	592.85
☉ Brg. W. Abut.	14+42.25	15.63 Lt.	592.93	592.93
1	14+52.25	15.63 Lt.	593.24	593.25
2	14+62.25	15.63 Lt.	593.54	593.56
3	14+72.25	15.63 Lt.	593.84	593.86
4	14+82.25	15.63 Lt.	594.13	594.14
5	14+92.25	15.63 Lt.	594.42	594.42
☉ Brg. Pier 1	14+99.75	15.63 Lt.	594.64	594.64
6	15+09.75	15.63 Lt.	594.92	594.92
7	15+19.75	15.63 Lt.	595.19	595.21
8	15+29.75	15.63 Lt.	595.47	595.49
9	15+39.75	15.63 Lt.	595.73	595.76
10	15+49.75	15.63 Lt.	596.00	596.01
11	15+59.75	15.63 Lt.	596.26	596.26
☉ Brg. Pier 2	15+71.25	15.63 Lt.	596.55	596.55
12	15+81.25	15.63 Lt.	596.80	596.80
13	15+91.25	15.63 Lt.	597.04	597.06
14	16+01.25	15.63 Lt.	597.28	597.30
15	16+11.25	15.63 Lt.	597.52	597.54
16	16+21.25	15.63 Lt.	597.75	597.77
17	16+31.25	15.63 Lt.	597.98	597.99
☉ Brg. Pier 3	16+42.75	15.63 Lt.	598.23	598.23
18	16+52.75	15.63 Lt.	598.45	598.46
19	16+62.75	15.63 Lt.	598.67	598.68
20	16+72.75	15.63 Lt.	598.87	598.89
21	16+82.75	15.63 Lt.	599.08	599.10
22	16+92.75	15.63 Lt.	599.28	599.29
☉ Brg. E. Abut.	17+00.25	15.63 Lt.	599.42	599.42
Bk. E. Abut.	17+02.75	15.63 Lt.	599.47	599.47

**BEAM B**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	14+39.74	9.38 Lt.	592.95	592.95
☉ Brg. W. Abut.	14+42.25	9.38 Lt.	593.03	593.03
1	14+52.25	9.38 Lt.	593.34	593.35
2	14+62.25	9.38 Lt.	593.64	593.66
3	14+72.25	9.38 Lt.	593.94	593.96
4	14+82.25	9.38 Lt.	594.23	594.24
5	14+92.25	9.38 Lt.	594.52	594.52
☉ Brg. Pier 1	14+99.75	9.38 Lt.	594.73	594.73
6	15+09.75	9.38 Lt.	595.01	595.02
7	15+19.75	9.38 Lt.	595.29	595.31
8	15+29.75	9.38 Lt.	595.56	595.58
9	15+39.75	9.38 Lt.	595.83	595.85
10	15+49.75	9.38 Lt.	596.10	596.11
11	15+59.75	9.38 Lt.	596.35	596.36
☉ Brg. Pier 2	15+71.25	9.38 Lt.	596.65	596.65
12	15+81.25	9.38 Lt.	596.90	596.90
13	15+91.25	9.38 Lt.	597.14	597.16
14	16+01.25	9.38 Lt.	597.38	597.40
15	16+11.25	9.38 Lt.	597.62	597.64
16	16+21.25	9.38 Lt.	597.85	597.86
17	16+31.25	9.38 Lt.	598.08	598.08
☉ Brg. Pier 3	16+42.75	9.38 Lt.	598.33	598.33
18	16+52.75	9.38 Lt.	598.55	598.55
19	16+62.75	9.38 Lt.	598.76	598.78
20	16+72.75	9.38 Lt.	598.97	598.99
21	16+82.75	9.38 Lt.	599.18	599.19
22	16+92.75	9.38 Lt.	599.38	599.39
☉ Brg. E. Abut.	17+00.25	9.38 Lt.	599.52	599.52
Bk. E. Abut.	17+02.75	9.38 Lt.	599.57	599.57

**BEAM C**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	14+39.74	3.13 Lt.	593.05	593.05
☉ Brg. W. Abut.	14+42.25	3.13 Lt.	593.13	593.13
1	14+52.25	3.13 Lt.	593.43	593.45
2	14+62.25	3.13 Lt.	593.74	593.76
3	14+72.25	3.13 Lt.	594.03	594.05
4	14+82.25	3.13 Lt.	594.33	594.34
5	14+92.25	3.13 Lt.	594.62	594.62
☉ Brg. Pier 1	14+99.75	3.13 Lt.	594.83	594.83
6	15+09.75	3.13 Lt.	595.11	595.12
7	15+19.75	3.13 Lt.	595.39	595.40
8	15+29.75	3.13 Lt.	595.66	595.68
9	15+39.75	3.13 Lt.	595.93	595.95
10	15+49.75	3.13 Lt.	596.19	596.21
11	15+59.75	3.13 Lt.	596.45	596.46
☉ Brg. Pier 2	15+71.25	3.13 Lt.	596.74	596.74
12	15+81.25	3.13 Lt.	596.99	597.00
13	15+91.25	3.13 Lt.	597.24	597.25
14	16+01.25	3.13 Lt.	597.48	597.50
15	16+11.25	3.13 Lt.	597.72	597.74
16	16+21.25	3.13 Lt.	597.95	597.96
17	16+31.25	3.13 Lt.	598.17	598.18
☉ Brg. Pier 3	16+42.75	3.13 Lt.	598.43	598.43
18	16+52.75	3.13 Lt.	598.65	598.65
19	16+62.75	3.13 Lt.	598.86	598.87
20	16+72.75	3.13 Lt.	599.07	599.09
21	16+82.75	3.13 Lt.	599.27	599.29
22	16+92.75	3.13 Lt.	599.47	599.48
☉ Brg. E. Abut.	17+00.25	3.13 Lt.	599.62	599.62
Bk. E. Abut.	17+02.75	3.13 Lt.	599.67	599.67

**☉ BLACK ROAD, P.G.L., & STAGE CONST. JT.**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	14+39.74	0.00	593.10	593.10
☉ Brg. W. Abut.	14+42.25	0.00	593.18	593.18
1	14+52.25	0.00	593.48	593.50
2	14+62.25	0.00	593.79	593.80
3	14+72.25	0.00	594.08	594.10
4	14+82.25	0.00	594.38	594.39
5	14+92.25	0.00	594.67	594.67
☉ Brg. Pier 1	14+99.75	0.00	594.88	594.88
6	15+09.75	0.00	595.16	595.17
7	15+19.75	0.00	595.44	595.45
8	15+29.75	0.00	595.71	595.73
9	15+39.75	0.00	595.98	596.00
10	15+49.75	0.00	596.24	596.26
11	15+59.75	0.00	596.50	596.51
☉ Brg. Pier 2	15+71.25	0.00	596.79	596.79
12	15+81.25	0.00	597.04	597.05
13	15+91.25	0.00	597.29	597.30
14	16+01.25	0.00	597.53	597.55
15	16+11.25	0.00	597.76	597.79
16	16+21.25	0.00	598.00	598.01
17	16+31.25	0.00	598.22	598.23
☉ Brg. Pier 3	16+42.75	0.00	598.48	598.48
18	16+52.75	0.00	598.70	598.70
19	16+62.75	0.00	598.91	598.92
20	16+72.75	0.00	599.12	599.14
21	16+82.75	0.00	599.32	599.34
22	16+92.75	0.00	599.52	599.53
☉ Brg. E. Abut.	17+00.25	0.00	599.67	599.67
Bk. E. Abut.	17+02.75	0.00	599.72	599.72

Note:  
Work this sheet with Sheet S-6.

N:\PROJECTS\2003\406\08\Design\Structural\CAD\099-3031\0203408 07 Top of Slab Elev 2.dgn



USER NAME = rdenley	DESIGNED - MHT	REVISED -
	CHECKED - SMY	REVISED -
PLOT SCALE = 0:1.0000 1/4" = 1'	DRAWN - SRG	REVISED -
PLOT DATE = 1/26/2013	CHECKED - BWS	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS - 2  
STRUCTURE NO. 099-3031

SHEET NO. S-7 OF S-24 SHEETS

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
298	04-00069-18-BR	WILL	51	28
CONTRACT NO. 63803				
ILLINOIS FED. AID PROJECT				

**BEAM D**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	14+39.74	3.13 Rt.	593.05	593.05
⊙ Brg. W. Abut.	14+42.25	3.13 Rt.	593.13	593.13
1	14+52.25	3.13 Rt.	593.43	593.45
2	14+62.25	3.13 Rt.	593.74	593.76
3	14+72.25	3.13 Rt.	594.03	594.05
4	14+82.25	3.13 Rt.	594.33	594.34
5	14+92.25	3.13 Rt.	594.62	594.62
⊙ Brg. Pier 1	14+99.75	3.13 Rt.	594.83	594.83
6	15+09.75	3.13 Rt.	595.11	595.12
7	15+19.75	3.13 Rt.	595.39	595.40
8	15+29.75	3.13 Rt.	595.66	595.68
9	15+39.75	3.13 Rt.	595.93	595.95
10	15+49.75	3.13 Rt.	596.19	596.21
11	15+59.75	3.13 Rt.	596.45	596.46
⊙ Brg. Pier 2	15+71.25	3.13 Rt.	596.74	596.74
12	15+81.25	3.13 Rt.	596.99	597.00
13	15+91.25	3.13 Rt.	597.24	597.25
14	16+01.25	3.13 Rt.	597.48	597.50
15	16+11.25	3.13 Rt.	597.72	597.74
16	16+21.25	3.13 Rt.	597.95	597.96
17	16+31.25	3.13 Rt.	598.17	598.18
⊙ Brg. Pier 3	16+42.75	3.13 Rt.	598.43	598.43
18	16+52.75	3.13 Rt.	598.65	598.65
19	16+62.75	3.13 Rt.	598.86	598.87
20	16+72.75	3.13 Rt.	599.07	599.09
21	16+82.75	3.13 Rt.	599.27	599.29
22	16+92.75	3.13 Rt.	599.47	599.48
⊙ Brg. E. Abut.	17+00.25	3.13 Rt.	599.62	599.62
Bk. E. Abut.	17+02.75	3.13 Rt.	599.67	599.67

**BEAM E**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	14+39.74	9.38 Rt.	592.95	592.95
⊙ Brg. W. Abut.	14+42.25	9.38 Rt.	593.03	593.03
1	14+52.25	9.38 Rt.	593.34	593.35
2	14+62.25	9.38 Rt.	593.64	593.66
3	14+72.25	9.38 Rt.	593.94	593.96
4	14+82.25	9.38 Rt.	594.23	594.24
5	14+92.25	9.38 Rt.	594.52	594.52
⊙ Brg. Pier 1	14+99.75	9.38 Rt.	594.73	594.73
6	15+09.75	9.38 Rt.	595.01	595.02
7	15+19.75	9.38 Rt.	595.29	595.31
8	15+29.75	9.38 Rt.	595.56	595.58
9	15+39.75	9.38 Rt.	595.83	595.85
10	15+49.75	9.38 Rt.	596.10	596.11
11	15+59.75	9.38 Rt.	596.35	596.36
⊙ Brg. Pier 2	15+71.25	9.38 Rt.	596.65	596.65
12	15+81.25	9.38 Rt.	596.90	596.90
13	15+91.25	9.38 Rt.	597.14	597.16
14	16+01.25	9.38 Rt.	597.38	597.40
15	16+11.25	9.38 Rt.	597.62	597.64
16	16+21.25	9.38 Rt.	597.85	597.86
17	16+31.25	9.38 Rt.	598.08	598.08
⊙ Brg. Pier 3	16+42.75	9.38 Rt.	598.33	598.33
18	16+52.75	9.38 Rt.	598.55	598.55
19	16+62.75	9.38 Rt.	598.76	598.78
20	16+72.75	9.38 Rt.	598.97	598.99
21	16+82.75	9.38 Rt.	599.18	599.19
22	16+92.75	9.38 Rt.	599.38	599.39
⊙ Brg. E. Abut.	17+00.25	9.38 Rt.	599.52	599.52
Bk. E. Abut.	17+02.75	9.38 Rt.	599.57	599.57

**BEAM F**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	14+39.74	15.63 Rt.	592.85	592.85
⊙ Brg. W. Abut.	14+42.25	15.63 Rt.	592.93	592.93
1	14+52.25	15.63 Rt.	593.24	593.25
2	14+62.25	15.63 Rt.	593.54	593.56
3	14+72.25	15.63 Rt.	593.84	593.86
4	14+82.25	15.63 Rt.	594.13	594.14
5	14+92.25	15.63 Rt.	594.42	594.42
⊙ Brg. Pier 1	14+99.75	15.63 Rt.	594.64	594.64
6	15+09.75	15.63 Rt.	594.92	594.92
7	15+19.75	15.63 Rt.	595.19	595.21
8	15+29.75	15.63 Rt.	595.47	595.49
9	15+39.75	15.63 Rt.	595.73	595.76
10	15+49.75	15.63 Rt.	596.00	596.01
11	15+59.75	15.63 Rt.	596.26	596.26
⊙ Brg. Pier 2	15+71.25	15.63 Rt.	596.55	596.55
12	15+81.25	15.63 Rt.	596.80	596.80
13	15+91.25	15.63 Rt.	597.04	597.06
14	16+01.25	15.63 Rt.	597.28	597.30
15	16+11.25	15.63 Rt.	597.52	597.54
16	16+21.25	15.63 Rt.	597.75	597.77
17	16+31.25	15.63 Rt.	597.98	597.99
⊙ Brg. Pier 3	16+42.75	15.63 Rt.	598.23	598.23
18	16+52.75	15.63 Rt.	598.45	598.46
19	16+62.75	15.63 Rt.	598.67	598.68
20	16+72.75	15.63 Rt.	598.87	598.89
21	16+82.75	15.63 Rt.	599.08	599.10
22	16+92.75	15.63 Rt.	599.28	599.29
⊙ Brg. E. Abut.	17+00.25	15.63 Rt.	599.42	599.42
Bk. E. Abut.	17+02.75	15.63 Rt.	599.47	599.47

**BEAM J**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	14+39.74	21.88 Rt.	592.76	592.76
⊙ Brg. W. Abut.	14+42.25	21.88 Rt.	592.83	592.83
1	14+52.25	21.88 Rt.	593.14	593.15
2	14+62.25	21.88 Rt.	593.44	593.46
3	14+72.25	21.88 Rt.	593.74	593.76
4	14+82.25	21.88 Rt.	594.04	594.05
5	14+92.25	21.88 Rt.	594.32	594.33
⊙ Brg. Pier 1	14+99.75	21.88 Rt.	594.54	594.54
6	15+09.75	21.88 Rt.	594.82	594.82
7	15+19.75	21.88 Rt.	595.10	595.11
8	15+29.75	21.88 Rt.	595.37	595.39
9	15+39.75	21.88 Rt.	595.64	595.66
10	15+49.75	21.88 Rt.	595.90	595.91
11	15+59.75	21.88 Rt.	596.16	596.16
⊙ Brg. Pier 2	15+71.25	21.88 Rt.	596.45	596.45
12	15+81.25	21.88 Rt.	596.70	596.71
13	15+91.25	21.88 Rt.	596.95	596.96
14	16+01.25	21.88 Rt.	597.19	597.20
15	16+11.25	21.88 Rt.	597.42	597.44
16	16+21.25	21.88 Rt.	597.65	597.67
17	16+31.25	21.88 Rt.	597.88	597.89
⊙ Brg. Pier 3	16+42.75	21.88 Rt.	598.14	598.14
18	16+52.75	21.88 Rt.	598.35	598.36
19	16+62.75	21.88 Rt.	598.57	598.58
20	16+72.75	21.88 Rt.	598.78	598.79
21	16+82.75	21.88 Rt.	598.98	599.00
22	16+92.75	21.88 Rt.	599.18	599.19
⊙ Brg. E. Abut.	17+00.25	21.88 Rt.	599.33	599.33
Bk. E. Abut.	17+02.75	21.88 Rt.	599.38	599.38

**BEAM K**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	14+39.74	28.13 Rt.	592.65	592.65
⊙ Brg. W. Abut.	14+42.25	28.13 Rt.	592.73	592.73
1	14+52.25	28.13 Rt.	593.03	593.05
2	14+62.25	28.13 Rt.	593.34	593.35
3	14+72.25	28.13 Rt.	593.63	593.65
4	14+82.25	28.13 Rt.	593.93	593.94
5	14+92.25	28.13 Rt.	594.22	594.22
⊙ Brg. Pier 1	14+99.75	28.13 Rt.	594.43	594.43
6	15+09.75	28.13 Rt.	594.71	594.72
7	15+19.75	28.13 Rt.	594.99	595.00
8	15+29.75	28.13 Rt.	595.26	595.28
9	15+39.75	28.13 Rt.	595.53	595.55
10	15+49.75	28.13 Rt.	595.79	595.81
11	15+59.75	28.13 Rt.	596.05	596.06
⊙ Brg. Pier 2	15+71.25	28.13 Rt.	596.34	596.34
12	15+81.25	28.13 Rt.	596.59	596.60
13	15+91.25	28.13 Rt.	596.84	596.85
14	16+01.25	28.13 Rt.	597.08	597.10
15	16+11.25	28.13 Rt.	597.32	597.33
16	16+21.25	28.13 Rt.	597.55	597.56
17	16+31.25	28.13 Rt.	597.77	597.78
⊙ Brg. Pier 3	16+42.75	28.13 Rt.	598.03	598.03
18	16+52.75	28.13 Rt.	598.25	598.25
19	16+62.75	28.13 Rt.	598.46	598.47
20	16+72.75	28.13 Rt.	598.67	598.69
21	16+82.75	28.13 Rt.	598.87	598.89
22	16+92.75	28.13 Rt.	599.07	599.08
⊙ Brg. E. Abut.	17+00.25	28.13 Rt.	599.22	599.22
Bk. E. Abut.	17+02.75	28.13 Rt.	599.27	599.27

Note:  
Work this sheet with Sheet S-6.

N:\P201\2020\408\08\Design\Structure\1\CD\099-3031\_0003408\_08\_Top of Slab Elev\_3.dgn



USER NAME = rdonley	DESIGNED = MHT	REVISIONS
	CHECKED = SMY	REVISIONS
PLOT SCALE = 0=1:0000 1" = 10'	DRAWN = SRG	REVISIONS
PLOT DATE = 1/28/2013	CHECKED = BWS	REVISIONS

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS - 3  
STRUCTURE NO. 099-3031

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
298	04-00069-18-BR	WILL	51	29
CONTRACT NO. 63803				
ILLINOIS FED. AID PROJECT				

SHEET NO. 5-8 OF S-24 SHEETS

**NORTH EDGE OF SHOULDER**

Location	Station	Offset	Theoretical Grade Elevations
W. End of West Appr. Slab	14+11.08	28.00 Lt.	591.73
A1	14+21.08	28.00 Lt.	592.05
A2	14+31.08	28.00 Lt.	592.37
E. End of West Appr. Slab	14+41.08	28.00 Lt.	592.68

**NORTH EDGE OF PAVEMENT**

Location	Station	Offset	Theoretical Grade Elevations
W. End of West Appr. Slab	14+11.08	24.00 Lt.	591.82
A1	14+21.08	24.00 Lt.	592.14
A2	14+31.08	24.00 Lt.	592.45
E. End of West Appr. Slab	14+41.08	24.00 Lt.	592.76

**BLACK ROAD, P.G.L., & STAGE CONST. JT.**

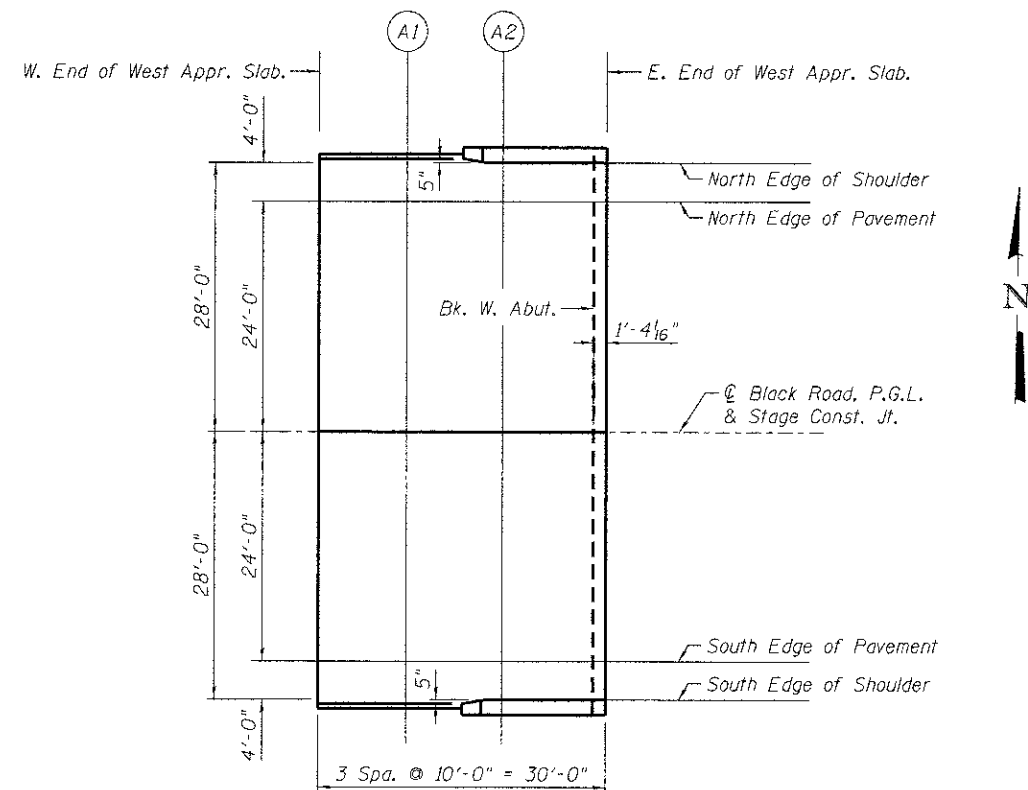
Location	Station	Offset	Theoretical Grade Elevations
W. End of West Appr. Slab	14+11.08	0.00	592.19
A1	14+21.08	0.00	592.51
A2	14+31.08	0.00	592.83
E. End of West Appr. Slab	14+41.08	0.00	593.14

**SOUTH EDGE OF PAVEMENT**

Location	Station	Offset	Theoretical Grade Elevations
W. End of West Appr. Slab	14+11.08	24.00 Rt.	591.82
A1	14+21.08	24.00 Rt.	592.14
A2	14+31.08	24.00 Rt.	592.45
E. End of West Appr. Slab	14+41.08	24.00 Rt.	592.76

**SOUTH EDGE OF SHOULDER**

Location	Station	Offset	Theoretical Grade Elevations
W. End of West Appr. Slab	14+11.08	28.00 Rt.	591.73
A1	14+21.08	28.00 Rt.	592.05
A2	14+31.08	28.00 Rt.	592.37
E. End of West Appr. Slab	14+41.08	28.00 Rt.	592.68



**PLAN**

N:\PROJECTS\0003408\00\Design\Structural\CAD\099-3031\_0003408\_09\_Top of West Appr. Slab Elev.dgn



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	CHECKED - SMY	REVISED -
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PLOT DATE = 1/29/2013	CHECKED - BWS	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TOP OF WEST APPROACH SLAB ELEVATIONS  
STRUCTURE NO. 099-3031**

SHEET NO. S-9 OF S-24 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
298	04-00069-18-BR	WILL	51	30
CONTRACT NO. 63803			ILLINOIS FED. AID PROJECT	

**NORTH EDGE OF SHOULDER**

Location	Station	Offset	Theoretical Grade Elevations
W. End of East Appr. Slab	17+01.41	28.00 Lt.	599.23
A3	17+11.41	28.00 Lt.	599.42
A4	17+21.41	28.00 Lt.	599.61
E. End of East Appr. Slab	17+31.41	28.00 Lt.	599.79

**NORTH EDGE OF PAVEMENT**

Location	Station	Offset	Theoretical Grade Elevations
W. End of East Appr. Slab	17+01.41	24.00 Lt.	599.32
A3	17+11.41	24.00 Lt.	599.51
A4	17+21.41	24.00 Lt.	599.70
E. End of East Appr. Slab	17+31.41	24.00 Lt.	599.88

**CL BLACK ROAD, P.G.L., & STAGE CONST. JT.**

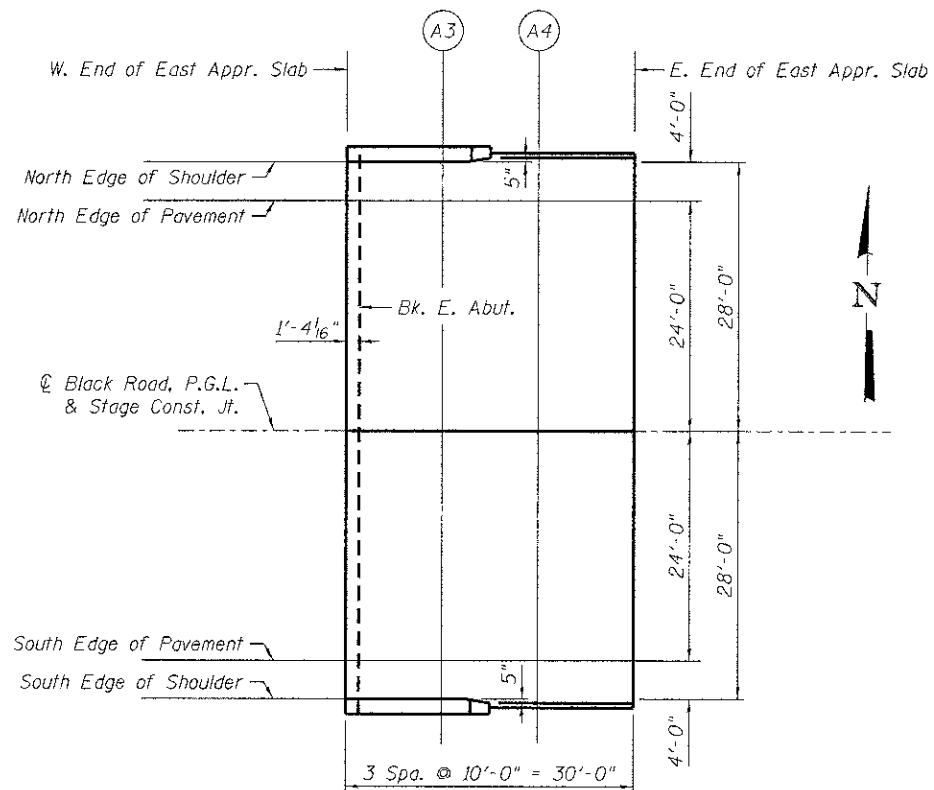
Location	Station	Offset	Theoretical Grade Elevations
W. End of East Appr. Slab	17+01.41	0.00	599.69
A3	17+11.41	0.00	599.88
A4	17+21.41	0.00	600.07
E. End of East Appr. Slab	17+31.41	0.00	600.25

**SOUTH EDGE OF PAVEMENT**

Location	Station	Offset	Theoretical Grade Elevations
W. End of East Appr. Slab	17+01.41	24.00 Rt.	599.32
A3	17+11.41	24.00 Rt.	599.51
A4	17+21.41	24.00 Rt.	599.70
E. End of East Appr. Slab	17+31.41	24.00 Rt.	599.88

**SOUTH EDGE OF SHOULDER**

Location	Station	Offset	Theoretical Grade Elevations
W. End of East Appr. Slab	17+01.41	28.00 Rt.	599.23
A3	17+11.41	28.00 Rt.	599.42
A4	17+21.41	28.00 Rt.	599.61
E. End of East Appr. Slab	17+31.41	28.00 Rt.	599.79



**PLAN**

N:\PROJ\0203408\00\Design\Structural\CAD\099-3031\_0002408\_10\_Top of East Appr Slab Elev.dgn



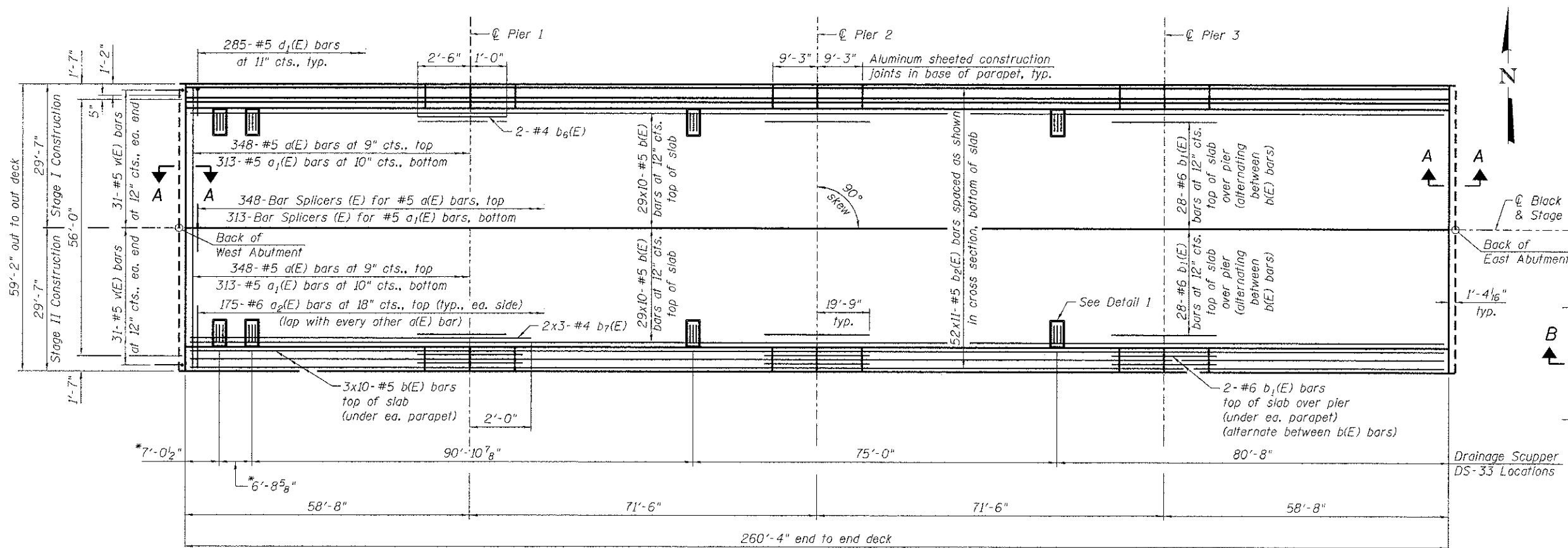
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TOP OF EAST APPROACH SLAB ELEVATIONS  
STRUCTURE NO. 099-3031**

SHEET NO. 5-10 OF 5-24 SHEETS

F.A.U. RTE. 298	SECTION 04-00069-18-BR	COUNTY WILL	TOTAL SHEETS 51	SHEET NO. 31
CONTRACT NO. 63803			ILLINOIS FED. AID PROJECT	

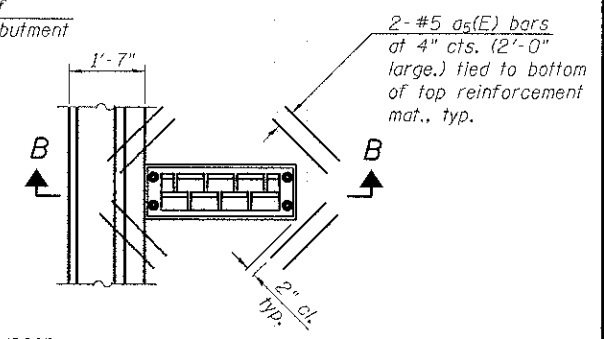


**PLAN**

\* Scupper locations to be adjusted in field to freefall into existing drainage structure

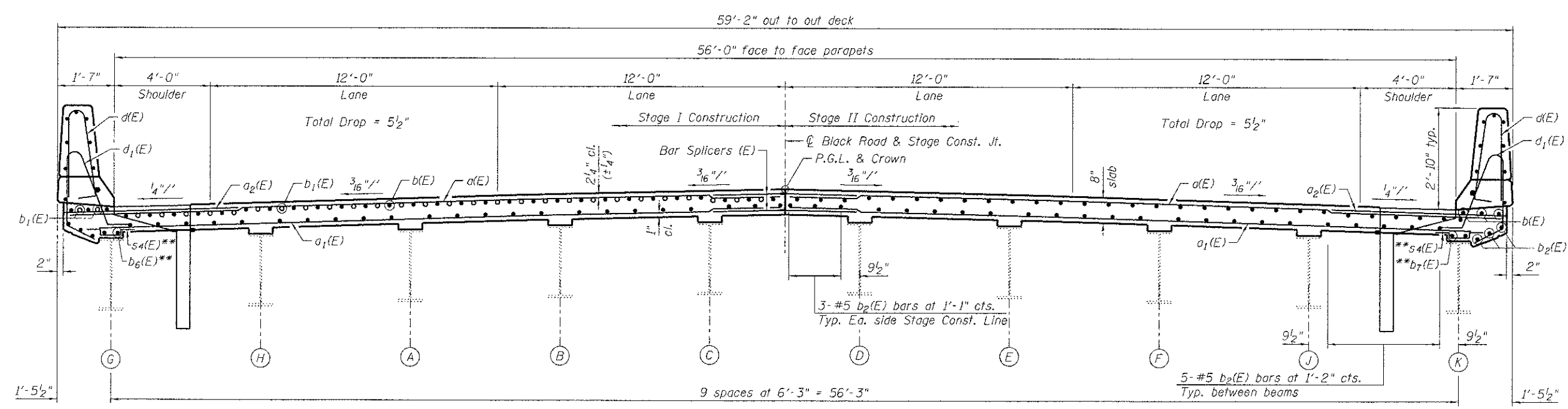
**MIN. BAR LAP**

- #4 bars = 2'-7"
- #5 bars = 3'-3"
- #6 bars = 3'-10"

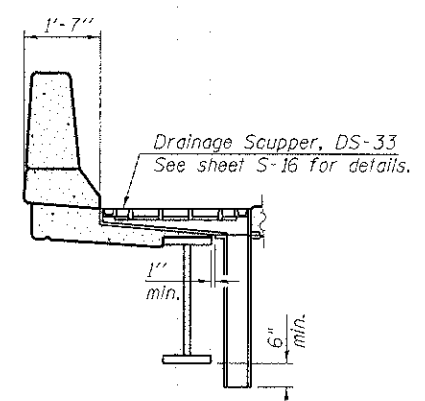


**DETAIL 1**

Note: Cut longitudinal reinforcement to clear drainage scuppers.



**CROSS SECTION**  
(Looking East)



**SECTION B-B**

See Note 6

**NOTES:**

1. See sheet S-12 for superstructure details and Bill of Material.
2. Bars indicated thus 32x4-#5 etc. indicates 32 lines of bars with 4 lengths per line.
3. See sheet S-12 for parapet reinforcement.
4. See sheet S-13 for Section A-A.
5. See sheet S-24 for Bar Splicer details.
6. 6" to 12" of clearance should be maintained between the scupper downspout and the existing inlets at the West Abutment.

M:\PROJ\00023406\00\Design\Structural\CAD\099-3031\00023408 11 Deck Plan & Elev.dgn  
 Ciorba Group, Inc.  
 CONSULTING ENGINEERS  
 200 West Superior Street, Suite 200  
 Chicago, IL 60604  
 Tel: 312.375.4000  
 Fax: 312.375.4001  
 www.ciorbainc.com

USER NAME = rdenley	DESIGNED - MHT	REVISD -
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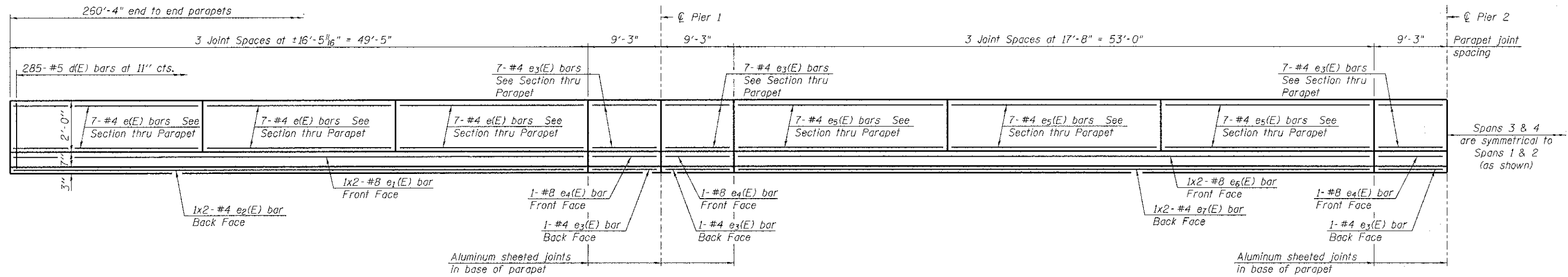
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE PLAN & ELEVATION**  
**STRUCTURE NO. 099-3031**

SHEET NO. S-11 OF S-24 SHEETS

F.A.D. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
298	04-00069-18-BR	WILL	51	32
CONTRACT NO. 63803			ILLINOIS FED. AID PROJECT	

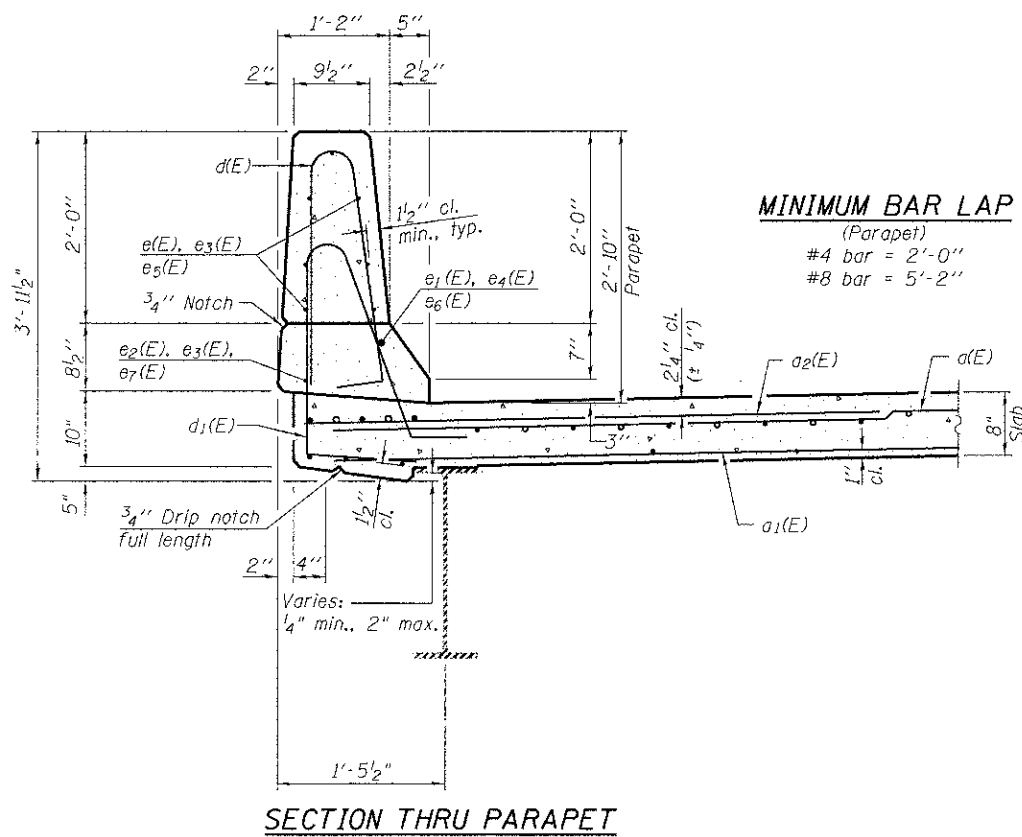




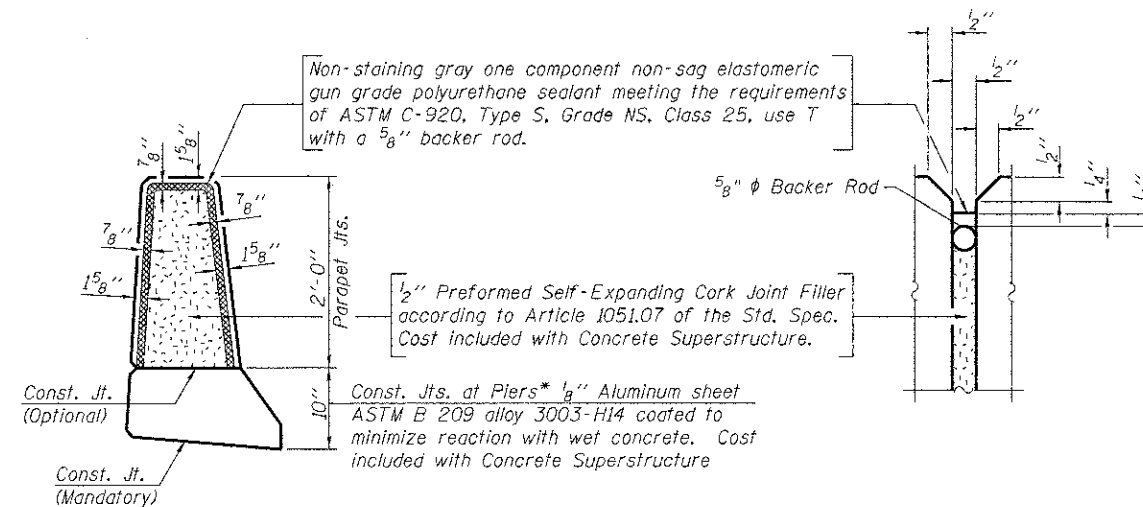
INSIDE ELEVATION OF PARAPET

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	696	# 5	29'-3"	—
a1(E)	626	# 5	29'-3"	—
a2(E)	350	# 6	6'-6"	—
a5(E)	64	# 5	2'-0"	—
b(E)	640	# 5	29'-0"	—
b1(E)	180	# 6	39'-6"	—
b2(E)	572	# 5	26'-8"	—
b6(E)	2	# 4	3'-6"	—
b7(E)	5	# 4	21'-7"	—
d(E)	570	# 5	5'-7"	⌋
d1(E)	570	# 5	6'-3"	⌋
e(E)	84	# 4	16'-2"	—
e1(E)	8	# 8	27'-2"	—
e2(E)	8	# 4	25'-7"	—
e3(E)	96	# 4	8'-11"	—
e4(E)	12	# 8	8'-11"	—
e5(E)	84	# 4	17'-4"	—
e6(E)	8	# 8	28'-11"	—
e7(E)	8	# 4	27'-4"	—
m(E)	32	# 6	29'-3"	—
m1(E)	60	# 5	4'-0"	—
m2(E)	72	# 6	5'-11"	—
m3(E)	16	# 6	1'-2"	—
s(E)	116	# 5	8'-9"	⌋
s1(E)	116	# 4	9'-9"	⌋
s4(E)	66	# 4	2'-10"	⌋
u(E)	124	# 4	5'-10"	⌋
v(E)	124	# 5	3'-9"	⌋
Reinforcement Bars, Epoxy Coated		Pound	106,410	
Concrete Superstructure		Cu. Yd.	519.1	
Bridge Deck Grooving		Sq. Yd.	1,562	
Protective Coat		Sq. Yd.	1,838	



SECTION THRU PARAPET



PARAPET JOINT DETAILS

\* And at semi-integral abutments.

NOTES:

- Bars indicated thus 1x2-#5 etc. indicates 1 line of bars with 2 lengths per line.
- See sheet S-13 for d(E) and d1(E) bar bending diagram.

N:\PFD\00023406.00\Design\Structure\099-3031-0003406-12 Superstructure Details.dgn



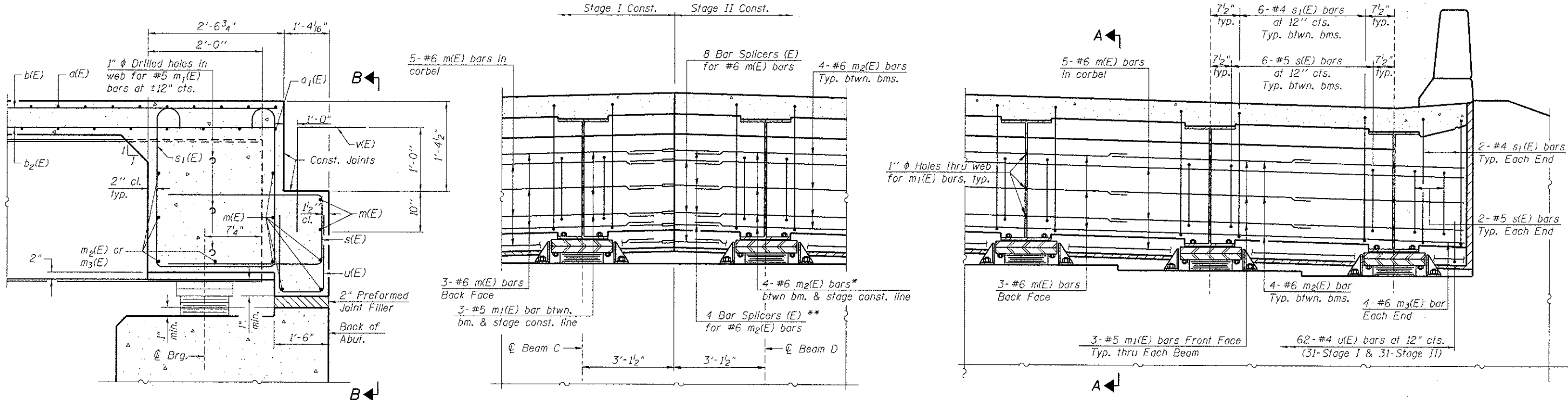
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

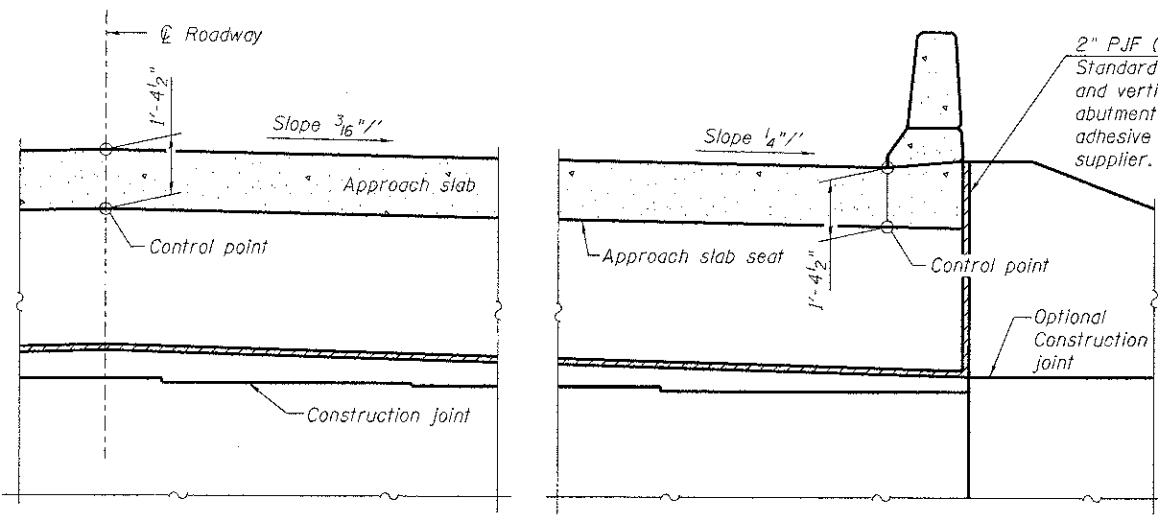
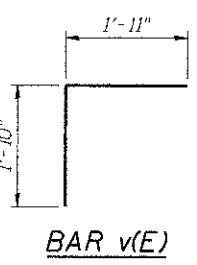
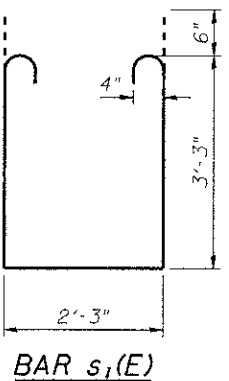
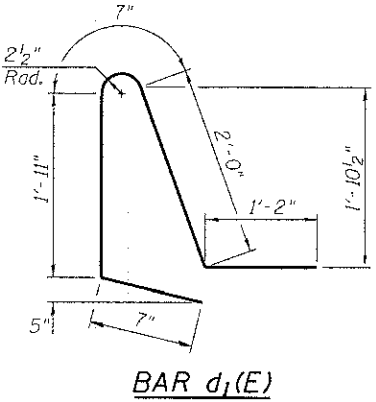
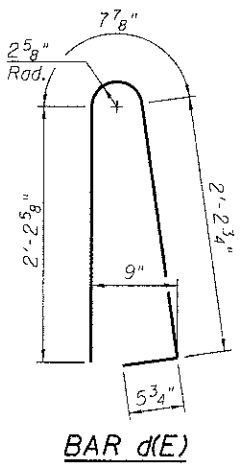
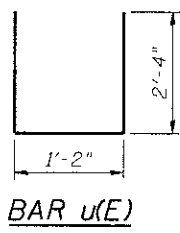
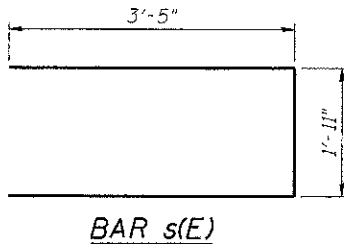
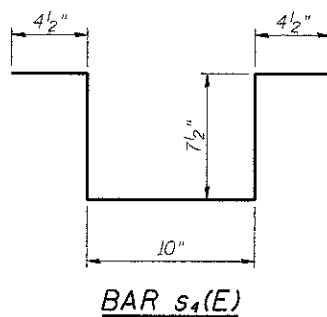
SUPERSTRUCTURE DETAILS  
STRUCTURE NO. 099-3031

SHEET NO. 5-12 OF 5-24 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
298	04-00069-18-BR	WILL	51	33
CONTRACT NO. 63803				
ILLINOIS FED. AID PROJECT				



\* Use 2-#6 m<sub>2</sub>(E) and cut in half, typical for each stage  
 \*\* Cut splicer bar to fit between beams and stage construction line.



- NOTES**
1. Reinforcement bars in diaphragm are billed with superstructure on sheet S-12.
  2. Concrete in diaphragm is included with Concrete Superstructure on sheet S-12.
  3. The s(E) and s<sub>1</sub>(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
  4. The approach slab seat shall have a constant slope determined from the control points shown.
  5. For bearing details see sheet S-19.

N:\PROJ\00023408\00\Design\Structural\CAD\099-3031\0001408 13 Diaphragm Details - Semi Integral Abut.dgn



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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

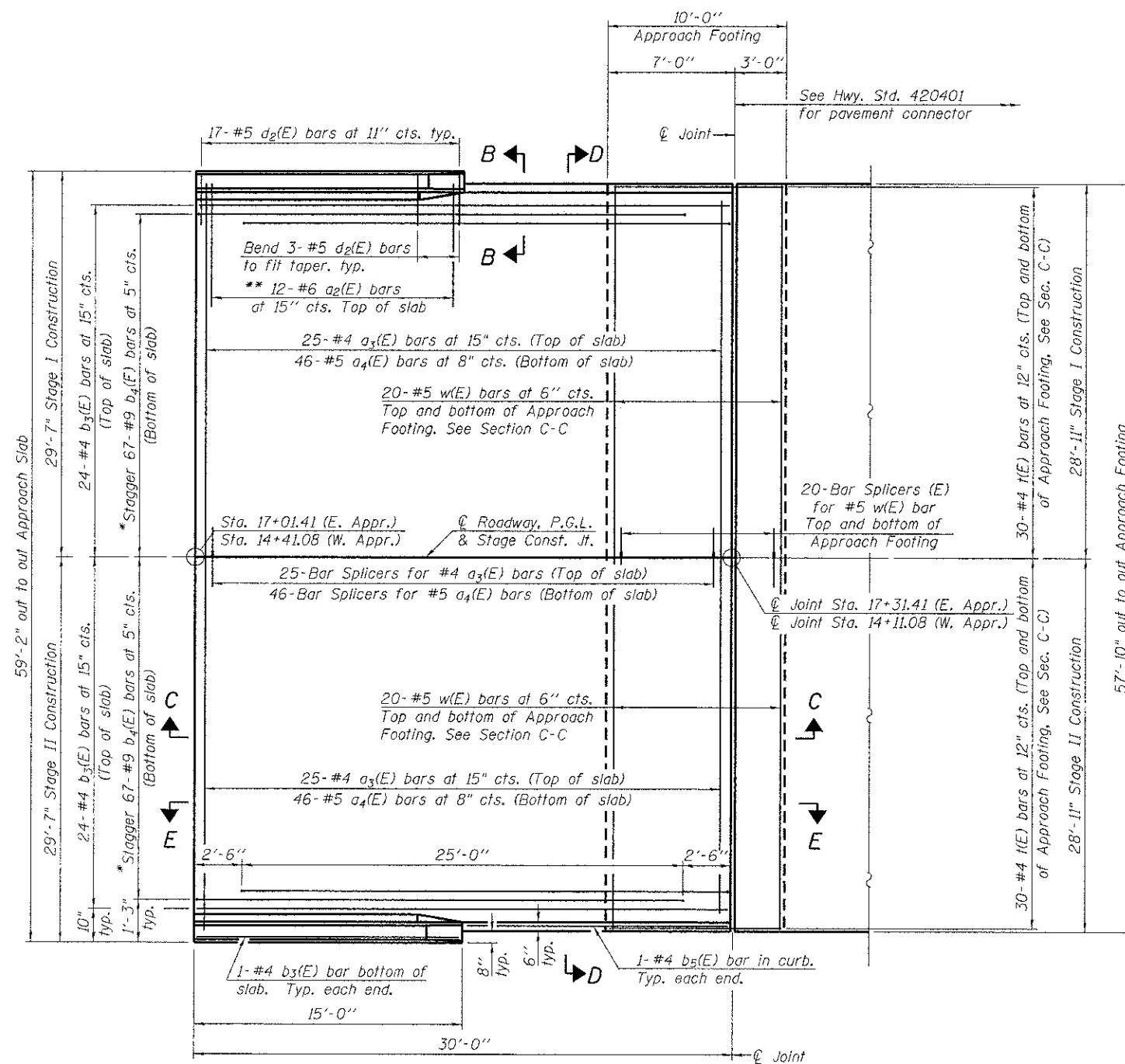
DIAPHRAGM DETAILS - SEMI INTEGRAL ABUTMENT  
STRUCTURE NO. 099-3031

SHEET NO. S-13 OF S-24 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
298	04-00069-18-BR	WILL	51	34
CONTRACT NO. 63803				

ILLINOIS FED. AID PROJECT

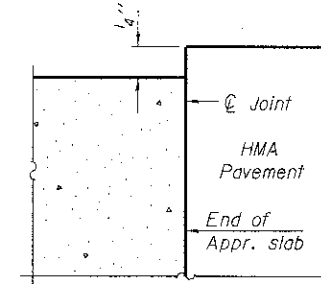
Notes:  
See sheet S-15 for Sections C-C & D-D and View E-E.  
a<sub>3</sub>(E) and a<sub>4</sub>(E) bar spacings measured along  $\bar{C}$  Rdwy.



**APPROACH SLAB PLAN**

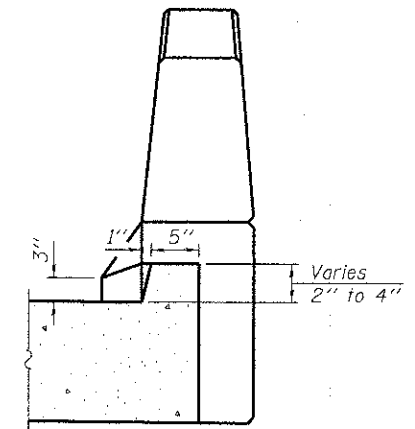
(East Approach Slab shown, West Approach slab similar)

- \* Tilt #9 b<sub>4</sub>(E) bars as required to maintain clearance.
- \*\* Space between a<sub>3</sub>(E) bars, typ. ea. parapet.



**FLEXIBLE PAVEMENT**

**DETAIL A**



**VIEW B-B**

N:\PROJECTS\0003485\00\Design\Structure\CAD\099-3031\_0003485\_14\_Approach\_Slab\_Details.rvt



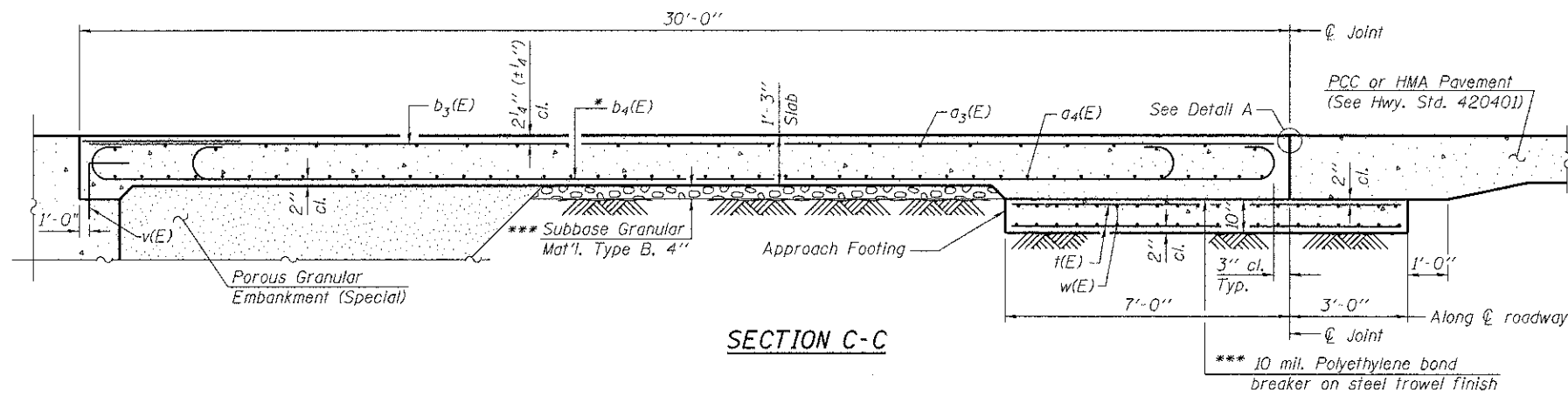
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

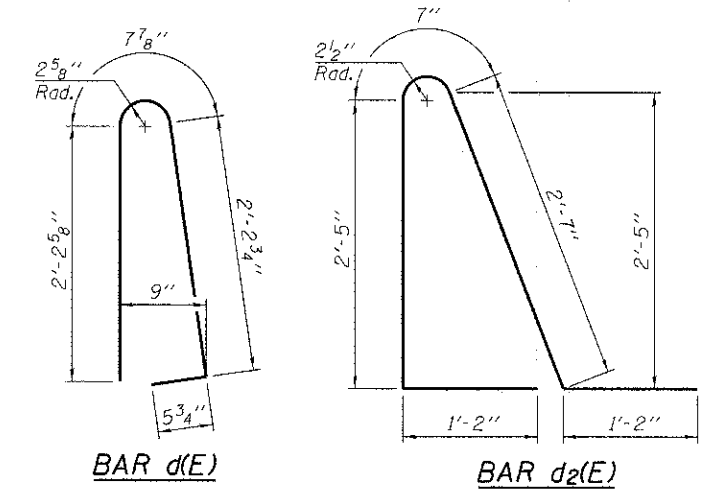
**APPROACH SLAB DETAILS - 1  
STRUCTURE NO. 099-3031**

SHEET NO. S-14 OF S-24 SHEETS

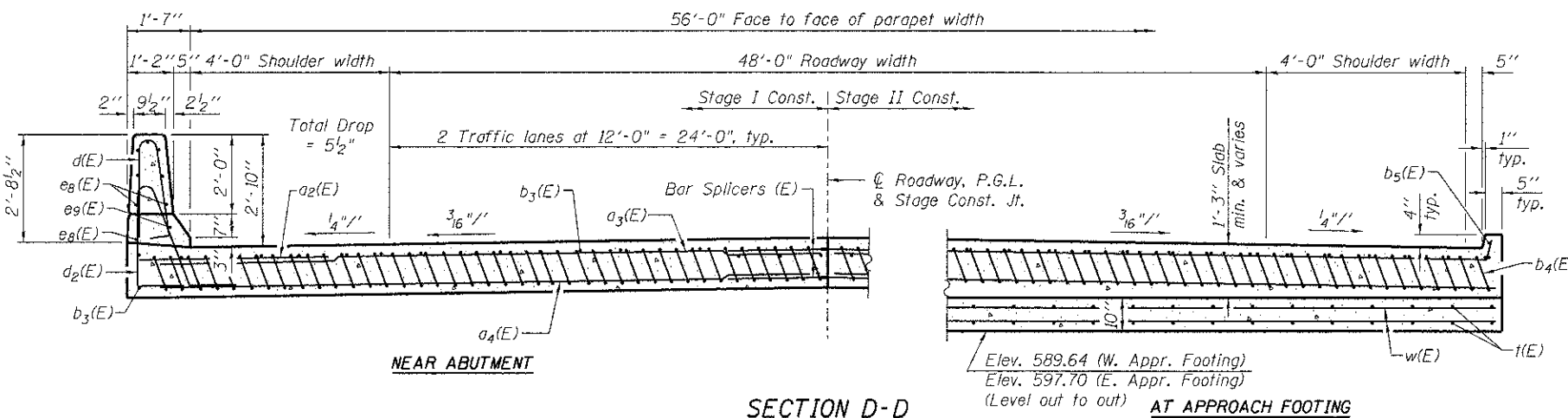
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CONTRACT NO. 63803				
ILLINOIS FED. AID PROJECT				



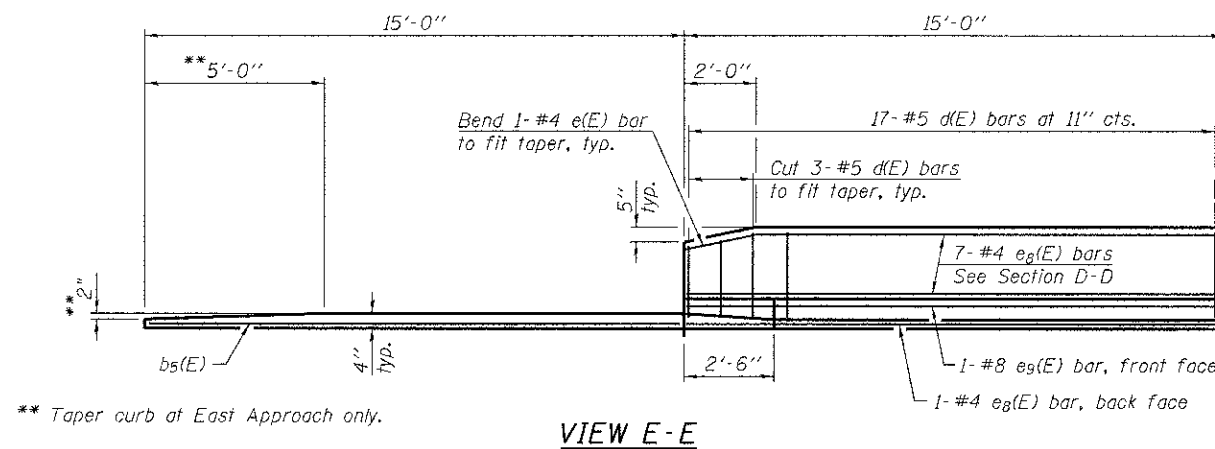
Notes:  
 See sheet S-14 for Detail A and View B-B.  
 Approach slab and parapet concrete shall be paid for as Concrete Superstructure.  
 Approach footing concrete shall be paid for as Concrete Structures.  
 Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.  
 For v(E) bar details, see sheet S-13.  
 The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.  
 Cost of excavation for approach footing included with Concrete Structures.  
 For Porous Granular Embankment (Special) and drainage treatment details, see sheet S-2.  
 For additional parapet details, see sheet S-12.



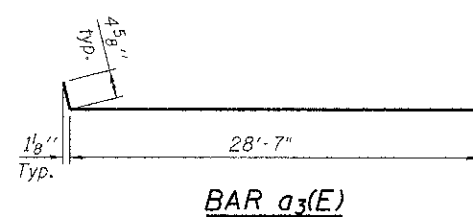
\* Tilt #9 b4(E) bars as required to maintain clearance.  
 \*\*\* Cost included with Concrete Superstructure.



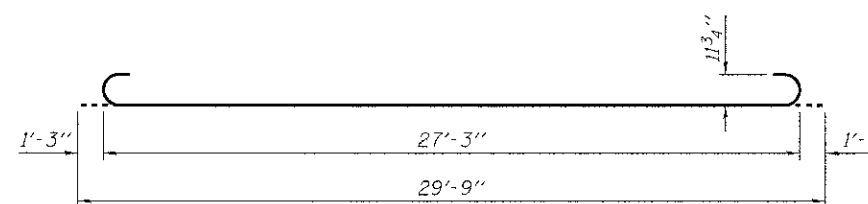
SECTION D-D  
 (See Plan for dimensions not shown)



VIEW E-E



BAR a3(E)



BAR b4(E)

TWO APPROACHES  
 BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a2(E)	48	# 6	6'-6"	—
a3(E)	100	# 4	29'-0"	—
a4(E)	184	# 5	28'-7"	—
b3(E)	100	# 4	29'-8"	—
b4(E)	268	# 9	29'-9"	—
b5(E)	4	# 4	14'-8"	—
d(E)	68	# 5	5'-7"	▲
d2(E)	68	# 5	7'-11"	▲
e8(E)	32	# 4	14'-8"	—
e9(E)	4	# 8	14'-8"	—
t(E)	240	# 4	9'-8"	—
w(E)	160	# 5	28'-7"	—
Concrete Superstructure		Cu. Yd.	177.4	
Concrete Structures		Cu. Yd.	35.8	
Bridge Deck Grooving		Sq. Yd.	364	
Protective Coat		Sq. Yd.	407	
Reinforcement Bars, Epoxy Coated		Pound	44,770	

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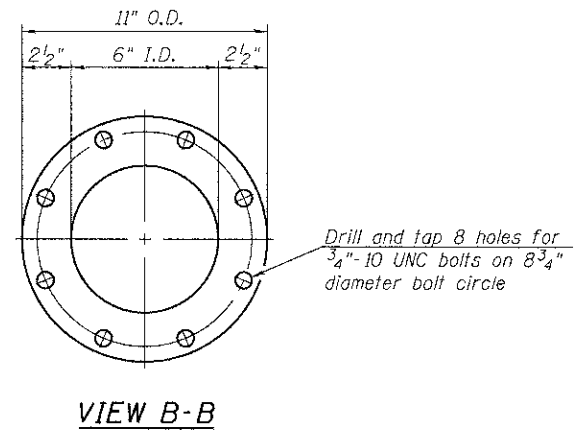
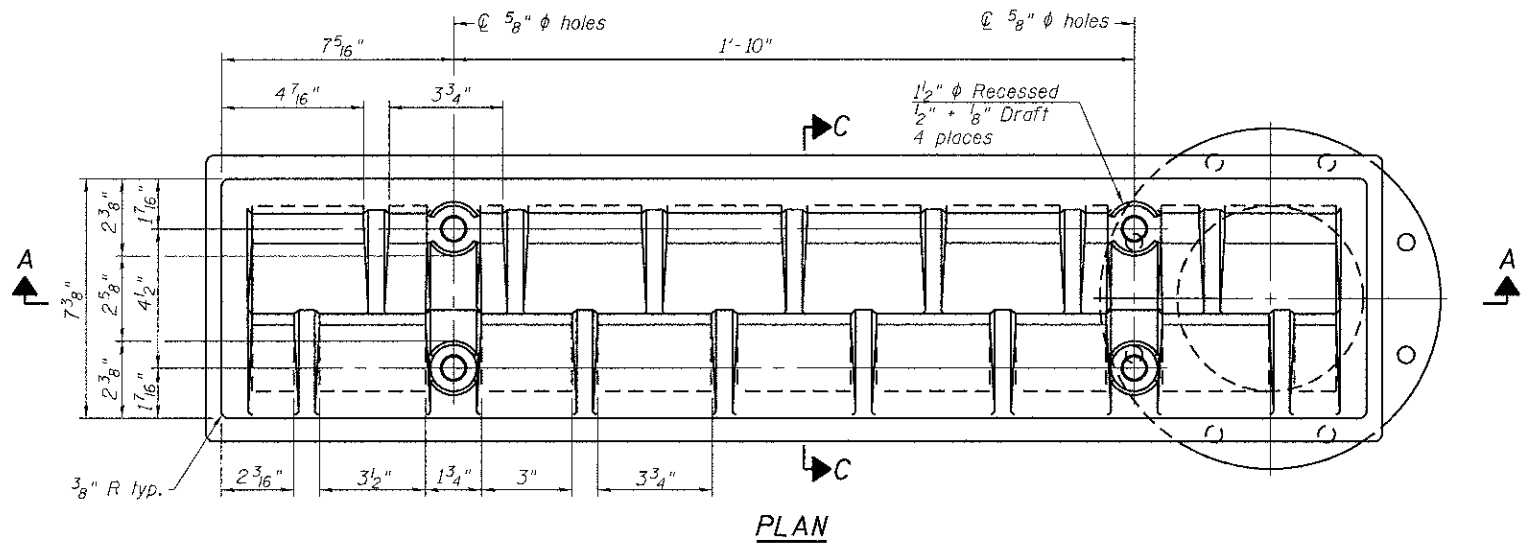
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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

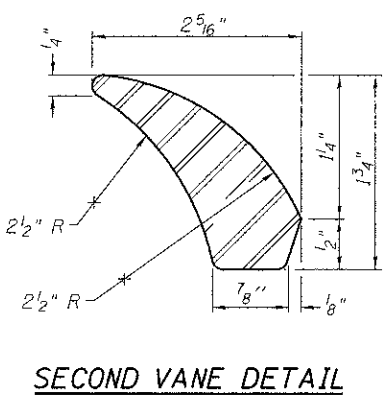
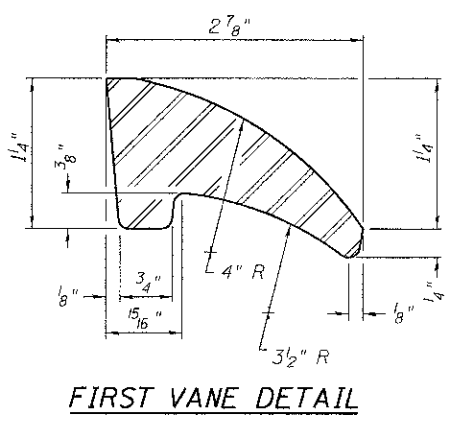
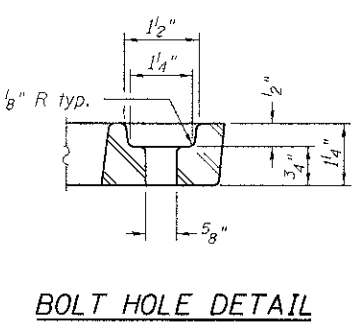
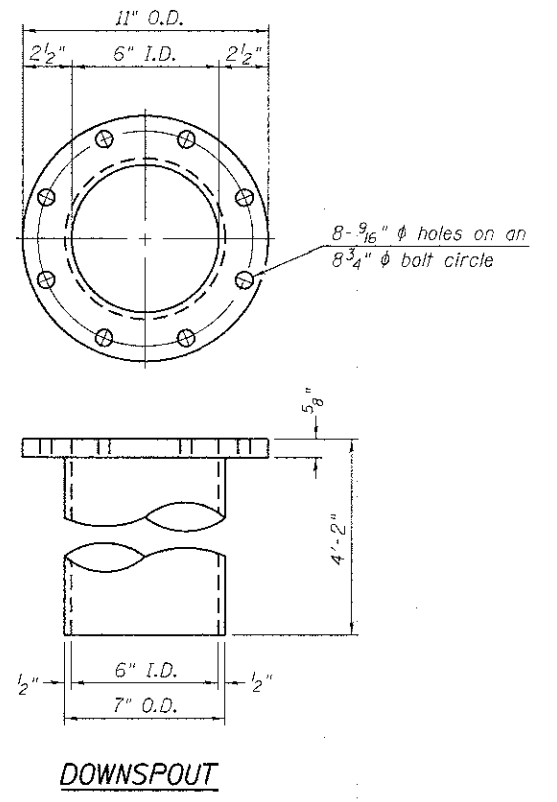
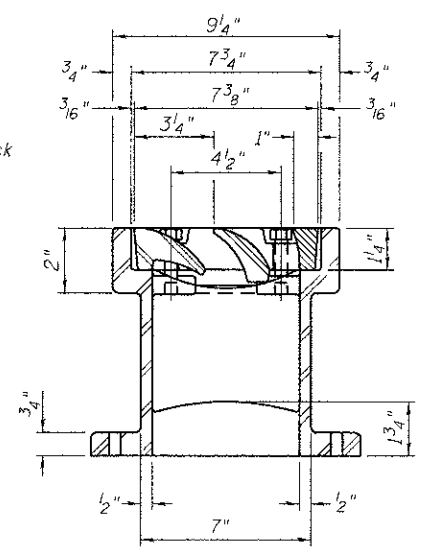
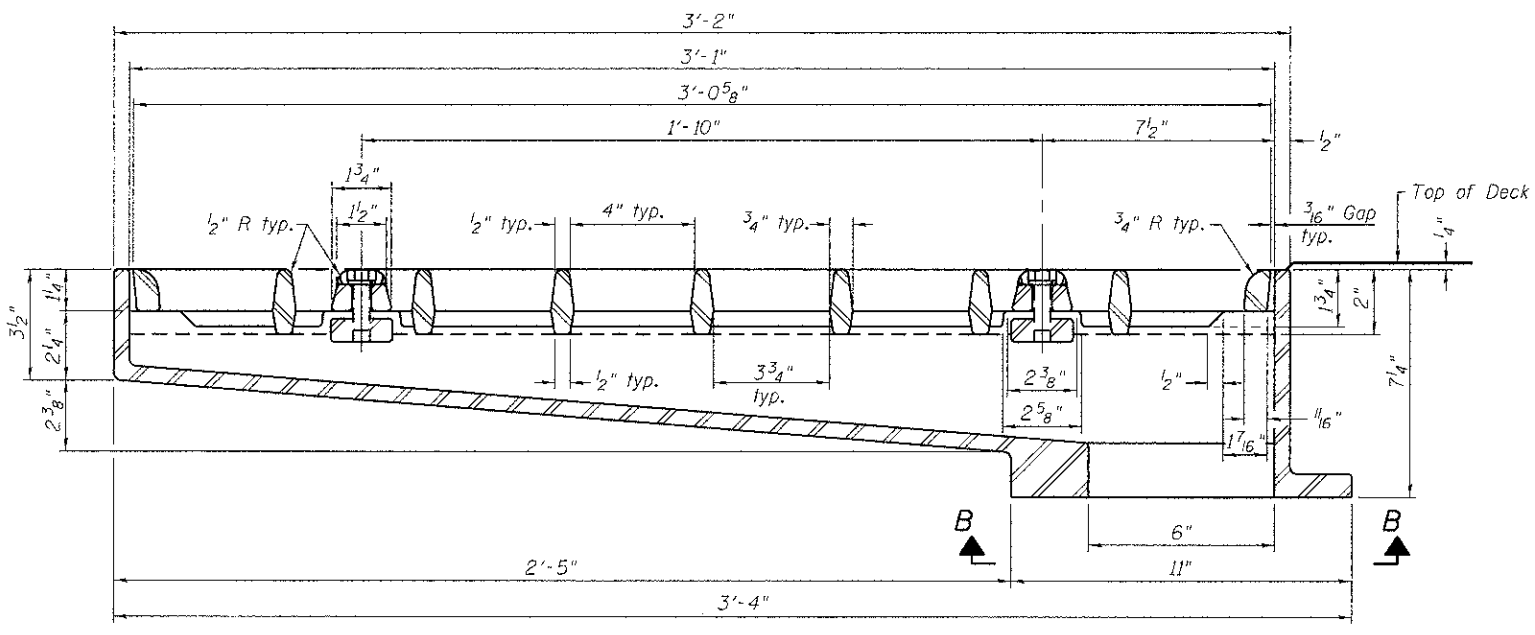
APPROACH SLAB DETAILS - 2  
 STRUCTURE NO. 099-3031

SHEET NO. S-15 OF S-24 SHEETS

F.A.J. RTE. 298	SECTION 04-00669-18-BR	COUNTY WILL	TOTAL SHEETS 51	SHEET NO. 36
CONTRACT NO. 63803				ILLINOIS FED. AID PROJECT



Notes:  
 All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.  
 Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.  
 Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.  
 As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.  
 Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M11.  
 The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.  
 Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-33.  
 Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.



**BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-33	Each	8

DS-33

7-1-10

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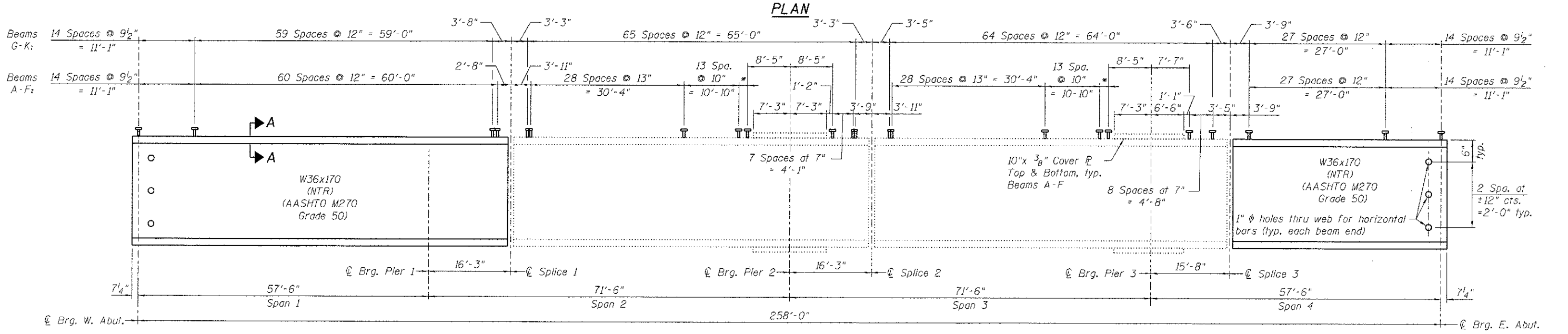
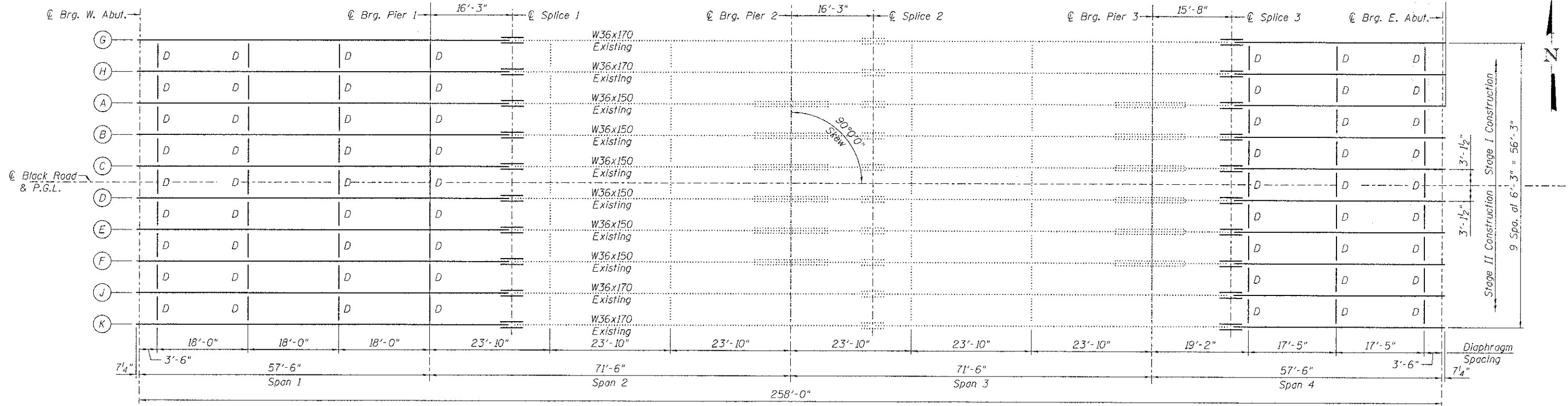


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PLOT DATE = 1/28/2013	DRAWN - SRG	REVISED -
	CHECKED - BWS	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

DRAINAGE SCUPPER, DS-33  
 STRUCTURE NO. 099-3031  
 SHEET NO. S-16 OF S-24 SHEETS

F.A.U. RTE. 298	SECTION 04-00069-18-BR	COUNTY WILL	TOTAL SHEETS 51	SHEET NO. 37
CONTRACT NO. 63803				
ILLINOIS FED. AID PROJECT				

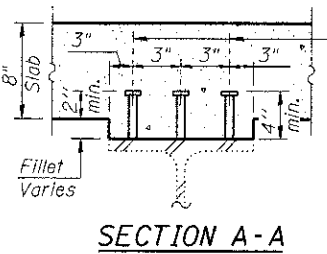


**TOP OF BEAM ELEVATIONS**  
(for fabrication only)

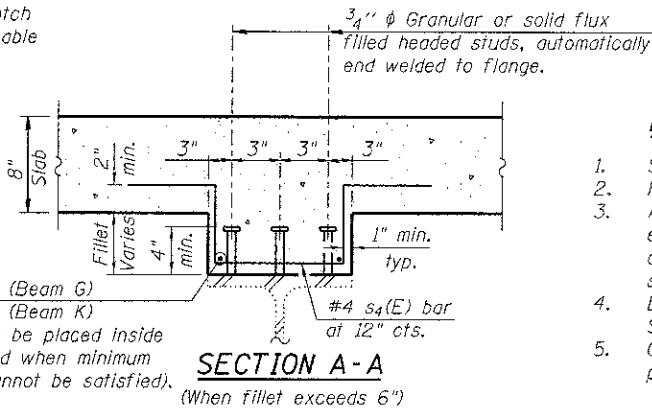
Girder	W. Abut.	Pier 1	F.S. 1	F.S. 3	E. Abut.
G	591.56	593.28	593.77	597.31	598.11
H	591.70	593.40	593.89	597.44	598.25
A	592.05	593.76	594.25	597.84	598.64
B	592.17	593.80	594.27	597.83	598.72
C	592.24	593.86	594.32	597.88	598.76
D	592.24	593.88	594.35	597.88	598.76
E	592.18	593.81	594.28	597.81	598.70
F	592.04	593.77	594.26	597.76	598.56
J	591.68	593.41	593.90	597.41	598.22
K	591.46	593.30	593.83	597.29	598.09

**BEAM ELEVATION**

"NTR" denotes plates to which notch toughness requirements are applicable  
\* 3 Spaces at 7" = 1'-9"



**SECTION A-A**



**SECTION A-A**  
(When Fillet exceeds 6")

**NOTES:**

- See Sheet S-18 for diaphragm details and moment and reaction tables.
- For Bearing Details, see Sheet S-19.
- All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
- Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch toughness, Zone 2.
- Contractor to field verify existing splice locations prior to ordering proposed beams.

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 User: rdenley



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	CHECKED - BWS	REVISD -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**FRAMING PLAN**  
**STRUCTURE NO. 099-3031**  
SHEET NO. S-17 OF S-24 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
298	04-00069-18-BR	WILL	51	38
CONTRACT NO. 63803				
ILLINOIS FED. AID PROJECT				

INTERIOR GIRDER MOMENT TABLE - BEAMS G-K							
	0.4 Sp. 1	Pier 1	0.5 Sp. 2	Pier 2	0.5 Sp. 3	Pier 3	0.6 Sp. 4
$I_s$	(in <sup>4</sup> )	10,500	10,500	10,500	10,500	10,500	10,500
$I_c(n)$	(in <sup>4</sup> )	24,826	-	24,826	-	24,826	-
$I_c(3n)$	(in <sup>4</sup> )	18,137	-	18,137	-	18,137	-
$S_s$	(in <sup>3</sup> )	580	580	580	580	580	580
$S_c(n)$	(in <sup>3</sup> )	808	-	808	-	808	-
$S_c(3n)$	(in <sup>3</sup> )	729	-	729	-	729	-
$Z$	(in <sup>3</sup> )	-	-	-	668	-	-
$\rho$	(k/')	0.86	0.86	0.86	0.86	0.86	0.86
$M\phi$	(k)	193	-348	183	-356	183	-348
$s\phi$	(k/')	0.37	0.37	0.37	0.37	0.37	0.37
$M_s\phi$	(k)	93	-135	97	-145	97	-135
$M_L$	(k)	371	-231	403	-252	403	-231
$M_{Iu}$	(k)	102	-61	103	-64	103	-61
$S_3 [M_L + I]$	(k)	788	-486	843	-527	843	-486
$M_o$	(k)	1,396	-1,260	1,460	-1,337	1,460	-1,260
$M_u$	(k)	2,656	1,741	3,022	2,004	3,022	1,741
$f_s \phi$ non-comp	(ksi)	4.0	-7.2	3.8	-7.4	3.8	-7.2
$f_s \phi$ (comp)	(ksi)	1.5	-2.8	1.6	-3.0	1.6	-2.8
$f_s S_3 [M_L + M_I]$	(ksi)	11.7	-10.1	12.5	-10.9	12.5	-10.1
$f_s$ (Overload)	(ksi)	17.2	-20.1	17.9	-21.3	17.9	-20.1
$f_s$ (Total)	(ksi)	22.4	-26.1	23.3	-27.6	23.3	-26.1
VR	(k)	58.4	-	49.6	-	49.6	-

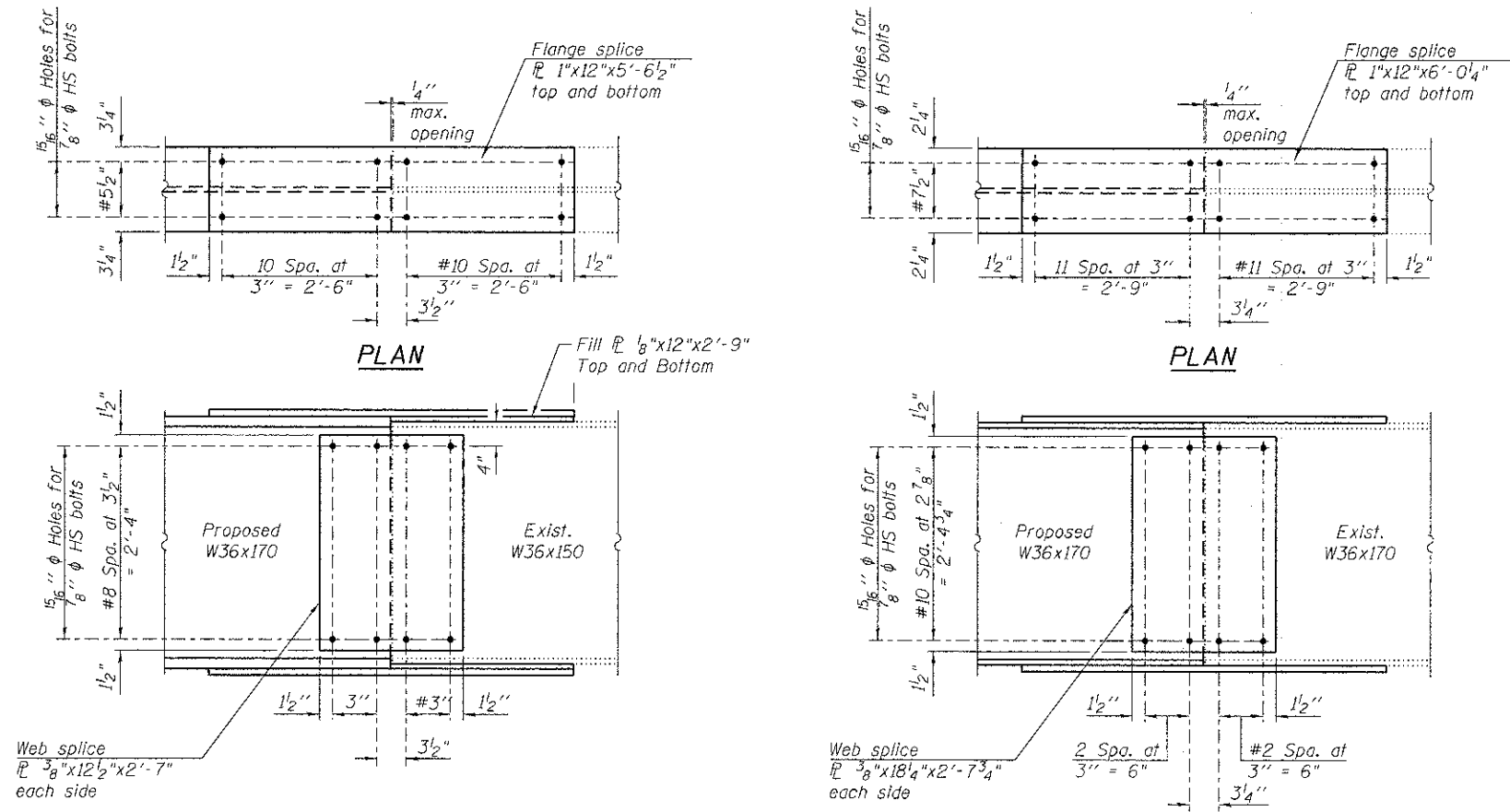
INTERIOR GIRDER REACTION TABLE - BEAMS G-K						
	W. Abut.	Pier 1	Pier 2	Pier 3	E. Abut.	
$R\phi$	(k)	53.5	86.0	86.8	86.0	53.5
$R_L$	(k)	43.4	85.2	87.9	85.2	43.4
$R_I$	(k)	11.9	16.8	16.4	16.8	11.9
$R_{Total}$	(k)	108.8	188.0	191.1	188.0	108.8

\* Compact section  
 \*\* Braced non-compact and partially braced section  
 \*\*\* Controlled by IL-120 permit loading.

INTERIOR GIRDER MOMENT TABLE - BEAMS A-F							
	0.4 Sp. 1	Pier 1	0.5 Sp. 2	Pier 2	0.5 Sp. 3	Pier 3	0.6 Sp. 4
$I_s$	(in <sup>4</sup> )	10,500	10,500	9,040	11,507	9,040	11,507
$I_c(n)$	(in <sup>4</sup> )	24,826	-	22,201	-	22,201	-
$I_c(3n)$	(in <sup>4</sup> )	18,137	-	16,283	-	16,283	-
$S_s$	(in <sup>3</sup> )	580	580	504	628	504	628
$S_c(n)$	(in <sup>3</sup> )	808	-	713	-	713	-
$S_c(3n)$	(in <sup>3</sup> )	729	-	644	-	644	-
$Z$	(in <sup>3</sup> )	-	-	-	717	-	717
$\rho$	(k/')	0.86	0.86	0.84	0.87	0.84	0.87
$M\phi$	(k)	193	-349	168	-362	167	-351
$s\phi$	(k/')	0.37	0.37	0.37	0.37	0.37	0.37
$M_s\phi$	(k)	92	-137	93	-151	92	-139
$M_L$	(k)	372	-236	395	-265	394	-240
$M_{Iu}$	(k)	102	-62	100	-67	100	-63
$S_3 [M_L + I]$	(k)	789	-497	825	-554	823	-506
$M_o$	(k)	1,397	-1,278	1,412	-1,386	1,406	-1,295
$M_u$	(k)	2,385	1,596	2,503	1,956	2,672	1,956
$f_s \phi$ non-comp	(ksi)	4.0	-7.2	4.0	-6.9	4.0	-6.7
$f_s \phi$ (comp)	(ksi)	1.5	-2.8	1.7	-2.9	1.7	-2.7
$f_s S_3 [M_L + M_I]$	(ksi)	11.7	-10.3	13.9	-10.6	13.9	-9.7
$f_s$ (Overload)	(ksi)	17.2	-20.3	19.6	-20.4	19.5	-19.0
$f_s$ (Total)	(ksi)	22.4	-26.4	25.5	-26.5	25.4	-24.7
VR	(k)	58.3	-	49.5	-	50.3	-

INTERIOR GIRDER REACTION TABLE - BEAMS A-F						
	W. Abut.	Pier 1	Pier 2	Pier 3	E. Abut.	
$R\phi$	(k)	53.4	85.5	86.1	85.5	53.3
$R_L$	(k)	43.4	85.2	88.3	85.4	43.2
$R_I$	(k)	11.9	16.8	16.5	16.8	11.9
$R_{Total}$	(k)	108.7	187.4	190.9	187.7	108.4

\* Compact section  
 \*\* Braced non-compact and partially braced section  
 \*\*\* Controlled by IL-120 permit loading.

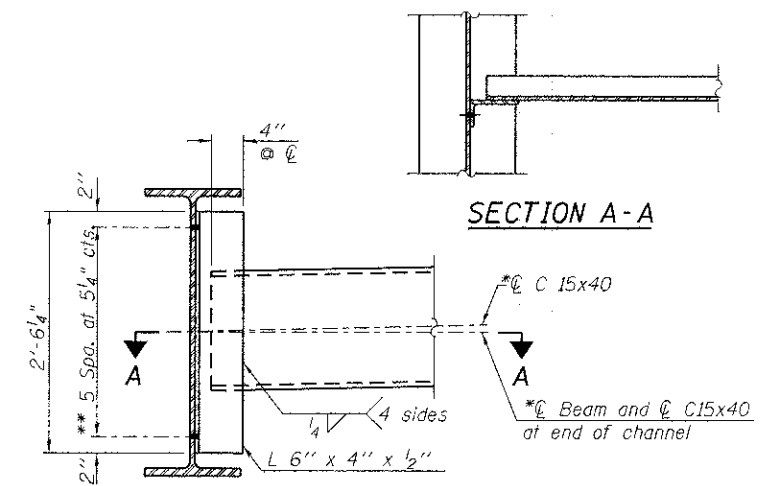


**ELEVATION**  
**FIELD SPLICE DETAIL**  
**BEAMS A-F**  
 (12 Required)

**ELEVATION**  
**FIELD SPLICE DETAIL**  
**BEAMS G-K**  
 (8 Required)

$I_s, S_s$ : Non-composite moment of inertia and section modulus of the steel section used for computing  $f_s$  (Total and Overload) due to non-composite dead loads (in<sup>4</sup> and in<sup>3</sup>).  
 $I_c(n), S_c(n)$ : Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing  $f_s$  (Total and Overload) due to short-term composite live loads (in<sup>4</sup> and in<sup>3</sup>).  
 $I_c(3n), S_c(3n)$ : Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing  $f_s$  (Total and Overload) due to long-term composite (superimposed) dead loads (in<sup>4</sup> and in<sup>3</sup>).  
 $Z$ : Plastic Section Modulus of the steel section in non-composite areas (in<sup>3</sup>).  
 $\rho$ : Un-factored non-composite dead load (kips/ft.).  
 $M\phi$ : Un-factored moment due to non-composite dead load (kip-ft.).  
 $s\phi$ : Un-factored long-term composite (superimposed) dead load (kips/ft.).  
 $M_s\phi$ : Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).  
 $M_L$ : Un-factored live load moment (kip-ft.).  
 $M_I$ : Un-factored moment due to impact (kip-ft.).  
 $M_o$ : Factored design moment (kip-ft.).  
 $1.3 [M\phi + M_s\phi + \frac{5}{8} (M_L + M_I)]$   
 $M_u$ : Compact composite moment capacity according to AASHTO LFD 10.50.11 or compact non-composite moment capacity according to AASHTO LFD 10.48.1 (kip-ft.).  
 $f_s$  (Overload): Sum of stresses as computed from the moments below (ksi).  
 $M\phi + M_s\phi + \frac{5}{8} (M_L + M_I)$   
 $f_s$  (Total): Sum of stresses as computed from the moments below on non-compact section (ksi).  
 $1.3 [M\phi + M_s\phi + \frac{5}{8} (M_L + M_I)]$   
 VR: Maximum  $\frac{1}{4}$  + impact shear range within the composite portion of the span for stud shear connector design (kips).

# Contractor shall field verify bolt spacing in existing beams to remain before fabrication of the proposed splice plates and adjust dimensions to match field conditions.



**INTERIOR DIAPHRAGM**  
 (63 Required)

Note:  
 Two hardened washers required for each set of oversized holes.  
 \*Alternate channel C15x50 is permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section.  
 The alternate, if utilized, shall be provided at no additional cost to the Department.  
 \*\*3/4"  $\phi$  HS bolts, 15/16"  $\phi$  holes

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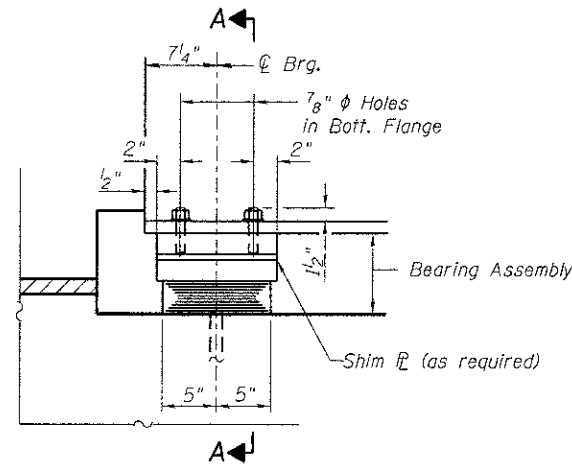
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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

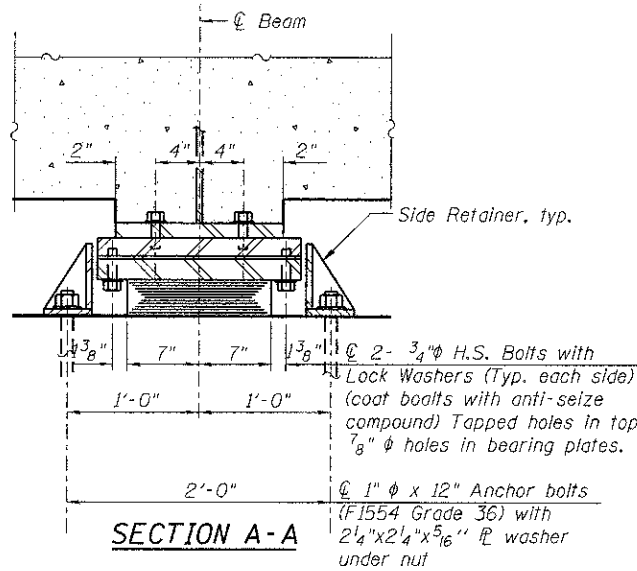
STRUCTURAL STEEL DETAILS  
 STRUCTURE NO. 099-3031

SHEET NO. 5-18 OF 5-24 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
298	04-00069-18-BR	WILL	51	39
CONTRACT NO. 63803				
ILLINOIS FED. AID PROJECT				

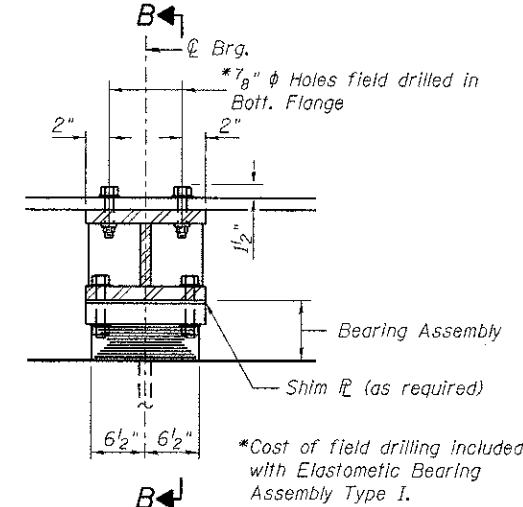


ELEVATION AT EAST & WEST ABUTMENT

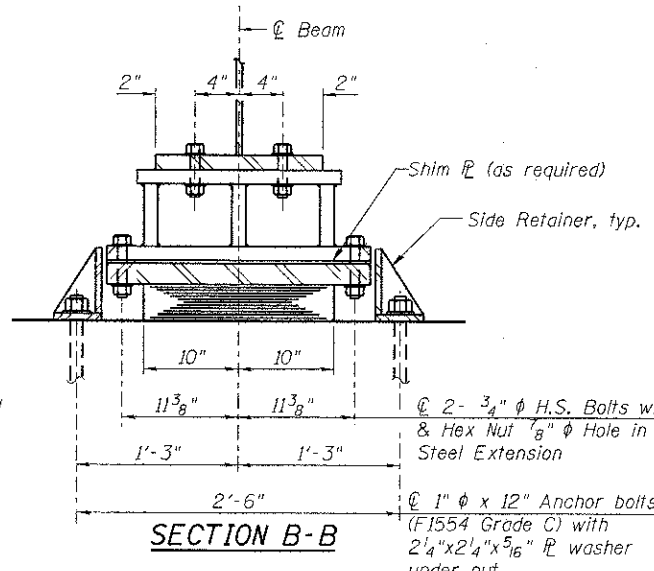


SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.  
(Abutment Bearings 20 Thus)

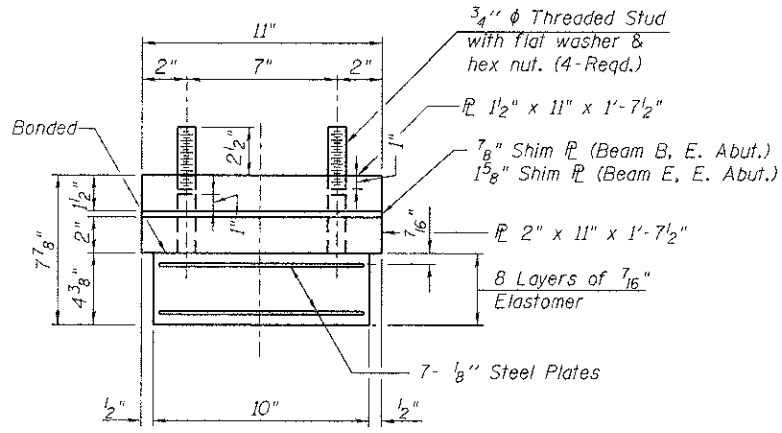


ELEVATION AT PIERS 1 & 3



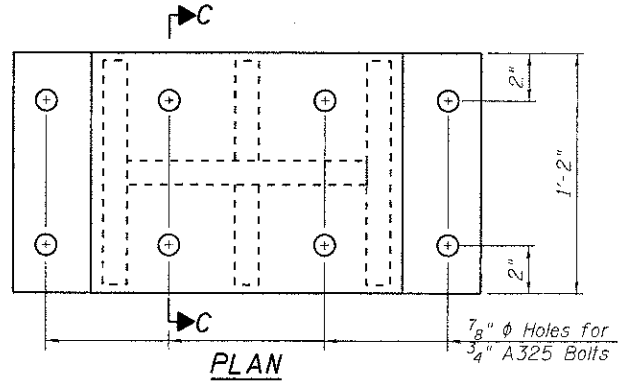
SECTION B-B

TYPE I ELASTOMERIC EXP. BRG.  
(Pier Bearings 20 Thus)

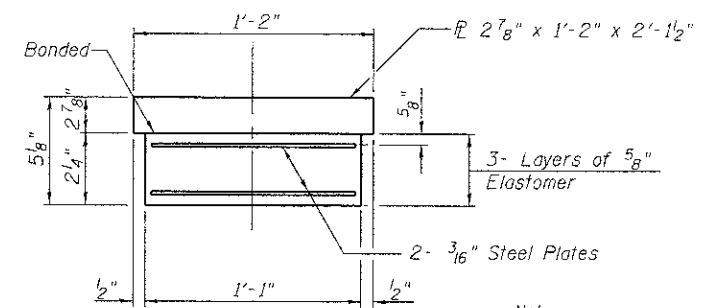


BEARING ASSEMBLY  
(Abutment Bearings)

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



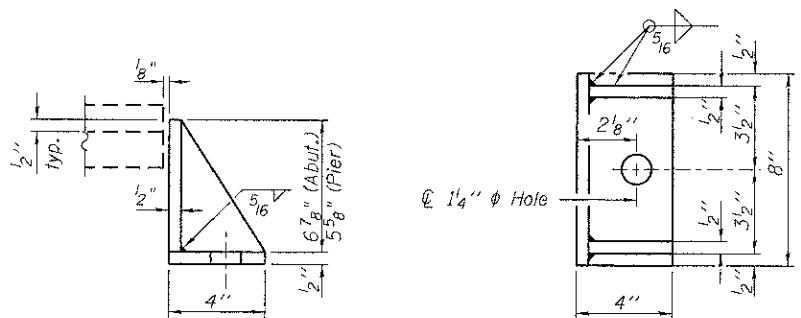
PLAN



BEARING ASSEMBLY  
(Pier Bearings)

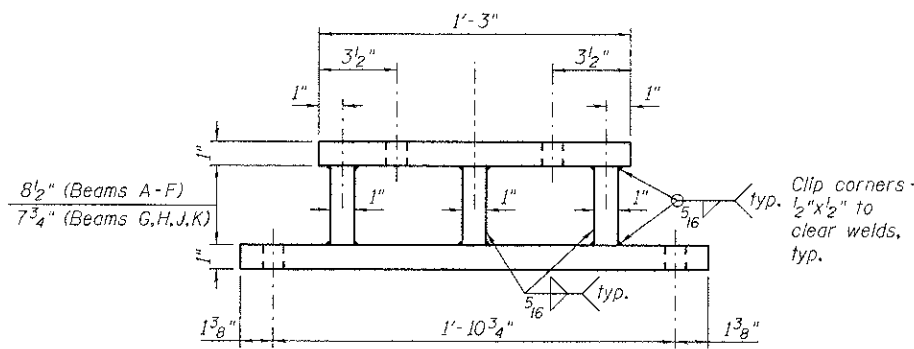
Note:  
Shim plates shall not be placed under Bearing Assembly.

Notes:  
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.  
Anchor bolts for side retainers may be cast in place or installed in holes drilled before or after members are in place.  
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.  
Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.  
Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.  
Prior to ordering any material the Contractor shall verify in the field all bearing height and shim thickness dimensions.



SIDE RETAINER  
(Abutment & Pier Bearings)

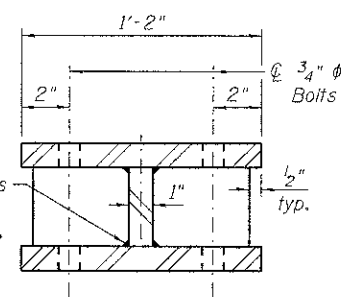
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



ELEVATION

STEEL EXTENSIONS

(10 Thus each for Piers 1 & 3)  
Weight included with Structural Steel



SECTION C-C

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	40
Anchor Bolts, 1"	Each	80

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 Corba Group, Inc.  
 CONSULTING ENGINEERS  
 202 North Central Expressway  
 Suite 202 Chicago, Illinois 60610  
 Tel: 773.775.4000  
 Fax: 773.775.4001  
 E-mail: info@corba.com

USER NAME = rdmley	DESIGNED - MHT	REVISED -
PLLOT SCALE = 0.003333' / 1"	CHECKED - SMY	REVISED -
PLLOT DATE = 1/28/2013	DRAWN - SRG	REVISED -
	CHECKED - BWS	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BEARING DETAILS  
STRUCTURE NO. 099-3031

SHEET NO. S-19 OF S-24 SHEETS

F.A.U. RFE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
298	04-00069-18-BR	WILL	51	40
CONTRACT NO. 63803				
ILLINOIS FED. AID PROJECT				



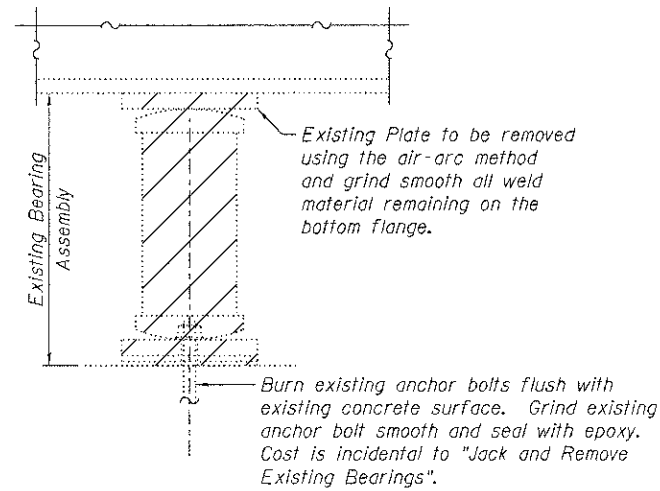
**BEAM REACTION TABLE**

	W. Abut.	Pier 1	Pier 2	Pier 3	E. Abut.
R <sub>Q</sub> *	(K) **4.2	**13.4	**13.5	13.4	**4.2

\* Reactions for dead load are for dead load of beam only.  
 \*\* For information only.

**JACK & REMOVE EXISTING BEARING PROCEDURE**

1. Removal of existing deck.
2. Disconnect diaphragms at stage construction line.
3. Jacking existing superstructure.
4. Remove and replace bearings.



**EXISTING BEARING REMOVAL DETAIL**

**JACKING AND REMOVING BEARING NOTES:**

1. Jacking existing superstructure should be done after the existing deck is removed.
2. The Contractor shall submit plans for jacking the existing superstructure for approval by the Engineer prior to commencing any work with the bearings. The submittal shall be prepared and sealed by a Licensed Structural Engineer in Illinois.
3. The lifting of the structure should be controlled so that the relative elevation between adjacent beams does not vary more than 1/4 inch from their original elevation differential.
4. The relative elevations at adjacent substructure units should not vary more than 3/4 inch from the original relative elevations.
5. The jack capacity provided should be between 50% and 100% greater than the maximum expected loading. For reaction table see above.
6. The diaphragms should not be used as load carrying members in the jacking and cribbing system.
7. When jacks are placed directly under a beam, the jack should be centered under the web and a steel plate should be placed between the top of the jack and the bottom flange of the beam. When web stiffeners bearing on the bottom flange do not exist directly over the location of the jack under a steel beam, hardwood timbers should be installed tightly between the top and bottom flange to prevent flange rotation. Steel stiffening angles should be attached to the web of the beam when the beam web thickness is not adequate to carry the jacking load. Steel plates should be placed under jacks bearing directly on the existing substructure to distribute the jacking load and prevent damage to the existing concrete.
8. Jacks should be placed in a manner and in locations that will ensure that the jacks will be equally loaded and the load will be uniformly distributed to the foundation of the jacking system.
9. The following maximum allowable pressures should be used to determine the area of the timber mats supporting jacking systems.

Supporting Material	Max. Allowable Pressure
Natural Ground (Unsaturated).....	0.5 tons/sq. ft.
Conc. Slopewalls & Bit. Shoulders.....	1.0 tons/sq. ft.
Bituminous Pavements.....	2.0 tons/sq. ft.
Concrete Pavements.....	4.0 tons/sq. ft.

**BILL OF MATERIAL**

Item	Unit	Total
Jack and Remove Existing Bearings	Each	10

I:\PROJ\0021408\00\Design\Structural\CAD\099-3031\_0003408\_20 Bearing Removal.dgn



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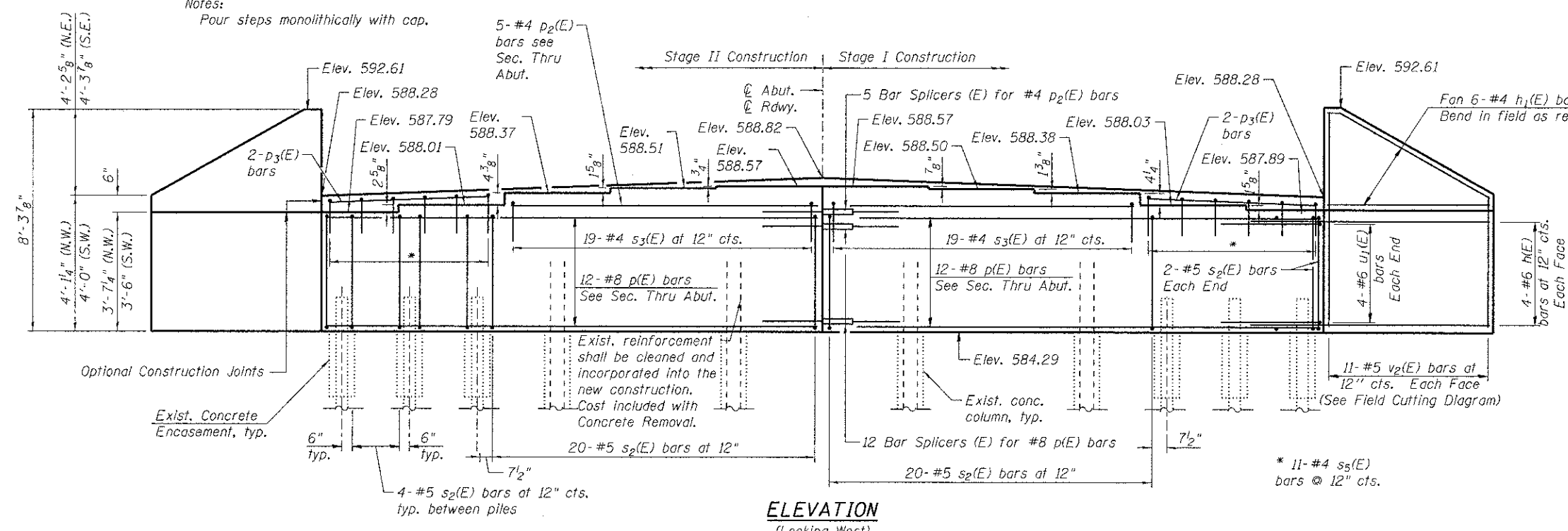
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**BEARING REMOVAL DETAILS  
 STRUCTURE NO. 099-3031**

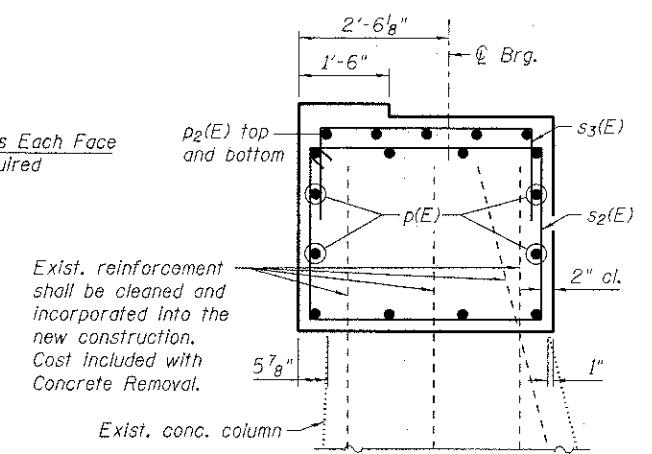
SHEET NO. S-20 OF S-24 SHEETS

F.A.I. RTE. 298	SECTION 04-0069-18-BR	COUNTY WILL	TOTAL SHEETS 51	SHEET NO. 41
CONTRACT NO. 63803				
ILLINOIS FED. AID PROJECT				

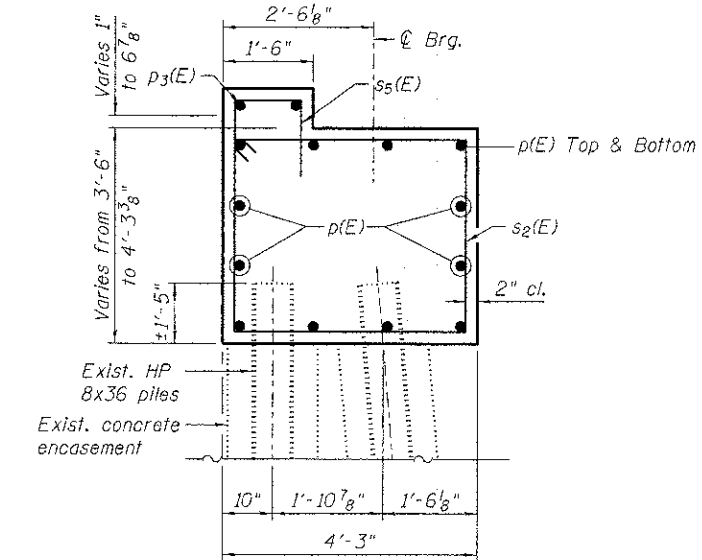
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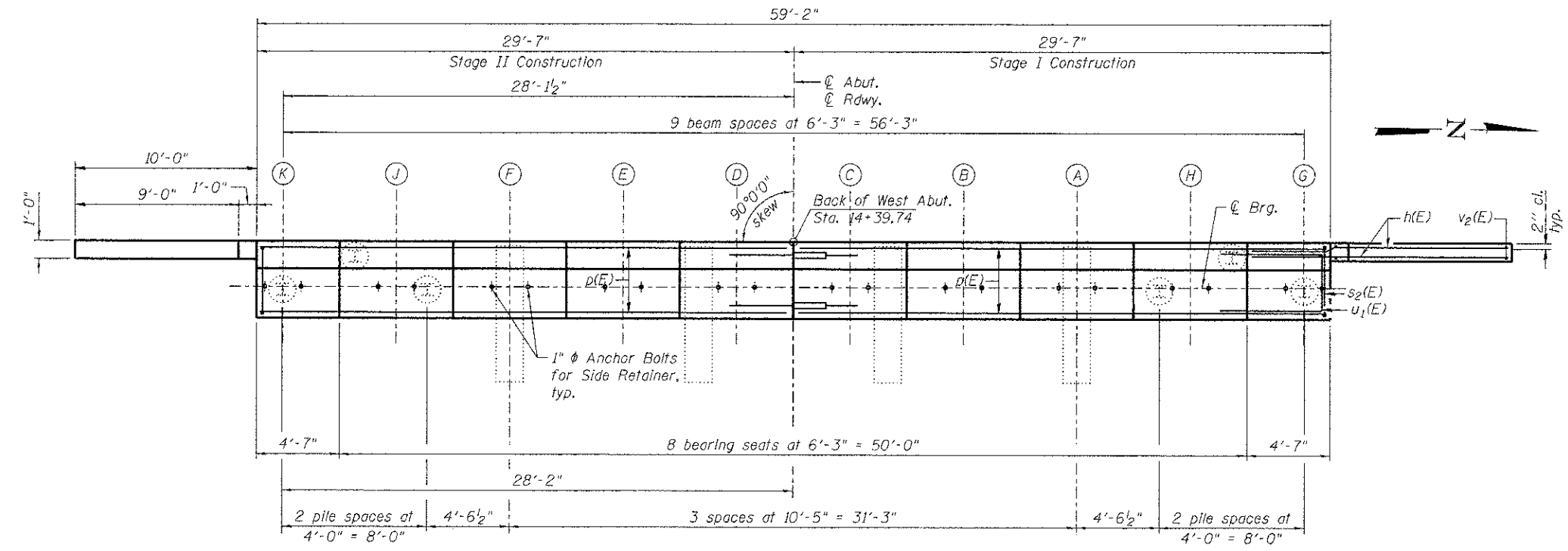
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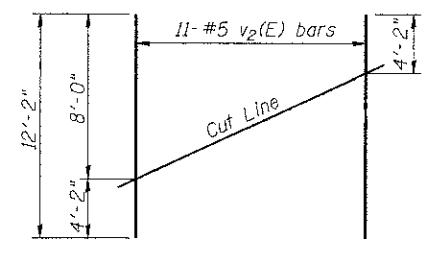
**SEC. THRU ABUT. AT COLUMNS**



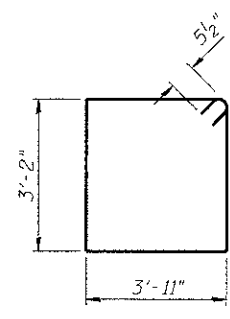
**SEC. THRU ABUT. AT PILES**



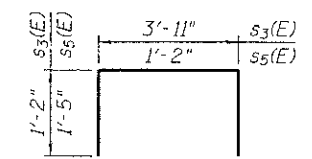
**PLAN**



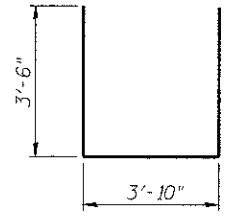
**FIELD CUTTING DIAGRAM**



**BAR s2(E)**



**BARS s3(E) and s5(E)**



**BAR u1(E)**

**BILL OF MATERIAL**

Bar No.	Size	Length	Shape
h(E)	# 6	13'-4"	—
h1(E)	# 4	9'-8"	—
p(E)	# 8	29'-3"	—
p2(E)	# 4	12'-2"	—
p3(E)	# 4	10'-6"	—
s2(E)	# 5	15'-1"	□
s3(E)	# 4	6'-3"	□
s5(E)	# 4	4'-0"	□
u1(E)	# 6	10'-10"	□
v2(E)	# 5	12'-2"	—
Structure Excavation	Cu. Yd.	84	
Concrete Structures	Cu. Yd.	43.2	
Reinforcement Bars, Epoxy Coated	Pound	4,030	
Geocomposite Wall Drain	Sq. Yd.	66	
Porous Granular Embankment, Special	Cu. Yd.	106	
Pipe Underdrain for Structures, 4"	Foot	90	

For details of Bar Splicers, see sheet S-24 of S-24.  
For limits of removal, see sheet S-5.

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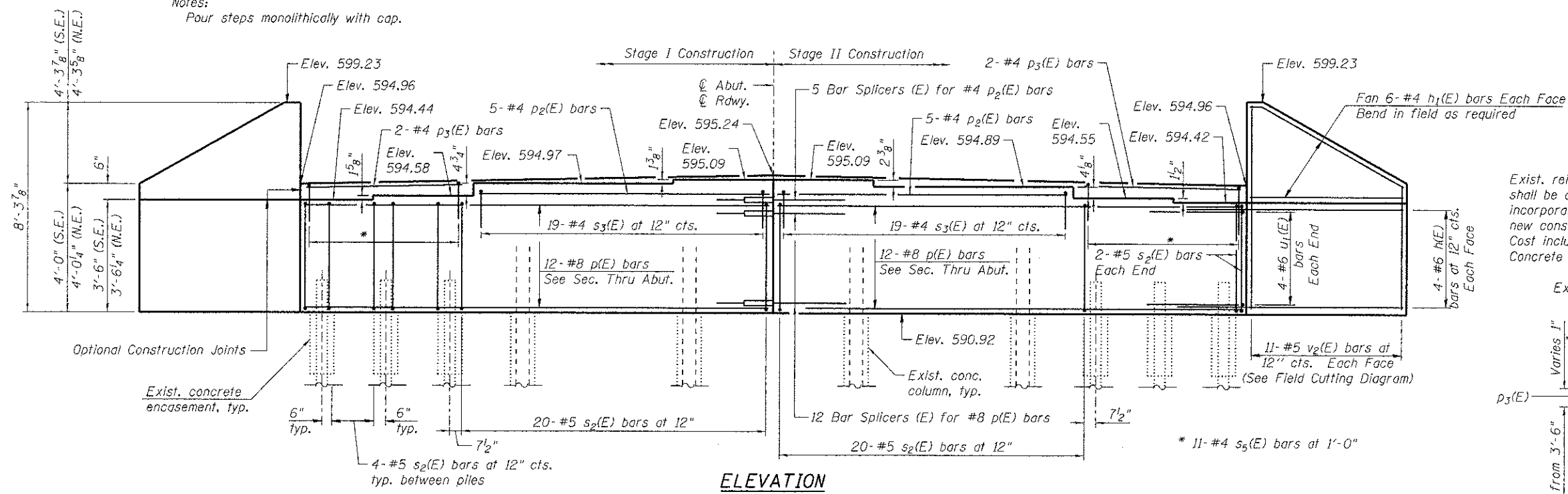
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

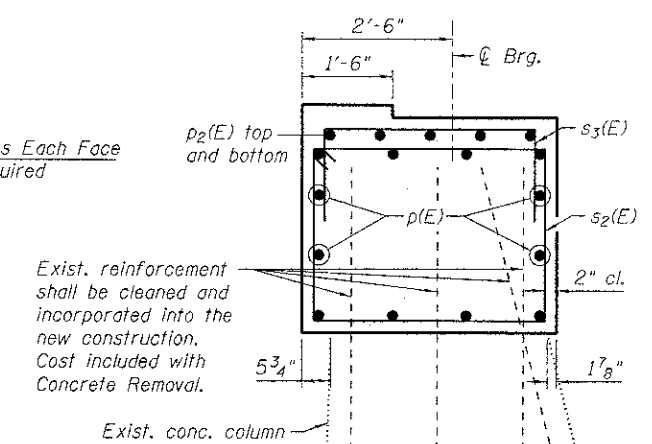
**WEST ABUTMENT DETAILS**  
**STRUCTURE NO. 099-3031**  
SHEET NO. S-21 OF S-24 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
298	04-00069-18-BR	WILL	51	42
CONTRACT NO. 63803				
ILLINOIS FED. AID PROJECT				

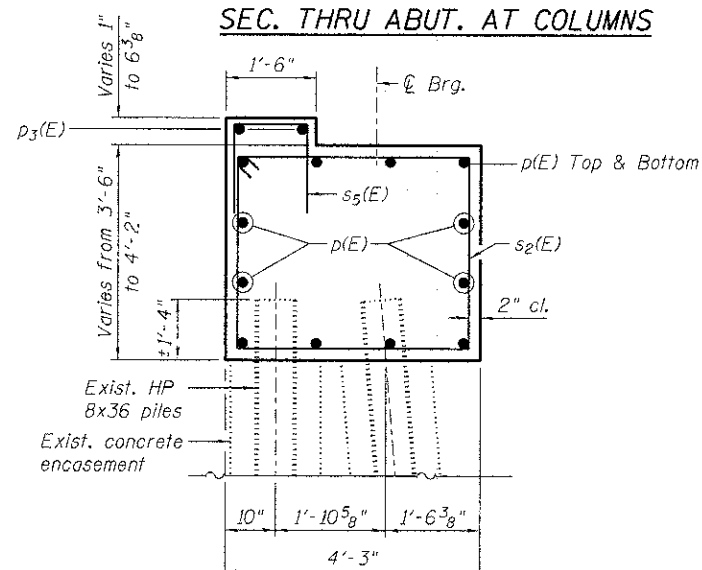
Notes:  
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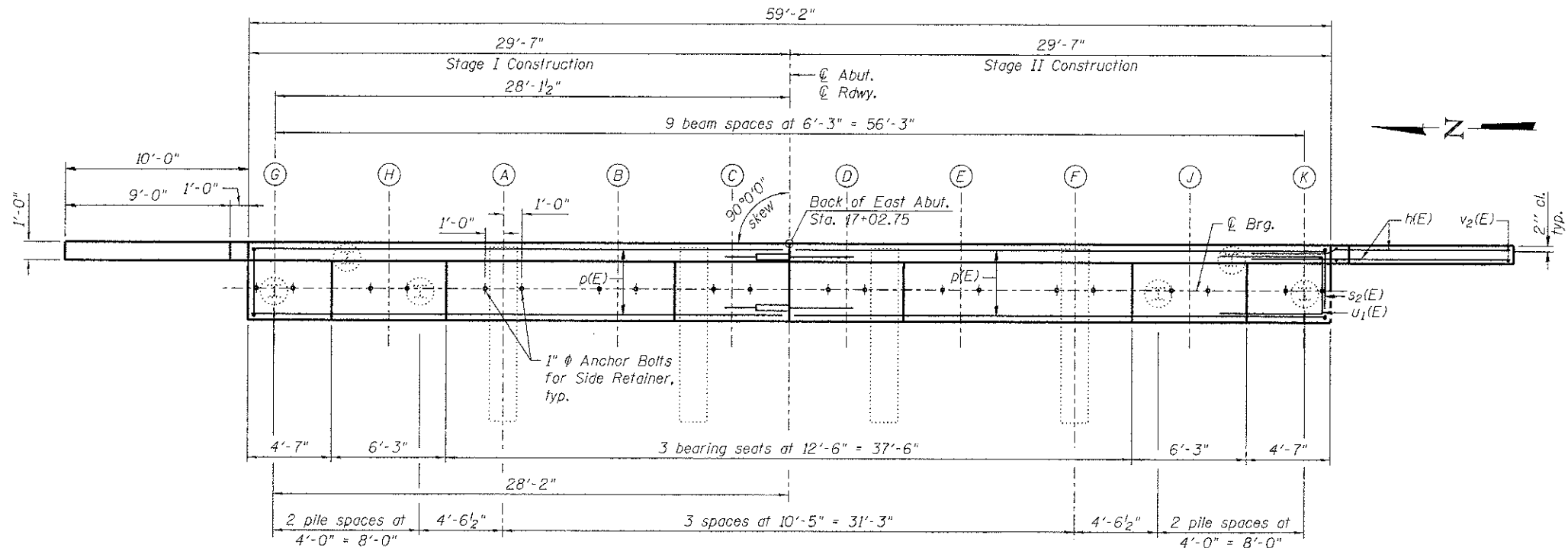
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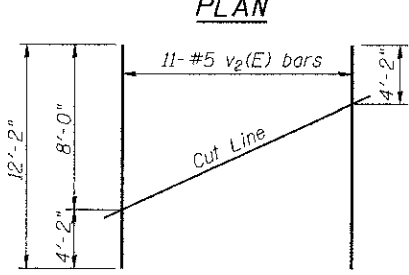
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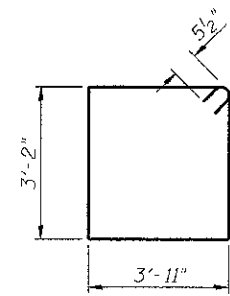
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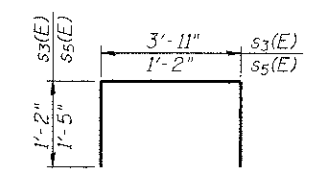
**PLAN**



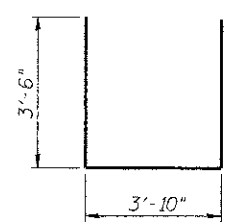
**FIELD CUTTING DIAGRAM**



**BAR s2(E)**



**BARS s3(E) & s5(E)**



**BAR u1(E)**

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	16	# 6	13'-4"	—
h1(E)	24	# 4	9'-8"	—
p(E)	24	# 8	29'-3"	—
p2(E)	10	# 4	12'-2"	—
p3(E)	4	# 4	10'-6"	—
s2(E)	60	# 5	15'-1"	□
s3(E)	38	# 4	6'-3"	□
s5(E)	22	# 4	4'-0"	□
u1(E)	8	# 6	10'-10"	□
v2(E)	22	# 5	12'-2"	—
Structure Excavation		Cu. Yd.	84	
Concrete Structures		Cu. Yd.	42.3	
Reinforcement Bars, Epoxy Coated		Pound	4,030	
Geocomposite Wall Drain		Sq. Yd.	66	
Porous Granular Embankment, Special		Cu. Yd.	104	
Pipe Underdrain for Structures, 4"		Foot	90	

For details of Bar Splicers, see sheet S-24 of S-24.  
For limits of removal, see sheet S-5.

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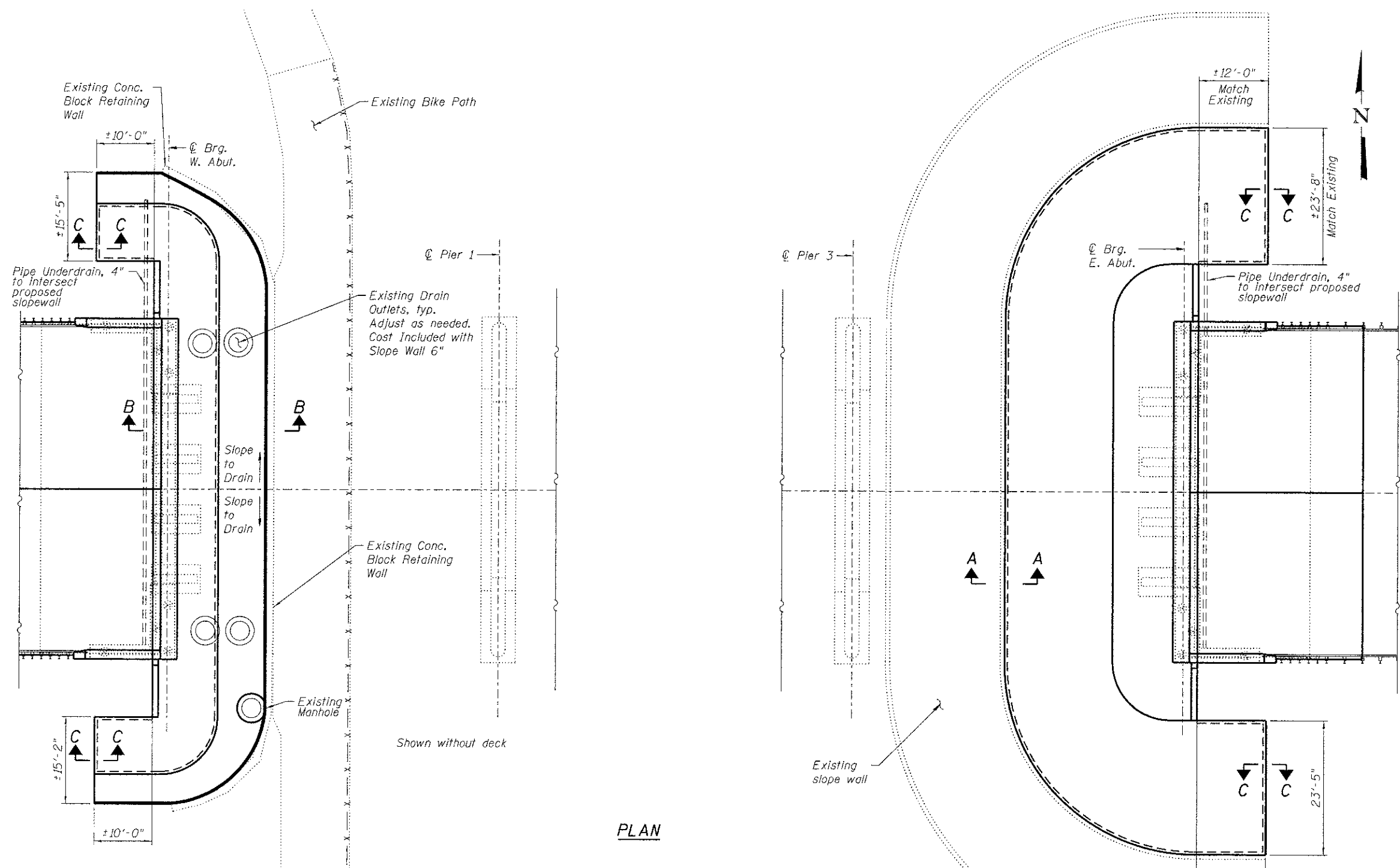
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**EAST ABUTMENT DETAILS**  
**STRUCTURE NO. 099-3031**

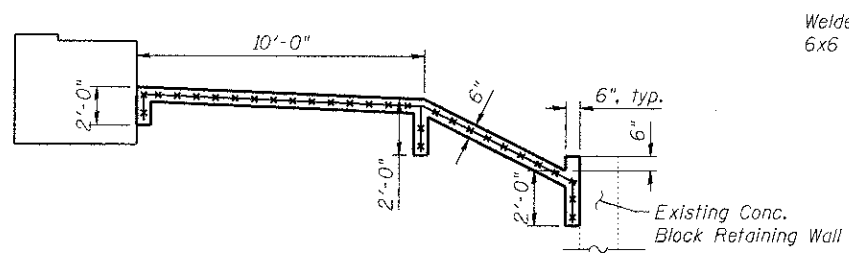
SHEET NO. S-22 OF S-24 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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				CONTRACT NO. 63803
ILLINOIS FED. AID PROJECT				

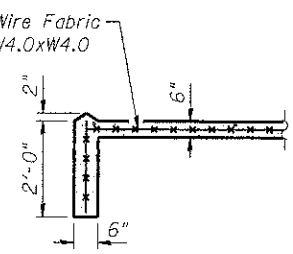
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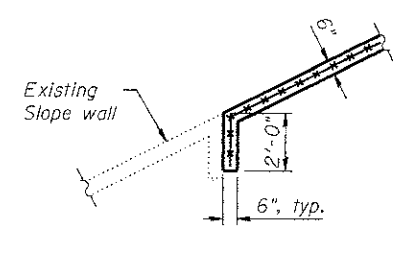
**PLAN**



**SECTION B-B**



**SECTION C-C**



**SECTION A-A**

**BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Slope Wall 6"	Sq. Yd.	714



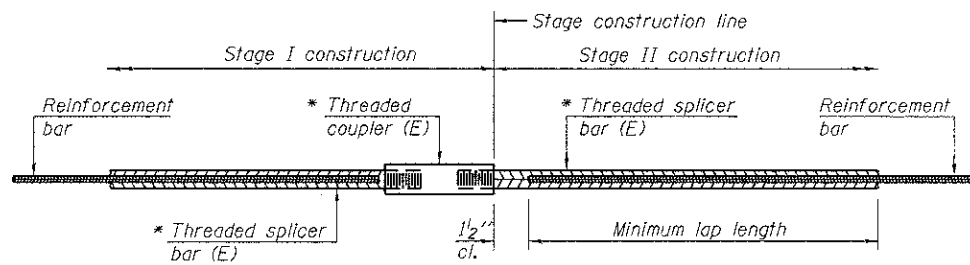
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SLOPE WALL DETAILS  
STRUCTURE NO. 099-3031**

SHEET NO. 5-23 OF 5-24 SHEETS

F.A.D. RTE. 29B	SECTION 04-00069-18-BR	COUNTY WILL	TOTAL SHEETS 51	SHEET NO. 44
			CONTRACT NO. 63803	
ILLINOIS FED. AID PROJECT				



**STANDARD BAR SPLICER ASSEMBLY**

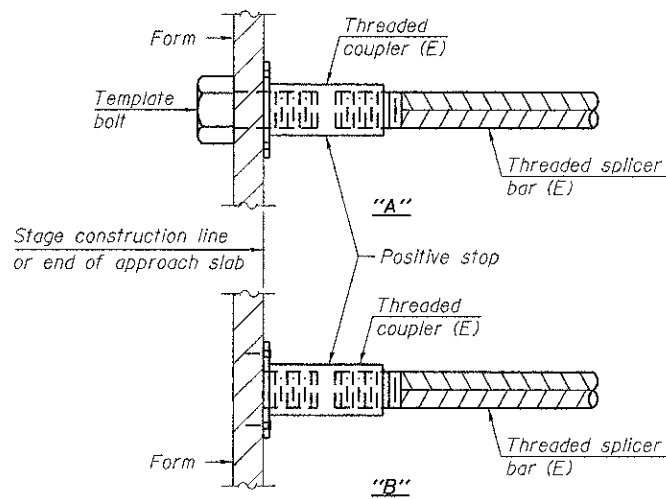
Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"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

- 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, Class C
- Table 6: Epoxy bar, Top bar top, Class C

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

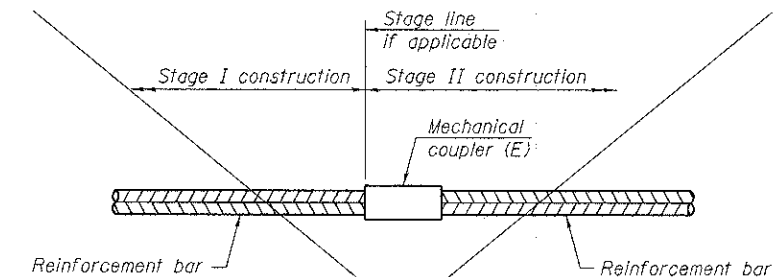
\* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Top of Deck	#5	348	3
Bottom of Deck	#5	313	3
Abutment Diaphragm	#6	24	6
Approach Slab (Top)	#4	50	4
Approach Slab (Bottom)	#5	92	3
Approach Slab Footing	#5	80	3
Abutment	#8	24	4
	#4	10	4



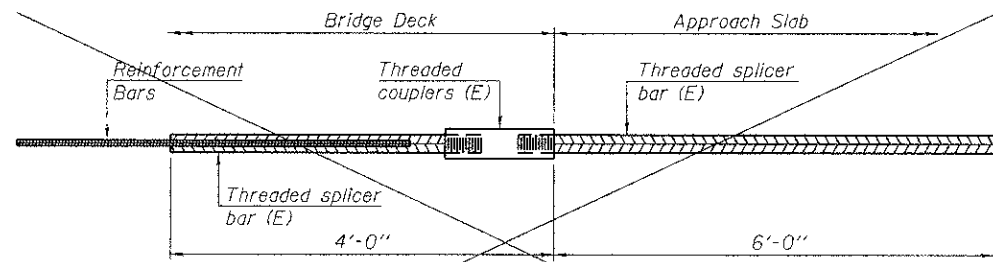
**INSTALLATION AND SETTING METHODS**

"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.



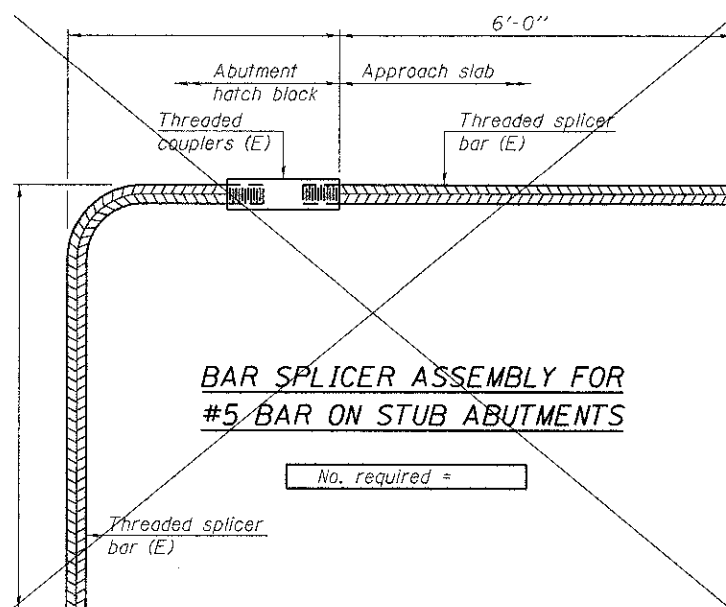
**STANDARD MECHANICAL SPLICER**

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 approved list of bar splicer assemblies and mechanical splicers for alternatives.

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BSD-1

1-27-12



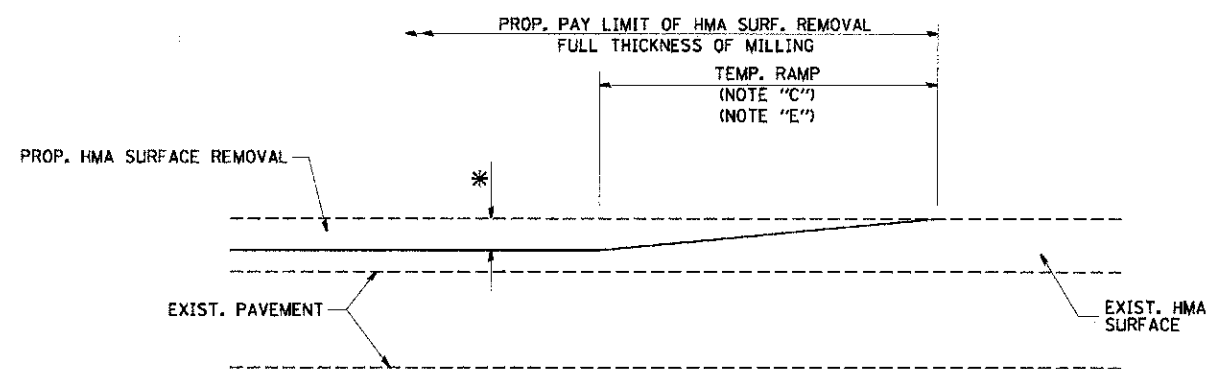
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PLOT DATE = 1/28/2013	CHECKED - BWS	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BAR SPLICER DETAILS  
STRUCTURE NO. 099-3031

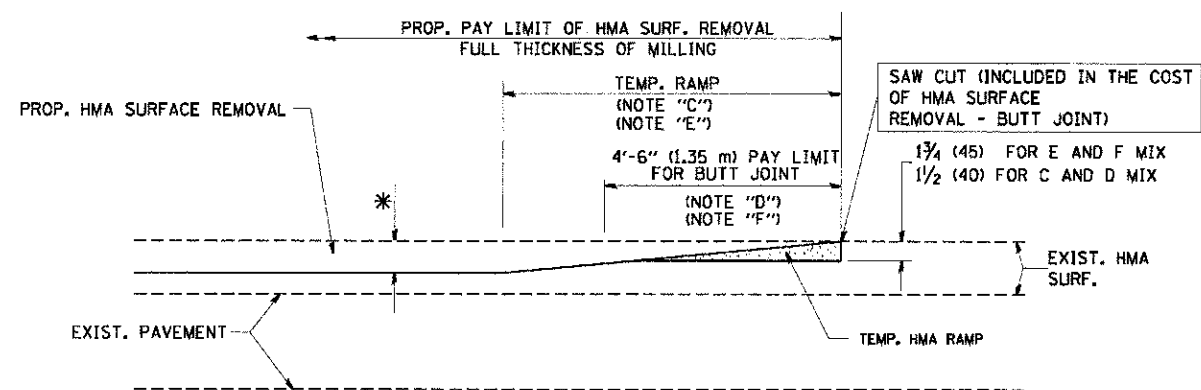
SHEET NO. 5-24 OF 5-24 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
29B	04-00069-18-BR	WILL	51	45
CONTRACT NO. 63803				
ILLINOIS FED. AID PROJECT				



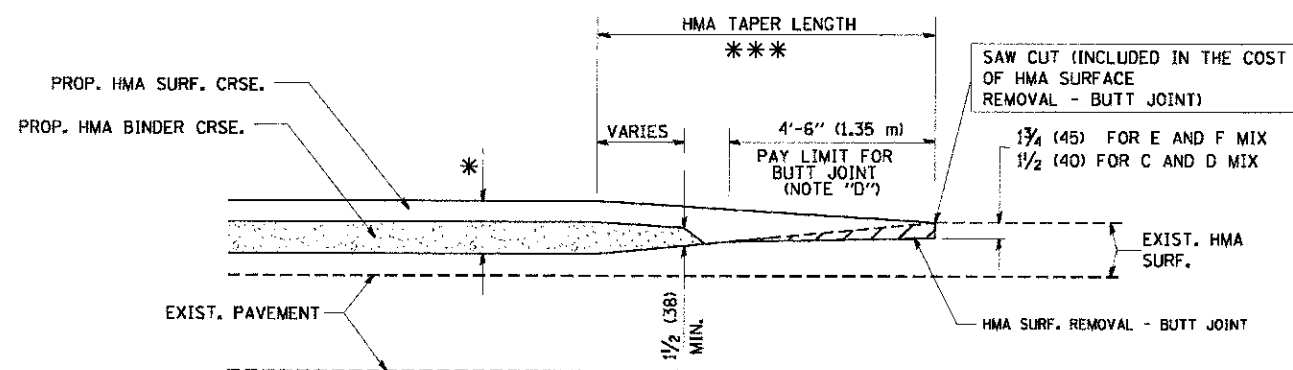
MILLED TEMPORARY RAMP  
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

**OPTION 1**

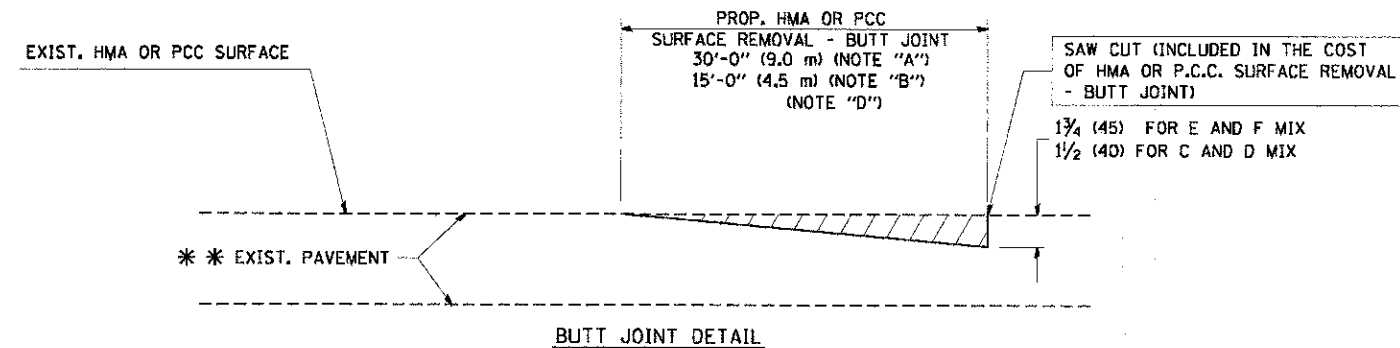


HMA CONSTRUCTED TEMPORARY RAMP  
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

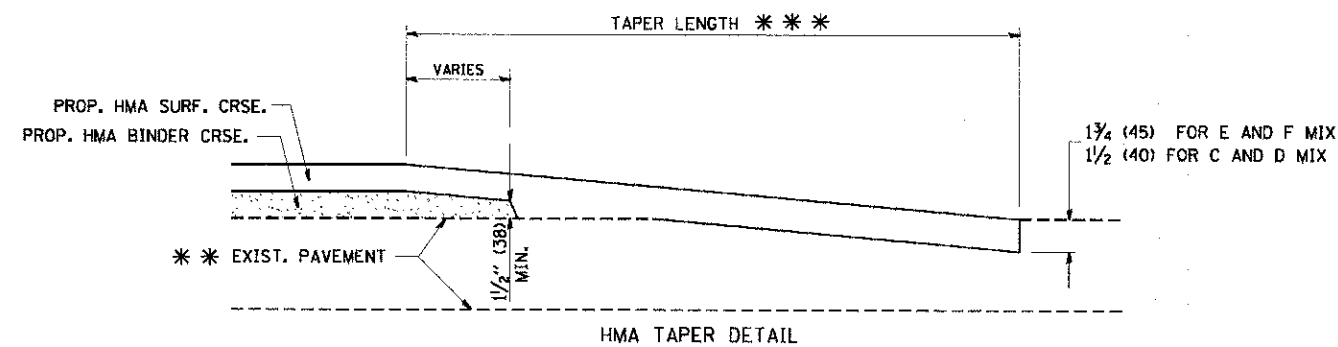
**OPTION 2**  
**TYPICAL TEMPORARY RAMP**



**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.

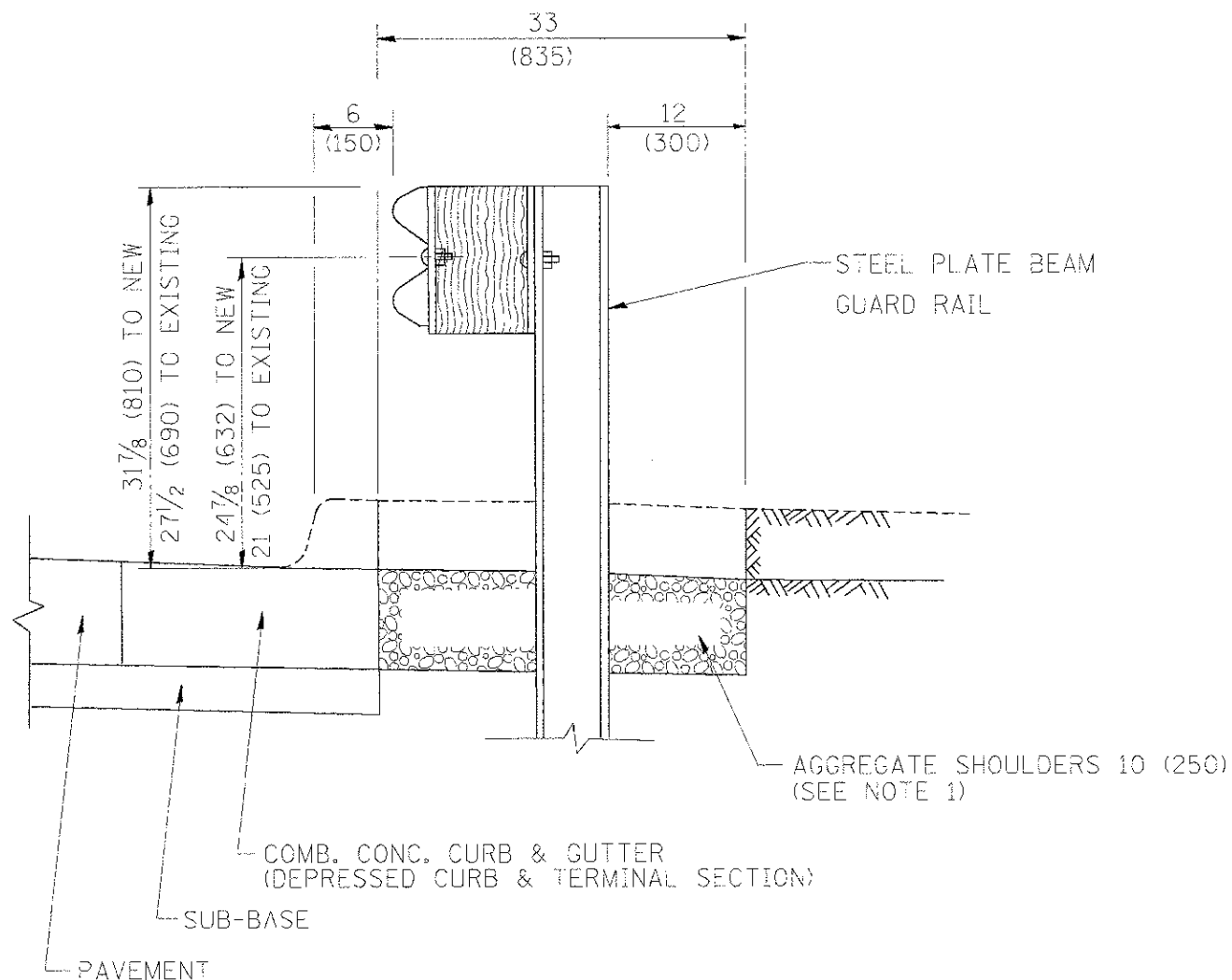
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	PLOT DATE = 1/4/2000	DATE - 06-13-90	REVISED - R. BORO 01-01-07

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**BUTT JOINT AND  
HMA TAPER DETAILS**

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

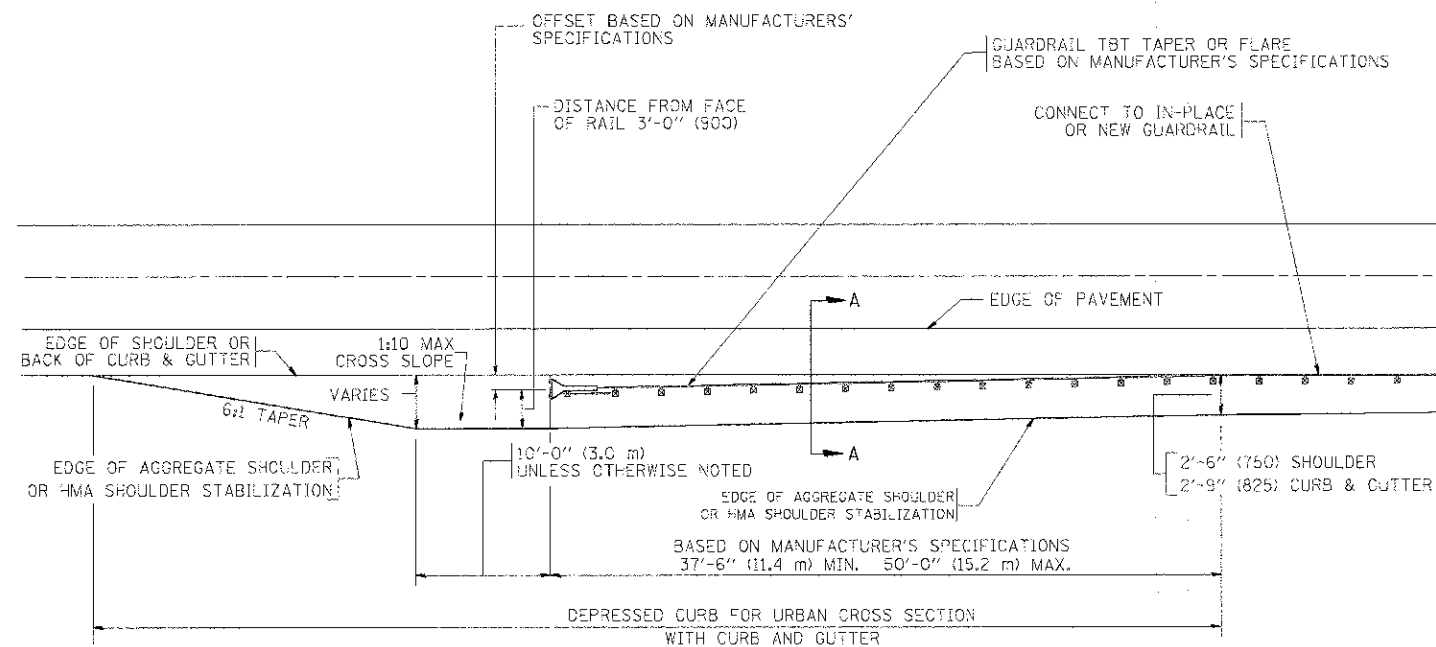
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298	04-00069-18-BR	WILL	51	46
BD400-05 BD32			CONTRACT NO. 63803	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



SECTION A-A

- NOTES:
1. THE AGGREGATE SHOULDER, 10" OR HMA SHOULDER, 6" (IF REQUIRED) SHALL EXTEND UNDER THE TRAFFIC BARRIER TERMINAL.
  2. "EXISTING" GUARDRAIL REFERS TO CONNECTING TERMINAL SECTION TO GUARD RAILING PRIOR TO THE MIDWEST GUARDRAIL SYSTEM.
  3. THE CONTRACTOR SHALL VERIFY THE TYPE/HEIGHT OF GUARDRAIL IN-PLACE BEFORE ORDERING THE NEW TERMINAL SECTION. COST INCLUDED WITH THE COST OF THE TERMINAL. THE TERMINAL SECTION HEIGHT TO BE PLACED MUST MATCH THE HEIGHT OF THE IN-PLACE GUARDRAIL.

**DETAILS FOR STEEL PLATE BEAM  
GUARD RAIL ADJACENT TO CURB AND GUTTER**  
[FOR ROADWAY SPEED 35 MPH (60 kmh) TO 45 MPH (70 kmh)]



**DEPRESSED CURB AND GUTTER AND  
SHOULDER TREATMENT AT TBT TY. 1 SPL.**

BASIS OF PAYMENT: HMA SHOULDERS 6 (150) (IF REQUIRED) WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SHOULDERS 6" (150 mm)".

STEEL PLATE BEAM GUARD RAIL AND TRAFFIC BARRIER TERMINAL, OF THE TYPE SPECIFIED WILL BE PAID FOR SEPARATELY.

TBT = TRAFFIC BARRIER TERMINAL  
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

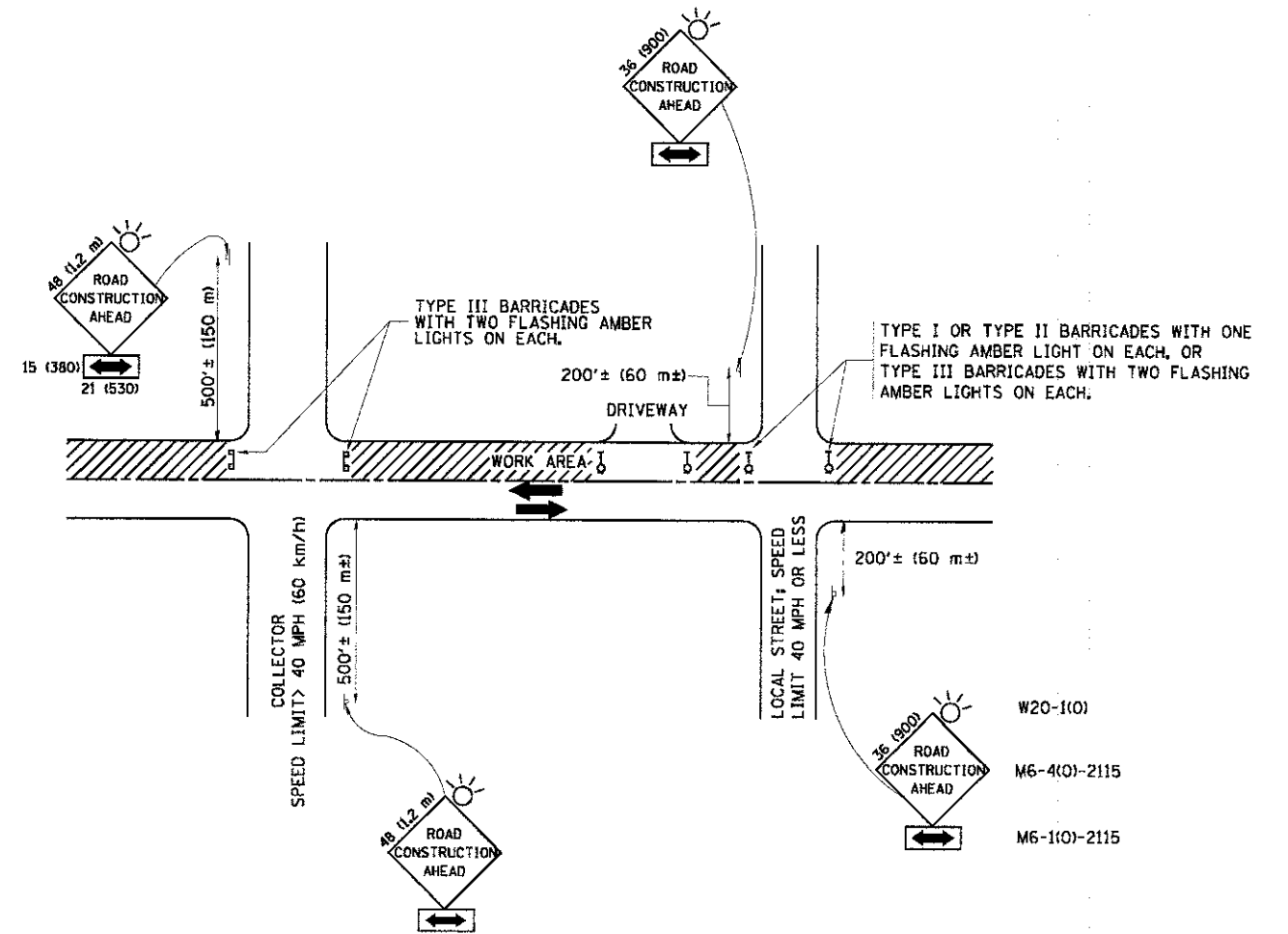
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ca\p\work\VP\DOT\ORIV\K\OSGN\108319\108319.dgn	ortvakoagn	M. DE YONG	E. GOMEZ 08-28-00
		DRAWN -	REVISED -
			N. BORO 01-21-07
		CHECKED -	REVISED -
			R. BORO 12-08-2008
		DATE -	REVISED -
		09-22-90	R. BORO 09-14-2009

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DETAILS FOR DEPRESSED CURB & GUTTER AND  
SHOULDER TREATMENT AT TBT TY 1 SPL.

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
298	04-00069-18-BR	WILL	51	47
BD600-10 (BD 34)			CONTRACT NO. 63803	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



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

NOTES:

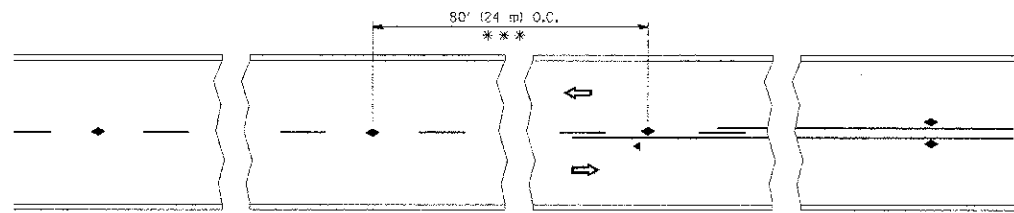
- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS
  1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
    - a) ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
    - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
  2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
    - a) ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
    - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
  3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
- B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:
 

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

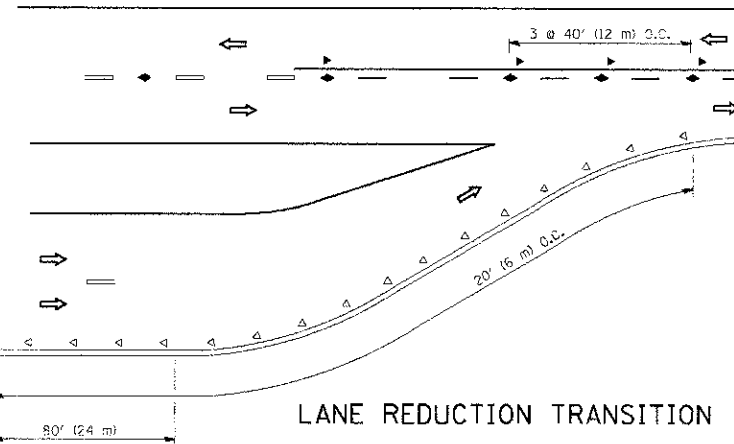
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W:\dot\statd\22x34\tr18.dgn		DRAWN -	REVISED - A. HOUSEH 03-06-96		298	04-00069-18-BR	WILL	51	48				
		CHECKED -	REVISED - A. HOUSEH 10-15-96		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.				TC-10		CONTRACT NO. 63803		
		DATE - 06-89	REVISED - T. RAMMACHER 01-06-00		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT								



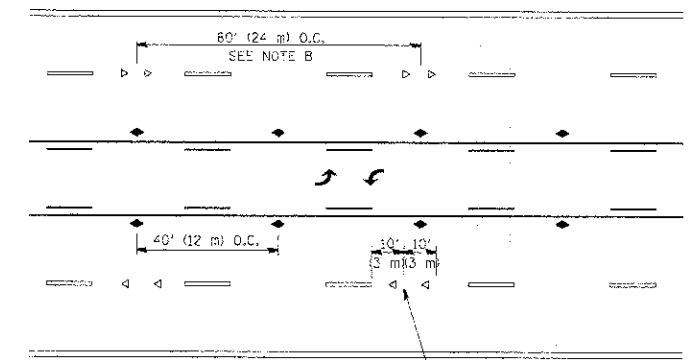


\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

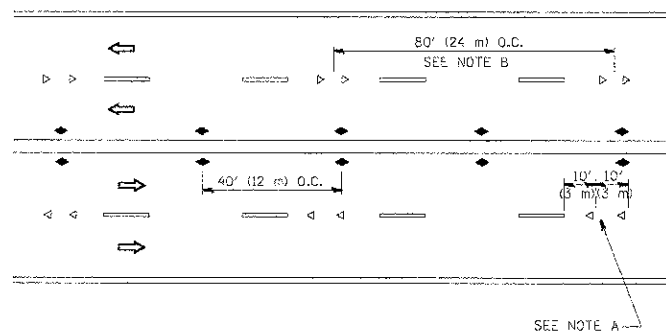
TWO-LANE/TWO-WAY



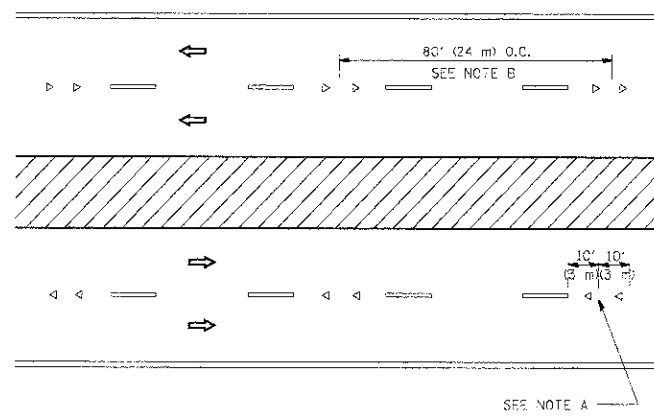
LANE REDUCTION TRANSITION



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

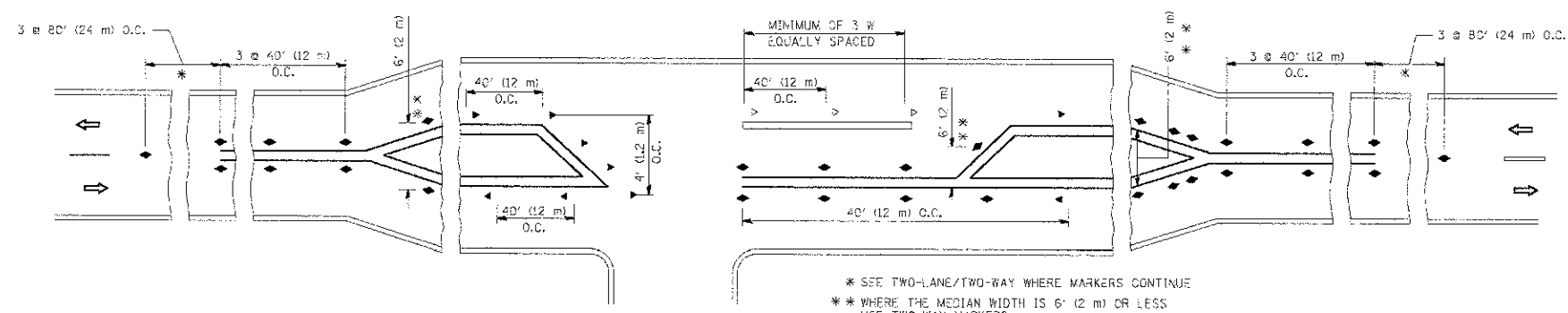
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- < ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

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 SHALL BE INCLUDED IN THE PLANS WHEN STANDARD SPECIFICATIONS ARE NOT BEING USED.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.

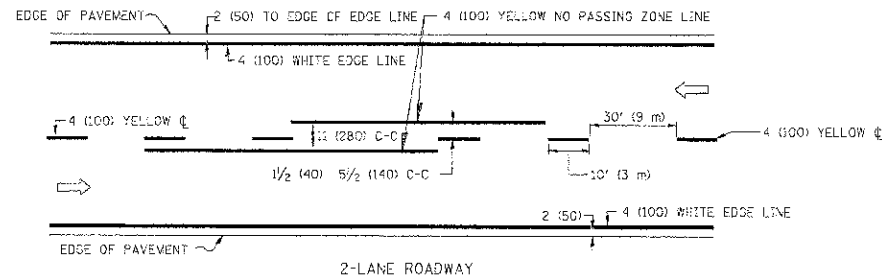


LEFT TURN

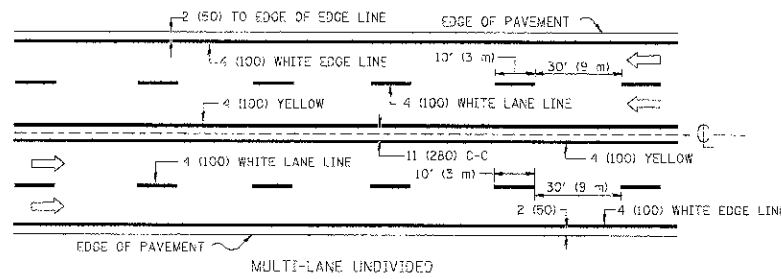
\* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE  
 \*\* WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

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

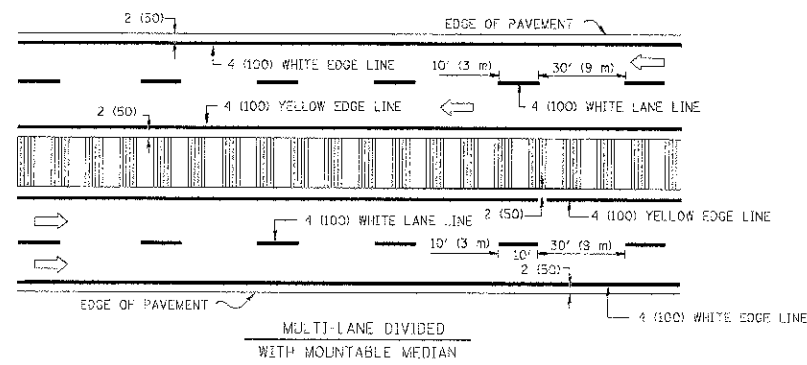
FILE NAME =	USER NAME = lwyga	DESIGNED -	REVISED - T. RAMMACHER 09-19-94	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)</b>		F.A.I. R.T.E. 298	SECTION 04-00069-18-BR	COUNTY WILL	TOTAL SHEETS 51	SHEET NO. 49	
ci:\pwwork\pwwork\lwyga\20120315\11.dgn	PLOT SCALE = 3/8" = 1'	DRAWN -	REVISED - T. RAMMACHER 03-12-99		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	<b>TC-11</b>		CONTRACT NO. 63803		
	PLOT DATE = 3/2/2011	CHECKED -	REVISED - T. RAMMACHER 01-06-00									
		DATE -	REVISED - C. HUCIUS 09-09-09									



2-LANE ROADWAY



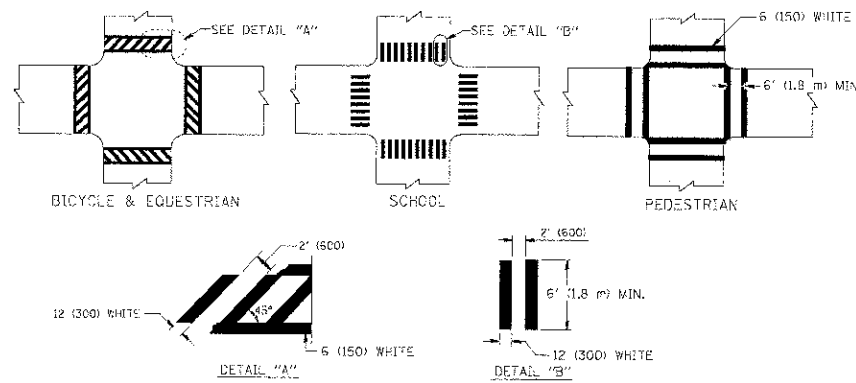
MULTI-LANE UNDIVIDED



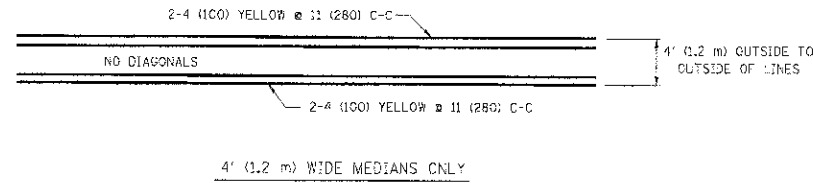
MULTI-LANE DIVIDED WITH MOUNTABLE MEDIAN

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

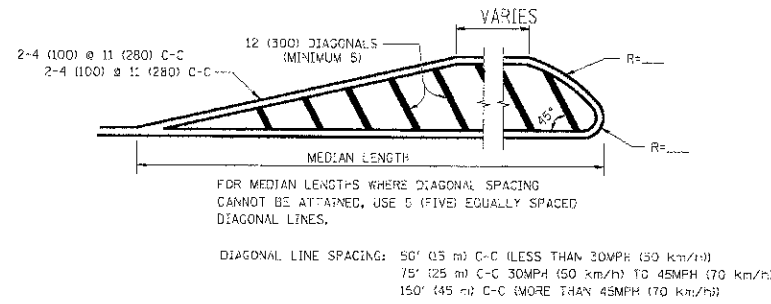
TYPICAL LANE AND EDGE LINE MARKING



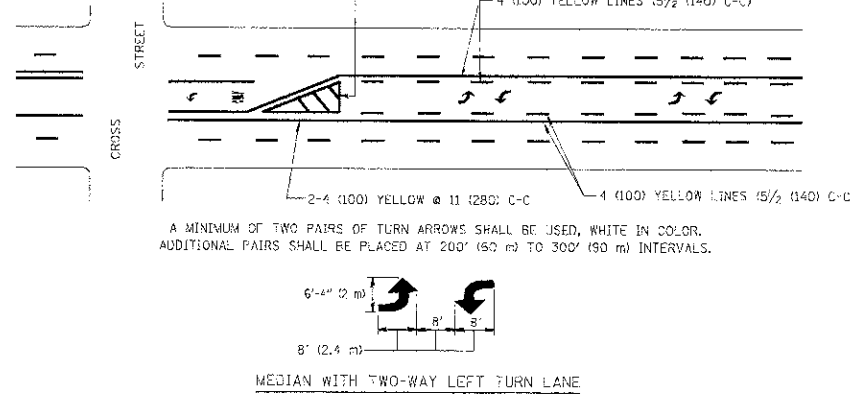
TYPICAL CROSSWALK MARKING



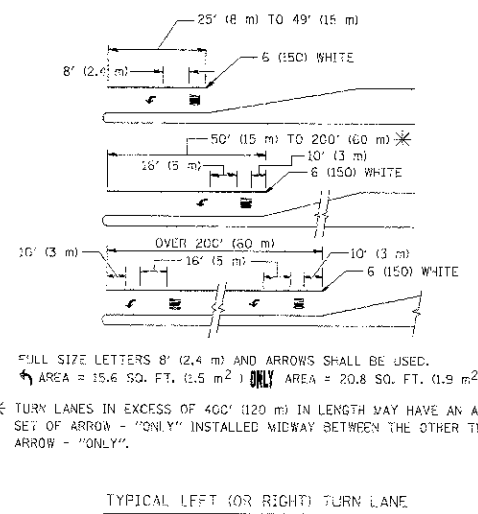
4' (1.2 m) WIDE MEDIANS ONLY



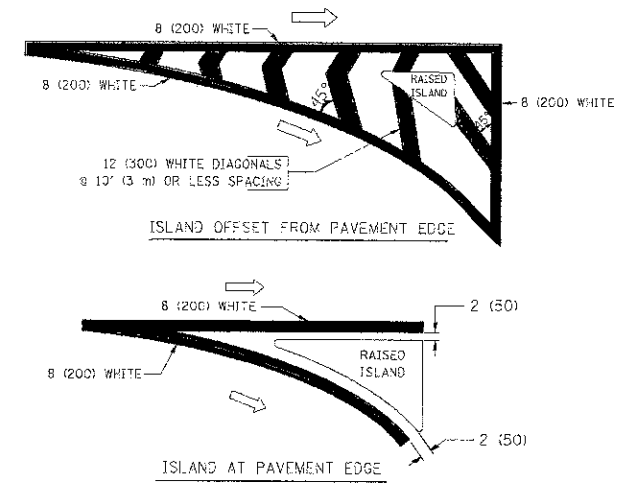
MEDIANS OVER 4' (1.2 m) WIDE



TYPICAL PAINTED MEDIAN MARKING



TYPICAL LEFT (OR RIGHT) TURN LANE

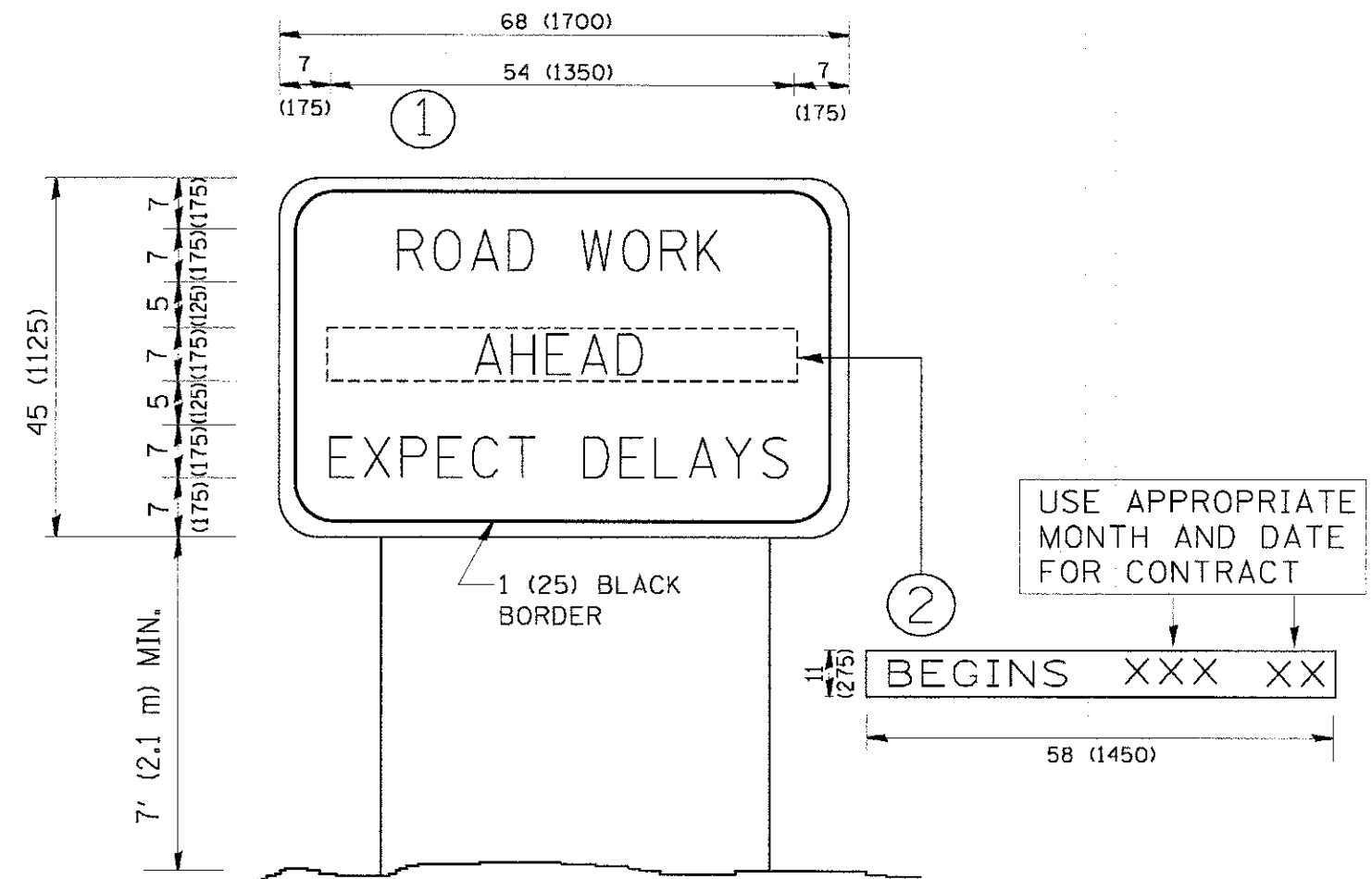


TYPICAL ISLAND MARKING

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	4 (100)	SOLID	YELLOW	5/2 (140) C-C FROM SKIP-DASH CENTERLINE
NO PASSING ZONE LINES FOR BOTH DIRECTIONS	2 @ 4 (100)	SOLID	YELLOW	OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100)	SKIP-DASH	WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
LANE LINES FOR ONE DIRECTION	5 (125) ON FREEWAYS	SKIP-DASH	WHITE	
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 (6' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION	SKIP-DASH AND SOLID	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE
TWO WAY LEFT TURN MARKING	8' (2.4m) LEFT ARROW	IN PAIRS	WHITE	SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN)	2 @ 6 (150)	SOLID	WHITE	NOT LESS THAN 6' (1.8 m) APART
CROSSWALK LINES (BIKE & EQUESTRIAN)	12 (300) @ 45°	SOLID	WHITE	2' (600) APART
CROSSWALK LINES (LONGITUDINAL BARS (SCHOOL))	12 (300) @ 90°	SOLID	WHITE	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°	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	6 (150) 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) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m <sup>2</sup> ) EACH "X"=54.0 SQ. FT. (5.0 m <sup>2</sup> )
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (22.5 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.



**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:\distatd\22x34\sc22.dgn	USER NAME = gagianabt	DESIGNED -	REVISED - R. MIRS 09-15-97
		DRAWN -	REVISED - R. MIRS 12-11-97
		CHECKED -	REVISED - T. RAMMACHER 02-02-99
		DATE -	REVISED - C. JUCIUS 01-31-07

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ARTERIAL ROAD  
INFORMATION SIGN

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

F.A.U. RYE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
298	04-00069-18-BR	WILL	51	51
TC-22			CONTRACT NO. 63803	
FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT				