

11-21-14 LETTING ITEM 040

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

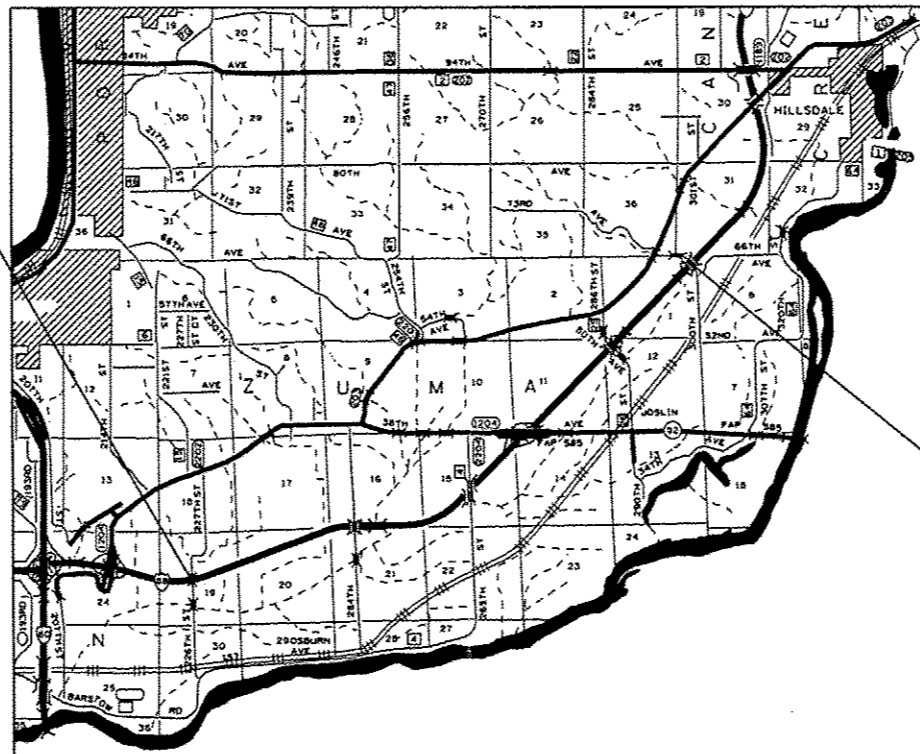
F.A.I. ROUTE 88 (I-88)
SECTION D2 BRIDGE PAINTING 2015-1

TYPE of IMPROVEMENT
ROCK ISLAND COUNTY

C-92-065-14

ROCK ISLAND COUNTY - ZUMA TOWNSHIP - SECTIONS 1 & 19

R.2-3E.

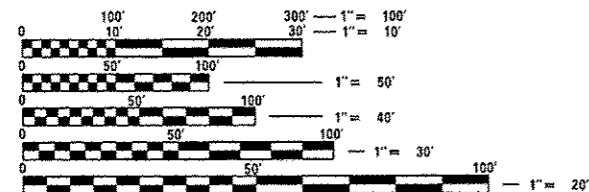


SN 081-0120

SN 081-0127

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
88	D2 BRIDGE PAINTING 2015-1	ROCK ISLAND	17	1
ILLINOIS CONTRACT NO. 64K16				

D-92-036-14



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

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

PROJECT ENGINEER: DAVID DOSS (815) 284-5416
PROJECT MANAGER: MAHMOUD ETEMADI (815) 284-5393

CONTRACT NO. 64K16

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Aug 8th 2014
Paul C. [Signature]
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

Oct 17 2014
John D. Baranzoni, P.E.
ENGINEER OF DESIGN AND ENVIRONMENT

Oct 17 2014
Amer Osman, P.E.
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS

INDEX OF SHEETS

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STATE STANDARDS

701006-05	OFF-ROAD OPERATIONS, 2L,2W, 15' (4.5m) TO 24" (600mm) FROM PAVEMENT EDGE
701101-04	OFF-ROAD OPERATIONS, MULTILANE, 15' (4.5m) TO 24" (600mm) FROM PAVEMENT EDGE
701400-07	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701401-08	LANE CLOSURE, FREEWAY/EXPRESSWAY
701402-09	LANE CLOSURE, FREEWAY/EXPRESSWAY WITH BARRIER
701426-06	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATIONS, FOR SPEEDS ≥ 45 MPH
701901-03	TRAFFIC CONTROL DEVICES
704001-07	TEMPORARY CONCRETE BARRIER
720011-01	METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
728001-01	TELESCOPING STEEL SIGN SUPPORT
729001-01	APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)

GENERAL NOTES

A MINIMUM OF 2 AIR MONITORS WILL BE REQUIRED TO MONITOR ABRASIVE BLASTING OPERATIONS, SEE SPECIAL PROVISION FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES".

THE CONTRACTOR SHALL SEED ALL DISTURBED AREAS WITHIN THE PROJECT LIMITS. SEEDING CLASS 2A SHALL BE USED. THIS WORK WILL BE INCLUDED IN THE CONTRACT UNIT PRICE PER LUMP SUM FOR CLEANING AND PAINTING STEEL BRIDGE NO. 1.

FERTILIZER SHALL BE APPLIED TO ALL DISTURBED AREAS AND INCORPORATED INTO THE SEEDBED PRIOR TO SEEDING OR PLACEMENT OF SOD AT THE RATE SPECIFIED IN SECTIONS 250 AND 252 OF THE STANDARD SPECIFICATIONS. THIS WORK SHALL BE INCLUDED IN THE COST OF CLEANING AND PAINTING STEEL BRIDGE NO. 1.

MULCH METHOD II SHALL BE APPLIED OVER ALL SEEDED AREAS. THIS SHALL BE INCLUDED IN THE COST OF THE CLEANING AND PAINTING STEEL BRIDGE NO. 1.

ALL BORROW/WASTE/USE SITES MUST BE APPROVED BY THE DEPARTMENT PRIOR TO REMOVING ANY MATERIAL FROM THE PROJECT OR INITIATING ANY EARTHMOVING ACTIVITIES, INCLUDING TEMPORARY STOCKPILING OUTSIDE THE LIMITS OF CONSTRUCTION.

TEMPORARY IMPACT ATTENUATORS WILL BE MEASURED AS EACH FOR EACH ATTENUATOR SUPPLIED ON THE JOB AS SPECIFIED IN THE PLANS, AND SHALL INCLUDE THE COST OF RENTING/OWNING THE ATTENUATOR FOR THE TIME REQUIRED ON THE JOB PLUS HAULING TO AND FROM THE PROJECT SITE, AS WELL AS ONE PLACEMENT AND REMOVAL FROM THE ROADWAY. THIS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR IMPACT ATTENUATORS, TEMPORARY OF THE TYPE SPECIFIED.

RELOCATE TEMPORARY IMPACT ATTENUATOR WILL BE PAID FOR AS EACH AND WILL BE PAID FOR EACH TIME THE ATTENUATOR IS REQUIRED BY STAGING TO BE PICKED UP AND MOVED TO A DIFFERENT LOCATION ON THE PROJECT, WHETHER IT IS TO ANOTHER LOCATION ON THE ROADWAY OR TO A STORAGE/STAGING LOCATION FOR THE PROJECT. THIS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR IMPACT ATTENUATORS, RELOCATE OF THE TYPE SPECIFIED.

THIS WORK SHALL BE DONE IN ACCORDANCE WITH SECTION 704 OF THE STANDARD SPECIFICATIONS. TEMPORARY CONCRETE BARRIER WILL BE MEASURED IN FEET ALONG THE CENTERLINE OF THE BARRIER AND SHALL INCLUDE THE COST OF RENTING/OWNING THE BARRIER FOR THE TIME REQUIRED ON THE JOB PLUS HAULING TO AND FROM THE PROJECT SITE, AS WELL AS ONE PLACEMENT AND REMOVAL FROM THE ROADWAY IN ACCORDANCE WITH SECTION 704 OF THE STANDARD AND SPECIFICATION. THIS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR TEMPORARY CONCRETE BARRIER.

RELOCATE TEMPORARY CONCRETE BARRIER WILL BE PAID FOR IN FEET ALONG THE CENTERLINE OF THE BARRIER, AND WILL BE PAID FOR EACH TIME THE BARRIER IS REQUIRED BY STAGING TO BE PICKED UP AND MOVED TO A DIFFERENT LOCATION ON THE PROJECT, WHETHER IT IS TO ANOTHER LOCATION ON THE ROADWAY OR TO A STORAGE/STAGING LOCATION FOR THE PROJECT. THIS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR RELOCATE TEMPORARY CONCRETE BARRIER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY DURING CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. A MINIMUM OF 48 HOURS ADVANCE NOTICE IS REQUIRED FOR NON-EMERGENCY WORK. THE JULIE NUMBER IS 800-892-0123.

THE SSPC QP1 & QP2 CONTRACT CERTIFICATIONS WILL BE REQUIRED FOR THIS CONTRACT.

HAZARDS BEHIND TEMPORARY CONCRETE BARRIER WALL:
NO MATERIALS, EQUIPMENT, VEHICLES OR OTHER HAZARDS SHALL BE WITHIN 3'-6" OF THE TEMPORARY CONCRETE BARRIER WALL. MEASURED FROM THE CLOSEST POINT OF THE BARRIER WALL PERPENDICULAR TO THE HAZARD. EQUIPMENT THAT IS ACTIVELY WORKING WITHIN 3'-6" OF THE BARRIER WALL MAY BE ALLOWED FOR A SHORT DURATION, IF APPROVED BY THE ENGINEER, REQUIRED FOR THE WORK ACTIVITY, AND THERE IS NOT ANOTHER METHOD TO COMPLETE THE WORK.

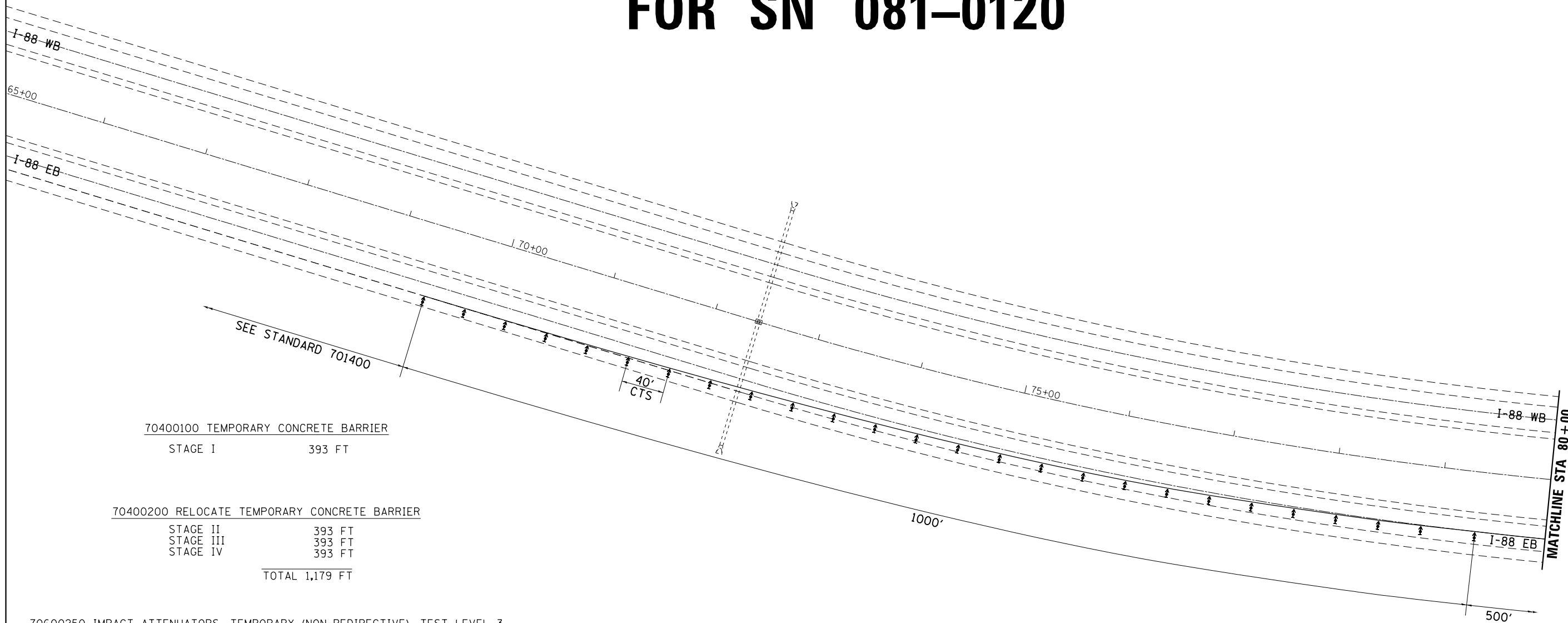
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D:\BR\Bass\Rock Island\64K16 Cleaning &	Painting SN 081-0120 & 0127\CADD\02-sht-cov	DRAWN -	REVISED -		88	D2 BRIDGE PAINTING 2015-	ROCK ISLAND	17	2				
Default	PLOT SCALE = 1/8" = 1'-0"	CHECKED -	REVISED -		CONTRACT NO. 64K16				ILLINOIS FED. AID PROJECT				
	PLOT DATE = Mon Aug 18 09:28:23 2014	DATE -	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.			

SUMMARY OF QUANTITIES

CODE NUMBER	ITEM	UNIT	100% STATE	100% STATE
			TOTAL QUANTITY <i>URBAN</i>	ROCK ISLAND COUNTY <i>URBAN</i>
67100100	MOBILIZATION	L SUM	1	1
70100207	TRAFFIC CONTROL AND PROTECTION, STANDARD 701402	EACH	4	4
70100800	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401	L SUM	1	1
70300220	TEMPORARY PAVEMENT MARKING LINE 4"	FOOT	15,160	15,160
70400100	TEMPORARY CONCRETE BARRIER	FOOT	786	786
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	2,358	2,358
70600250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2
70600350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	6	6
78300100	PAVEMENT MARKING REMOVAL	SQ FT	5,052	5,052
X5067501	BRIDGE CLEANING AND PAINTING WARRANTY NUMBER 1	L SUM	1	1
X5067502	BRIDGE CLEANING AND PAINTING WARRANTY NUMBER 2	L SUM	1	1
Z0007101	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 1	L SUM	1	1
Z0007102	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 2	L SUM	1	1
Z0010501	CLEANING AND PAINTING STEEL BRIDGE NO. 1	L SUM	1	1
Z0010502	CLEANING AND PAINTING STEEL BRIDGE NO. 2	L SUM	1	1
X7010410	<i>SPEED DISPLAY TRAILER</i>	<i>CAL MO</i>	<i>2</i>	<i>2</i>

Rev.

TRAFFIC CONTROL PLAN FOR SN 081-0120



70400100 TEMPORARY CONCRETE BARRIER
STAGE I 393 FT

70400200 RELOCATE TEMPORARY CONCRETE BARRIER
STAGE II 393 FT
STAGE III 393 FT
STAGE IV 393 FT
TOTAL 1,179 FT

70600250 IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3
STAGE I 1 EACH

70600350 IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3
STAGE II 1 EACH
STAGE III 1 EACH
STAGE IV 1 EACH
TOTAL 3 EACH

70300220 TEMPORARY PAVEMENT MARKING LINE 4"
STAGE I 1,890 FT
STAGE II 1,890 FT
STAGE III 1,890 FT
STAGE IV 1,890 FT
TOTAL 7,560 FT

78300100 PAVEMENT MARKING REMOVAL
STAGE I 630 SQ FT
STAGE II 630 SQ FT
STAGE III 630 SQ FT
STAGE IV 630 SQ FT
TOTAL 2,520 SQ FT

SYMBOLS

- Arrow board
- Work area
- Sign
- Direction indicator barricade with steady burn monodirectional light
- Type II barricade or drum with steady burn monodirectional light
- Temporary concrete barrier
- Monodirectional barrier wall/guardrail marker
- Impact attenuator
- Drums with steady burning monodirectional light

NOTES

- ① Refer to State Standards 701400, 701401, 701402 and 704001.
- ② ReflectORIZED temporary pavement marking shall be placed throughout the taper and along-side the work area. The edge line shall be white for right lane closure and yellow for left lane closures.

FILE NAME =	USER NAME = dossed	DESIGNED - _____	REVISED - 8-18-2014 DD
Default	Painting SN 081-0120 & 0127\CADD\02-shr-cov	DRAWN - _____	REVISED - _____
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	PLOT DATE = Mon Aug 18 10:39:02 2014	DATE - _____	REVISED - _____

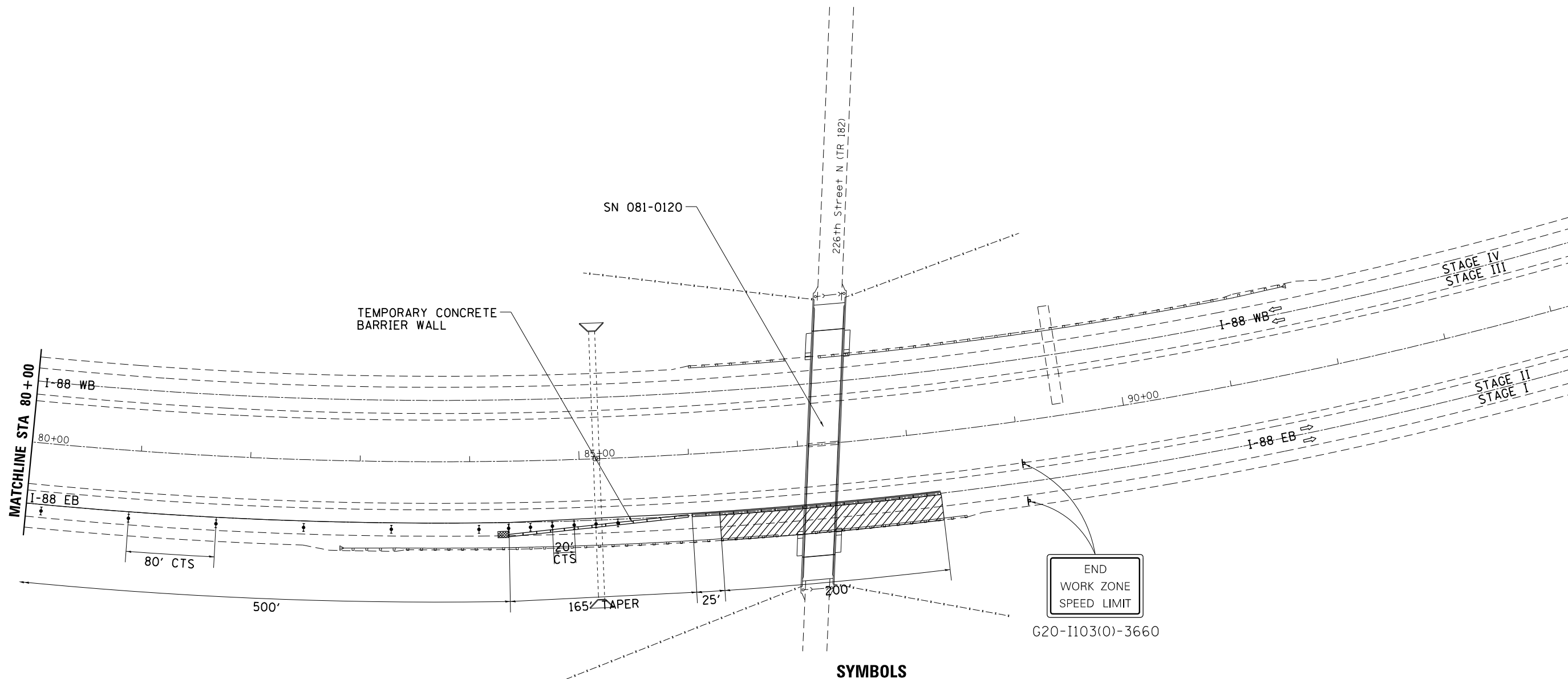
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL PLAN FOR SN 081-0120
STAGES I, II, III, IV**

SCALE: _____ SHEET _____ OF _____ SHEETS STA. _____ TO STA. _____

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
88	D2 BRIDGE PAINTING 2015-I	ROCK ISLAND	17	4
CONTRACT NO.			64K16	
ILLINOIS FED. AID PROJECT				

TRAFFIC CONTROL PLAN FOR SN 081-0120



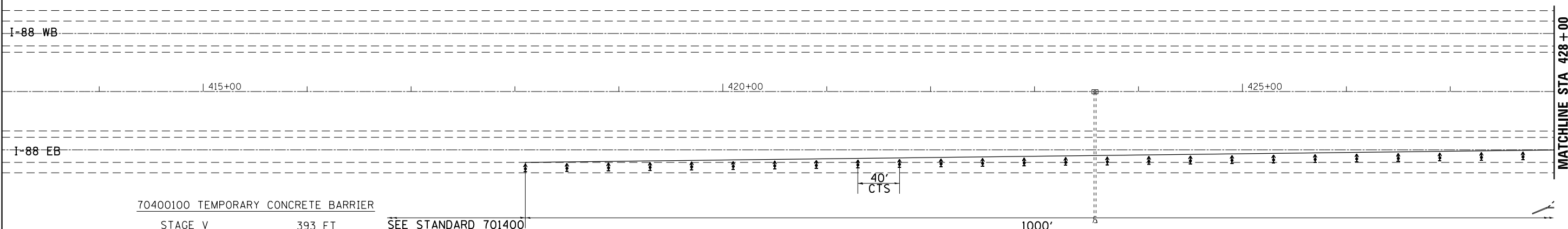
END
WORK ZONE
SPEED LIMIT
G20-1103(0)-3660

NOTES

- ① Refer to State Standards 701400, 701401, 701402 and 704001.
- ② ReflectORIZED temporary pavement marking shall be placed throughout the taper and along-side the work area. The edge line shall be white for right lane closure and yellow for left lane closures.

FILE NAME =	USER NAME = dssdd	DESIGNED - _____	REVISED - 8-18-2014 DD	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL PLAN FOR SN 081-0120 STAGES I, II, III, IV	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
Q:\BR\Oss\Rock Island\64K16 Cleaning & Painting SN 081-0120 & 0127\CADD\02-shr-cover	DRAWN - _____	REVISOR - _____	REVISOR - _____			88	D2 BRIDGE PAINTING 2015-I	ROCK ISLAND	17	5	
Default	PLOT SCALE = 100.0000' / in.	CHECKED - _____	REVISOR - _____			CONTRACT NO. 64K16					
	PLOT DATE = Mon Aug 18 10:39:22 2014	DATE - _____	REVISOR - _____			ILLINOIS FED. AID PROJECT					

TRAFFIC CONTROL PLAN FOR SN 081-0127



70400100 TEMPORARY CONCRETE BARRIER
STAGE V 393 FT SEE STANDARD 701400

70400200 RELOCATE TEMPORARY CONCRETE BARRIER
STAGE VI 393 FT
STAGE VII 393 FT
STAGE VIII 393 FT
TOTAL 1,179 FT

70600250 IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3
STAGE V 1 EACH

70600350 IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3
STAGE VI 1 EACH
STAGE VII 1 EACH
STAGE VIII 1 EACH
TOTAL 3 EACH

70300220 TEMPORARY PAVEMENT MARKING LINE 4"
STAGE V 1,900 FT
STAGE VI 1,900 FT
STAGE VII 1,900 FT
STAGE VIII 1,900 FT
TOTAL 7,600 FT

78300100 PAVEMENT MARKING REMOVAL
STAGE V 633 SQ FT
STAGE VI 633 SQ FT
STAGE VII 633 SQ FT
STAGE VIII 633 SQ FT
TOTAL 2,532 SQ FT

SYMBOLS

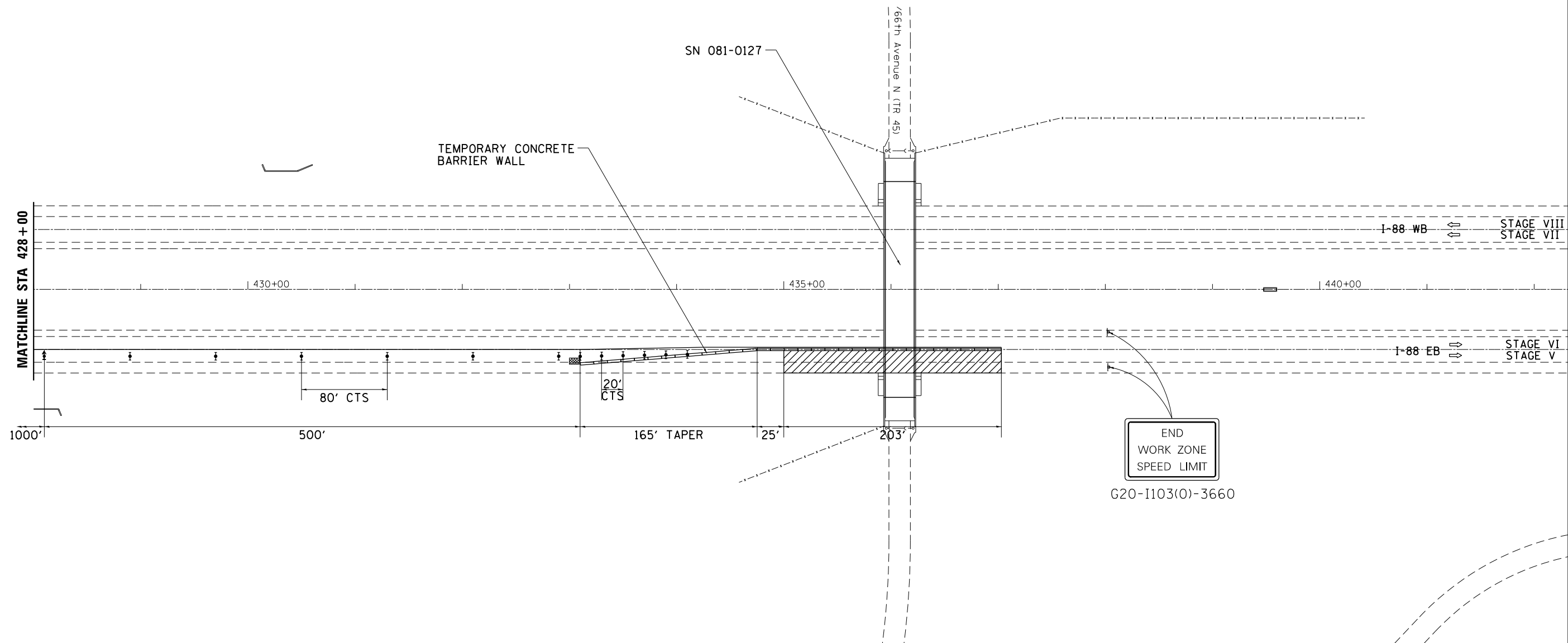
- Arrow board
- Work area
- Sign
- Direction indicator barricade with steady burn monodirectional light
- Type II barricade or drum with steady burn monodirectional light
- Temporary concrete barrier
- Monodirectional barrier wall/guardrail marker
- Impact attenuator
- Drums with steady burning monodirectional light

NOTES

- ① Refer to State Standards 701400, 701401, 701402 and 704001.
- ② ReflectORIZED temporary pavement marking shall be placed throughout the taper and along-side the work area. The edge line shall be white for right lane closure and yellow for left lane closures.

FILE NAME =	USER NAME = dossed	DESIGNED -	REVISED - 8-18-2014 DD	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL PLAN FOR SN 081-0127 STAGES V, VI, VII, VIII	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
Default	Painting SN 081-0120 & 0127\CADD\02-shr-cover	DRAWN -	REVISED -			88	D2 BRIDGE PAINTING 2015-1	ROCK ISLAND	17	6	
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -			CONTRACT NO. 64K16					
	PLOT DATE = Mon Aug 18 10:39:36 2014	DATE -	REVISED -			ILLINOIS FED. AID PROJECT					

TRAFFIC CONTROL PLAN FOR SN 081-0127



SYMBOLS

- ↑ Arrow board
- ▨ Work area
- T Sign
- ↑ Direction indicator barricade with steady burn monodirectional light
- ⊕ Type II barricade or drum with steady burn monodirectional light
- Temporary concrete barrier
- ◁ Monodirectional barrier wall/guardrail marker
- ▣ Impact attenuator
- Drums with steady burning monodirectional light

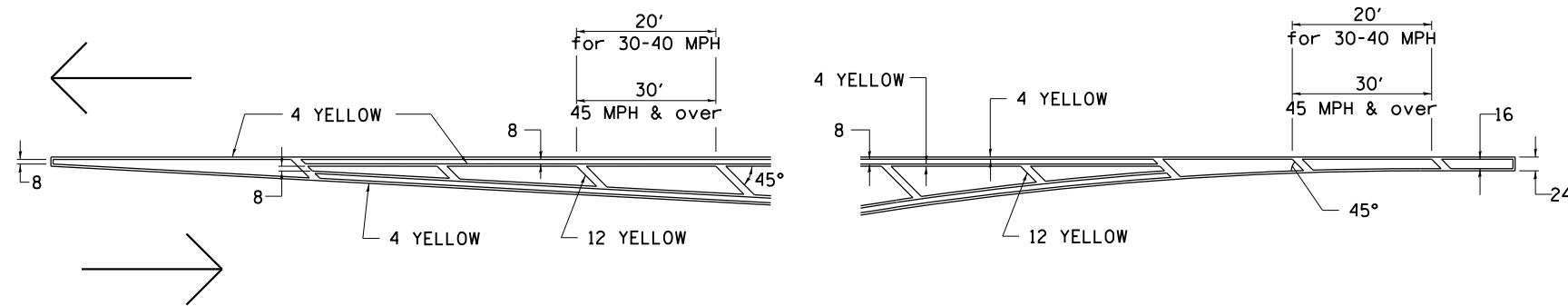
NOTES

- ① Refer to State Standards 701400, 701401, 701402 and 704001.
- ② ReflectORIZED temporary pavement marking shall be placed throughout the taper and along-side the work area. The edge line shall be white for right lane closure and yellow for left lane closures.

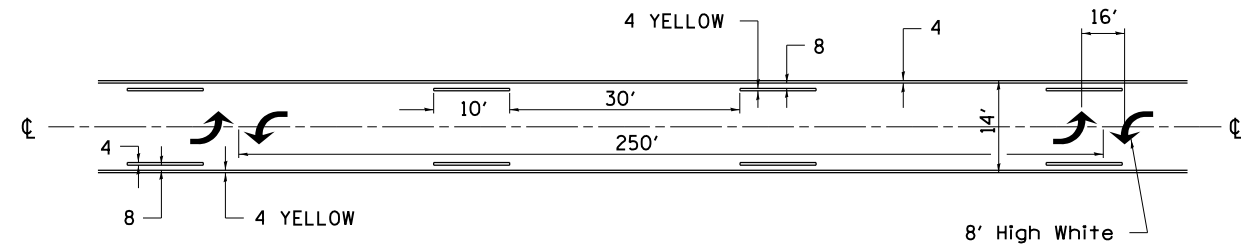
FILE NAME =	USER NAME = dssdd	DESIGNED - _____	REVISED - 8-18-2014 DD	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL PLAN FOR SN 081-0127 STAGES V, VI, VII, VIII	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Q:\BR\Oss\Rock Island\64K16 Cleaning & Painting SN 081-0120 & 0127\CADD\02-sht-cover	DRAWN - _____	REVISIED - _____	REVISIED - _____			88	D2 BRIDGE PAINTING 2015-I	ROCK ISLAND	17	7
Default	PLOT SCALE = 100.0000' / in.	CHECKED - _____	REVISIED - _____			CONTRACT NO. 64K16			ILLINOIS FED. AID PROJECT	
	PLOT DATE = Mon Aug 18 10:39:51 2014	DATE - _____	REVISIED - _____			SCALE: _____	SHEET _____	OF _____	SHEETS	STA. _____

TYPICAL PAVEMENT MARKINGS

TYPICAL PAVEMENT MARKING FOR FLUSH MEDIAN AT LEFT TURN LANE

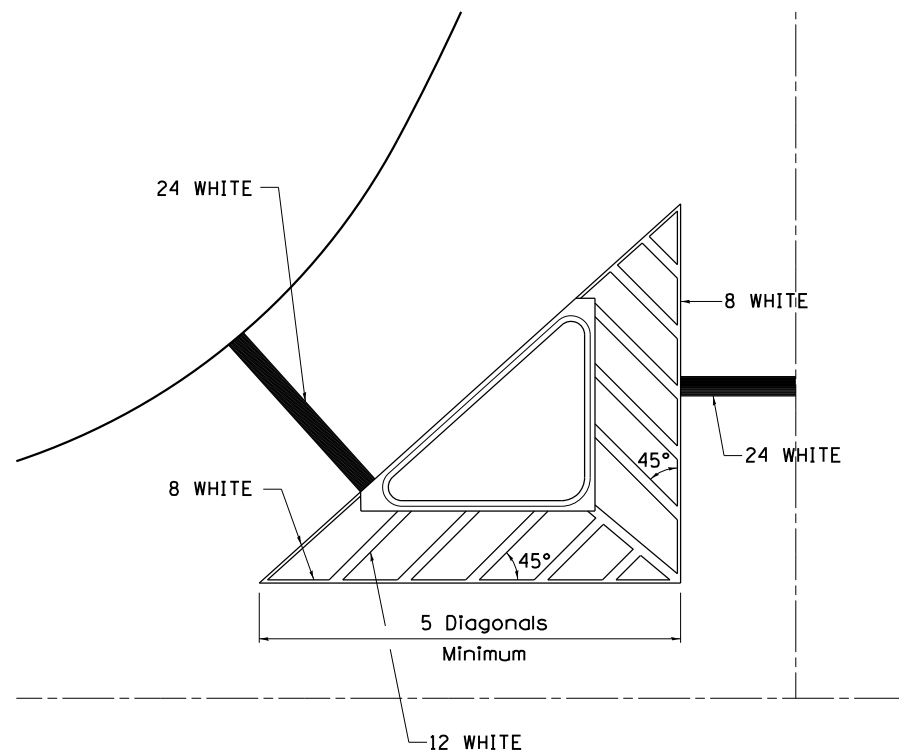


MEDIAN PAVEMENT MARKING



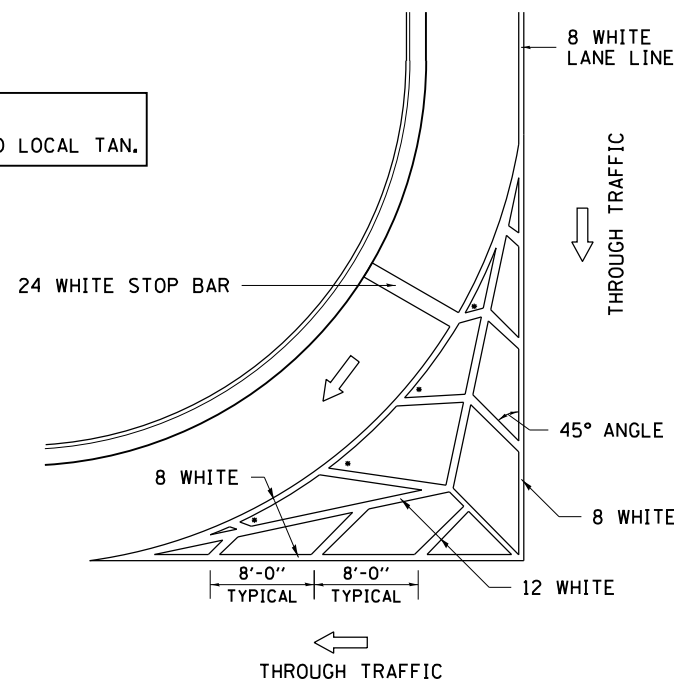
•• ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

TYPICAL ISLAND OFFSET SHOULDER WIDTH



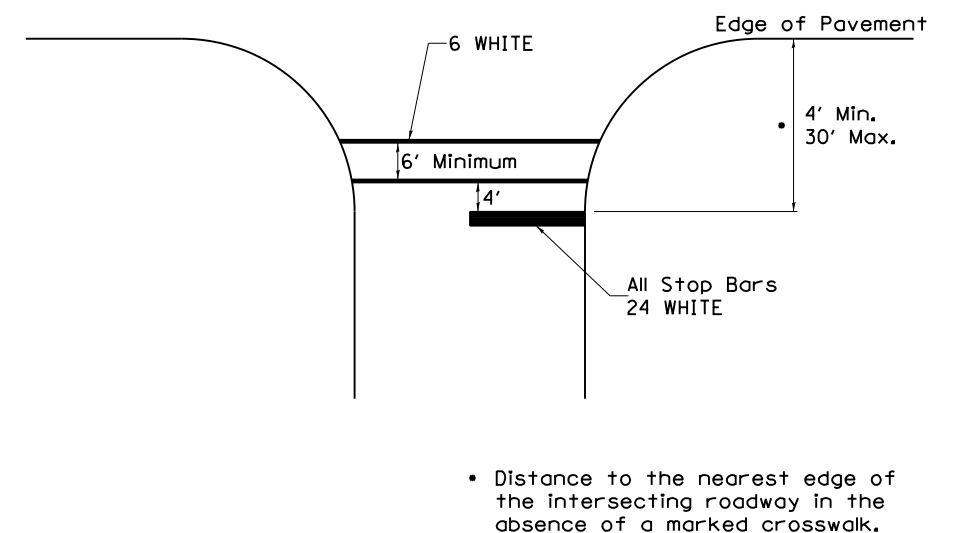
TYPICAL MARKING FOR PAINTED ISLANDS

NOTE:
* 45° TO LOCAL TAN.



STANDARD CROSSWALK MARKING

See Schedules for Locations

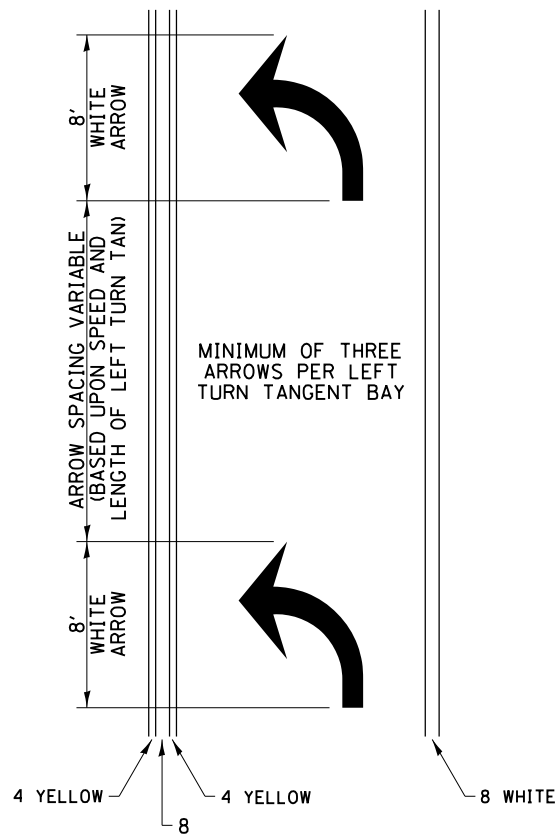


• Distance to the nearest edge of the intersecting roadway in the absence of a marked crosswalk.

FILE NAME =	USER NAME = dssdd	DESIGNED -	REVISED - 6-27-14	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	REGION 2 / DISTRICT 2 STANDARD		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
D:\BR\Draws\Rock Island\64K16 Cleaning & Painting SN 081-0120 & 0127\CADD\02-shr-cover	DRAWN -	REVISED - 3-05-12	88				D2 BRIDGE PAINTING 2015-1	ROCK ISLAND	17	8	
PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -	CONTRACT NO. 64K16								
PLOT DATE = Wed Aug 06 11:16:15 2014	DATE -	REVISED -	FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT								

TYPICAL PAVEMENT MARKINGS

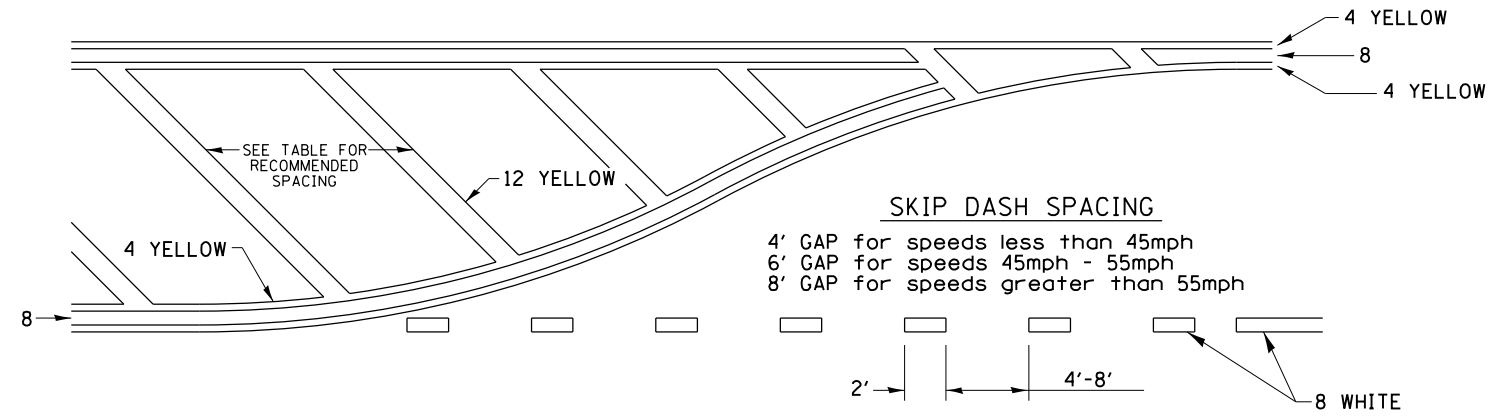
ARROW LAYOUT



- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER
- ◆ TWO-WAY AMBER MARKER

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

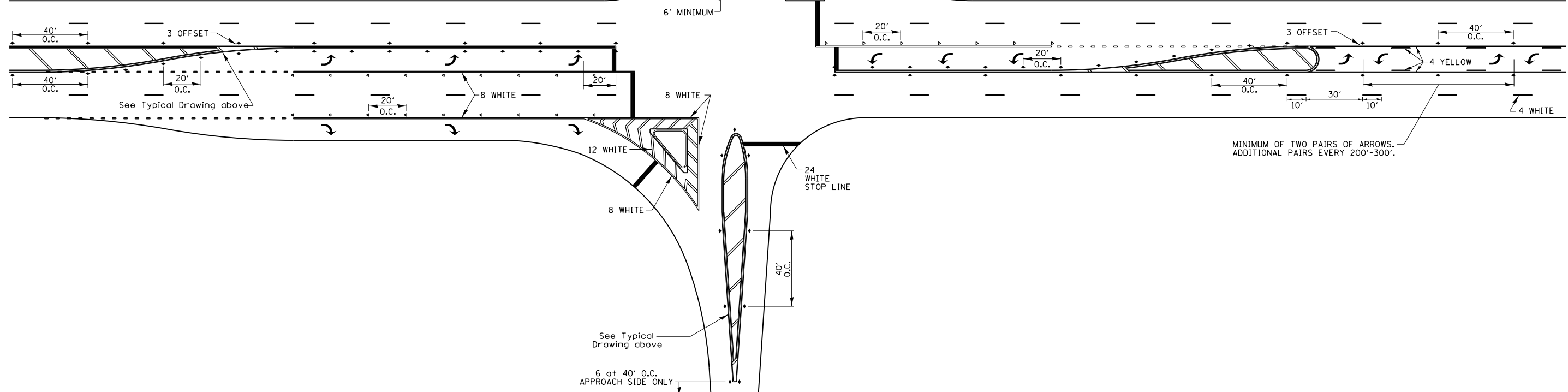
TYPICAL PAVEMENT MARKING FOR FLUSH MEDIAN



RECOMMENDED SPACING BETWEEN DIAGONALS (IN FEET)

Speed Limit Range	Continuous Median Area	Intersection Channelization	Objects (Islands)
less than 30MPH	50'	15'	10'
30-40MPH	75'	20'	15'
45MPH & over	75'	30'	20'

NOTE: if the spacing recommended in the Table does not permit at least five diagonal lines in the area being marked, the spacing from the next lowest speed range should be used. The recommended spacing is measured parallel to the pavement center line.



FILE NAME =	USER NAME = dosddd	DESIGNED -	REVISED - 6-27-14
D:\BR\Draws\Rock Island\64K16 Cleaning &	Painting SN 081-0120 & 0127\CADD\02-sht-cover	DRAWN -	REVISED - 3-05-12
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	PLOT DATE = Wed Aug 06 11:16:34 2014	DATE -	REVISED -

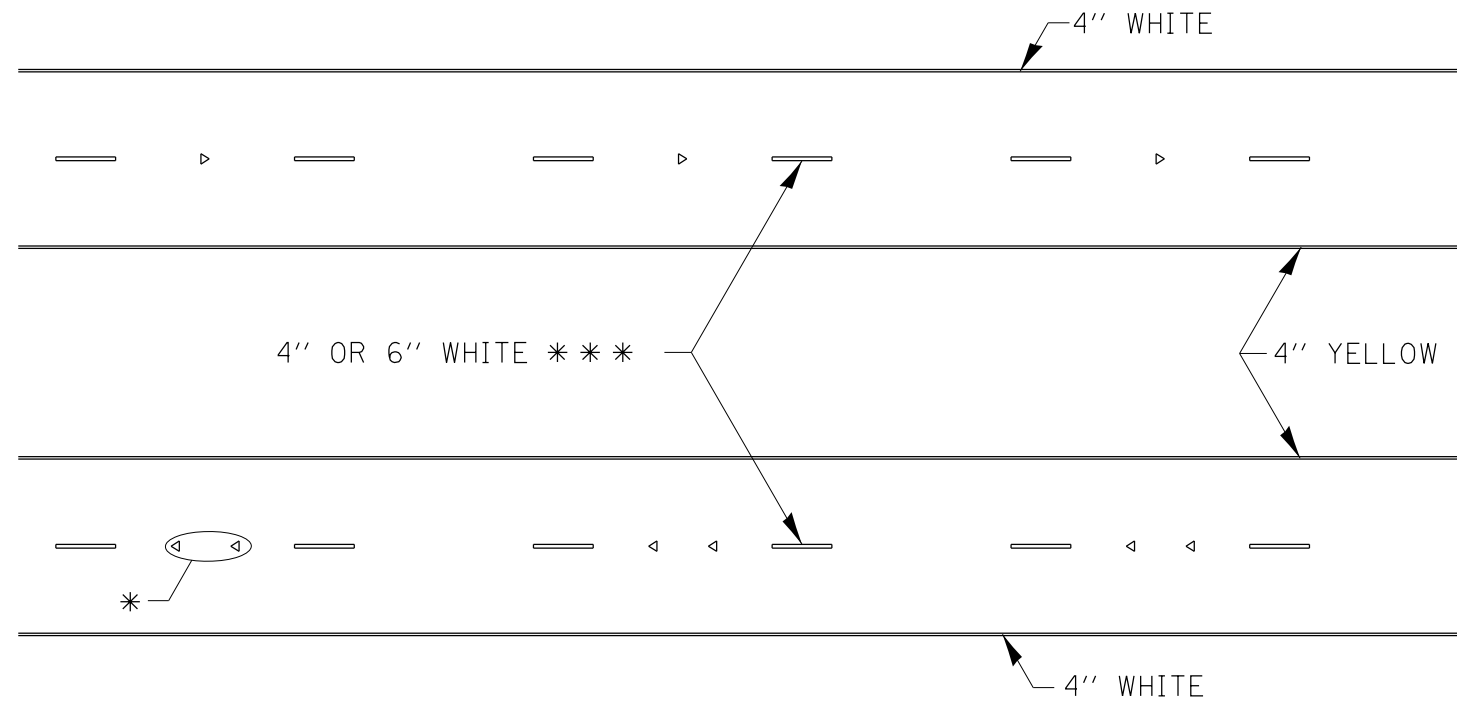
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REGION 2 / DISTRICT 2 STANDARD

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

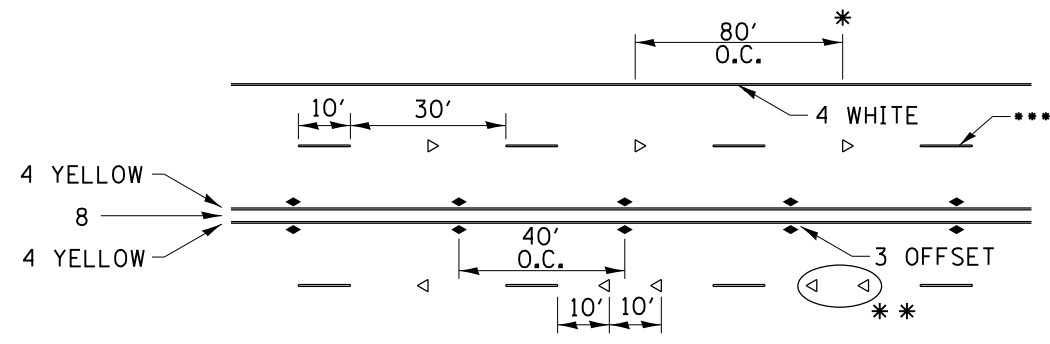
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
88	D2 BRIDGE PAINTING 2015-1	ROCK ISLAND	17	9
CONTRACT NO. 64K16			FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT	

TYPICAL PAVEMENT MARKINGS



* SEE HIGHWAY STANDARD 781001 FOR SPACING DETAILS.
USE DOUBLE MARKERS WHEN ADT > 20,000.

MULTI-LANE / DIVIDED



* REDUCE TO 40' O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 MPH LOWER THAN POSTED SPEEDS.

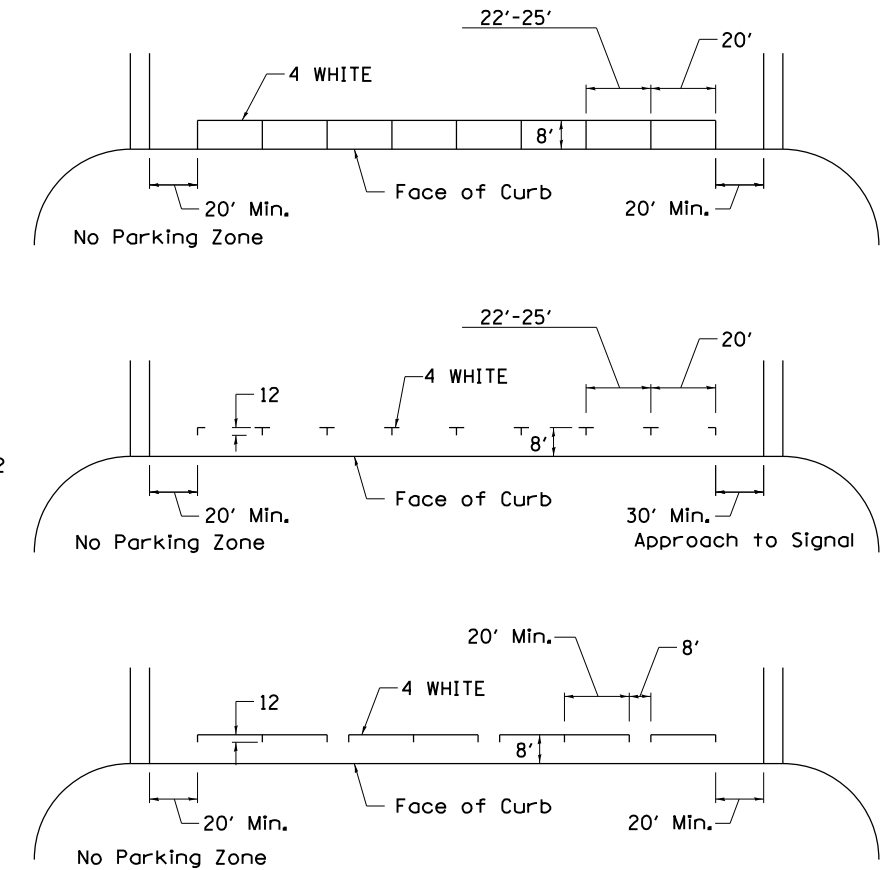
** USE DOUBLE MARKERS WHEN ADT ≥ 20,000

*** CENTERLINE SKIP DASH PAVEMENT MARKING SPEED LIMIT LESS THAN 40 MPH USE 4" LINE. SPEED LIMIT 40 MPH AND OVER USE 6" LINE.

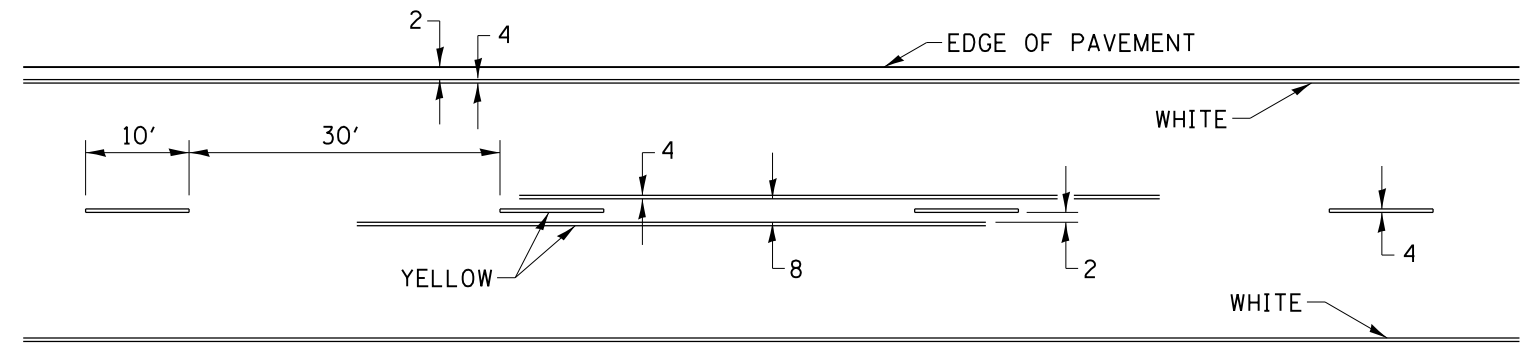
MULTI-LANE / UNDIVIDED & ONE WAY

(FOR MULTI-LANE UNDIVIDED HIGHWAYS USE THIS DETAIL NOT HIGHWAY STANDARD 781001)

TYPICAL PARKING SPACING



TYPICAL PAVEMENT MARKING FOR TWO LANE SECTION – NO PASSING ZONES



SYMBOLS

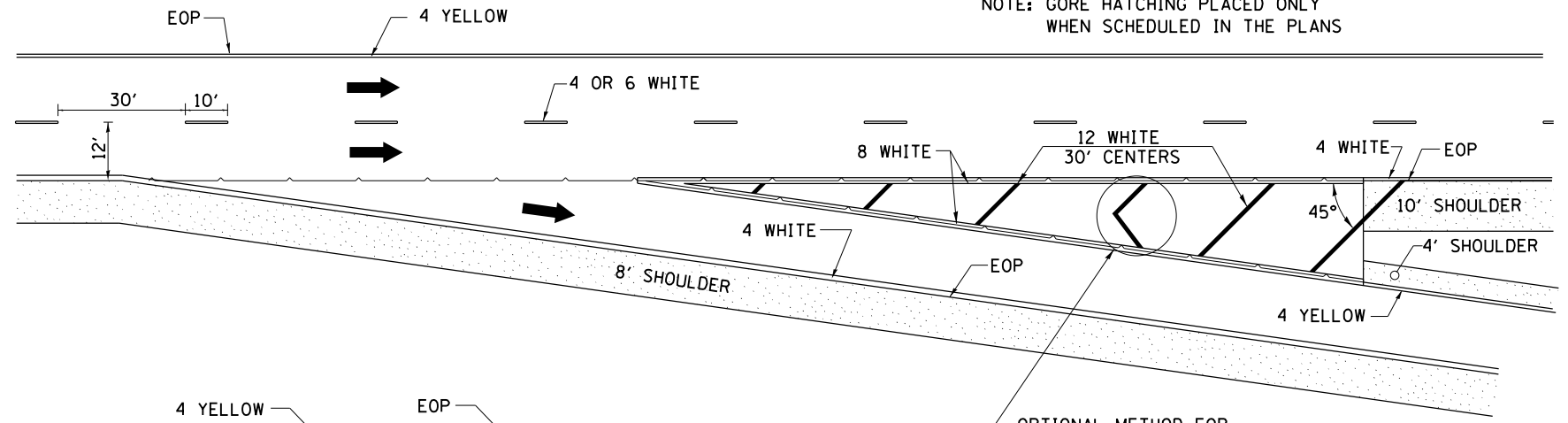
FILE NAME =	USER NAME = dssdd	DESIGNED -	REVISED - 6-27-14	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	REGION 2 / DISTRICT 2 STANDARD	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
D:\BR\Bass\Rock Island\64K16 Cleaning & Painting SN 081-0120 & 0127\CADD\02-shr-cover	DRAWN -	REVISED - 8-27-13	88			D2 BRIDGE PAINTING 2015-	ROCK ISLAND	17	10	
PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED - 11-28-12	CONTRACT NO. 64K16							
PLOT DATE = Wed Aug 06 11:16:47 2014	DATE -	REVISED -	FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT							

PAINING DETAILS

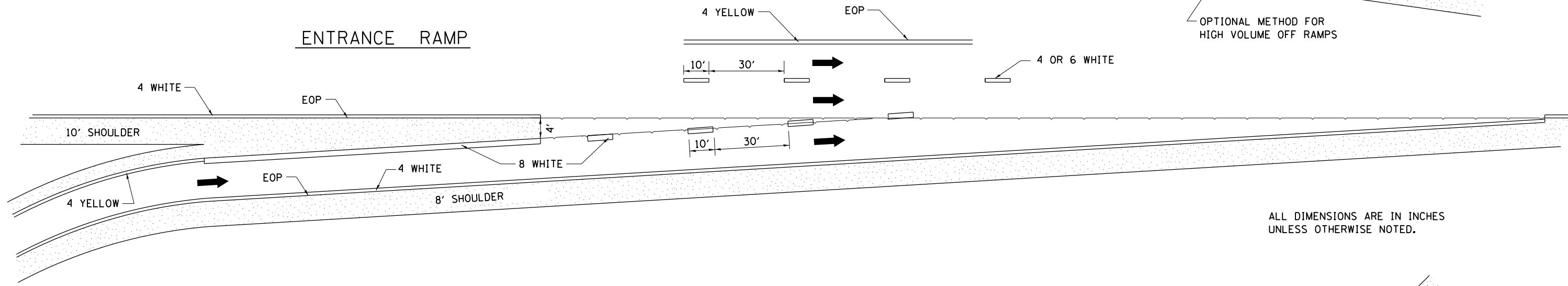
CENTERLINE SKIP DASH PAVEMENT MARKING WIDTH SHALL BE 4" WHEN THE POSTED SPEED LIMIT IS UNDER 40 MPH AND 6" WHEN THE POSTED SPEED LIMIT IS 40 MPH AND OVER.

EXIT RAMP

NOTE: GORE HATCHING PLACED ONLY WHEN SCHEDULED IN THE PLANS

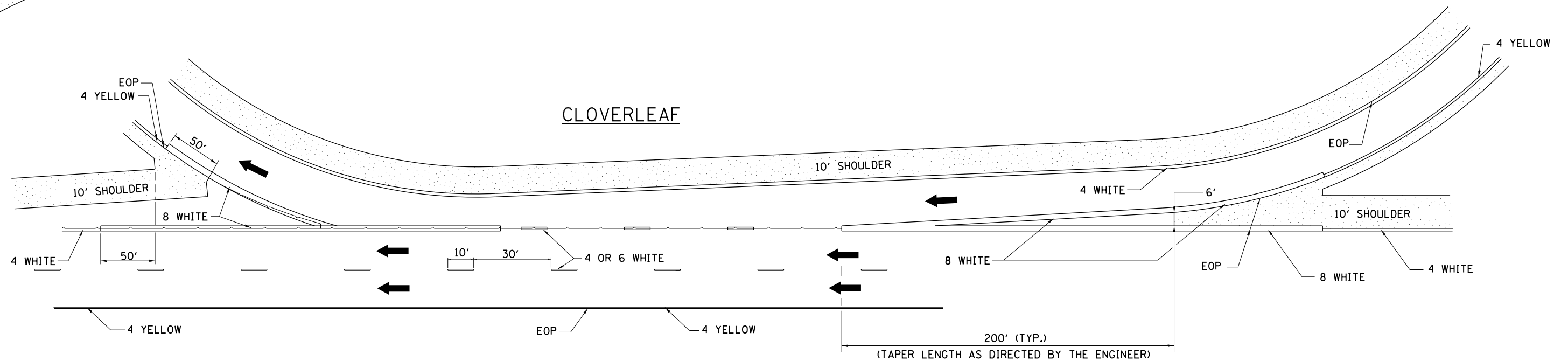


ENTRANCE RAMP



ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

CLOVERLEAF



FILE NAME =	USER NAME = dssdd	DESIGNED -	REVISED - 8-27-13
D:\BR\Draw\Rock Island\64K16 Cleaning & Painting	SN 081-0120 & 0127\CADD\02-shr-cover	DRAWN -	REVISED - 10-18-11
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	PLOT DATE = Wed Aug 06 11:17:02 2014	DATE -	REVISED -

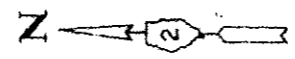
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REGION 2 / DISTRICT 2 STANDARD

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
88	D2 BRIDGE PAINTING 2015-1	ROCK ISLAND	17	11
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT			CONTRACT NO. 64K16	

B.M. RR Spike in PP opposite
Sta. 56+67.4, 250' right
E1 577.19



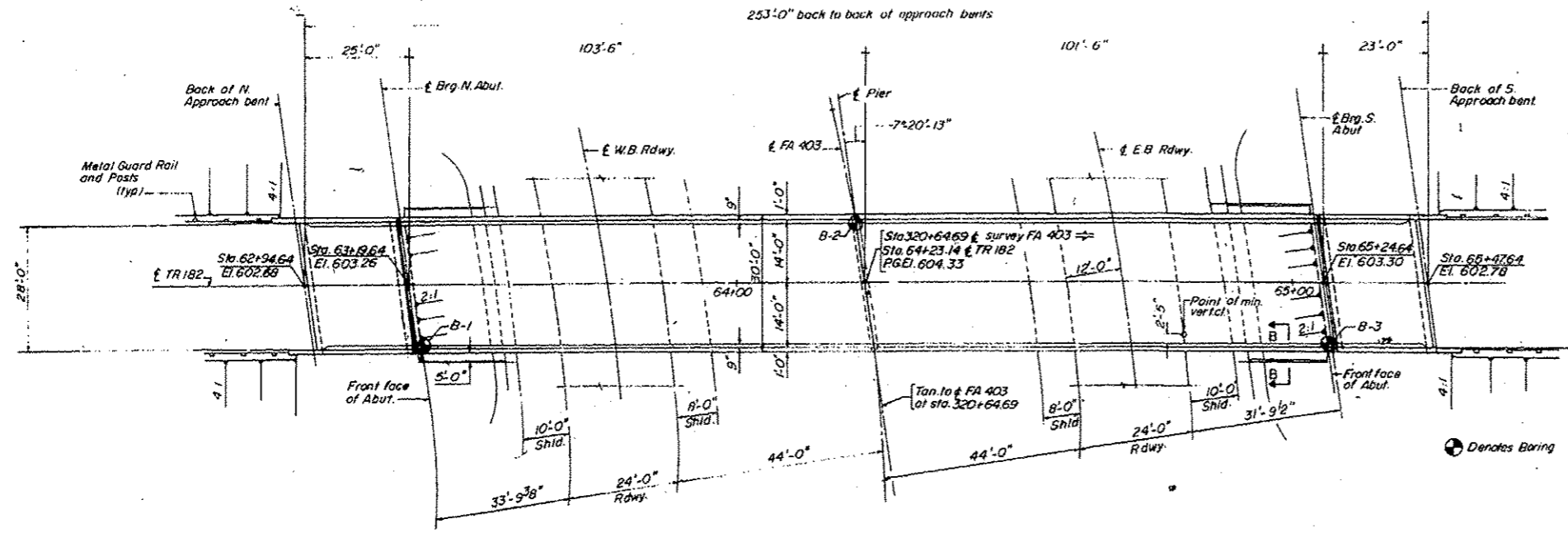
CURVE DATA

PI Sta. 317+67.26
 $\Delta = 33^\circ 44' 23''$
 $D = 1.30'$
 $R = 3819.72'$
 $T = 1150.32'$
 $L = 2249.31'$
 $E = 171.77'$
 $e = 0.052 \%$

PROJECT NO.	SECTION	SHEET	TOTAL SHEETS	SHEET NO.	SHEET NO.
403	161	ROCK ISLAND	545	230	15 SHEETS

GENERAL NOTES:

- All Reinforcement bars shall be lapped 24 diameters unless otherwise shown.
- Field connections shall be bolted using high strength bolts. Bolts $3/4"$ ϕ , open holes $1/16"$ ϕ , unless otherwise noted.
- The main load carrying member components subject to the Supplemental Requirements for Notch Toughness are the flanges, webs, and splice plates of the steel girders or wide flange beams.
- The basic lead silica chromate paint system shall be used for shop and field painting of structural steel.
- Field welding of construction accessories will not be permitted to the bottom of flange of beams or girders nor to the top flange for a distance equal to one-fourth the span length each way from the pier supports. Field welding in other areas will be permitted only when approved by the engineer.
- Anchor bolts shall be set before riveting or bolting cross frames over supports.
- Slope wall shall be reinforced with welded wire fabric 6"x6" Mesh weighing 58# per 100 Sq. Ft.
- The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.
- The contractor shall drive three test piles in a permanent location. One each at the north and south abutments and pier as directed by the engineer before ordering the remainder of the piles.
- Concrete piles at abutment & approach bents shall be driven in holes prepared through the embankment in accordance with art. 513.09 (C) of the standard specifications.
- The concrete rail section above the mandatory const. joint at the top of the slab shall be constructed of class X concrete, except the aggregates shall conform to the requirements of handrail concrete.
- Protective coat shall not be applied to surfaces to which waterproofing membrane syst. is applied.
- Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\pm 1/8$ inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two $1/8"$ adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims.



PLAN

DESIGN NOTES:

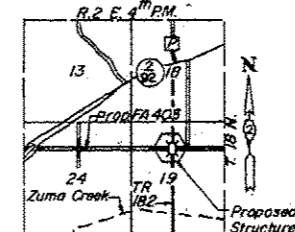
DESIGN LOADINGS:
 HS 15-44 and allowance for 25 P.S.F. Future wearing surface

DESIGN STRESSES:

$f_c = 1400$ P.S.I. Except as follows:
 $f_c = 1200$ P.S.I. For Deck Slab.
 $f_c = 1000$ P.S.I. For conc. in contact with earth.
 $f_s = 20,000$ P.S.I. M41 Structural Steel.
 $f_s = 20,000$ P.S.I. Reinforcement Steel.
 $v = 75$ P.S.I. allowable shear in footings.
 $n = 10$
 Allowable live load deflection = $L/1200$ (Composite)
 DESIGN SPECIFICATIONS: AASHTO 1969 as applicable.

STATION 320+64.69
 BUILT IN BY
 STATE OF ILLINOIS
 FA 403 SECTION 161-IHB-1
 FA PROJ. EBRF-403-1(7)
 LOADING HS 15

NAME PLATE
 SEE STD. 2113



LOCATION MAP

TOTAL BILL OF MATERIAL				
ITEM	UNIT	SUPER STRUCT.	SUB STRUCT.	TOTAL
Protective coat	Sq. Yds.	208.0	—	208.0
Class X Concrete	Cu. Yds.	263.8	195.7	459.5
Structural Steel	L. Sum.	0.12	—	0.12
Aluminum Railing	Lin. Ft.	496.0	—	496.0
Reinforcement bars	Lbs.	61,920	22,330	84,250
Stud Shear Connectors	Each	1248	—	1248
Concrete Piles	Lin. Ft.	—	1982	1982
Test Piles (Concrete)	Each	—	3	3
Name Plates	Each	—	1	1
Slope walls (4")	Sq. Yds.	—	248.0	248.0
Bit. Conc. Surface Course Class I	Tons	63.0	—	63.0
Waterproofing Mem. System	Sq. Yds.	742.0	—	742.0
Sand Backfill	Cu. Yds.	—	221.0	221.0
Preformed Jt. Sealer	Liq. Ft.	61	—	61
Permanent B.M. Type I	Each	1	—	1

* Calculated Weight of Structural Steel = 193,150 Lbs.

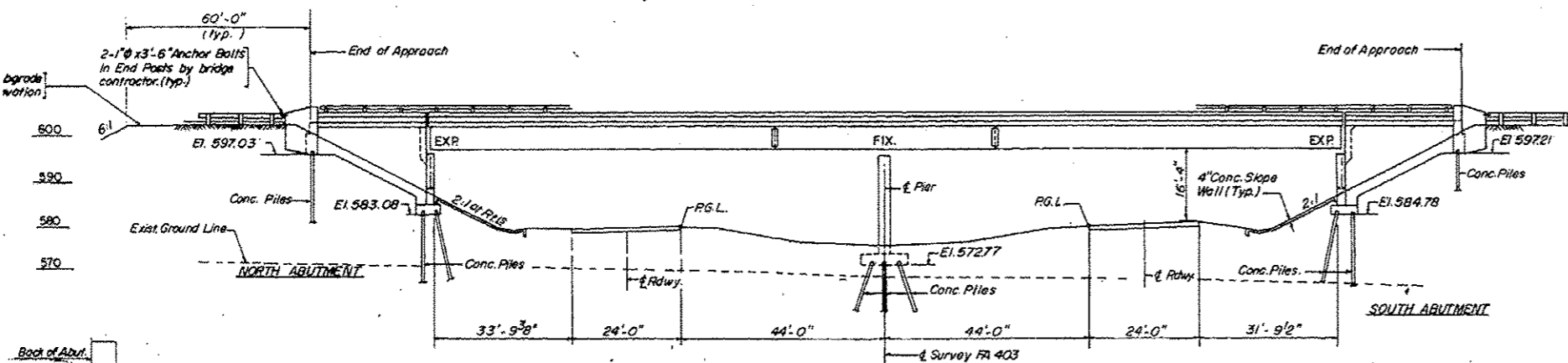
APPROVED
 FOR STRUCTURAL ADEQUACY ONLY

GENERAL PLAN & ELEVATION

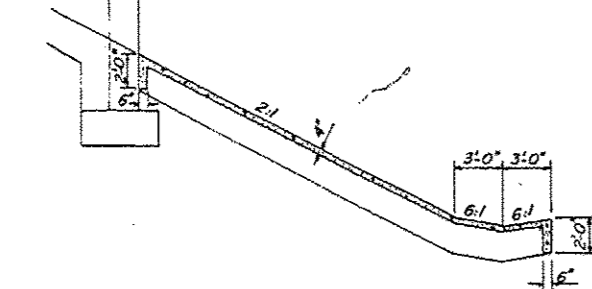
FA 403 SECTION 161-IHB-1
 FA 403 UNDER TR 182
 ROCK ISLAND COUNTY

FOR INFORMATION ONLY

STATION 320+64.69

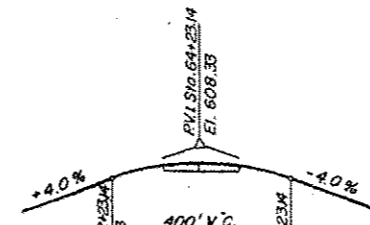


ELEVATION

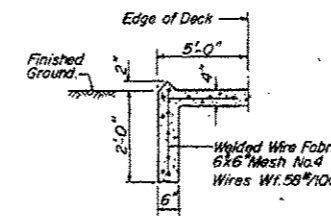


SECTION THRU SLOPEWALL AT ABUT.

PROFILE FA 403 ALONG & SURVEY



PROFILE T.R. 182
 Top of Class I

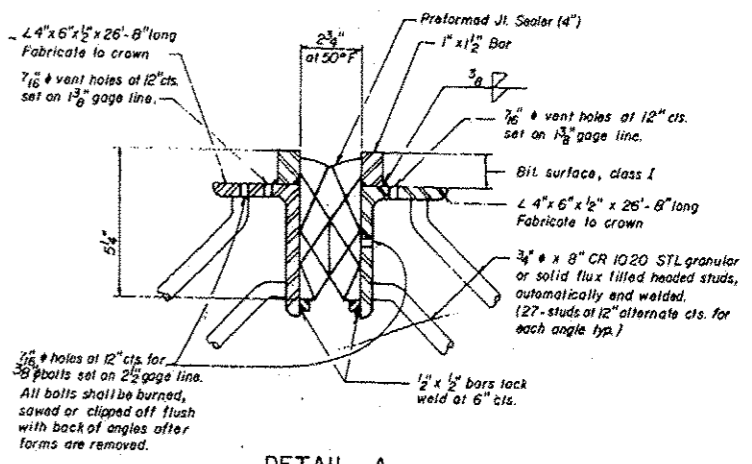
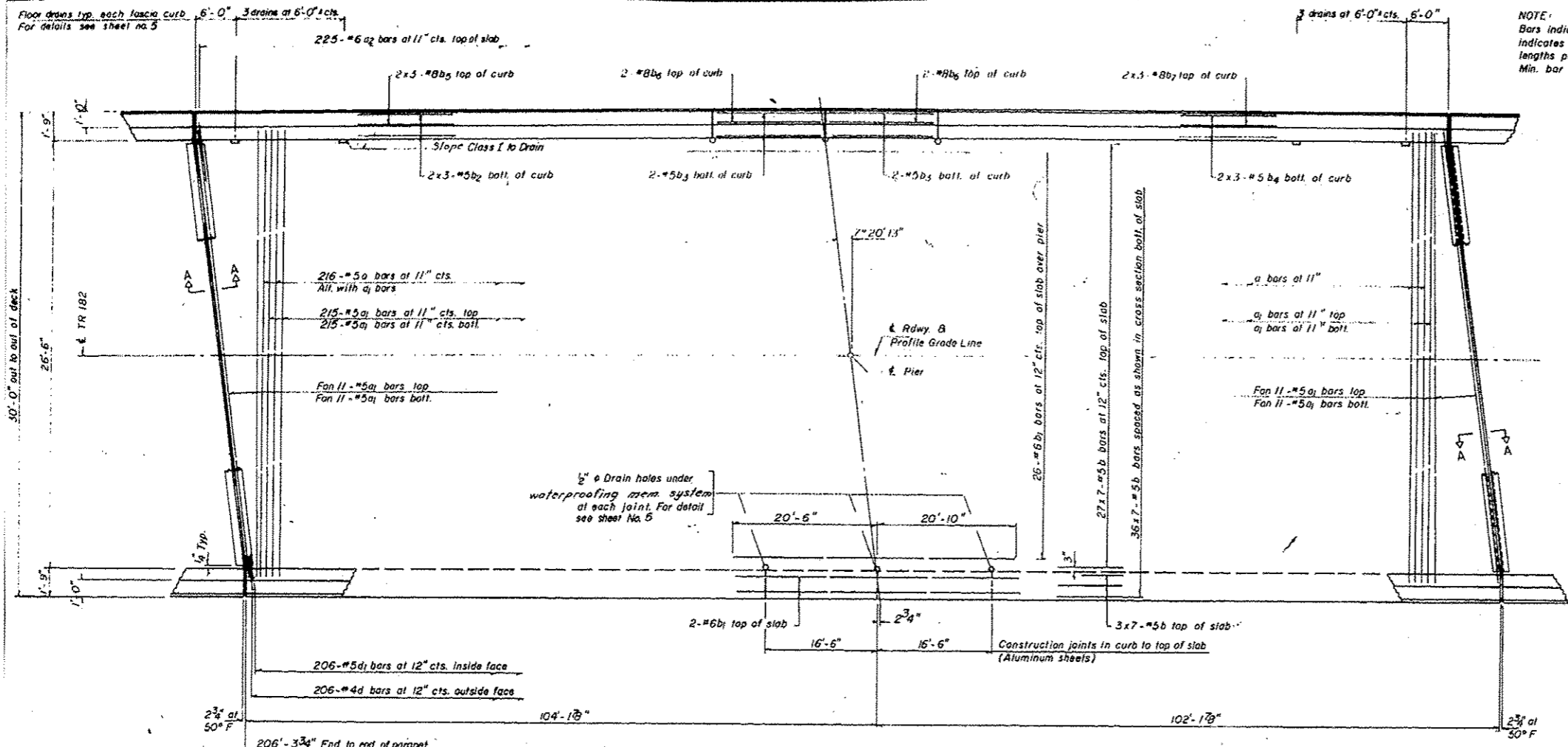


SECTION B-B

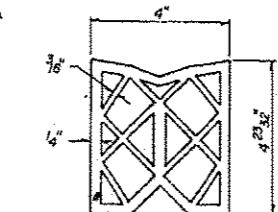
DESIGNED	B.T.M.
CHECKED	D.M.P.
DRAWN	A.M.
CHECKED	D.M.P.

FILE NAME:	USER NAME: drossdd	DESIGNED:	REVISION:	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING PLANS SN 081-0120	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0:\DR\Dross\Rock Island\64K16 Cleaning & Painting SH 881-8120 & 8127\CA00\02-shr-co	08/11/2014	08/11/2014	08/11/2014			88	B2 BRIDGE PAINTING 2015-	ROCK ISLAND	17	12
Default	PLOT SCALE = 1/20,000 1" = 200'	CHECKED:	REVISION:							
	PLOT DATE = Wed Aug 06 11:47:11 2014	DATE:	REVISION:			SCALE:	SHEET	OF	SHEETS	STA. TO STA.
										ILLINOIS FED. AID PROJECT

NOTE:
 Bars indicated thus 27 x 7 = 5 etc
 indicates 27 lines of bars with 7
 lengths per line.
 Min. bar laps = 24 dia.



DETAIL A
 Scale 3" = 1'-0"

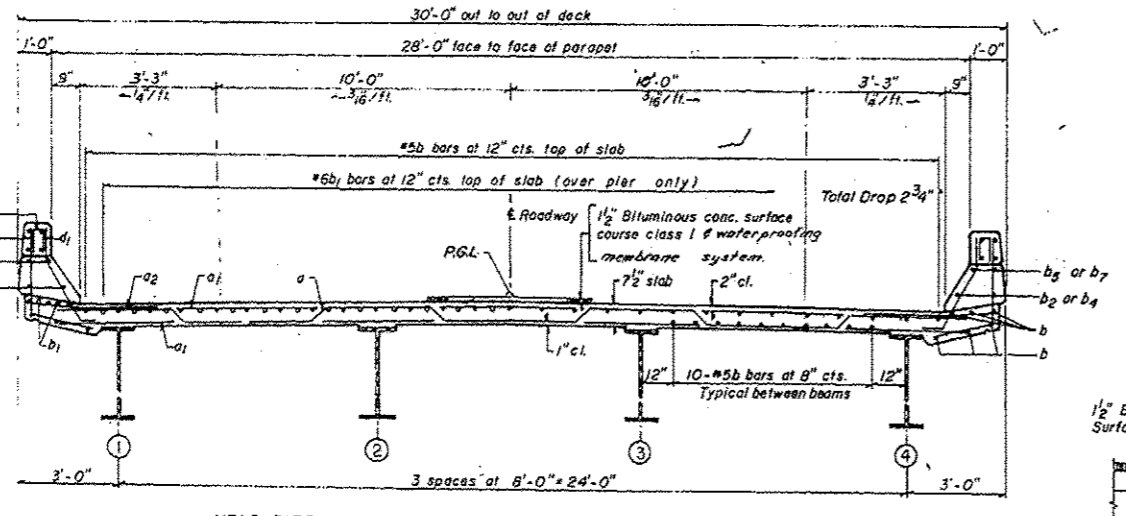


BILL OF MATERIAL

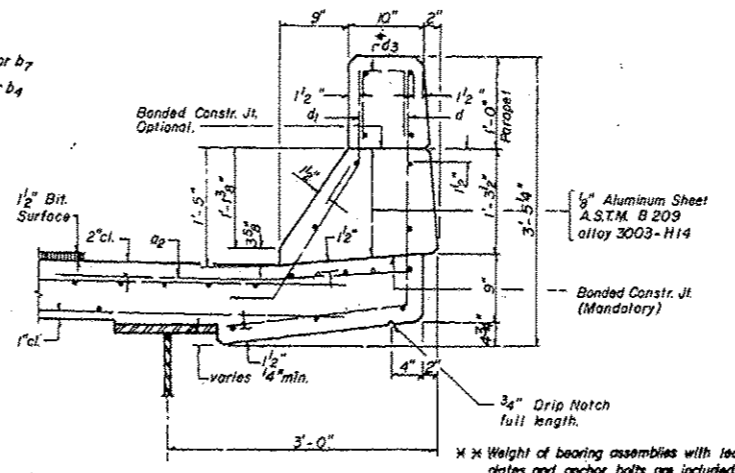
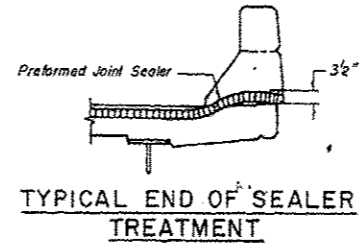
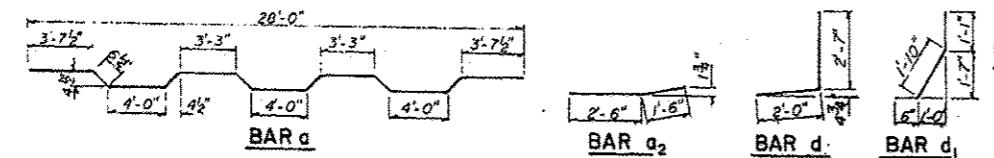
BAR	NO.	SIZE	LENGTH	SHAPE	
a	216	# 5	29'-0"	~	
a1	476	# 5	28'-0"	~	
a2	450	# 6	4'-0"	~	
b	483	# 5	30'-6"	~	
b1	30	# 6	41'-4"	~	
b2	12	# 5	29'-11"	~	
b3	8	# 5	16'-3"	~	
b4	12	# 5	29'-3"	~	
b5	12	# 8	30'-5"	~	
b6	8	# 8	16'-3"	~	
b7	12	# 8	29'-9"	~	
d	412	# 4	4'-2"	~	
d1	412	# 5	3'-5"	~	
				Reinforcement Bars	Lbs. 46,250
				Class X Concrete	Cu. Yds. 192.6
				Structural Steel	Lbs. 150830
				Protective Coat	Sq. Yds. 460.0
				Bituminous Concrete Surface Course Class I	Tons 51
				Waterproofing Membrane System	Sq. Yds. 608.0
				Preformed Jt. Sealer 4"	Lin. Ft. 61

* Parapet Reinforcement and class X Concrete are billed on SH. No. 5

DECK PLAN

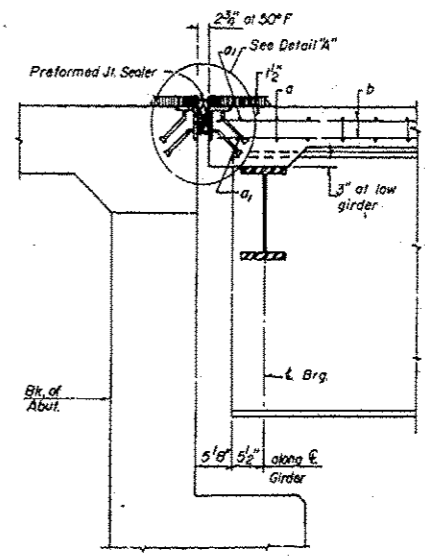


CROSS SECTION
 LOOKING SOUTH



CURB SECTION

Cost of Aluminum Sheets and Drains shall be incidental to Class X Concrete.



SECTION A-A

DECK DETAILS

FA 403 SECTION 161-1HB-1
 FA 403 UNDER TR 182
 ROCK ISLAND COUNTY
 STATION 320+64.69

FOR INFORMATION ONLY

DESIGNED P.B.
 CHECKED A.A.
 DRAWN G.G.
 CHECKED A.A.

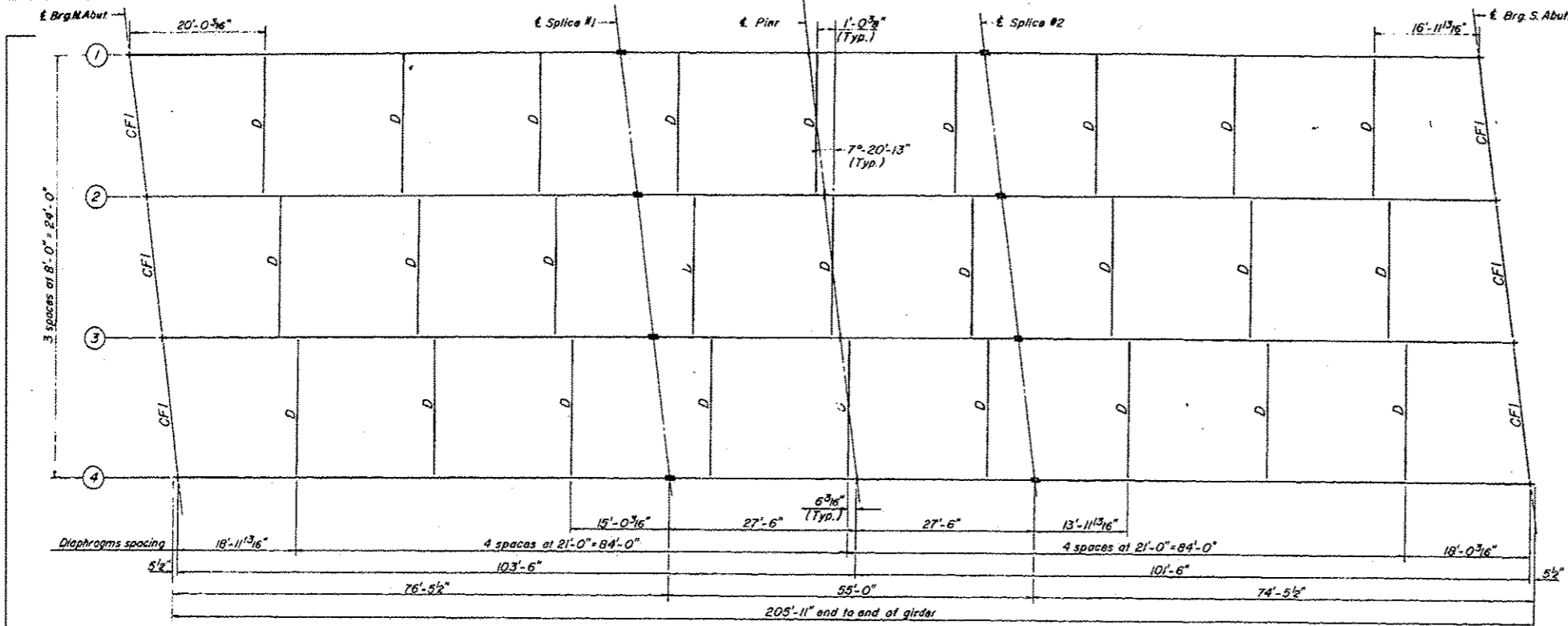
FILE NAME	USER NAME	DESIGNED	REVISED
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Default	PLOT SCALE = 1/8"=1'-0"	CHECKED	REVISED
	PLOT DATE = Wed Aug 05 11:08:22 2014	DATE	REVISED

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

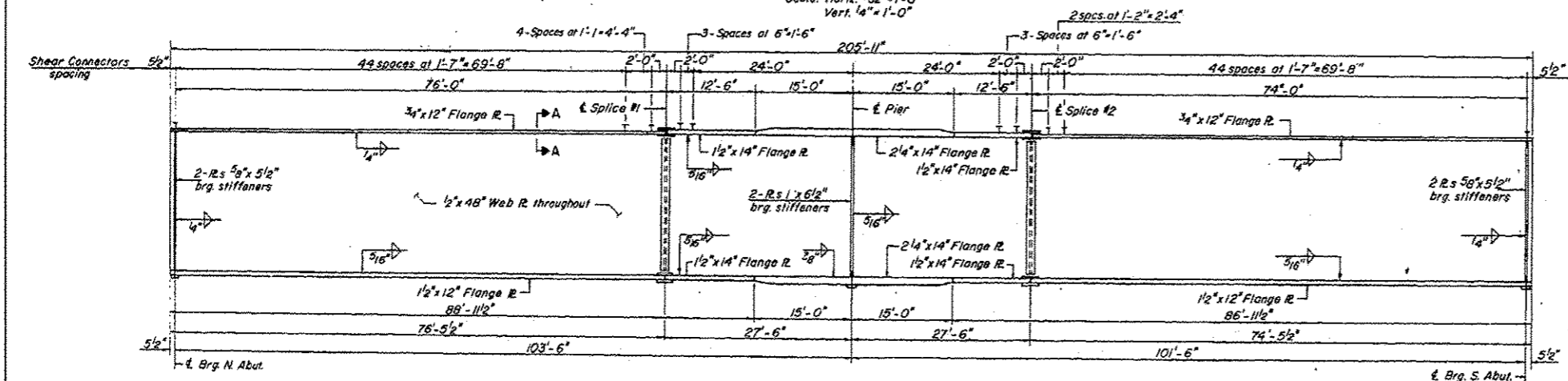
EXISTING PLANS
 SN 081-0120

SCALE: _____ SHEET _____ OF _____ SHEETS STA. _____ TO STA. _____

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
88 D2	BRIDGE PAINTING 2015-	ROCK ISLAND	17	13
				CONTRACT NO. 64K16
ILLINOIS FED. AID PROJECT				



FRAMING PLAN
Scale: Horiz. 3/32" = 1'-0"
Vert. 1/4" = 1'-0"



GIRDER ELEVATION
Scale: Horiz. 3/32" = 1'-0"
Vert. 1/2" = 1'-0"

(Composite in Positive Moment Areas only)

	0.4 Span 1	Pier	0.4 Span 2
I_s (in ⁴)	1992	44,404	1992
I_c (in ⁴)	51808	---	51808
S_s (in ³)	948	1691	948
S_c (in ³)	1301	---	1301
Q (ksi)	0.953	1.061	0.953
M_Q (k)	647	1455	600
S_B (ksi)	0.485	0.485	0.485
M_{sQ} (k)	397	565	374
M_{L+Imp} (k)	877	704	861
Total (k)	1274	1269	1235
S_s (ksi)	11.75	9.01	11.39
S_s Total (ksi)	12.94	19.34	18.98
VR (k)	45.1	---	45.1

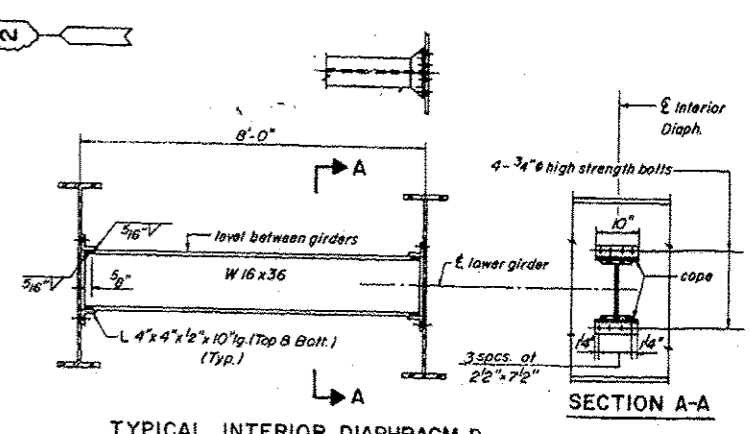
	N. Abutment	Pier	S. Abutment
R (k)	54.9	189.4	53.1
R & Imp (k)	47.0	74.1	46.9
R Total (k)	101.9	263.5	100.0

	Brig. N. Abut.	Splice 1	Brig. Pier	Splice 2	Brig. S. Abut.
Girder 1	602.17	603.09	603.09	603.09	602.27
Girder 2	602.33	603.23	603.23	603.23	602.39
Girder 3	602.35	603.23	603.23	603.23	602.37
Girder 4	602.23	603.09	603.09	603.09	602.21

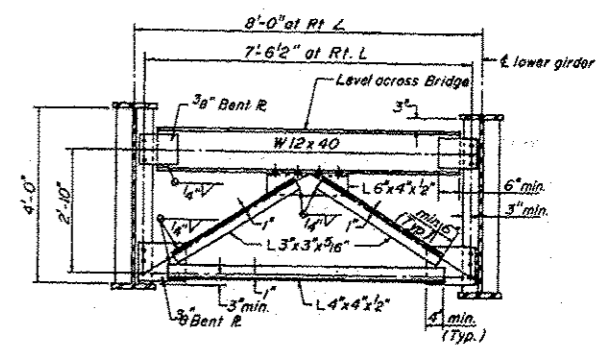
I_s and S_s are the moment of inertia and section modulus of the steel section.
 I_c and S_c are the moment of inertia and section modulus of the composite section used in computing I_s .
VR is the maximum I_c & Impact shear range in span.

* For fabrication only

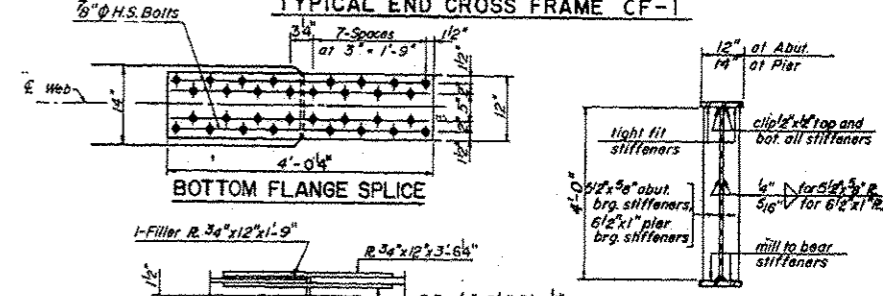
DESIGNED	P. B.
CHECKED	A. A.
DRAWN	J. P.
CHECKED	A. A.



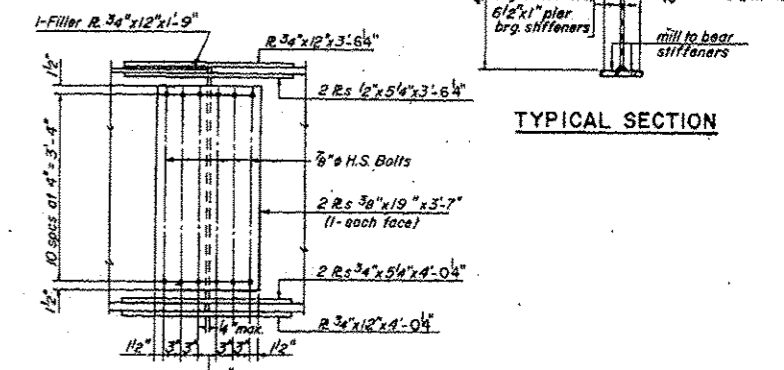
TYPICAL INTERIOR DIAPHRAGM D



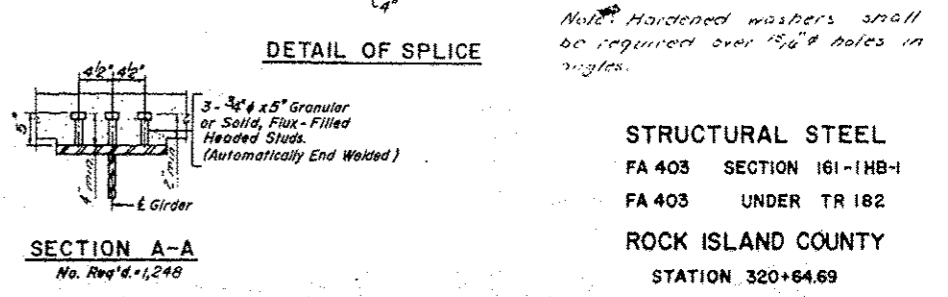
TYPICAL END CROSS FRAME CF-1



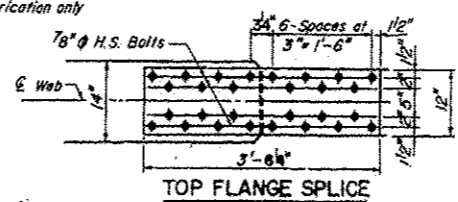
BOTTOM FLANGE SPlice



TYPICAL SECTION



DETAIL OF SPlice



TOP FLANGE SPlice

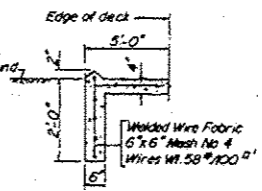
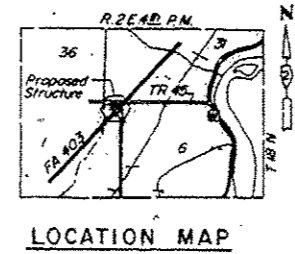
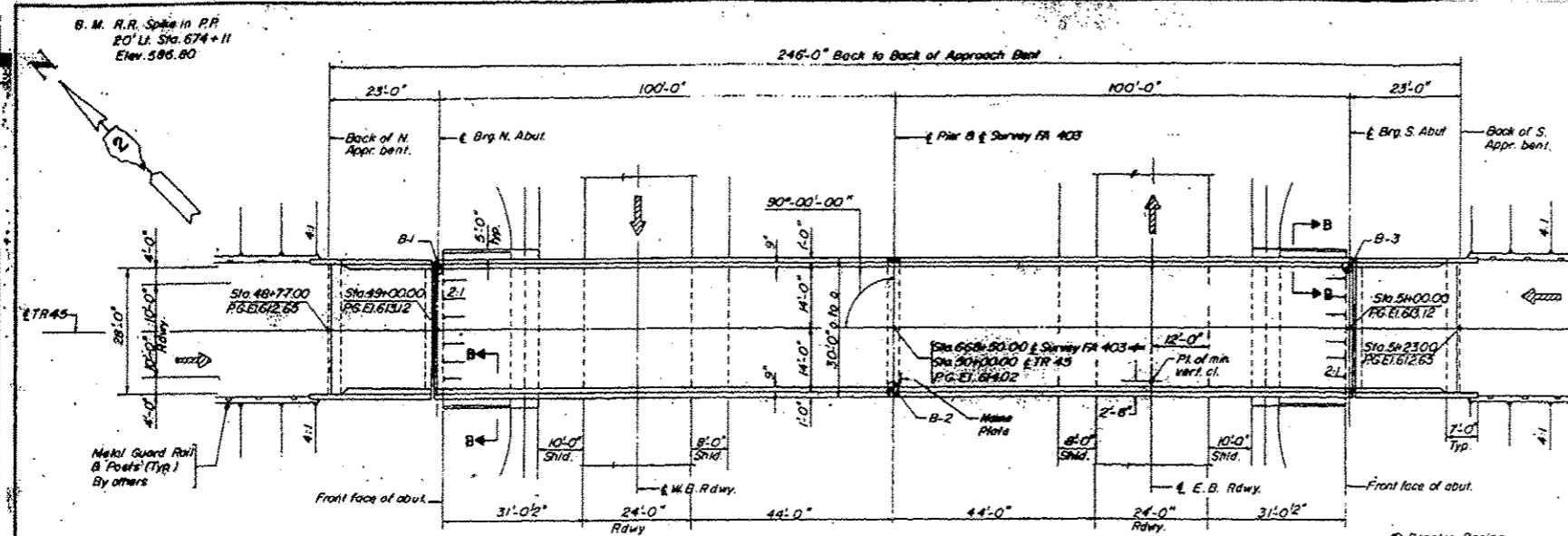
Note: Hardened washers shall be required over 1/2" holes in angles.

STRUCTURAL STEEL
FA 403 SECTION 161-1HB-1
FA 403 UNDER TR 182
ROCK ISLAND COUNTY
STATION 320+64.69

FOR INFORMATION ONLY

FILE NAME	USER NAME	DESIGNED	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING PLANS SN 081-0120	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0:\B\Draws\Rock Island\64K16 Cleaning & Painting SH 081-0120 & 0127\CADD\02-shr.com	dossdd	-	-			88	DZ BRIDGE PAINTING 2015	ROCK ISLAND	17	14
Default	Plot Scale = 1/8" = 1'-0"	CHECKED	REVISED							
	Plot Date = Wed Aug 06 11:05:25 2014	DATE	REVISED							

PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 403	161-1HB	ROCK ISLAND	532	190A
SHEETS				



GENERAL NOTES:

All Reinforcement Bars shall be Lapped 24 Diameters Unless Otherwise shown.

Field connections shall be bolted using high strength bolts. Bolts 3/4" Ø, open holes 1/16" Ø, unless otherwise noted.

The Basic lead Silico Chromate paint system shall be used for shop and field painting of structural steel.

Field welding of construction accessories will not be permitted to the Bottom of flange of beams or girders nor to the top flange for a distance equal to one-fourth the span length each way from the pier supports. Field welding in other areas will be permitted only when approved by the engineer.

Anchor Bolts shall be set before bolting cross frames over supports.

Slope walls shall be reinforced with welded wire fabric 6x6 mesh weighing 58# per 100 Sq. Ft.

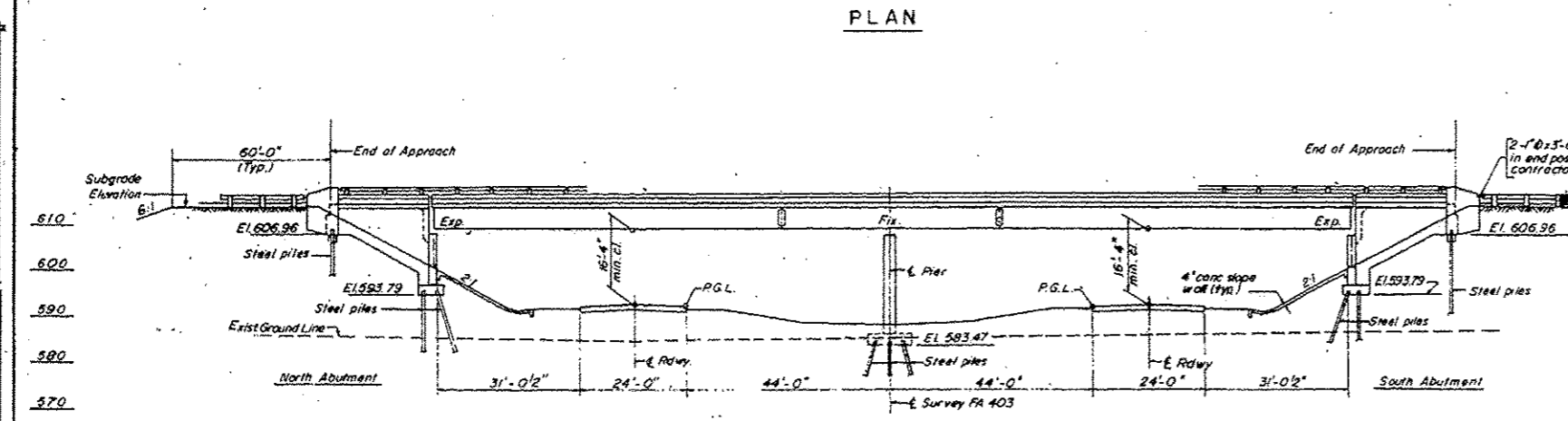
The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.

The contractor shall drive three steel Test Piles in a permanent location, one each at the north and south abutments and pier as directed by the engineer before ordering the remainder of the piles.

The concrete rail section above the Mandatory const. joint at the top of the slab shall be constructed of the class X concrete, except the aggregate shall conform to the requirements of handral concrete.

Protective coat shall not be applied to surfaces to which Waterproofing Membrane System is applied.

Forming surfaces shall be constructed or finished to the tolerances within a tolerance of 1/8 inch. Adjustments shall be made during the surface by shimming the formwork. The tolerances of the bottom boardings shall be provided in accordance to the plans, plates or sheets.

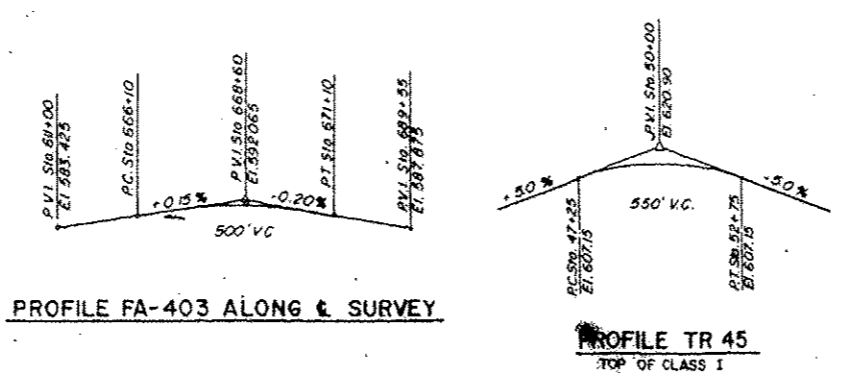
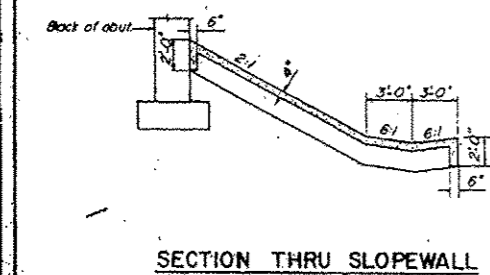


STATION 668+50.00
BUILT BY
STATE OF ILLINOIS
FA 403 SECTION 161-1HB-10
FA PROJ. EBRF-403-1(G)
LOADING HS 15

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER STRUCT.	SUB STRUCT.	TOTAL
Protective Coat	Sq Yds.	203		203
Class 'X' Concrete	Cu Yds.	2544	190.5	444.9
Structural Steel	L. Sum.	005		005
Aluminum Rolling	Lin Ft.	481		481
Reinforcement Bars	Lbs.	60,240	23,150	83,390
Stud Shear Connectors	Each	1416		1416
Steel Piles (HPB x 36)	Lin Ft.		1620	1620
Test Piles (HPB x 36)	Each		3	3
Name Plates	Each		1	1
Slope Wall (4')	Sq Yds.		262	262
Bit Conc. Surface Course Cl 1	Tons	61		61
Waterproofing Membrane System	Sq Yds.	722		722
Sand Backfill	Cu Yds.		234	234
Preformed J. Sealer - 22"	Lin Ft.	60		60
Permanent Bench Marks Type I	Each	1		1

* Calculated Weight of Structural Steel = 185,970 lbs.



DESIGN DATA

DESIGN LOADING:
HS 15-44 Abut Allowance For 25 PS F Future Wearing Surface

DESIGN STRESSES:
fc = 1400 P.S.I. Except As Follows
fc = 1200 P.S.I. For Deck Slab
fc = 1000 P.S.I. For Conc. in Contact with Earth
fs = 20,000 P.S.I. - M183 Structural Steel
fs = 20,000 P.S.I. - Reinforcement Steel
v = 75 P.S.I. Allowable Shear in Footings
n = 10
Allowable Live Load Deflection = L/1200 (Composite)

DESIGN SPECIFICATIONS:
AASHTO 1973 As Applicable

DESIGNED	D.M.P.
CHECKED	H.R.S.
DRAWN	A.W.
CHECKED	D.M.P.

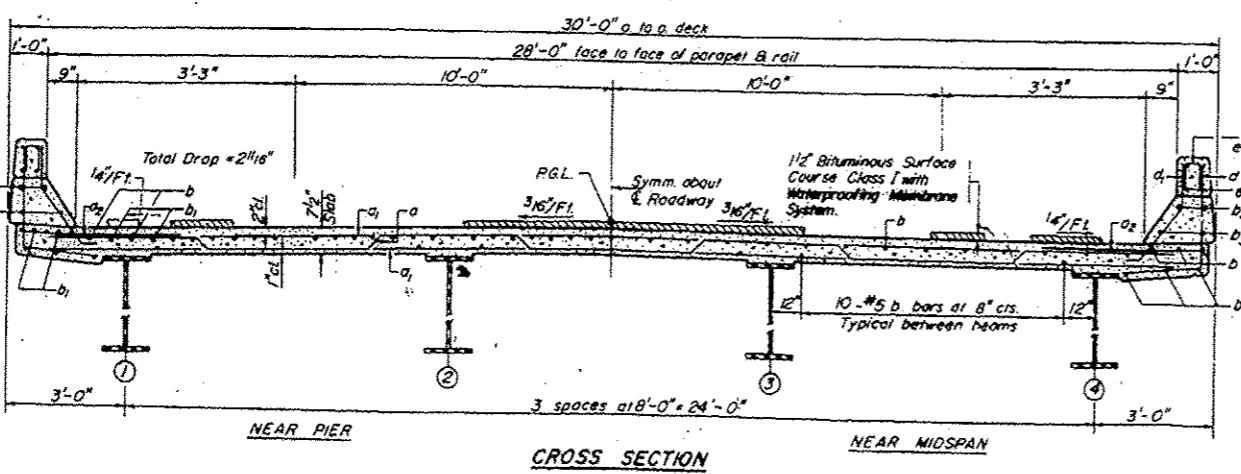
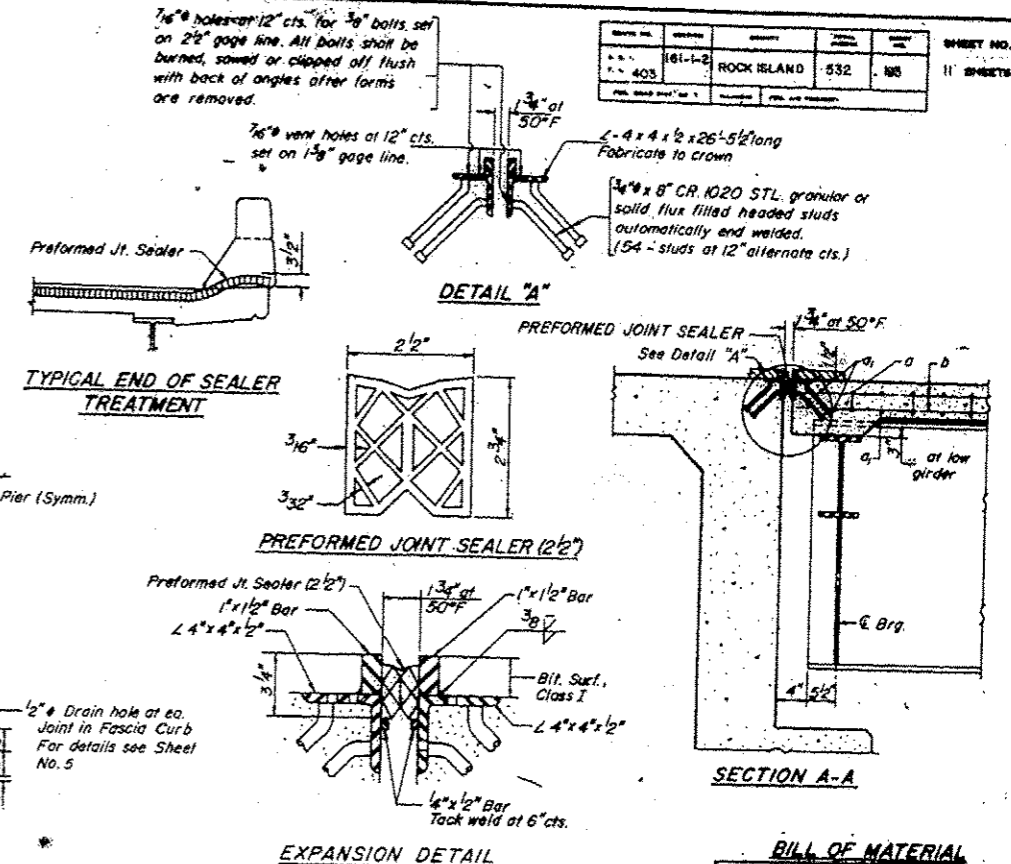
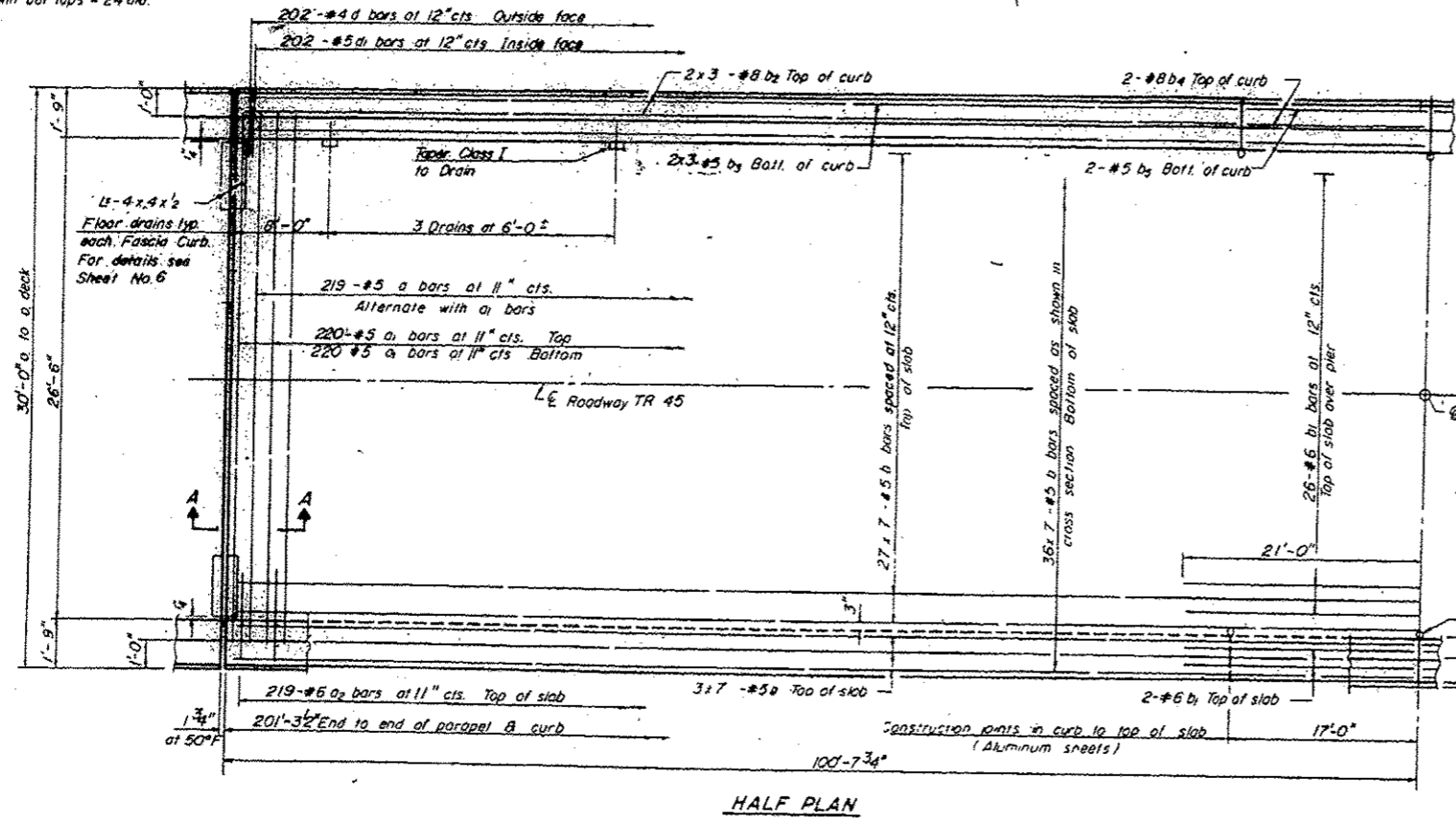
AS REVISED

GENERAL PLAN & ELEVATION
FA 403 SECTION 161-1HB-10
FA 403 UNDER TR 45
ROCK ISLAND COUNTY
STATION 668+50.00

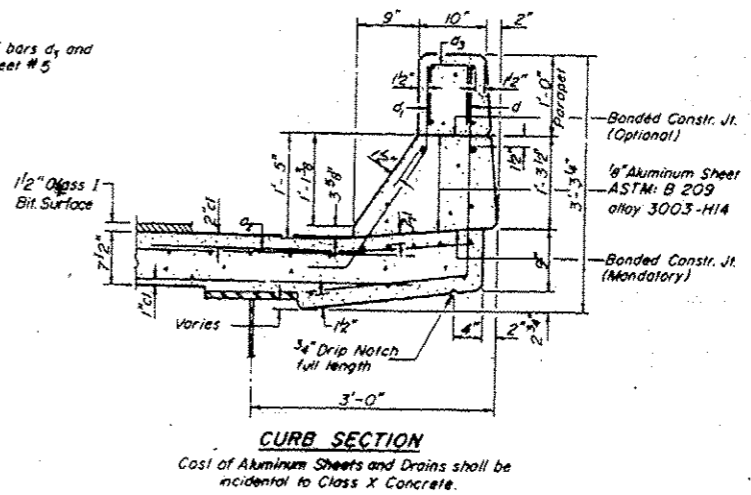
FOR INFORMATION ONLY

NOTE:
 Bars indicated thus 27 x 7 #5 etc
 indicates 27 lines of bars with 7
 lengths per line.
 Min bar laps = 24 dia.

PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
403	161-1-B	ROCK ISLAND	532	185

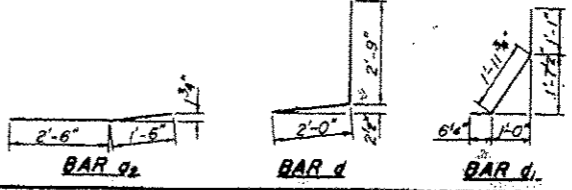
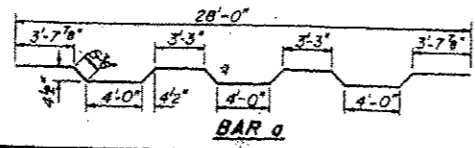


NOTES:
 For placement of bars d1 and e thru e2 see sheet #5



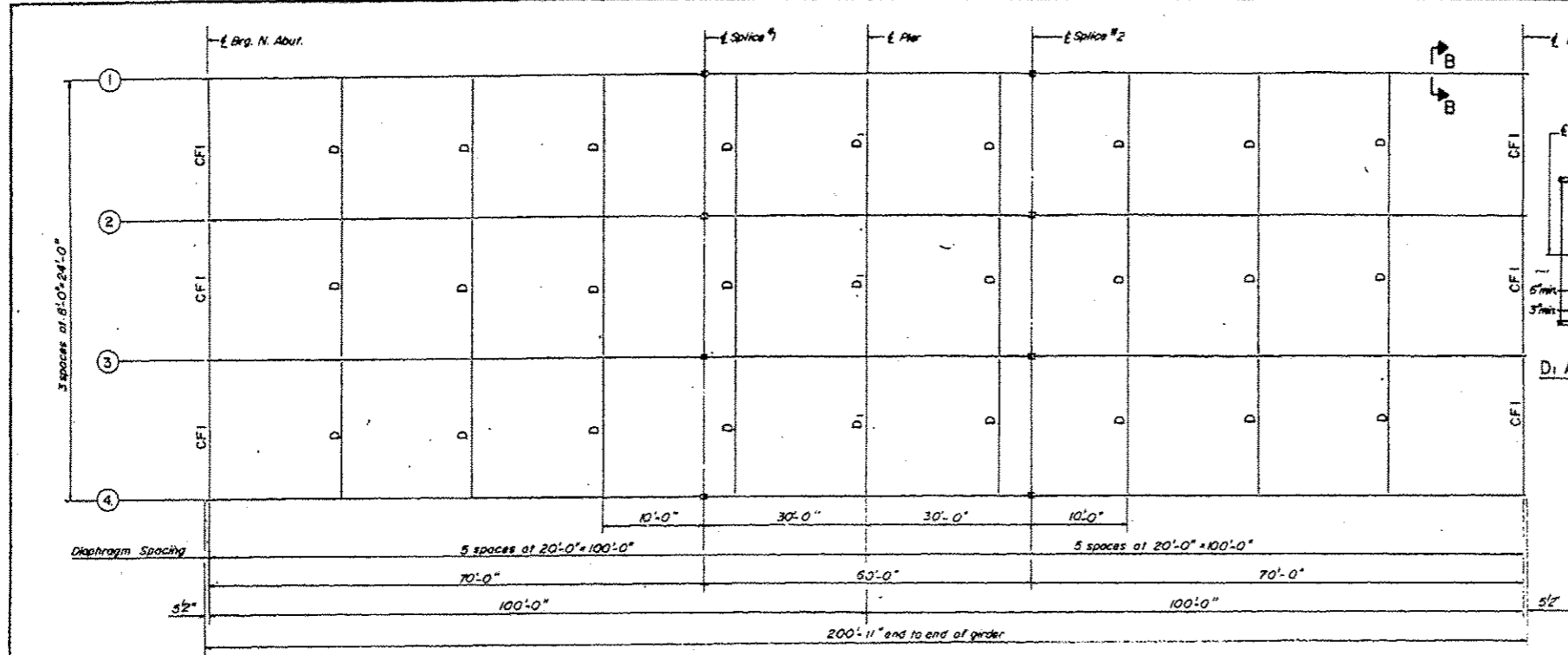
Bar No.	Size	Length	Shape
a	219 #5	29'-5"	
a1	440 #5	28'-0"	
a2	438 #5	4'-0"	
b	183 #5	29'-9"	
b1	30 #6	42'-0"	
b2	24 #8	29'-3"	
b3	24 #5	28'-9"	
b4	8 #8	16'-9"	
b5	8 #5	16'-9"	
d	404 #4	4'-9"	
e	404 #5	3'-7"	
Preformed Jt. Sealer Lin. Ft. 60			
Reinforcement Bars Lbs. 44,960			
Class X Concrete Cu. Yds. 175.5			
Structural Steel Lbs. 84,900			
Protective Coat Sq. Yd. 157			
Bituminous Concrete Surface Course Class I Ton 50			
Waterproofing Membrane System Sq. Yd. 593			

DESIGNED	H.R.S.
CHECKED	P.B.
DRAWN	I.P.
CHECKED	P.B.

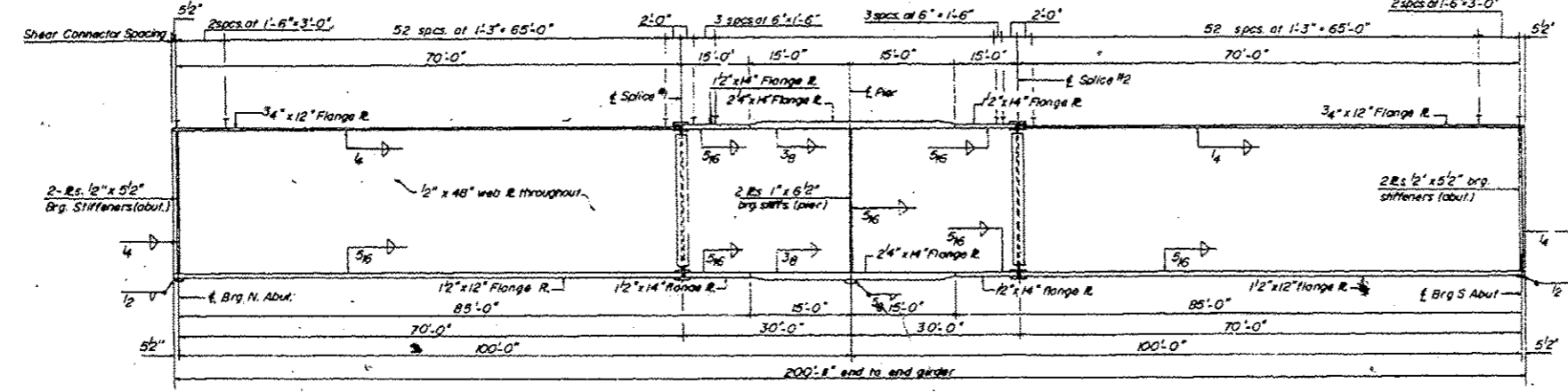


DECK DETAILS
 FA 403 - SECTION 161-1 H B-D
 FA 403 UNDER TR 45
 ROCK ISLAND COUNTY
 STATION 668+50.00

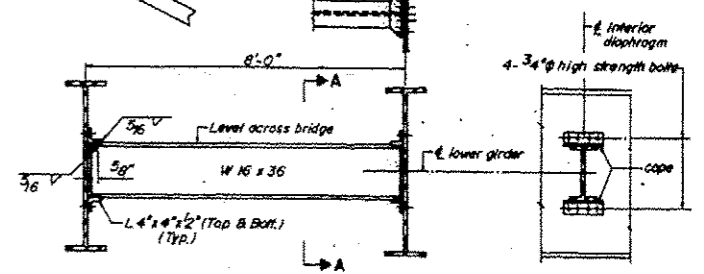
FOR INFORMATION ONLY



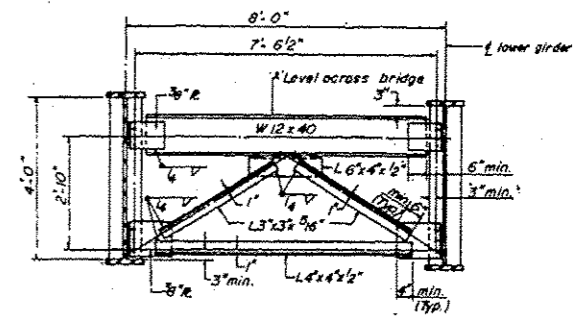
FRAMING PLAN



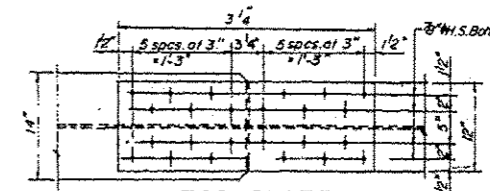
GIRDER ELEVATION



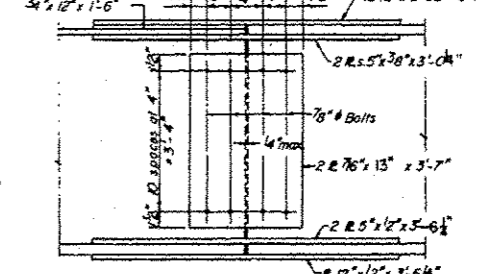
TYPICAL INTERIOR DIAPHRAGM D



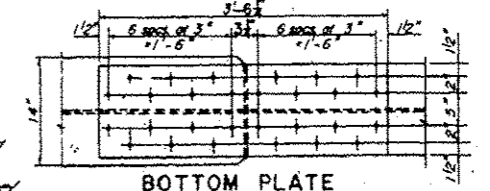
TYPICAL END CROSS FRAME CF-1



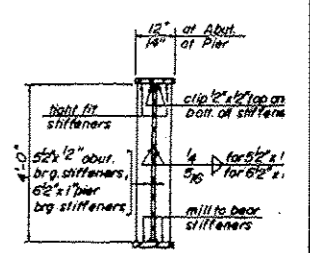
TOP PLATE



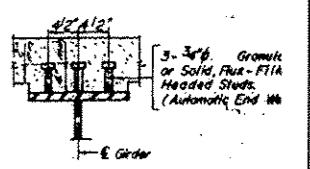
ELEVATIONS



BOTTOM PLATE



TYPICAL SECTION



SECTION B-B

(Composite in positive moment areas only)

INTERIOR GIRDER MOMENT TABLE		
	Q/A Span 1	Pier
I _c (in ⁴)	19982	44,404
I _c (in ⁴)	24808	—
S _c (in ³)	948	1691
S _c (in ³)	1304	—
I _c (in ⁴)	0.983	1.087
I _c (in ⁴)	567.9	1460.3
I _c (in ⁴)	7.18	10.36
S _c (in ³)	0.483	0.488
I _c (in ⁴)	365.4	262.8
I _c (in ⁴)	834.9	713.8
I _c (in ⁴)	1190.3	1260.3
I _c (in ⁴)	10.98	9.09
I _c (in ⁴)	18.16	19.43
VR (in)	90.1	—

INTERIOR GIRDER REACTION TABLE		
	Abutment	Pier
R _c (k)	51.8	186.2
R _c (imp. k)	46.8	73.5
R Total (k)	58.6	261.7

* TOP OF WEB ELEVATIONS					
Location	Brig. N. Abut.	Splice 1	Brig. Pier	Splice 2	Brig. S. Abut.
Girder 1	612.064	612.069	612.819	612.819	612.064
Girder 2	612.200	612.958	612.958	612.958	612.200
Girder 3	612.200	612.958	612.958	612.958	612.200
Girder 4	612.064	612.819	612.819	612.819	612.064

DESIGNED	H.R.S.
CHECKED	P.B.
DATE	A.M.
CHECKED	P.B.

I_c and S_c are the moment of inertia and section modulus of the steel section.
I_c and S_c are the moment of inertia and section modulus of the composite section used in computing I_c.
VR is the maximum $\frac{1}{4}$ impact shear range in span

The main load carrying member components subject to the Supplemental Requirements for Notch Toughness are the flanges, webs, and splice plates of the steel girders or wide flange beams.

Note: Hardened washers shall be req. over 1/8" holes.

STRUCTURAL STEEL
FA 403 SECTION 161-1RB-10
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