#### STATE OF ILLINOIS

### DEPARTMENT OF TRANSPORTATION

**DIVISION OF HIGHWAYS** 

FOR INDEX OF SHEETS, SEE SHEET NO. 2

PROPOSED HIGHWAY PLANS

FAP ROUTE 573: IL 56 OVER BLACKBERRY CREEK

SECTION: 61 B-BR-1

BRIDGE DECK REPLACEMENT STRUCTURE NOS. 045-0026(E.B.) AND 045-0027(W.B.)

PROJECT: BHF-0573(099)
KANE COUNTY

C-91-318-04

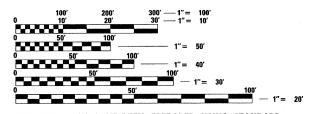
IMPROVEMENT LOCATED IN THE VILLAGE OF SUGAR GROVE

TRAFFIC DATA

2007 ADT = 19,800 VEHICLES PER DAY SPEED LIMIT = 55 MPH

#### IL 56 OVER BLACKBERRY CREEK

STRUCTURES NUMBER 045-0026 (EB) & 045-0027 (WB) R.C. DECK ON SIMPLY SUPPORTED WIDE FLANGE BEAM SPANS. DECK TO BE REMOVED AND REPLACED USING STAGE CONSTRUCTION. WORK INCLUDES PIER AND ABUTMENT REPAIRS.

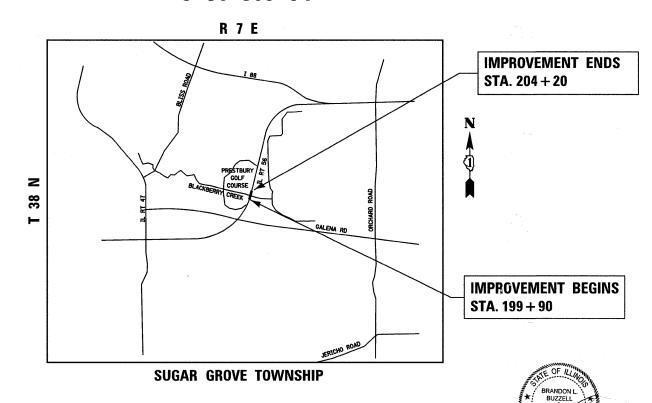


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT ENGINEER MICHELLE AQUINO (847) 705–4606 PROJECT MANAGER LONG TRAN (847) 705–4232

CONTRACT NO. 62817



GROSS & NET LENGTH OF PROJECT = 430 FT = 0.08 MILE

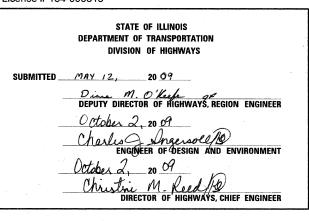




KANE 37
ILLINOIS CONTRACT NO.



License # 184-000813



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		STATE STAI	<u>NDARDS</u>
	INDEX OF SHEETS	STANDARD NO.	DESCRIPTION
SHEET NO.	DESCRIPTION	420001-07	PAVEMENT JOINTS
1	COVER SHEET	482006-03	HMA SHOULDER ADJACENT TO RIGID PAVEMENT
2	INDEX OF SHEETS, STATE STANDARDS, GENERAL NOTES	483001-04	PCC SHOULDER
3	SUMMARY OF QUANTITIES	515001-03	NAME PLATE FOR BRIDGES
4-5	TYPICAL SECTIONS	606001-04	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
6-7	MAINTENANCE OF TRAFFIC AND STAGING PLANS	630001-08	STEEL PLATE BEAM GUARDRAIL
8	EXISTING CONDITION (DEMO) PLAN	630301-05	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
9	PROPOSED ROADWAY PLAN AND PROFILE	630201-06	PCC/HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
10	EROSION CONTROL PLAN	631026-05	TRAFFIC BARRIER TERMINAL, TYPE 5 & 5A
11	PAVEMENT MARKING PLAN	631031-07	TRAFFIC BARRIER TERMINAL, TYPE 6
12	BRIDGE APPROACH SLAB PLAN AND DETAILS	635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
13	GENERAL PLAN AND ELEVATION	635011-02	REFLECTOR MARKERS AND MOUNTING DETAILS
14	GENERAL NOTES AND BILL OF MATERIAL	701400-03	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
15	STAGE CONSTRUCTION DETAILS	701402-07	LANE CLOSURE, FREEWAY/EXPRESSWAY, WITH BARRIER
16	CONCRETE REMOVAL PLANS AND DETAILS	701406-05	LANE CLOSURE, FREEWAY/EXPRESSWAY, DAY OPERATIONS ONLY
17	DECK ELEVATIONS - I	701411-05	LANE CLOSURE MULTILANE AT ENTRANCE OR EXIT RAMP FOR SPEEDS > 45
18	DECK ELEVATIONS - II	701426-03	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATIONS, FOR SPEEDS > OR = 45 MPH
19	SUPERSTRUCTURE	701901-01	TRAFFIC CONTROL DEVICES
20	SUPERSTRUCTURE DETAILS	704001-05	TEMPORARY CONCRETE BARRIER
21	DIAPHRAGM DETAILS	780001-02	TYPICAL PAVEMENT MARKINGS
22	BRIDGE JOINT SYSTEM - PREFORMED JOINT STRIP SEAL	000001-05	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
23	FRAMING PLAN		
24	BEARING DETAILS - WEST BOUND PIER		
25	BEARING DETAILS - EAST BOUND PIER		
26	PIER DETAILS (WEST BOUND STRUCTURE)		
27	SUBSTRUCTURE REPAIR		(cont.)
28	BAR SPLICER ASSEMBLY DETAILS		<ol> <li>THE RESIDENT ENGINEER SHALL CONTACT MR. DON CHIARUGI, AREA TRAFFIC FIELD ENGINEER, AT (847)741-9857 AT LEAST 2 WEEKS PRIOR TO INSTALLATION OF PERMANEI PAYMENT AND MACE.</li> </ol>
29	TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION		PAVEMENT MARKINGS.
30	STEEL PLATE BEAM GUARDRAIL ADJACENT TO CURB AND GUTTER AND STABILIZATION AT TBT TY. 1 SPL		
31	RAISED REFLECTIVE PAVEMENT MARKERS (SNOW PLOW RESISTANT)		
32	DISTRICT ONE TYPICAL PAVEMENT MARKINGS		

> 45 MPH

SCALE:

#### **GENERAL NOTES - ROADWAY**

- 1. BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL
  \*J.U.L.I.E.\* AT (800)892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC,
  TELEPHONE AND GAS UTILITIES. (48 HOUR NOTIFICATION IS REQUIRED.)
- 2. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE
- 3. BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD (FOR FUTURE REFERENCES), ALL EXISTING PAVEMENT MARKING LINES IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING, EXACT LOCATIONS OF ALL STRIPING SHALL BE AS DIRECTED BY
- 4. THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS IN ADVANCE OF
- 5. DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
- 6. SAW CUTTING OF PAVEMENTS, SHOULDERS, ETC., SHALL BE TO FULL DEPTH AND SHALL RESULT IN A CLEAN, STRAIGHT EDGE ON THE PORTION REMAINING. THE COST OF SAW CUTTING REMOVAL ITEMS SHALL BE INCLUDED IN THE UNIT PRICES OF THESE ITEMS.
- 7. USE NO. 25 (\*8) EPOXY-COATED TIE BARS (OR DOWEL BARS) CONFORMING TO ART. 100610(B)(2) OF THE STANDARD SPECIFICATIONS FOR LONGITUDINAL CONSTRUCTION JOINT GROUTED-IN-PLACE TIE BAR AS SHOWN ON STATE STANDARD 420001. THE TIE BARS WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE PAVEMENT ITEMS BEING CONSTRUCTED.

#### GENERAL NOTES - TRAFFIC CONTROL & PROTECTION

- STAGING PROCEDURES PRESENTED ARE THE SUGGESTED SEQUENCE OF OPERATIONS.
   AT HIS OPTION, THE CONTRACTOR MAY SUBMIT AN ALTERNATIVE STAGING PROPOSAL
   TO THE ENGINEER FOR HIS APPROVAL.
- 2. TRAFFIC CONDITIONS, ACCIDENTS AND OTHER UNFORESEEN EMERGENCY CONDITIONS MAY REQUIRE THE ENGINEER TO RESTRICT, MODIFY OR REMOVE LANE CLOSURES OF CHANNELIZATION SHOWN IN THE PLANS. THE CONTRACTOR SHALL MAKE THE NECESSARY ADJUSTMENTS AS DIRECTED BY THE ENGINEER WITHOUT DELAY. THE CONTRATOR SHALL RESPONSE TO ANY REQUEST MADE BY THE ENGINEER FOR CORRECTION WITHIN TWO HOURS FROM THE TIME OF NOTIFICATION.
- 3. ALL TEMPORARY PAVEMENT MARKINGS PROPOSED WITHIN THE WORK AREA SHALL BE COMPLETED PRIOR TO THE CONSTRUCTION PHASE CHANGE.
- 4. BARRICADES: THE CONTRACTOR SHALL PROVIDE AND INSTALL TWO (2) WEIGHTED SAND BAGS ON EACH TYPE I OR TYPE II BARRICADE USED ONE (1) WEIGHTED SAND BAG ACROSS EACH BOTTOM RAIL

#### GENERAL NOTES - MISCELLANEOUS

- 1. ALL ELEVATIONS SHOWN ON THESE PLANS ARE ON THE U.S.G.S. DATUM
- 2. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.

#### GENERAL NOTES - EROSION CONTROL

- 1. ALL EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND OF THE APPLICABLE STATE STANDARDS FOR THE ENTIRE DURATION OF THE CONTRACT, OR UNTIL SUCH TIME AS DIRECTED BY THE ENGINEER.
- ALL AREAS DISTURBED AND RESTORED WITH SEEDING SHALL BE COVERED WITH AN EROSION CONTROL BLANKET IN ACCORDANCE WITH SECTION 251 OF THE STANDARD SPECIFICATIONS.

3. IN ACCORDANCE WITH ARTICLE 107.01 OF THE STANDARD SPECIFICATIONS, THE CONTRACTOR SHALL ABIDE AND COMPLY WITH ALL LOCAL ORDINANCES AND REQUIREMENTS AND SHALL COOPERATE WITH THE LOCAL AGENCY(IES) AND MUNICIPALITIES INVOLVED AS DIRECTED BY THE ENGINEER. THE COST FOR COMPLYING WITH THESE REQUIREMENTS SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF THE CONTRACT PAY ITEMS.

TO STA.

FILE NAME =	USER NAME = \$USER\$	DESIGNED -	REVISED -
K:\111825Ø8\CAD\Design\1825Ø8notes.dgn		DRAWN - JTT	REVISED -
	PLOT SCALE = 1:50	CHECKED - SPF	REVISED -
	PLOT DATE = 5/6/2009	DATE - APRIL 02, 2009	REVISED -

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

ARTERIAL ROAD INFORMATION SIGN

CROSS SECTIONS

33

34

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

		IL RTE	. 56 0\	/ER	BLACKBEF	RRY C	REEK		
NDEX	0F	SHEETS,	STATE	ST	ANDARDS	AND	GENERAL	NOTES	

SHEET NO. OF SHEETS STA.

FED.	ROAD	DIST.	NO.	ILLINOIS	FED.	AII	PROJECT		
 							CONTRACT	NO.	6281
573			61	B-BR-1			KANE	37	2
F.A.F RTE.	-		SE	ECTION			COUNTY	TOTAL	SHEE
 									Key

				URBAN	80/20 FED CONSTRUCTION	·
		SUMMARY OF QUANTITIES		TOTAL	TYPE CODE	TYPE CODE
	CODE NO.	ITEM DESCRIPTION	UNIT	QUANTITY	QUANTITY	X071-2A QUANTITY
		TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	26	26	
		EARTH EXCAVATION	CU YD	455	455	
	20201550	SUB-BASE GRANULAR MATERIAL, TYPE B	CU YD	70	70	
	20400800	FURNISHED EXCAVATION	CU YD	40	40	
	21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	1202	1202	
	25000210	SEEDING, CLASS 2A	ACRE	0.1	0.1	
	25100630	EROSION CONTROL BLANKET	SQ YD	442	442	
	28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	140	140	
	28000305	TEMPORARY DITCH CHECKS	FOOT	120	120	
_	42001165	BRIDGE APPROACH PAVEMENT	SQ YD	451.2	451.2	
	42001300	PROTECTIVE COAT	SO YD	1463	663	800
	42001420	BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)	SQ YD	128	128	
	44000100	PAVEMENT REMOVAL	SQ YD	21.4	21.4	
	44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	479	479	
	44000700	APPROACH SLAB REMOVAL	SQ YD	426.7	426.7	
	44002500	GUTTER OUTLET REMOVAL	EACH	2	2	
	44004250	PAVED SHOULDER REMOVAL	SQ YD	190	190	
	48203021	HOT-MIX ASPHALT SHOULDERS, 6"	SQ YD	230	230	
	48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	195	195	
	48300500	PORTLAND CEMENT CONCRETE SHOULDERS 10"	SQ YD	50	50	-
	50102400	CONCRETE REMOVAL	CU YD	35.4	6.7	28.7
	50104720	REMOVAL OF EXISTING CONCRETE DECK	EACH	2		2
1		PROTECTIVE SHIELD FLOOR DRAINS	50.YO EACH	705 12		<del>705</del> 12
	50300225	CONCRETE STRUCTURES	CU YD	7.6		7.6
	50300255	CONCRETE SUPERSTRUCTURE	CU YD	235.1		235.1
	50300260	BRIDGE DECK GROOVING	SO YD	607		607
		FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	1,610		1,610
		STUD SHEAR CONNECTORS	EACH	3,168		3,168
-	50500715	JACK AND REMOVE EXISTING BEARINGS	EACH	12		12
-	50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	48,110		48.110
-		BAR SPLICERS	EACH	706		706
4		NAME PLATES	EACH	2		2
4		PREFORMED JOINT STRIP SEAL	FOOT	69		69
1		ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	12		12
7		ANCHOR BOLTS, 1"	EACH	60		60
#		CONCRETE SEALER	SQ FT	83		83
1		COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	150		
						150
k	63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	262.5		262.5

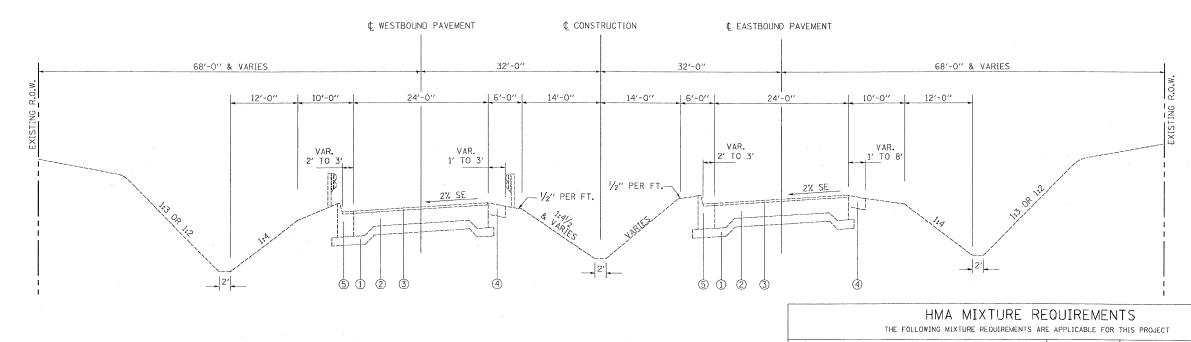
				URBAN	80/20 FEI	D/ST
		SUMMARY OF QUANTITIES		TOTAL	CONSTRUCTION TYPE CODE 1000	CONSTRUCTION TYPE CODE X071-2A
	CODE NO. 63100070	ITEM DESCRIPTION TRAFFIC BARRIER TERMINAL, TYPE 5	UNIT	QUANTITY		QUANTITY
		TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4	
	63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4	4	
		GUARDRAIL REMOVAL	FOOT	705	705	
		ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6	
		MOBILIZATION	L SUM	1	1	
		TRAFFIC CONTROL AND PROTECTION (SPECIAL)	L SUM	1	1	
		SHORT-TERM PAVEMENT MARKING	FOOT	780	780	
		TEMPORARY PAVEMENT MARKING LINE 4"	-F00T	12,320	10.320	
		WORK ZONE PAVEMENT MARKING REMOVAL		4,066	4,066	
		TEMPORARY CONCRETE BARRIER	SQ FT FOOT	1.087.5	1,087,5	
		RELOCATE TEMPORARY CONCRETE BARRIER			· · · · · · · · · · · · · · · · · · ·	
			FOOT	850	850	
•		POLYUREA PAVEMENT MARKING TYPE I - LINE 4"	FOOT	8,735	8,735	
		POLYUPEA PAVEMENT MARKING THRE I LINE 54	FOOT	1,110	1,140-	
*		POLYUREA PAVEMENT MARKING TYPE I - LINE 6"	FOOT	188	188	
•		POLYUREA PAVEMENT MARKING TYPE I - LINE 8"	FOOT	766	766	
•		POLYUREA PAVEMENT MARKING TYPE I - LINE 12"	FOOT	144	144	
•		RAISED REFLECTIVE PAVEMENT MARKER	EACH	106	106	
•		RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	8	8	
*		GUARDRAIL MARKERS, TYPE B	EACH	8	8	
*		BARRIER WALL MARKERS, TYPE B	EACH	4	4	
*		BARRIER WALL MARKERS, TYPE C	EACH	24	24	
*		TERMINAL MARKER - DIRECT APPLIED	EACH	4	4	
		PAVEMENT MARKING REMOVAL	SQ FT	3,683	3,683	
		RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	172	172	
		TEMPORARY INFORMATION SIGNING	SQ FT	77.1	77.1	
		SEDIMENT CONTROL, SILT FENCE	FOOT	787	787	
	X0323974	SEDIMENT CONTROL, SILT FENCE MAINTENANCE	FOOT	500	500	
	X0325775	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)  WET REFLECTIVE TEMPORARY TAPE, TYPE TIL, 4 INCH  TEMPORARY PAVEMENT	SQ FT FOOT SQ YD	20 /2,320 122	<i>12,320</i> 122	20
	Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1	
	Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2	
	Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2	
	Z0073500	TEMPORARY SUPPORT SYSTEM	L SUM	1		1
	Z0076600	TRAINEES	HOUR	500	500	

SPECIALTY ITEM

Ø 4080

SPECIALTY	ITEM

					2 Rev. 10-27-09	Rev.
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K:\11182508\CAD\Design\182508soq.dgn		DRAWN - JTT	REVISED -	STATE OF ILLINOIS	SUMMARY OF QUANTITIES 573 61 B-BR-1 KANE 37	7 3
	PLOT SCALE = 1:50	CHECKED - SPF	REVISED -	DEPARTMENT OF TRANSPORTATION	SUMMANY OF QUANTITIES CONTRACT NO.	62817
·	PLOT DATE = 5/12/2009	DATE - APRIL 02, 2009	REVISED ~		SCALE: SHEET NO. OF SHEETS STA. TO STA. FED. ROAD DIST. NO.   ILLINOIS FED. AID PROJECT	



#### EXISTING TYPICAL SECTION

STA 201+23 TO STA 201+65 BRIDGE OMISSION STA 202+55 TO STA 202+97

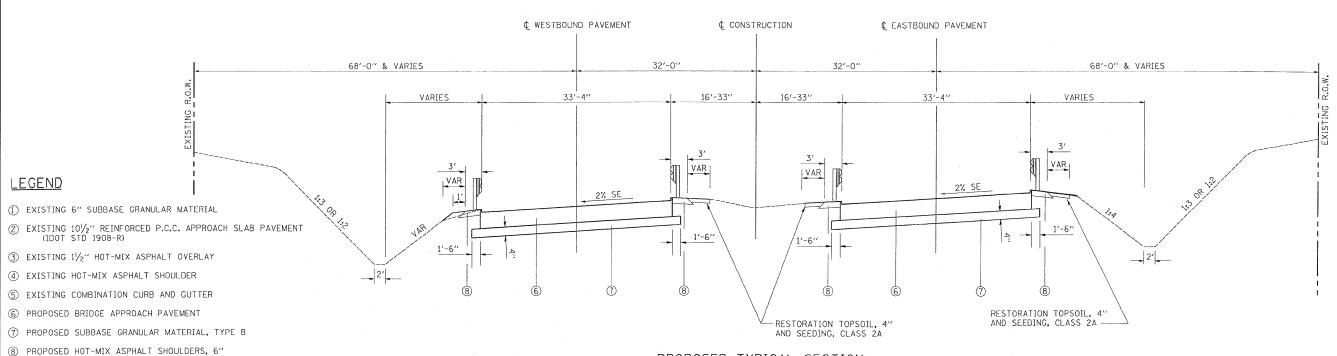
# THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT PAY ITEM AC TYPE VOIDS SPECIFY THICKNESS TEMPORARY HMA BASE COURSE (HMA BINDER IL-19mm) PG 64-22\* HMA SURFACE COURSE, MIX "D", N50 (IL-9.5mm) PG 64-22\* PG 64-22\* Z' @ 30 GYR 6" & 8" (2 & 3 LIFTS) PG 64-22\*

NOTE:

SCALE:

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

\*WHEN RAP EXCEEDS 20%, THE NEW ASPHALT BINDER IN THE MIX SHALL BE PG 58-22.



#### PROPOSED TYPICAL SECTION APPROACH PAVEMENT SECTION

STA 201+35 TO STA 201+65 BRIDGE OMISSION STA 202+55 TO STA 202+85

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REVISED

PROPOSED COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12

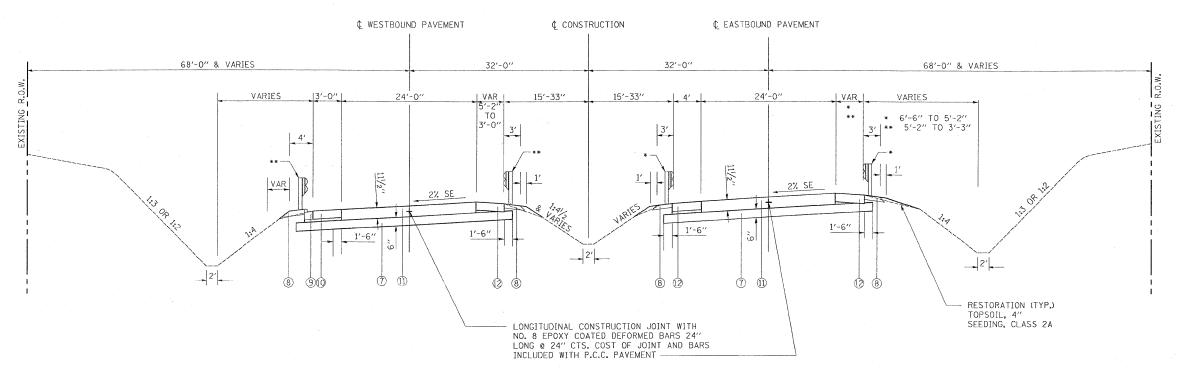
PROPOSED PORTLAND CEMENT CONCRETE SHOULDERS, 10"

1 PROPOSED BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)

PROPOSED HOT-MIX ASPHALT SHOULDERS, 8"

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL RTE. 56 OVER BLACKBERRY CREEK		F.A.P. RTE.	SEC	TION	COUNTY	TOTAL SHEETS	SHEET NO.
EXISTING AND PROPOSED TYPICAL SECTION	VS	573	61 B	-BR-1	KANE	37	4
					CONTRACT	NO.	62817
SHEET NO. OF SHEETS STA.	ΓΟ STA.	FED. RO	OAD DIST. NO.	ILLINOIS FED. AL	D PROJECT		

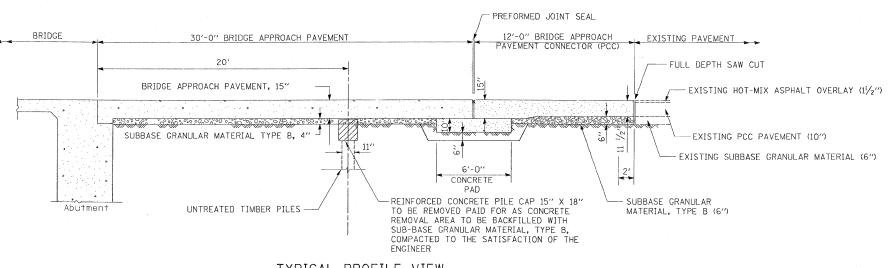


#### PROPOSED TYPICAL SECTION PAVEMENT REPLACEMENT SECTION

\* STA 201+23 TO STA 201+35 \*\* STA 202+85 TO STA 202+97

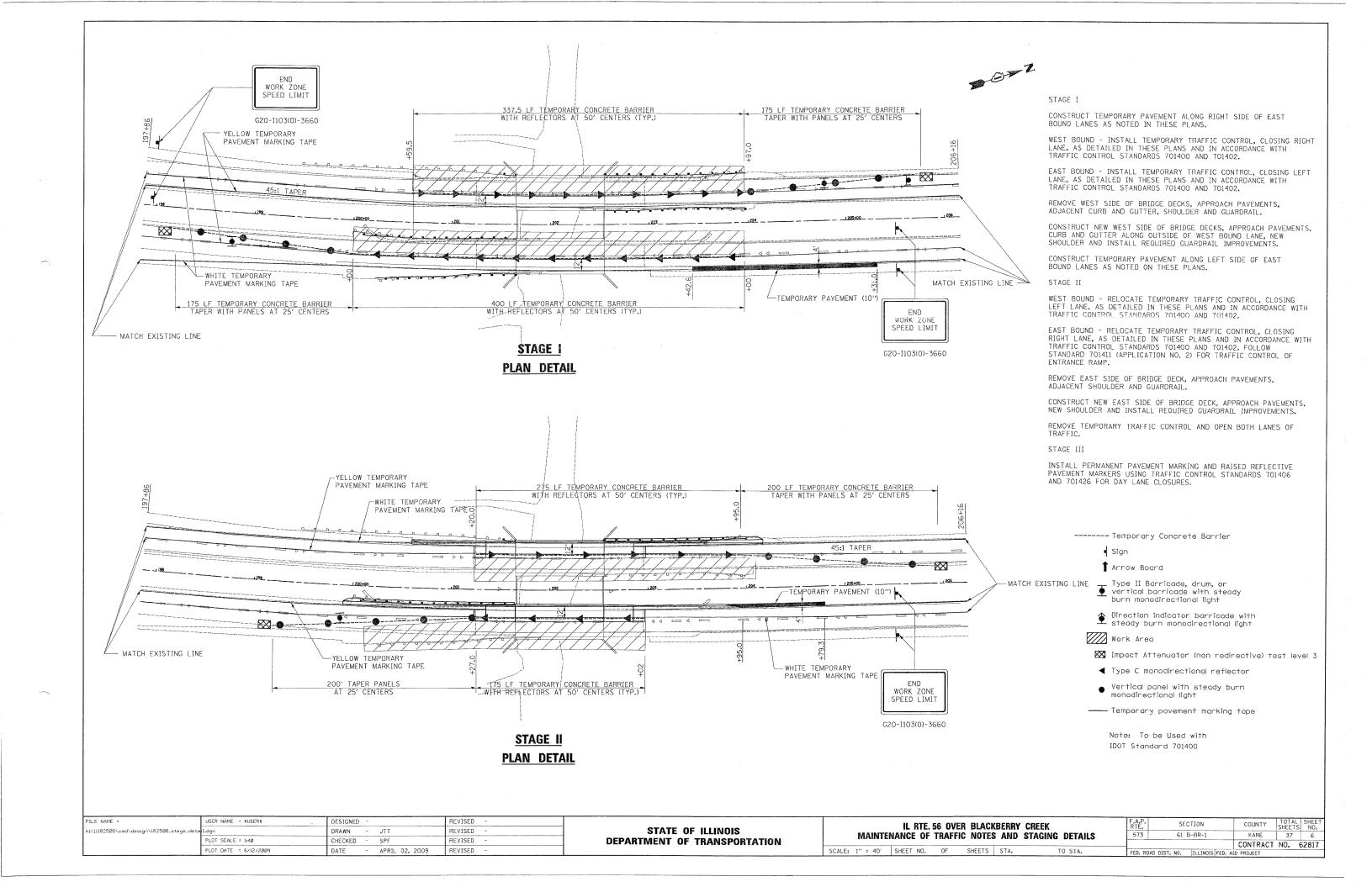
#### <u>LEGEND</u>

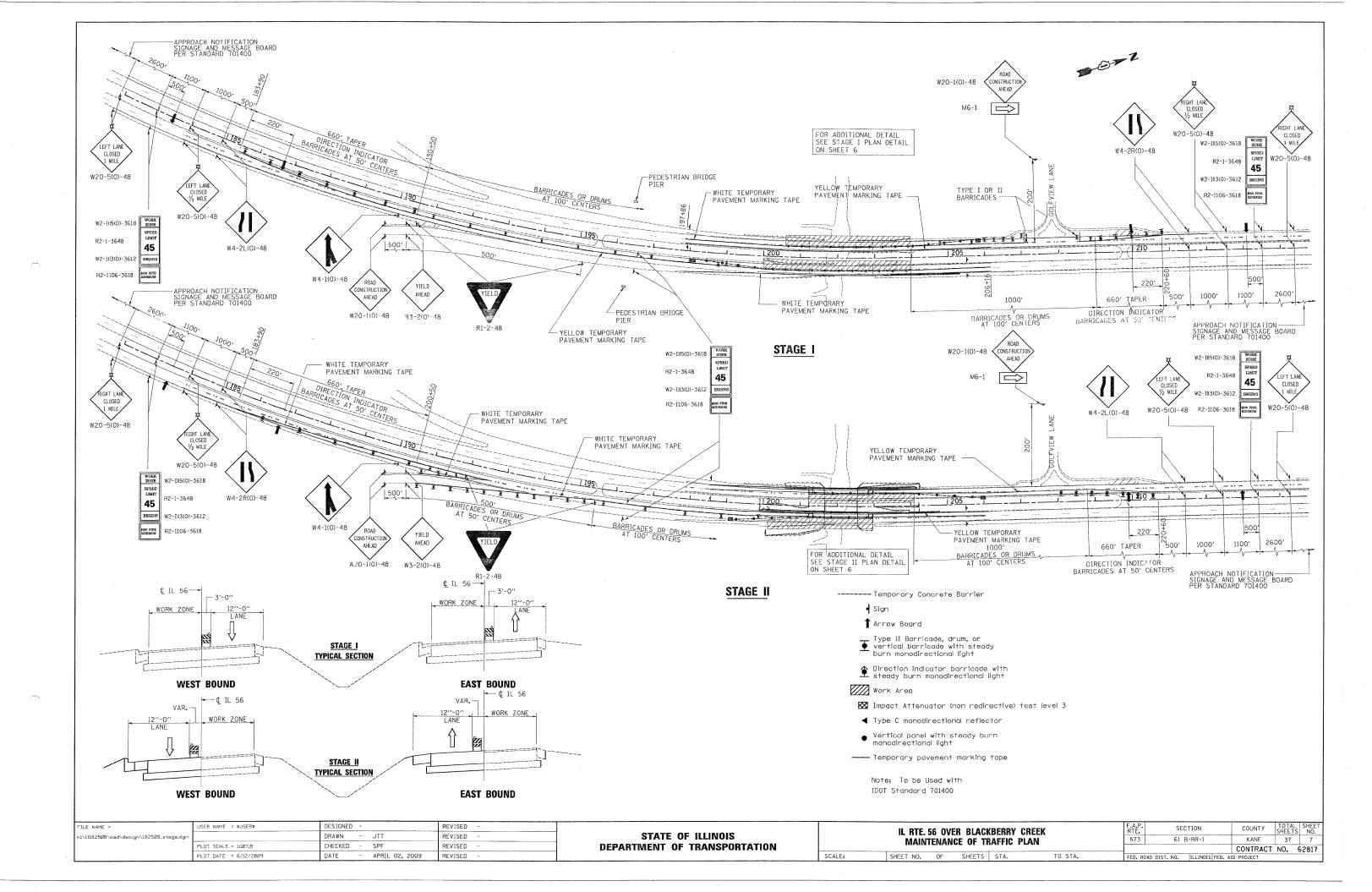
- ① EXISTING 6" SUBBASE GRANULAR MATERIAL
- $\ \textcircled{2}$  EXISTING 10½" REINFORCED P.C.C. APPROACH SLAB PAVEMENT (IDOT STD 1908-R)
- 3 EXISTING 1/2" HOT-MIX ASPHALT OVERLAY
- 4 EXISTING HOT-MIX ASPHALT SHOULDER
- ⑤ EXISTING COMBINATION CURB AND GUTTER
- 6 PROPOSED BRIDGE APPROACH PAVEMENT
- 7 PROPOSED SUBBASE GRANULAR MATERIAL, TYPE B
- (8) PROPOSED HOT-MIX ASPHALT SHOULDERS, 6"
- 9 PROPOSED COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12
- 10 PROPOSED PORTLAND CEMENT CONCRETE SHOULDERS, 10"
- (1) PROPOSED BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)
- PROPOSED HOT-MIX ASPHALT SHOULDERS, 8"

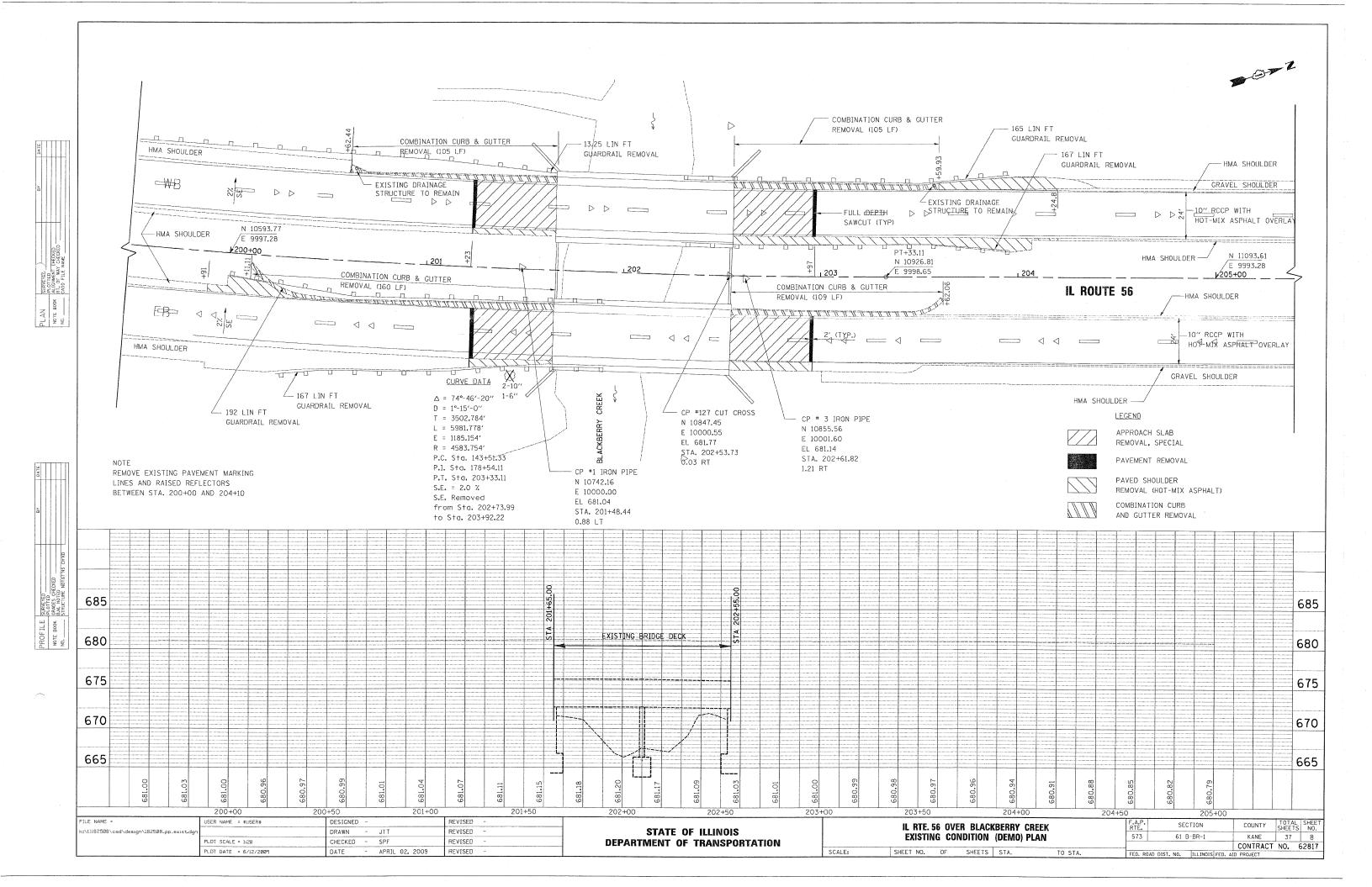


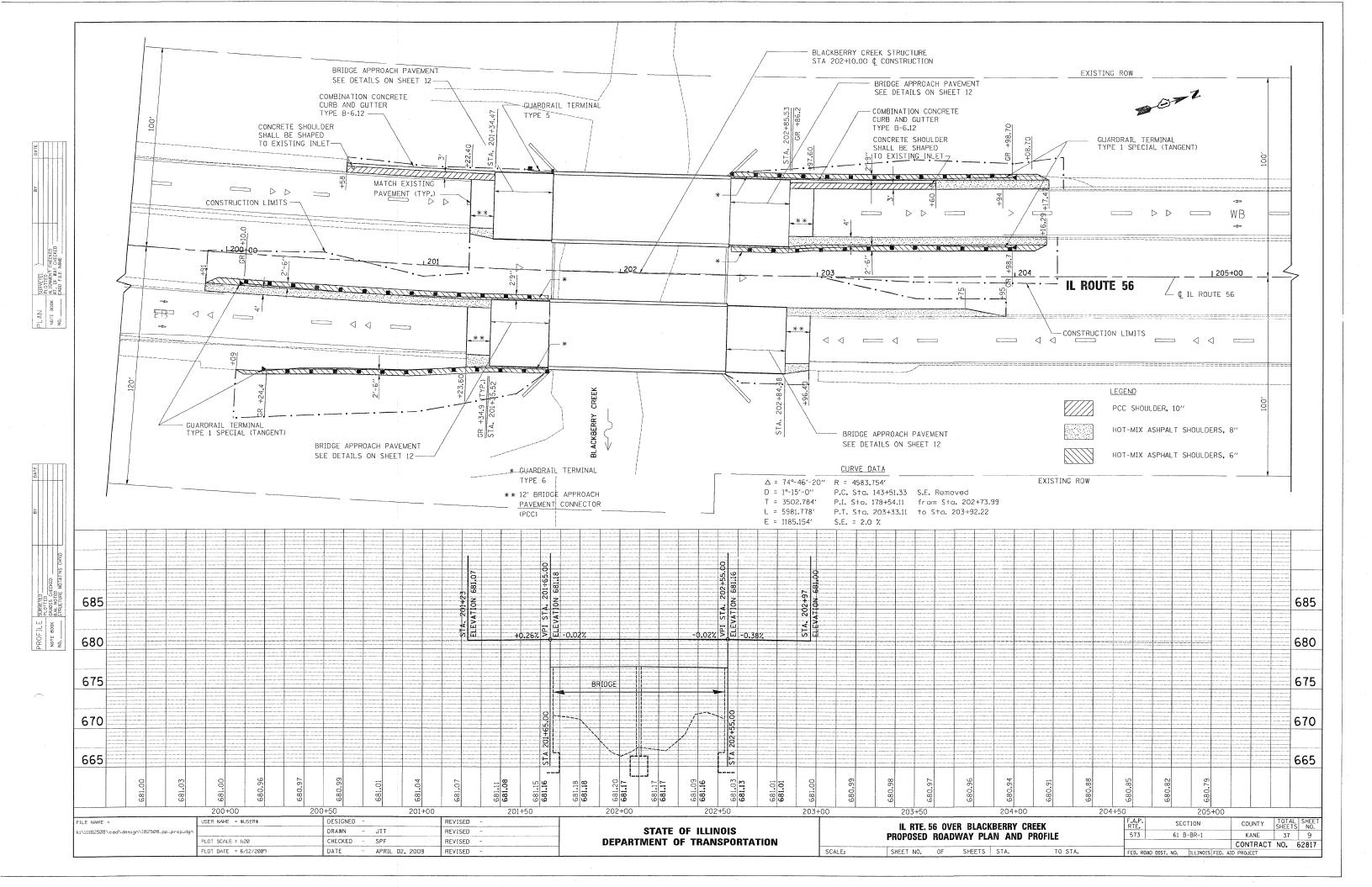
TYPICAL PROFILE VIEW -APPROACH ROADWAY WORK

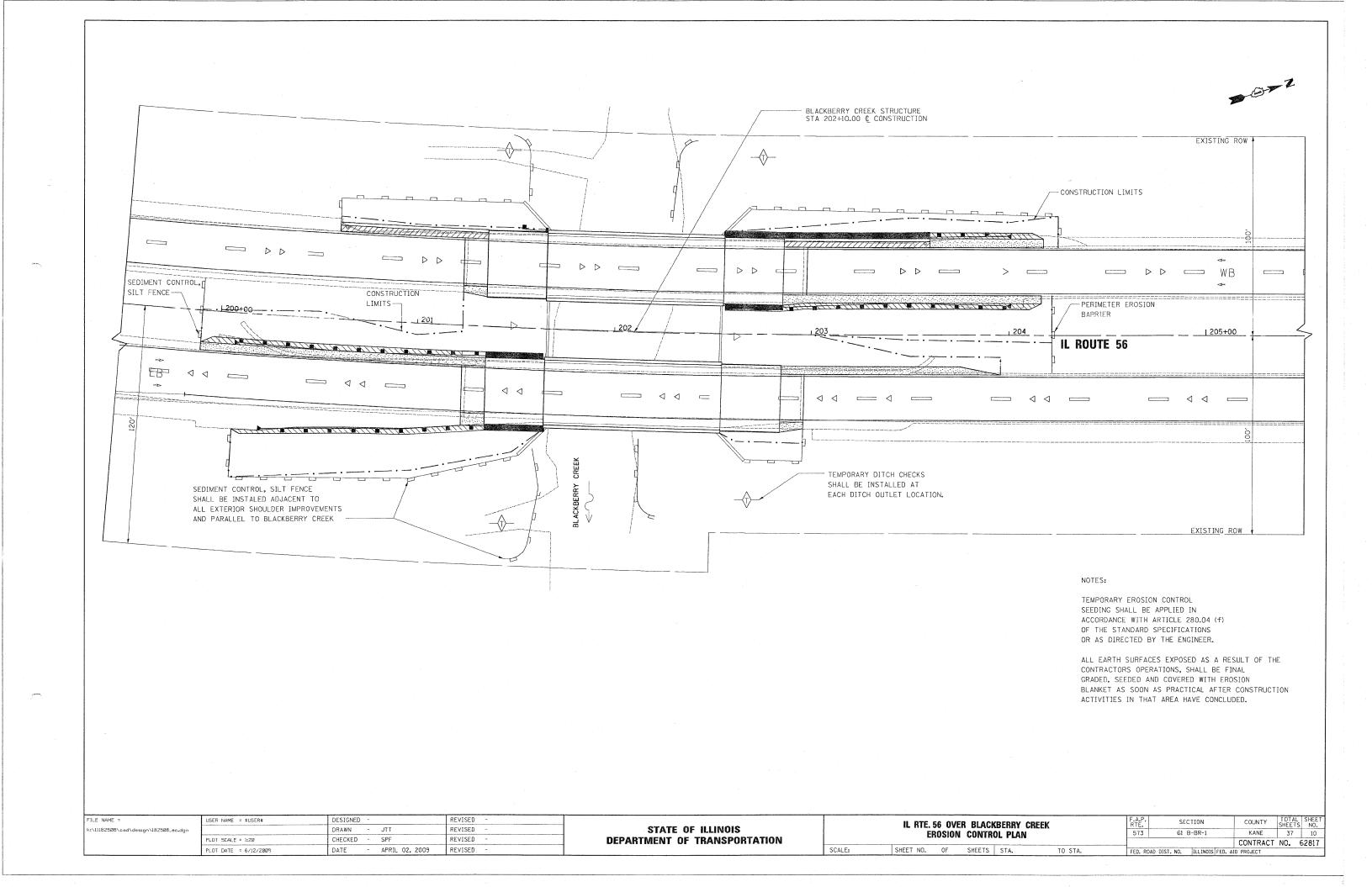
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k:\111825Ø8\cad\design\1825Ø8_typsec_Ø2.c	gn	DRAWN - JTT	REVISED -	STATE OF ILLINOIS		EXISTING AND				573	61 B-BR-1	KANE	37 5
	PLOT SCALE = 1:50	CHECKED - SPF	REVISED ~	DEPARTMENT OF TRANSPORTATION		EVISTING WIND	rnuruse	D TIPICAL	SECTIONS		01 0 011 1	CONTRACT	NO. 62817
	PLOT DATE = 6/12/2009	DATE - APRIL 02, 2009	REVISED -		SCALE:	SHEET NO. OF	SHEE	TS STA.	TO STA.	FED. ROAD DIST.	NO. ILLINOIS FED. A	ID PROJECT	1102 02011

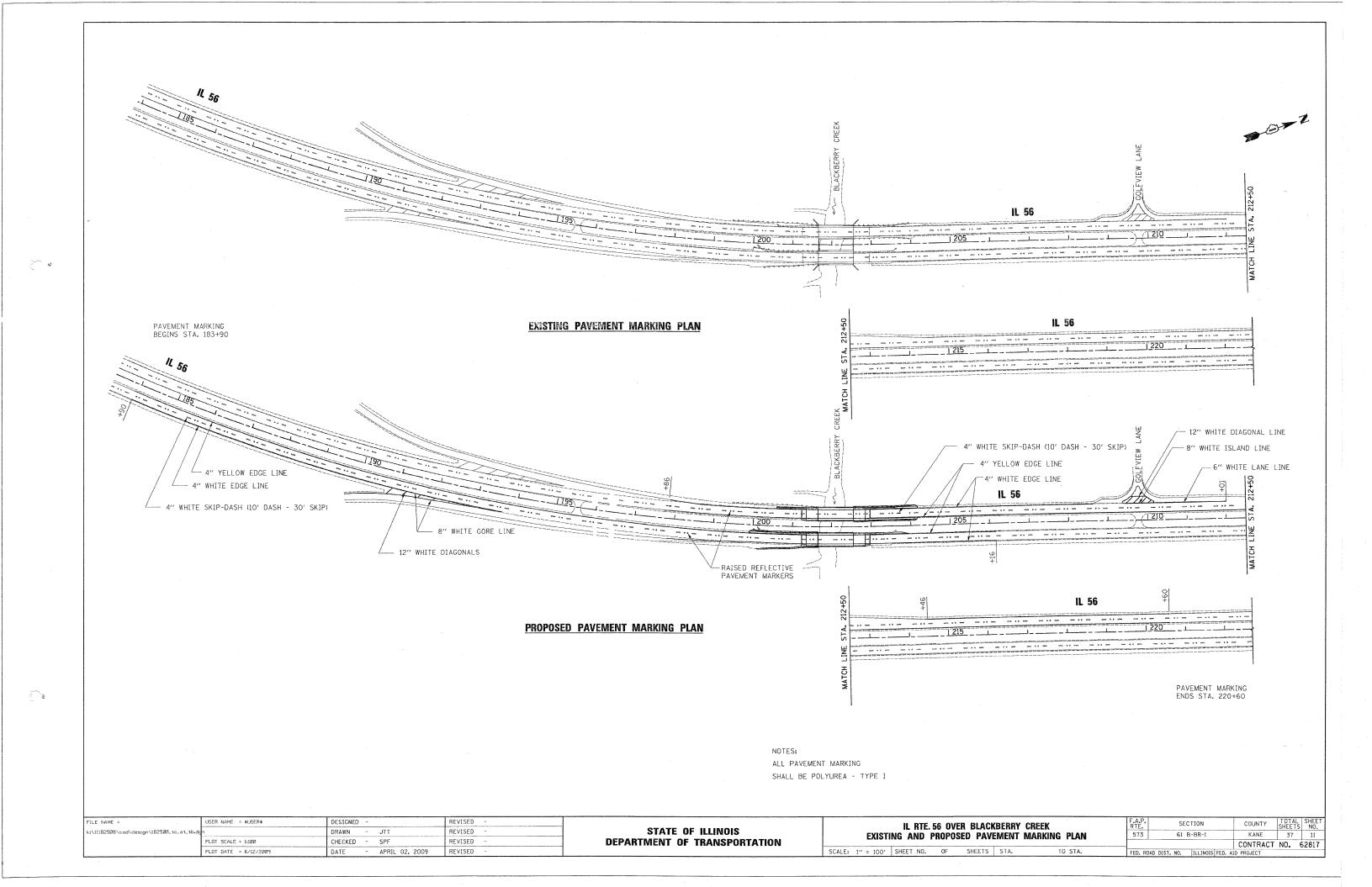


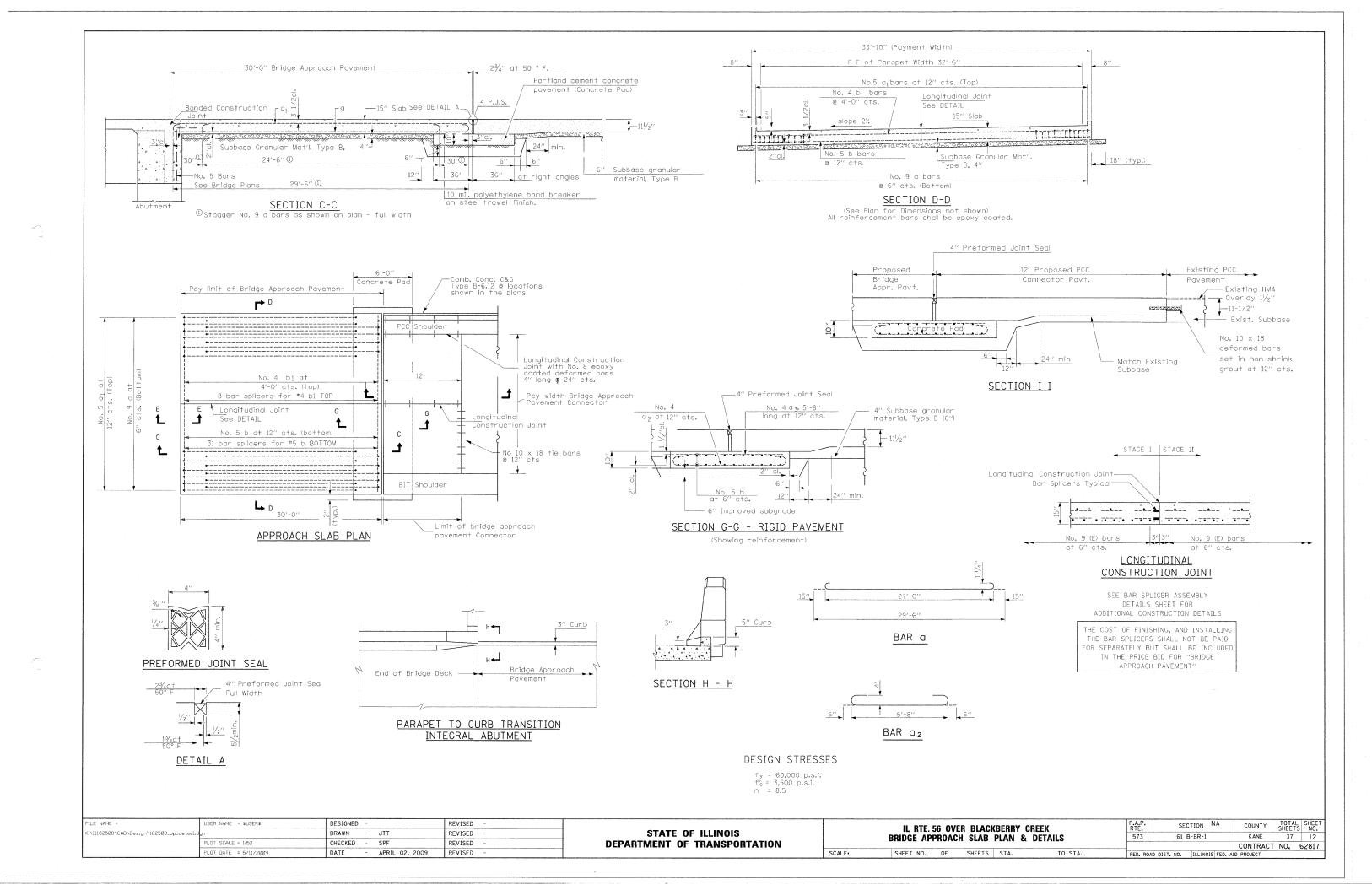


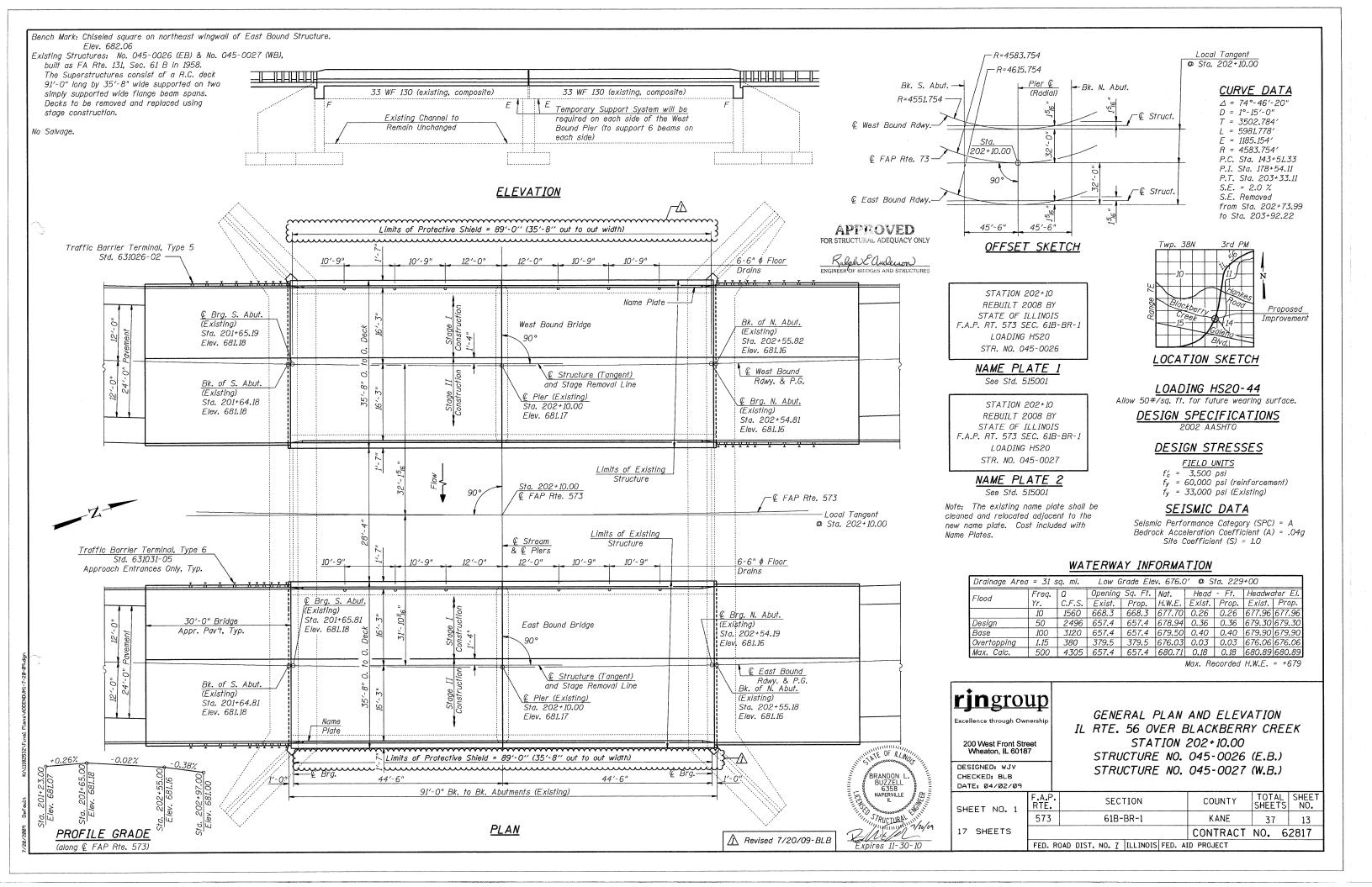












No field welding is permitted except as specified in the contract documents.

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

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 the 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 testing (PT) by qualified personnel approved by the Engineer. Any cracks that cannot be removed by grinding 4 inch 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 of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for

Concrete Sealer shall be applied to the seat area of the West Bound pier.

Cleaning and field painting of structural steel shall be done under a separate painting contract.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

All new structural steel shall be shop painted with an inorganic zinc rich primer per AASHTO M 300, Type 1.

Slipforming of the parapets is not allowed.

#### TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu. Yd.	20.8	7.9	28.7
Removal of Existing Concrete Deck	Each	2		2
Floor Drains	Each	12		12
Preformed Joint Strip Seal	Foot	69		69
Concrete Structures	Cu. Yd.		7.6	7.6
Concrete Superstructure	Cu. Yd.	235.1		235.1
Bridge Deck Grooving	Sq. Yd.	607		607
Protective Coat	Sq. Yd.	800		800
Elastomeric Bearing Assembly, Type I	Each	12		12
Furnishing and Erecting Structural Steel	Pound	1,610		1,610
Stud Shear Connectors	Each	3,168		3,168
Reinforcement Bars, Epoxy Coated	Pound	47,400	710	48,110
Name Plates	Each	2		2
Concrete Sealer	Sq. Ft.		83	83
Bar Splicers	Each	700	6	706
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.		20	20
Jack and Remove Existing Bearings	Each	12		12
Temporary Support System	L Sum		1	1
Anchor Bolts, 1"	Each	60		60
Protective Shield	Sq. Yd.	705	,,,,,,,,	705

INDEX OF SHEETS

Sheet No.	<u>Description</u>
1	General Plan and Elevation
2	General Notes and Bill of Material
3	Stage Construction Details
4	Concrete Removal Plans and Details
5	Deck Elevations - I
6	Deck Elevations - II
7	Superstructure
8	Superstructure Details
9	Diaphragm Details
10	Preformed Joint Strip Seal
11	Framing Plan
12	Bearing Details - West Bound Pier
13	Bearing Details - East Bound Pier
14	Pier Details (West Bound Structure)
15	Substructure Repair
16	Bar Splicer Assembly Details
17	Temporary Concrete Barrier for Stage Construction

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200 West Front Street Wheaton, IL 60187

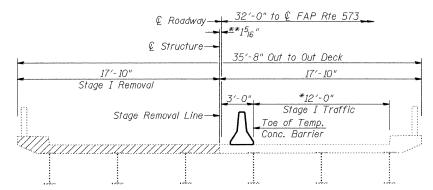
DESIGNED: WJV CHECKED: BLB DATE: 04/02/09

GENERAL NOTES AND BILL OF MATERIAL IL RTE. 56 OVER BLACKBERRY CREEK STATION 202+10.00 STRUCTURE NO. 045-0026 (E.B.) STRUCTURE NO. 045-0027 (W.B.)

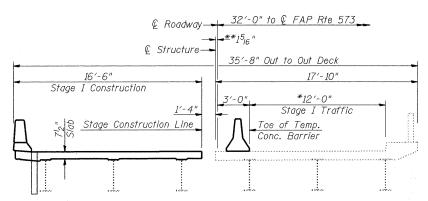
SHEET NO. 2

F.A.P. RTE. SECTION COUNTY 573 61B-BR-1 KANE 37 | 14 CONTRACT NO. 62817 FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT

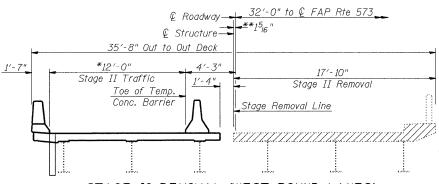
Revised 7/20/09-BLB



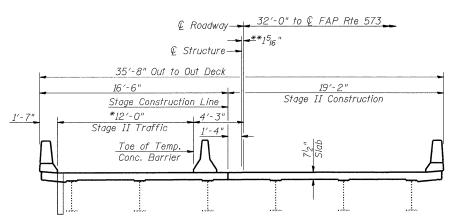
STAGE I REMOVAL (WEST BOUND LANES) (Looking North)



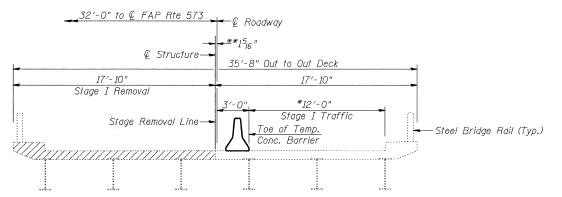
STAGE I CONSTRUCTION (WEST BOUND LANES) (Looking North)



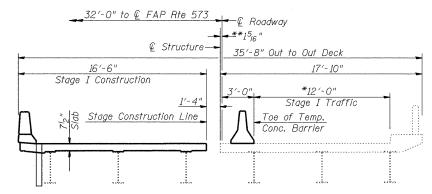
STAGE II REMOVAL (WEST BOUND LANES) (Looking North)



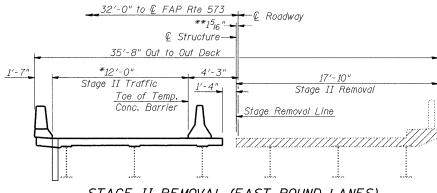
STAGE II CONSTRUCTION (WEST BOUND LANES) (Looking North)



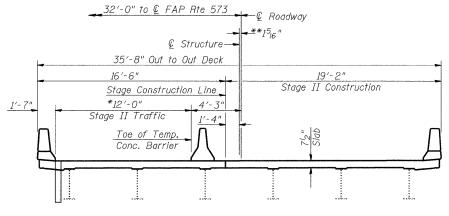
STAGE I REMOVAL (EAST BOUND LANES) (Looking North)



STAGE I CONSTRUCTION (EAST BOUND LANES) (Looking North)



STAGE II REMOVAL (EAST BOUND LANES) (Looking North)



STAGE II CONSTRUCTION (EAST BOUND LANES) (Looking North)

#### <u>LEGEND</u>



Denotes "Removal of Existing Concrete Deck"

#### <u>NOTES</u>

Dimension lines shown from @ Roadway are measured radially.

Removal of existing Steel Bridge Rail is included with Removal of Existing Concrete Deck.

Pay Item for Temporary Concrete Barrier is included with Roadway Plans.

See Sheet 17 of 17 for Temporary Concrete Barrier

#### SCOPE OF WORK

- 1. Remove and replace existing deck utilizing stage construction.
- 2. Remove and replace west bound pier cap.
- 3. Install concrete diaphragms with existing steel diapragms encased in the concrete at each pier, Also replace the expansion joints at each pier.
- 4. Remove and replace the concrete diaphragms/ curtain walls at the abutments.
- 5. Remove expansion bearings and replace with elastomeric bearings at both piers.
- 6. Substructure repairs.
- 7. Install stud shear connectors on existing
- 8. All existing structural steel shall be cleaned
- where it is going to be encased in concrete. 9. Remove and replace Bridge Approach Pavements.
- \* Varies  $\pm 15_{16}$ "; dimensions to the west of the © of Roadway will be an additional  $1^{5}_{16}$ " at the  $\mathbb Q$  of the structure and will be  $1^{5}_{16}$ " less at both ends of the structure. Dimensions to the east of the  ${\mathbb Q}$  of Roadway will be an additional  $15_6$ " at both ends of the structure and will be  $15_6$ " less at the  $\mathbb Q$  of the structure.
- \*\* Varies from  $1^5_{16}$ " west of  $\mathbb Q$  Roadway at the  $\mathbb Q$  of Structure to  $1^5_{16}$ " east of & roadway at both ends of the structure.

#### BILL OF MATERIAL

Item	Unit	Total
Removal of Existing Concrete Deck	Each	2



200 West Front Street Wheaton, IL 60187

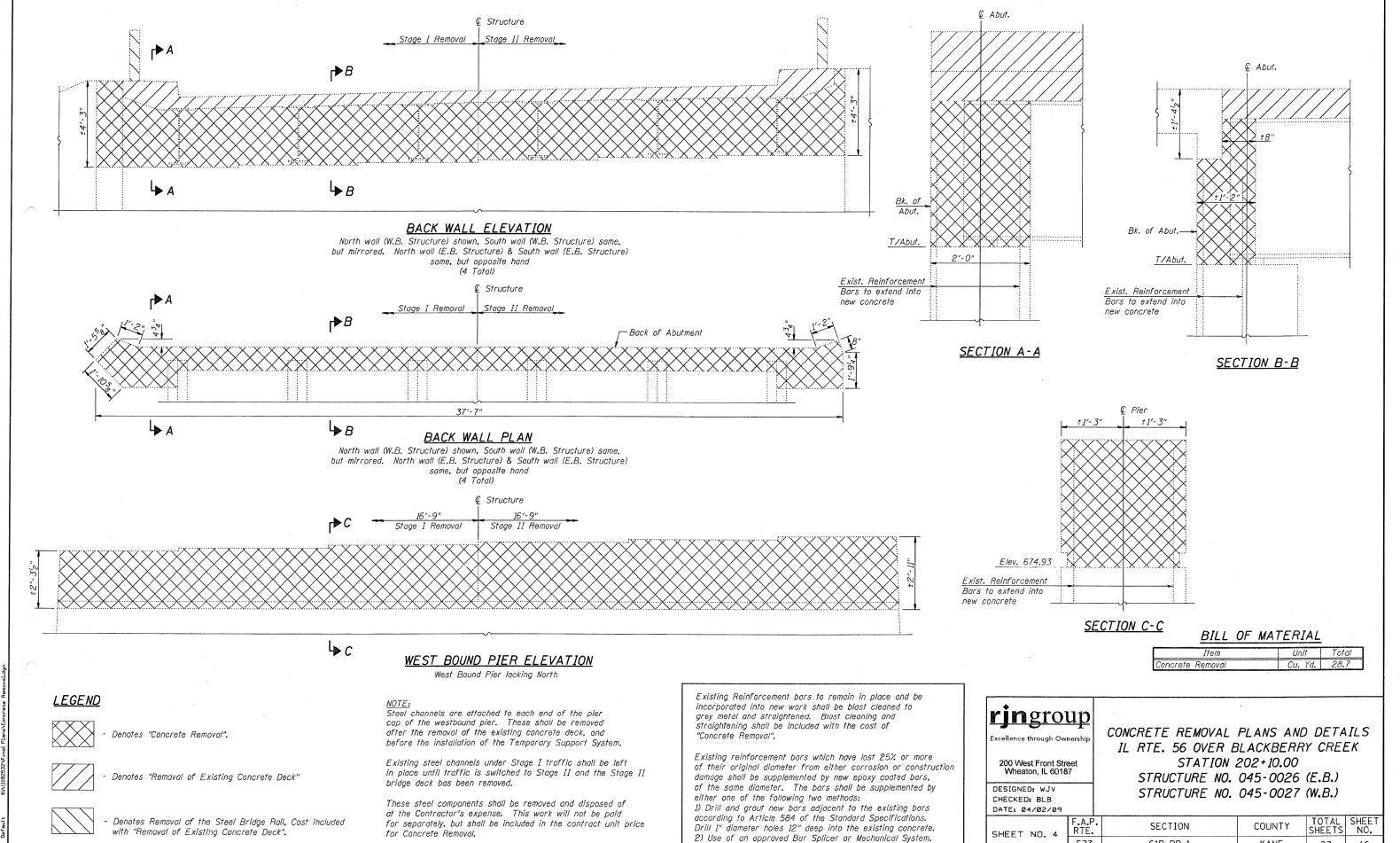
DESIGNED: WJV CHECKED: BLB DATE: 04/02/09

STATION 202+10.00 STRUCTURE NO. 045-0026 (E.B.) STRUCTURE NO. 045-0027 (W.B.)

STAGE CONSTRUCTION DETAILS

IL RTE. 56 OVER BLACKBERRY CREEK

SHEET NO. 3 RT		SEC.	TION	COUNTY	TOTAL SHEETS	SHEE NO.
3	573	61B-	BR-1	KANE	37	15
17 SHEETS				CONTRACT	NO. 6	2817
	FED. R	DAD DIST. NO. 7	ILLINOIS FED.	AID PROJECT		



Cost of either method shall be included with the cost of

"Concrete Removal".

573

17 SHEETS

61B-BR-1

FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT

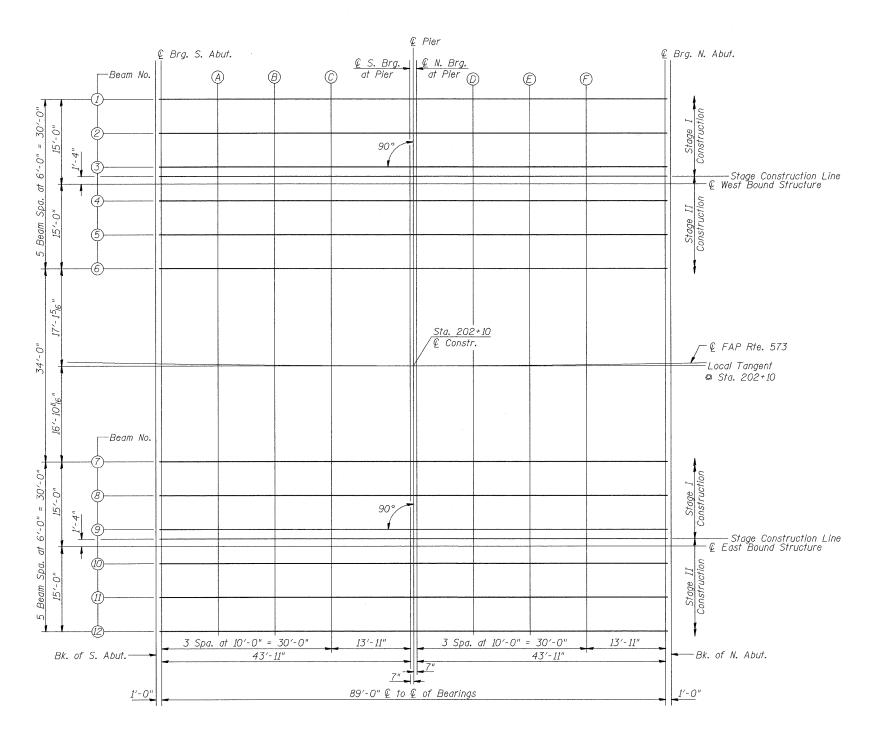
KANE

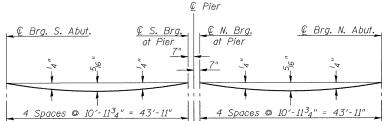
37

CONTRACT NO. 62817

16

12-

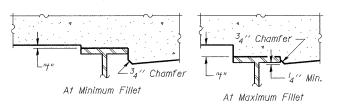




#### DEAD LOAD DEFLECTION DIAGRAM

(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 this and the following sheet.



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 this and the following sheet, minus slab thickness, equals the fillet heights "t" above top flange of beams.

#### FILLET HEIGHTS

#### BEAM #1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut. © Brg. S. Abut. A B C © S. Brg. at Pier	201+64.029 201+65.039 201+75.142 201+85.246 201+95.349 202+09.411	-46.882 -46.892 -46.979 -47.044 -47.087	680.877 680.881 680.877 680.874 680.871 680.868	680.877 680.881 680.895 680.901 680.894 680.868
© N. Brg. at Pier D E F © Brg. N. Abut. Bk. N. Abut.	202+10.589 202+20.693 202+30.797 202+40.900 202+54.961 202+55.971	-47.110 -47.098 -47.063 -47.007 -46.892 -46.882	680.868 680.866 680.865 680.864 680.863	680.868 680.884 680.892 680.887 680.863 680.858

#### BEAM #2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	201+64.090	-40.882	680.998	680.998
© Brg. S. Abut.	201+65.099	-40.892	681.001	681.001
A	201+75.188	-40.979	680.997	681.015
B	201+85.279	-41.044	680.994	681.021
C	201+95.369	-41.087	680.991	681.014
© S. Brg. at Pier	202+09.412	-41.110	680.988	680.988
© N. Brg. at Pier	202+10.588	-41.110	680.988	680.988
D	202+20.679	-41.098	680.986	681.004
E	202+30.769	-41.063	680.985	681.012
F	202+40.859	-41.007	680.984	681.007
© Brg. N. Abut.	202+54.901	-40.892	680.983	680.983
Bk. N. Abut.	202+55.910	-40.882	680.978	680.978

#### BEAM #3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	201+64.150	- 34.882	681.118	681.118
& Brg. S. Abut.	201+65.158	- 34.892	681.121	681.121
A	201+75.234	- 34.979	681.117	681.135
B	201+85.311	- 35.044	681.114	681.141
C	201+95.388	- 35.087	681.111	681.134
& S. Brg. at Pier	202+09.412	- 35.110	681.108	681.108
© N. Brg. at Pier	202+10.588	- 35.110	681.108	681.108
D	202+20.665	- 35.098	681.106	681.124
E	202+30.742	- 35.063	681.105	681.132
F	202+40.819	- 35.007	681.104	681.127
© Brg. N. Abut.	202+54.842	- 34.892	681.103	681.103
Bk. N. Abut.	202+55.850	- 34.882	681.098	681.098

#### **rjn**group

Excellence through Ownership

200 West Front Street Wheaton, IL 60187

DESIGNED: WJV CHECKED: BLB DATE: Ø4/02/09 DECK ELEVATIONS-I
IL RTE. 56 OVER BLACKBERRY CREEK
STATION 202+10.00
STRUCTURE NO. 045-0026 (E.B.)
STRUCTURE NO. 045-0027 (W.B.)

SHEET NO. 5	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	573	61B-BR-1	KANE	37	17
7 SHEETS			CONTRACT	NO. 6	2817
	FED. R	OAD DIST. NO. 7 ILLINOIS FED. AI	D PROJECT		

Default k:\11182532\final plans\Deck El

#### **€** WEST BOUND STRUCTURE

#### BEAM #4

#### BEAM #5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	201+64.167	- 33.216	681.151	681.151
© Brg. S. Abut.	201+65.174	- 33.225	681.154	681.154
A	201+75.247	- 33.312	681.151	681.168
B	201+85.320	- 33.377	681.147	681.175
C	201+95.393	- 33.420	681.145	681.167
© S. Brg. at Pier	202+09.413	- 33.443	681.141	681.141
© N. Brg. at Pier	202+10.587	-33.443	681.141	681.141
D	202+20.661	-33.431	681.139	681.157
E	202+30.734	-33.396	681.138	681.165
F	202+40.807	-33.340	681.137	681.160
© Brg. N. Abut.	202+54.826	-33.225	681.137	681.137
Bk. N. Abut.	202+55.833	-33.216	681.132	681.132

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection	
Bk. S. Abut. © Brg. S. Abut. A B C © S. Brg. at Pier	201+64.181 201+65.187 201+75.257 201+85.327 201+95.398 202+09.413	- 31.883 - 31.892 - 31.979 - 32.044 - 32.087 - 32.110	681.178 681.181 681.177 681.174 681.171 681.168	681.178 681.181 681.195 681.201 681.194 681.168	
© N. Brg. at Pier D E F © Brg. N. Abut. Bk. N. Abut.	202+10.587 202+20.658 202+30.728 202+40.798 202+54.813 202+55.819	- 32.110 - 32.098 - 32.063 - 32.007 - 31.892 - 31.883	681.168 681.166 681.165 681.164 681.163 681.158	681.168 681.184 681.192 681.187 681.163 681.158	
<u>BEAM #7</u>					

DETAIL ST				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut. © Brg. S. Abut. A B C © S. Brg. at Pier	201+64.211 201+65.217 201+75.280 201+85.344 201+95.407 202+09.413	-28.883 -28.893 -28.979 -29.044 -29.087 -29.110	681.238 681.241 681.237 681.234 681.231 681.228	681.238 681.241 681.255 681.261 681.254 681.228
© N. Brg. at Pier D E F © Brg. N. Abut. Bk. N. Abut.	202+10.587 202+20.651 202+30.714 202+40.778 202+54.783 202+55.789	-29.110 -29.098 -29.063 -29.007 -28.893 -28.883	681.228 681.226 681.225 681.224 681.223 681.219	681.228 681.244 681.252 681.247 681.223 681.219
RFAM #8				

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.  © Brg. S. Abut.  A B C  © S. Brg. at Pier	201+64.271 201+65.276 201+75.326 201+85.376 201+95.427 202+09.414	-22.883 -22.893 -22.980 -23.044 -23.087 -23.110	681.358 681.361 681.357 681.354 681.351 681.348	681.358 681.361 681.375 681.381 681.374 681.348
© N. Brg. at Pier D E F © Brg. N. Abut. Bk. N. Abut.	202+10.586 202+20.637 202+30.687 202+40.738 202+54.724 202+55.729	-23.110 -23.098 -23.064 -23.007 -22.893 -22.883	681.348 681.346 681.345 681.344 681.343 681.339	681.348 681.364 681.372 681.367 681.343 681.339
REAM #Q				

<u>BEAM #6</u>					
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection	
Bk. S. Abut. © Brg. S. Abut. A B C © S. Brg. at Pier	201+64.331 201+65.335 201+75.371 201+85.408 201+95.446 202+09.415	- 16.883 - 16.893 - 16.980 - 17.044 - 17.087 - 17.110	681.479 681.481 681.477 681.474 681.471 681.468	681.479 681.481 681.495 681.501 681.494 681.468	
© N. Brg. at Pier D E F © Brg. N. Abut. Bk. N. Abut.	202+10.585 202+20.623 202+30.660 202+40.697 202+54.665 202+55.669	-17.110 -17.098 -17.064 -17.008 -16.893	681.468 681.466 681.465 681.464 681.463 681.459	681.468 681.484 681.492 681.487 681.463 681.459	

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	201+64.669	17.115	680.880	680.880
© Brg. S. Abut.	201+65.665	17.105	680.881	680.881
A	201+75.627	17.019	680.877	680.895
B	201+85.590	16.955	680.874	680.901
C	201+95.553	16.913	680.871	680.894
© S. Brg. at Pier	202+09.419	16.890	680.868	680.868
© N. Brg. at Pier	202+10.581	16.890	680.868	680.868
D	202+20.544	16.902	680.866	680.884
E	202+30.507	16.936	680.865	680.892
F	202+40.470	16.992	680.864	680.887
© Brg. N. Abut.	202+54.335	17.105	680.863	680.863
Bk. N. Abut.	202+55.331	17.115	680.861	680.861

	DLAW #0									
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grad Elevations Adjust For Dead Load Deflection						
Bk. S. Abut. © Brg. S. Abut. A B C © S. Brg. at Pier	201+64.728 201+65.722 201+75.672 201+85.622 201+95.572 202+09.420	23.115 23.105 23.019 22.955 22.913 22.890	681.000 681.001 680.997 680.994 680.991 680.988	681.000 681.001 681.015 681.021 681.014 680.988						
© N. Brg. at Pier D E F © Brg. N. Abut. Bk. N. Abut.	202+10.580 202+20.530 202+30.481 202+40.431 202+54.278 202+55.272	22.890 22.902 22.936 22.992 23.105 23.115	680.988 680.986 680.985 680.984 680.983 680.982	680.988 681.004 681.012 681.007 680.983 680.982						
	ı	DC 444 #	. 10							

		DLAW "	<u>'                                    </u>	
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.  © Brg. S. Abut.  A B C  © S. Brg. at Pier	201+64.786 201+65.780 201+75.717 201+85.654 201+95.591 202+09.421	29.114 29.105 29.019 28.955 28.913 28.890	681.120 681.121 681.117 681.114 681.111 681.108	681.120 681.121 681.135 681.141 681.134 681.108
© N. Brg. at Pier D E F © Brg. N. Abut. Bk. N. Abut.	202+10.579 202+20.517 202+30.454 202+40.391 202+54.220 202+55.214	28.890 28.902 28.936 28.991 29.105 29.114	681.108 681.106 681.105 681.104 681.103 681.102	681.108 681.124 681.132 681.127 681.103 681.102

EAST BOUND STAGE CONSTRUCTION LINE									
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection					
Bk. S. Abut.  © Brg. S. Abut.  A B C  © S. Brg. at Pier	201+64.803	30.781	681.154	681.154					
	201+65.796	30.772	681.154	681.154					
	201+75.729	30.686	681.151	681.168					
	201+85.662	30.622	681.147	681.175					
	201+95.596	30.580	681.144	681.167					
	202+09.421	30.557	681.141	681.141					
© N. Brg. at Pier	202+10.579	30.557	681.141	681.141					
D	202+20.513	30.569	681.139	681.157					
E	202+30.447	30.603	681.138	681.165					
F	202+40.380	30.658	681.137	681.160					
© Brg. N. Abut.	202+54.204	30.772	681.137	681.137					
Bk. N. Abut.	202+55.197	30.781	681.135	681.135					

<i>© EAST BOUND STRUCTURE</i>									
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection					
Bk. S. Abut.	201+64.816	32.114	681.181	681.181					
© Brg. S. Abut.	201+65.809	32.105	681.181	681.181					
A	201+75.739	32.019	681.177	681.195					
B	201+85.670	31.955	681.174	681.201					
C	201+95.600	31.913	681.171	681.194					
© S. Brg. at Pier	202+09.421	31.890	681.168	681.168					
© N. Brg. at Pier	202+10.579	31.890	681.168	681.168					
D	202+20.510	31.902	681.166	681.184					
E	202+30.441	31.936	681.165	681.192					
F	202+40.371	31.991	681.164	681.187					
© Brg. N. Abut.	202+54.191	32.105	681.163	681.163					
Bk. N. Abut.	202+55.184	32.114	681.162	681.162					

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	201+64.845	35.114	681.241	681.241
© Brg. S. Abut.	201+65.838	35.104	681.241	681.241
A	201+75.761	35.019	681.237	681.255
B	201+85.685	34.955	681.234	681.261
C	201+95.610	34.913	681.231	681.254
© S. Brg. at Pier	202+09.421	34.890	681.228	681.228
© N. Brg. at Pier	202+10.579	34.890	681.228	681.228
D	202+20.503	34.902	681.226	681.244
E	202+30.427	34.936	681.225	681.252
F	202+40.352	34.991	681.224	681.247
© Brg. N. Abut.	202+54.162	35.104	681.223	681.223
Bk. N. Abut.	202+55.155	35.114	681.222	681.222

	į	BEAM #	<u>- 11</u>	
Location	Location Station		Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	201+64.904	41.114	681.361	681.361
© Brg. S. Abut.	201+65.895	41.104	681.361	681.361
A	201+75.806	41.019	681.357	681.375
B	201+85.717	40.955	681.354	681.381
C	201+95.628	40.913	681.351	681.374
© S. Brg. at Pier	202+09.422	40.890	681.348	681.348
© N. Brg. at Pier	202+10.578	40.890	681.348	681.348
D	202+20.489	40.902	681.346	681.364
E	202+30.401	40.936	681.345	681.372
F	202+40.312	40.991	681.344	681.367
© Brg. N. Abut.	202+54.105	41.104	681.343	681.343
Bk. N. Abut.	202+55.096	41.114	681.343	681.343

#### <u>BEAM #12</u>

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	201+64.962	47.114	681.481	681.481
© Brg. S. Abut.	201+65.952	47.104	681.481	681.481
A	201+75.850	47.019	681.477	681.495
B	201+85.748	46.955	681.474	681.501
C	201+95.647	46.913	681.471	681.494
© S. Brg. at Pier	202+09.423	46.890	681.468	681.468
© N. Brg. at Pier	202+10.577	46.890	681.468	681.468
D	202+20.476	46.902	681.466	681.484
E	202+30.374	46.936	681.465	681.492
F	202+40.273	46.991	681.464	681.487
© Brg. N. Abut.	202+54.048	47.104	681.463	681.463
Bk. N. Abut.	202+55.038	47.114	681.463	681.463

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.  © Brg. S. Abut.  A B C  © S. Brg. at Pier	201+64.962	47.114	681.481	681.481
	201+65.952	47.104	681.481	681.481
	201+75.850	47.019	681.477	681.495
	201+85.748	46.955	681.474	681.501
	201+95.647	46.913	681.471	681.494
	202+09.423	46.890	681.468	681.468
€ N. Brg. at Pier	202+10.577	46.890	681.468	681.468
D	202+20.476	46.902	681.466	681.484
E	202+30.374	46.936	681.465	681.492
F	202+40.273	46.991	681.464	681.487
€ Brg. N. Abut.	202+54.048	47.104	681.463	681.463
Bk. N. Abut.	202+55.038	47.114	681.463	681.463

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200 West Front Street Wheaton, IL 60187

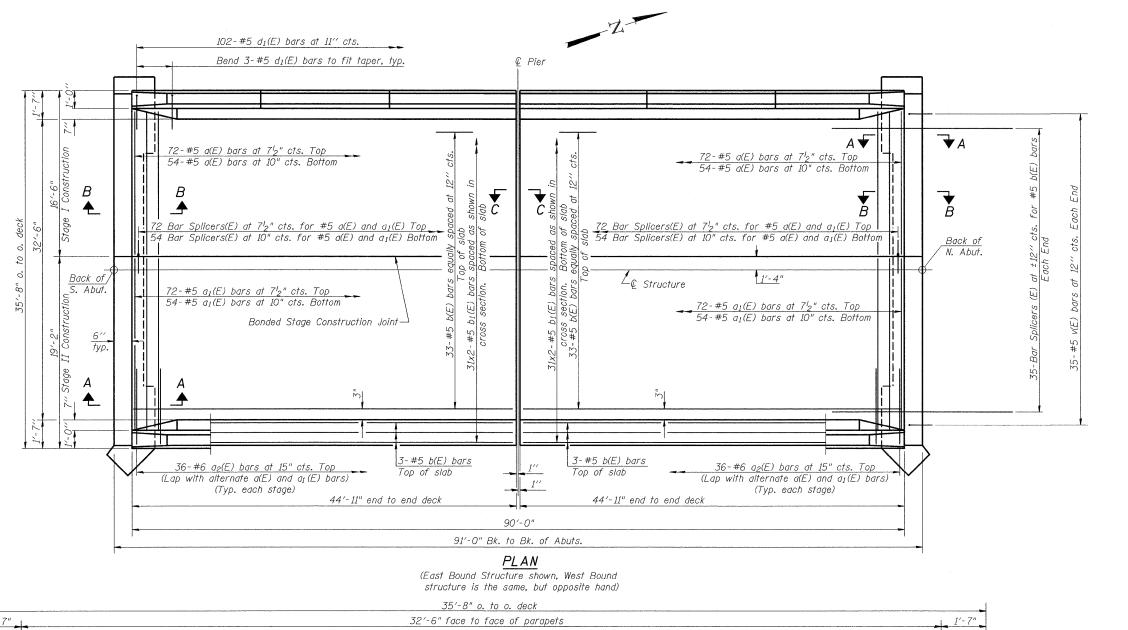
DESIGNED: WJV CHECKED: BLB

DATE: Ø4/Ø2/Ø9

DECK ELEVATIONS-II IL RTE. 56 OVER BLACKBERRY CREEK STATION 202+10.00 STRUCTURE NO. 045-0026 (E.B.) STRUCTURE NO. 045-0027 (W.B.)

SHEET NO. 6	F.A. RTE
17 SHEETS	

F.A.P RTE.	· .	SECTION				COUNTY	TOTA SHEE	TOTAL SHEETS			
573	61B-BR-1				KANE	37		18			
								CONTRACT	NO.	6	2817
FED.	ROAD	DIST.	NO.	7	ILLINOIS	FED.	AI	PROJECT			



#### NOTES

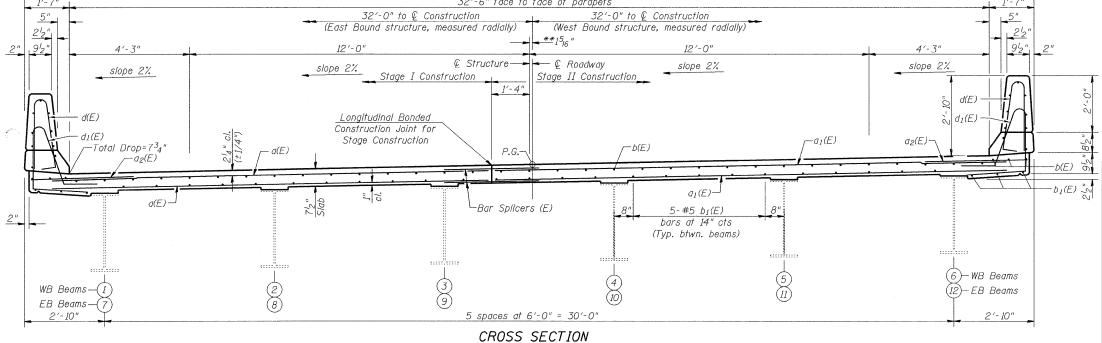
See Sheet 8 of 17 for Superstructure Details, Parapet Reinforcement and Bill of Material. Bars indicated thus 31x2-#5 etc. indicates 31 lines of bars with 2 lengths per line. See Sheet 9 of 17 for Diaphragm Details, Section A-A, Section B-B and Section C-C. See Sheet 16 of 17 for Bar Splicer Details. Dimensions are based on a Rolled Rail Strip Seal Joint. If the Contractor elects to use the Welded Rail Strip Seal Joint, deck dimensions may require adjustments to satisfy the details on sheet 10 of 17.

See Sheet 1 of 17 for Floor Drain locations. Cut longitudinal reinforcement to clear floor drains.

MIN. BAR LAP

#5 bar = 1'-8"

\*\*\* Varies from  $^{15}_{16}$ " west of © Roadway at the © of Structure to  $^{15}_{16}$ " east of © roadway at both ends of the structure.



Looking North

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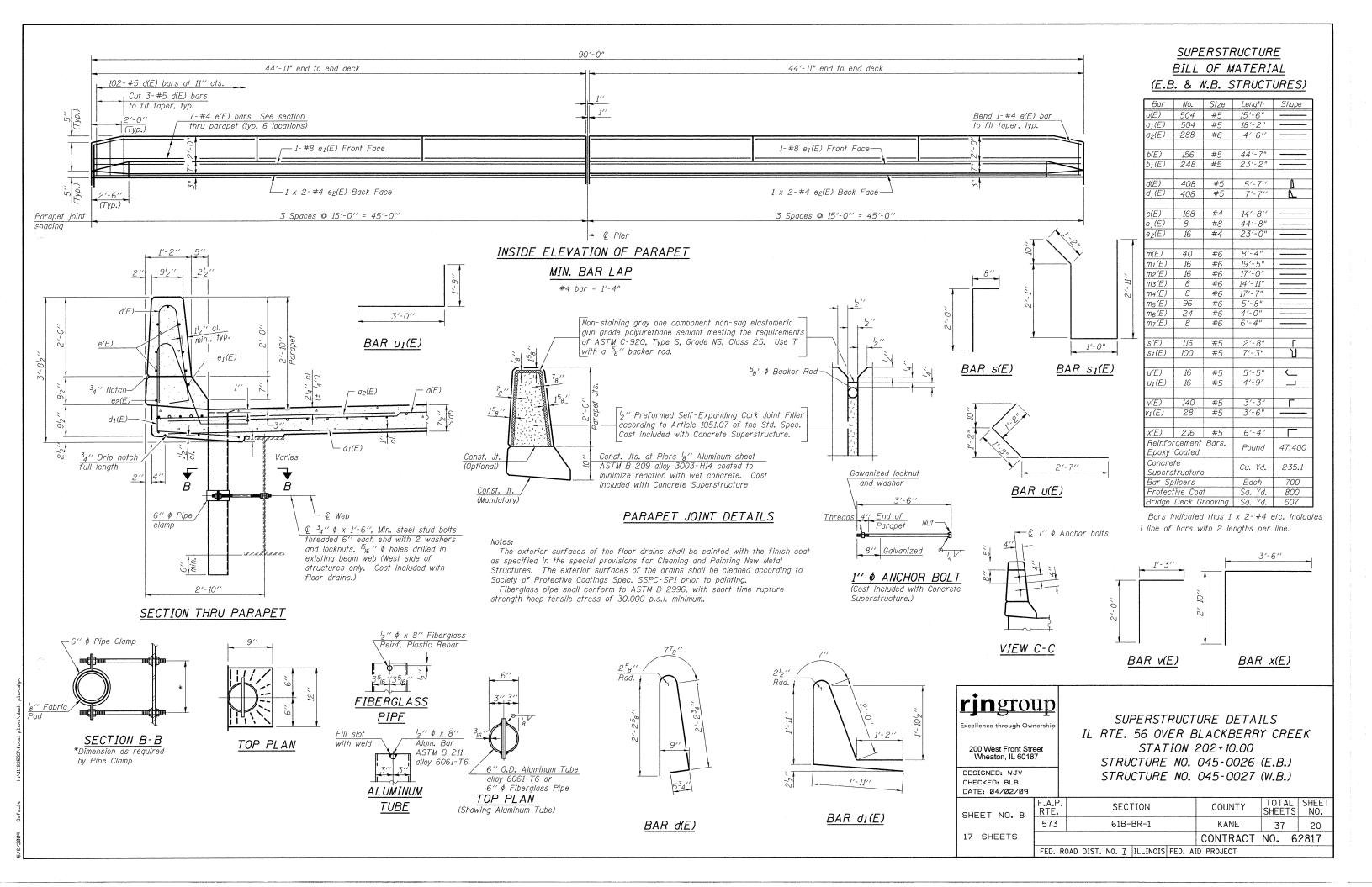
Excellence through Ownership

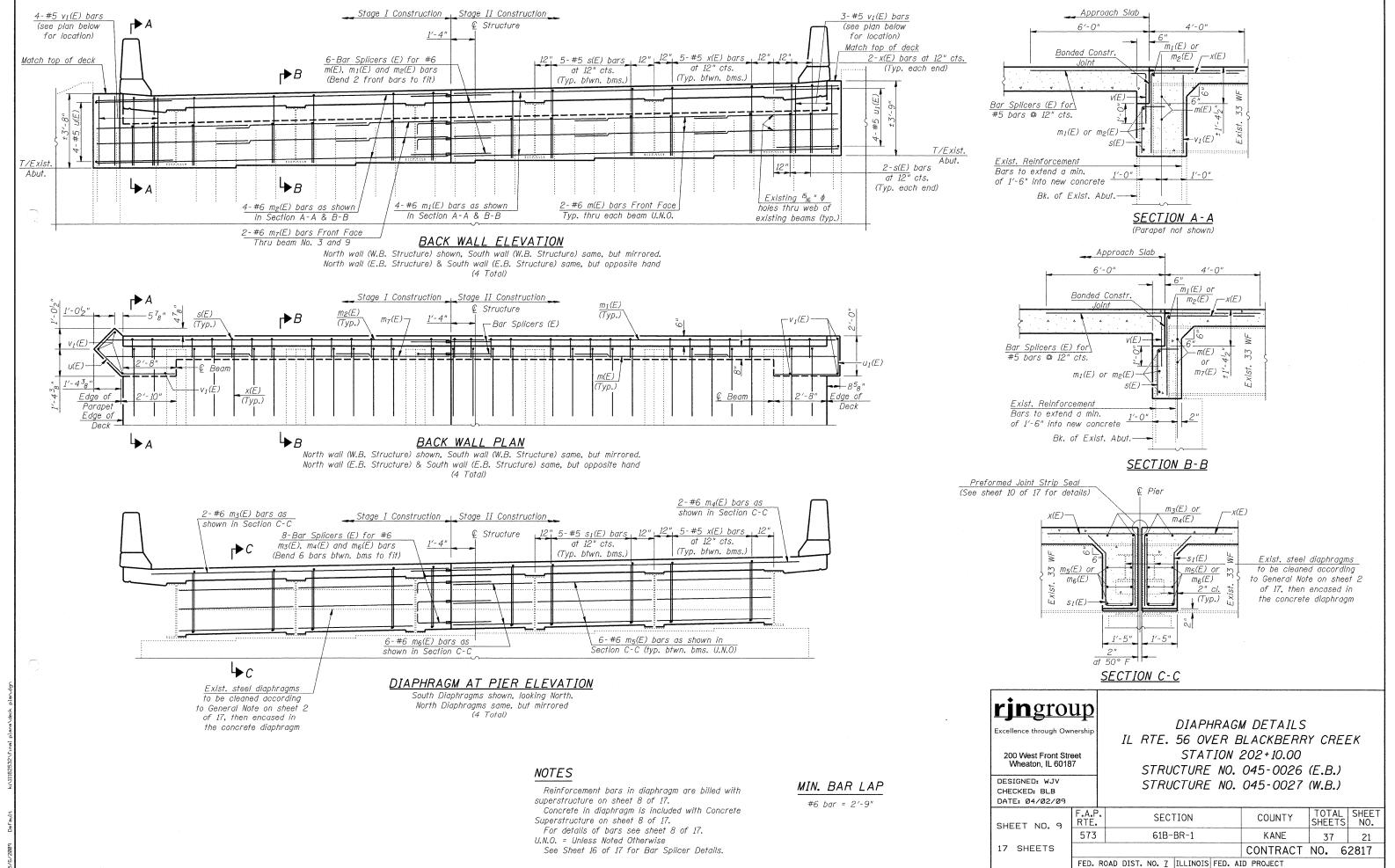
200 West Front Street Wheaton, IL 60187

DESIGNED: WJV CHECKED: BLB DATE: Ø4/Ø2/Ø9 SUPERSTRUCTURE
IL RTE. 56 OVER BLACKBERRY CREEK
STATION 202+10.00
STRUCTURE NO. 045-0026 (E.B.)
STRUCTURE NO. 045-0027 (W.B.)

SHEET NO. 7 RT 5

F.A.P. RTE.	•		SI	EC.	TION			COUNTY	TOTA SHEE	L TS	SHEE NO.
573	'3 61B-BR-1				KANE	37		19			
							1	CONTRACT	NO.	6	2817
FED.	ROAD	DIST.	NO.	7	ILLINOIS	FED.	AID	PROJECT			

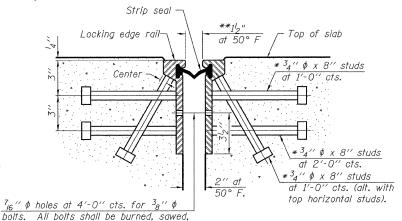




\*\* When joint is fixed, dimension is set at 1/2".

or chipped off flush with the plates

after forms are removed, typ.



Strip seal-Top of slab Locking edge rail \*3₄′′ ф x 8′′ studs Anchor plate Place plates at 1'-0" cts.  $^{7}_{16}$  "  $\phi$  holes at 4'-0" cts. for  $^{3}_{8}$  "  $\phi$ (alt. with top horizontal studs) bolts. All bolts shall be burned, sawed,

SECTION THRU

WELDED RAIL JOINT

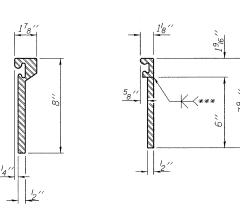
The strip seal shall be made continuous and shall have a minimum thickness of  $\frac{1}{4}$ ". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated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

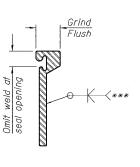
The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities and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

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

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

#### SECTION THRU ROLLED RAIL JOINT

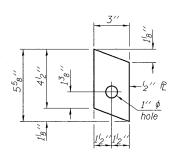




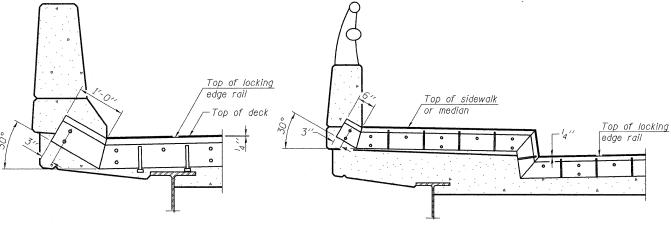
\*\*\*Back gouge not required if complete joint penetration is verified by mock-up.

or chipped off flush with the plates

after forms are removed, typ.



ANCHOR P



AT PARAPET

#### AT SIDEWALK OR MEDIAN

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

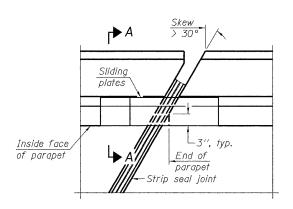
#### ROLLED EXTRUDED RAIL

WELDED RAIL

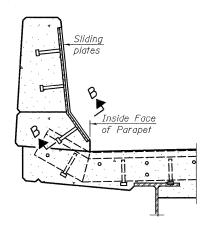
#### LOCKING EDGE RAIL SPLICE

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

#### LOCKING EDGE RAILS

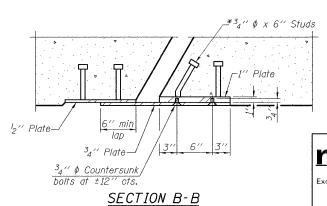


PLAN



SECTION A-A

POINT BLOCK DETAILS (for skews > 30°)



#### BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	69
	, 007	

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TYPICAL END TREATMENTS

200 West Front Street Wheaton, IL 60187

DESIGNED: WJV CHECKED: BLB DATE: 04/02/09

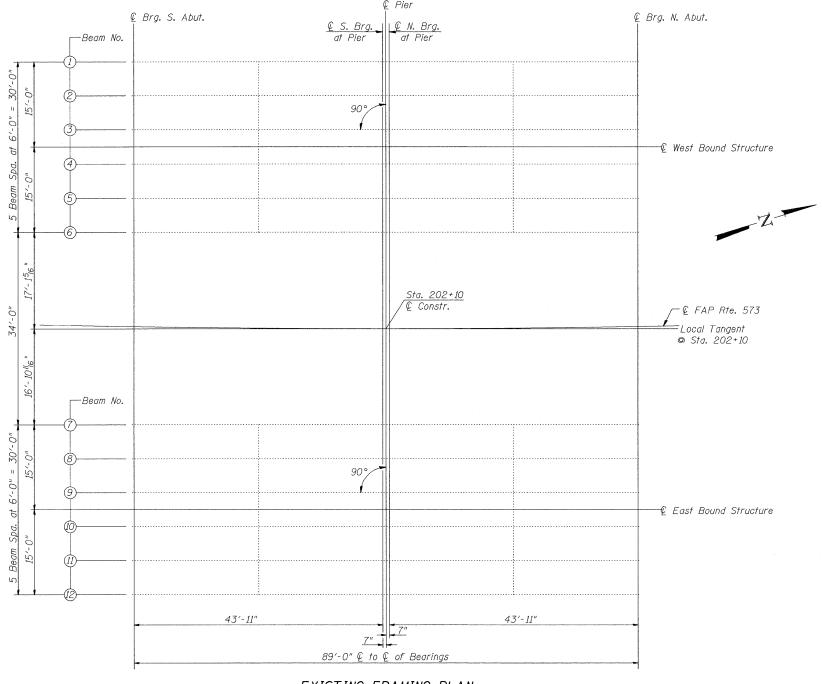
PREFORMED JOINT STRIP SEAL IL RTE. 56 OVER BLACKBERRY CREEK STATION 202+10.00 STRUCTURE NO. 045-0026 (E.B.) STRUCTURE NO. 045-0027 (W.B.)

SHEET NO. 10 17 SHEETS

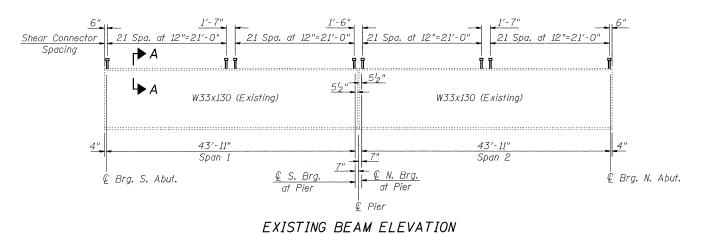
F.A.P. RTE.	SECTION					COUNTY TOTAL SHEET:		L TS	SHEET NO.
573	61B-BR-1					KANE	37		22
					1	CONTRACT	NO.	6	2817
FED. R	DAD DIST.	NO. 7	ILLINOIS	FED.	AID	PROJECT			

EJ-SSJ

10-1-08



EXISTING FRAMING PLAN



134". SECTION A-A

 $^{3}4'' \phi$  Granular or solid flux filled headed studs, automatically end welded to flange. (3,168 Req'd.)

INTERIOR BEAM	MOMENT TABLE
	0.5 Sp. 1 & 2
Is (in⁴)	6,710
Ic (n) (in <sup>4</sup> )	17,419
Ic (3n) (in <sup>4</sup> )	12,637
Ss (in³)	
Sc(n) (in <sup>3</sup> )	
Sc (3n) (in <sup>3</sup> )	529
Z (in $3$ )	
<u>P</u> (k/ft.)	0.70
M₽ ('k)	169
s₽ (k/ft.)	0.42
Ms₽ ('k)	102
M½ ('k)	279
M ( $Imp$ ) ( $'k$ )	82
<sup>5</sup> 3[M½+M(Imp)] ('k)	602
Ma ('k)	1135
Mu ('k)	2295
fs₽non-comp(k.s.i.)	5.0
$fs \mathbb{P}(comp)$ (k.s.i.)	2.3
$fs_{3}(4+Imp)$ (k.s.i.)	12.3
fs (Overload) (k.s.i.)	19.6
fs (Total) (k.s.i.)	-
VR (k)	40.1

INTERIOR	BEA	M REACTION TABLE
		Abuts. & Pier
R₽	(k)	24.6
R4	(k)	<i>34.8</i>
Imp.	(k)	10.3
R (Total)	(k)	69.7

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total & Overload),

Ic(m) and Sc(m) are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.

Ic(3n) and Sc(3n) are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads. (see AASHTO 10.38)

VR is the maximum Live Load + Impact shear range in span.

Z is the plastic section modulus used to determine the fully plastic moments in the non-composite areas.

Ma (Applied Moment)=1.3[MQ + MsQ +  $\frac{5}{3}$ (MQ + M(Imp))]. The Plastic Moment capacity (Mu) is computed according to AASHTO 10.48.1 and 10.50.1.1.

fs (Overload) is the sum of the stresses due to MP + MsP +53(M4 + M(Imp)).

fs (Total) (Non-compact section) is the sum of the stresses due to 1.3[MP +  $MsP + 5_3(M+ + M(Imp))$ ].

#### BILL OF MATERIAL

Item	Unit	Total
Stud Shear Connectors	Each	<i>3,168</i>

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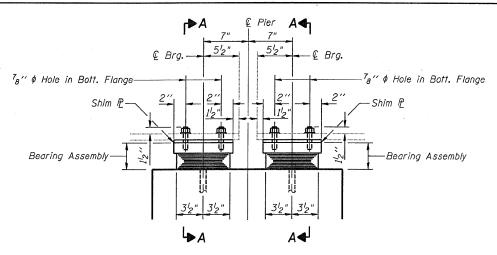
200 West Front Street Wheaton, IL 60187

DESIGNED: WJV CHECKED: BLB DATE: Ø4/Ø2/Ø9

FRAMING PLAN IL RTE. 56 OVER BLACKBERRY CREEK STATION 202+10.00 STRUCTURE NO. 045-0026 (E.B.) STRUCTURE NO. 045-0027 (W.B.)

SHE	EET	NO.	11
17	SHI	EETS	\$

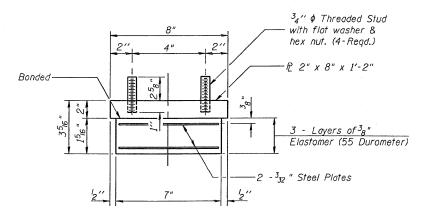
F.A.P RTE.	A.P. SECTION				COUNTY	TOTAL SHEETS		SHEE NO.			
573	73 61B-BR-1			KANE	37	37					
								CONTRACT	NO.	6	2817
FED.	ROAD	DIST.	NO.	7	ILLINOIS	FED.	AIL	PROJECT			



ELEVATION AT PIER (WEST BOUND STRUCTURE)

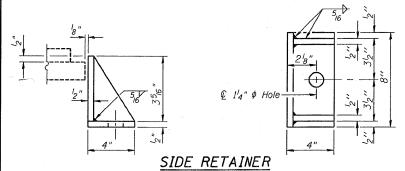
# Side Retainer, typ. Side Retainer, typ. $6'' \quad 6'' \quad 9'_4'' \quad 9'_4'' \quad 2''_4'' \times 2'_4'' \times 2'_4'' \times 2'_4'' \times 2'_4'' \times 2'_4'' \times 2'_6''' \text{ $\mathbb{R}$ washer under nut}}$ SECTION A - A

#### TYPE I ELASTOMERIC EXP. BRG.



#### BEARING ASSEMBLY

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



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

#### NOTES

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). 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 bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.

 $^7\!g''$  diameter holes in bottom flange for  $^3\!q''$  studs will be drillied in the field. Cost included with Elastomeric Bearing Assembly. Type I.

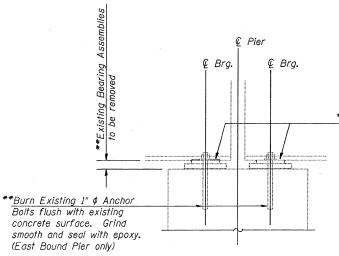
Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.

Jacking and Removal of Existing Bearings for the West Bound Bridge shall be included with the Cost for Temporary Support System.

#### BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	12
Anchor Bolt, 1"	Each	24
Temporary Support System	L Sum	1

\*Includes both sides of Westbound Pier.



\*\*Existing Plate to be removed using the air-arc method and grind smooth all weld material remaining on the bottom flange.

\*\*Cost is included with "Jack and Remove Existing Bearings" for East Bound Pier. Cost is included with "Temporary Support System" for West Bound Pier.

#### JACK AND REMOVE EXISTING BEARINGS AT PIERS

#### JACKING PROCEDURES

- 1. Prior to commencing any work at the bearings, the Contractor shall submit plans for Jacking for approval by the Engineer.
- Jacking and Removing Existing Bearings shall be done after deck removal is completed and before the new deck is placed.
- Jacking shall be limited so that the maximum lift transversely between adjacent beams is '4". See Special Provision for "Jack and Remove Existing Bearings".
- 4. The maximum dead load reaction with the deck removed (per bearing) is 4 kips. Minimum Jack capacity is 8 kips.
- 5. The jacks will be lowered after the top of pier is reconstructed (west bound structure only) and the bearings are installed in place and before the new deck is placed.

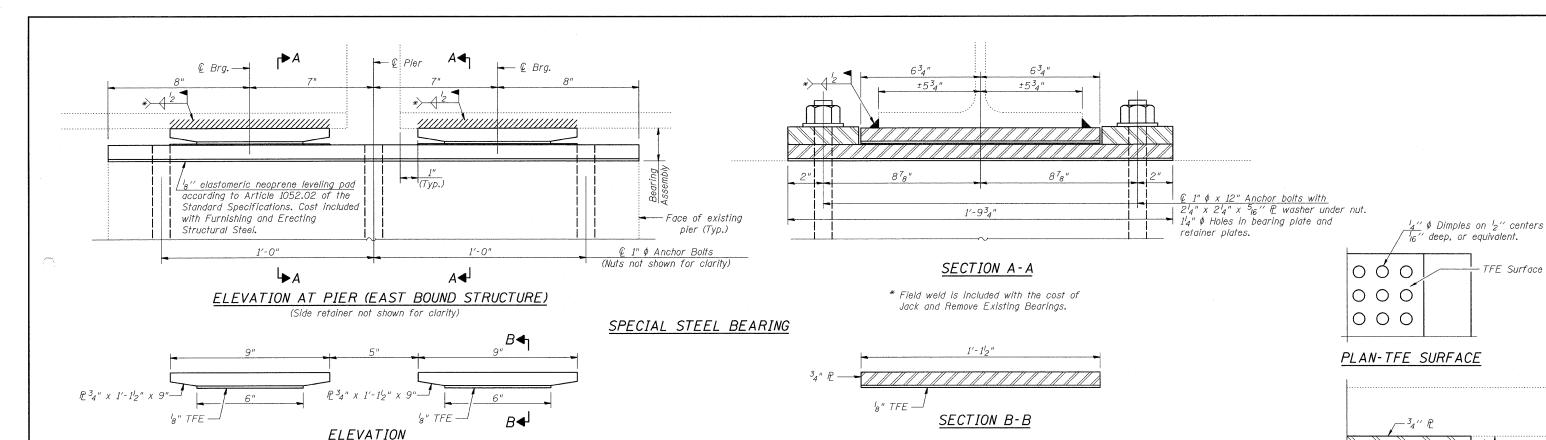
#### rjngroup

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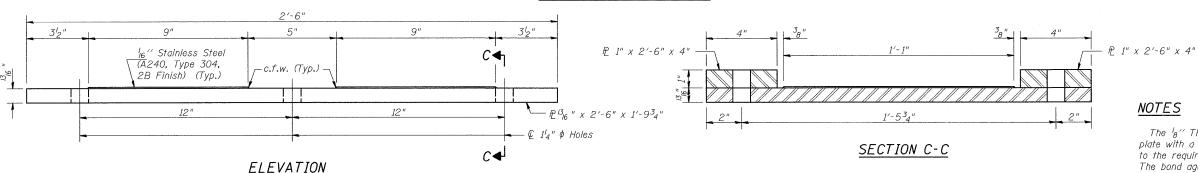
200 West Front Street Wheaton, IL 60187

DESIGNED: WJV CHECKED: BLB DATE: 04/02/09 BEARING DETAILS - WEST BOUND PIER
IL RTE. 56 OVER BLACKBERRY CREEK
STATION 202+10.00
STRUCTURE NO. 045-0026 (E.B.)
STRUCTURE NO. 045-0027 (W.B.)

SHEET NO.12	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0	573	61B-BR-1	KANE	37	24
17 SHEETS			CONTRACT	NO. 6	2817
	FFD. RO	DAD DIST. NO. 7 ILLINOIS FED. AI	D PROJECT		



#### TOP BEARING ASSEMBLY



Side retainer plates not shown for clarity.

#### BOTTOM BEARING ASSEMBLY

5'2"	5 <sup>1</sup> 2"	Jack and Remove Existing Bearings Anchor Bolts, 1"
Face of Pier	-D <sub>8"</sub>	of Pier
<u>BELOW 50°F.</u> (Move bott. brg. away from fixed brg.) (Move	ABOVE 50°F. bott. brg. toward fixed bry	g.)

#### SETTING ANCHOR BOLTS AT EXP. BRG.

D='g'' per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

#### NOTES

The 18" TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

SECTION THRU TFE

-TFE Surface

18" TFE with dimpled surface

Bearing plates and side retainers shall be included in the weight of Furnishing and Erecting Structural Steel.

 $^\prime 8$ " TFE and stainless steel plates will not be paid for separately, but shall be included in the unit bid price for Furnishing and Erecting Structural Steel.

See Sheet 12 of 17 for Jack and Remove Existing Bearings and notes.



Total

1,610

12

Pound

Each

Each

BILL OF MATERIAL

Item

urnishing and Erecting

Structural Steel

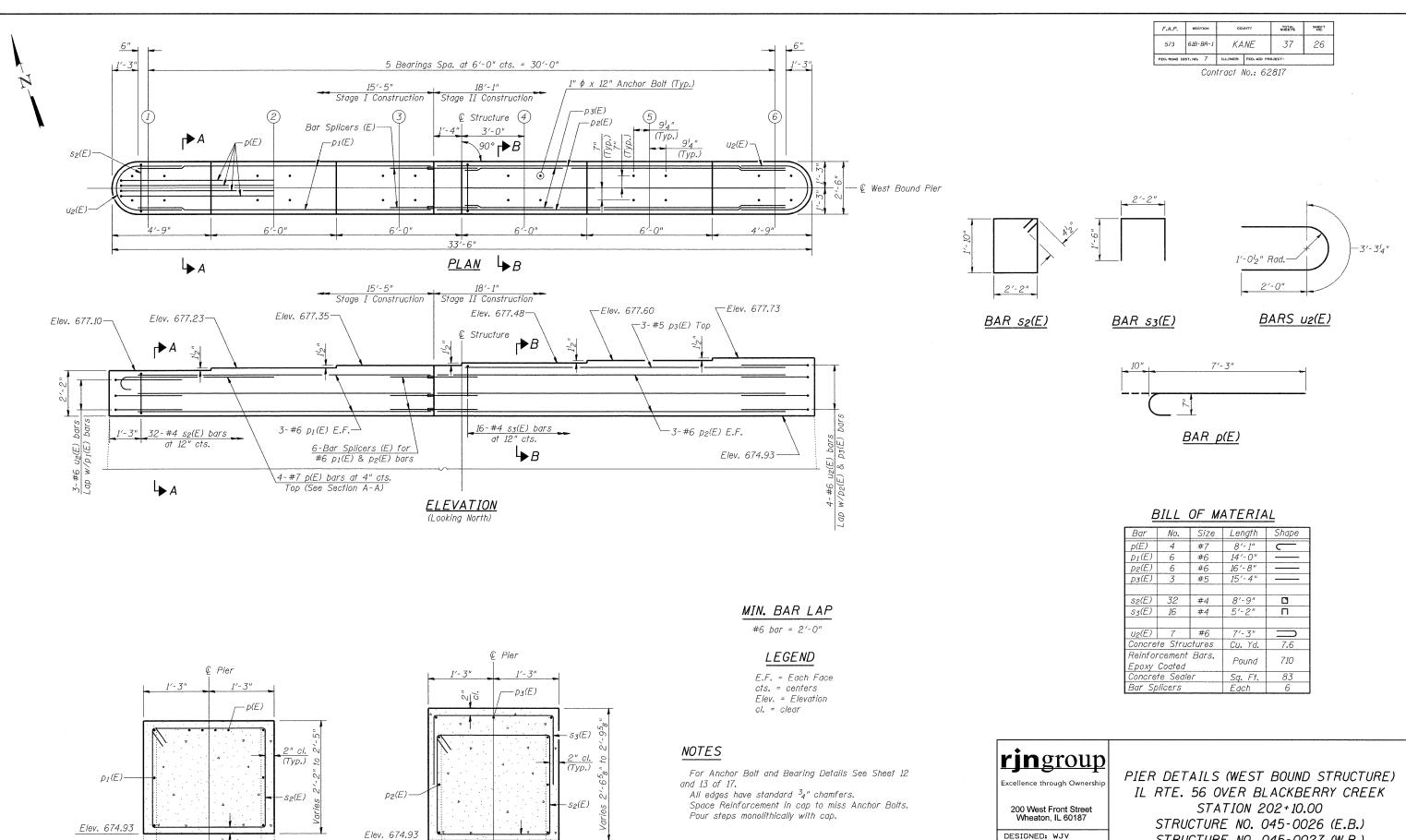
200 West Front Street

DESIGNED: WJV CHECKED: BLB DATE: Ø4/Ø2/Ø9 BEARING DETAILS - EAST BOUND PIER IL RTE. 56 OVER BLACKBERRY CREEK STATION 202+10.00 STRUCTURE NO. 045-0026 (E.B.) STRUCTURE NO. 045-0027 (W.B.)

SHEET NO. 13	F.A.P. RTE.	SECTION						COUNTY	TOTAL SHEETS	SHEET NO.
011221 110110	573	61B-BR-1						KANE	37	25
17 SHEETS								CONTRACT	NO.	52817
	FED. R	OAD DIS	r. NO.	7	ILLINOIS	FED.	AII	PROJECT		

© Beam
© Brg.
© Brg.
4" Face of existing pier (Typ.)

SIDE RETAINERS



0 kg

SECTION B-B

Exist. Reinforcement

Bars to extend a min.

of 1'-6" into new concrete

515°

SECTION A-A

Exist. Reinforcement

Bars to extend a min.

of 1'-6" into new concrete .

SHEET NO. 14 17 SHEETS

STRUCTURE NO. 045-0027 (W.B.) CHECKED: BLB
DATE: Ø4/02/09 TOTAL SHEET NO. F.A.P. RTE. SECTION COUNTY 573 61B-BR-1 KANE 37 26

CONTRACT NO. 62817 FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT



(Looking South)



Structural Repair of Concrete (Depth Equal to or Less Than 5")

#### BILL OF MATERIAL

١	Item	Unit	Total
	Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.	20

NOTE: Repair areas shown are from a survey done in 2004. Quantities have been increased to allow for additional needed repairs.



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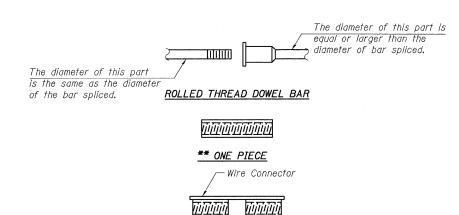
200 West Front Street Wheaton, IL 60187

DESIGNED: WJV CHECKED: BLB DATE: 04/02/09

SUBSTRUCTURE REPAIR IL RTE. 56 OVER BLACKBERRY CREEK STATION 202+10.00 STRUCTURE NO. 045-0026 (E.B.) STRUCTURE NO. 045-0027 (W.B.)

SHEET NO. 15 17 SHEETS

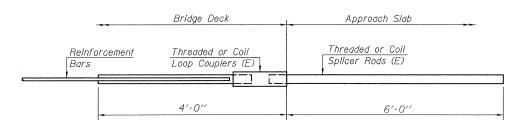
TOTAL SHEET SHEETS NO. SECTION COUNTY 573 61B-BR-1 KANE 37 27 CONTRACT NO. 62817 FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT



#### BAR SPLICER ASSEMBLY ALTERNATIVES

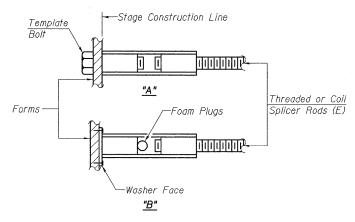
WELDED SECTIONS

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



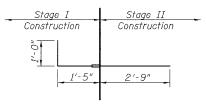
#### FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar									
Min.	Capacity	= 23.0	kips - i	ensior	ì				
Min.	Pull-out	Strength	= 12.3	kips	- tension				
No.	Required	= 140							



#### 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.



#### #6 BAR SPLICER (E) FOR DIAPHRAGMS

#### SPECIAL SPLICER DETAIL

Bar Size	No. Assemblies Required	Location
#6	24	Diaphragms (Pier)
#6	8	Diaphragms (Abutments)

#### NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.

Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length. All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars. Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.

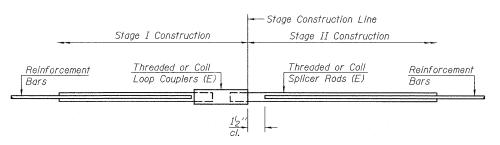
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

Minimum Capacity (Tension in kips) =  $1.25 \times fy \times A_t$ 

(Tension אין און אויא) Minimum \*Pull-out Strength = 0.66 x fy x A, (Tension in kips)

Where fy = Yield strength of lapped reinforcement bars in ksi.  $A_t$  = Tensile stress area of lapped reinforcement bars. \* = 28 day concrete

	BAR SPLIC	ER ASSEMBLI	ES				
		Strength Requirements					
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length		Min. Pull-Out Strength kips - tension				
#4	1'-8''	14.7	7.9				
#5	2'-2''	23.0	12.3				
#6	2′-7′′	33.1	17.4				
#7	3′-5″	45.1	23.8				
#8	4'-6''	58.9	31.3				
#9	5′-9′′	75.0	39.6				
#10	7′-3′′	95.0	50.3				
#11	9'-0''	117.4	<i>61.8</i>				



#### STANDARD

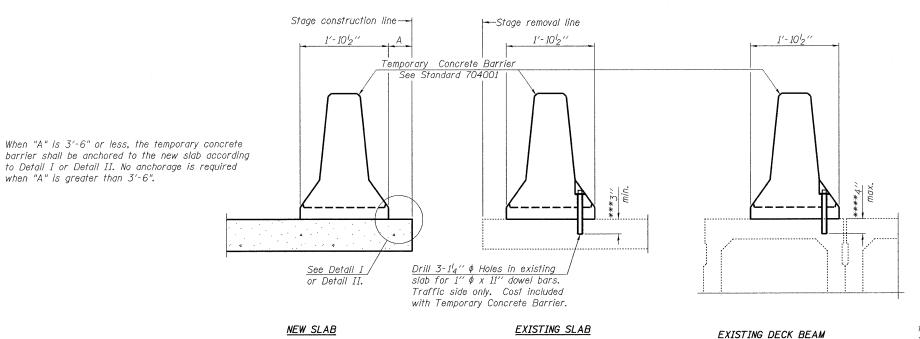
Bar Size	No. Assemblies Required	Location
#6	6	Pier
#6	8	Diaphragms (Pier)
#6	16	Diaphragms (Abutments)
#5	50 <del>4</del>	Deck

**rjn**group Excellence through Ownership 200 West Front Street Wheaton, IL 60187

DESIGNED: WJV CHECKED: BLB DATE: 04/02/09

BAR SPLICER ASSEMBLY DETAILS IL RTE. 56 OVER BLACKBERRY CREEK STATION 202+10.00 STRUCTURE NO. 045-0026 (E.B.) STRUCTURE NO. 045-0027 (W.B.)

DHIL: 64/62/65									
SHEET NO.16	F.A.P. RTE.		SE	CTI	ON		COUNTY	TOTAL SHEETS	SHEET NO.
	573		61E	3-BI	R-1		KANE	TOTAL SHEETS 37	28
17 SHEETS							CONTRACT	NO. (	62817
l	EED E	TZIO OAOS	NO 7	7 TI	STONT	FED	ATD PROJECT		



#### NOTES

Detail I - With Bar Splicer or Couplers: Connect one (1) 1"x7"x10" steel P to the top layer of couplers with 2-58" \$\phi\$ bolts screwed to coupler at approximate & of each barrier panel.

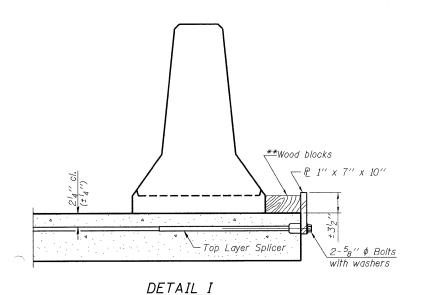
Detail II - With Extended Reinforcement Bars: Connect one (1) 1"x7"x 10" steel P to the concrete slab or concrete wearing surface with 2- $^58''$   $\phi$ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate © of each barrier panel.

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

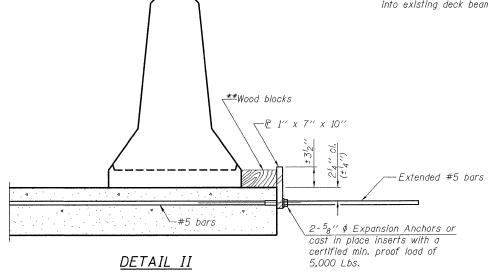
#### SECTIONS THRU SLAB OR DECK BEAM

\*\*\* 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.

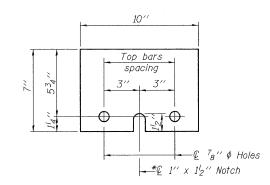
\*\*\*\* If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



when "A" is greater than 3'-6".



\*\*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.



#### STEEL RETAINER & 1" x 7" x 10"

\* Required only with Detail II

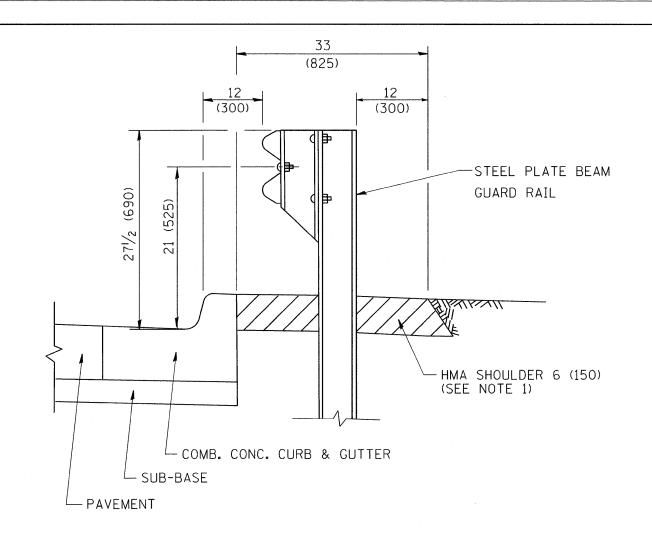
**rjn**group Excellence through Ownership 200 West Front Street Wheaton, IL 60187 DESIGNED: WJV

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION IL RTE. 56 OVER BLACKBERRY CREEK STATION 202+10.00 STRUCTURE NO. 045-0026 (E.B.) STRUCTURE NO. 045-0027 (W.B.)

O									
DAT	E: Ø4/Ø2/Ø9								
SHE	EET NO.17	F./ R1 5							
17	SHEETS								

CHECKED: BLB

F.A.P RTE.	F.A.P. SECTION					COUNTY	TOTAL SHEET	s :	SHEE NO.		
573			61B-BR-1			KANE	37		29		
								CONTRACT	NO.	62	817
FED.	ROAD	DIST.	NO.	7	ILLINOIS	FED.	AID	PROJECT			



NOTES: 1. THE HMA SHOULDER SHALL EXTEND UNDER THE TRAFFIC BARRIER TERMINAL

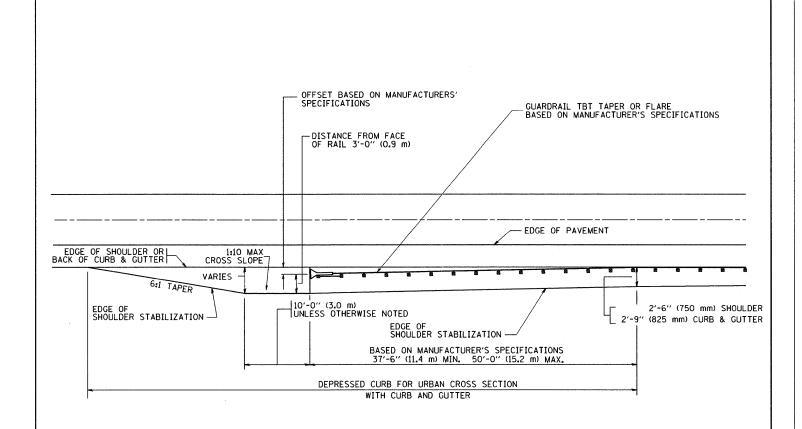
2. GUARD RAIL MAY BE PLACED AT THE BACK OF CURB WHEN DIRECTED BY THE ENGINEER.

BASIS OF PAYMENT: HMA SHOULDER 6 (150) WILL BE

PAID FOR AT THE CONTRACT UNIT PRICE
PER SQUARE YARD (SQUARE METER) FOR
"HOT-MIX ASPHALT SHOULDER 6" (150 mm)".

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

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



#### STABILIZATION AT TBT TY. 1 SPL.

TBT = TRAFFIC BARRIER TERMINAL

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

FILE NAME = USER NAME = ggglanobt DESIGNED - M. DE YONG REVISED - R. SHAH 02-23-95
Windistatd\22x34\bd34.dgn

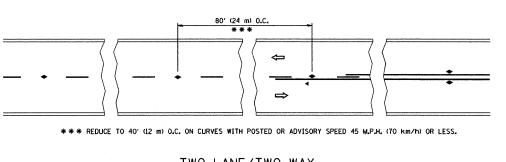
PLOT SCALE = 58.0000 / In.

CHECKED - 09-22-90 REVISED - R. BONE 01-01-07

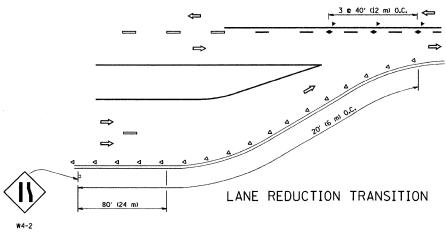
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

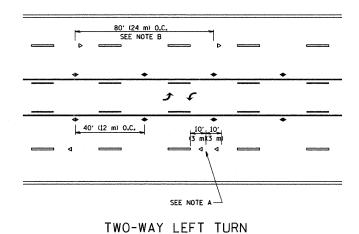
DETAILS FOR STEEL PLATE BEAM GUARD RAIL ADJACENT
TO CURB AND GUTTER STABILIZATION AT TBT TY 1 SPL.

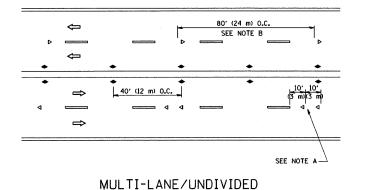
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.



TWO-LANE/TWO-WAY







80' (24 m) O.C. SEE NOTE B

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.

#### LANE MARKER NOTES

- 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.
- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.

#### SYMBOLS

---- YELLOW STRIPE

WHITE STRIPE

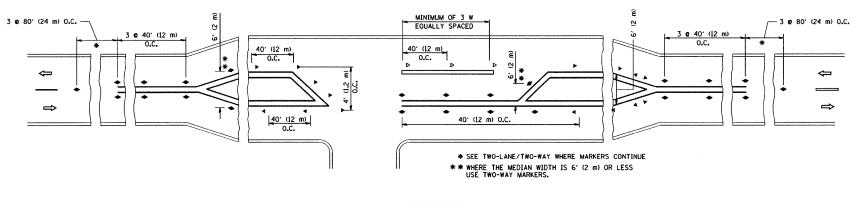
ONE-WAY AMBER MARKER

- ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

#### 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
- 3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHOULD BE INCLUDED IN THE PLANS.
- 4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.

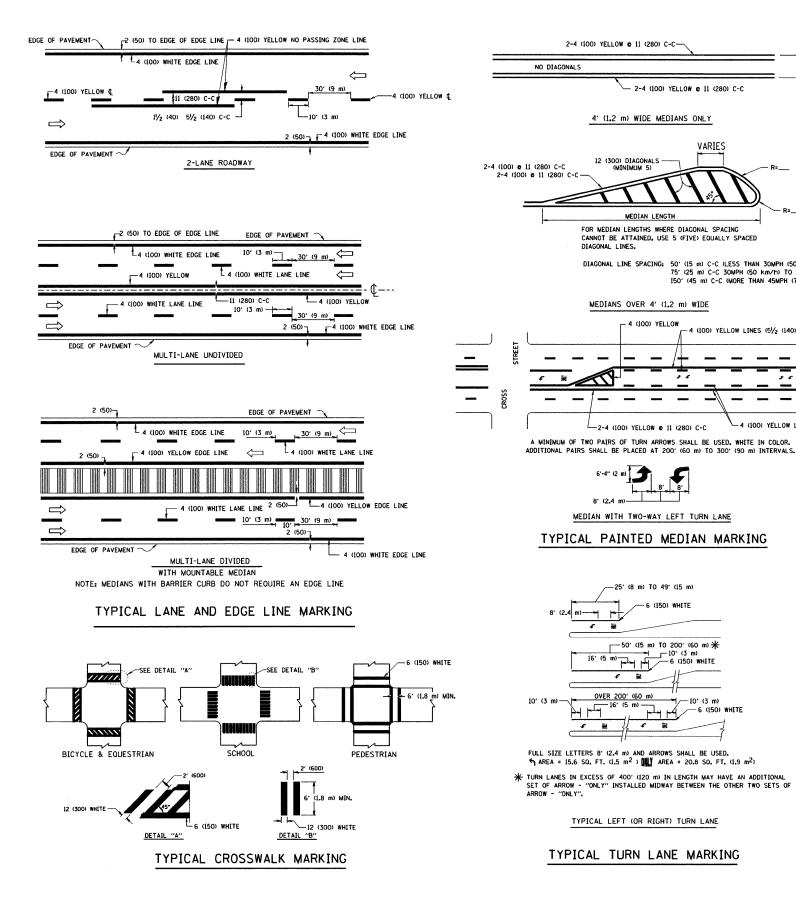
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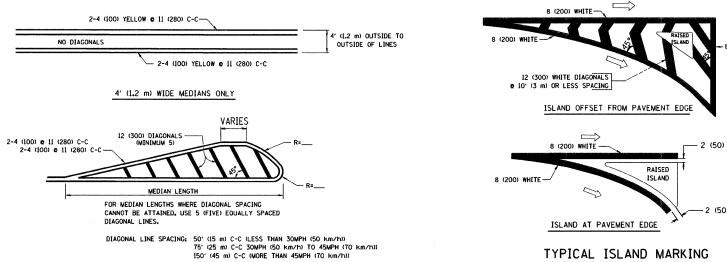


LEFT TURN

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

FILE NAME =	USER NAME = gaglianobt	DESIGNED -	REVISED - T. RAMMACHER 09-19-94		TYPICAL APPLICATIONS	F.A.P. SECTION	COUNTY TOTAL SHEET
Wi\diststd\22x34\tcil.dgn		DRAWN -	REVISED - T. RAMMACHER 03-12-99	STATE OF ILLINOIS	RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)	537 61 B-BR-1	KANE 37 31
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 01-06-00	DEPARTMENT OF TRANSPORTATION		TC-11	CONTRACT NO. 62817
	PLOT DATE = 1/4/2008	DATE -	REVISED -		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. A	ID PROJECT





#### 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 UNDIVEDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 <b>0</b> 4 (100)	SOLID SOLID	YELLOW YELLOW	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE: FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION	SKIP-DASH AND SOLID	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE
	8' (2.4m) LEFT ARROW	IN PAIRS	WHITE	SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSMALK, IF PRESENT, OTHERNISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	II (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"*3.6 SO. FT. (0.33 m²) EACH "X"=54.0 SO. FT. (5.0 m²)
SHOULDER DIAGONALS	i2 (300) <b>e</b> 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h) 150' (45 m) C-C (0VER 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.

TYPICAL TURN LANE MARKING

TYPICAL LEFT (OR RIGHT) TURN LANE

FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  $\P$  AREA = 15.6 SO. FT. (1.5 m²)  $\P$  AREA = 20.8 SO. FT. (1.9 m²)

OVER 200' (60 m)

MEDIANS OVER 4' (1.2 m) WIDE

- 4 (100) YELLOW

-2-4 (100) YELLOW @ 11 (280) C-C

MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

----50' (15 m) TO 200' (60 m) \*\* 16' (5 m) 10' (3 m) 10' (3 m) 10' (150) WHITE

16' (5 m) 10' (3 m) 6 (150) WHITE

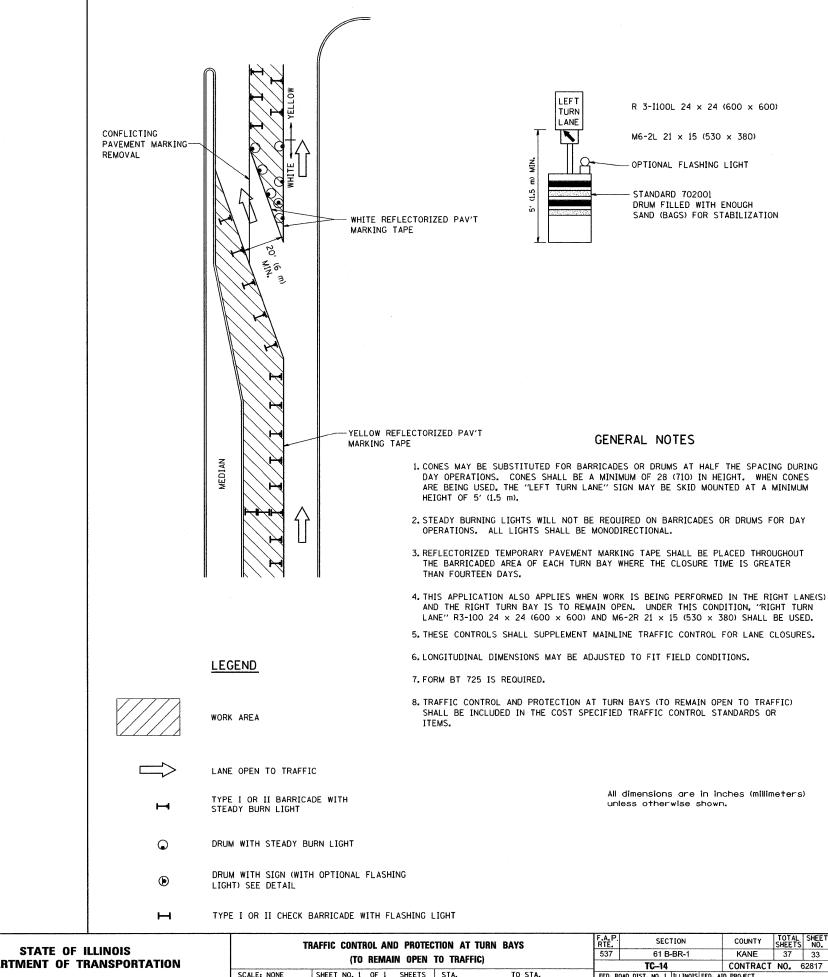
── 10' (3 m)

8' (2.4 m)-

-4 (100) YELLOW LINES (51/2 (140) C-C)

4 (100) YELLOW LINES (51/2 (140) C-C)

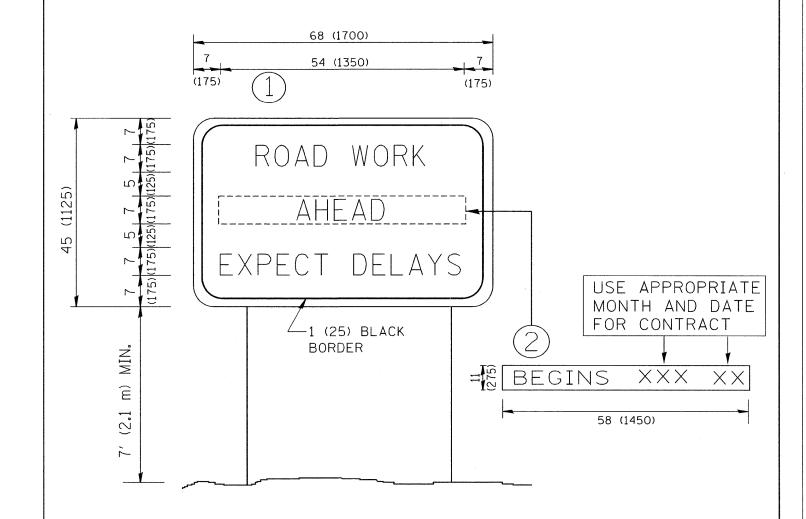
FILE NAME =	USER NAME = gaglianobt	DESIGNED - EVERS	REVISED -T. RAMMACHER 10-27-94	STATE OF ILLINOIS	DISTRICT ONE	F.A.P. SECTION	COUNTY TOTAL SHEET
Wa\daststd\22x34\tcl3.dgn		DRAWN -	REVISED -A. HOUSEH 10-09-96		TYPICAL PAVEMENT MARKINGS	537 61 B-BR-1	KANE 37 32
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED -A. HOUSEH 10-17-96	DEPARTMENT OF TRANSPORTATION		TC-13	CONTRACT NO. 62817
	PLOT DATE = 1/4/2008	DATE - 03-19-90	REVISED -T. RAMMACHER 01-06-00		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1   ILLINOIS FED.	AID PROJECT



FILE NAME =	USER NAME = gaglianobt	DESIGNED ~	REVISED	-T. RAMMACHER 09-08-94
W:\diststd\22x34\tc14.dgn		DRAWN ~	REVISED	- A. HOUSEH 11-07-95
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED	- A. HOUSEH 10-12-96
	PLOT DATE = 1/4/2008	DATE -	REVISED	-T. RAMMACHER 01-06-00

**DEPARTMENT OF TRANSPORTATION** 

	TR	AFFIC CONTRO	L ANI	PROTEC	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEE1		
	(TO REMAIN OPEN TO TRAFFIC)							61 B-BR-1	KANE	37	33
								TC-14 CONTRACT NO.			62817
	SCALE: NONE	SHEET NO. 1 (	OF 1	SHEETS	STA.	TO STA.	FED. R	OAD DIST. NO. 1   ILLINOIS FED. A	ID PROJECT		



#### NOTES:

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

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

FILE NAME =	USER NAME = gaglianobt	DESIGNED -	REVISED - R. MIRS 09-15-97			ARTERIAL ROAD		F.A.P.	SECTION	COUNTY	TOTAL SHEET
Wi\diststd\22x34\tc22.dgn		DRAWN -	REVISED - R. MIRS 12-11-97	STATE OF ILLINOIS	INFORMATION SIGN		537	61 B-BR-1	KANE	37 34	
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 02-02-99	DEPARTMENT OF TRANSPORTATION				TC-22	CONTRACT NO. 62817		
	PLOT DATE = 1/4/2008	DATE -	REVISED - C. JUCIUS 01-31-07	7 SC		SHEET NO. 1 OF 1 SHEETS STA.	TO STA.	FED. ROAD	DIST. NO. 1 ILLINOIS FED. A		

