

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2831	1313. 1-1-2	COOK	41	1
FED. ROAD DIST. NO. 1	ILLINOIS	CONTRACT NO. 60D75		

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**

**PROPOSED**  
**HIGHWAY PLANS**

**F.A.U. 2831 / KEDZIE AVENUE**  
**SECTION: 1313. 1-1-2**  
**OVER CAL-SAG CHANNEL**  
**BRIDGE DECK OVERLAY**  
**PROJECT: ESP-2831(002)**  
**COOK COUNTY**  
**C-91-094-08**

WORTH TOWNSHIP  
R. 13 E.

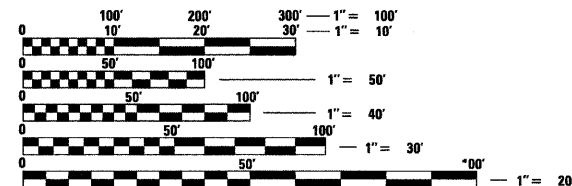
FOR INDEX OF SHEETS, SEE SHEET NO. 2

**DESIGN DESIGNATION:**  
**DESIGN SPEED : 35 M.P.H.**  
**2006 ADT = 15,500**  
**2021 ADT = 21,735**

**MUNICIPALITY INVOLVED:**

**VILLAGE OF ROBBINS**

**LOCATION:**  
**KEDZIE AVENUE**  
**OVER CAL-SAG CHANNEL**  
**S.N. 016-0762**

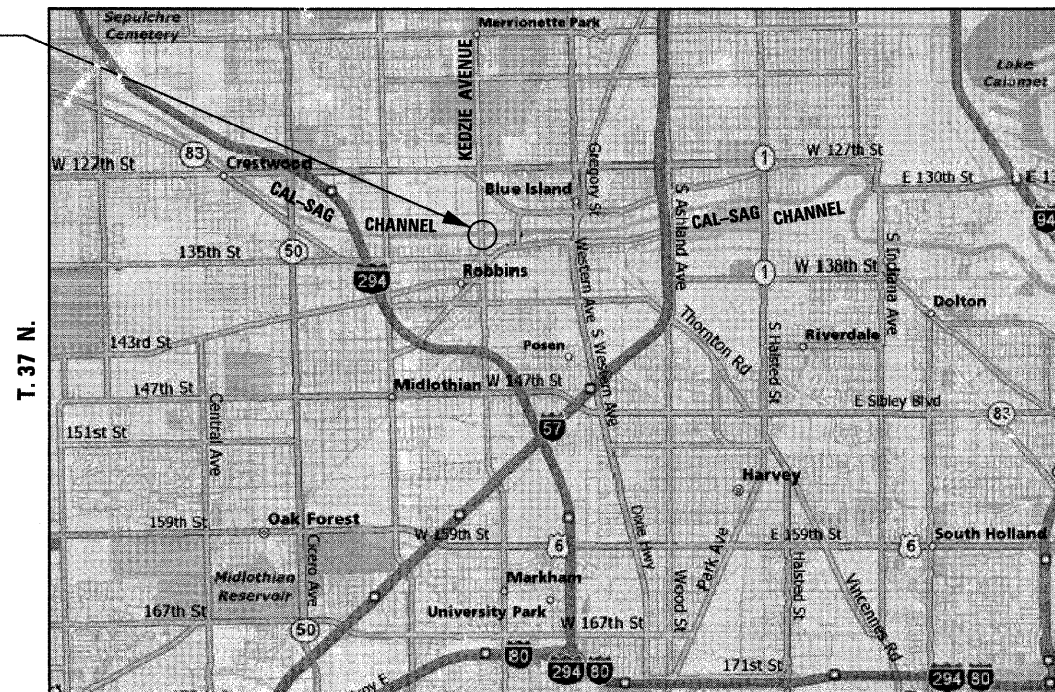


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

**DISTRICT ONE - DESIGN**  
**PROJECT MANAGER : ISAAC KWARTENG**  
(847) 705-4230  
**PROJECT ENGINEER : RON ZENAROSA**  
(847) 705-4212

**CONTRACT NO. 60D75**



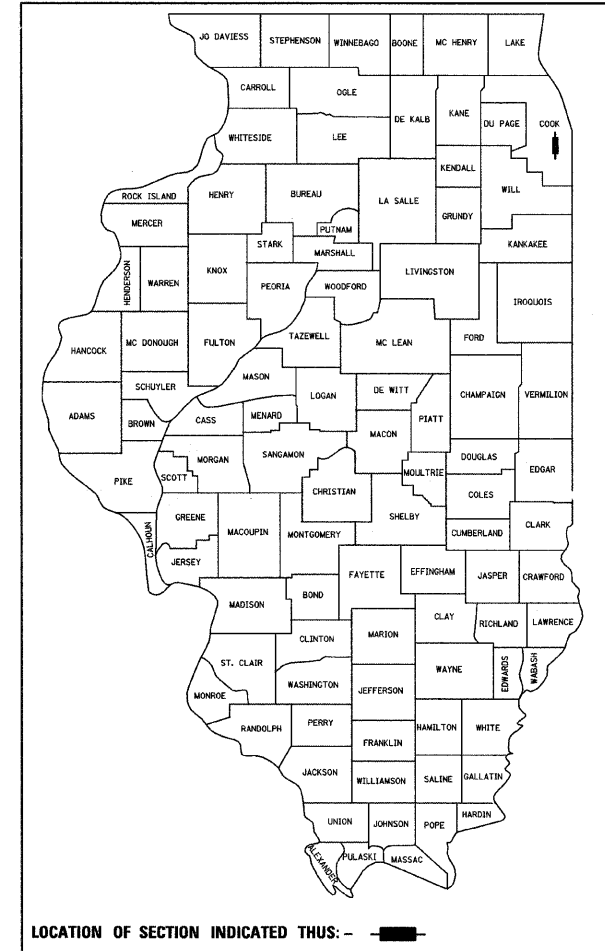
T. 37 N.

**GROSS LENGTH OF PROJECT = 960.00 FEET = 0.182 MILES**

**NET LENGTH OF PROJECT = 960.00 FEET = 0.182 MILES**

DESIGN SECTION ENGINEER :  
**CHRISTIAN-ROGE & ASSOCIATES, INC.**  
ENGINEERS - PLANNERS - SURVEYORS  
211 W. WACKER DRIVE CHICAGO, IL. 60606  
TELEPHONE: 312-372-2023

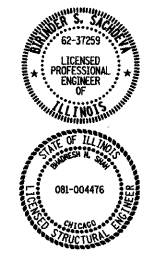
**D-91-094-08**



LOCATION OF SECTION INDICATED THIS: - [shaded box] -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED June 25 2009  
Din O'Keefe  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ONE ENGINEER  
August 14, 2009  
Charles J. Ingerson/RO  
ENGINEER OF DESIGN AND ENVIRONMENT  
August 14, 2009  
Christine M. Reed/RO  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER



Birinder S. Sachdeva June 24, 2009  
**BIRINDER S. SACHDEVA, P.E.** DATE  
EXPIRES: 11-30-2009

Bhadresh N. Shah JUNE 24, 2009  
**BHADRESH N. SHAH, S.E., P.E.** DATE  
EXPIRES: 11-30-2010

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

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LIST OF STATE STANDARDS

<u>STANDARD NO.</u>	<u>DESCRIPTION</u>
000001-05	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
420001-07	PAVEMENT JOINTS
420401-07	BRIDGE APPROACH PAVEMENT CONNECTOR
420601-05	24' (7.2 m) PCC PAVEMENT
420701-02	PAVEMENT FABRIC
421001-02	BAR REINFORCEMENT FOR CRC PAVEMENT
606001-04	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
606301-04	PC CONCRETE ISLANDS AND MEDIANS
606306-03	CORRUGATED PC CONCRETE MEDIANS
701601-06	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701606-06	URBAN LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701901-01	TRAFFIC CONTROL DEVICES

GENERAL NOTES

1. THESE PLANS HAVE BEEN PREPARED FROM NOTES RECEIVED FROM IDOT FIELD MAINTENANCE ENGINEERS.
2. PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO ROUTINE VARIATIONS. THE CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF THE WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED BASED UPON THE UNIT PRICE.
3. FORTY-EIGHT HOURS BEFORE STARTING EXCAVATION, THE CONTRACTOR WILL CALL J.U.L.I.E. AT 1-800-892-0123 OR 811 TO HAVE THE LOCATION OF EXISTING UTILITIES STAKED.
4. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
5. THE CONTRACTOR SHALL PROTECT EXISTING AND NEW UTILITIES AND SHALL BRACE AND SUPPORT THE UTILITIES PROPERLY IN ORDER TO PREVENT SETTLEMENT, DISPLACEMENT, OR DAMAGE TO THE UTILITIES. THE PROTECTION OF THE UTILITIES AS SPECIFIED HEREIN WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT.
6. LOCATIONS OF EXISTING UTILITIES SHOWN ON THE PLANS ARE FROM BEST AVAILABLE RECORD INFORMATION AND MUST BE FIELD VERIFIED BY THE CONTRACTOR.
7. SAW CUTTING PRIOR TO THE REMOVAL OF ANY ITEMS NOTED ON THE PLANS OR AS DIRECTED BY THE ENGINEER SHALL BE INCLUDED IN THE COST OF THE ITEMS BEING REMOVED.
8. DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
9. THE CONTRACTOR SHALL USE CARE IN REMOVING OR EXCAVATING NEAR ALL EXISTING ITEMS WHICH WILL REMAIN. ANY DAMAGE DONE TO EXISTING ITEMS BY THE CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
10. POLLUTION CONTROL: THE CONTRACTOR SHALL BE REQUIRED TO COMPLY WITH STATE REGULATIONS REGARDING AIR, WATER AND NOISE POLLUTION.
11. WHEN ARTIFICIAL LIGHTING IS UTILIZED IN NIGHT OPERATIONS, THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AS WELL AS ADJOINING RESIDENTIAL AREAS.
12. 10-FOOT TRANSITIONS SHALL BE USED TO MATCH PROPOSED ITEMS OF WORK TO EXISTING ITEMS IN THE FIELD, UNLESS OTHERWISE SHOWN. THE TRANSITIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEM OF WORK SPECIFIED.
13. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, AS REQUIRED, PRIOR TO COMMENCING WITH CONSTRUCTION.
14. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO ASSURE THAT NO DEBRIS FALLS IN THE CAL-SAG CHANNEL. THE COST OF THIS WORK SHALL BE INCLUDED AS PART OF THE APPLICABLE PAY ITEMS.
15. THE CONTRACTOR SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS PRIOR TO THE PLACEMENT OF ANY TEMPORARY TRAFFIC CONTROL DEVICES.
16. AT LEAST TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS, THE CONTRACTOR SHALL CONTACT THE AREA TRAFFIC FIELD TECHNICIAN, PATRICE HARRIS AT (708) 597-9800.
17. ALL RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE LOW PROFILE.
18. ON HIGHWAY STANDARD 420401 "BRIDGE APPROACH PAVEMENT", SUBBASE GRANULAR MATERIAL TYPE B SHALL BE USED IN LIEU OF THE TYPE A SHOWN ON THE STANDARD.
19. THE CONTRACTOR SHALL REMOVE, STORE AND RE-INSTALL EXISTING U.S. ARMY CORP OF ENGINEERS MONUMENT. THE CONTRACTOR SHALL CONTACT THE U.S. ARMY CORP OF ENGINEERS PRIOR TO REMOVAL. SEE SPECIAL PROVISIONS.

FILE NAME = 60075 index.dgn  
PLOT DATE = 7/8/2009



CHRISTIAN-ROGE & ASSOCIATES, INC.  
ENGINEERS-PLANNERS-SURVEYORS  
211 WEST WACKER DRIVE  
CHICAGO, ILLINOIS 60606  
PHONE: (312)372-2023 FAX: (312)372-5274

DESIGNED -	S.J.P. / M.A.	REVISED -	
DRAWN -	M.A.	REVISED -	
CHECKED -	E.J.M.	REVISED -	
DATE -	JULY 8, 2009	REVISED -	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS, LIST OF STATE STANDARDS AND GENERAL NOTES  
KEDZIE AVENUE

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. 13+10 TO STA. 22+70

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2831	1313. 1-1-2	COOK	41	2
CONTRACT NO. 60075				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

SUMMARY OF QUANTITIES			URBAN 100% FED.	CONSTRUCTION TYPE CODE
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	KEDZIE AVE. BRIDGE SFTY-2A
20200100	EARTH EXCAVATION	CU YD	163	163
20700400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	37	37
28100209	STONE RIPRAP, CLASS A5	TON	80	80
31101200	SUB-BASE GRANULAR MATERIAL, TYPE B 4"	SQ YD	488	488
42000500	PORTLAND CEMENT CONCRETE PAVEMENT 10"	SQ YD	178	178
<del>42001166</del>	<del>BRIDGE APPROACH PAVEMENT</del>	<del>SQ YD</del>	<del>386</del>	<del>386</del>
42001200	PAVEMENT FABRIC	SQ YD	178	178
42001420	BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)	SQ YD	108	108
44000100	PAVEMENT REMOVAL	SQ YD	178	178
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	228	228
44000702	APPROACH SLAB REMOVAL, SPECIAL	SQ YD	431	431
44003100	MEDIAN REMOVAL	SQ FT	2,595	2,595
50102400	CONCRETE REMOVAL	CU YD	89.5	89.5
50157300	PROTECTIVE SHIELD	SQ YD	750	750
50200100	STRUCTURE EXCAVATION	CU YD	37	37
50300225	CONCRETE STRUCTURES	CU YD	30.2	30.2
50300255	CONCRETE SUPERSTRUCTURE	CU YD	185.9	185.9
50300260	BRIDGE DECK GROOVING	SQ YD	1,772	1,772
50300300	PROTECTIVE COAT	SQ YD	2,395	2,395
50300530	FLOOR DRAIN EXTENSION	EACH	66	66
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	4,990	4,990
50500715	JACK AND REMOVE EXISTING BEARINGS	EACH	27	27
50501130	STRUCTURAL STEEL REPAIR	POUND	1,300	1,300
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	65,710	65,710
50800515	BAR SPLICERS	EACH	522	522
52000110	PREFORMED JOINT STRIP SEAL	FOOT	171	171
52000216	FINGER PLATE EXPANSION JOINT, 5"	FOOT	56	56

SUMMARY OF QUANTITIES			URBAN 100% FED.	CONSTRUCTION TYPE CODE
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	KEDZIE AVE. BRIDGE SFTY-2A
52000600	FABRIC REINFORCED ELASTOMERIC TROUGH	FOOT	67	67
52100020	ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	10	10
52100520	ANCHOR BOLTS, 1"	EACH	54	54
60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	108	108
60619200	CONCRETE MEDIAN, TYPE SB-6.06	SQ FT	1,800	1,800
60624600	CORRUGATED MEDIAN	SQ FT	567	567
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6
67100100	MOBILIZATION	L SUM	1	1
70101800	TRAFFIC CONTROL AND PROTECTION,(SPECIAL)	L SUM	1	1
70102550	TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR	EACH	1	1
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	40	40
* 78008210	POLYUREA PAVEMENT MARKING TYPE I - LINE 4"	FOOT	3,384	3,384
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	34	34
* 78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	20	20
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	20	20
* X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	100	100
X0322467	TEMPORARY INFORMATION SIGNING FOR LANE CLOSURE	SQ FT	48	48
X0322185	BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/4 INCHES	SQ YD	1,864	1,864
X0325305	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	554	554
X0325775	WET REFLECTIVE TEMPORARY TAPE, TYPE III, 4 INCH	FOOT	7,227	7,227
X0712400	TEMPORARY PAVEMENT	SQ YD	250	250
X7015005	CHANGEABLE MESSAGE SIGN	CAL DA	10	10
XX006752	REMOVE, STORE AND RE-INSTALL EXISTING MONUMENT	L SUM	1	1
Z0006198	BRIDGE DECK HYDRO-SCARIFICATION 1/4"	SQ YD	1,864	1,864
Z0016001	DECK SLAB REPAIR (FULL DEPTH, TYPE I)	SQ YD	5	5
Z0016002	DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQ YD	89	89
Z0073200	TEMPORARY SHORING AND CRIBBING	EACH	5	5
78300100	PAVEMENT MARKING REMOVAL	SQ FT	528	528

\* SPECIALTY ITEM

FILE NAME = 68075 S00.dgn  
PLOT DATE = 7/8/2009



CHRISTIAN-ROGE & ASSOCIATES, INC.  
ENGINEERS-PLANNERS-SURVEYORS  
211 WEST WACKER DRIVE  
CHICAGO, ILLINOIS 60606  
PHONE: (312)372-2023 FAX: (312)372-5274

DESIGNED - S.J.P. / M.A.  
DRAWN - M.A.  
CHECKED - E.J.M.  
DATE - JULY 8, 2009

REVISED -  
REVISED -  
REVISED -  
REVISED -

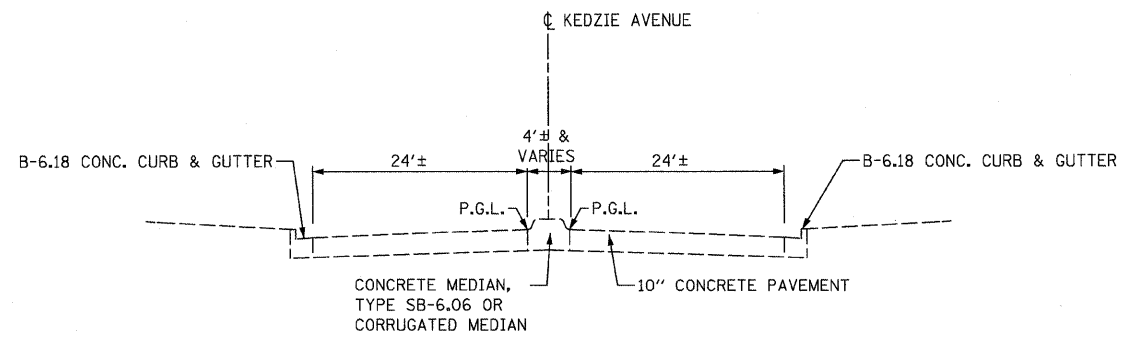
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES  
KEDZIE AVENUE

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. 13+10 TO STA. 22+70

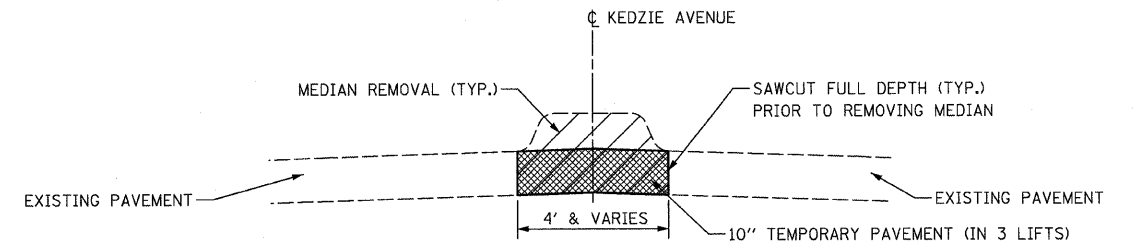
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2831	1313. 1-I-2	COOK	41	3
CONTRACT NO. 60D75				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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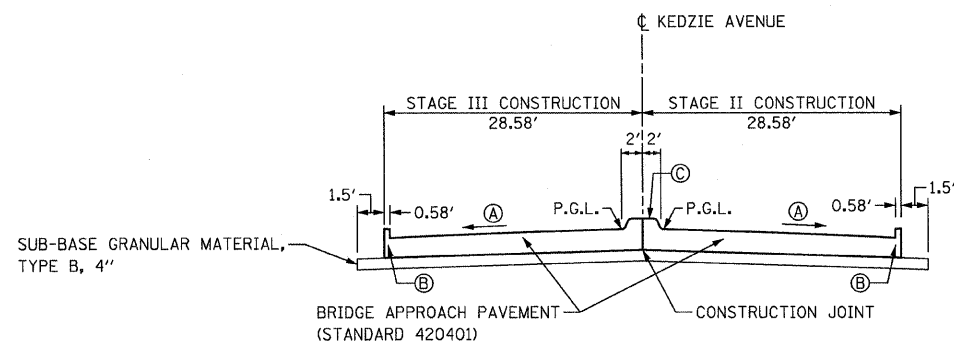


**KEDZIE AVENUE EXISTING TYPICAL SECTION**  
STA. 13+10 TO STA. 22+70

**BRIDGE OMISSION**  
STA. 16+15.83 TO STA. 19+62.18

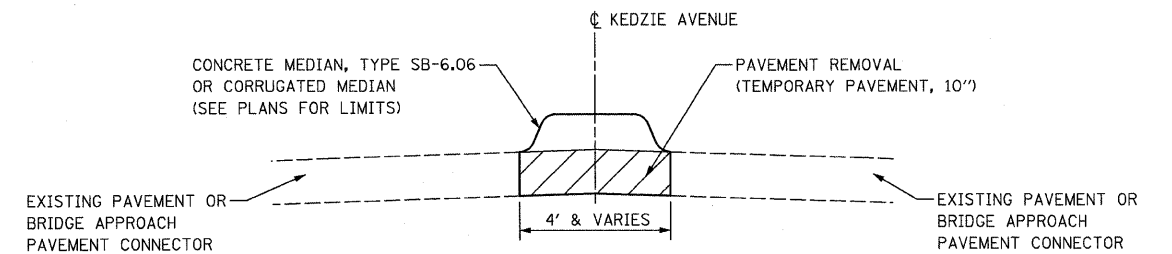


**KEDZIE AVENUE TEMPORARY PAVEMENT TYPICAL SECTION**  
STA. 13+10 TO STA. 15+75.83  
STA. 20+02.18 TO STA. 22+70



**KEDZIE AVENUE PROPOSED APPROACH PAVEMENT TYPICAL SECTION**  
STA. 15+85.83 TO STA. 16+15.83  
STA. 19+62.18 TO STA. 19+92.18

- (A) MEET EXISTING
- (B) CONSTRUCT CONCRETE CURB SECTION TO MATCH A TYPE B-6.24 CONFIGURATION AS SHOWN ON STANDARD 606001
- (C) CONSTRUCT MEDIAN SECTION TO MATCH A TYPE SB-6.06 CONFIGURATION AS SHOWN ON STANDARD 606301



**KEDZIE AVENUE MEDIAN RESTORATION TYPICAL SECTION**  
STA. 13+10 TO STA. 15+85.83  
STA. 19+92.18 TO STA. 22+70

HOT-MIX ASPHALT MIXTURE REQUIREMENTS		
	AC TYPE	AIR VOIDS
TEMPORARY PAVEMENT		
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50; 10"	PG 64-22*	4% @ 50 GYR.

THE UNIT WEIGHT USED TO CALCULATE ALL HMA MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.

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

FILE NAME = 60D75 typ.dgn  
PLOT DATE = 7/8/2009

**CHRISTIAN-ROGE & ASSOCIATES, INC.**  
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CHICAGO, ILLINOIS 60606  
PHONE: (312)372-2023 FAX: (312)372-5274

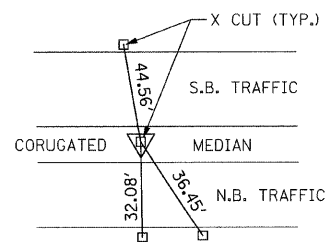
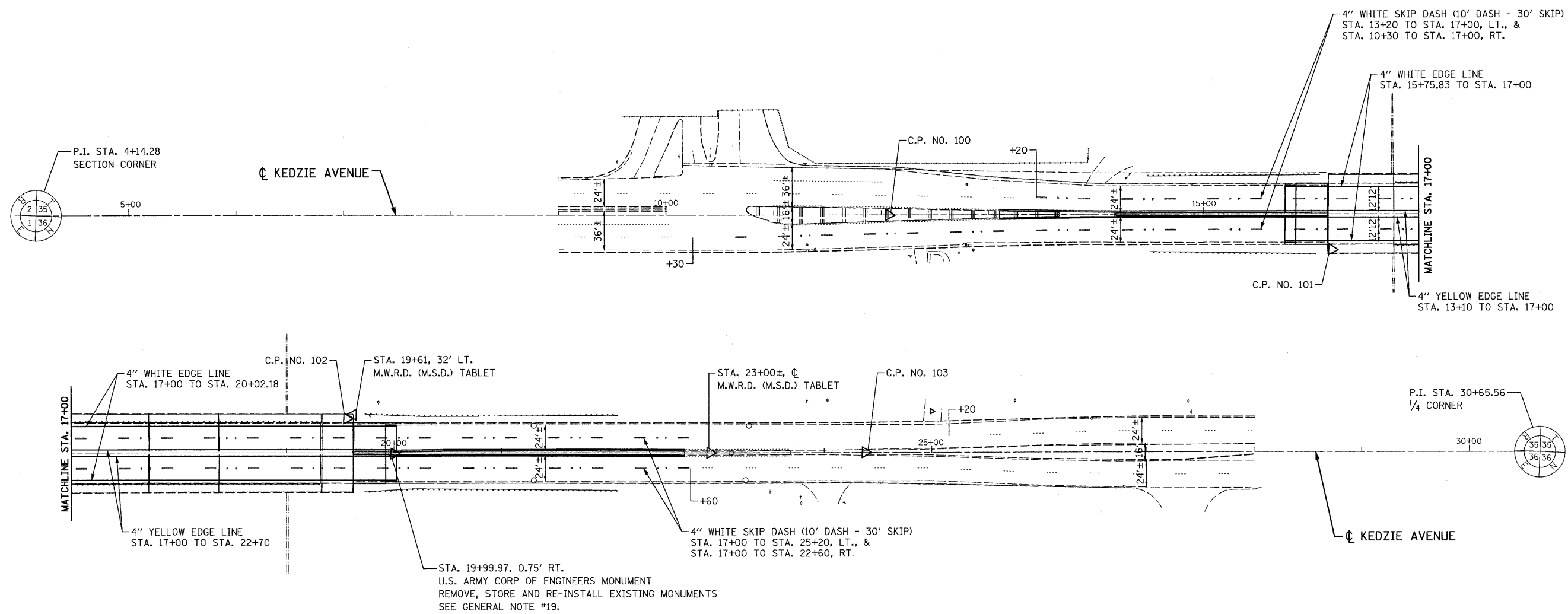
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DATE - JULY 8, 2009	REVISED -

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

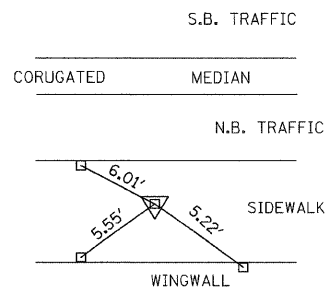
**TYPICAL SECTIONS & DETAILS**  
**KEDZIE AVENUE**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. 13+10 TO STA. 22+70

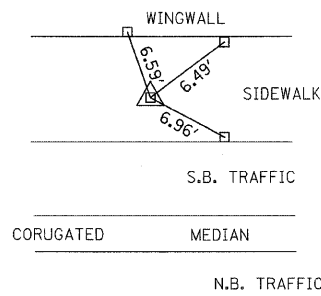
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2831	1313. 1-I-2	COOK	41	4
CONTRACT NO. 60D75			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	



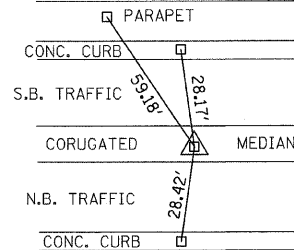
CONTROL POINT NO. 100  
 CHISLED "X" IN CORRUGATED MEDIAN  
 NORTH OF ENTRANCE TO POWER PLANT  
 STA. 12+07.17, 0.17' RT.  
 N 1815693.11  
 E 1157548.82



CONTROL POINT NO. 101  
 CHISLED "X" ON SIDEWALK  
 EAST SIDE OF SOUTH MOST END  
 STA. 16+19.274, 32.73' RT.  
 N 1816106.19  
 E 1157564.91



CONTROL POINT NO. 102  
 CHISLED "X" ON SIDEWALK  
 NEAR THE NORTH MOST END  
 STA. 19+56.22, 32.05' LT.  
 N 1816440.29  
 E 1157486.73



CONTROL POINT NO. 103  
 CHISLED "X" ON CORRUGATED MEDIAN  
 STA. 24+38.25, 0.17' LT.  
 N 1816923.20  
 E 1157499.34

CENTERLINE ALIGNMENT				
NO.	DESCRIPTION	NORTHING	EASTING	STATION
135	P. I. & SEC. CORNER	1814900.85	1157580.31	4+14.28
131	P. I. & 1/4 CORNER	1817550.02	1157474.46	30+65.56

- PROJECT BENCHMARKS:**
- NGS ME1838 (A138): SET VERTICALLY IN THE NORTH FACE OF THE CONCRETE FOUNDATION AT 2801 WEST BROADWAY. ELEVATION = 596.36
  - BMK 135 AT EAST CORNER OF TRAFFIC CONTROLLER FOUNDATION NW QUADRANT OF KEDZIE & 135TH ST. ELEVATION = 597.09

- PAVEMENT MARKING NOTES:**
- ALL PAVEMENT MARKINGS ON BRIDGE DECK AND CONCRETE PAVEMENT SHALL BE POLYUREA, TYPE I.

FILE NAME = 60075 a1grn.dgn  
 PLOT DATE = 7/8/2009

**CHRISTIAN-ROGE & ASSOCIATES, INC.**  
 ENGINEERS-PLANNERS-SURVEYORS  
 211 WEST WACKER DRIVE  
 CHICAGO, ILLINOIS 60606  
 PHONE: (312)372-2023 FAX: (312)372-5274

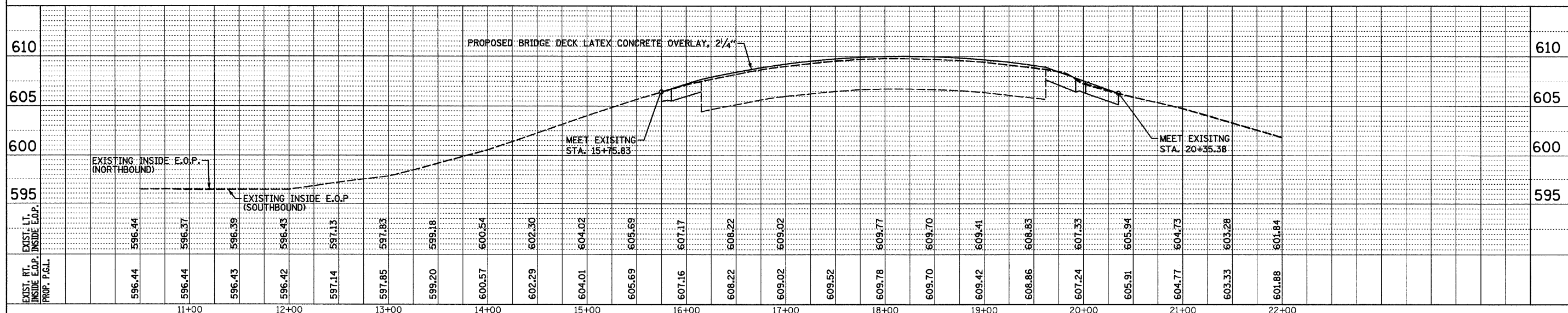
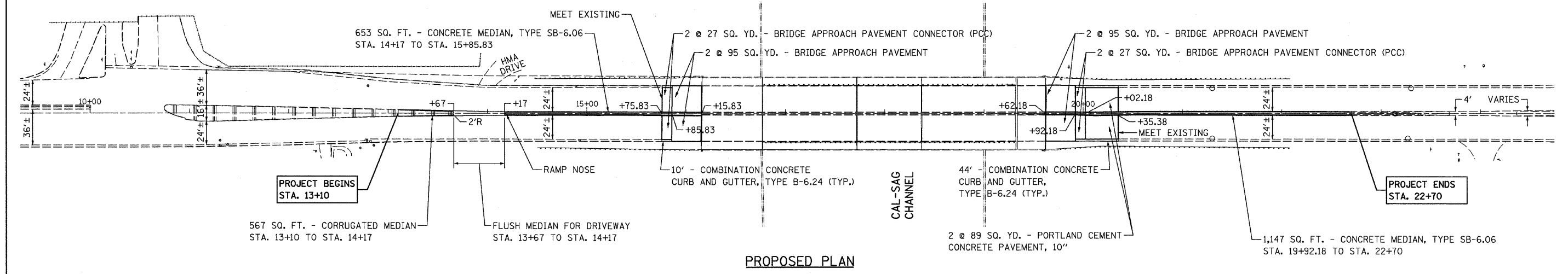
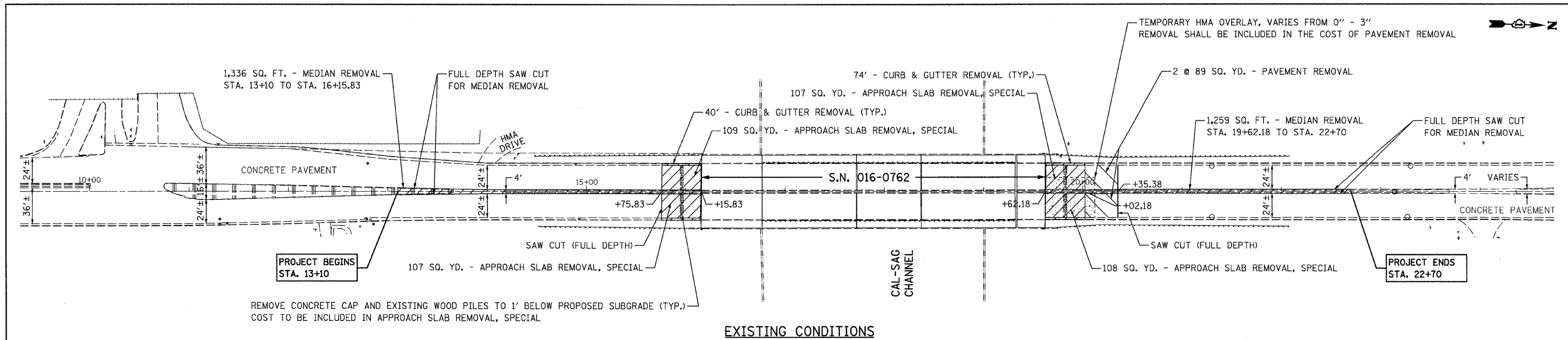
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CHECKED - E.J.M.	REVISED -
DATE - JULY 8, 2009	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**ALIGNMENT, TIES, BENCHMARKS & PAVEMENT MARKINGS  
 KEDZIE AVENUE**

SCALE: 1" = 50' SHEET NO. 1 OF 1 SHEETS STA. 13+10 TO STA. 22+70

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2831	1313. 1-I-2	COOK	41	5
CONTRACT NO. 60D75				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



FILE NAME = 60075 pp.dgn PLOT DATE = 7/8/2009	<b>CHRISTIAN-ROGE &amp; ASSOCIATES, INC.</b> ENGINEERS-PLANNERS-SURVEYORS 211 WEST WACKER DRIVE CHICAGO, ILLINOIS 60606 PHONE: (312)372-2023 FAX: (312)372-5274	DESIGNED - S.J.P. / M.A. DRAWN - M.A. CHECKED - E.J.M. DATE - JULY 8, 2009	REVISED - REVISED - REVISED - REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>				<b>EXISTING CONDITIONS AND PROPOSED PLAN AND PROFILE KEDZIE AVENUE</b>				F.A.U. RTE. 2831 SECTION 1313. 1-I-2 COUNTY COOK TOTAL SHEETS 41 SHEET NO. 6 CONTRACT NO. 60D75			
				SCALE: 1" = 50'				SHEET NO. 1 OF 1 SHEETS STA. 13+10 TO STA. 22+70				FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT			

## SUGGESTED STAGING AND MAINTENANCE OF TRAFFIC

### CONSTRUCTION STAGING

#### STAGE I

- REMOVE THE LONGITUDINAL JOINT IN THE MEDIAN OF THE BRIDGE.
- REMOVE THE MEDIAN AND PLACE TEMPORARY PAVEMENT AS NEEDED FOR STAGES II AND III.

#### STAGE II

- BEGIN AND COMPLETE THE WEARING SURFACE REMOVAL AND REPLACEMENT AND REPAIRS TO THE STRUCTURE ON THE SOUTH BOUND HALF OF THE BRIDGE.
- REMOVE AND REPLACE THE SOUTH BOUND LANES APPROACH SLABS.

#### STAGE III

- BEGIN AND COMPLETE THE WEARING SURFACE REMOVAL AND REPLACEMENT AND REPAIRS TO THE STRUCTURE ON THE NORTH BOUND HALF OF THE BRIDGE.
- REMOVE AND REPLACE THE NORTH BOUND APPROACH SLABS.
- REMOVE THE TEMPORARY PAVEMENT AND PLACE CONCRETE MEDIAN.
- PLACE FINAL PAVEMENT MARKINGS AND RPM'S.

### MAINTENANCE OF TRAFFIC

#### STAGE I (NOT SHOWN)

- PLACE ADVANCED SIGNING AS SHOWN ON STANDARD 701601.
- USE DAILY LANE CLOSURES TO REMOVE MEDIAN AND PLACE TEMPORARY PAVEMENT.  
SEE IDOT STANDARD: 701601 URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN.
- CLOSE INSIDE LANES IN EACH DIRECTION ON BRIDGE USING IDOT STANDARD 701601.

#### STAGE II

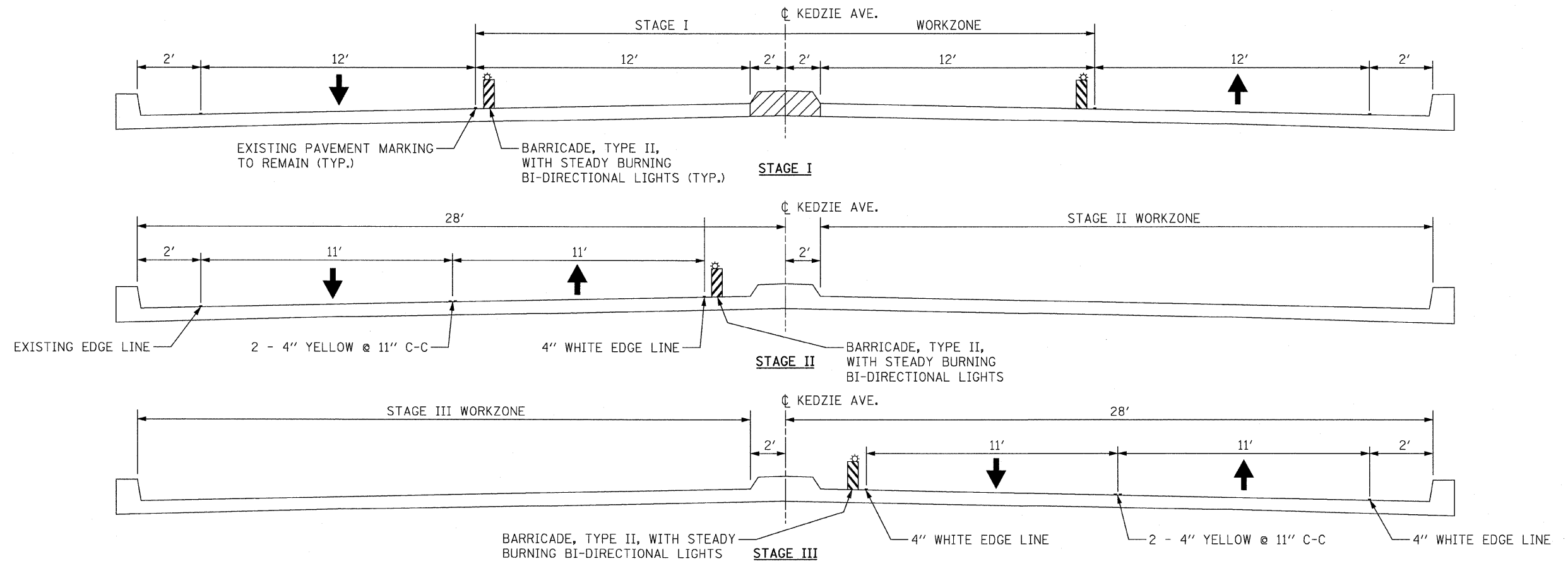
- SHIFT S.B. TRAFFIC TO LANE CONFIGURATION SHOWN FOR STAGE II.

#### STAGE III

- SHIFT N.B. LANE TO OUTSIDE LANE OF N.B. KEDZIE AVENUE  
PLACE TEMPORARY PAVEMENT MARKINGS FOR STAGE III CONSTRUCTION.
- SHIFT S.B. TRAFFIC TO LANE CONFIGURATION FOR STAGE III.
- USE DAILY LANE CLOSURES DURING THE RECONSTRUCTION OF THE MEDIAN AND OTHER END OF CONTRACT WORK. SEE IDOT STANDARD: 701601 URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN

## TRAFFIC CONTROL GENERAL NOTES

1. THE CONTRACTOR SHALL NOT MOUNT SIGNS ON EXISTING SIGNS.
2. THE CONTRACTOR SHALL MAINTAIN SATISFACTORY INGRESS AND EGRESS TO ADJACENT PROPERTIES THROUGHOUT THE CONSTRUCTION.
3. INSTALL TEMPORARY SIGN PANEL ASSEMBLY AS SHOWN IN PLANS AND AS DIRECTED BY THE ENGINEER. TO BE PAID FOR BY ITEM "TEMPORARY INFORMATION SIGNING FOR LANE CLOSURE".
4. ALL TEMPORARY PAVEMENT MARKING SHALL BE WET REFLECTIVE TEMPORARY TAPE, TYPE III, 4".
5. THE FIRST TWO SIGNS ENTERING THE WORK ZONE SHALL HAVE MONO-DIRECTIONAL FLASHING BEACONS.
6. CLOSE BRIDGE USING DETOUR PLAN WHEN PLACING AND CURING THE BRIDGE DECK LATEX CONCRETE OVERLAY.



FILE NAME = 60075 staging.dgn  
PLOT DATE = 7/8/2009

**CR & A**  
**CHRISTIAN-ROGE & ASSOCIATES, INC.**  
ENGINEERS-PLANNERS-SURVEYORS  
211 WEST WACKER DRIVE  
CHICAGO, ILLINOIS 60606  
PHONE: (312)372-2023 FAX: (312)372-5274

DESIGNED - S.J.P. / M.A.	REVISED -
DRAWN - M.A.	REVISED -
CHECKED - E.J.M.	REVISED -
DATE - JULY 8, 2009	REVISED -

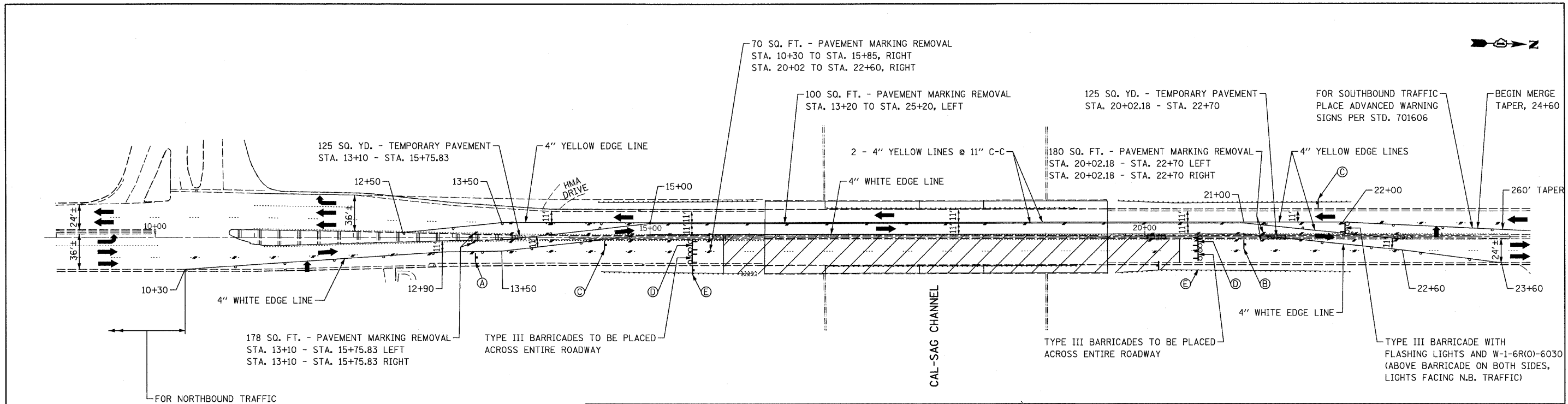
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUGGESTED MAINTENANCE OF TRAFFIC NOTES AND DETAILS  
KEDZIE AVENUE**

SCALE: NONE    SHEET NO. 1 OF 2 SHEETS    STA. 13+10    TO STA. 22+70

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2831	1313, 1-1-2	COOK	41	7
CONTRACT NO. 60075				

FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT



FOR NORTHBOUND TRAFFIC  
PLACE ADVANCED WARNING  
SIGNS PER STD. 701606

178 SQ. FT. - PAVEMENT MARKING REMOVAL  
STA. 13+10 - STA. 15+75.83 LEFT  
STA. 13+10 - STA. 15+75.83 RIGHT

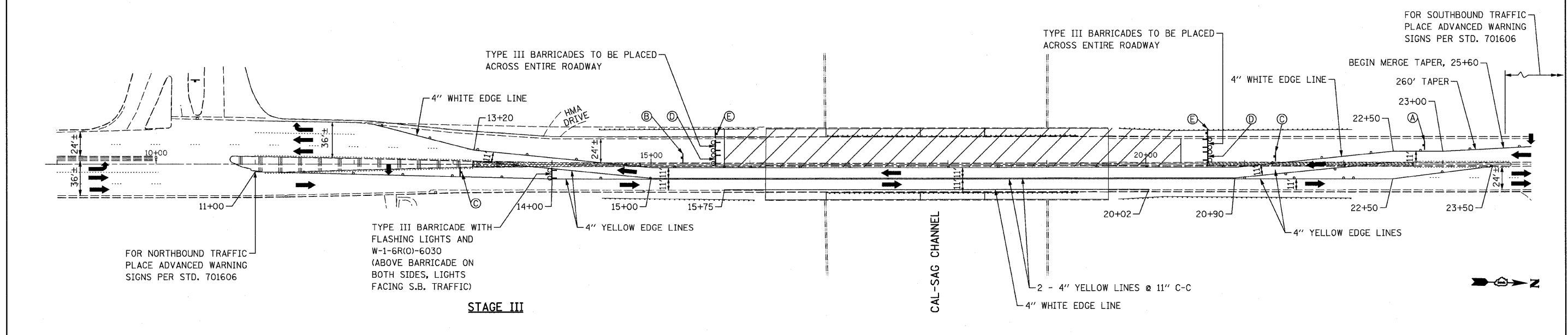
TYPE III BARRICADES TO BE PLACED  
ACROSS ENTIRE ROADWAY

TYPE III BARRICADES TO BE PLACED  
ACROSS ENTIRE ROADWAY

TYPE III BARRICADE WITH  
FLASHING LIGHTS AND W-1-6R(O)-6030  
(ABOVE BARRICADE ON BOTH SIDES,  
LIGHTS FACING N.B. TRAFFIC)

**STAGE II**

TRAFFIC CONTROL SIGN LEGEND						TRAFFIC CONTROL AND STAGING LEGEND	
							WORK ZONE
W1-4L(O) 48x48 W13-1(O) 24x24	W1-4R(O) 48x48 W13-1(O) 24x24	W6-3(O) 48x48	N-13 48x30	R9-9 24x12	W-1-6R(O)-6030		TEMPORARY PAVEMENT
A	B	C	D	E			DIRECTION OF TRAFFIC
							ARROW BOARD
							PAVEMENT MARKING REMOVAL
							TYPE III BARRICADES WITH FLASHING LIGHTS
							BARRICADES OR DRUMS @ 50' C-C ON TANGENTS BARRICADES OR DRUMS @ 20' C-C ON TAPERS AND LANE SHIFTS



FOR NORTHBOUND TRAFFIC  
PLACE ADVANCED WARNING  
SIGNS PER STD. 701606

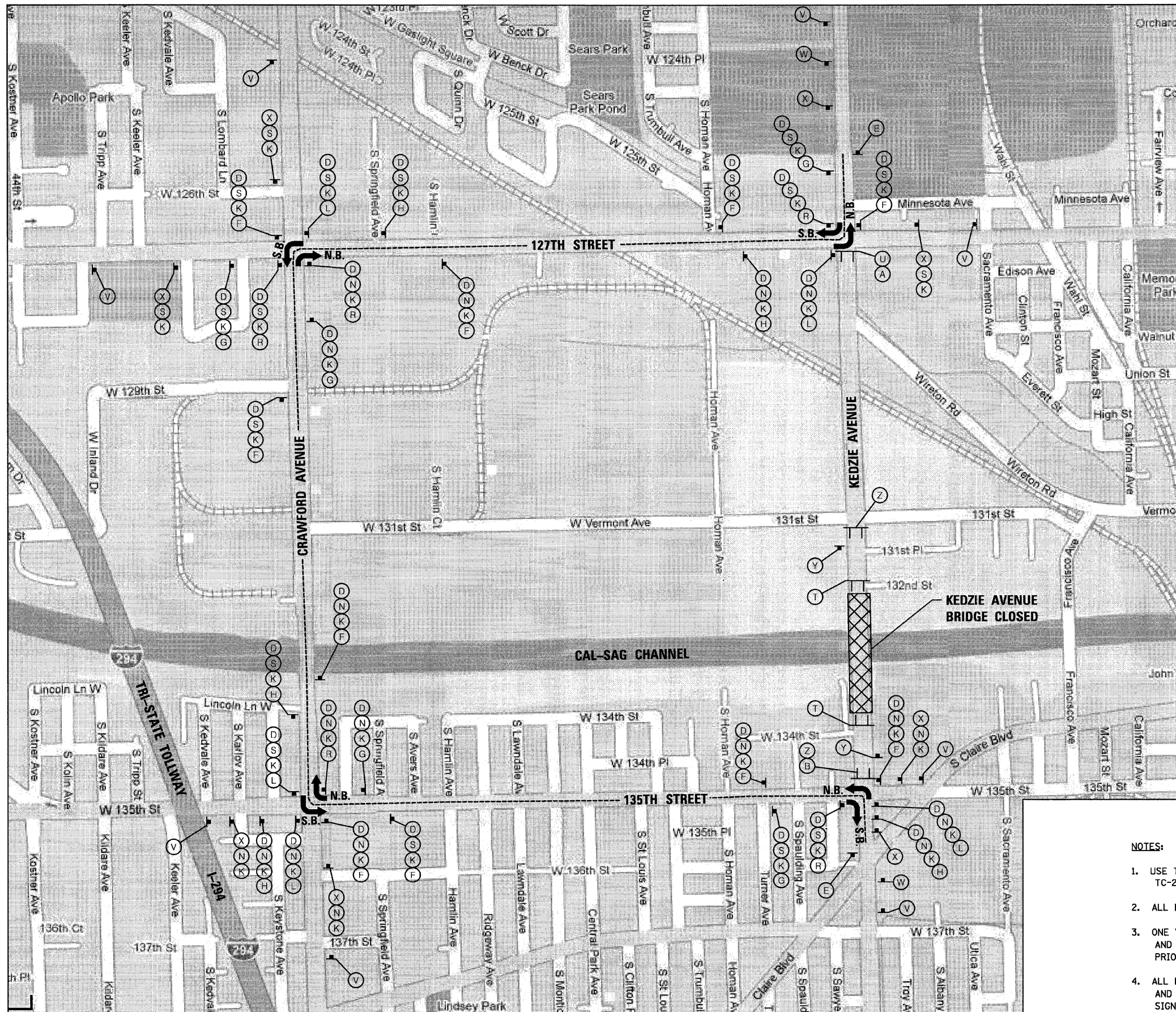
TYPE III BARRICADE WITH  
FLASHING LIGHTS AND  
W-1-6R(O)-6030  
(ABOVE BARRICADE ON  
BOTH SIDES, LIGHTS  
FACING S.B. TRAFFIC)

TYPE III BARRICADES TO BE PLACED  
ACROSS ENTIRE ROADWAY

FOR SOUTHBOUND TRAFFIC  
PLACE ADVANCED WARNING  
SIGNS PER STD. 701606

**STAGE III**





**LEGEND**

TYPE III BARRICADES  
 TEMPORARY SIGN  
 TRAFFIC DIRECTION

M4-110(R) (48 x 18)    M4-110(L) (48 x 18)    M1-7-219 (21 x 9)    M4-8a (24 x 18)

M6-3-2115 (21 x 15)    M5-1R-2115 (21 x 15)    M5-1L-2115 (21 x 15)    M6-1L-2115 (21 x 15)    M6-1R-2115 (21 x 15)

KEDZIE AVENUE (24 x 18)    M3-1-219 (21 x 9)    M3-3-219 (21 x 9)

R11-2 (48 x 30)    R11-4 (60 x 30)    W21-1102 (60 x 30)    R11-4 (60 x 30)

C24-14-4848 (48 x 48)    (48 x 48)    C24-12-4848 (48 x 48)

- NOTES:**
- USE THIS DETOUR PLAN IN CONJUNCTION WITH DISTRICT ONE STANDARD TC-21 - TYPICAL MARKING FOR CLOSING STATE HIGHWAYS.
  - ALL DIMENSIONS ARE SHOWN IN INCHES.
  - ONE VARIABLE MESSAGE SIGN SHALL BE PLACED ON THE SOUTH APPROACH AND ONE ON THE NORTH APPROACH OF THE BRIDGE AT LEAST ONE (1) WEEK PRIOR TO THE CLOSING OF THE BRIDGE.
  - ALL DETOUR SIGNS ARE TO BE INCLUDED IN THE COST OF "TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR" EXCEPT FOR SIGN (V). SIGN (V) IS PAID FOR AS "TEMPORARY INFORMATION SIGNING."

FILE NAME = 68075 detour.dgn  
 PLOT DATE = 7/8/2009

**CHRISTIAN-ROGE & ASSOCIATES, INC.**  
 ENGINEERS-PLANNERS-SURVEYORS  
 211 WEST WALKER DRIVE  
 CHICAGO, ILLINOIS 60606  
 PHONE: (312)372-2023 FAX: (312)372-5274

DESIGNED - S.J.P. / M.A.  
 DRAWN - M.A.  
 CHECKED - E.J.M.  
 DATE - JULY 8, 2009

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**DETOUR PLAN  
 KEDZIE AVENUE**

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

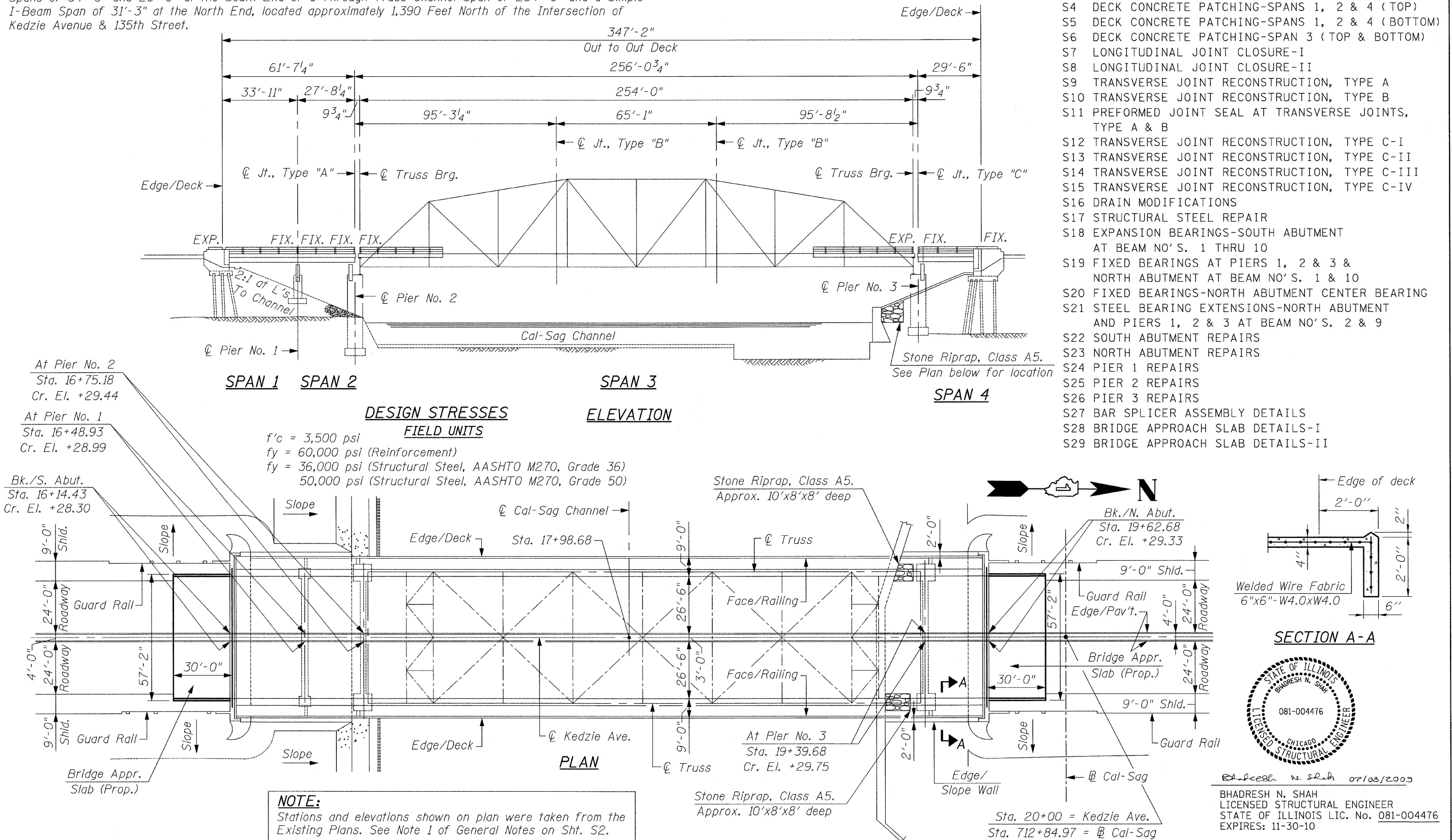
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2831	1313. 1-1-2	COOK	41	9
CONTRACT NO. 60D75				
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT				

**EXISTING STRUCTURE:**

Built in 1964 as Section 053-1313.1 MFT, Existing Structure consists of Steel Through Truss and I-Beam Highway Bridge carrying Kedzie Avenue over the Calumet-Sag Channel, consisting of 2-Simple I-Beam Spans of 34'-6" and 28'-6" at the South End of a Through Truss Channel Span of 254'-0" and a Simple I-Beam Span of 31'-3" at the North End, located approximately 1,390 Feet North of the Intersection of Kedzie Avenue & 135th Street.

**INDEX OF SHEETS**

- S1 GENERAL PLAN & ELEVATION
- S2 GENERAL NOTES & TOTAL BILL OF MATERIAL
- S3 DECK CROSS SECTION
- S4 DECK CONCRETE PATCHING-SPANS 1, 2 & 4 (TOP)
- S5 DECK CONCRETE PATCHING-SPANS 1, 2 & 4 (BOTTOM)
- S6 DECK CONCRETE PATCHING-SPAN 3 (TOP & BOTTOM)
- S7 LONGITUDINAL JOINT CLOSURE-I
- S8 LONGITUDINAL JOINT CLOSURE-II
- S9 TRANSVERSE JOINT RECONSTRUCTION, TYPE A
- S10 TRANSVERSE JOINT RECONSTRUCTION, TYPE B
- S11 PREFORMED JOINT SEAL AT TRANSVERSE JOINTS, TYPE A & B
- S12 TRANSVERSE JOINT RECONSTRUCTION, TYPE C-I
- S13 TRANSVERSE JOINT RECONSTRUCTION, TYPE C-II
- S14 TRANSVERSE JOINT RECONSTRUCTION, TYPE C-III
- S15 TRANSVERSE JOINT RECONSTRUCTION, TYPE C-IV
- S16 DRAIN MODIFICATIONS
- S17 STRUCTURAL STEEL REPAIR
- S18 EXPANSION BEARINGS-SOUTH ABUTMENT AT BEAM NO'S. 1 THRU 10
- S19 FIXED BEARINGS AT PIERS 1, 2 & 3 & NORTH ABUTMENT AT BEAM NO'S. 1 & 10
- S20 FIXED BEARINGS-NORTH ABUTMENT CENTER BEARING
- S21 STEEL BEARING EXTENSIONS-NORTH ABUTMENT AND PIERS 1, 2 & 3 AT BEAM NO'S. 2 & 9
- S22 SOUTH ABUTMENT REPAIRS
- S23 NORTH ABUTMENT REPAIRS
- S24 PIER 1 REPAIRS
- S25 PIER 2 REPAIRS
- S26 PIER 3 REPAIRS
- S27 BAR SPLICER ASSEMBLY DETAILS
- S28 BRIDGE APPROACH SLAB DETAILS-I
- S29 BRIDGE APPROACH SLAB DETAILS-II



FILE NAME = general.plan-elev.dgn  
PLOT DATE = 7/8/2009

**CHRISTIAN-ROGE & ASSOCIATES, INC.**  
ENGINEERS-PLANNERS-SURVEYORS  
211 WEST WACKER DRIVE  
CHICAGO, ILLINOIS 60606  
PHONE: (312)372-2023 FAX: (312)372-5274

DESIGNED - B.N.S./J.C.N.	REVISED -
DRAWN - D.L./R.E.S./F.M.	REVISED -
CHECKED - B.N.S./J.C.N.	REVISED -
DATE - JULY 8, 2009	REVISED -

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

**GENERAL PLAN & ELEVATION**  
**KEDZIE AVENUE OVER CAL-SAG CHANNEL S.N.016-0762**  
SCALE: SHEET NO. S1 OF S29 SHEETS STA. TO STA.

F.A.U. RTE. 2831	SECTION 1313, 1-1-2	COUNTY COOK	TOTAL SHEETS 41	SHEET NO. 10
CONTRACT NO. 60D75				FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT



Bhadresh N. Shah 07/08/2009  
BHADRESH N. SHAH  
LICENSED STRUCTURAL ENGINEER  
STATE OF ILLINOIS LIC. No. 081-004476  
EXPIRES: 11-30-10

**TOTAL BILL OF MATERIAL**

DESCRIPTION	UNIT	SUPER.	SUB.	TOTAL
Bridge Deck Hydro-Scarification 1/4 Inch	Sq. Yd.	1,864	-	1,864
Bridge Deck Latex Concrete Overlay, 2 1/4 Inches	Sq. Yd.	1,864	-	1,864
Bridge Deck Grooving	Sq. Yd.	1,772	-	1,772
Protective Coat	Sq. Yd.	2,188	-	2,188
Reinforcement Bars, Epoxy Coated	Pound	64,530	1,180	65,710
Protective Shield	Sq. Yd.	750	-	750
Concrete Removal	Cu. Yd.	77	12.5	89.5
Jack and Remove Existing Bearings	Each	27	-	27
Elastomeric Bearing Assembly, Type II	Each	10	-	10
Structural Repair of Concrete (Depth Equal to or Less Than 5 In.)	Sq. Ft.	-	554	554
Preformed Joint Strip Seal	Foot	171	-	171
Concrete Superstructure	Cu. Yd.	185.9	-	185.9
Concrete Structures	Cu. Yd.	-	30.2	30.2
Bar Splicers	Each	382	140	522
Anchor Bolts, 1"φ	Each	54	-	54
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	5	-	5
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	89	-	89
Finger Plate Expansion Joint, 5"	Foot	56	-	56
Floor Drain Extension	Each	66	-	66
Structural Steel Repair	Pound	1,300	-	1,300
Furnishing and Erecting Structural Steel	Pound	4,990	-	4,990
Fabric Reinforced Elastomeric Trough	Foot	67	-	67
Structure Excavation	Cu. Yd.	-	37	37
Porous Granular Embankment, Special	Cu. Yd.	-	37	37
Temporary Shoring and Cribbing	Each	5	-	5
Stone Riprap, Class A5	Ton	-	80	80

**GENERAL NOTES:**

- Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
- The Contractor must use extreme caution during concrete removal and must not nick, cut or damage in any way, any of the steel beams. Any damage caused to any of the Steel Beams by the Contractor shall be repaired by the Contractor at no cost to I.D.O.T.
- Areas of Deck Repairs shown are estimated. The Engineer shall show actual locations of Deck Repairs on As-Built Plan.
- All Structural Steel shall conform to AASHTO Classifications M-270 Gr. 36, unless otherwise noted.
- Fasteners shall be high strength bolts. Bolts 3/4"φ, open holes 13/16"φ, unless otherwise noted.
- Finger Plate Extension Joints shall be assembled in their final relative position with the ends in place for shop inspection and acceptance.
- The Finger Plates shall be flame cut as provided in Article 505.04(k) of the Standard Specifications.
- Cost of removal and re-installation of all members necessary to complete the work as detailed on the plans and as specified in the Special Provisions shall be included with Furnishing and Erecting Structural Steel.
- The Inorganic Zinc Rich Primer/Acrylic/Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat shall be Gray, Munsell No. 5B 7/1. See Special Provisions "Cleaning and Painting New Metal Structures".
- The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
- Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".
- Joint openings shall be adjusted according to Article 520.04 of the Standard Specifications when the Deck is poured at an ambient temperature other than 50°F.
- All exposed concrete edges shall be chamfered 3/4" unless otherwise noted.
- The Contractor shall provide support and/or shoring systems for the slab and beam in the repair areas as required in order to maintain the existing deck profile. The support and/or shoring systems shall be approved by the Engineer. Such approval will not relieve the Contractor of responsibility for the safety of the structure. See Special Provision "Temporary Shoring and Cribbing".
- Reinforcement Bars shall conform to the requirements of ASTM A-706, Grade 60. See Special Provisions.
- Reinforcement Bars designated (E) shall be Epoxy Coated.

FILE NAME = general\_notes.dgn  
PLOT DATE = 7/8/2009

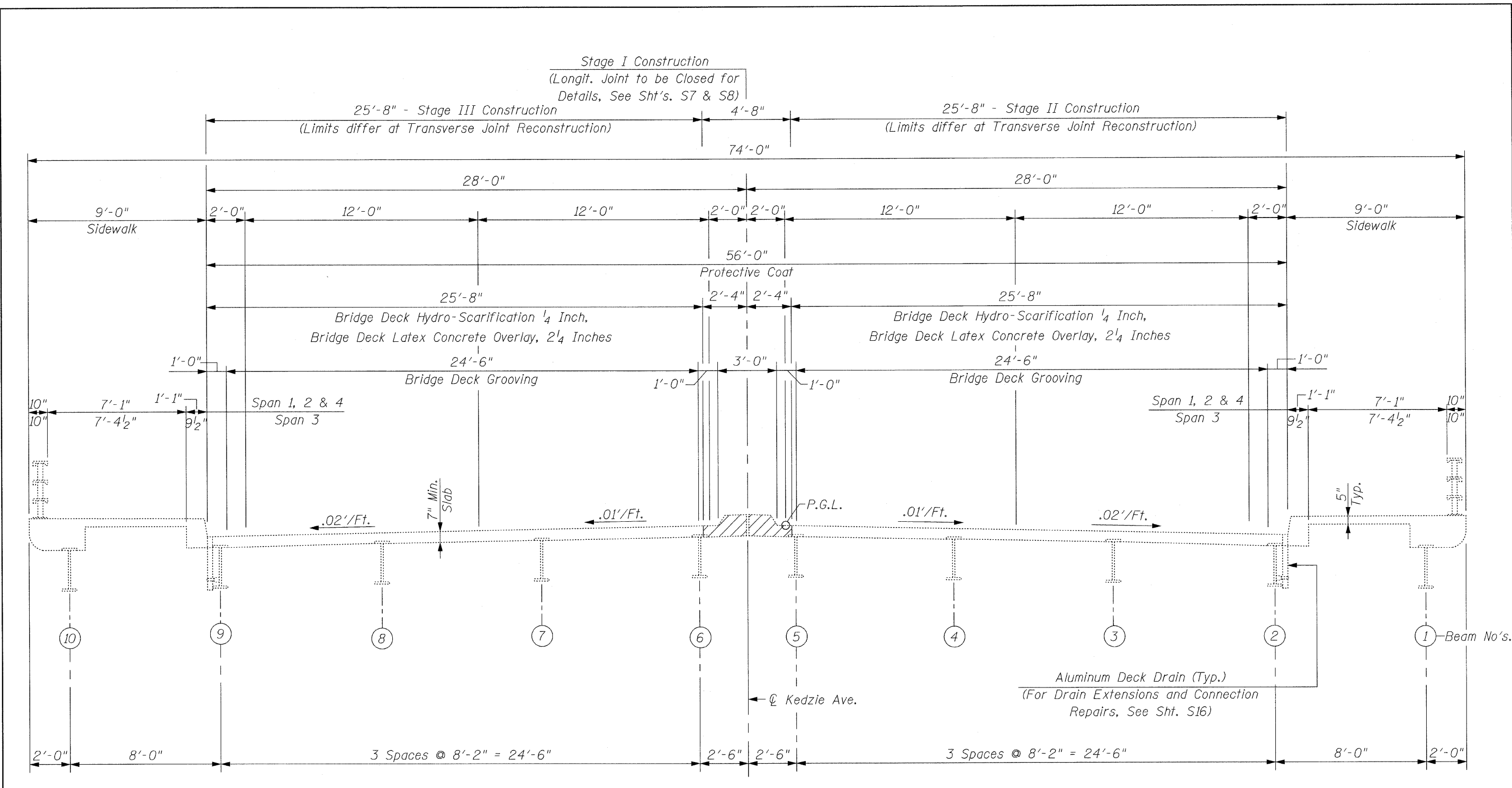


DESIGNED - B.N.S./J.C.N.	REVISED -
DRAWN - D.L./R.E.S./F.M.	REVISED -
CHECKED - B.N.S./J.C.N.	REVISED -
DATE - JULY 8, 2009	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

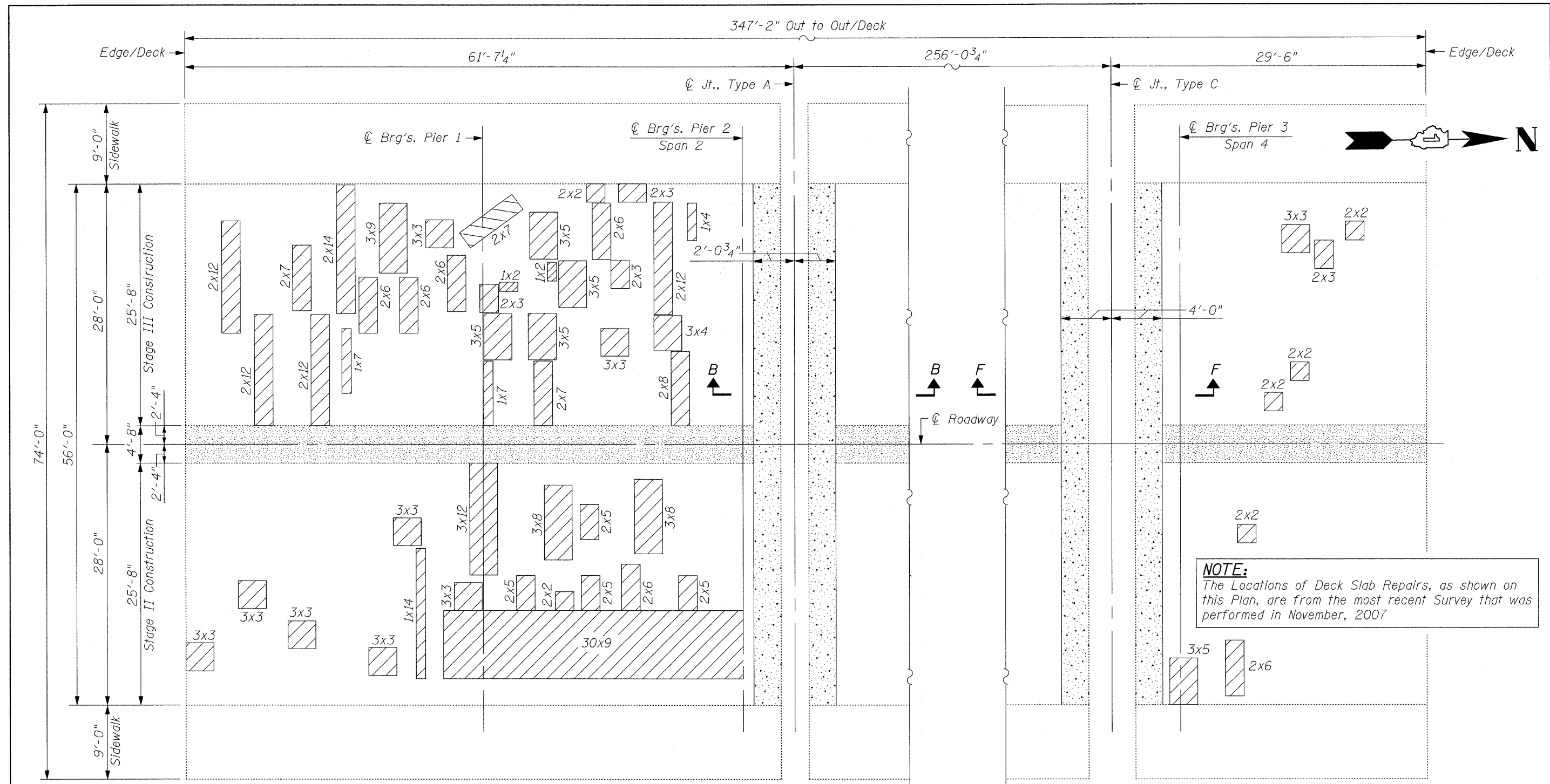
**GENERAL NOTES & TOTAL BILL OF MATERIAL  
KEDZIE AVENUE OVER CAL-SAG CHANNEL S.N. 016-0762**

F.A.U. RTE. 2831	SECTION 1313, 1-I-2	COUNTY COOK	TOTAL SHEETS 41	SHEET NO. 11
SCALE: SHEET NO. S2 OF S29 SHEETS STA. TO STA.			CONTRACT NO. 60D75	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



**EXISTING DECK CROSS SECTION**  
(Looking North)

FILE NAME = deck cross section.dgn PLOT DATE = 7/8/2009	<b>CHRISTIAN-ROGE &amp; ASSOCIATES, INC.</b> ENGINEERS-PLANNERS-SURVEYORS 211 WEST WACKER DRIVE CHICAGO, ILLINOIS 60606 PHONE: (312)372-2023 FAX: (312)372-5274	DESIGNED - B.N.S./J.C.N.	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>DECK CROSS SECTION</b> <b>KEDZIE AVENUE OVER CAL-SAG CHANNEL S.N. 016-0762</b>		F.A.U. RTE. 2831	SECTION 1313, 1-1-2	COUNTY COOK	TOTAL SHEETS 41	SHEET NO. 12
		DRAWN - D.L./R.E.S./F.M.	REVISED -		SCALE:	SHEET NO. S3 OF S29 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT CONTRACT NO. 60D75			



**NOTE:**  
 The Locations of Deck Slab Repairs, as shown on this Plan, are from the most recent Survey that was performed in November, 2007

**NOTES:**  
 For Details of Longitudinal Joint Reconstruction See Sht. S7 & S8.  
 For Details of Transverse Joint Reconstruction See Sht's. S9 Thru S15.  
 For Section B-B See Sht. S9.  
 For Section F-F See Sht. S13.  
 Work This Sheet With Sht's. S5 & S6.

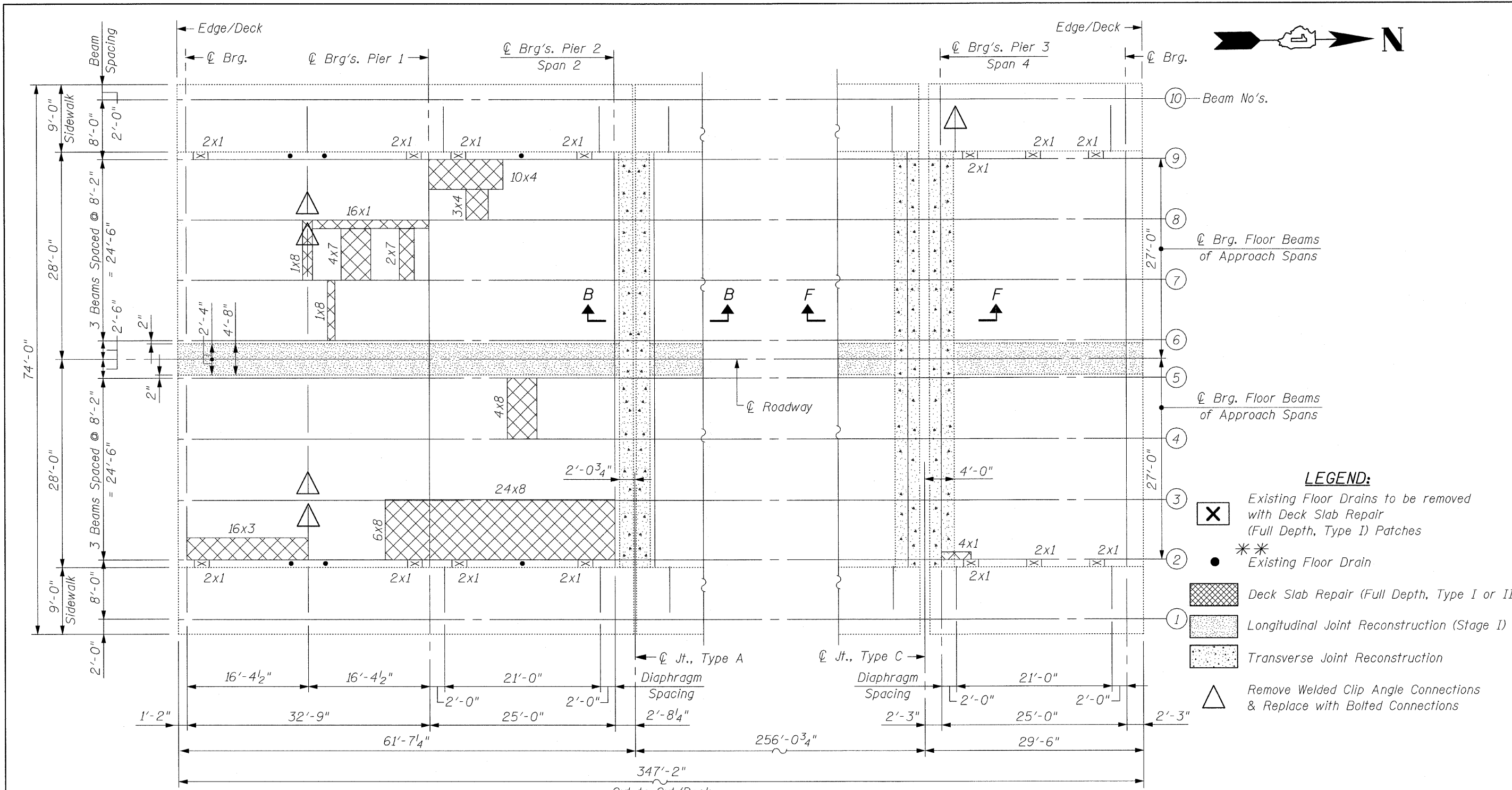
**TOP DECK PLAN**

**LEGEND:**

- \* Deck Slab Repair (Partial Depth)
- Longitudinal Joint Reconstruction (Stage I)
- Transverse Joint Reconstruction

\* Deck Slab Repair (Partial Depth) is shown for information only.

FILE NAME = deck_repair-span-1-4top.dgn PLOT DATE = 7/8/2009	<b>CHRISTIAN-ROGE &amp; ASSOCIATES, INC.</b> ENGINEERS-PLANNERS-SURVEYORS 211 WEST WACKER DRIVE CHICAGO, ILLINOIS 60606 PHONE: (312)372-2023 FAX: (312)372-5274	DESIGNED - B.N.S./J.C.N.	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>DECK CONCRETE PATCHING - SPANS 1, 2, &amp; 4 (TOP)</b> <b>KEDZIE AVENUE OVER CAL-SAG CHANNEL S.N. 016-0762</b>	F.A.U. RTE. 2831	SECTION 1313. 1-1-2	COUNTY COOK	TOTAL SHEETS 41	SHEET NO. 13
		DRAWN - D.L./R.E.S./F.M.	REVISED -			SCALE: SHEET NO. S4 OF S29 SHEETS STA. TO STA.		FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT		



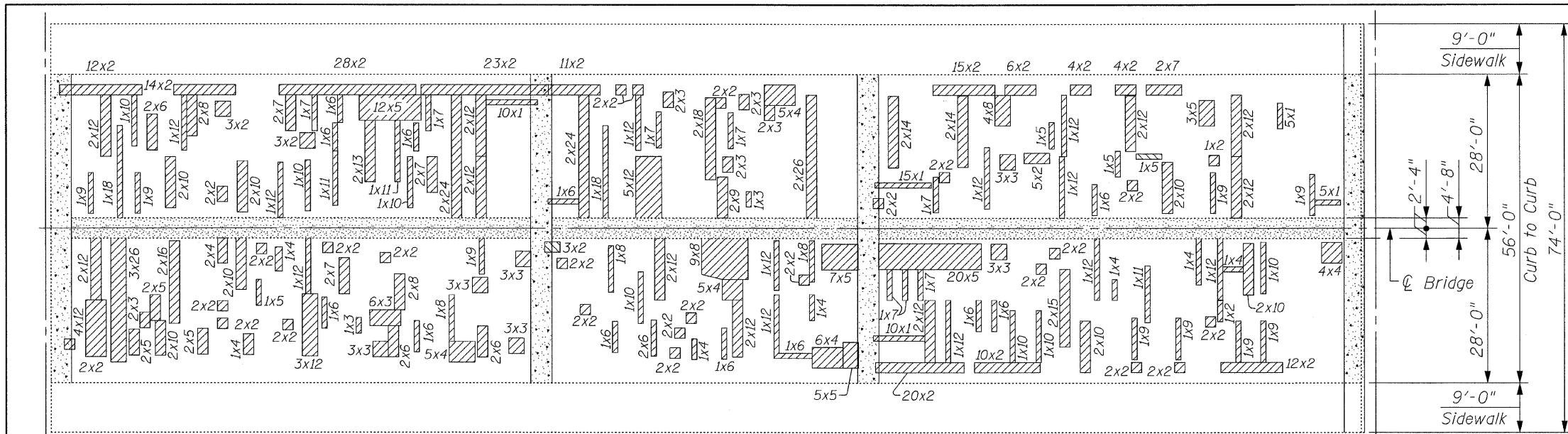
- LEGEND:**
- Existing Floor Drains to be removed with Deck Slab Repair (Full Depth, Type I) Patches
  - Existing Floor Drain
  - Deck Slab Repair (Full Depth, Type I or II)
  - Longitudinal Joint Reconstruction (Stage I)
  - Transverse Joint Reconstruction
  - Remove Welded Clip Angle Connections & Replace with Bolted Connections

**NOTES:**  
 For Details of Longitudinal Joint Reconstruction See Sht's. S7 & S8.  
 For Details of Transverse Joint Reconstruction See Sht's. S9 Thru S15.  
 For Welded Clip Angle Connections to be Replaced with Bolted Connections See Detail "A" & "B" Sht. S17.  
 For Protective Shield See Sht. S6.  
 Work This Sheet With Sht's. S4 & S6.  
 For Section B-B See Sht. S9.  
 For Section F-F See Sht. S13.

**NOTE:**  
 The Locations of Deck Slab Repairs, as shown on this Plan, are from the most recent Survey that was performed in November, 2007

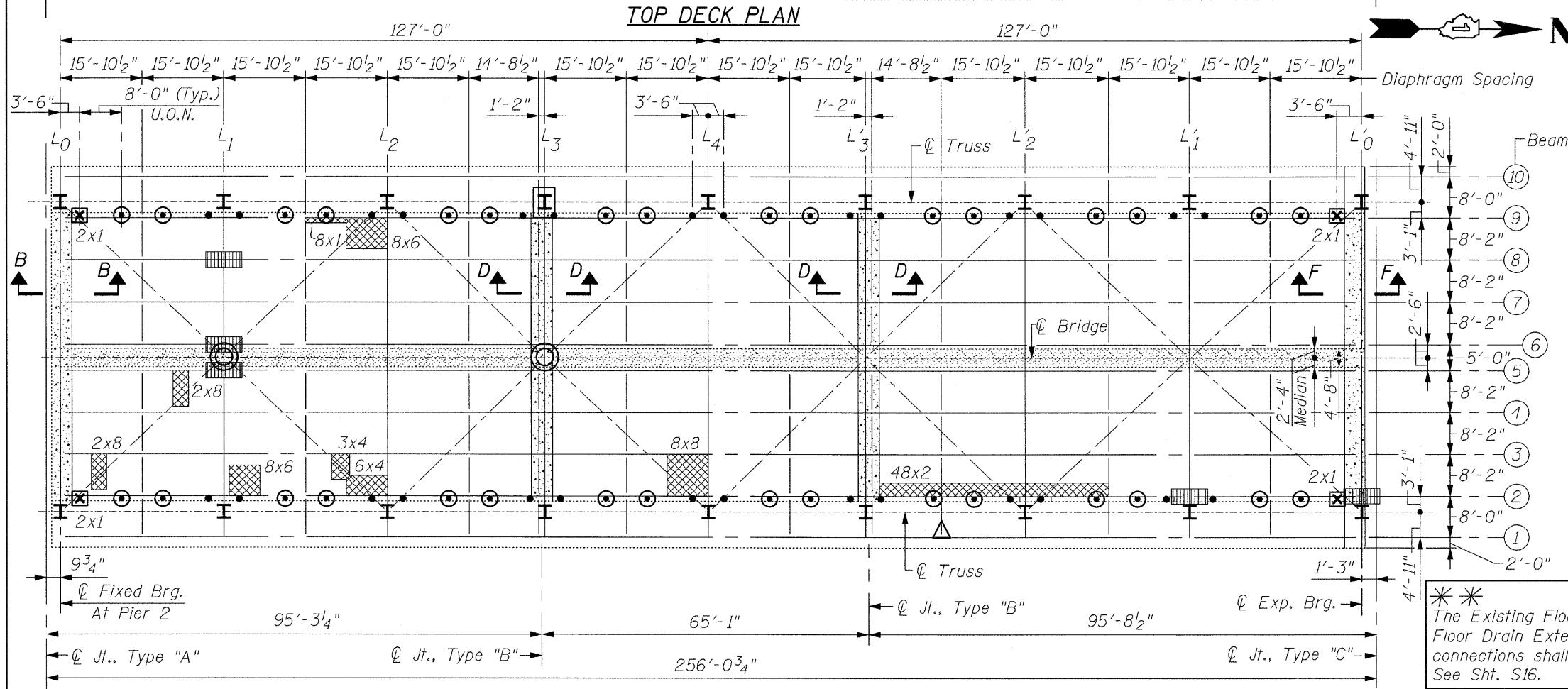
**\* \***  
 The Existing Floor Drains that will not be removed have Connections welded to the Girders. These Connections shall be removed and replaced with Bolted Connections. See Sht. S16.

FILE NAME = deck_repair-span.1-4bott.dgn PLOT DATE = 7/8/2009	<b>CHRISTIAN-ROGE &amp; ASSOCIATES, INC.</b> ENGINEERS-PLANNERS-SURVEYORS 211 WEST WACKER DRIVE CHICAGO, ILLINOIS 60606 PHONE: (312)372-2023 FAX: (312)372-5274	DESIGNED - B.N.S./J.C.N.	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>DECK CONCRETE PATCHING - SPANS 1, 2 &amp; 4 (BOTTOM)</b> <b>KEDZIE AVENUE OVER CAL-SAG CHANNEL S.N. 016-0762</b>	F.A.U. RTE. 2831	SECTION 1313. 1-1-2	COUNTY COOK	TOTAL SHEETS 41	SHEET NO. 14
CHECKED - B.N.S./J.C.N.		REVISED -	SCALE:			SHEET NO. S5 OF S29 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT



**NOTES:**

- For details of Longitudinal Joint Reconstruction, See Sht's. S7 & S8.
- For details of Transverse Joint Reconstruction, See Sht's. S9 thru S15.
- For details of removal & replacement of bottom lateral gusset plates, See Detail "C", Sht. S17.
- For Section B-B See Sht. S9.
- For Section D-D See Sht. S10.
- For Section F-F See Section S13.
- For Welded Clip Angle Connections to be replaced with bolted connections, See Detail "B" See Sht. S17.
- For Floor Drain Extensions, See Sht. S16.
- For details of removal & replacement of Tie Rods, See Detail "D", Sht. S17.
- Work this Sheet with Sht's. S4 & S5.
- For end of Beam repairs, see Detail "E", Sht. S17.



- LEGEND:**
- Existing Floor Drains to be removed with Deck Slab Repair (Full Depth, Type I) Patches
  - Existing Floor Drains
  - Floor Drain Extensions
  - Deck Slab Repair (Partial Depth)
  - Deck Slab Repair (Full Depth, Type I or II)
  - Longitudinal Joint Reconstruction (Stage I)
  - Transverse Joint Reconstruction
  - End of Beam Repair
  - Remove Welded Clip Angle Connections & Replace with Bolted Connections
  - Remove & Replace Bottom Lateral Gusset Plates
  - Remove & Replace Tie Rods
  - U.O.N. Unless Otherwise Noted

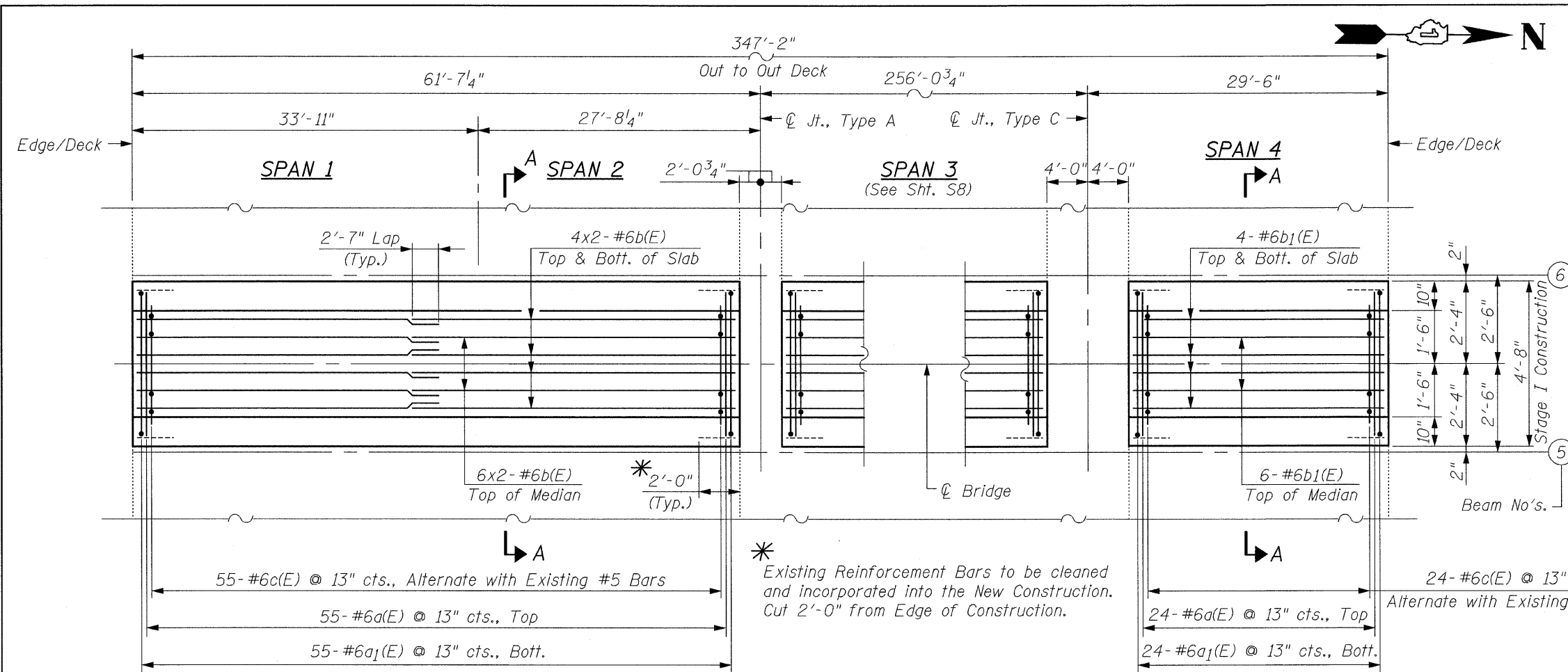
**\* \***  
The Existing Floor Drains that will not be removed (including drains with Floor Drain Extensions) have connections welded to the Girders. These connections shall be removed & replaced with Bolted Connections. See Sht. S16.

**NOTE:**  
Protective Shield is to be placed beneath Longitudinal Joint Reconstruction, Transverse Joint Reconstruction and Deck Slab Repair (Full Depth, Type I & II). Protective Shield shall span between Beams transversely and a minimum of 2 Feet on either side of the Reconstruction Area longitudinally. The Contractor shall submit detailed Shop Drawings to the Engineer for approval prior to constructing the Protective Shield.

**NOTE:**  
The Locations of Deck Slab Repairs, as shown on this Plan, are from the most recent Survey that was performed in November, 2007

**TOTAL BILL OF MATERIAL (FOR SPANS 1 THRU 4)**

Item	Unit	Total
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	5
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	89
Protective Shield	Sq. Yd.	750

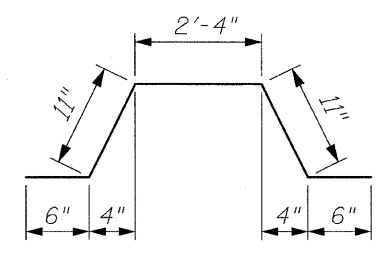


**BILL OF MATERIAL**

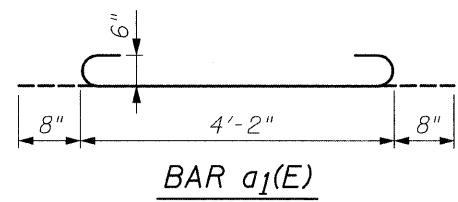
Bar	No.	Size	Length	Shape	
a(E)	304	#6	4'-2"	—	
a <sub>1</sub> (E)	304	#6	5'-6"	⌋	
b(E)	28	#6	30'-10"	—	
b <sub>1</sub> (E)	14	#6	24'-8"	—	
b <sub>2</sub> (E)	84	#6	32'-0"	—	
b <sub>3</sub> (E)	28	#6	31'-7"	—	
c(E)	304	#6	5'-2"	⌋	
Reinforcement Bars, Epoxy Coated				Pound	13,950
Concrete Removal				Cu. Yd.	49.4
Concrete Superstructure				Cu. Yd.	60.2

**PROPOSED PLAN OF LONGITUDINAL JOINT CLOSURE**

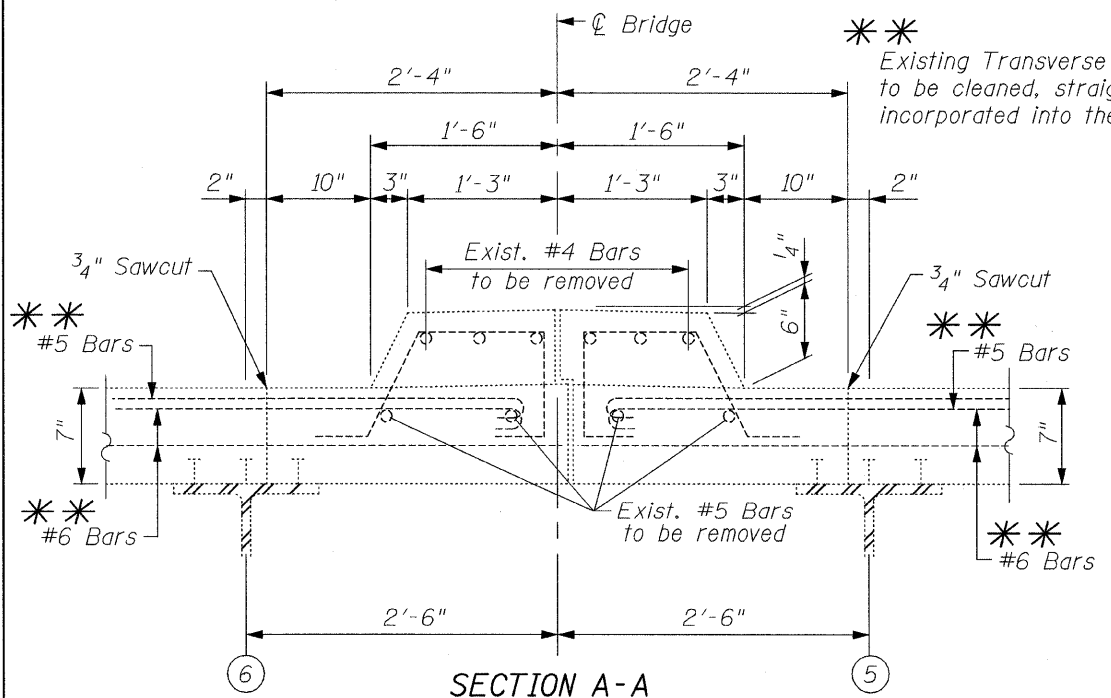
**NOTE:**  
Bars Indicated Thus 6x2-#6 etc., Indicates 6 Lines of Bars with 2 Lengths Per Line.



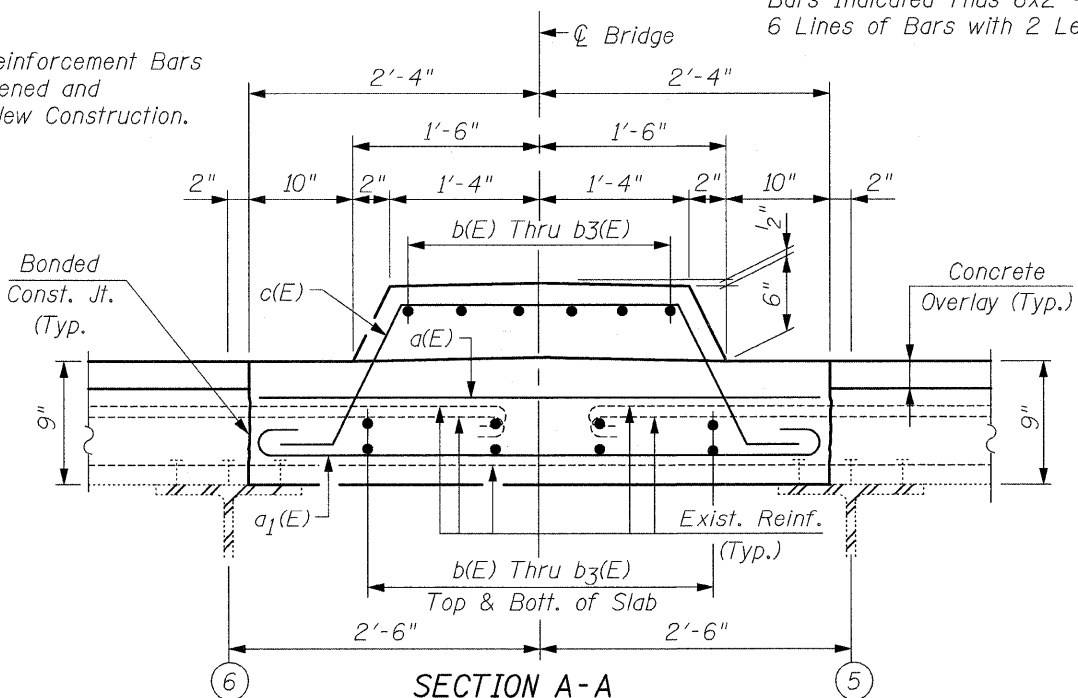
**BAR c(E)**



**BAR a<sub>1</sub>(E)**



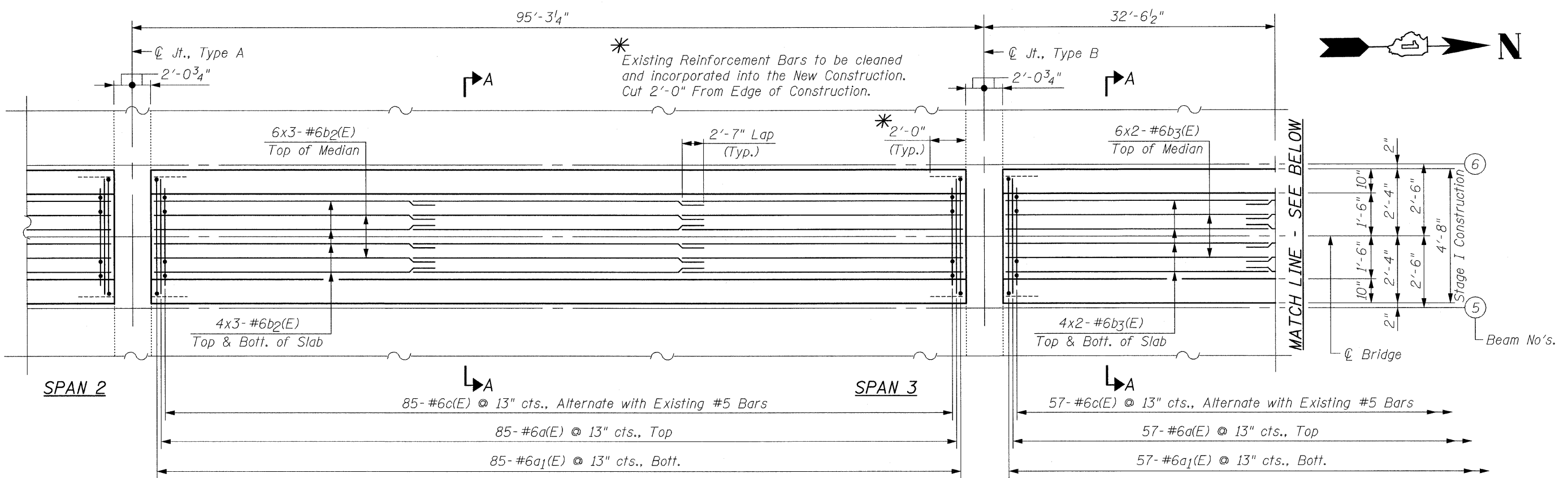
**SECTION A-A  
EXISTING LONGITUDINAL JOINT**



**SECTION A-A  
PROPOSED RECONSTRUCTED LONGITUDINAL JOINT**

**NOTES:**  
See Sht's. S9 Thru S15 for Transverse Joint Reconstruction Details.  
Work This Sheet with Sht. S8.

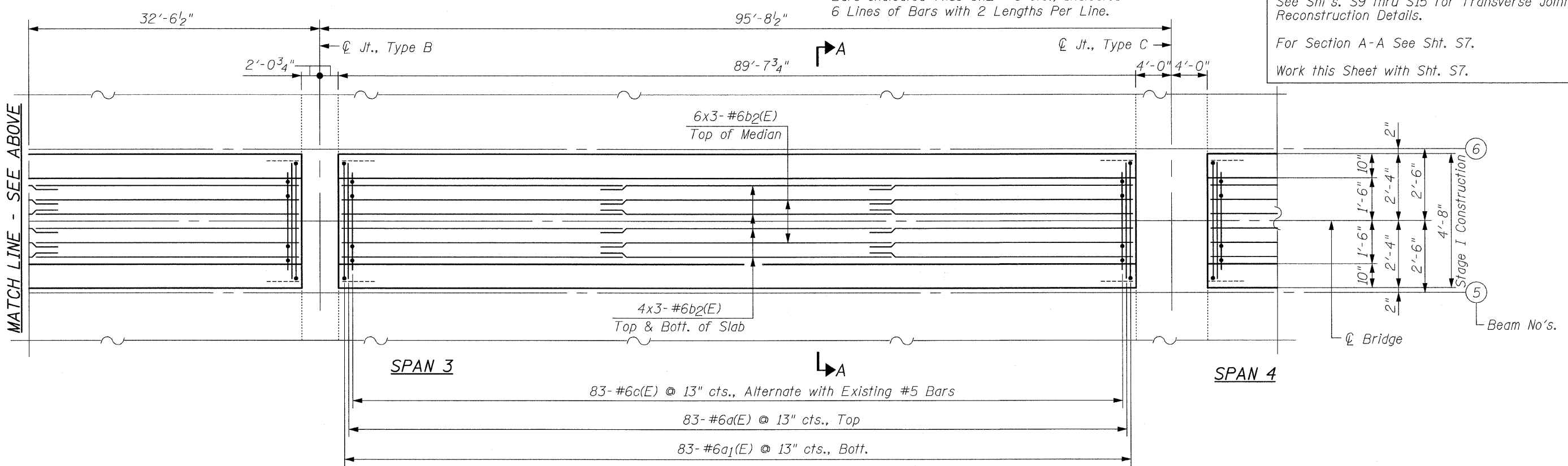




\* Existing Reinforcement Bars to be cleaned and incorporated into the New Construction. Cut 2'-0" From Edge of Construction.

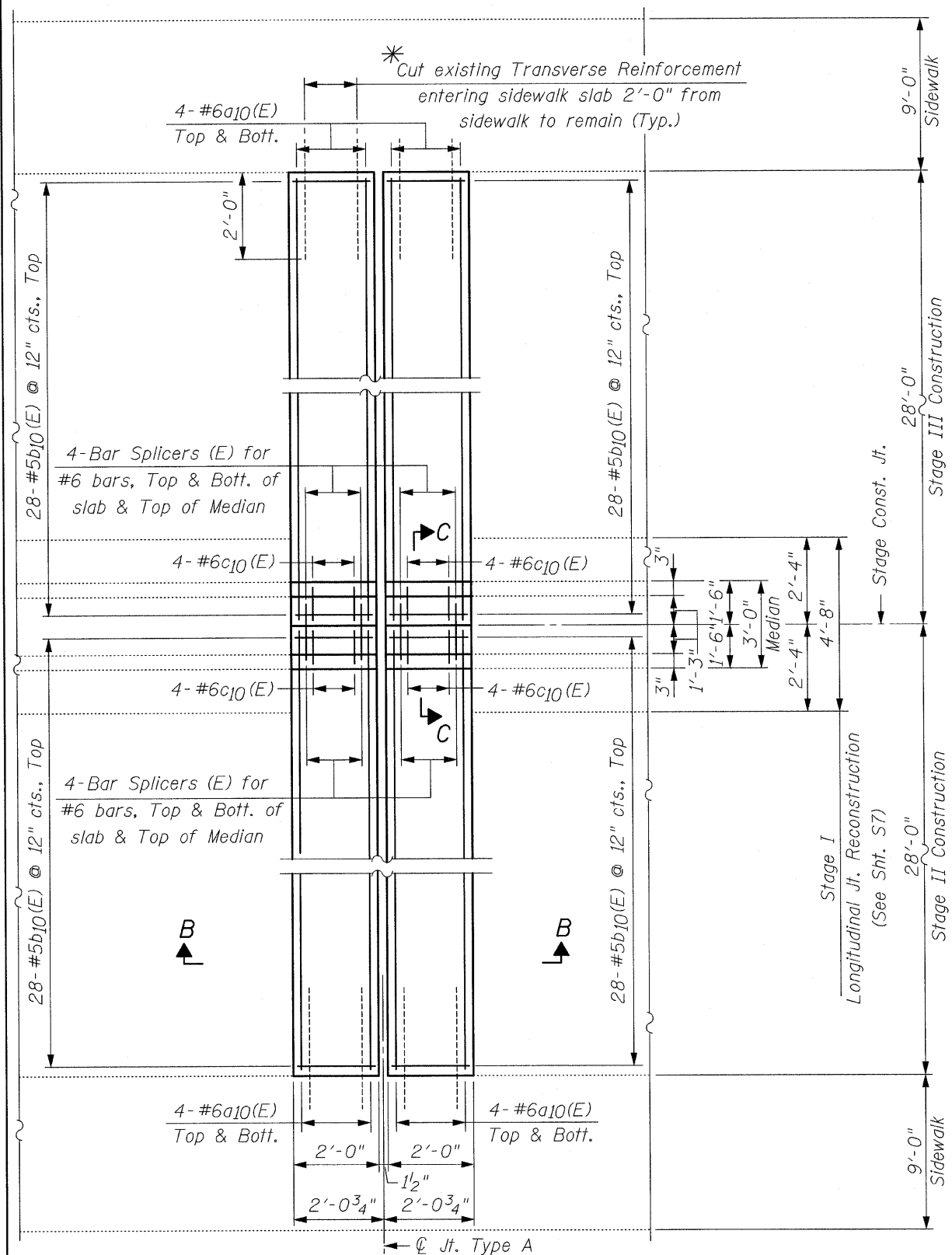
**NOTE:**  
Bars Indicated Thus 6x2-#6 etc., Indicates 6 Lines of Bars with 2 Lengths Per Line.

**NOTES:**  
See Sht's. S9 thru S15 for Transverse Joint Reconstruction Details.  
For Section A-A See Sht. S7.  
Work this Sheet with Sht. S7.

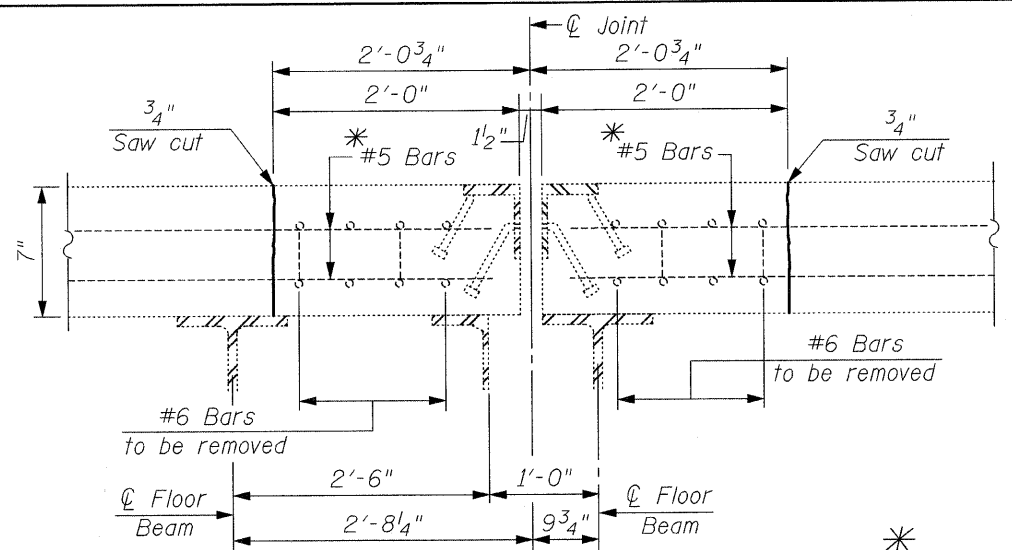


**PROPOSED PLAN OF LONGITUDINAL JOINT CLOSURE**

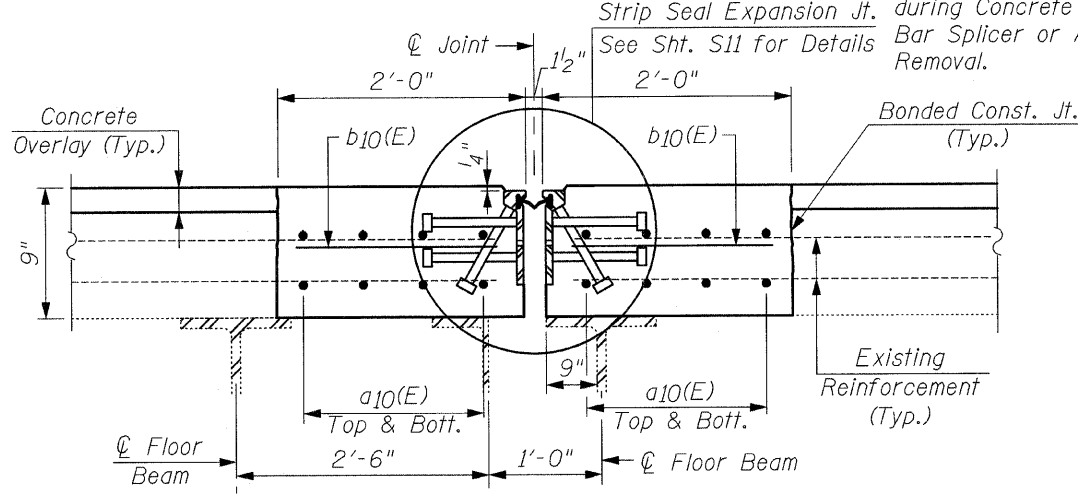
FILE NAME = longitudinal_jt-span_3.dgn PLOT DATE = 7/8/2009	<b>CHRISTIAN-ROGE &amp; ASSOCIATES, INC.</b> ENGINEERS-PLANNERS-SURVEYORS 211 WEST WACKER DRIVE CHICAGO, ILLINOIS 60606 PHONE: (312)372-2023 FAX: (312)372-5274	DESIGNED - B.N.S./J.C.N.	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>LONGITUDINAL JOINT CLOSURE - II</b> <b>KEDZIE AVENUE OVER CAL-SAG CHANNEL S.N.016-0762</b>		F.A.U. RTE. 2831	SECTION 1313, 1-I-2	COUNTY COOK	TOTAL SHEETS 41	SHEET NO. 17
		DRAWN - D.L./R.E.S./F.M.	REVISED -		SCALE:	SHEET NO. S8 OF S29 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT CONTRACT NO. 60D75			



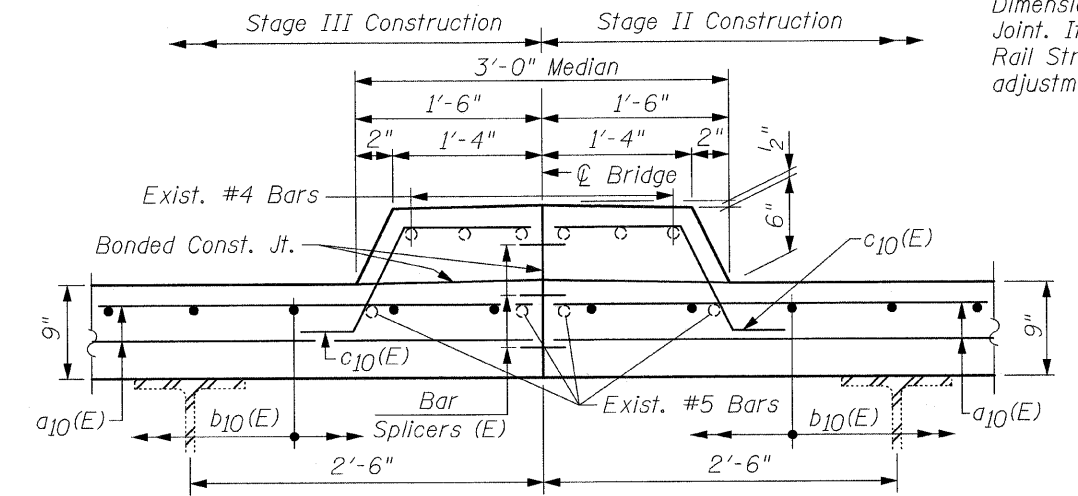
**PROPOSED TRANSVERSE JOINT, TYPE A**  
**PARTIAL PLAN**



**SECTION B-B**  
**EXISTING TRANSVERSE JOINT, TYPE A**



**SECTION B-B**  
**PROPOSED TRANSVERSE JOINT, TYPE A**

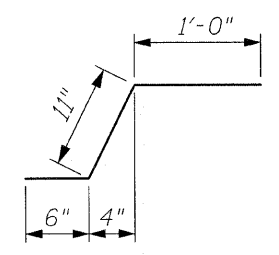


**SECTION C-C**  
**PROPOSED SECTION AT MEDIAN**

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a10(E)	32	#6	27'-8"	—
b10(E)	112	#5	1'-8"	—
c10(E)	16	#6	2'-5"	┘
Reinforcement Bars, Epoxy Coated			Pound	1,580
Concrete Removal			Cu. Yd.	5.1
Concrete Superstructure			Cu. Yd.	6.5
Bar Splicers			Each	24

\* The Existing Reinforcement Bars extending into the removal area shall be cleaned, straightened and incorporated into the new Construction. Any Reinforcement Bars that are damaged during Concrete Removal shall be replaced with an approved Bar Splicer or Anchorage System. Cost included with Concrete Removal.



**BAR c10(E)**

**NOTE:**  
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 match the details on Sht. S11.

FILE NAME = tran.jt recon.type-A.dgn  
PLOT DATE = 7/9/2009

**CHRISTIAN-ROGE & ASSOCIATES, INC.**  
ENGINEERS-PLANNERS-SURVEYORS  
211 WEST WACKER DRIVE  
CHICAGO, ILLINOIS 60606  
PHONE: (312)372-2023 FAX: (312)372-5274

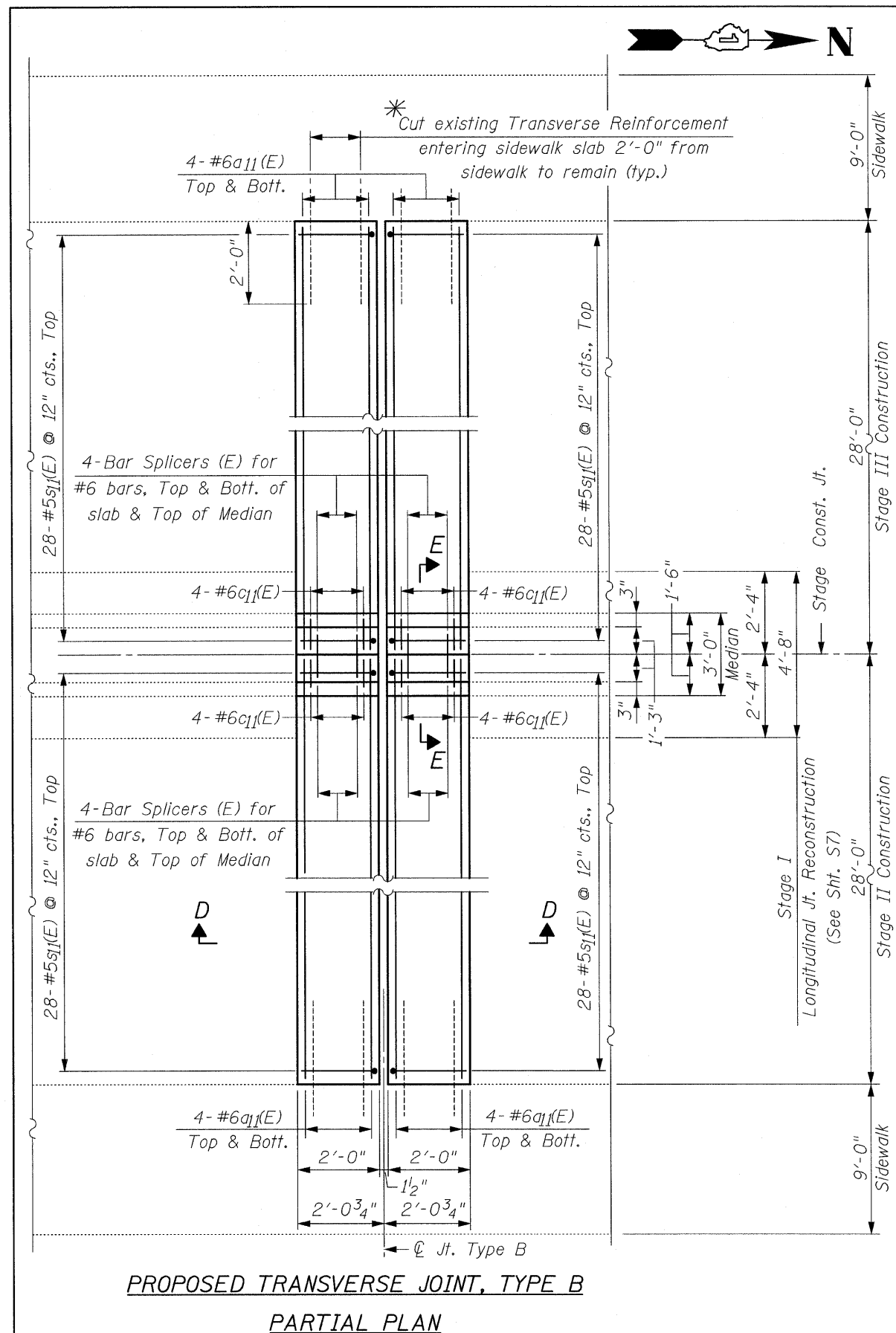
DESIGNED - B.N.S./J.C.N. REVISIONS -  
DRAWN - D.L./R.E.S./F.M. REVISIONS -  
CHECKED - B.N.S./J.C.N. REVISIONS -  
DATE - JULY 8, 2009 REVISIONS -

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

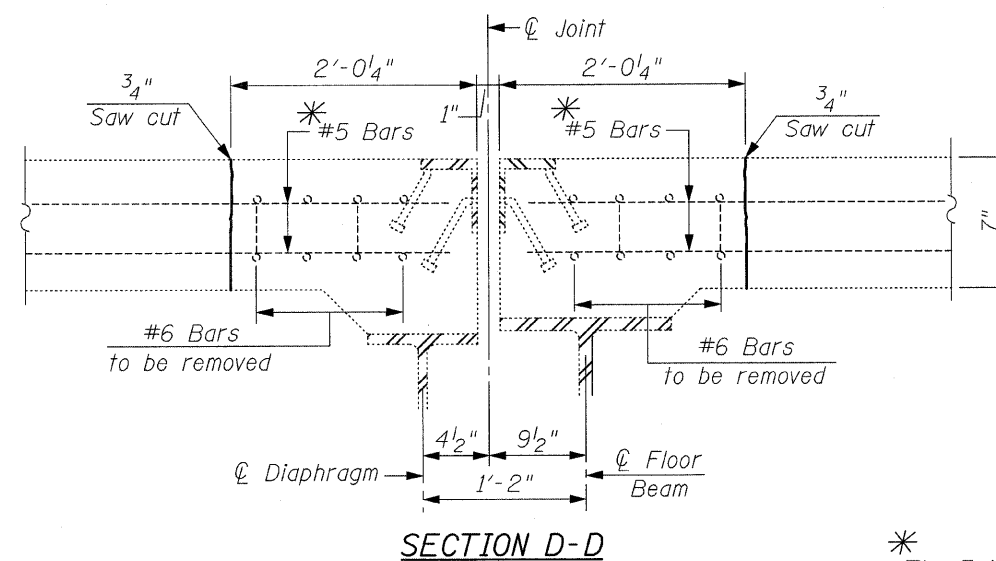
**TRANSVERSE JOINT RECONSTRUCTION, TYPE A**  
**KEDZIE AVENUE OVER CAL-SAG CHANNEL S.N. 016-0762**

SCALE: SHEET NO. S9 OF S29 SHEETS STA. TO STA.

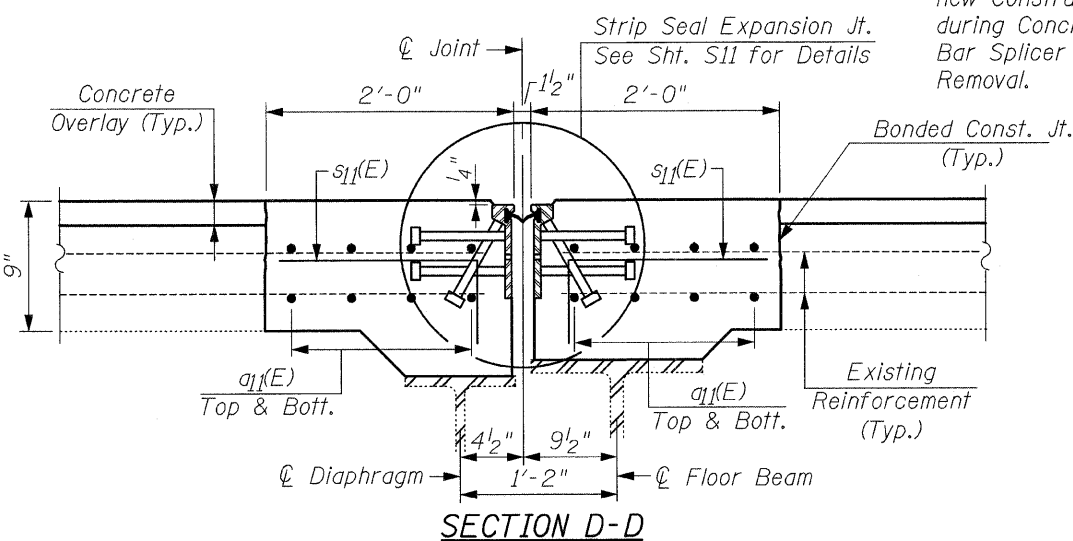
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2831	1313, 1-1-2	COOK	41	18
CONTRACT NO. 60D75				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



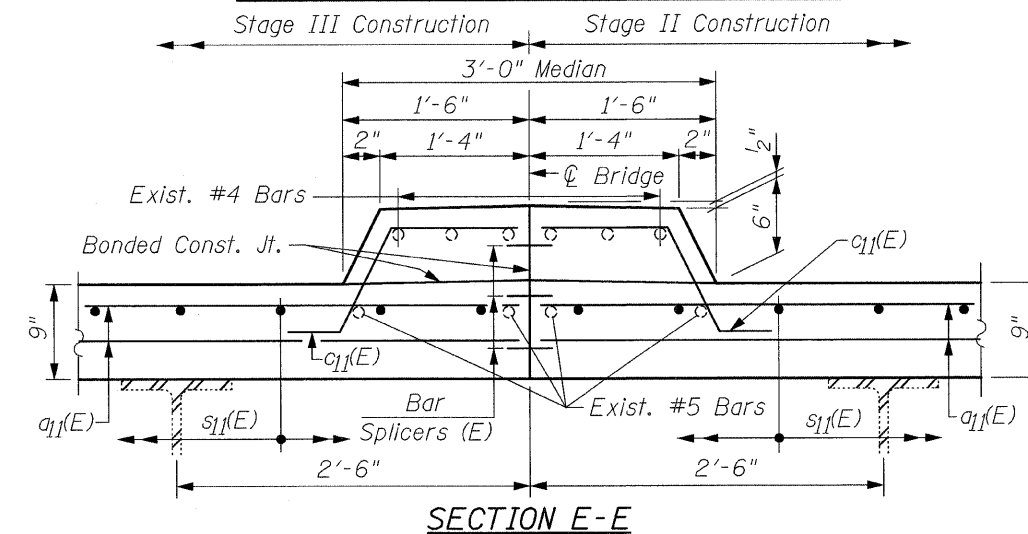
PROPOSED TRANSVERSE JOINT, TYPE B  
PARTIAL PLAN



EXISTING TRANSVERSE JOINT, TYPE B



PROPOSED TRANSVERSE JOINT, TYPE B



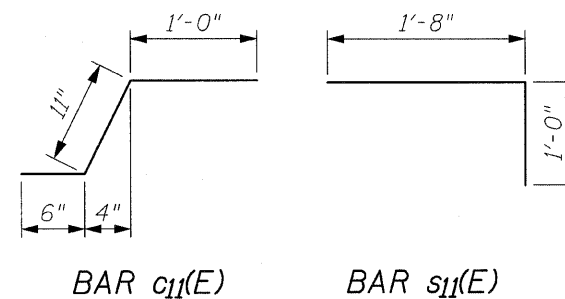
PROPOSED SECTION AT MEDIAN

**BILL OF MATERIAL**

For One Joint Location (2 Thus)

Bar	No.	Size	Length	Shape
a <sub>11</sub> (E)	32	#6	27'-8"	—
c <sub>11</sub> (E)	16	#6	2'-5"	└
s <sub>11</sub> (E)	112	#5	2'-8"	└
Reinforcement Bars, Epoxy Coated			Pound	1,700
Concrete Removal			Cu. Yd.	6.7
Concrete Superstructure			Cu. Yd.	8.1
Bar Splicers			Each	24

\* The Existing Reinforcement Bars extending into the removal area shall be cleaned, straightened and incorporated into the new Construction. Any Reinforcement Bars that are damaged during Concrete Removal shall be replaced with an approved Bar Splicer or Anchorage System. Cost included with Concrete Removal.



**NOTE:**  
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 match the details on Sht. S11.

FILE NAME = tran\_jt\_recon\_type-B.dgn  
PLOT DATE = 7/8/2009

**CHRISTIAN-ROGE & ASSOCIATES, INC.**  
ENGINEERS-PLANNERS-SURVEYORS  
211 WEST WACKER DRIVE  
CHICAGO, ILLINOIS 60606  
PHONE: (312)372-2023 FAX: (312)372-5274

DESIGNED - B.N.S./J.C.N.	REVISED -
DRAWN - D.L./R.E.S./F.M.	REVISED -
CHECKED - B.N.S./J.C.N.	REVISED -
DATE - JULY 8, 2009	REVISED -

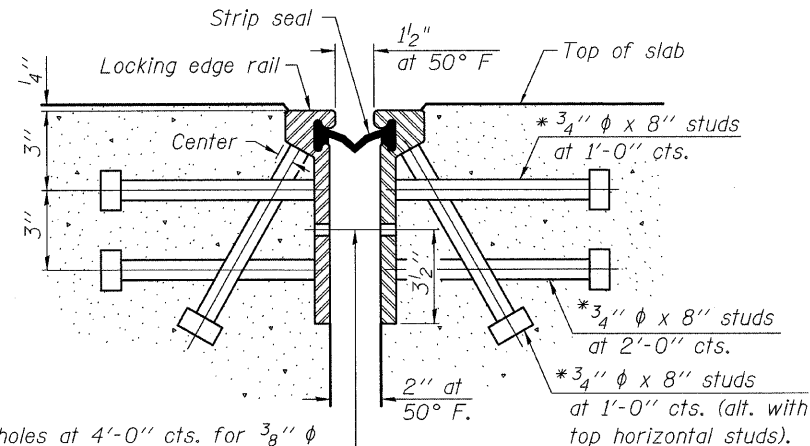
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**TRANSVERSE JOINT RECONSTRUCTION, TYPE B**  
**KEDZIE AVENUE OVER CAL-SAG CHANNEL S.N. 016-0762**

SCALE: SHEET NO. S10 OF S29 SHEETS STA. TO STA.

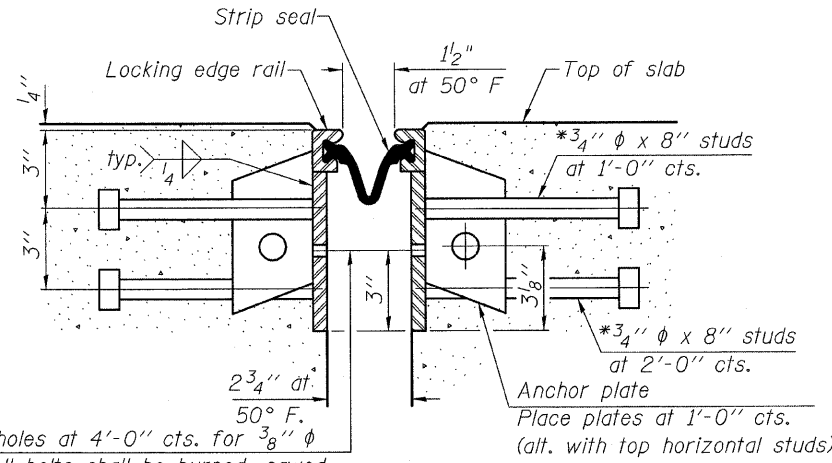
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2831	1313. 1-1-2	COOK	41	19
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60D75	

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



7/16"  $\phi$  holes at 4'-0" cts. for 3/8"  $\phi$  bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

**SECTION THRU ROLLED RAIL JOINT**



7/16"  $\phi$  holes at 4'-0" cts. for 3/8"  $\phi$  bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

**SECTION THRU WELDED RAIL JOINT**

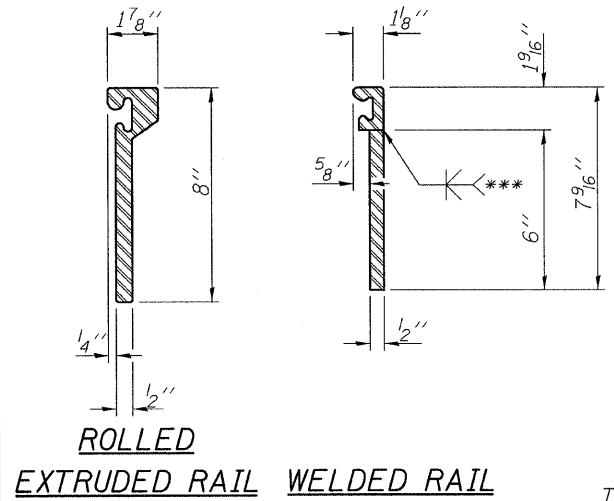
**Notes:**

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

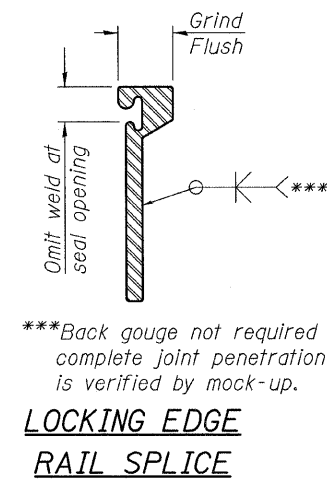
The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities and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

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

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

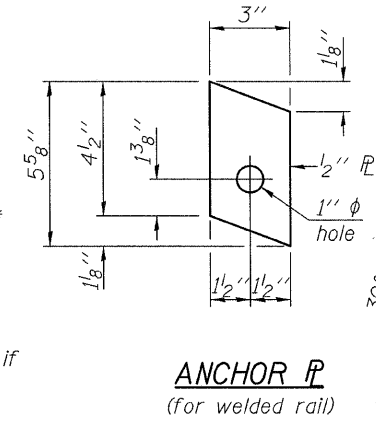


**ROLLED EXTRUDED RAIL WELDED RAIL**

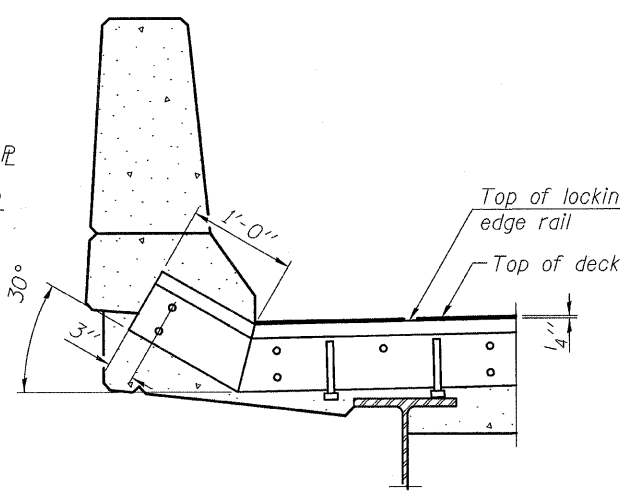


**LOCKING EDGE RAIL SPLICE**

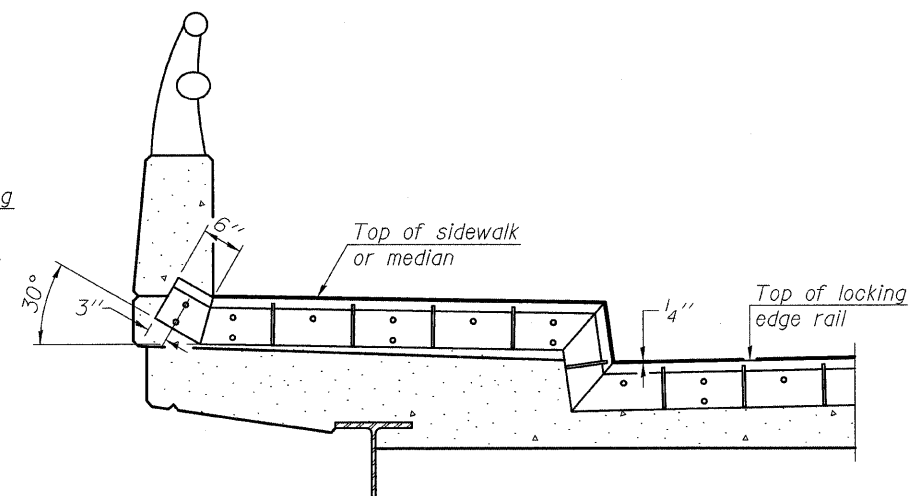
The inside of the locking edge rail groove shall be free of weld residue.



**ANCHOR PLATE (for welded rail)**

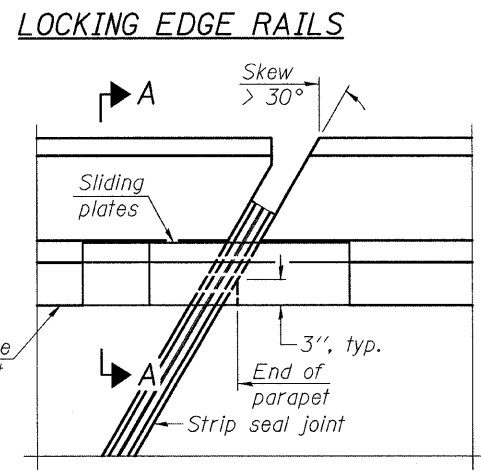


**AT PARAPET**

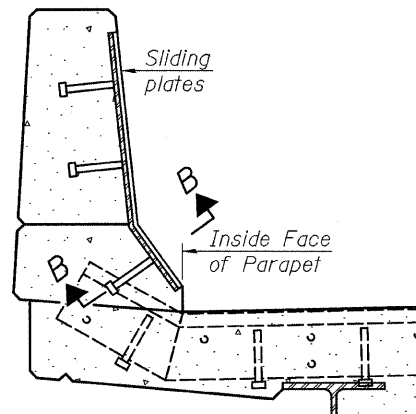


**AT SIDEWALK OR MEDIAN**

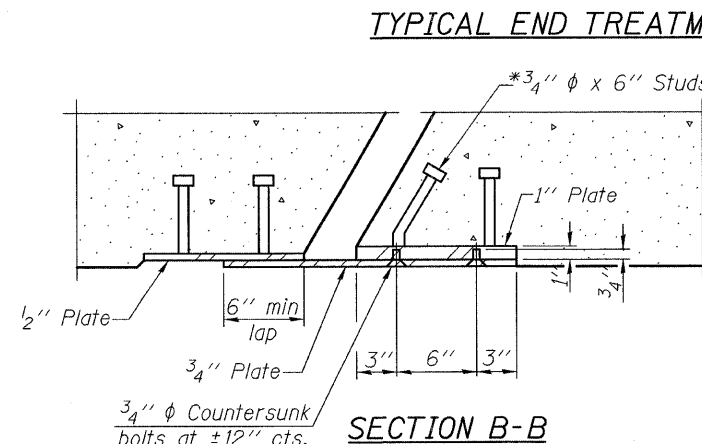
Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



**LOCKING EDGE RAILS PLAN**



**SECTION A-A POINT BLOCK DETAILS (for skews > 30°)**



**TYPICAL END TREATMENTS**

**SECTION B-B**

**BILL OF MATERIAL**

Item	Unit	Total
Preformed Joint Strip Seal	Foot	171

**NOTE:**

Work this Sheet with Sh's S9 & S10.

EJ-SSJ 10-1-08

FILE NAME = preformed\_joint\_strip\_seal.dgn  
PLOT DATE = 7/8/2009  
**CHRISTIAN-ROGE & ASSOCIATES, INC.**  
ENGINEERS-PLANNERS-SURVEYORS  
211 WEST WACKER DRIVE  
CHICAGO, ILLINOIS 60606  
PHONE: (312)372-2023 FAX: (312)372-5274

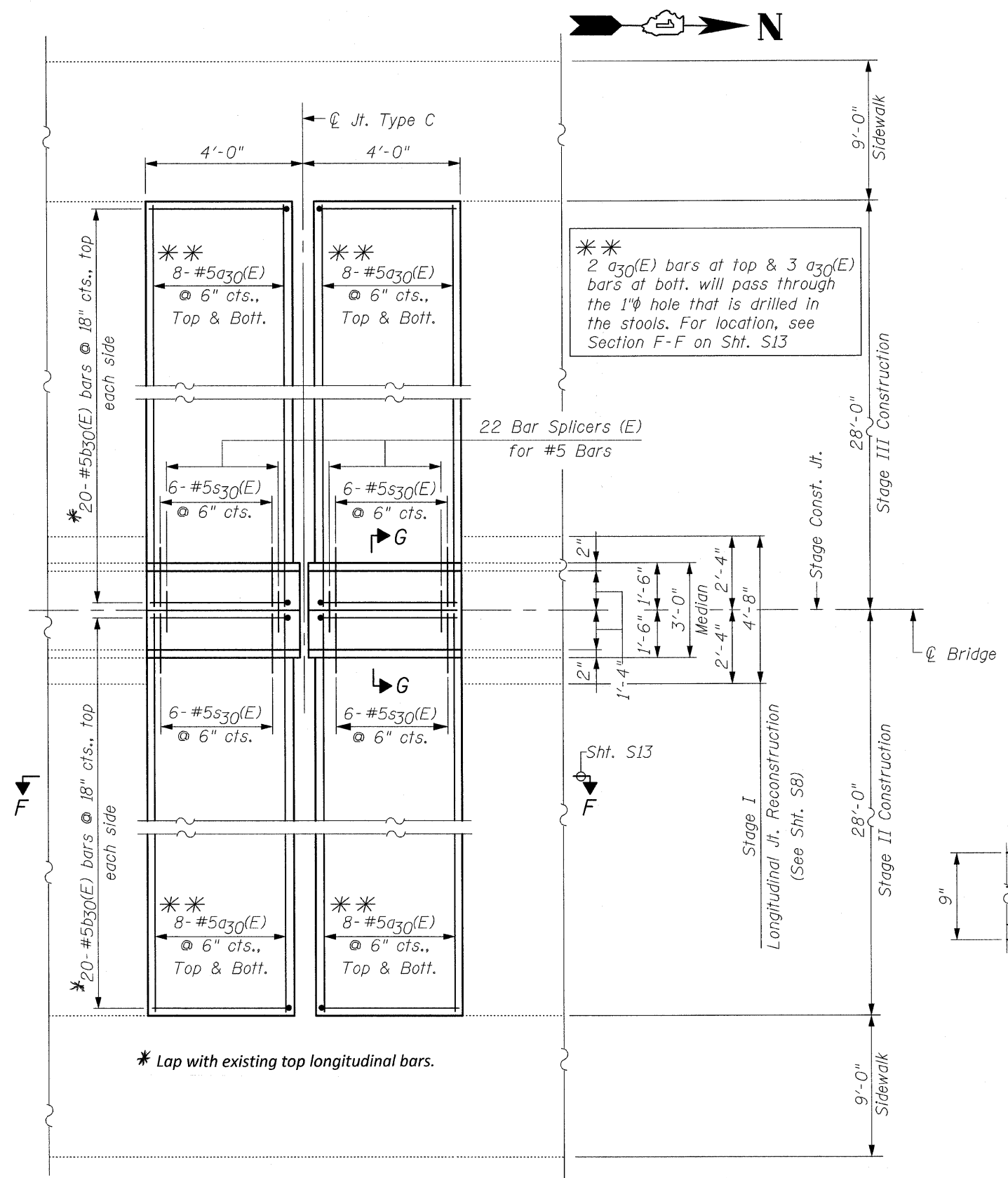
DESIGNED - B.N.S./J.C.N.  
DRAWN - D.L./R.E.S./F.M.  
CHECKED - B.N.S./J.C.N.  
DATE - JULY 8, 2009  
REVISED -  
REVISED -  
REVISED -

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

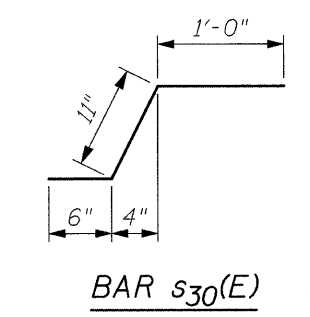
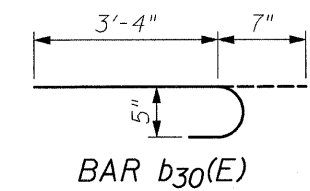
**PREFORMED JOINT STRIP SEAL**  
**AT TRANSVERSE JOINTS, TYPE A & B**  
**KEDZIE AVENUE OVER CAL-SAG CHANNEL S.N. 016-0762**  
SCALE: SHEET NO. S11 OF S29 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2831	1313. 1-1-2	COOK	41	20

CONTRACT NO. 60D75  
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

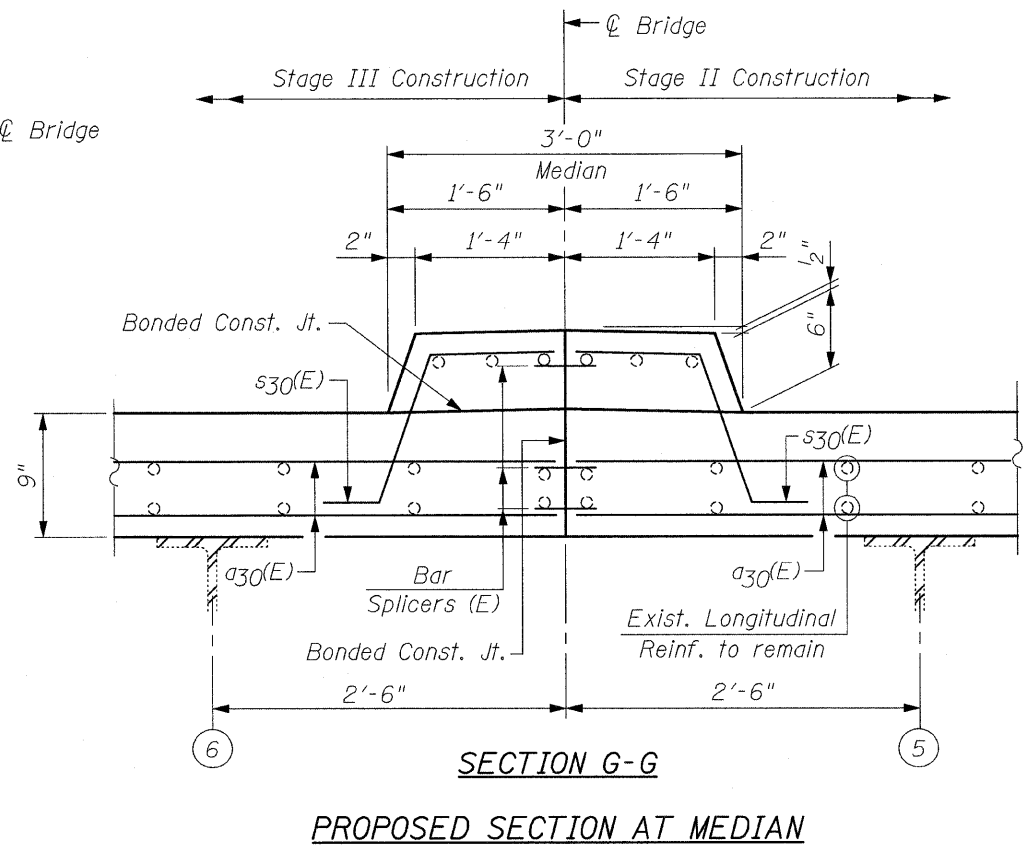


PROPOSED TRANSVERSE JOINT, TYPE C  
PARTIAL PLAN



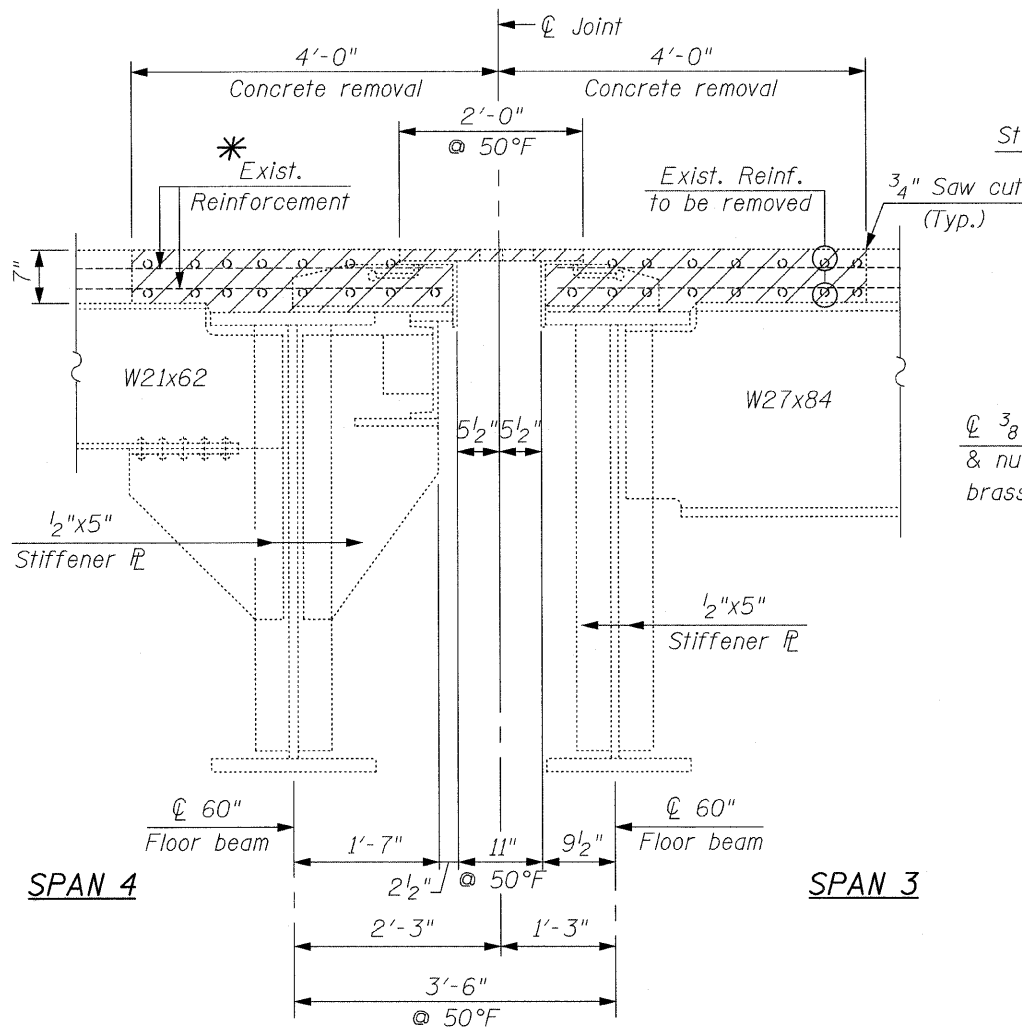
**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a30(E)	64	#5	27'-8"	—
b30(E)	80	#5	4'-1"	⌋
s30(E)	24	#5	2'-5"	⌋
Reinforcement Bars, Epoxy Coated		Pound	2,250	
Bar Splicers		Each	44	
Finger Plate Expansion Joint, 5"		Foot	56	
Concrete Removal		Cu. Yd.	9.1	
Concrete Superstructure		Cu. Yd.	11.6	
Fabric Reinforced Elastomeric Trough		Foot	67	



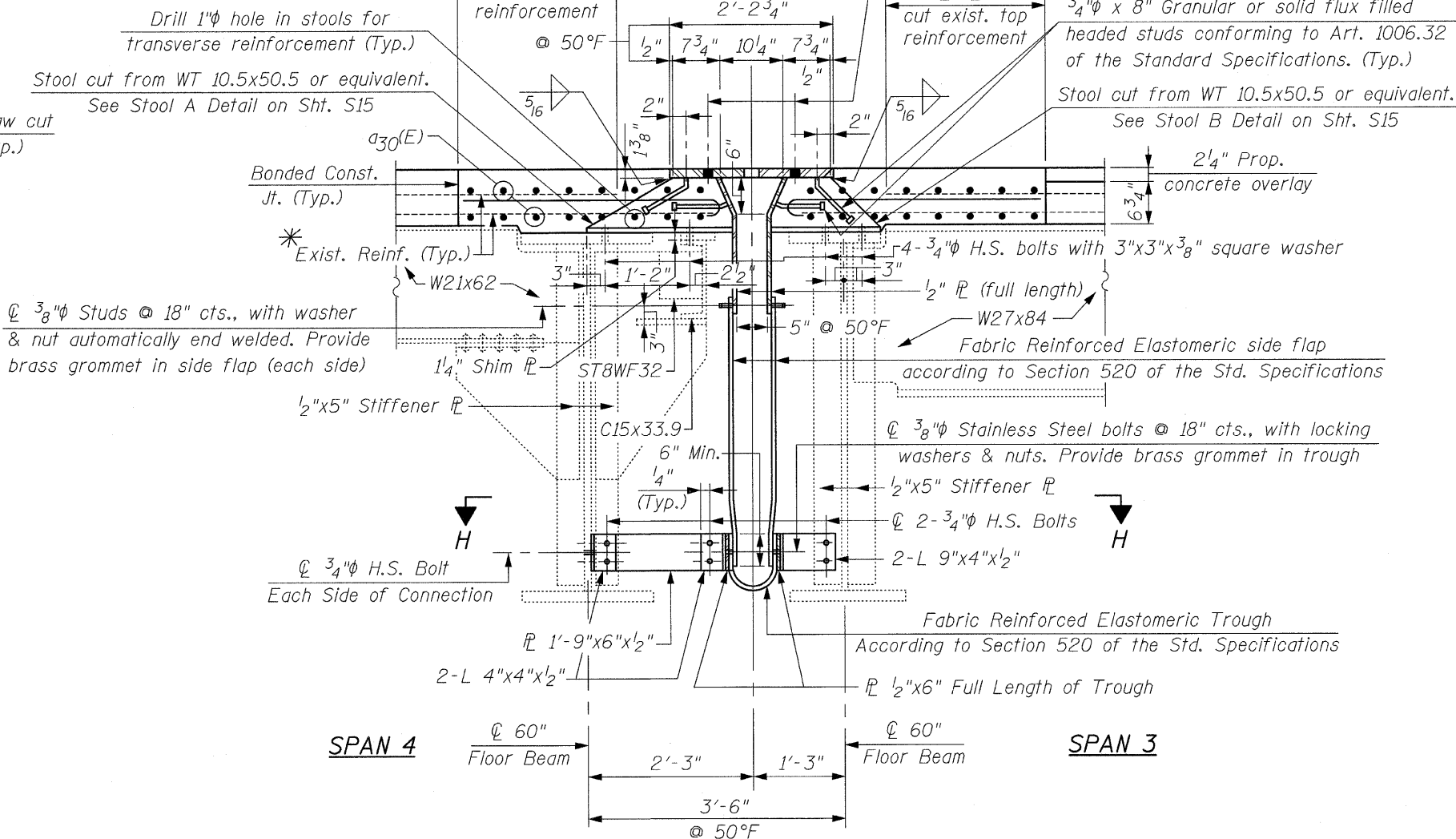
SECTION G-G  
PROPOSED SECTION AT MEDIAN

**NOTES:**  
For Plan of Finger Plate Expansion Device, See Sht. S14.  
Work this Sheet with Sht's. S13, S14 & S15.



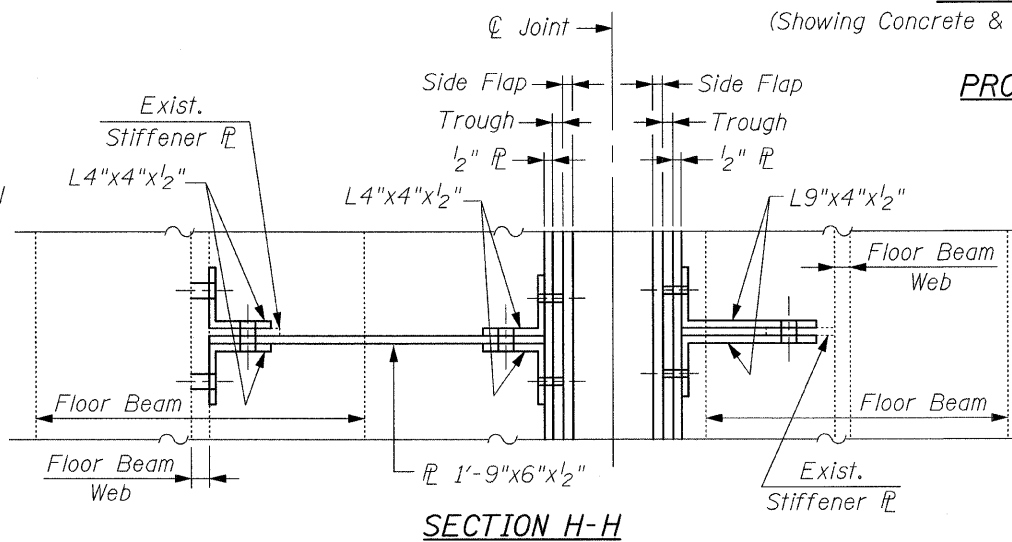
**SECTION F-F**  
(Showing Concrete & Steel Plate removal)

**EXISTING**



**SECTION F-F**  
(Showing Concrete & Steel Plate Replacement)

**PROPOSED**



**SECTION H-H**

\* The Existing Reinforcement Bars extending into the removal area shall be cleaned, straightened and incorporated into the new Construction. Any Reinforcement Bars that are damaged during Concrete Removal shall be replaced with an approved Bar Splicer or Anchorage System. Cost included with Concrete Removal.

**NOTES:**

1. AASHTO M270 Grade 50 Steel shall be used throughout the Finger Plate Joint.
2. Tapered Shims shall be added under the Stools as required by the Engineer to make a smooth Finger Joint. Cost shall be included in the cost of Finger Plate Expansion Joint, 5".
3. Work this Sheet with Sht's. S12, S14 & S15.

FILE NAME = tr-an\_jt recon-type-C-II.dgn  
PLOT DATE = 7/8/2009

**CHRISTIAN-ROGE & ASSOCIATES, INC.**  
ENGINEERS-PLANNERS-SURVEYORS  
211 WEST WACKER DRIVE  
CHICAGO, ILLINOIS 60606  
PHONE: (312)372-2023 FAX: (312)372-5274

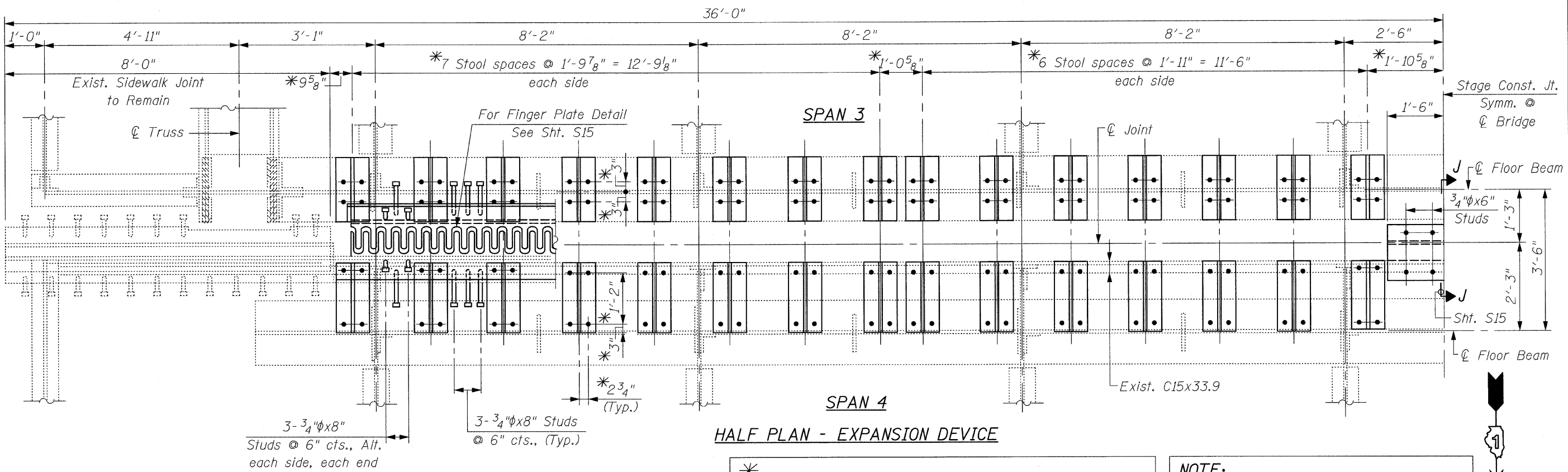
DESIGNED - B.N.S./J.C.N.	REVISED -
DRAWN - D.L./R.E.S./F.M.	REVISED -
CHECKED - B.N.S./J.C.N.	REVISED -
DATE - JULY 8, 2009	REVISED -

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

**TRANSVERSE JOINT RECONSTRUCTION, TYPE C - II**  
**KEDZIE AVENUE OVER CAL-SAG CHANNEL S.N. 016-0762**

SCALE: SHEET NO. S13 OF S29 SHEETS STA. TO STA.

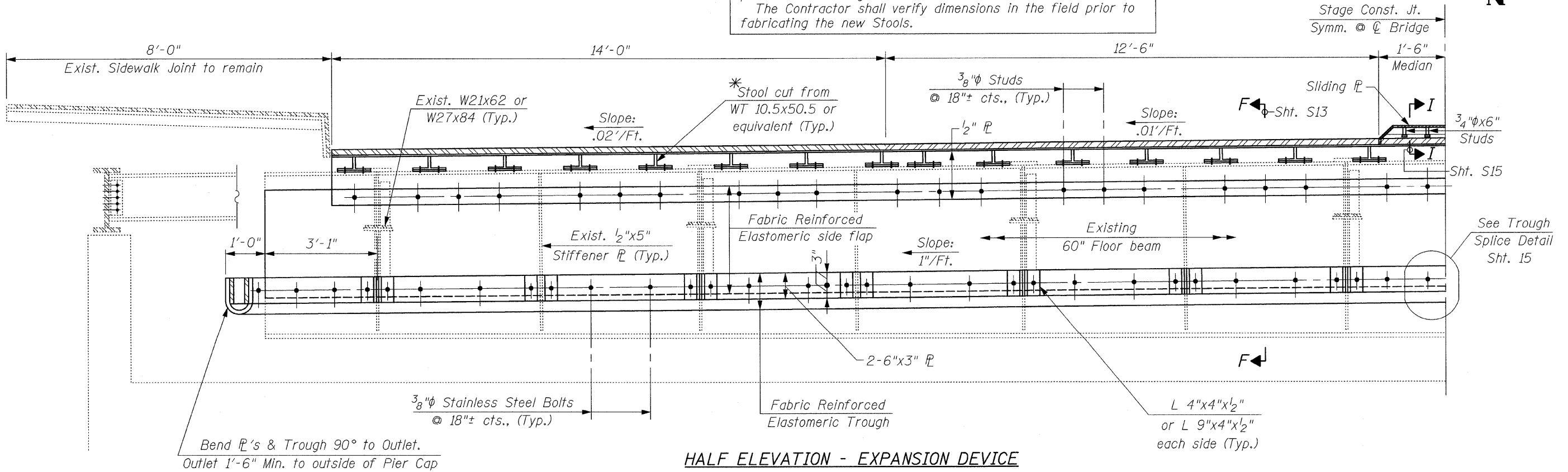
F.A.U. RTE. 2831	SECTION 1313. 1-I-2	COUNTY COOK	TOTAL SHEETS 41	SHEET NO. 22
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60D75	



**HALF PLAN - EXPANSION DEVICE**

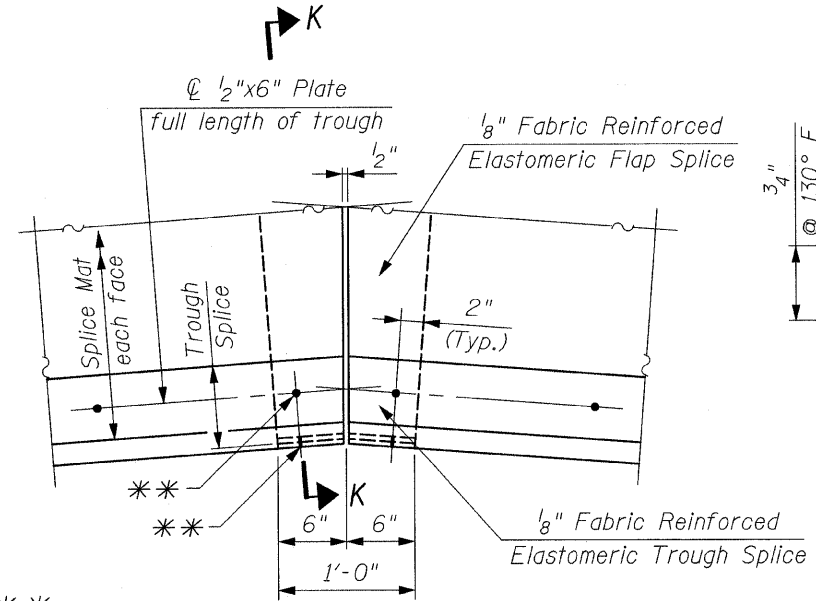
\* Spacing and Stool heights shown on this sheet are from the existing plans.  
 Proposed Stools and Stool bolts are to be placed in same position as existing stools and Stool bolts.  
 The Contractor shall verify dimensions in the field prior to fabricating the new Stools.

**NOTE:**  
 Work this Sheet with Sht's. S12, S13 & S15

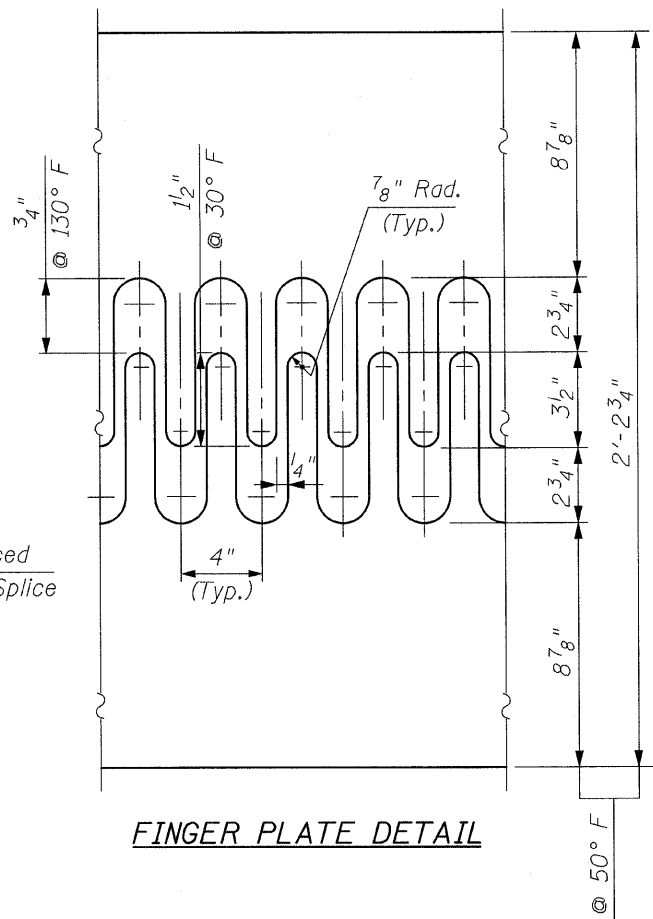


**HALF ELEVATION - EXPANSION DEVICE**

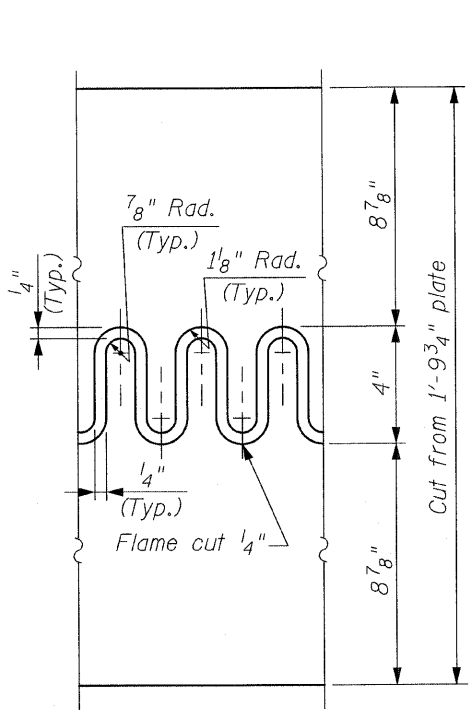
FILE NAME = tran_jt_recon-type-C-III.dgn PLOT DATE = 7/8/2009	<b>CHRISTIAN-ROHE &amp; ASSOCIATES, INC.</b> ENGINEERS-PLANNERS-SURVEYORS 211 WEST WACKER DRIVE CHICAGO, ILLINOIS 60606 PHONE: (312)372-2023 FAX: (312)372-5274	DESIGNED - B.N.S./J.C.N.	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>TRANSVERSE JOINT RECONSTRUCTION, TYPE C - III</b> <b>KEDZIE AVENUE OVER CAL-SAG CHANNEL S.N. 016-0762</b>	F.A.U. RTE. 2831	SECTION 1313. 1-1-2	COUNTY COOK	TOTAL SHEETS 41	SHEET NO. 23
		DRAWN - D.L./R.E.S./F.M.	REVISED -			SCALE: SHEET NO. S14 OF S29 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	CONTRACT NO. 60D75		



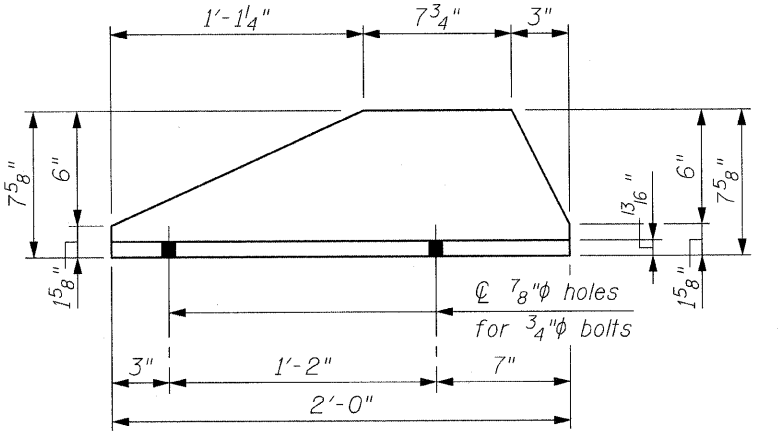
\*\*  
3/8" Stainless Steel bolts with washers & nuts. Provide brass grommet in trough  
**TROUGH SPLICE DETAIL**



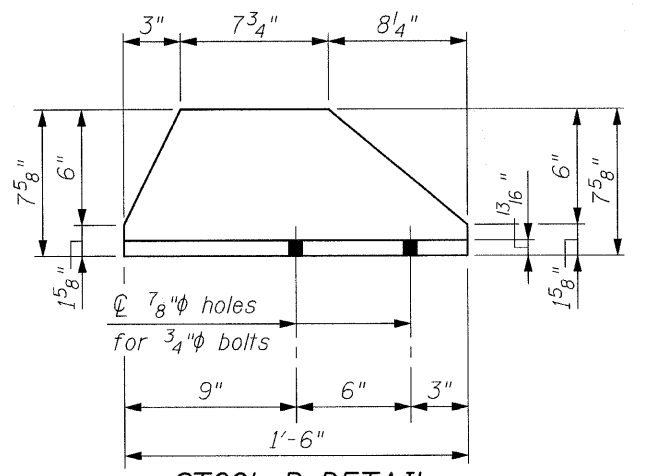
**FINGER PLATE DETAIL**



**FLAME CUTTING DIAGRAM**



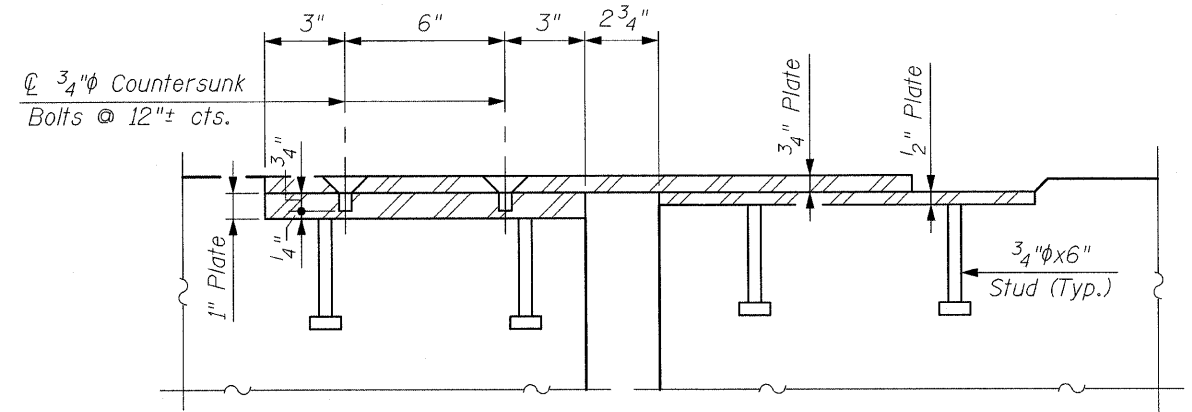
**STOOL A DETAIL**



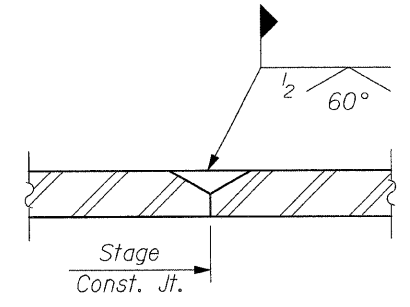
**STOOL B DETAIL**

**NOTES:**  
For locations of Sections I-I & J-J, See Sht. S14.  
Work this sheet with Sht's. S12, S13 & S14.

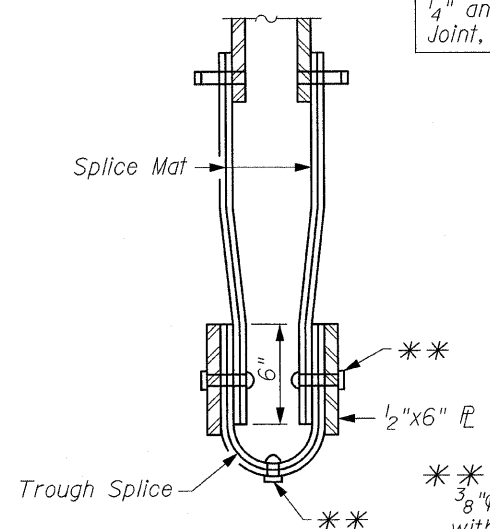
**NOTE:**  
Fabricate all Stools to the minimum height of 75 3/8\"/>



**SECTION I-I**  
(in Sidewalk)



**SECTION J-J**  
(at Stage Const. Joint)

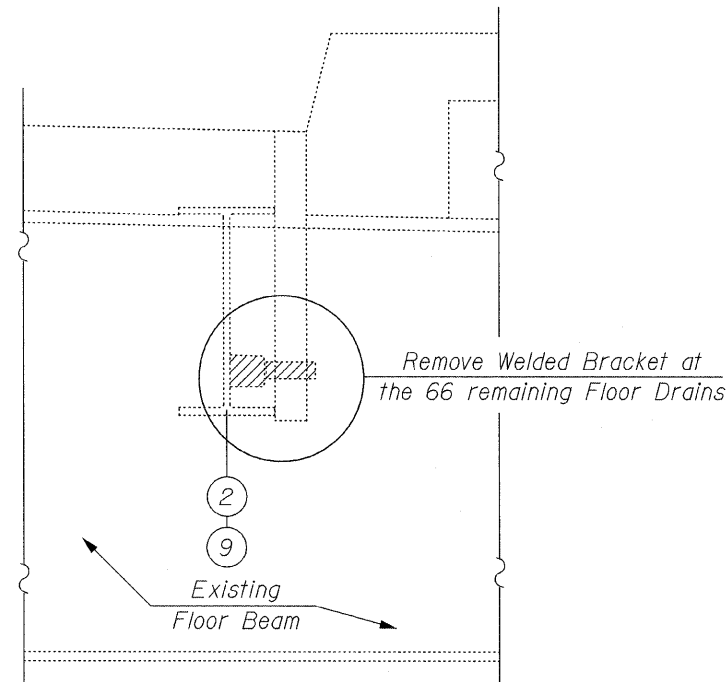


**SECTION K-K**

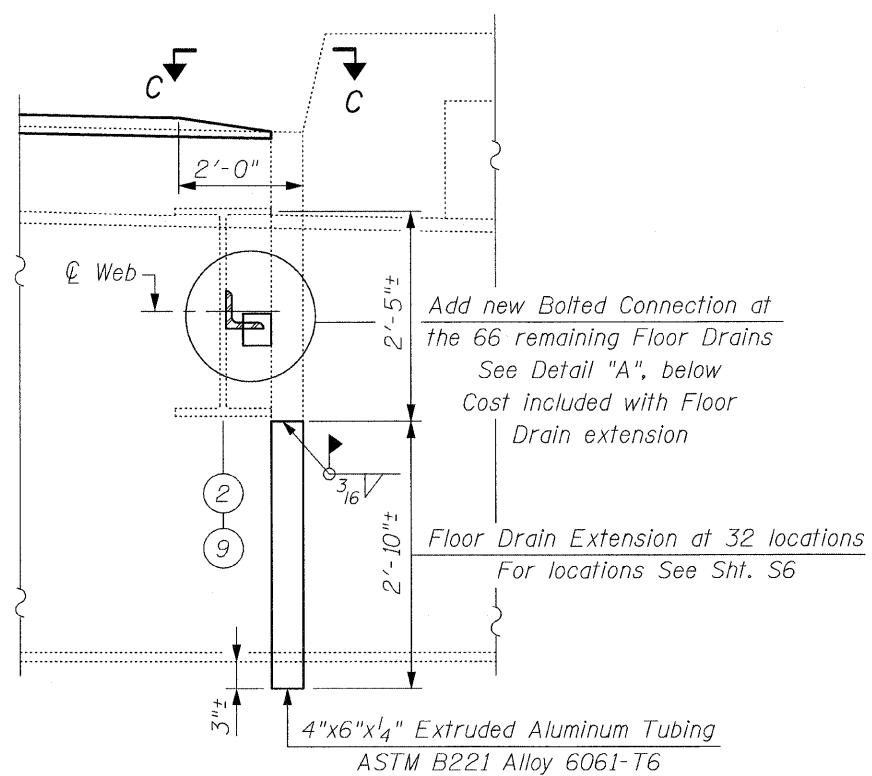
\*\*  
3/8" Stainless Steel bolts with washers & nuts. Provide brass grommet in trough

FILE NAME = tran_jt_recon_type-C-IV.dgn PLOT DATE = 7/8/2009	<b>CHRISTIAN-ROGE &amp; ASSOCIATES, INC.</b> ENGINEERS-PLANNERS-SURVEYORS 211 WEST WACKER DRIVE CHICAGO, ILLINOIS 60606 PHONE: (312)372-2023 FAX: (312)372-5274	DESIGNED - B.N.S./J.C.N. DRAWN - D.L./R.E.S./F.M. CHECKED - B.N.S./J.C.N. DATE - JULY 8, 2009	REVISED - REVISED - REVISED - REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>TRANSVERSE JOINT RECONSTRUCTION, TYPE C - IV</b> <b>KEDZIE AVENUE OVER CAL-SAG CHANNEL S.N. 016-0762</b>	F.A.U. RTE. 2831 SECTION 1313, 1-I-2 COUNTY COOK TOTAL SHEETS 41 SHEET NO. 24	CONTRACT NO. 60D75
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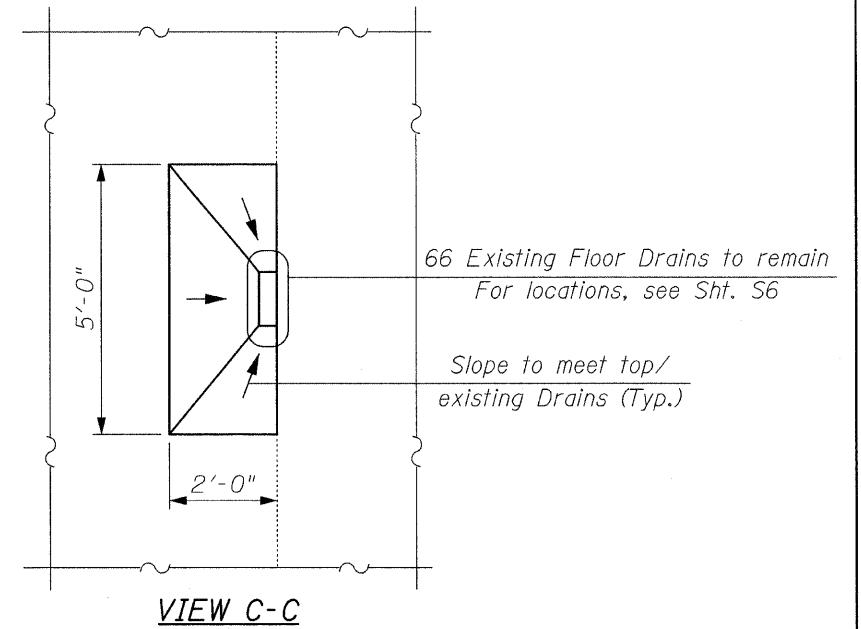




**EXISTING**  
**SECTION AT DRAIN**



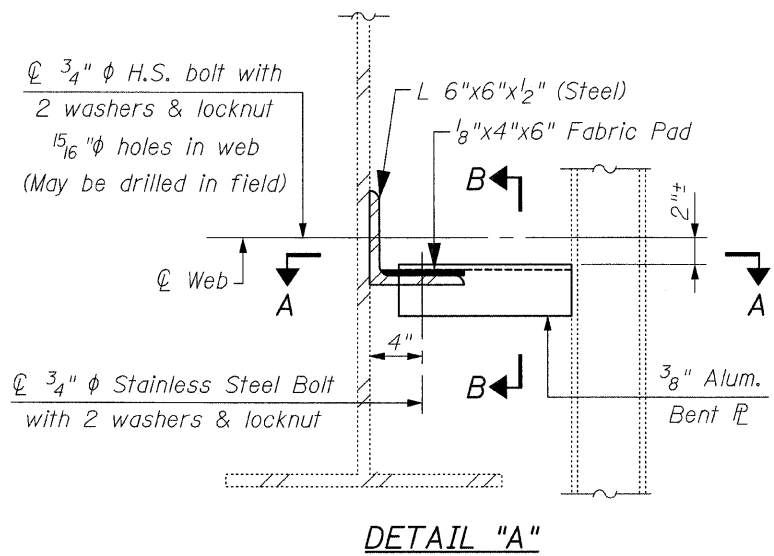
**PROPOSED**  
**SECTION AT DRAIN**



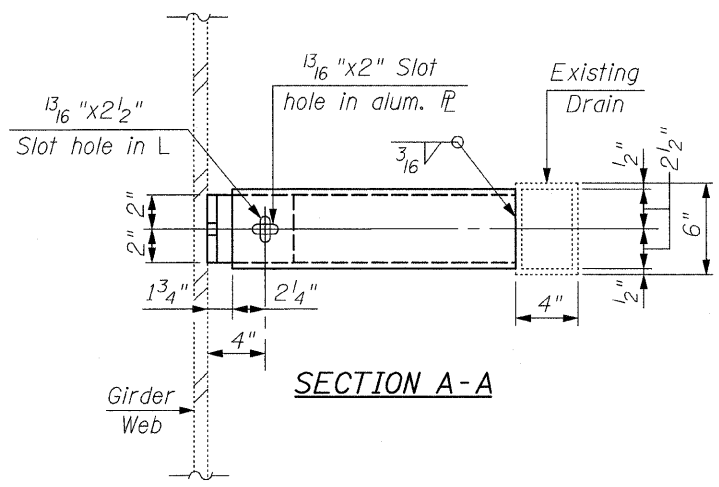
**NOTE:**  
All work shown on this sheet is included with Floor Drain Extension

**BILL OF MATERIAL**

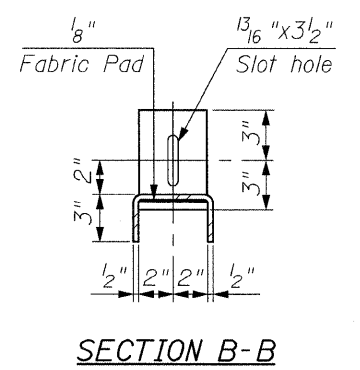
Item	Unit	Total
Floor Drain Extension	Each	66



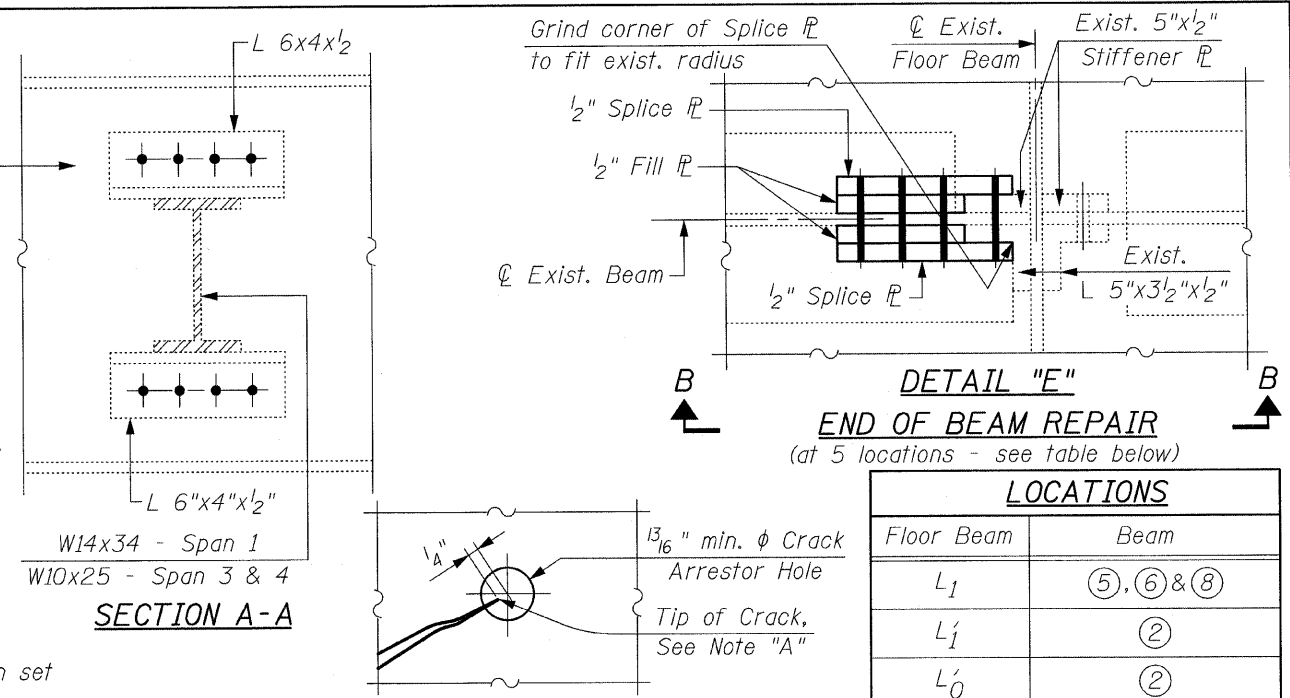
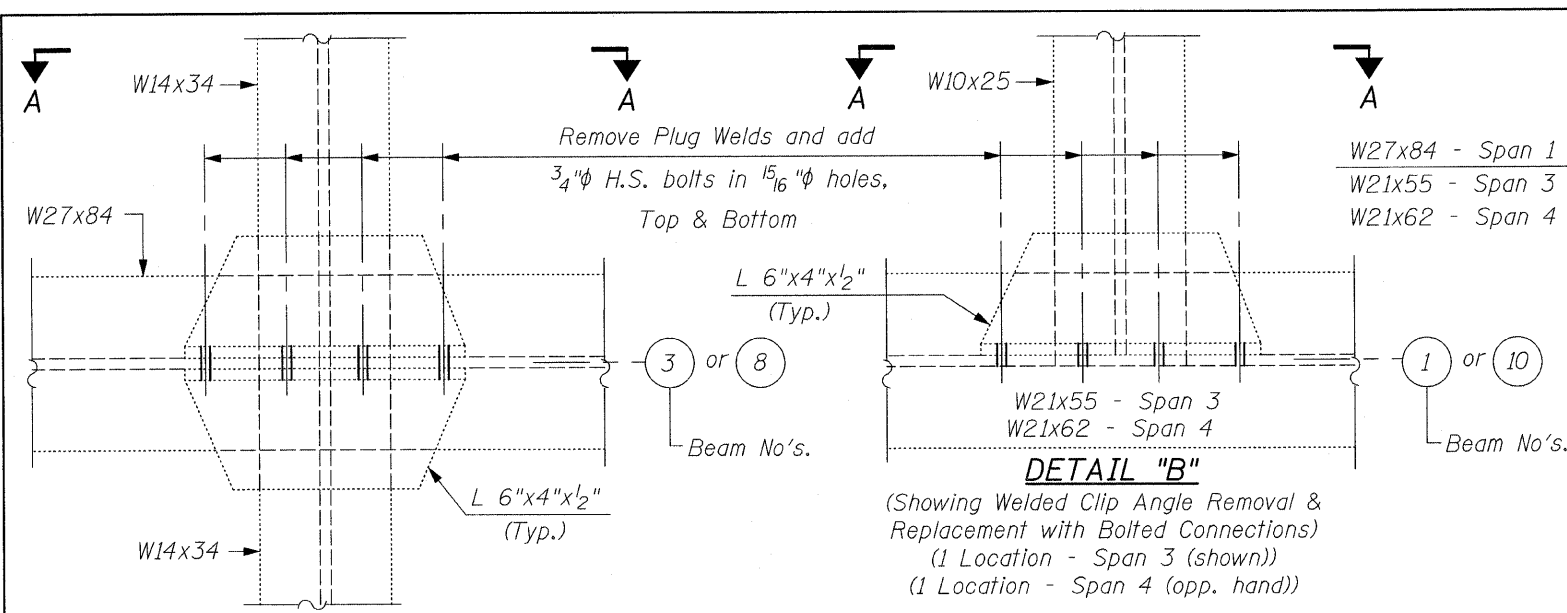
**DETAIL "A"**



**SECTION A-A**



**SECTION B-B**



LOCATIONS	
Floor Beam	Beam
L <sub>1</sub>	(5), (6) & (8)
L <sub>1</sub> '	(2)
L <sub>0</sub>	(2)

**BEAM REACTION TABLE**  
(For Interior Beams in Span 3)  
(Data taken from existing plans)

	Beam Reaction
R <sub>0</sub>	(k) 15.5
R <sub>1</sub>	(k) 38.1
R <sub>1M</sub>	(k) 11.4
R <sub>Total</sub>	(k) 65.0

**NOTES:**  
Two hardened washers shall be required for each set of oversized holes.  
All work on this Sheet, including the removal of all Welds, drilling of holes and Furnishing & Erecting Bolts & Washers is included with Structural Steel Repair.  
See Sht's. S5 & S6 for locations of these repairs.

The Resident Engineer may add gusset plate removal & replacement and end of Beam repair in field if necessary.

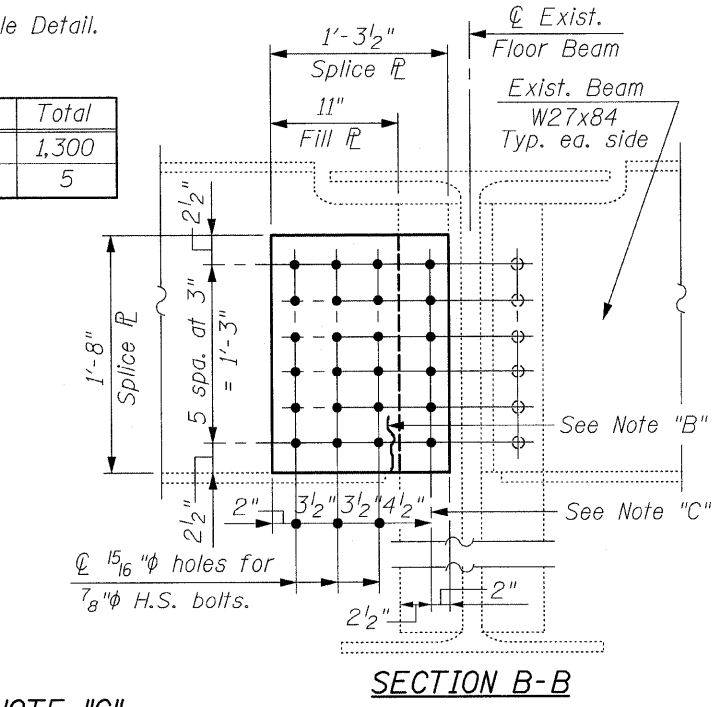
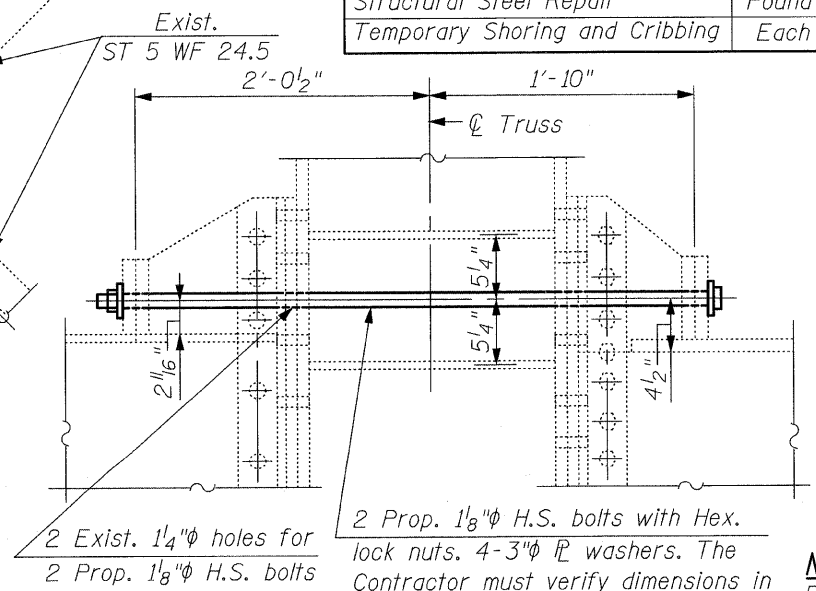
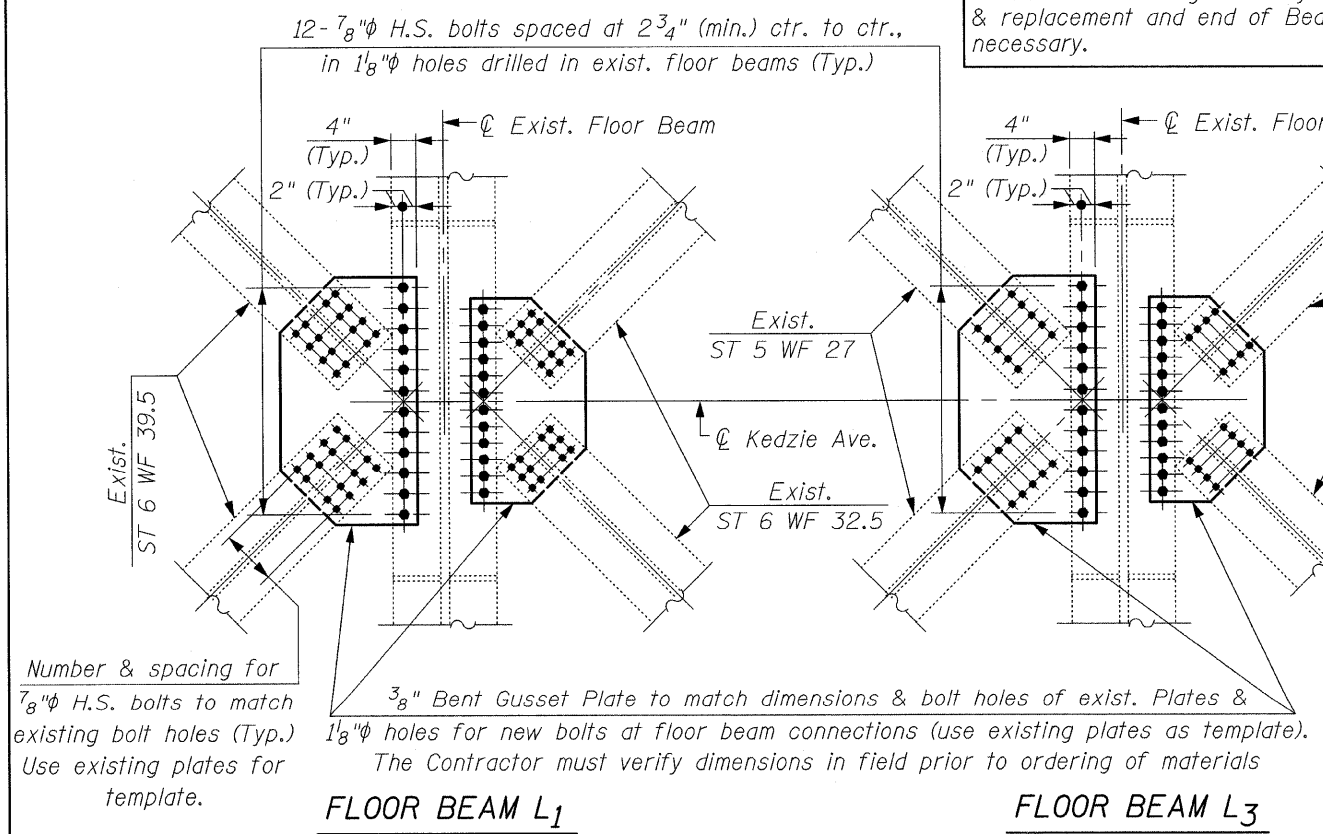
**CRACK ARRESTOR HOLE DETAIL**

**NOTE "A":**  
Locate crack tip using liquid dye penetrant or magnetic particle testing. Drill 1 3/16" min. φ Crack Arrestor Hole at the crack tip. After Crack Arrestor Hole has been drilled, dye penetrant or magnetic particle testing shall be used to verify that the drilled hole has captured the crack tip. Cost shall be included with Structural Steel Repair.

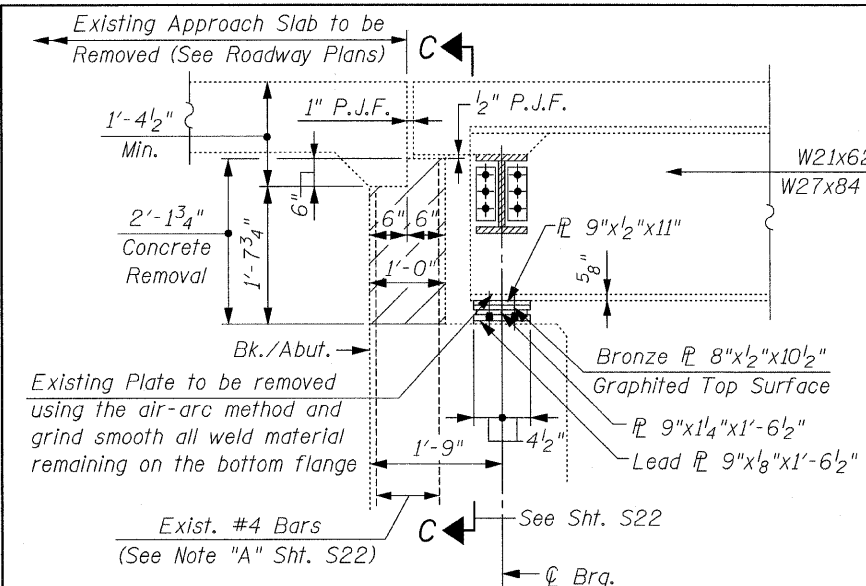
**NOTE "B":**  
Crack in beam, see Crack Arrestor Hole Detail.

**BILL OF MATERIAL**

Item	Unit	Total
Structural Steel Repair	Pound	1,300
Temporary Shoring and Cribbing	Each	5



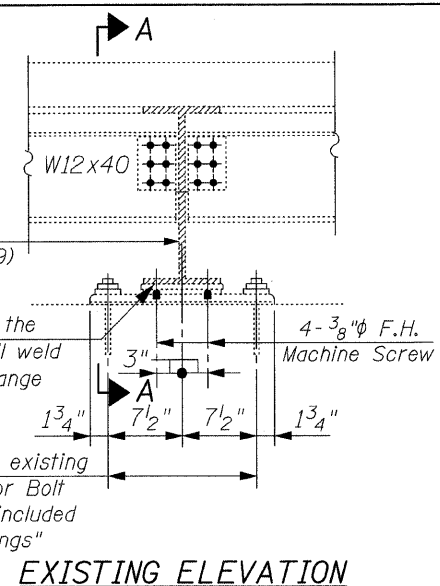
**NOTE "C":**  
Exist. bolts to be removed and replaced with 7/8" φ H.S. bolts. The Contractor must verify, in the field, spacing of the exist. bolt holes. Temporary support of beams is required. See Beam Reaction Table, above. Cost shall be included with Temporary Shoring and Cribbing.



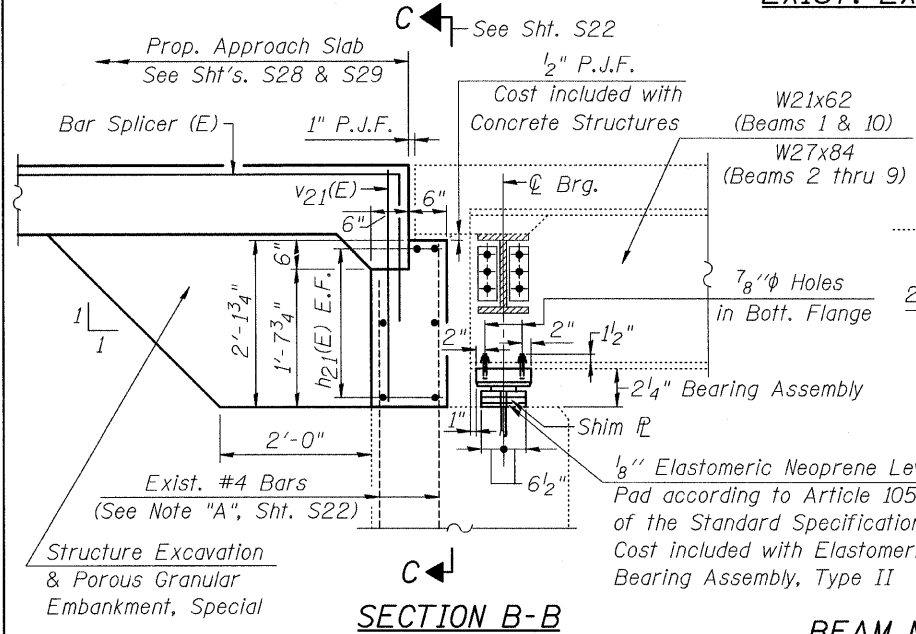
**SECTION A-A**

**BEAM NO'S. 1 THRU 10**

**EXIST. EXP. BRG. AT SO. ABUT.**



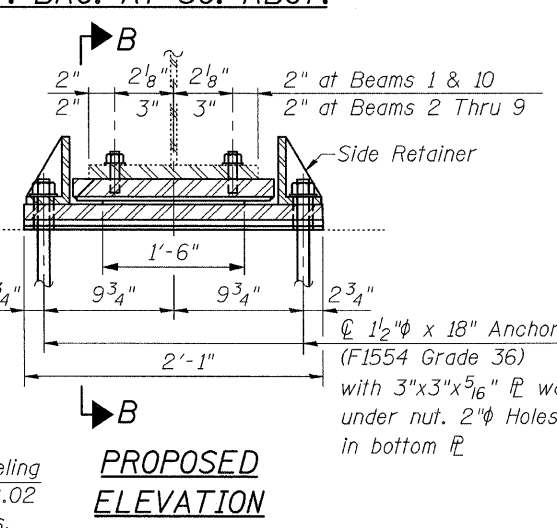
**EXISTING ELEVATION**



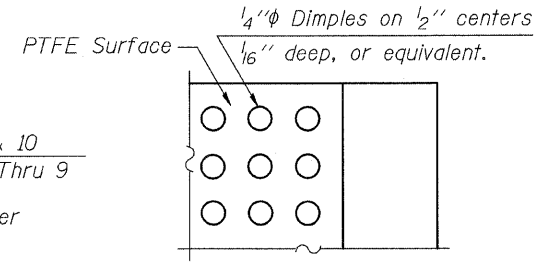
**SECTION B-B**

**BEAM NO'S. 1 THRU 10**

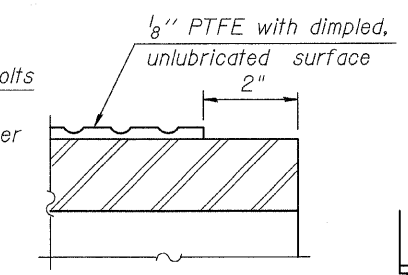
**PROP. TYPE II ELASTOMERIC EXP. BRG. AT SO. ABUT.**



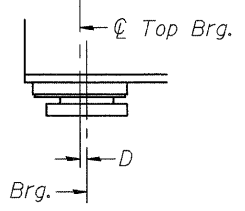
**PROPOSED ELEVATION**



**PLAN-PTFE SURFACE**

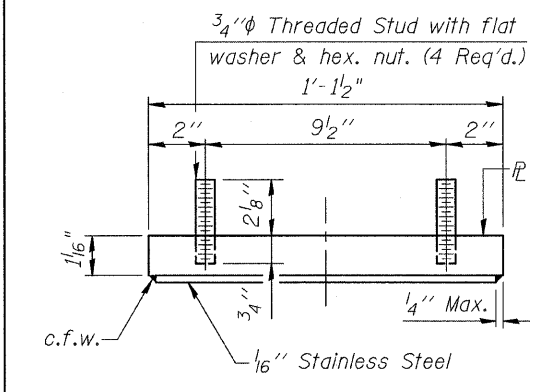


**SECTION THRU PTFE**

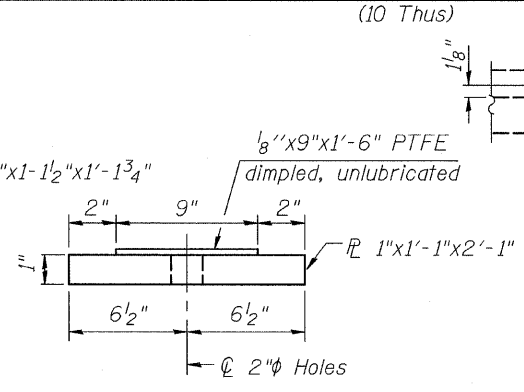


**ABOVE 50°F.**

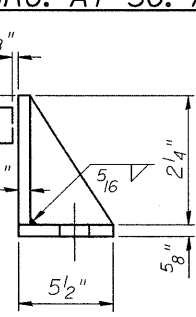
**BELOW 50°F.**



**TOP BEARING ASSEMBLY**



**BOTTOM BEARING ASSEMBLY**



**SIDE RETAINER**

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

**SETTING ANCHOR BOLTS AT EXP. BRG.**

D = 1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

**BEARING REPLACEMENT NOTES:**

The Contractor shall submit Plans for Jacking the existing Superstructure for approval by the Engineer prior to commencing any work with the Bearings. The submittal shall be prepared and sealed by a Licensed Structural Engineer in Illinois.

It shall be the Contractor's responsibility to verify all dimensions between the bottom of the Bridge Beams and the Top of the Bearing Seat in the field prior to Construction or ordering of materials.

Jacking and Removing of existing Bearings shall be done after the existing Overlay Removal is completed but before the new Overlay is poured.

The Contractor shall supply additional Shim Plates if required to bring devices to Grade. Cost included with Elastomeric Bearing Assembly, Type II.

Drilled and set Anchor Bolts shall be installed according to Article 521.06 of the Standard Specifications. Anchor Bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade and diameter 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 Type II Bearings shall be placed in holes drilled through the bottom Bearing Plate after members are in place. Side Retainers shall be placed after bolts are installed.

Side Retainers and other Steel Members required for the Bearing Assembly shall be included in the cost of Elastomeric Bearing Assembly, Type II.

The 1/8" PTFE Sheet shall be bonded directly to the bottom 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 contact surfaces.

Bonding of 1/8" PTFE Sheet during Vulcanizing Process will be permitted providing the process and method of adjusting Assembly height is approved by the Engineer.

The new Bearings shall be in place and the Jacks shall be lowered before the new Overlay is poured.

**BEAM REACTION TABLE**

	Beam No.'s. 1 & 10	Beam No.'s. 2 Thru 9 (Span 1)
R <sub>0</sub>	(k) 40.2	16
R <sub>L</sub>	(k) 15.4	39
R <sub>RM</sub>	(k) -	12
R <sub>Total</sub>	(k) 55.6	67

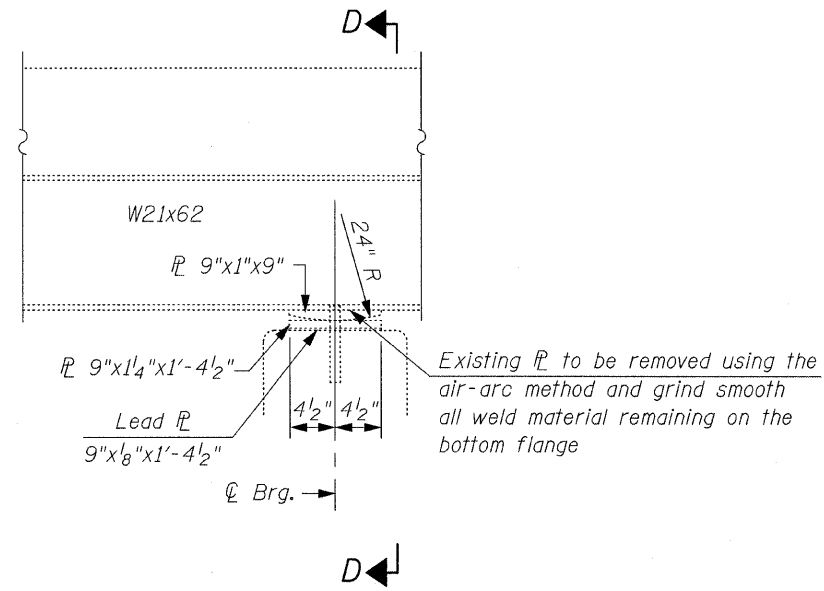
Minimum jack capacity at each bearing for Beam No.'s. 1 & 10 = 80k  
Minimum jack capacity at each bearing for Beam No.'s. 2 thru 9 = 32k

**BILL OF MATERIAL**

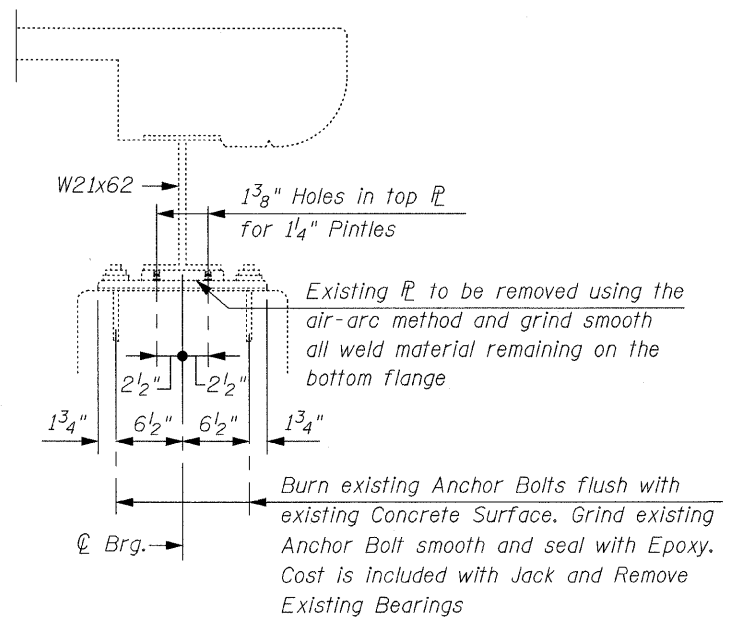
Item	Unit	Total
Jack and Remove Existing Bearings	Each	10
Elastomeric Bearing Assembly, Type II	Each	10
Anchor Bolts, 1"φ	Each	20

**NOTE:**

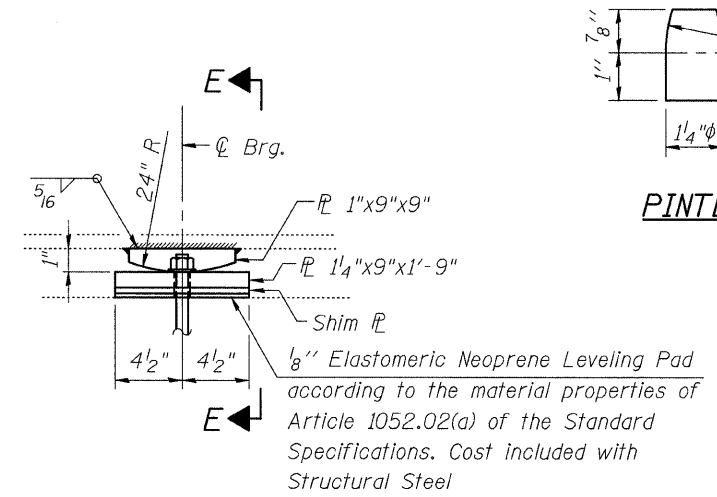
For additional Bill of Material, see Sht. S22



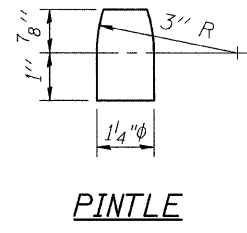
**BEAM NO'S. 1 & 10 AT OUTSIDE BEARINGS**  
**EXIST. FIXED BEARING AT**  
**PIERS 1, 2 & 3 & NORTH ABUTMENT**



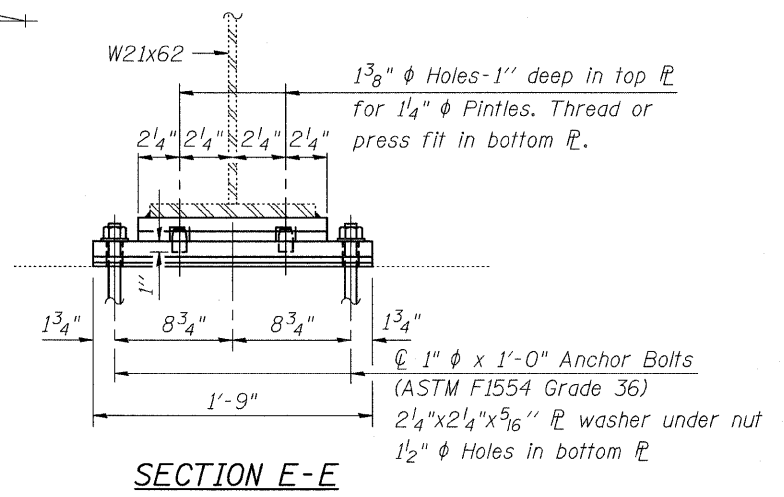
**SECTION D-D**



**BEAM NO'S. 1 & 10 AT OUTSIDE BEARINGS**  
**PROPOSED FIXED BEARING AT**  
**PIERS 1, 2 & 3 & NORTH ABUTMENT**  
 (8 Thus)



**PINTLE**



**SECTION E-E**

**BEARING REPLACEMENT NOTES:**

The Contractor shall submit plans for jacking the existing Superstructure for approval by the Engineer prior to commencing any work with the bearings. The submittal shall be prepared and sealed by a Licensed Structural Engineer in Illinois.

It shall be the Contractor's responsibility to verify all dimensions between the bottom of the bridge Beams and the top of the bearing seat in the field prior to Construction or ordering of materials.

Jacking and removing of existing bearings shall be done after the existing overlay removal is completed and before the new overlay is poured.

The Contractor shall supply additional Shim Plates if required to bring devices to Grade. Cost included with Furnishing and Erecting Structural Steel.

Anchor Bolts at Fixed Bearings must be installed in holes drilled after the supported member is in place. Drilled and set Anchor Bolts shall be installed according to Article 521.06 of the Standard Specifications. Anchor Bolts shall be ASTM F1554 all-thread (or an Engineer-Approved Alternate Material) of the Grade and diameter 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.

The new bearings shall be in place and the jacks shall be lowered before the new overlay is poured.

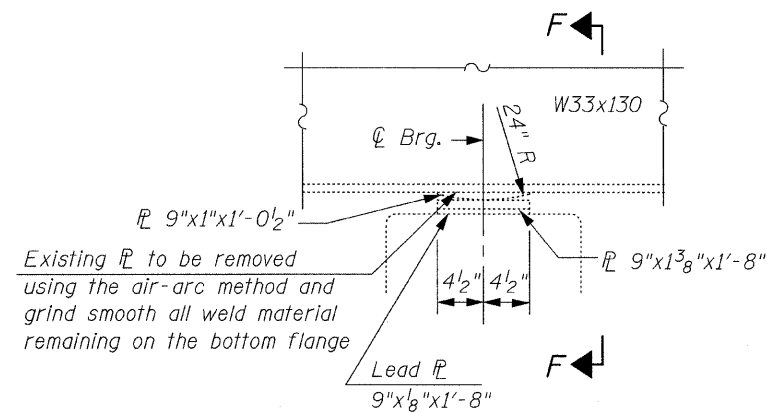
**BEAM REACTION TABLE**

	Beam No.'s.
	1 & 10
R <sub>l</sub>	(k) 40.2
R <sub>t</sub>	(k) 15.4
R <sub>TM</sub>	(k) -
R <sub>Total</sub>	(k) 55.6

Minimum jack capacity at each bearing for Beam No's. 1 & 10 = 40 tons

**BILL OF MATERIAL**

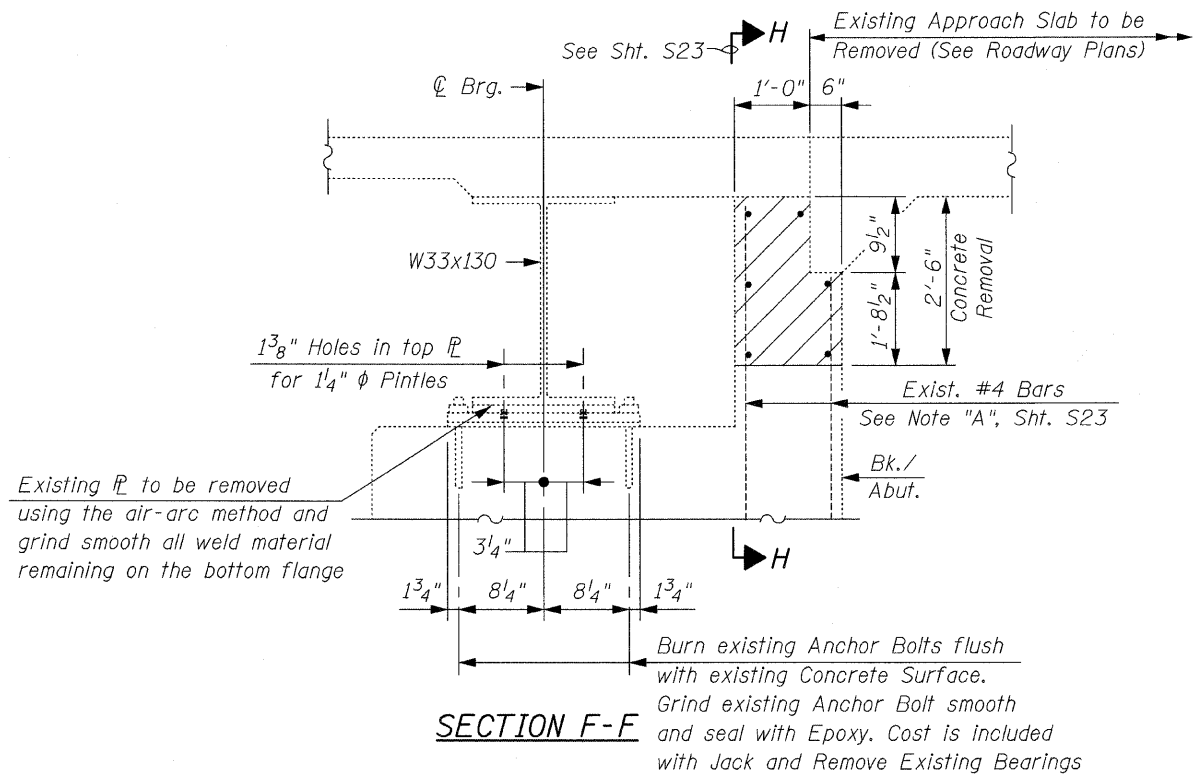
Item	Unit	Total
Jack and Remove Existing Bearings	Each	8
Furnishing and Erecting Structural Steel	Pound	720
Anchor Bolts, 1"φ	Each	16



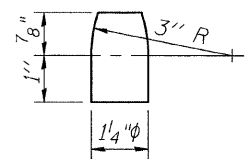
**EXIST. ELEVATION AT NO. ABUT.**

**CENTER BEARING**

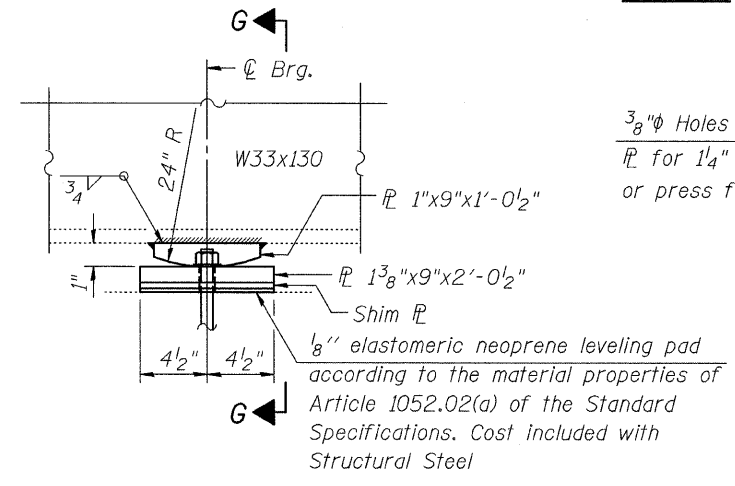
**EXIST. FIXED BEARINGS AT NO. ABUT.**



**SECTION F-F**



**PINTLE**

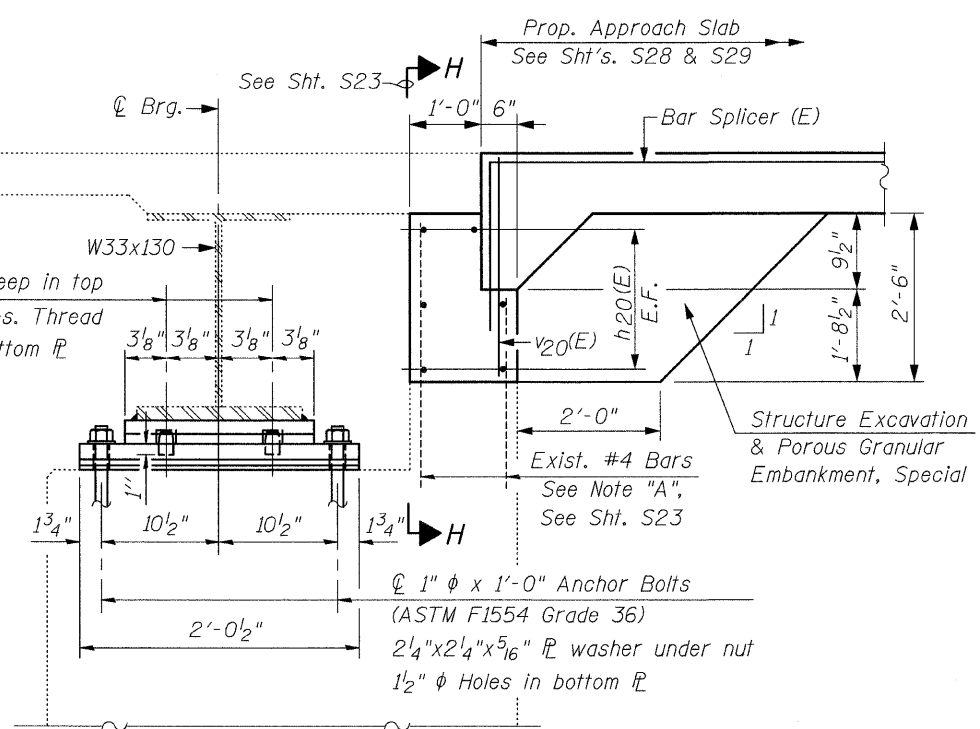


**PROP. ELEVATION AT NO. ABUT.**

**CENTER BEARING**

**PROP. FIXED BEARING AT NO. ABUT.**

(1 Thus)



**SECTION G-G**

**BEARING REPLACEMENT NOTES:**

The Contractor shall submit plans for jacking the existing Superstructure for approval by the Engineer prior to commencing any work with the bearings. The submittal shall be prepared and sealed by a Licensed Structural Engineer in Illinois.

It shall be the Contractor's responsibility to verify all dimensions between the bottom of the Bridge beams and the top of the bearing seat in the field prior to Construction or ordering of materials.

Jacking and removing of existing bearings shall be done after the existing overlay removal is completed and before new overlay is poured.

The Contractor shall supply additional Shim Plates if required to bring devices to Grade. Cost included with Furnishing and Erecting Structural Steel.

Anchor Bolts at fixed bearings must be installed in holes drilled after the supported member is in place. Drilled and set Anchor Bolts shall be installed according to Article 521.06 of the Standard Specifications. Anchor Bolts shall be ASTM F1554 all-thread (or an Engineer-Approved Alternate Material) of the Grade and diameter 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.

The new bearings shall be in place and the jacks shall be lowered before the new overlay is poured.

**BEAM REACTION TABLE**

		Center Bearing at North Abutment
R <sub>0</sub>	(k)	67.0
R <sub>L</sub>	(k)	96.6
R <sub>TM</sub>	(k)	29.0
R <sub>Total</sub>	(k)	192.6

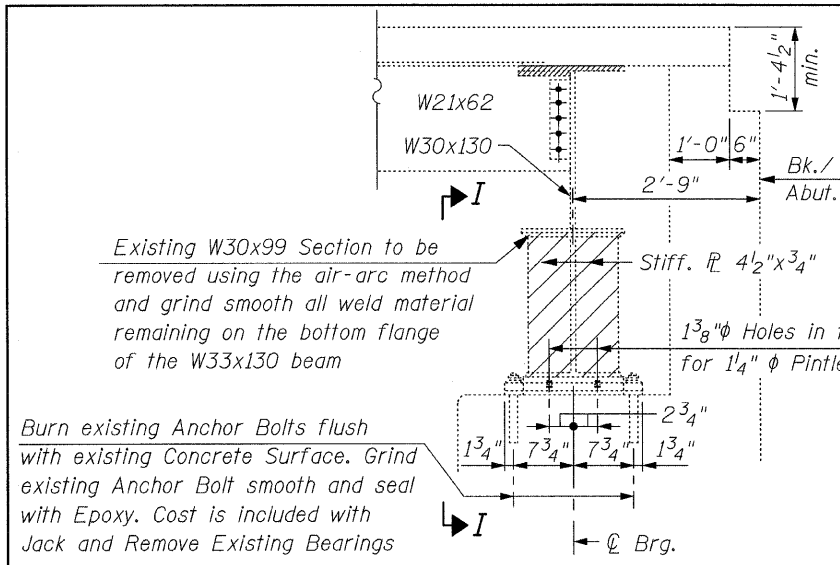
Minimum jack capacity at center bearing = 100 tons

**NOTES:**

See Elevation H-H, Sht. S23 for location of center bearings.  
See Sht. S23 for additional Bill of Material.

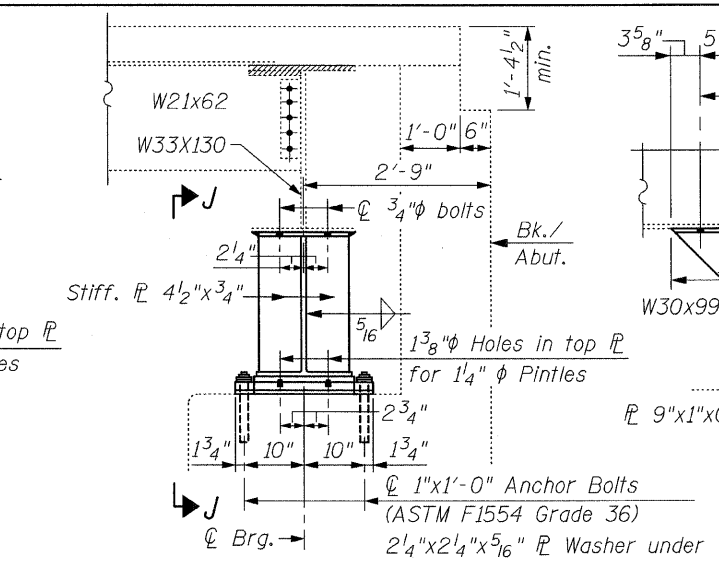
**BILL OF MATERIAL**

Item	Unit	Total
Jack and Remove Existing Bearings	Each	1
Furnishing and Erecting Structural Steel	Pound	120
Anchor Bolts, 1"φ	Each	2



**EXIST. BEAM NO'S. 2 & 9 - END BEARINGS**

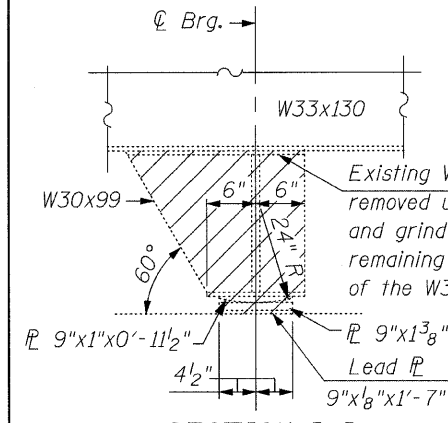
**SECTION AT NO. ABUT.**



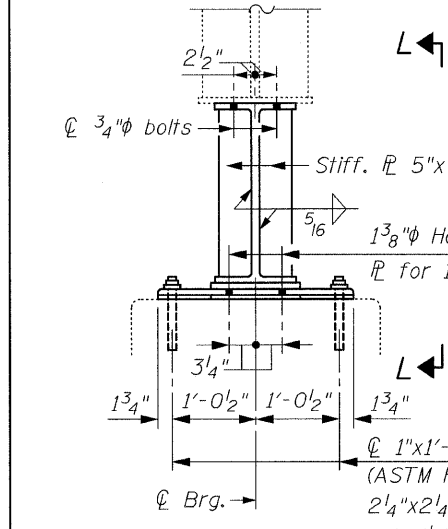
**PROP. BEAM NO'S. 2 & 9 - END BEARINGS**

**SECTION AT NO. ABUT.**

(2 Thus)



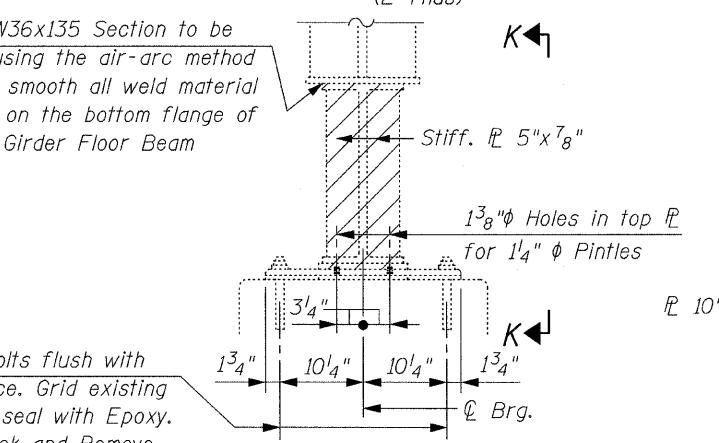
**SECTION I-I**



**BEAM NO'S. 2 & 9-INTERIOR BEARINGS**

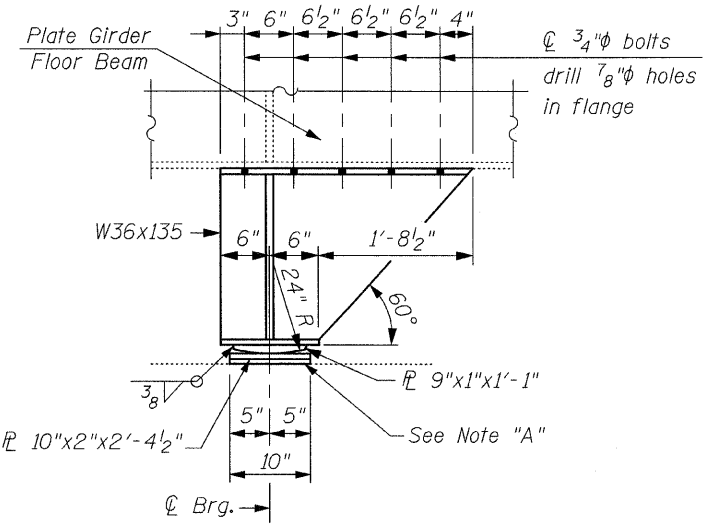
**PROP. SECTION AT PIERS 1, 2 & 3**

(6 Thus)

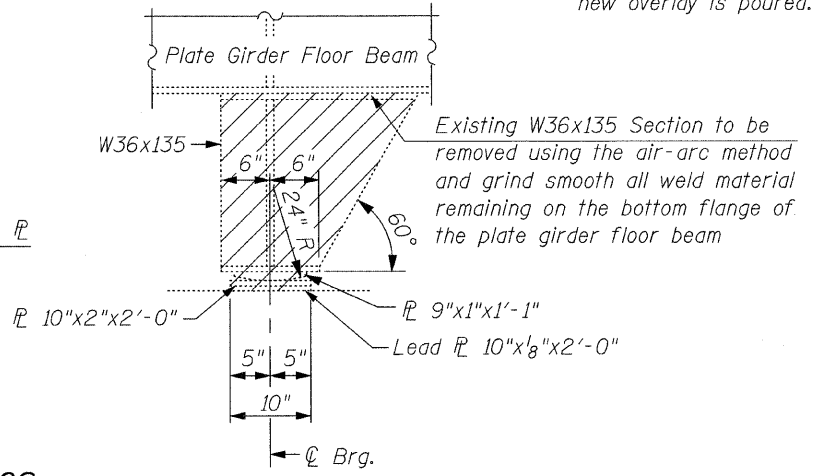


**BEAM NO'S. 2 & 9 - INTERIOR BEARINGS**

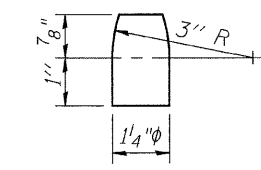
**EXIST. SECTION AT PIERS 1, 2 & 3**



**SECTION L-L**



**SECTION K-K**



**NOTE "A"**

1/8" Elastomeric Neoprene Leveling Mat according to the material properties of Article 1052.02(a) of the Standard Specifications. Cost included with Structural Steel

**BEARING REPLACEMENT NOTES:**

The Contractor shall submit plans for jacking the existing Superstructure for approval by the Engineer prior to commencing any work with the bearings. The submittal shall be prepared and sealed by a Licensed Structural Engineer in Illinois.

It shall be the Contractor's responsibility to verify all dimensions between the bottom of the Bridge Beams and the top of the bearing seat in the field prior to Construction or ordering of materials.

Jacking and removing of existing bearings shall be done after the existing overlay removal is completed and before the new overlay is poured.

The Contractor shall supply additional Shim Plates if required to bring devices to grade. Cost included with Furnishing and Erecting Structural Steel.

Anchor Bolts at Fixed Bearings must be installed in holes drilled after the supported member is in place. Drilled and set Anchor Bolts shall be installed according to Article 521.06 of the Standard Specifications. Anchor Bolts shall be ASTM F1554 all-thread (or an Engineer-Approved Alternate Material) of the grade and diameter 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.

The new bearings shall be in place and the jacks shall be lowered before the new overlay is poured.

**BEAM REACTION TABLE**

	Beam No.'s.	Beam No.'s.
	2 & 9 (N. Abut.)	2 & 9 (Piers 1, 2 & 3)
R@	(k) 67.0	10.3
R <sub>L</sub>	(k) 96.6	24.0
R <sub>IM</sub>	(k) 29.0	7.2
R <sub>Total</sub>	(k) 192.6	41.5

**N. ABUTMENT**

Minimum jack capacity at each bearing = 100 tons

**PIERS 1, 2 & 3**

Minimum jack capacity at each bearing = 20 tons

**BILL OF MATERIAL**

Item	Unit	Total
Jack and Remove Existing Bearings	Each	8
Furnishing and Erecting Structural Steel	Pound	4,150
Anchor Bolts, 1" $\bar{L}$	Each	16

FILE NAME = bearing\_ext.no.abut.dgn  
PLOT DATE = 7/8/2009

**CHRISTIAN ROGE & ASSOCIATES, INC.**  
ENGINEERS-PLANNERS-SURVEYORS  
211 WEST WACKER DRIVE  
CHICAGO, ILLINOIS 60606  
PHONE: (312)372-2023 FAX: (312)372-5274

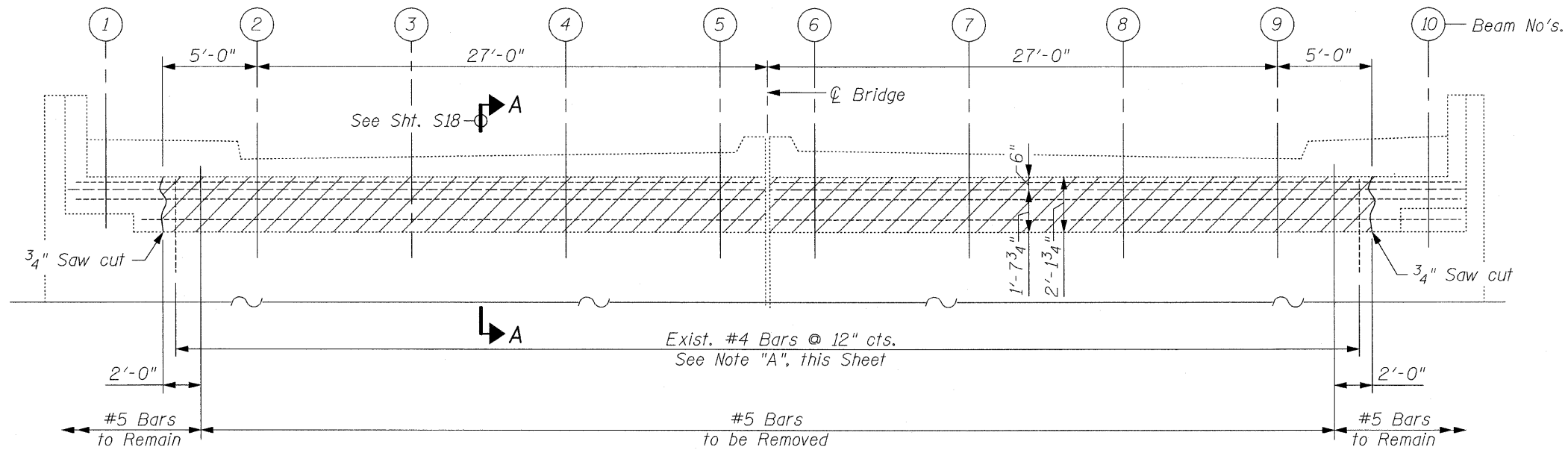
DESIGNED - B.N.S./J.C.N.	REVISED -
DRAWN - D.L./R.E.S./F.M.	REVISED -
CHECKED - B.N.S./J.C.N.	REVISED -
DATE - JULY 8, 2009	REVISED -

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

**STEEL BEARING EXTENSIONS-NORTH ABUTMENT**  
**AND PIERS 1, 2 & 3 AT BEAM NO'S. 2 & 9**  
**KEDZIE AVENUE OVER CAL-SAG CHANNEL S.N. 016-0762**

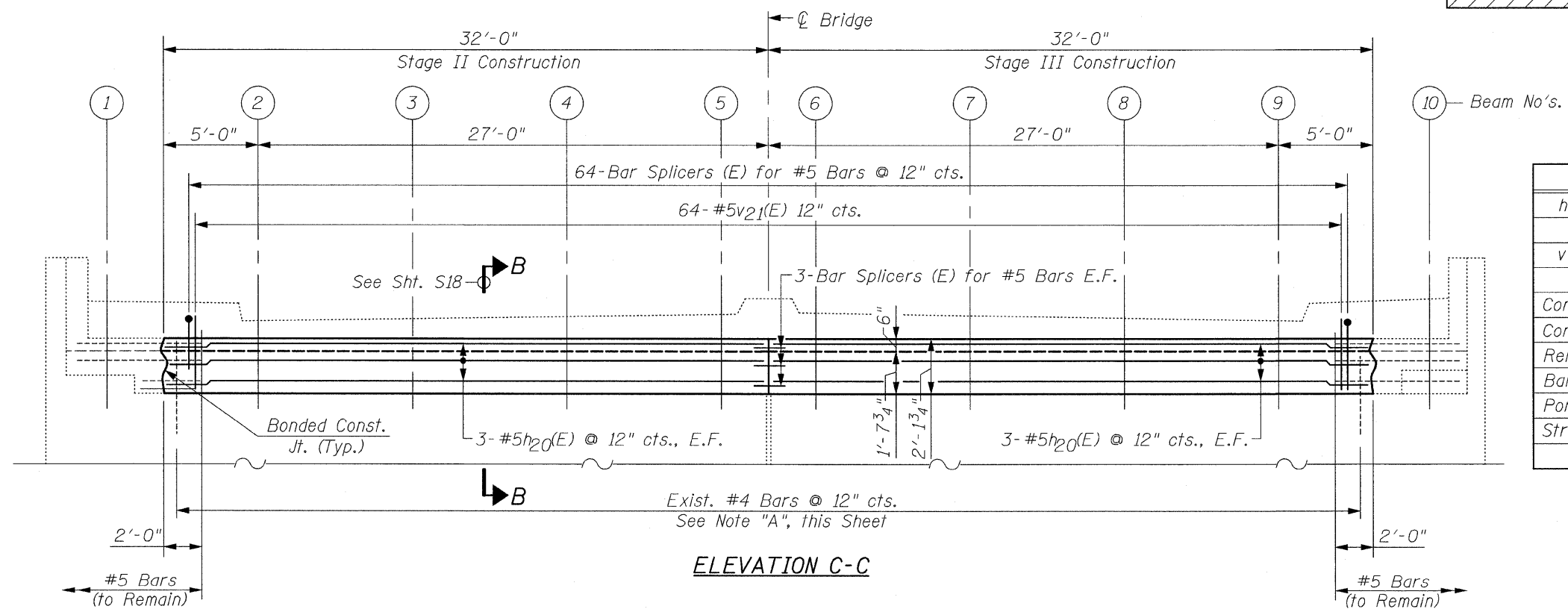
SCALE: SHEET NO. S21 OF S29 SHEETS STA. TO STA.

F.A.U. RTE. 2831	SECTION 1313. 1-1-2	COUNTY COOK	TOTAL SHEETS 41	SHEET NO. 30
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60D75	



**ELEVATION C-C**  
**EXISTING SOUTH ABUTMENT**

**LEGEND:**  
 Concrete Removal



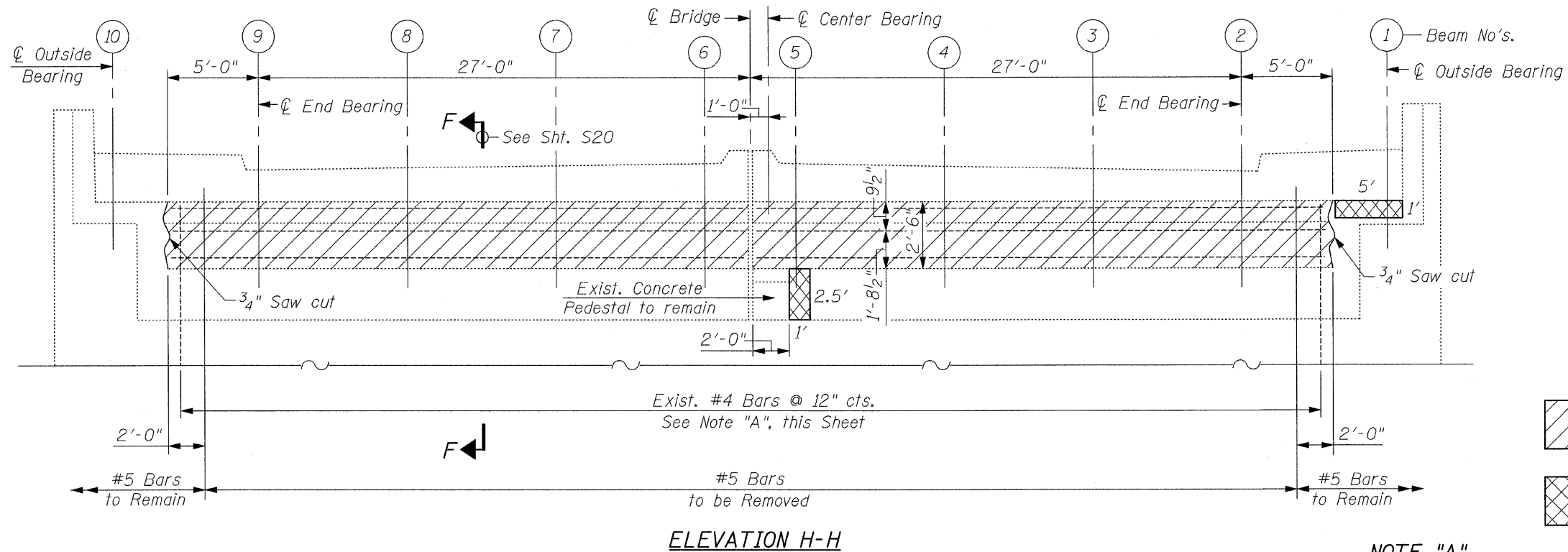
**ELEVATION C-C**  
**PROPOSED SOUTH ABUTMENT**

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h 20(E)	12	#5	31'-8"	—
v 21(E)	64	#5	2'-8"	—
Concrete Structures			Cu. Yd.	4.5
Concrete Removal			Cu. Yd.	4.5
Reinforcement Bars, Epoxy Coated			Pound	570
Bar Splicers			Each	70
Porous Granular Embankment, Special			Cu. Yd.	17
Structure Excavation			Cu. Yd.	17

**NOTES:**  
 Work this Sheet with Sht. S18  
 See Sht. S27 for Bar Splicer Assembly Details

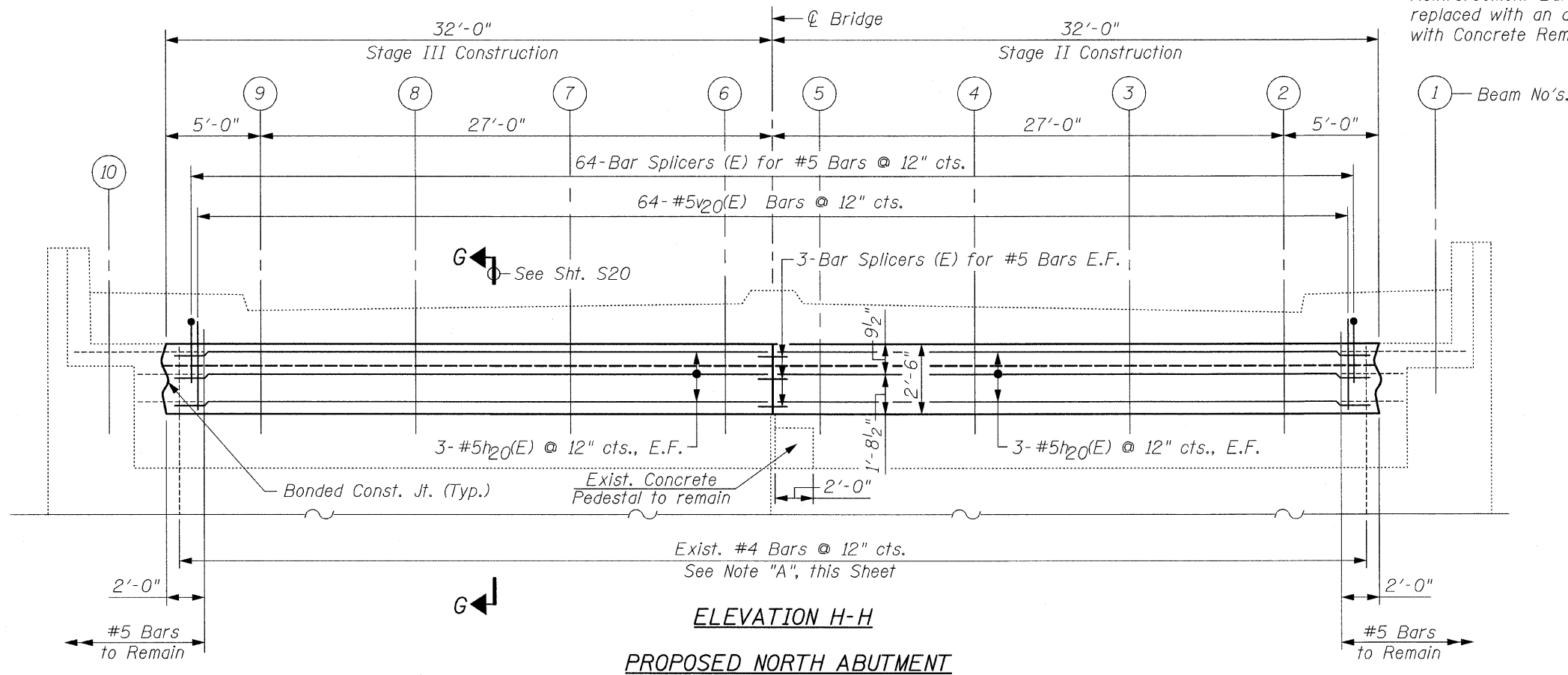
**NOTE "A"**  
 The Existing Reinforcement Bars extending into the removal area shall be cleaned, straightened and incorporated into the new Construction. Any Reinforcement Bars that are damaged during Concrete Removal shall be replaced with an approved Bar Splicer or Anchorage System. Cost included with Concrete Removal.



**LEGEND:**

	Concrete Removal
	Structural Repair of Concrete (Depth Equal to or Less than 5 in.)

**NOTE "A"**  
The Existing Reinforcement Bars extending into the removal area shall be cleaned, straightened and incorporated into the new Construction. Any Reinforcement Bars that are damaged during Concrete Removal shall be replaced with an approved Bar Splicer or Anchorage System. Cost included with Concrete Removal.

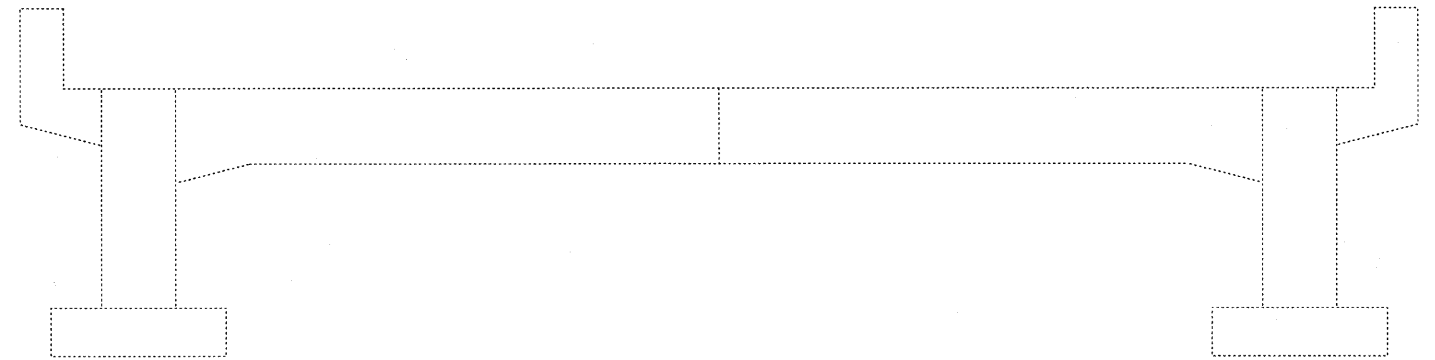


**BILL OF MATERIAL**

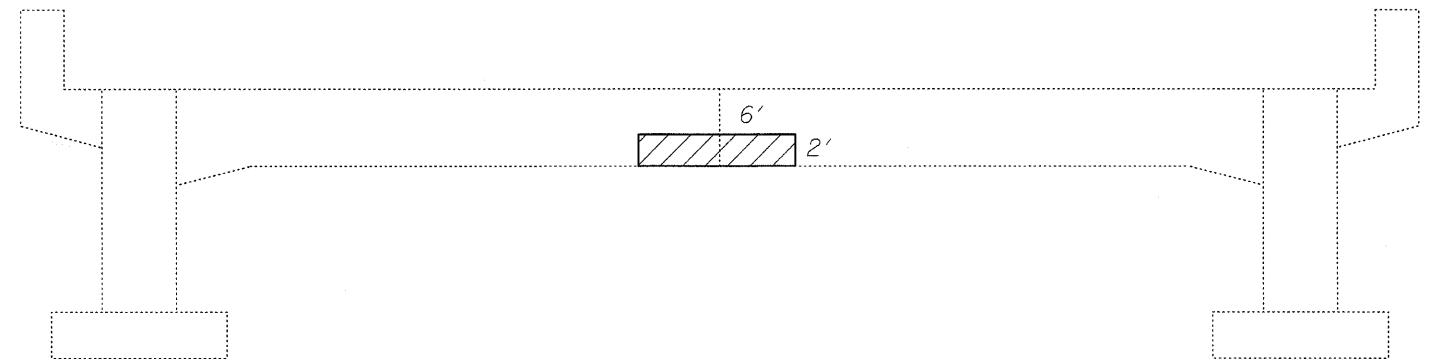
Bar	No.	Size	Length	Shape
h20(E)	12	#5	31'-8"	—
v20(E)	64	#5	3'-2"	—
Concrete Structures			Cu. Yd.	8.0
Concrete Removal			Cu. Yd.	8.0
Reinforcement Bars, Epoxy Coated			Pound	610
Structural Repair of Concrete (Depth Equal to or Less than 5 in.)			Sq. Ft.	8
Bar Splicers			Each	70
Porous Granular Embankment, Special			Cu. Yd.	20
Structure Excavation			Cu. Yd.	20

**NOTES:**  
Work this Sheet with Sht. S20  
See Sht. S27 for Bar Splicer Assembly Details





SOUTH ELEVATION



NORTH ELEVATION

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth Equal to or Less Than 5 In.)	Sq. Ft.	12.0

**NOTE:**  
 The Locations of Structural Repair of Concrete as shown on these Elevations, are from the most recent Survey that was performed in November, 2007

LEGEND:



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

FILE NAME = pier repairs-1.dgn  
 PLOT DATE = 7/8/2009



**CHRISTIAN-ROGE & ASSOCIATES, INC.**  
 ENGINEERS-PLANNERS-SURVEYORS  
 211 WEST WACKER DRIVE  
 CHICAGO, ILLINOIS 60606  
 PHONE: (312)372-2023 FAX: (312)372-5274

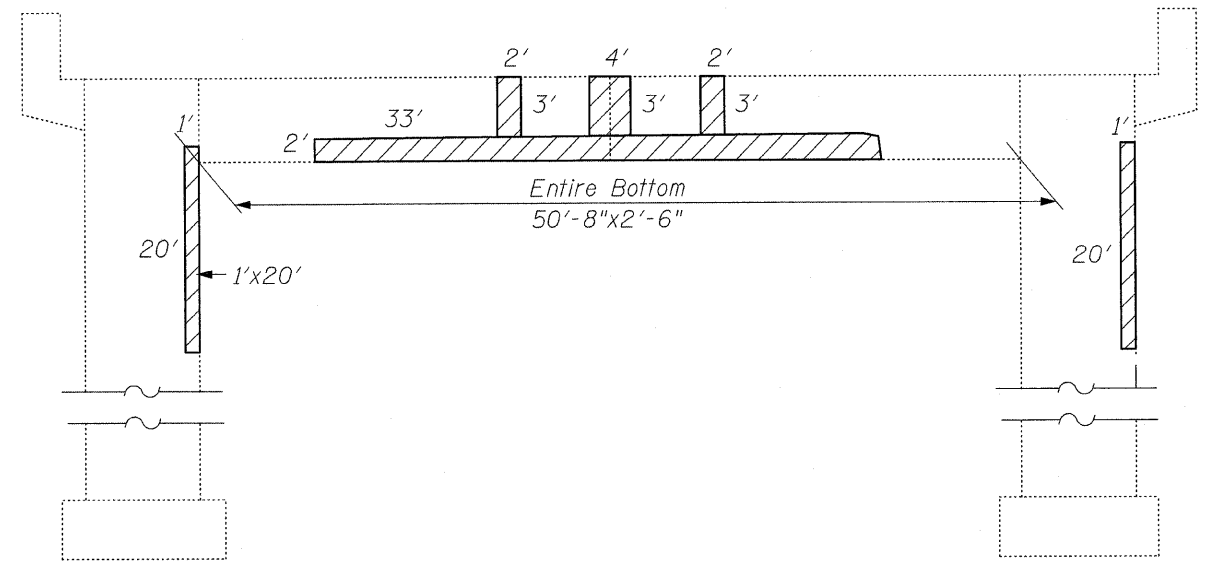
DESIGNED - B.N.S./J.C.N.	REVISED -
DRAWN - D.L./R.E.S./F.M.	REVISED -
CHECKED - B.N.S./J.C.N.	REVISED -
DATE - JULY 8, 2009	REVISED -

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

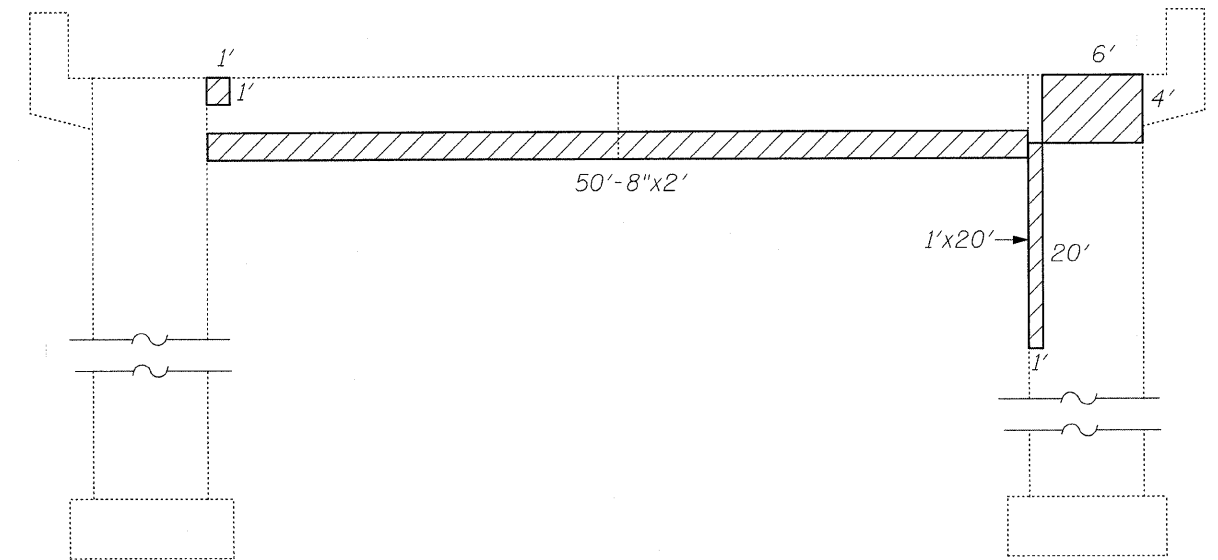
**PIER 1 REPAIRS**  
**KEDZIE AVENUE OVER CAL-SAG CHANNEL S.N. 016-0762**

SCALE: SHEET NO. S24 OF S29 SHEETS STA. TO STA.

F.A.U. RTE. 2831	SECTION 1313. 1-1-2	COUNTY COOK	TOTAL SHEETS 41	SHEET NO. 33
FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT				CONTRACT NO. 60D75



**SOUTH ELEVATION**




**NORTH ELEVATION**

**NOTE:**  
 The Locations of Structural Repair of Concrete as shown on these Elevations, are from the most recent Survey that was performed in November, 2007

**BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth Equal to or Less Than 5 In.)	Sq. Ft.	443.0

**LEGEND:**

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

FILE NAME = pier\_repairs-2.dgn  
 PLOT DATE = 7/8/2009

**CHRISTIAN-ROGE & ASSOCIATES, INC.**  
 ENGINEERS-PLANNERS-SURVEYORS  
 211 WEST WACKER DRIVE  
 CHICAGO, ILLINOIS 60606  
 PHONE: (312)372-2023 FAX: (312)372-5274

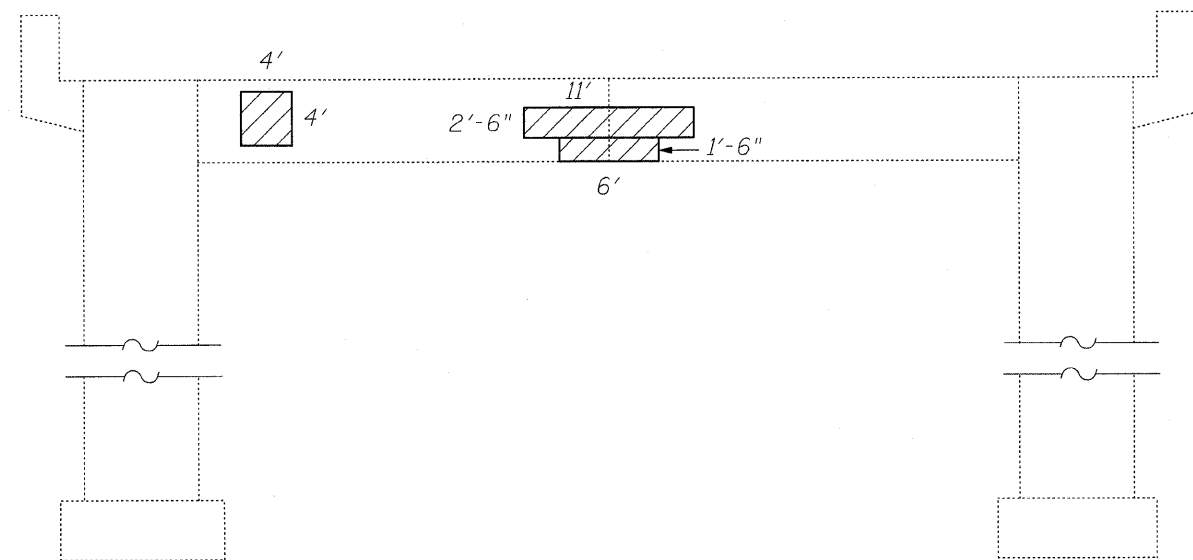
DESIGNED - B.N.S./J.C.N.	REVISED -
DRAWN - D.L./R.E.S./F.M.	REVISED -
CHECKED - B.N.S./J.C.N.	REVISED -
DATE - JULY 8, 2009	REVISED -

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

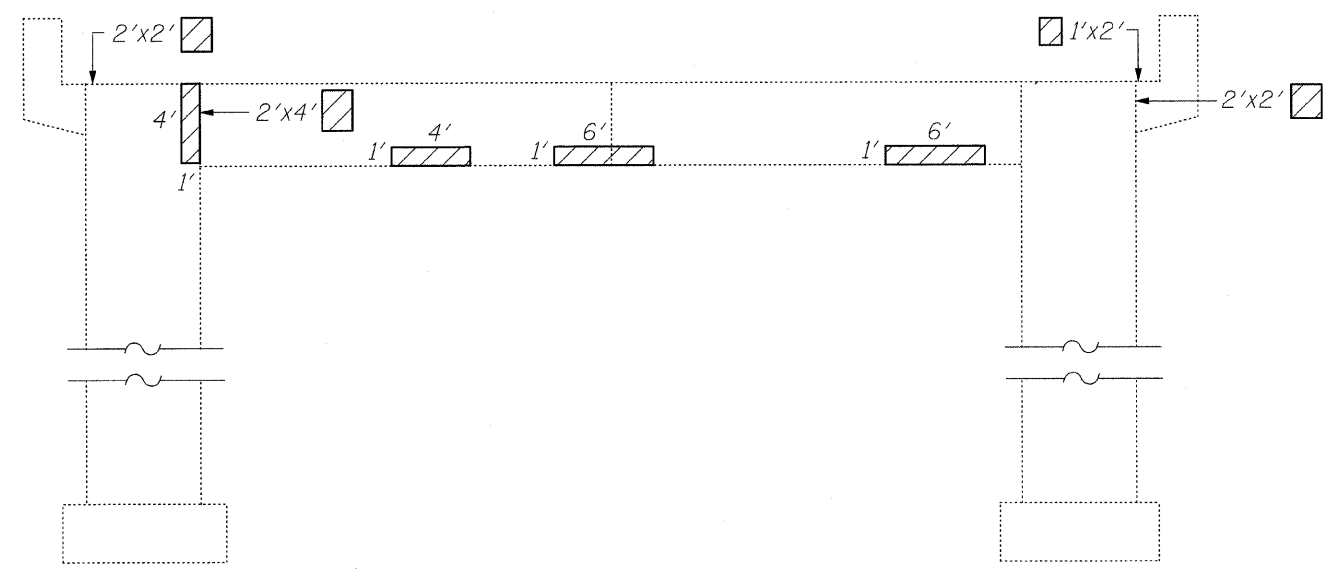
**PIER 2 REPAIRS**  
**KEDZIE AVENUE OVER CAL-SAG CHANNEL S.N. 016-0762**

SCALE: SHEET NO. S25 OF S29 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2831	1313. 1-I-2	COOK	41	34
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60D75	



**SOUTH ELEVATION**



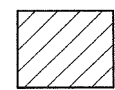
**NORTH ELEVATION**

**NOTE:**  
 The Locations of Structural Repair of Concrete as shown on these Elevations, are from the most recent Survey that was performed in November, 2007

**BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth Equal to or Less Than 5 In.)	Sq. Ft.	91.0

**LEGEND:**

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

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

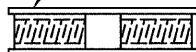
The diameter of this part is the same as the diameter of the bar spliced.

**ROLLED THREAD DOWEL BAR**



**\*\* ONE PIECE**

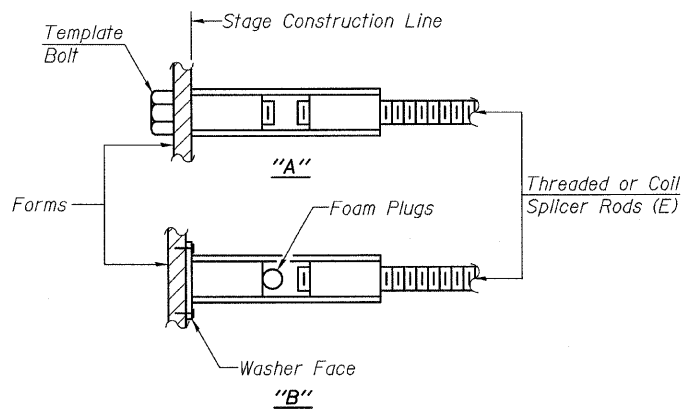
Wire Connector



**WELDED SECTIONS**

**BAR SPLICER ASSEMBLY ALTERNATIVES**

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



**INSTALLATION AND SETTING METHODS**

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

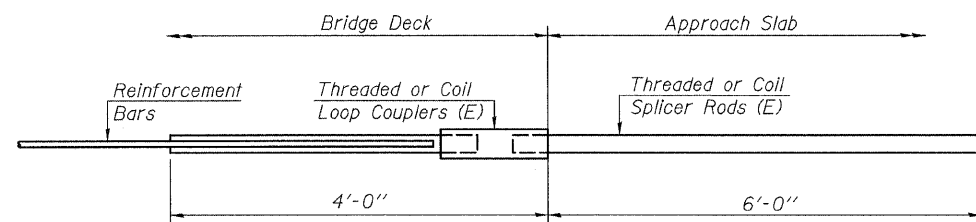
**NOTES**

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

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

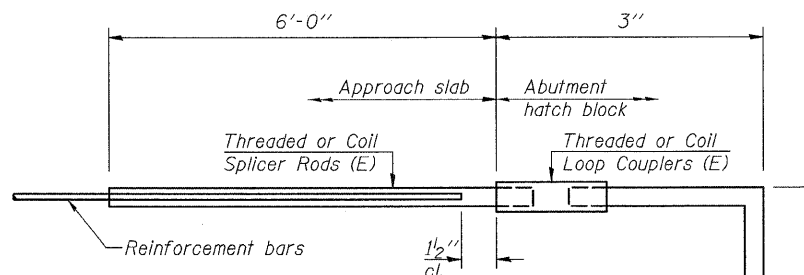
**BAR SPLICER ASSEMBLIES**

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



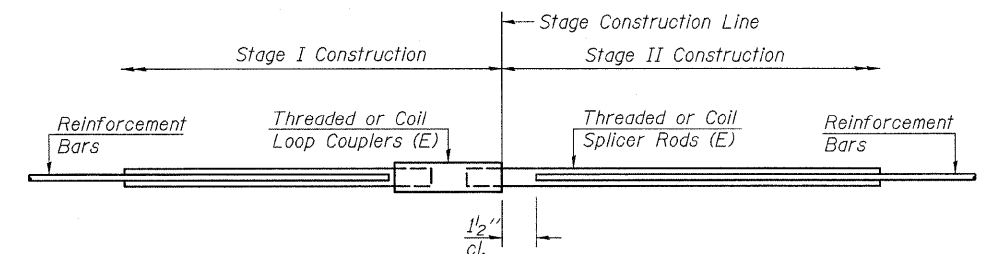
**FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS**

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



**FOR STUB ABUTMENTS**

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 128



**STANDARD**

Bar Size	No. Assemblies Required	Location
#6	24	Transverse Joint Reconstruction, Type A
#6	48	Transverse Joint Reconstruction, Type B
#5	44	Transverse Joint Reconstruction, Type C
#5	6	North Abutment Backwall
#5	6	South Abutment Backwall
#5	266	Approach Slabs, Median & Approach Footing
Total	394	

BSD-1 5-16-08

FILE NAME = bar\_splicer.dgn  
 PLOT DATE = 7/8/2009

**CHRISTIAN-ROGE & ASSOCIATES, INC.**  
 ENGINEERS-PLANNERS-SURVEYORS  
 211 WEST WACKER DRIVE  
 CHICAGO, ILLINOIS 60606  
 PHONE: (312)372-2023 FAX: (312)372-5274

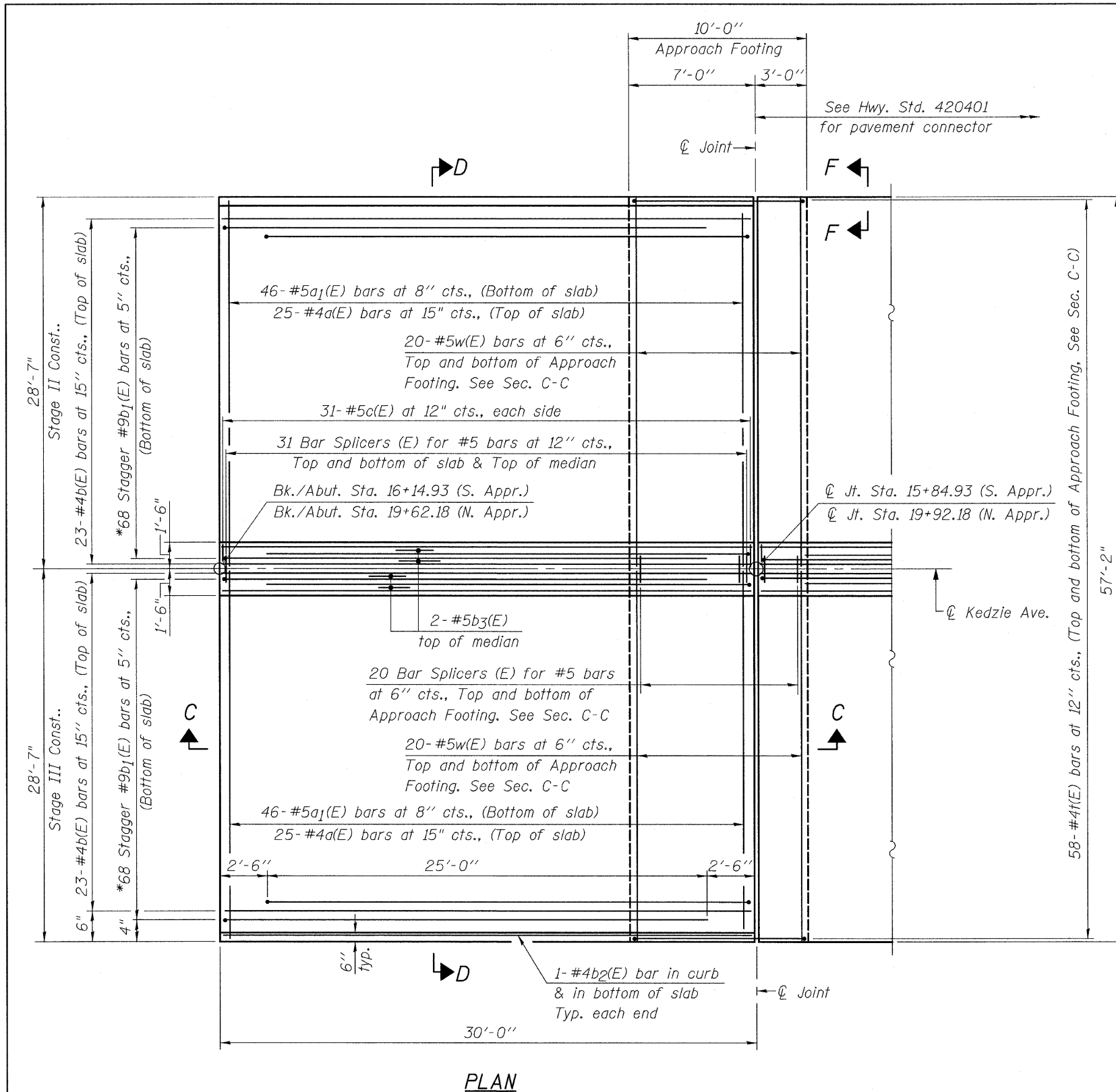
DESIGNED - B.N.S./J.C.N.	REVISED -
DRAWN - D.L./R.E.S./F.M.	REVISED -
CHECKED - B.N.S./J.C.N.	REVISED -
DATE - JULY 8, 2009	REVISED -

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

**BAR SPLICER ASSEMBLY DETAILS**  
**KEDZIE AVENUE OVER CAL-SAG CHANNEL S.N.016-0762**

SCALE: SHEET NO. S27 OF S29 SHEETS STA. TO STA.

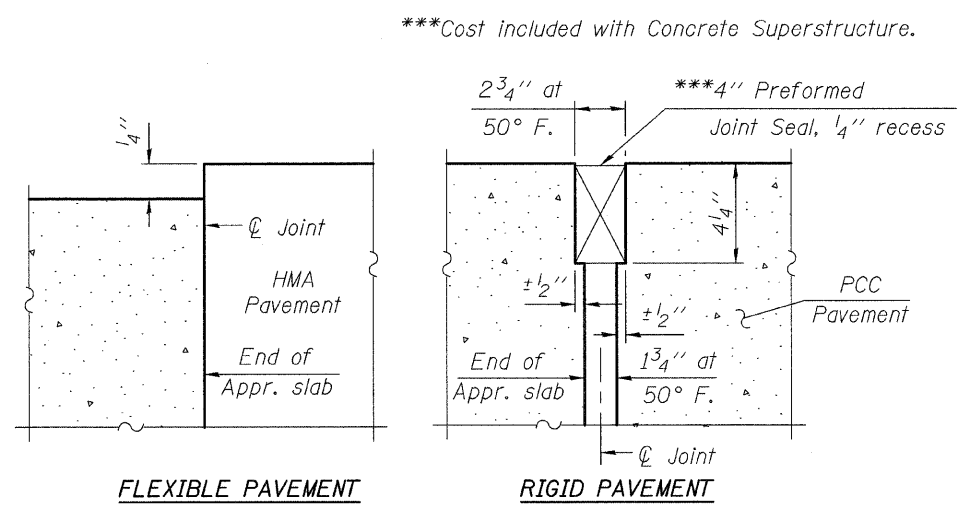
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2831	1313, 1-1-2	COOK	41	36
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60D75	



\*Tilt #9b1(E) bars as required to maintain clearance

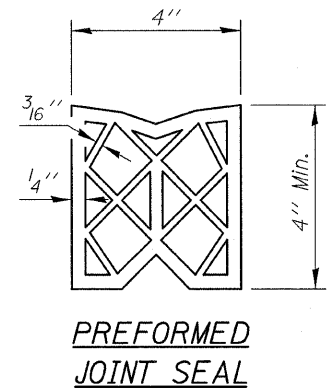
**PLAN**

Notes:  
See Sht. S29 for Sections C-C & D-D.  
a(E), a1(E), and w(E) bar spacings measured perpendicular to  $\varnothing$  Rdwy.

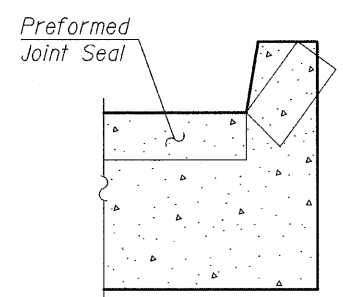


**FLEXIBLE PAVEMENT**      **RIGID PAVEMENT**

**DETAIL A**



**PREFORMED JOINT SEAL**



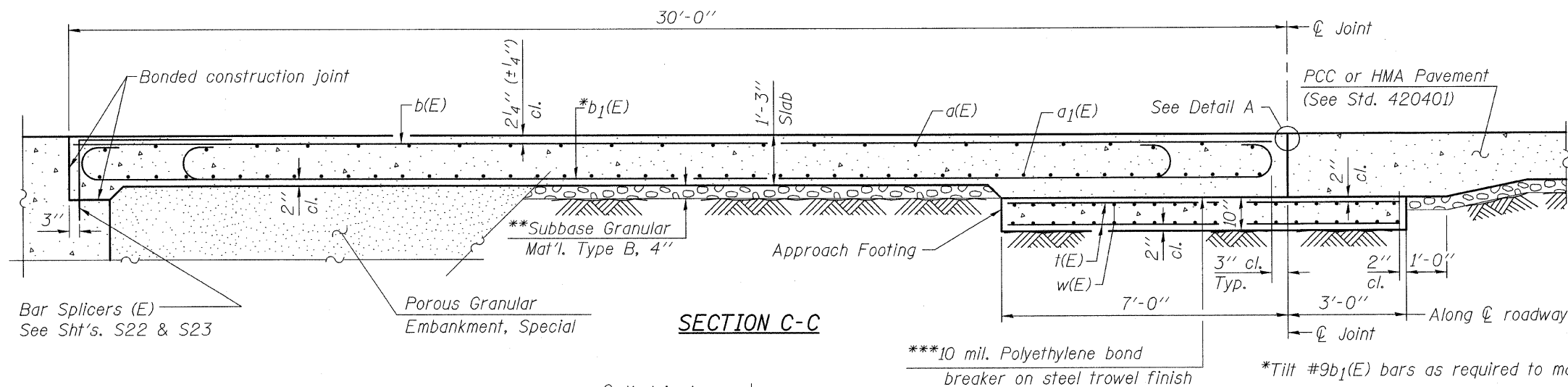
**VIEW F-F**

Angle Preformed Joint Seal at 45° at curbs when req'd for drainage.

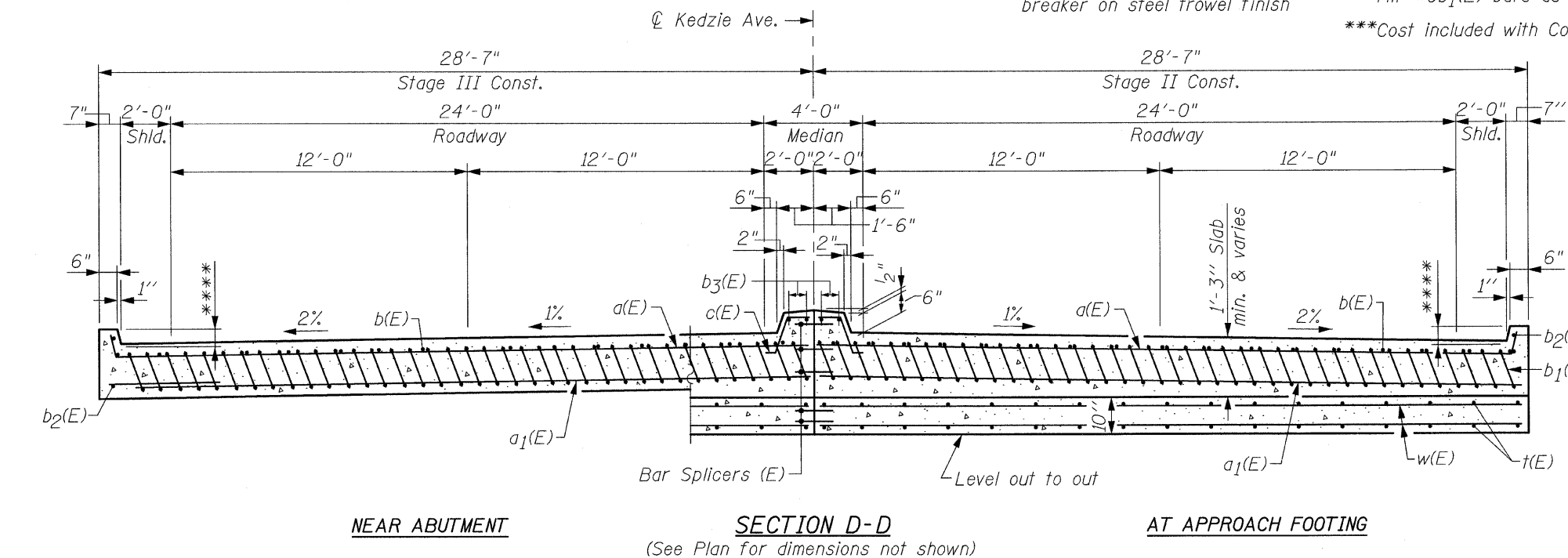
(Sheet 1 of 2)  
**BRIDGE APPROACH SLAB DETAILS**  
**STRUCTURE NO. 016-0762**

BA-0 10-31-08

FILE NAME = appr slab details.l.dgn PLOT DATE = 7/8/2009	<b>CHRISTIAN-ROGE &amp; ASSOCIATES, INC.</b> ENGINEERS-PLANNERS-SURVEYORS 211 WEST WACKER DRIVE CHICAGO, ILLINOIS 60606 PHONE: (312)372-2023 FAX: (312)372-5274	DESIGNED - B.N.S./J.C.N.	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>BRIDGE APPROACH SLAB DETAILS-I</b> <b>KEDZIE AVENUE OVER CAL-SAG CHANNEL S.N.016-0762</b>	F.A.U. RITE 2831	SECTION 1313. 1-I-2	COUNTY COOK	TOTAL SHEETS 41	SHEET NO. 37
		DRAWN - D.L./R.E.S./F.M.	REVISED -			SCALE: SHEET NO. S28 OF S29 SHEETS STA. TO STA.		CONTRACT NO. 60D75		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT
CHECKED - B.N.S./J.C.N.		DATE - JULY 8, 2009	REVISED -							



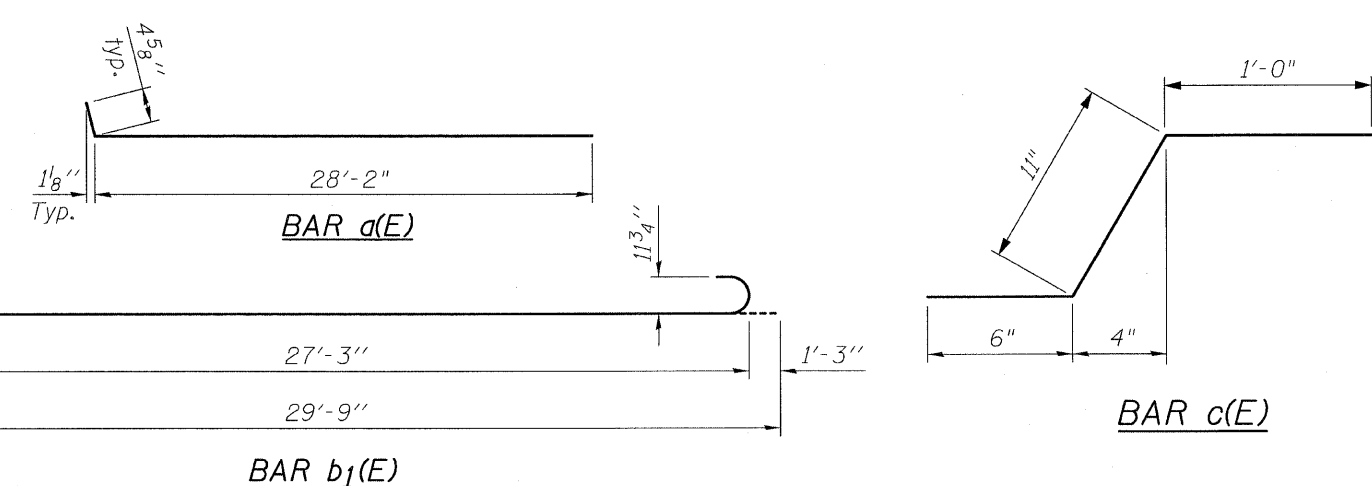
Notes:  
 See Sht. S28 for Detail A and View B-B.  
 Approach slab concrete shall be paid for as Concrete Superstructure.  
 Approach footing concrete shall be paid for as Concrete Structures.  
 Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.  
 The approach footing maximum applied service bearing pressure ( $Q_{max}$ ) = 2.0 ksf.  
 For bar splicer details, see Sht. S27.  
 Cost of excavation for approach footing included with Concrete Structures.  
 For Porous Granular Embankment, Special see Sht's. S22 & S23.



\*\*\*\*Varies from 9" at bridge to 6" at end of Approach Slabs

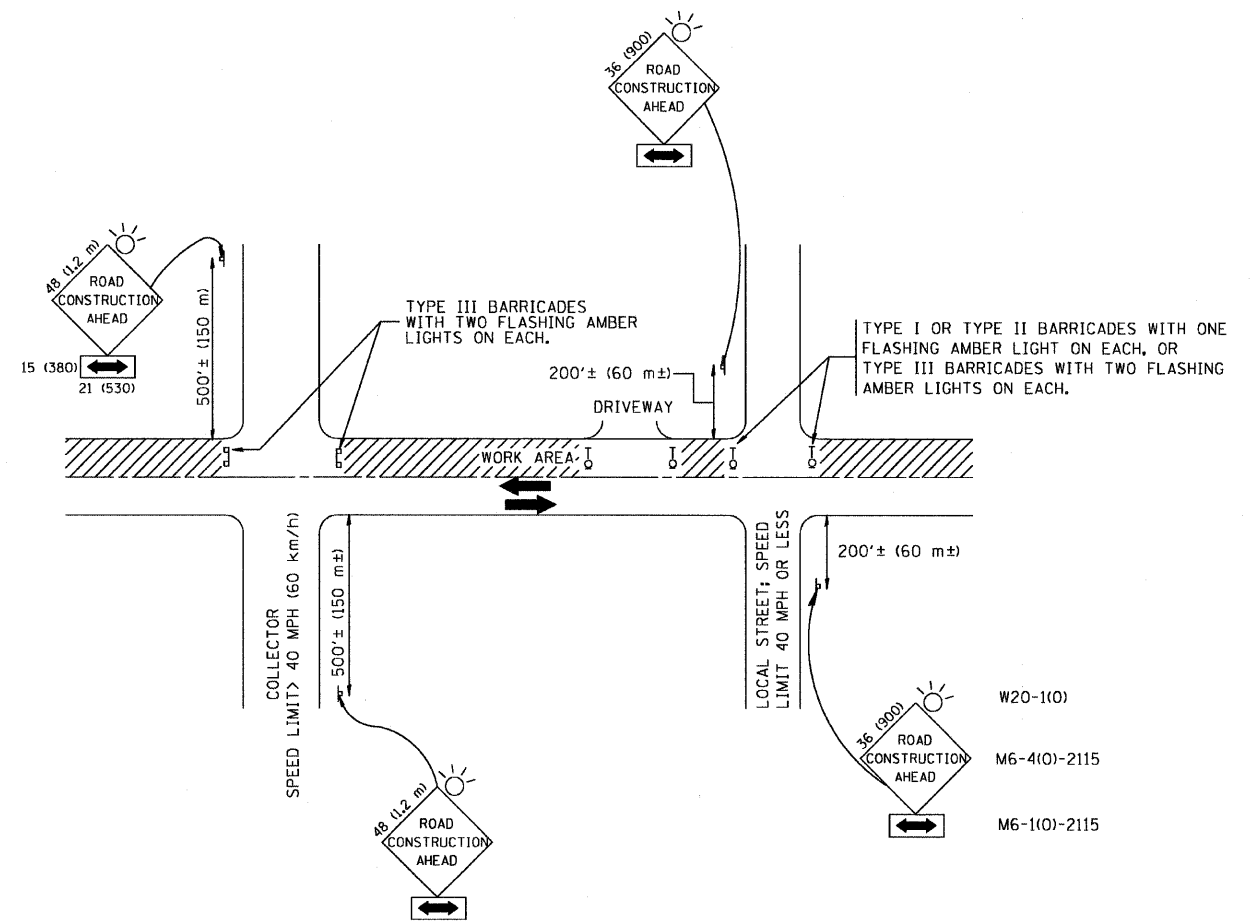
**BILL OF MATERIAL  
(TWO APPROACHES)**

Bar	No.	Size	Length	Shape
a(E)	100	#4	28'-7"	┌───
a1(E)	184	#5	28'-3"	┌───
b(E)	92	#4	29'-8"	┌───
b1(E)	272	#9	29'-9"	┌───
b2(E)	8	#4	29'-8"	┌───
c(E)	124	#5	2'-5"	└───┘
t(E)	232	#4	9'-8"	┌───
w(E)	160	#5	28'-3"	┌───
Bar Splicers	Each		266	
Concrete Superstructure	Cu. Yd.		91.4	
Concrete Structures	Cu. Yd.		17.7	
Reinforcement Bars, Epoxy Coated	Pound		43,350	



BA-0 10-31-08

(Sheet 2 of 2)  
**BRIDGE APPROACH SLAB DETAILS  
 STRUCTURE NO. 016-0762**



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

NOTES:

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

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

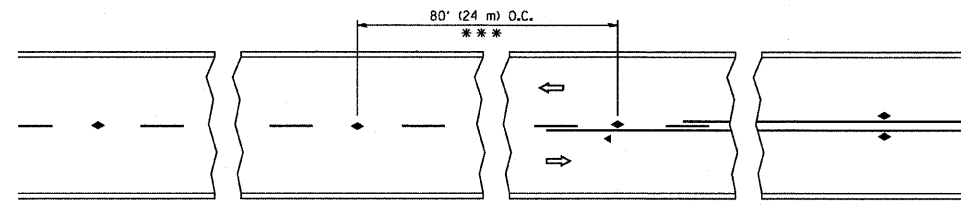
All dimensions are in millimeters (inches) unless otherwise shown.

FILE NAME = W:\datatd\22x34\to18.dgn	USER NAME = goglianobt	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
		DRAWN -	REVISED - A. HOUSEH 03-06-96
		CHECKED -	REVISED - A. HOUSEH 10-15-96
		DATE - 06-89	REVISED - T. RAMMACHER 01-06-00

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

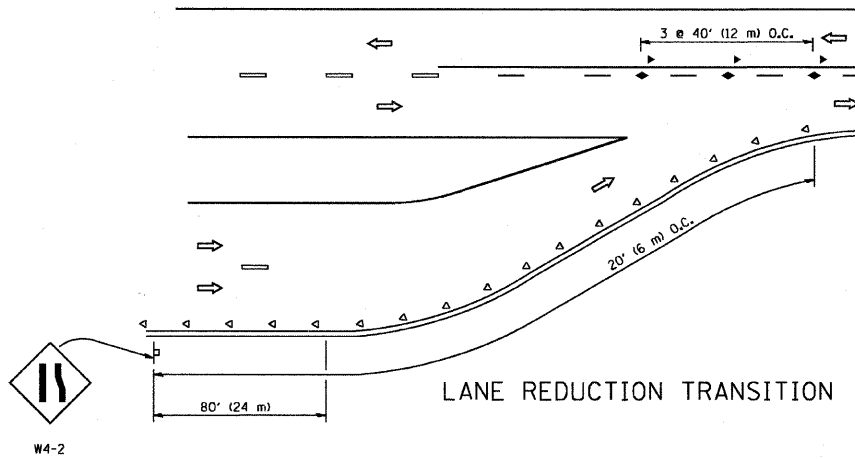
TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. 13+10	TO STA. 22+70

F.A.U. RTE 2831	SECTION 1313.1+2	COUNTY COOK	TOTAL SHEETS 41	SHEET NO. 39
TC-10			CONTRACT NO. 60D75	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

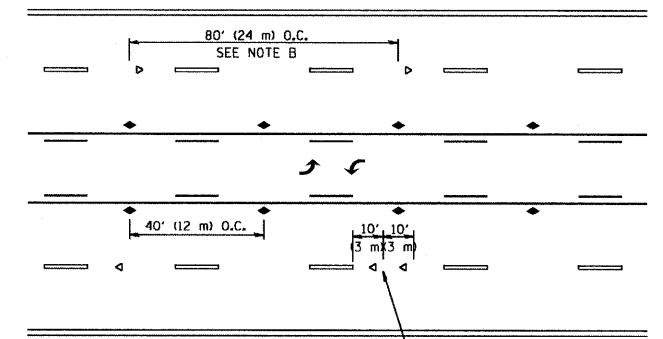


\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

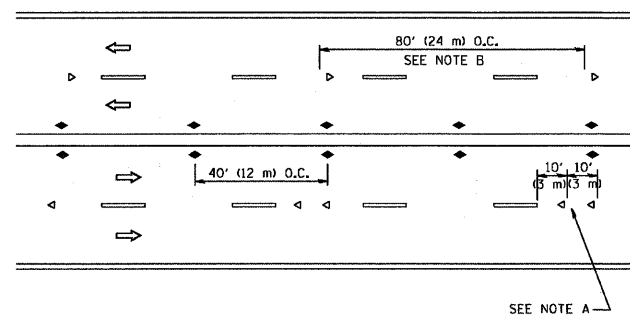
TWO-LANE/TWO-WAY



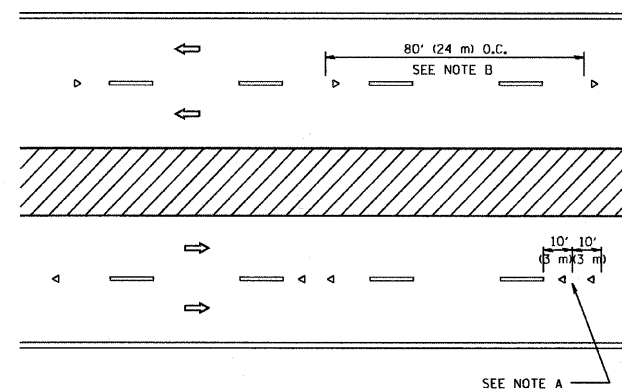
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

SYMBOLS

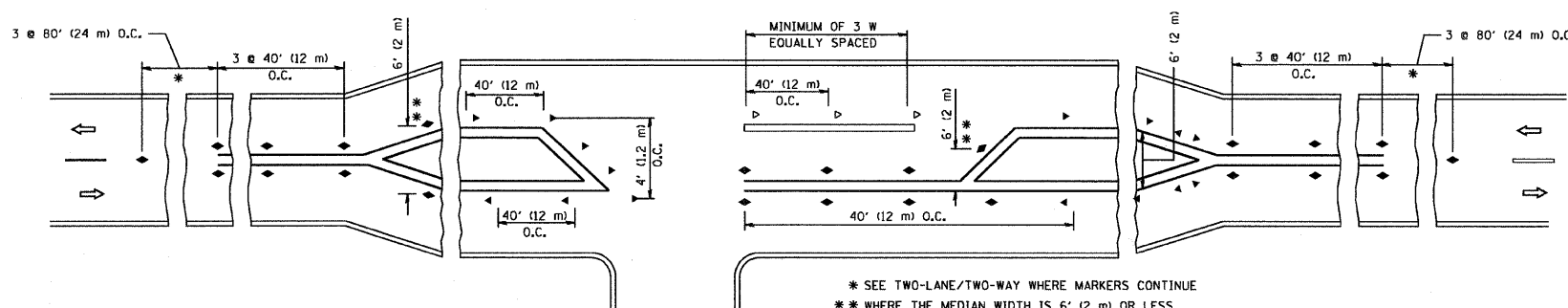
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

LANE MARKER NOTES

- 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.

DESIGN NOTES

1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHOULD BE INCLUDED IN THE PLANS.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.



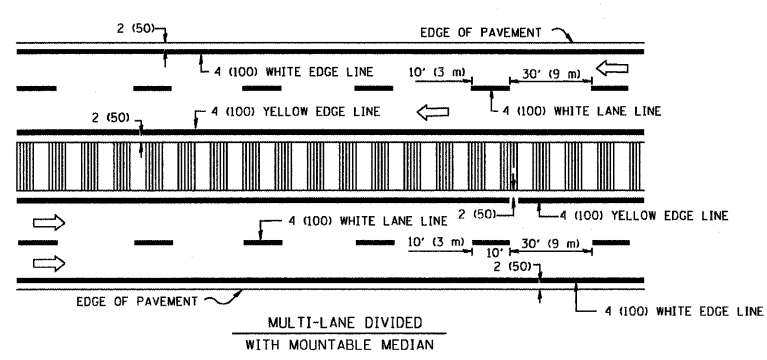
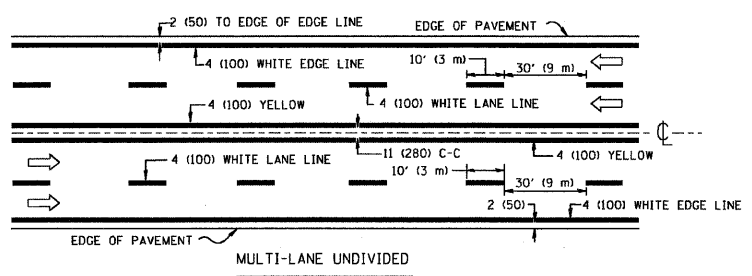
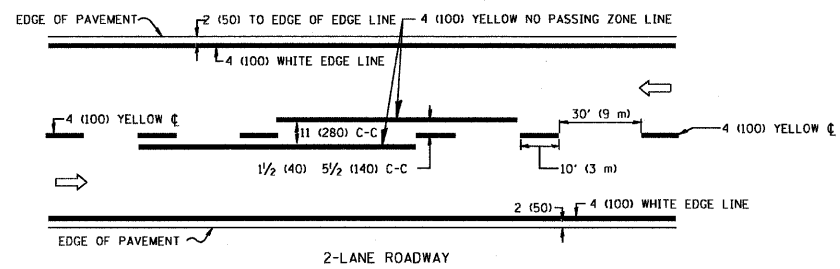
LEFT TURN

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

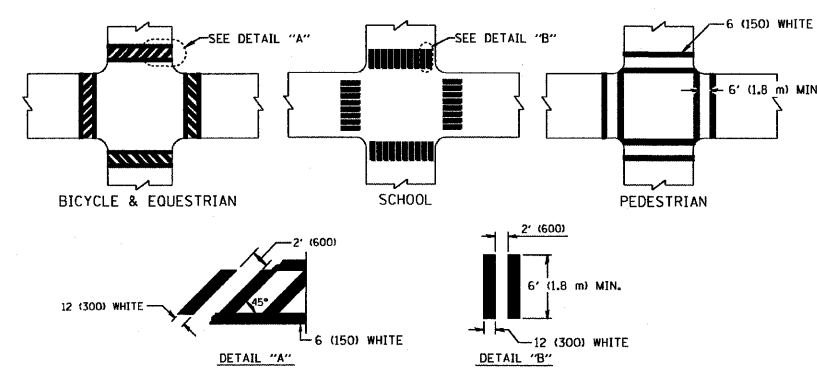
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME = W:\datatd\22x34\to11.dgn	USER NAME = geglienobt	DESIGNED - DRAWN -	REVISED - T. RAMMACHER 09-19-94 REVISED - T. RAMMACHER 03-12-99 REVISED - T. RAMMACHER 01-06-00 REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)</b>			F.A.U. RTE. 2831	SECTION 1313.14-2	COUNTY COOK	TOTAL SHEETS 41	SHEET NO. 40
PLOT SCALE = 50,000' / IN. PLOT DATE = 1/4/2008					SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. 13+10 TO STA. 22+70	<b>TC-11</b>		CONTRACT NO. 60D75		
											FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	

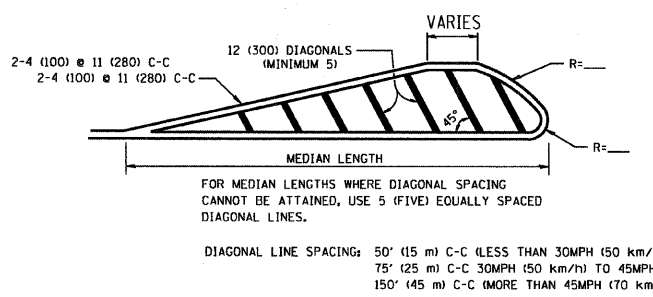
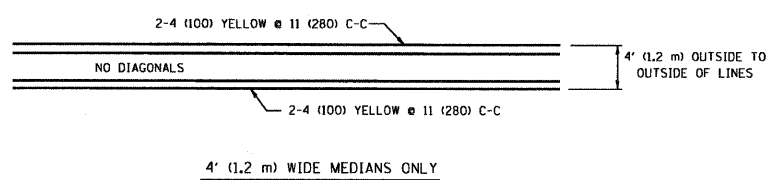




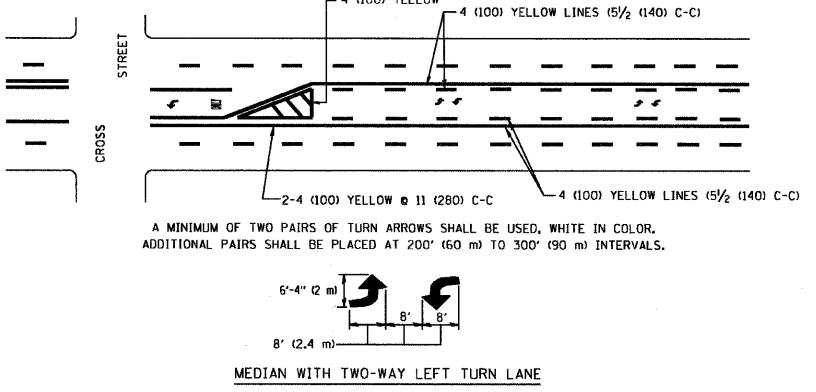
NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE  
**TYPICAL LANE AND EDGE LINE MARKING**



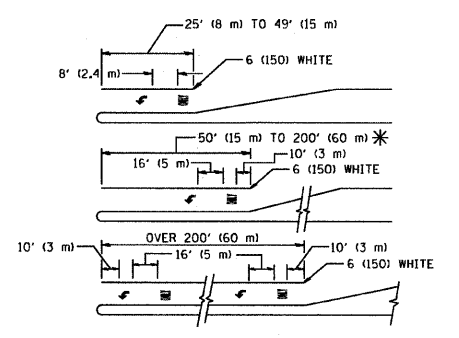
**TYPICAL CROSSWALK MARKING**



**MEDIANS OVER 4' (1.2 m) WIDE**



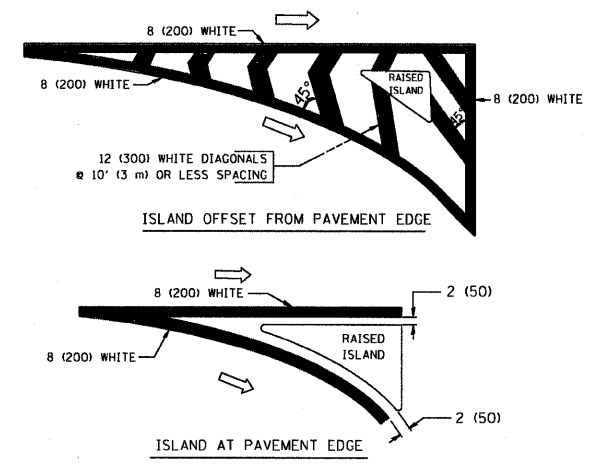
**TYPICAL PAINTED MEDIAN MARKING**



FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  
 AREA = 15.6 SQ. FT. (1.5 m<sup>2</sup>) AREA = 20.8 SQ. FT. (1.9 m<sup>2</sup>)  
 \* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

**TYPICAL LEFT (OR RIGHT) TURN LANE**

**TYPICAL TURN LANE MARKING**



**TYPICAL ISLAND MARKING**

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES; FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5 1/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5 1/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT, OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW; TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C (30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" 15 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m <sup>2</sup> ) EACH "X"=54.0 SQ. FT. (5.0 m <sup>2</sup> )
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

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