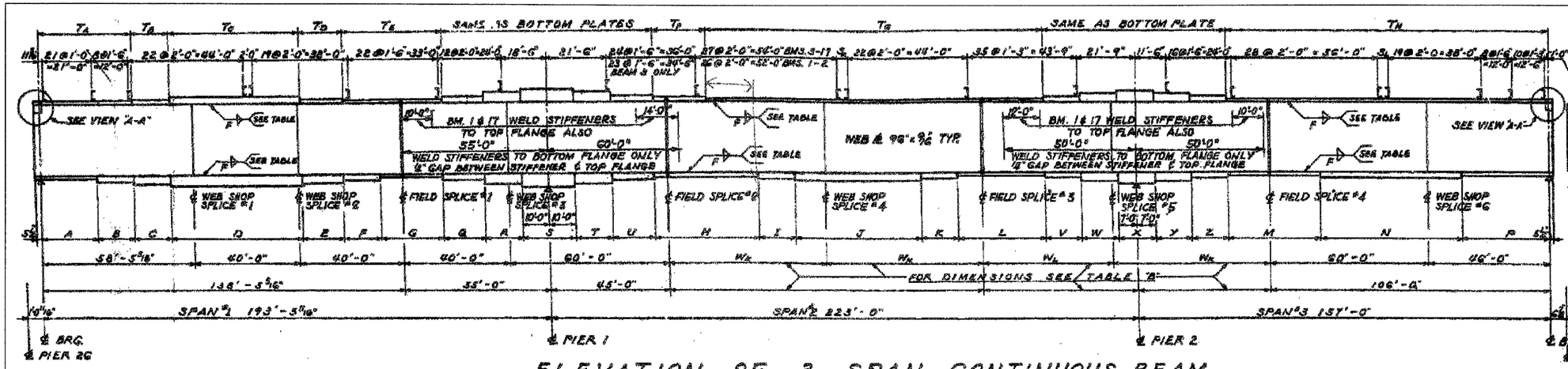
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2005-086 I	COOK	228	197
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B07



ELEVATION OF 3 SPAN CONTINUOUS BEAM

SHEAR CONNECTOR SPACING

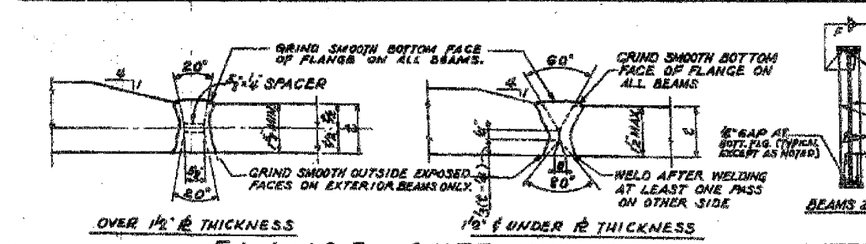
ITEM	BEAMS 1	2	3	4	5-17
S_H	1'-1 1/2"	1'-9 3/4"	1'-11 7/8"	1'-2 1/2"	2'-0"
S_L	1'-2"	1'-6 7/8"	1'-8 1/8"	1'-9 1/2"	2'-0"

NOTES:

SHEAR CONNECTORS AT FIELD SPLICES CAN BE ADJUSTED TO AVOID INTERFERENCE WITH WASHERS ON HIGH STRENGTH BOLTS.

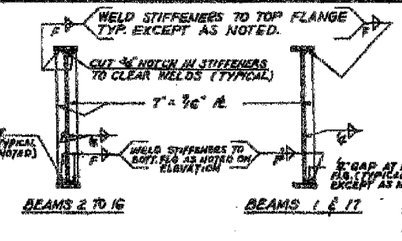
TABLE FOR 3 SPAN CONTINUOUS BEAMS

BEAM NUMBER		BOTTOM FLANGE PLATES A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	TOP AND BOTTOM FLANGE PLATES Q	R	S	T	U	V	W	X	Y	Z	TOP FLANGE PLATES T_A	T_B	T_C	T_D	T_E	T_F	T_G	T_H	TABLE "B" K_1=2 E_1=29,000 K_2=3 E_2=29,000	K_1=2 E_1=29,000 K_2=3 E_2=30,000	W_{PL}	W_L	BEAM NUMBER
1, 9, 17	SIZE	16"x 1 1/16"	16"x 1 3/4"	16"x 2 1/4"	16"x 2 3/4"	16"x 2 1/4"	16"x 1 3/4"	16"x 1 1/16"	16"x 1/2"		16"x 1 1/2"	16"x 1 3/4"	16"x 1 15/16"	16"x 1 7/8"	16"x 1 1/8"	16"x 1 1/16"	22"x 1 5/8"	22"x 3"	22"x 4"	22"x 3"	22"x 1 1/2"	22"x 1 1/8"	22"x 2 1/2"	22"x 3"	22"x 2 1/2"	22"x 1 1/2"	16"x 1 1/16"	16"x 1"	16"x 1 1/2"		16"x 1 1/16"	16"x 1"	16"x 1 1/16"	16"x 1 1/16"	—	—	—	—	—	SIZE	1, 9, 17
1	LENGTH	17'-5 5/16"	19'-0"	19'-0"	26'-0"	16'-0"	16'-0"	23'-0"	47'-0"		55'-0"	14'-0"	28'-1 5/8"	28'-2"	63'-0"	22'-0"	18'-0"	18'-0"	20'-0"	14'-0"	16'-0"	14'-0"	14'-0"	14'-0"	14'-0"	16'-0"	17'-5 5/16"	19'-0"	76'-0"		39'-0"	20'-0"	185'-1 1/8"	179'-2"	118'-0 1/2"	57'-0 5/8"	56'-2"	55'-0 1/2"	48'-2 1/2"	LENGTH	1
9, 17	LENGTH	"	"	"	"	"	"	"	48'-0"		"	"	30'-0"	29'-0"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"		"	"	128'-0"	120'-0"	120'-0"	58'-0"	51'-0"	60'-0"	49'-0"	LENGTH	9, 17
7, 8, 10, 15, 16	SIZE	16"x 1 1/2"	16"x 1 1/2"	16"x 2"	16"x 2 1/2"	16"x 2"	16"x 1 1/2"	16"x 1 1/16"	16"x 1"	16"x 1 3/4"	16"x 1 3/4"	16"x 1 1/4"	16"x 1 1/16"	16"x 1 1/16"	16"x 1 1/4"	16"x 1 1/16"	22"x 1 1/2"	22"x 2 1/2"	22"x 3 1/4"	22"x 2 1/2"	22"x 1 1/2"	22"x 1 1/8"	22"x 2"	22"x 2 1/2"	22"x 2"	22"x 1 1/8"	16"x 1 1/16"	16"x 1"	16"x 1 1/2"	16"x 1"	16"x 1 1/16"	16"x 1"	16"x 1 1/16"	16"x 1 1/16"	—	—	—	—	—	SIZE	7, 8, 10, 15, 16
	LENGTH	19'-3 7/16"	14'-0"	14'-0"	53'-0"	14'-0"	21'-0"	39'-0"	14'-0"		53'-0"	14'-0"	29'-0"	30'-0"	62'-0"	30'-0"	18'-0"	18'-0"	20'-0"	14'-0"	16'-0"	14'-0"	14'-0"	14'-0"	14'-0"	14'-0"	33'-5 7/16"	69'-0"	14'-0"	35'-0"	80'-0"	185'-0"	122'-0"	120'-0"	58'-0"	51'-0"	60'-0"	49'-0"	LENGTH	
6, 11, 12, 13, 14	SIZE	16"x 1 1/16"	16"x 1 3/4"	16"x 1 3/4"	16"x 2 1/4"	16"x 1 1/2"	16"x 1 3/4"	16"x 1 1/16"	16"x 1"		16"x 1 1/2"	16"x 1 5/8"	16"x 1 1/2"	16"x 1 5/8"	16"x 1 1/16"	16"x 1 1/16"	22"x 1 5/8"	22"x 2 1/4"	22"x 3"	22"x 2 1/4"	22"x 1 1/2"	22"x 1 1/8"	22"x 1"	22"x 1 1/2"	22"x 2 1/4"	22"x 2"	22"x 1 1/16"	16"x 1 1/16"	16"x 1"	16"x 1 1/2"	16"x 1"	16"x 1 1/16"	16"x 1"	18"x 1 1/16"	16"x 1 1/16"	—	—	—	—	—	SIZE	6, 11, 12, 13, 14
	LENGTH	21'-3 5/16"	14'-0"	18'-0"	50'-0"	16'-0"	14'-0"	39'-0"	14'-0"		48'-0"	14'-0"	33'-0"	35'-0"	54'-0"	33'-0"	16'-0"	14'-0"	20'-0"	14'-0"	16'-0"	14'-0"	14'-0"	14'-0"	14'-0"	14'-0"	35'-5 7/16"	14'-0"	50'-0"	18'-0"	38'-0"	20'-0"	118'-0"	122'-0"	120'-0"	54'-0"	51'-0"	60'-0"	49'-0"	LENGTH	
2, 3, 4, 5	SIZE	16"x 1 1/16"	16"x 1 1/2"		16"x 1 1/2"		16"x 1 1/2"		16"x 1 1/16"	16"x 1 1/8"	16"x 1 1/2"	16"x 1 1/8"	16"x 1 1/16"	16"x 1 1/16"	16"x 1 1/2"	16"x 1 1/16"	22"x 1 1/8"	22"x 2"	22"x 2 1/2"	22"x 2"	22"x 1 1/2"	22"x 1 1/4"	22"x 1 1/2"	22"x 2"	22"x 1 1/2"	22"x 1 1/8"	16"x 1 1/16"		16"x 1"		16"x 1 1/16"		16"x 1 1/16"	16"x 1 1/16"	—	—	—	—	—	SIZE	2, 3, 4, 5
2	LENGTH	25'-5 5/16"	20'-0"		62'-0"	18'-0"		30'-0"	41'-3"	18'-0"	38'-0"	18'-0"	34'-3 1/2"	29'-6 3/8"	62'-0"	30'-0"	14'-0"	18'-0"	20'-0"	14'-0"	16'-0"	14'-0"	14'-0"	14'-0"	14'-0"	14'-0"	49'-5 5/16"	48'-0"	58'-0"		145'-9 5/16"		121'-6 1/2"	118'-0"	57'-3 5/8"	56'-8 1/2"	54'-3"	48'-4 1/2"	LENGTH	2
3	LENGTH	"	"		"	"		"	41'-6"	"	"	"	36'-1 1/2"	29'-6 3/8"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"		146'-5 5/8"		121'-6 1/2"	118'-11 1/2"	57'-6 1/2"	56'-6 3/8"	54'-5 1/2"	48'-7"	LENGTH	3
4	LENGTH	"	"		"	"		"	41'-9"	"	"	"	35'-5 1/2"	29'-9 1/2"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"		147'-2 1/4"		121'-7 7/16"	119'-5 1/2"	57'-9"	56'-9 3/8"	54'-8 1/2"	48'-9 1/2"	LENGTH	4
5	LENGTH	"	"		"	"		"	42'-0"	"	"	"	36'-0"	30'-0"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"		146'-0"		122'-0"	120'-0"	58'-0"	57'-0"	55'-0"	49'-0"	LENGTH	5



FLANGE BUTT WELDS

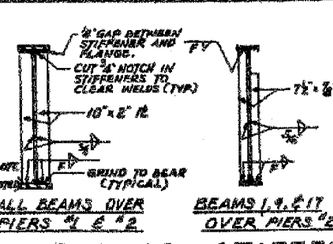
NOTES: ALL WELDS SHALL BE MADE BY THE SUBMERGED ARC WELDING METHOD.



INTERMEDIATE STIFFENERS

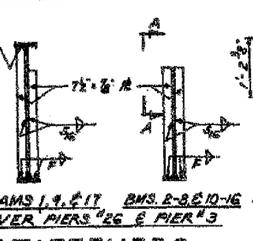
SCALE: 1/4" = 1'-0"

INTERMEDIATE STIFFENERS WITH CROSSFRAME CONNECTIONS ARE ON SKEW FOR BEAMS 1 TO 4 BETWEEN FIELD SPLICES #2 AND #4. FOR DETAILS SEE FRAMING PLANS AND SHEET #16



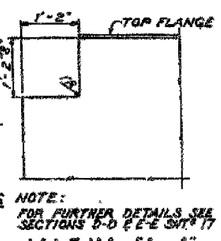
BEARING STIFFENERS

SCALE: 1/4" = 1'-0"



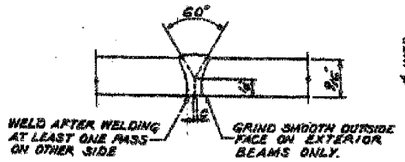
VIEW "A-A"

SCALE: 1/4" = 1'-0"

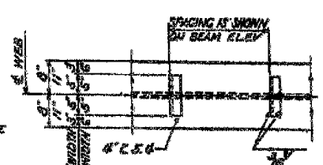


NOTES:

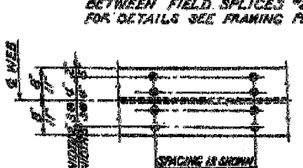
ALL LONGITUDINAL DIMENSIONS ARE HORIZONTAL AND TAKEN ALONG THE BOTTOM OF WEB PLATE.
FOR STIFFENER SPACING SEE FRAMING PLANS.
FOR CAMBER DIAGRAM SEE SHEET #16
FOR SPLICE DETAILS SEE SHEET #15
FOR CROSSFRAME DETAILS AND ADDITIONAL DETAILS SEE SHTS. # 17 & 18
ALL STIFFENERS TO CONFORM TO A.S.T.M. A 373 STEEL.



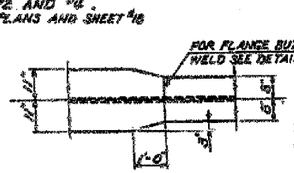
WEB BUTT WELD



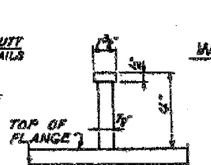
CHANNEL SHEAR



ALTERNATE STUD WELD



FLANGE



STUD DETAIL

WELD SIZE "F" TABLE

FLANGE & WEB THICKNESS	WELD SIZE "F"
5/16 THRU 1 1/2"	5/16"
1 5/8" THRU 2 1/4"	3/8"
2 1/2" THRU 4"	1/2"

CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING

SOUTH ROUTE SUPERHIGHWAY
ELEVATED HIGHWAY
STEWART AVE. TO CANAL ST.
SECTION 9-2424.5-3H

Sheet 14 of 45

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
DAN RYAN ELEVATED BRIDGE
BEARING REPLACEMENT & STEEL REPAIR
EXISTING PLAN INFORMATION
SN 016-1116

SCALE: NTS
DRAWN BY: LAM
DATE: 5/18/2007
CHECKED BY: BLU

BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
Chicago, Illinois
312.228.0100
www.bbandainc.com

FOR INFORMATION ONLY

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