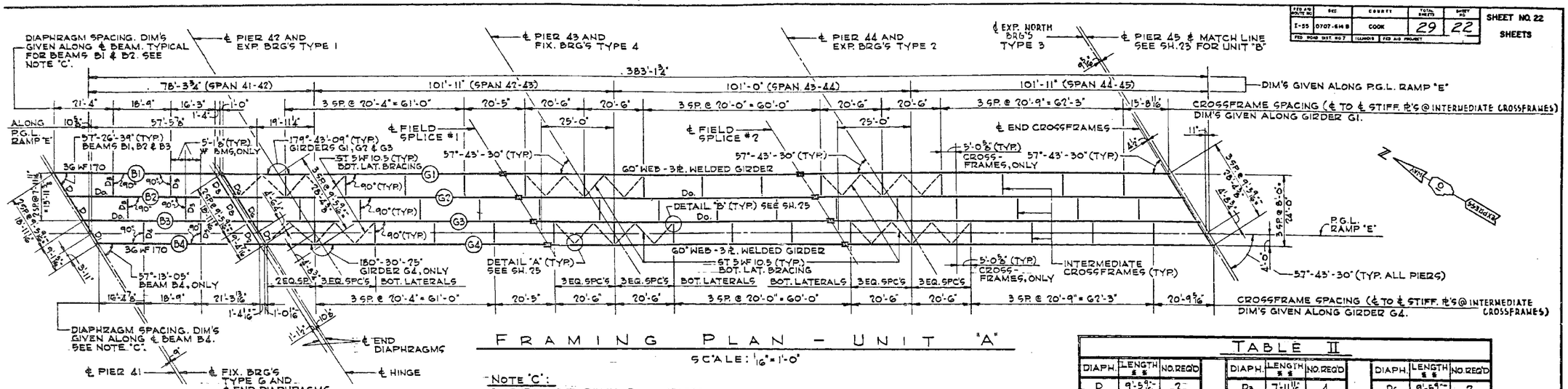
FED. AID ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
I-55	0707-6M B	COOK	29	22
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 22 SHEETS



FRAMING PLAN - UNIT "A"

SCALE: 1/16" = 1'-0"

NOTE 'C':
DIAPHRAGMS D, D1 ——— 10 WF 33
DIAPHRAGMS D2, D6, D7, D8 ——— 12 WF 40
DIAPHRAGMS D3, D4, D5 ——— 16 WF 36
FOR DIAPHRAGM LENGTHS, SEE "TABLE II".

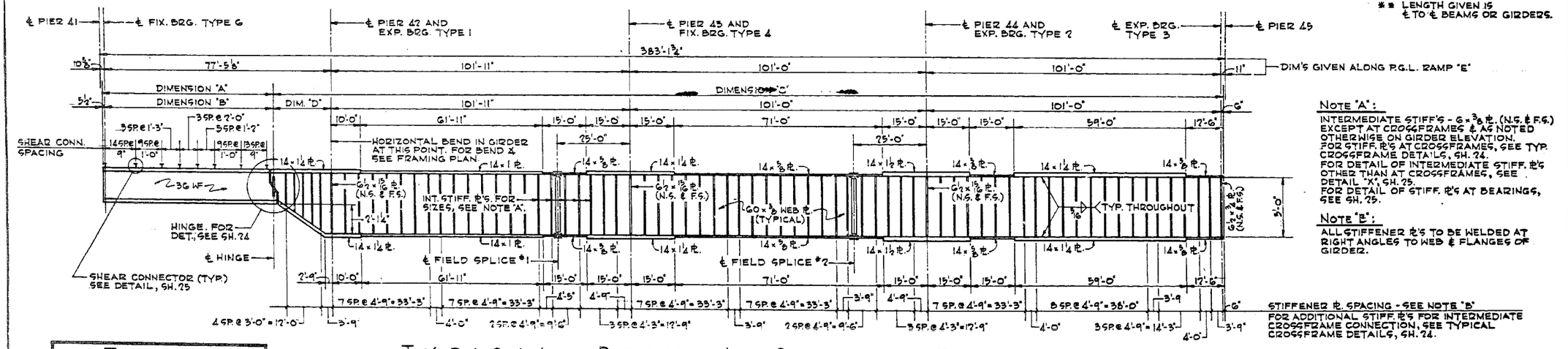
TABLE II

DIAPH.	LENGTH **	NO. REQ'D
D	9'-5 9/16"	2
D1	9'-1 3/16"	1
D2	9'-4 3/8"	1

DIAPH.	LENGTH **	NO. REQ'D
D3	7'-11 11/16"	4
D4	7'-8 15/16"	1
D5	7'-9 11/16"	1

DIAPH.	LENGTH **	NO. REQ'D
D6	9'-5 9/16"	2
D7	9'-4 1/2"	1
D8	9'-5 9/16"	2

** LENGTH GIVEN IS ℄ TO ℄ BEAMS OR GIRDERS.



TYPICAL BEAM & GIRDER ELEVATION

FOR DIMENSIONS NOT GIVEN, SEE "TABLE I"

SCALE: 1/16" = 1'-0" HORIZ. & ¼" = 1'-0" VERT.

TABLE I

BEAM OR GIRDER	DIMENSIONS ** "A"	"B"	"C"	"D"
B1, B2, B3	58'-1½"	57'-5"	—	—
B4	58'-5¾"	57'-9¾"	—	—
G1, G2, G3	—	—	324'-5"	70'-0"
G4	—	—	324'-5 5/8"	70'-0 3/8"

** GIVEN ALONG ℄ BEAM OR GIRDER

TABLE OF MOMENTS, REACTIONS & SHEARS - TYP. INTERIOR BEAMS & GIRDERS

	MOMENTS @ CENTER OF SIMPLE SPAN	SHEARS PIER 41 & HINGE
DEAD LOAD	375	25.8
LIVE LOAD	556	43.9
IMPACT	192	12.0
SUPERIMPOSED DEAD LOAD	87	6.0
TOTAL	1170	87.7

	MOMENTS						REACTIONS			
	PIER 42	.5 SPAN 42-43	PIER 43	.5 SPAN 43-44	PIER 44	.5 SPAN 44-45	PIER 42	PIER 43	PIER 44	PIER 45
DEAD LOAD	-933	606	-1037	385	-1322	970	122	122	140	49
LIVE LOAD	-875	897	-829	651	-838	924	52	76	76	47
IMPACT	-263	198	-183	144	-185	204	16	17	17	10
TOTAL	-2071	1701	-2049	1180	-23	2098	190	215	233	106

MOMENTS ARE IN FT. - KIPS.
REACTIONS & SHEARS ARE IN KIPS.

NOTE 'A':
INTERMEDIATE STIFF'S - 6 x ⅜ ℞. (N.S. & F.S.) EXCEPT AT CROSSFRAMES & AS NOTED OTHERWISE ON GIRDER ELEVATION.
FOR STIFF. ℞'S AT CROSSFRAMES, SEE TYP. CROSSFRAME DETAILS, SH. 24.
FOR DETAIL OF INTERMEDIATE STIFF. ℞'S OTHER THAN AT CROSSFRAMES, SEE DETAIL 'X', SH. 25.
FOR DETAIL OF STIFF. ℞'S AT BEARINGS, SEE SH. 25.

NOTE 'B':
ALL STIFFENER ℞'S TO BE WELDED AT RIGHT ANGLES TO WEB & FLANGES OF GIRDER.

STIFFENER ℞. SPACING - SEE NOTE 'B'
FOR ADDITIONAL STIFF. ℞'S FOR INTERMEDIATE CROSSFRAME CONNECTION, SEE TYPICAL CROSSFRAME DETAILS, SH. 24.

NOTES:
FOR STRUCTURAL STEEL DESIGNATION, SEE SH. 3.
FOR DIAPHRAGM & CROSSFRAME DETAILS, SEE SH. 24.
FOR TOP OF WF BEAM OR GIRDER WEB ℞. ELEVATIONS, SEE SH. 25.
FOR SHOP & FIELD SPLICE DETAILS, SEE SH. 24 & 25.
FOR BOTTOM LATERAL BRACING CONNECTION DETAILS 'A' & 'B', SEE SH. 25.
FOR DETAIL OF CONDUIT SUPPORT BRACKETS, SEE SH. 28

BILL OF MATERIAL *

ITEM	UNIT	QUANTITY
FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	749,200

* INCLUDES 5555 POUNDS FOR SHEAR CONNECTOR STUDS AND 4257 POUNDS FOR EXPANSION DEVICES AND ALL STRUCT. STEEL SHOWN ON THIS SH. & SH'S 23, 24 & 25

DE LEUW, CATHER & CO. ENGINEERS
DESIGNED BY Y. N. HUO
DRAWN BY L. A. CHALIKIS
CHECKED
IN CHARGE E. S. MARTINS
APPROVED L. N. RIAN

ILLINOIS DIVISION OF HIGHWAYS
SOUTHWEST EXPRESSWAY

RAMP E OVER DES PLAINES RIVER

FRAMING PLAN & GIRDER DETAILS
UNIT A

SCALE: AS NOTED — DATE 8-20-63

benesch engineers · scientists · planners
Alfred Benesch & Company
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450 Job No. 10093

FOR INFORMATION ONLY

FILE NAME =	USER NAME = tjanicke	DESIGNED - FSM	REVISED -
		CHECKED - RMM	REVISED -
0161026_60J16_X10_existplan10.dgn	PLOT SCALE =	DRAWN - FSM	REVISED -
	PLOT DATE = 12/20/2013	CHECKED - RMM	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS – UNIT A FRAMING PLAN
STRUCTURE NO. 016-1026
SHEET NO. SFX10 OF SFX30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	2013-038B-R	COOK	821	570
		CONTRACT NO. 60J16		
	ILLINOIS	FED. AID PROJECT		

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