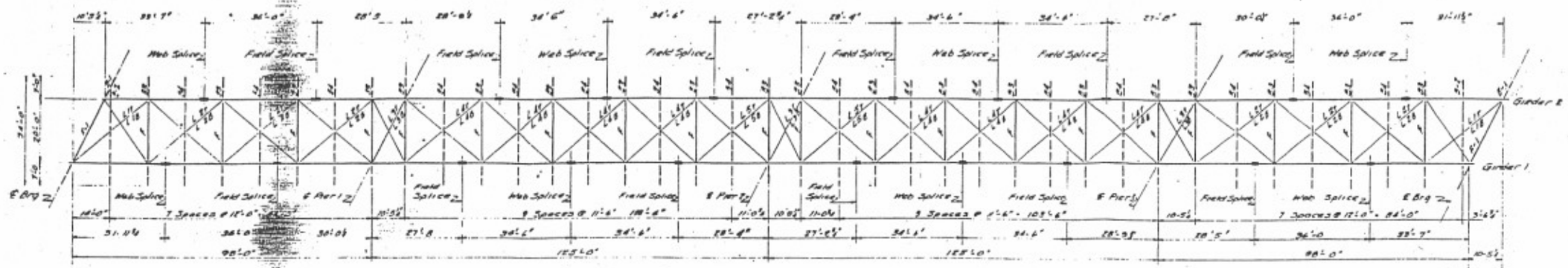
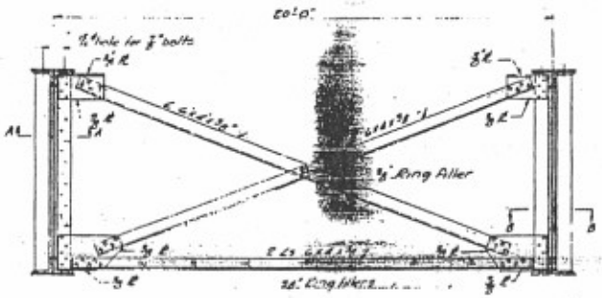
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

SBI 31	10-B-1	BROWN SCHUYLER	17	7

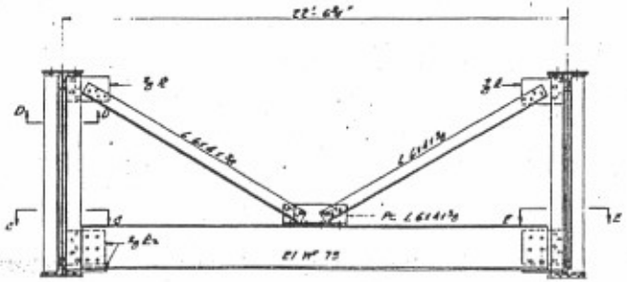
SHEET NO 4
11 SHEETS



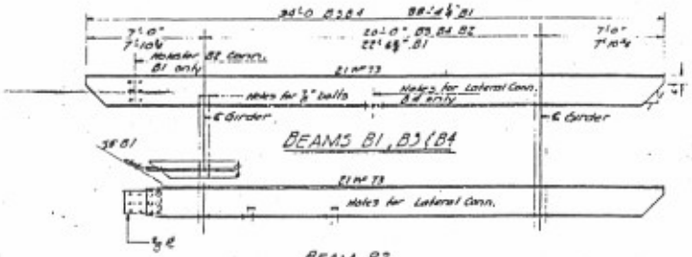
PLAN GIRDER LAYOUT



DETAIL of FRAME F

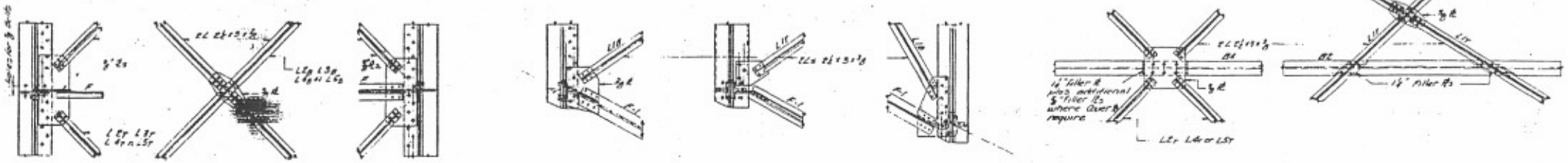


DETAIL of FRAME F-1



BEAMS B1, B3 & B4

BEAM B2



SECTION A-A

SECTION LATERAL CONN.
LE_B $L3_T$ $L4_B$ LE_B

SECTION B-B

SECTION C-C

SECTION D-D

SECTION E-E

TOP LATERAL CONNECTION
LE_T $L4_T$ $L5_T$
$L3_T$ same as $L3_B$

TOP LATERAL CONNECTION
$L1_T$

DESIGNED	
CHECKED	
DRAWN	RAK
CHECKED	

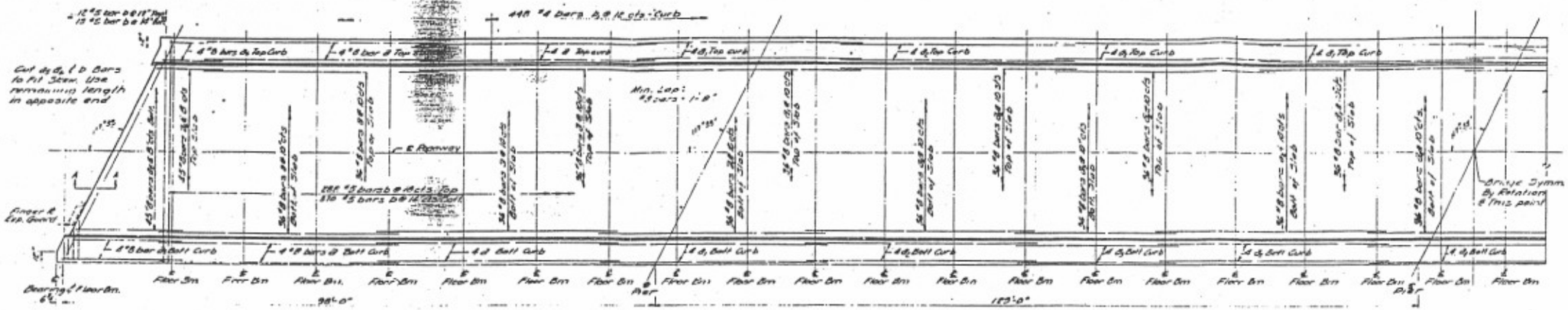
JAN. 31 1958
EXAMINED
ENGINEER OF BRIDGE DESIGN
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

GIRDER LAYOUT & FRAMING DETAILS
SBI Rt 31 SECTION 10-B-1
BROWN - SCHUYLER CO.
STATION 436+70

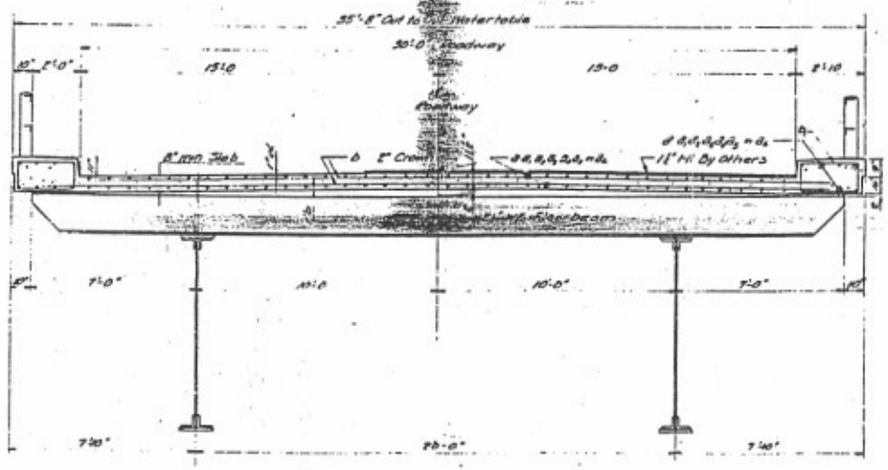
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ARE 31	10-B-1	Brown Schuyler	17	6

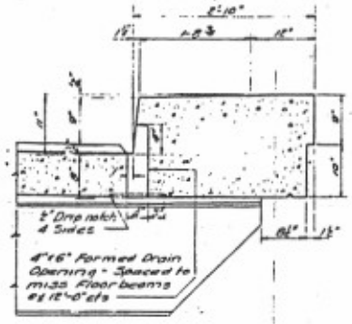
SHEET NO 3
11 SHEETS



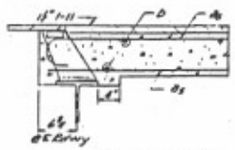
HALF PLAN



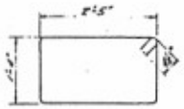
CROSS - SECTION



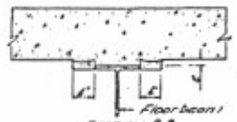
CURB DETAIL



SECTION A-A



BAR b_1

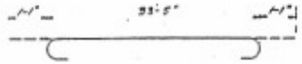


SECTION B-B

FILLET DETAIL

METHOD of DETERMINING FILLET HEIGHT "t"

Elevations of the top flanges of each Floorbeam shall be taken after all Structural Steel has been erected. From these elevations subtract the increment of deflection for these points determined from the D.L. deflection diagram. The elevations so attained subtracted from the theoretical grade elevations, minus 11½" equals the fillet height "t" at the curb. The fillet height @ ℄ Roadway equals 2" + 2" Crown



BAR a_6

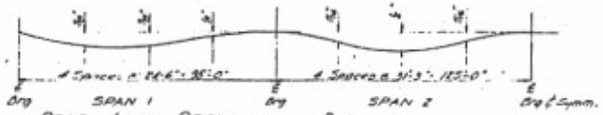
SUPERSTRUCTURE
BILL of MATERIAL

Bar	No.	Size	Length	Shape
a	352	#8	37'-9"	—
a_1	264	#8	33'-9"	—
a_2	352	#8	36'-8"	—
a_3	88	#8	24'-9"	—
a_4	44	#8	34'-3"	—
a_5	53	#8	21'-6"	—
a_6	53	#8	35'-7"	—
b	685	#5	39'-0"	—
b_1	876	#4	8'-3"	⬭
Class X Concrete			Cu Yd.	486.5
Reinforcement Bars			Lb.	141180
Structural Steel			Lb.	627,290

CONCRETE POURING SCHEDULE

Number of Each Area indicate its order of Pour

Each Pour contains approx. 70 Cu Yd of Conc. and is ± 64'-0" in length.



DEAD LOAD DEFLECTION DIAGRAM

DESIGNED	Robert J. Kuerst
CHECKED	[signature]
DRAWN	KMK
CHECKED	[signature]

EXAMINED Jan. 31 1958
[signature]
Engineer of Bridge Design
PASSED [signature]
Engineer of Bridge
APPROVED [signature]
Chief Engineer

SPANS 1, 2, 3, & 4
DETAILS of SLAB
S.B.I. RT. 31 SECTION 10-B-1
BROWN-SCHUYLER CO.
STATION 436+70

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

FEDERAL NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. 31 P.R.	10-B-1	Brown, Schuyler Co.	17	5

SHEET NO. 5
17 SHEETS

BORING NO. 1

Boring located at Station 433+82 on centerline.

Elevation	Blows per 6"	Elevation	Blows per 6"	
Surface of Ground. 450.5				
Stiff brown silty clay. Qu=1.72	3	448.0, 447.0, 446.5	425.5, 424.5	7
Loose brown fine silty sand.	2	445.5, 444.5, 444.0		Loose brown sand.
Qu=1.15	2	443.0, 442.0	420.5, 419.5	6
Stiff mottled sandy silty clay. Qu=1.38	2	440.5, 439.5		
Qu=1.48	4	438.0, 437.0, 436.5	415.5, 414.5	9
Stiff mottled very sandy silty clay. Qu=1.30	5	435.5, 434.5, 434.0	411.5	
Loose brown sand.	5	433.0, 432.0	410.5, 409.5	37
	4	430.5, 429.5	407.6	Dense brown gravelly sand.
				Hard gray shale.
			403.5	

Note: No Stability Problem

BORING NO. 2

Boring located at Station 434+82 on centerline.

Elevation	Blows per 6"	Elevation	Blows per 6"	
Surface of Ground. 450.8				
Stiff brown silty clay. Qu=1.96	4	448.5, 447.5	426.0, 425.0	6
Qu=3.42	5	446.5, 446.0, 445.0		Loose brown poorly graded sand.
Very stiff brown sandy clay. Qu=3.02	5	443.5, 442.5, 442.0	421.0, 420.0	7
Stiff brown silty sandy clay. Qu=1.72	5	441.0, 440.0, 439.5		
Very stiff brown silty sandy clay. Qu=2.04	4	438.5, 437.5, 437.0	416.0, 415.0, 414.0	9
	6	436.0, 435.0	413.5, 412.5, 412.0	34 Dense brown poorly graded gravelly sand.
Loose brown poorly graded sand.			411.0, 410.0	86 Gray shale.
	7	431.0, 430.0		
			404.0	

BORING NO. 3

Boring located at Station 434+18 on centerline.

Elevation	Blows per 6"	Elevation	Blows per 6"	
Surface of Ground. 448.2				
		426.5, 425.5, 424.5, 423.6		Medium gray slaty silt.
			3	Stiff gray slaty sandy silt. Qu=1.06
Stiff brown silty clay. Qu=1.06	2	445.5, 444.5, 444.0		
Stiff brown sandy silty clay. Qu=0.82	2	443.0, 442.0, 441.5		Gray shale.
	3	440.5, 439.5	418.0	
Loose brown silty sand.	4	438.0, 437.0		
	2	435.5, 434.5, 434.0		
Qu=0.90	2	433.0, 432.0		
Medium gray slaty silt. Qu=0.96	2	430.5, 429.5		
Qu=0.90	2	428.0, 427.0		

BORING NO. 4

Boring located at Station 436+33, 9 Ft Rt Centerline.

Elevation	Blows per 6"	Elevation	Blows per 6"	
Surface of Ground. 450.4				
		429.0		Medium dark blue-gray silty clay.
		428.0, 427.0	24	Medium coarse angular slaty gravel.
		426.1		
Stiff brown silty sandy clay. Qu=1.64	4	448.0, 447.0, 446.5		
Loose mottled slaty sandy silt.	5	445.5, 444.5, 444.0		Gray shale.
Stiff mottled silty clay. Qu=1.48	3	443.0, 442.0, 441.5	420.5	
Medium mottled very silty clay. Qu=0.98	2	440.5, 439.5, 439.0		
Stiff dark blue-gray silty clay. Qu=1.06	3	438.0, 437.0		
Qu=0.65	2	436.0, 435.5, 434.5		
Medium dark blue-gray silty clay. Qu=0.74	2	433.0, 432.0		
Qu=0.74	2	428.5, 428.0		

BORING NO. 5

Boring located at Station 436+33, 9 Ft Lt Centerline.

Elevation	Blows per 6"	Elevation	Blows per 6"
Surface of Ground. 452.2			
Stiff mottled very silty clay. Qu=1.96	5	449.5, 448.5	
Qu=3.19	7	447.5, 447.0, 446.0	
Very stiff mottled very silty clay. Qu=3.42	8	444.5, 443.5	
Qu=3.68	10	442.0, 441.0	
		439.9	
Thin bedded brown sandstone.	Core		
		436.0	

Note: N = Blows per foot of penetration of sampling spoon.
Hammer Weight = 350 Lbs. Drop = 12 inches.
Qu = Unconfined compressive strength in tons per square foot

DESIGNED	Robert A. Kowal	JAN. 31 1958
CHECKED		EXAMINED
DRAWN	KK	PASSED
CHECKED		APPROVED

BORINGS
S.B.I. Rt. 31 Sec. 10-B-1
Brown-Schuyler County
Station 436+70