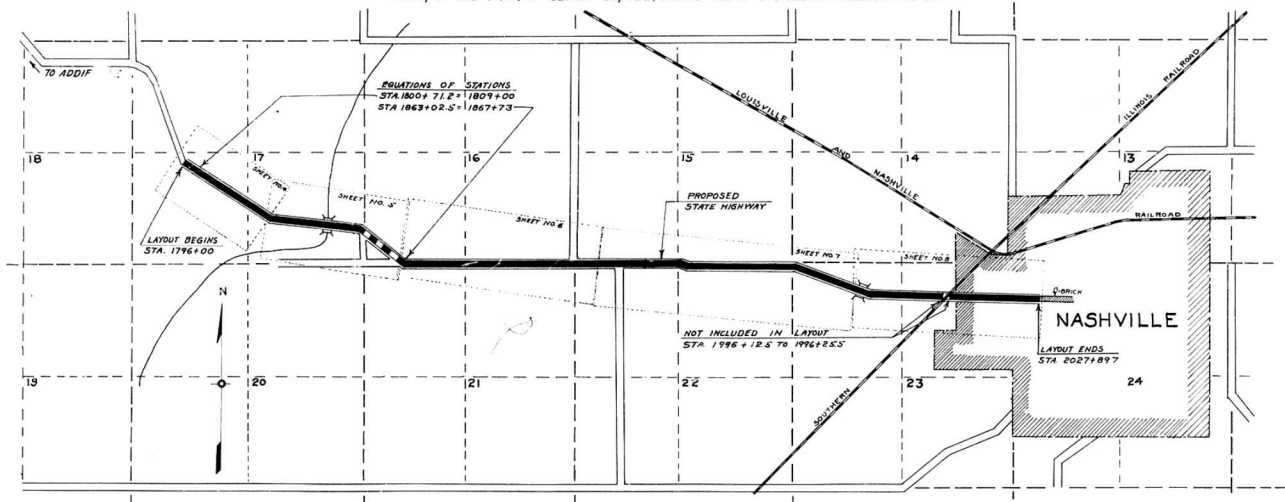


"	5	"	"	1796+00	1830+00
"	6	"	"	1830+00	1860+00
"	7	"	"	1860+00	1920+00
"	8	"	"	1920+00	1980+00
"	9	"	"	1980+00	2027+89.7
"	9-21	INCLUSIVE	CROSS SECTIONS		
"	22	STANDARD	CULVERT DESIGN	NO. 618-3, 828-1, 752-1	
"	22	SPECIAL	"	STA. (1846+180, 1859+00, 1907+00)	
"	23	"	"	" (1851+00, (1926+37, 1966+45), 1977+76)	
"	23	STANDARD	NO. 84-5		
"	24	SPECIAL	BRIDGE DESIGN	STA. 1844+23 (SHEET 1 & 2)	
"	24	"	"	" 1984+37	
"	25	STANDARDS	NO. 846, 847, 803		

ROUTE 15 SECTION 7 WASHINGTON COUNTY
 FROM A POINT NEAR THE N.E. CORNER OF THE N.W. 1/4 OF THE S.W. 1/4 OF SECTION 17, T.2S. R.3W. OF THE 3RD PM. TO A POINT NEAR THE CENTER OF THE N.W. 1/4 OF THE N.W. 1/4 OF SECTION 24, T.2S. R.3W. OF THE 3RD PM. ALL IN WASHINGTON COUNTY.

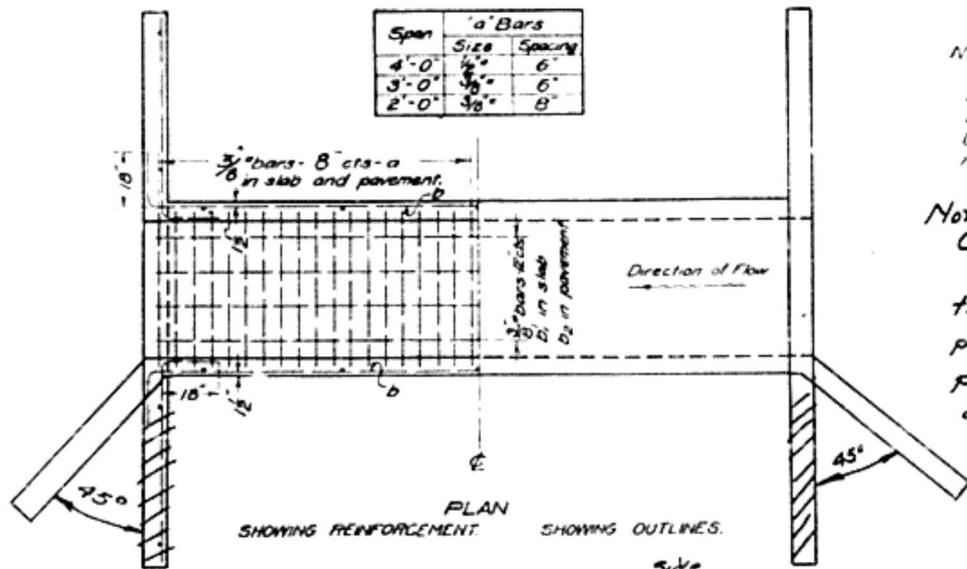
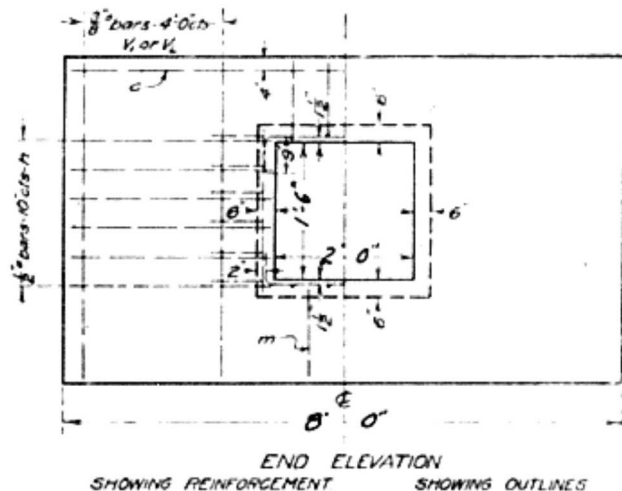
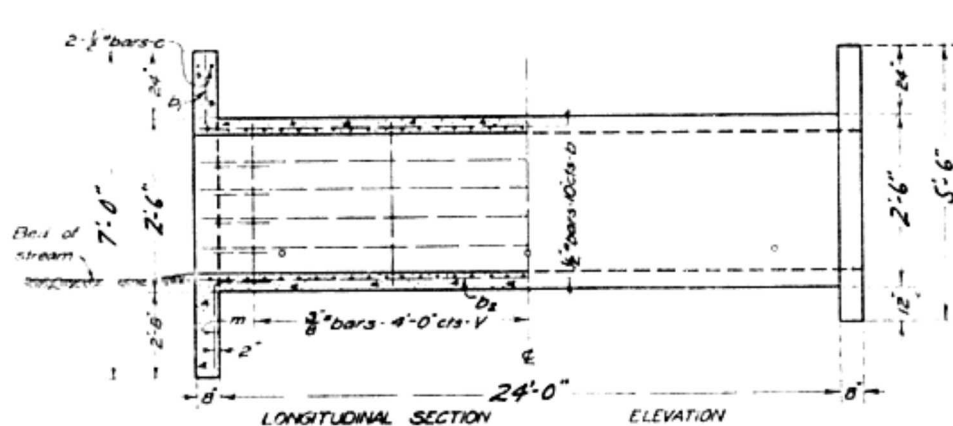


LAYOUT
 SCALE: 4 INCHES = 1 MILE
 NET LENGTH OF LAYOUT = 21,823.5 FEET = 4.133 MILES

STATE OF ILLINOIS	
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS	
DIVISION OF HIGHWAYS	
SUBMITTED:	JAN. 12, 1921
EXAMINED:	C.M. SLAYMAKER
PASSED:	Wm. H. Brown
APPROVED:	Frank W. Blunt
APPROVED:	W. E. Blunt
APPROVED:	W. E. Blunt
APPROVED:	W. E. Blunt

STATE OF ILLINOIS
STATE HIGHWAY DEPARTMENT
REINFORCED CONCRETE BOX CULVERT

BOND ISSUE ROUTE NO.	COUNTY	SEC.	TOTAL SHEETS	SHEET NO.
15	WASHINGTON	7	25	22
Sta. _____ to Sta. _____				



Span	"a" Bars	
	Size	Spacing
4'-0"	3/8"	6"
3'-0"	3/8"	6"
2'-0"	3/8"	8"

Note:
Fill over box should be limited to 4'-0"
Maximum Clearance - 4'-0"
Use "m" bars in downstream headwall only.

Note:-
Culvert identical with 618-13 Standard except that head walls toward proposed concrete pavement be skewed at 45° as per sketch.

BILL OF MATERIAL

Bars	No	Size	Length
v	14	3/8"	2'-4"
v ₁	4	3/8"	6'-6"
v ₂	4	3/8"	5'-0"
n	12	3/8"	4'-6"
a	74	3/8"	4'-0"
b	12	3/8"	15'-0"
b ₁	4	3/8"	15'-0"
b ₂	4	3/8"	13'-6"
c	4	3/8"	7'-6"
m	2	3/8"	5'-0"
Steel - Lbs			470
Concrete - Cu Yds			6.3

Class A concrete to be used throughout
Proportions 1-24-4

Special Culvert
Washington Co.
Sec. 7.
Route = 15.

Stations
1846+80 R
1859+00 R
1907+00 L

STANDARD	COMPUTED	W. J. ...
	CHECKED	H. J. ...
	DRAWN	...
	CHECKED	...
SPECIAL	ASSEMBLED	...
	CHECKED	...

APPROVED
F. J. Sheets
ENGINEER OF DESIGN

PASSED
F. J. Sheets
ENGINEER OF DESIGN

Layout Sketch

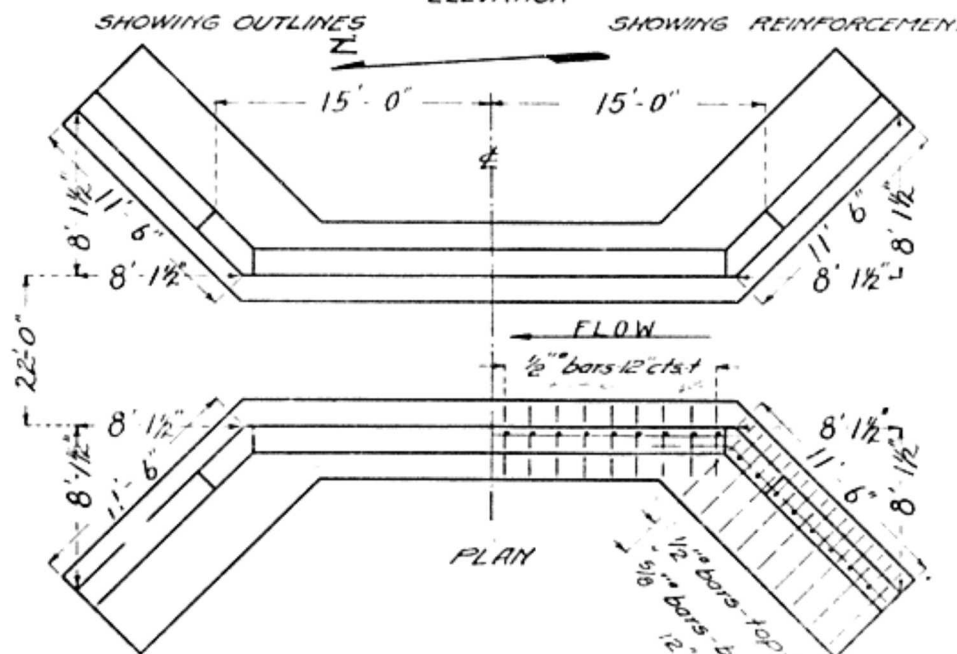
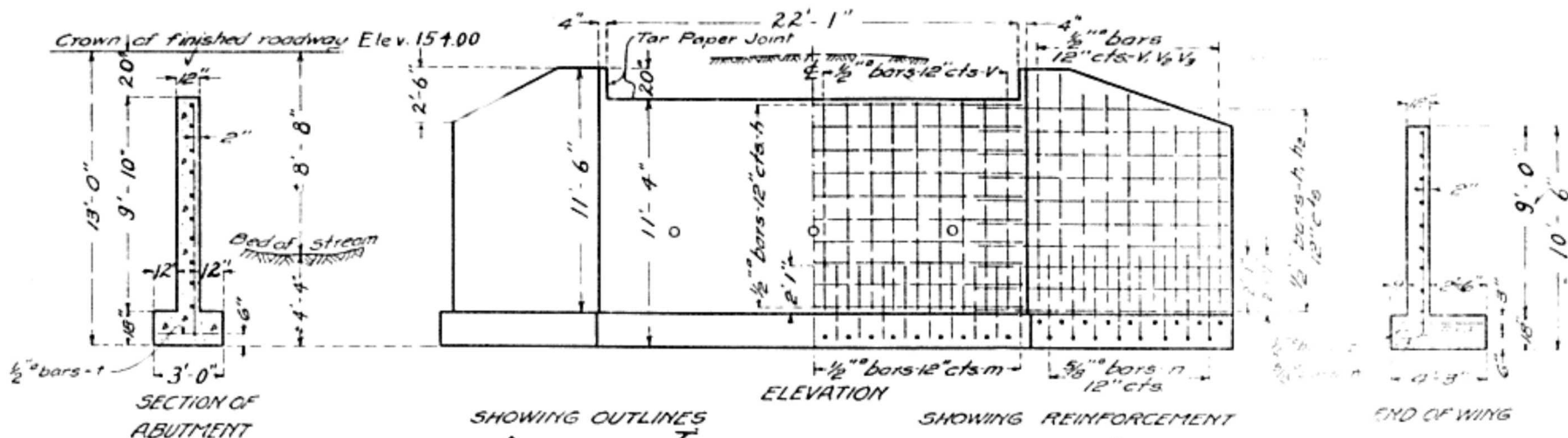
N.W. 18 Elm 31 R. Sta. 1847+50

Elevation 154.06

STATE OF ILLINOIS
STATE HIGHWAY DEPARTMENT
R. C. ABUTMENTS FOR SLAB BRIDGE
HEIGHT OVER ALL 13 FT.

BOND ISSUE ROUTE NO.	COUNTY	SEC.	TOTAL SHEETS	SHEET NO.
15	WASHINGTON	7	25	24
Sta. _____		to Sta. _____		

Sheet No. 2
2 sheets



BILL OF MATERIAL

Qty	Size	Length
44	1/2"	9'-6"
28	1/2"	10'-6"
8	1/2"	9'-6"
8	1/2"	8'-6"
20	5/8"	22'-6"
30	5/8"	13'-0"
44	1/2"	3'-0"
44	5/8"	3'-0"
44	1/2"	2'-9"
44	1/2"	4'-6"

Steel Lbs. 2180
Concrete Cu Yds. 52.8

Class A concrete to be used throughout.
Proportions 1 2 4

STATION 1849+23
STATE BOND ISSUE ROAD
SECTION 7 ROUTE 15
WASHINGTON CO.

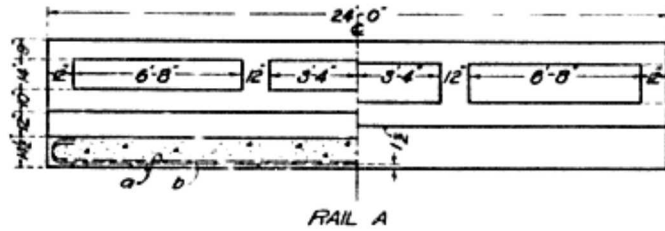
STANDARD CHECKED
DRAWN
SPECIAL CHECKED
EXAMINED
G. F. Burch
BRIDGE ENGINEER
March 8, 1921
Edward J. Shaw
STATE HIGHWAY ENGINEER

PASSED
Frank J. Shurt
ENGINEER OF DESIGN

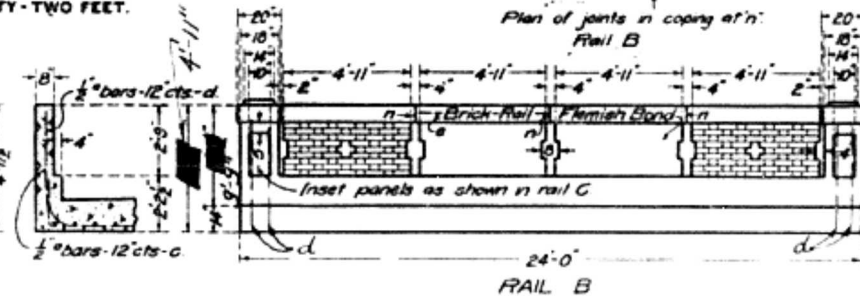
BOND ISSUE ROUTE NO.	COUNTY	SEC.	TOTAL SHEETS	SHEET NO.
15	WASHINGTON	7	25	24
Sta. _____ to Sta. _____				

STATE OF ILLINOIS
STATE HIGHWAY DEPARTMENT
REINFORCED CONCRETE SLAB
SPAN, TWENTY-TWO FEET.

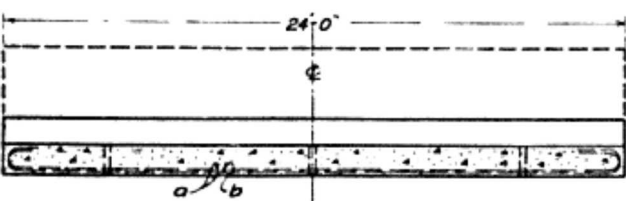
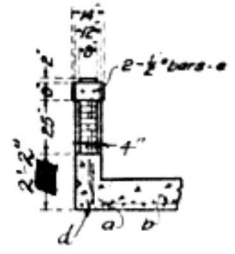
SHEET NO. 1
2474928



RAIL A



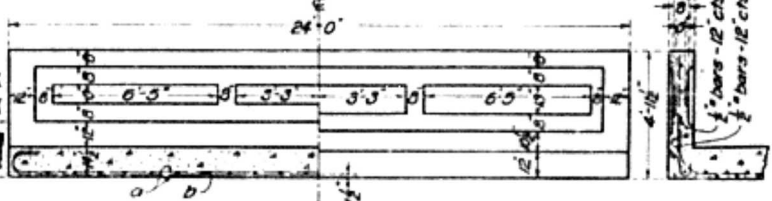
RAIL B



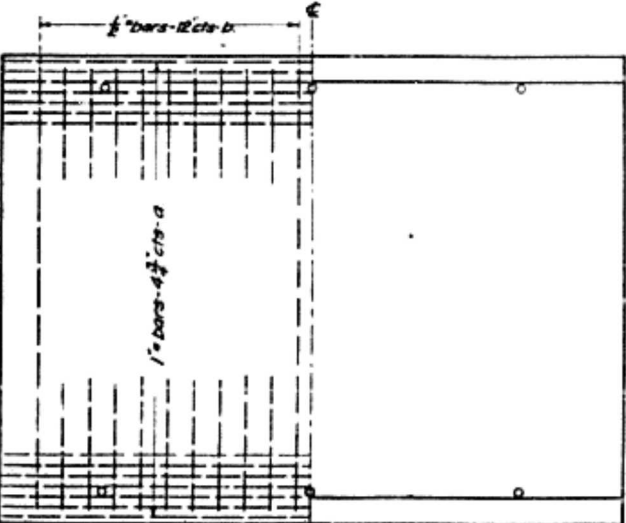
ELEVATION



CROSS SECTION



RAIL C



PLAN

BILL OF MATERIAL

	16 FT. ROADWAY				18 FT. ROADWAY				20 FT. ROADWAY				24 FT. ROADWAY				30 FT. ROADWAY				
	Bars	No.	Size	Length	Bars	No.	Size	Length	Bars	No.	Size	Length	Bars	No.	Size	Length	Bars	No.	Size	Length	
RAIL A	a	45	1"	26'-0"	a	50	1"	26'-0"	a	55	1"	26'-0"	a	66	1"	26'-0"	a	81	1"	26'-0"	
	b	22	3/4"	19'-0"	b	22	3/4"	21'-0"	b	22	3/4"	23'-0"	b	44	3/4"	15'-0"	b	44	3/4"	18'-0"	
	c	6	3/4"	23'-0"	c	6	3/4"	23'-0"	c	6	3/4"	23'-0"	c	6	3/4"	23'-0"	c	6	3/4"	23'-0"	
	d	44	3/4"	5'-0"	d	44	3/4"	5'-0"	d	44	3/4"	5'-0"	d	44	3/4"	5'-0"	d	44	3/4"	5'-0"	
	Steel-Lbs.	4670				5150				5630				6720				8160			
	Concrete-Cu Yds.	25.8				27.8				31.21				34.7				41.8			
RAIL B	a	45	1"	26'-0"	a	50	1"	26'-0"	a	55	1"	26'-0"	a	66	1"	26'-0"	a	81	1"	26'-0"	
	b	22	3/4"	19'-0"	b	22	3/4"	21'-0"	b	22	3/4"	23'-0"	b	44	3/4"	15'-0"	b	44	3/4"	18'-0"	
	e	16	3/4"	5'-0"	e	16	3/4"	5'-0"	e	16	3/4"	5'-0"	e	16	3/4"	5'-0"	e	16	3/4"	5'-0"	
		Steel-Lbs.	4420				4900				5410				6480				7910		
	Concrete-Cu Yds.	24.0				26.8				27.8				32.2				40.1			
	Brick Rail-Cu Yds.	20				20				20				20				20			
RAIL C	a	45	1"	26'-0"	a	50	1"	26'-0"	a	55	1"	26'-0"	a	66	1"	26'-0"	a	81	1"	26'-0"	
	b	22	3/4"	19'-0"	b	22	3/4"	21'-0"	b	22	3/4"	23'-0"	b	44	3/4"	15'-0"	b	44	3/4"	18'-0"	
	c	6	3/4"	23'-0"	c	6	3/4"	23'-0"	c	6	3/4"	23'-0"	c	6	3/4"	23'-0"	c	6	3/4"	23'-0"	
	d	44	3/4"	5'-0"	d	44	3/4"	5'-0"	d	44	3/4"	5'-0"	d	44	3/4"	5'-0"	d	44	3/4"	5'-0"	
	Steel-Lbs.	4670				5150				5630				6720				8160			
	Concrete-Cu Yds.	25.8				27.8				30.2				34.8				41.7			

USE RAIL B , 20 FOOT ROADWAY

STATION 18+4+23
STATE BOND ISSUE ROAD
SECTION 7 ROUTE 15
WASHINGTON CO.

Class A concrete to be used throughout
Proportions 1 - 2 1/4 - 4

DESIGNED BY	Checked
ENGINEER	Checked
APPROVED BY	Checked
DATE	Checked

EXAMINED
H. F. Burch
STATE HIGHWAY ENGINEER

PASSED
Mark J. Sheets
ENGINEER OF DESIGN

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED
FEDERAL AID HIGHWAY

SET NO. 1
OF 2 SETS

FOR INDEX OF SHEETS SEE SHEET NO. 2

SBI ROUTE 15
 SECTIONS 7BR & 8BR-1
 BRIDGE DECK REPLACEMENT
 WASHINGTON COUNTY
 C-98-506-70

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
SBI 15	*	Washington	13	1
FED. ROAD DIST. NO. 1 ILLINOIS PROJECT				

P-98-388-69



SECTION 7BR
ENDS STA. 1847+95

SECTION 7BR INCLUDES THE REMOVAL OF THE EXISTING CONCRETE DECK AND REPLACEMENT WITH A PRECAST CONCRETE BRIDGE SLAB, 24' SPAN, STATION 1844+23

SECTION 7BR
BEGINS STA 1540+51

SECTION 8BR-1
BEGINS STA. 35+69

SECTION 8BR-1 INCLUDES THE REMOVAL OF THE EXISTING CONCRETE DECK AND REPLACEMENT WITH PRECAST PRESTRESSED CONCRETE DECK BEAMS, 32' SPAN, STATION 36+25

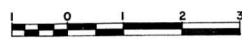
SECTION 8BR-1
ENDS STA. 36+81



NET LENGTH = 856 FEET = 0.162 MILE

LOCATION MAP

SCALE 1" = 1 MILE



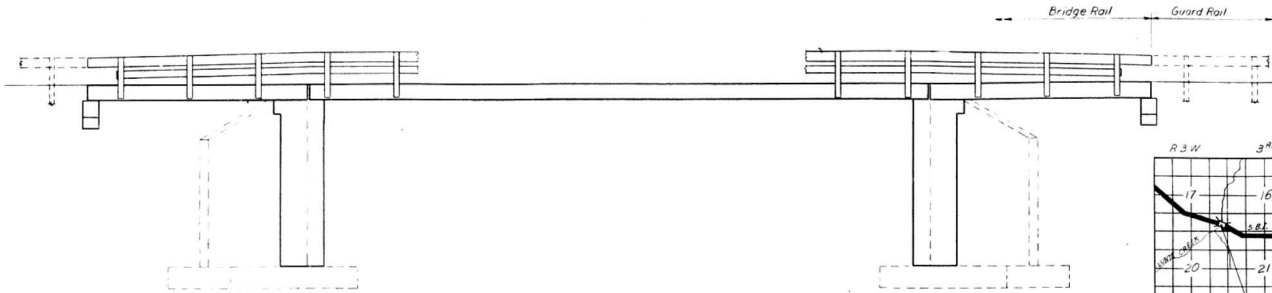
STATE OF ILLINOIS DEPARTMENT OF PUBLIC WORKS AND BUILDINGS DIVISION OF HIGHWAYS	
SUBMITTED	MAY 16 1968
EXAMINED	MAY 13 1968
PASSED	APR 11 1968
APPROVED	MAY 13 1968
APPROVED	APR 11 1968

CONTRACT NO.

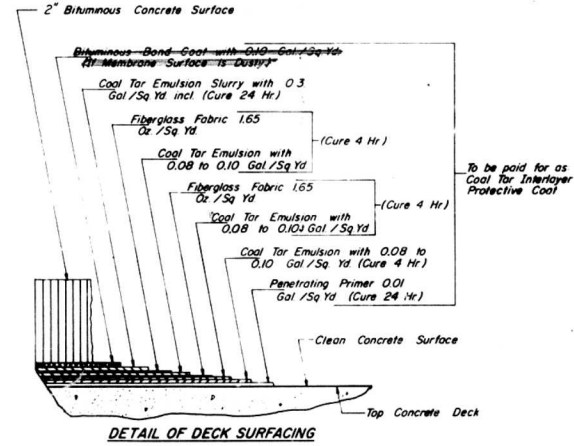
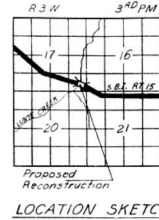
Built as S.B.I. RT15, Section 7, Sta. 1844+23, Year 1921
 Existing Structure R.C. Slab on Closed Abutments
 Superstructure 24'-0" long 2'-0" Wide
 Two Stage construction shall be used to maintain one lane of traffic at all times

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

DISTRICT	COUNTY	TOWNSHIP	SHEET NO.	TOTAL SHEETS
115	Washington	13	4	5



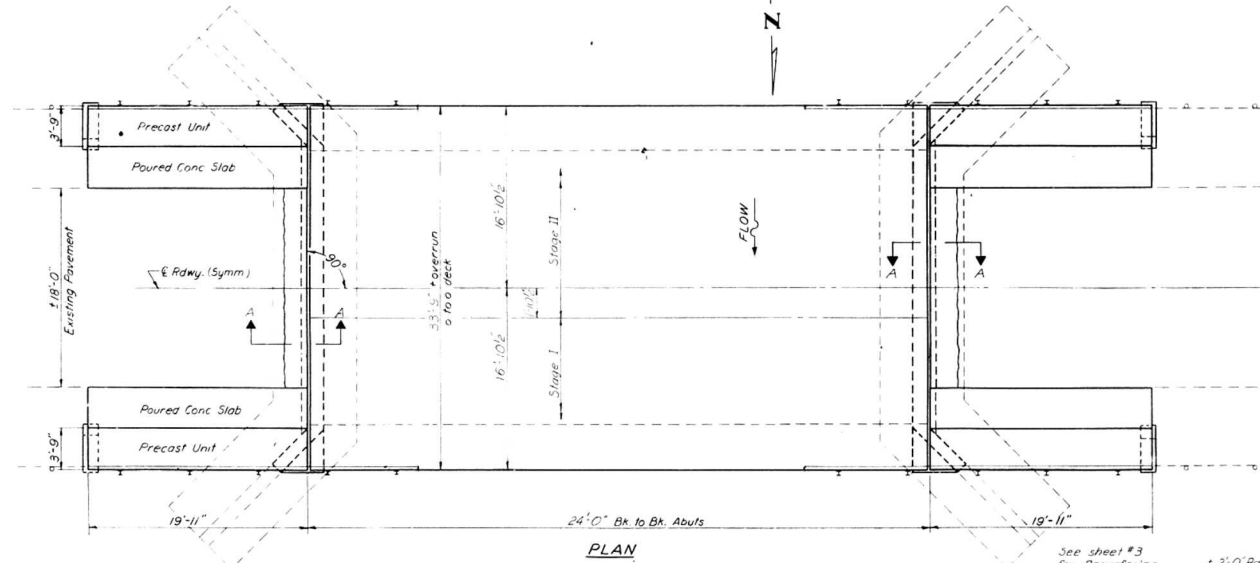
ELEVATION



DETAIL OF DECK SURFACING

GENERAL NOTES

All reinforcement bars shall be lapped 24 diameters unless otherwise shown.
 It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to construction and ordering of materials.
 Limits of Coal Tar Interlayer Protective Coat shall be back to back of abutments.
 Expansion bolts shall consist of self drilling expansion shields and 3/4" hooked bolts. Hooked bolts shall extend a minimum of 12" into new concrete unless otherwise shown.
 Shoulder transition to wingwall shaped with broken concrete. Cost incidental. Any excavation shall be incidental to Bridge Contract.



PLAN

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Portland Cement Concrete Pavement (10")	Sq Yds	36		36
Pavement Fabric	Sq Yds	36		36
Concrete Removal	Cu Yds		5	5
Expansion Bolts (3/4")	Each	52	92	144
Class X Concrete	Cu Yds		30.5	30.5
Precast Concrete Bridge Slab	Sq. Ft.	1103		1103
Pavement Removal & P.C.C. Replacement Type 100	Sq Yds			8
Steel Railing, Type W	Lin. Ft.	113		113
Reinforcement Bars	Lbs.		1080	1080
Removal of Existing Superstructures	Each		1	1
Coal Tar Interlayer Protective Coat	Sq Yds	90		90
Temporary Guard Rail	Lin. Ft.			24

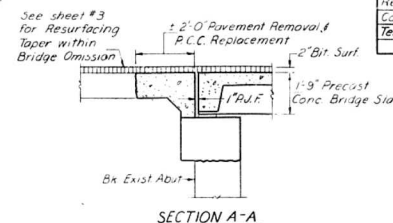
DESIGNED	EXAMINED
CHECKED	PASSED
DRAWN	APPROVED
CHECKED	

Oct 30 1969
 Carl E. [Signature]

DESIGN STRESSES

FIELD UNITS	PRECAST UNIT
$f_c = 1400$ psi (super)	$f_c = 4,500$ psi
$f_c = 1000$ psi (sub)	$f_c = 1800$ psi
$f_s = 20,000$ psi (reinf)	$f_s = 20,000$ psi
$v_c = 75$ psi (floating)	$n = 8$
$n = 10$	

LIVE LOAD RATING = HS 20-44



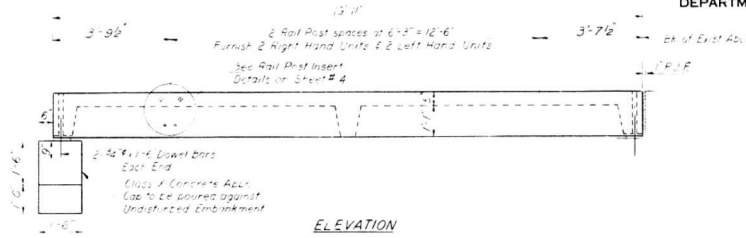
SECTION A-A

GENERAL PLAN & ELEVATION
 OVER JUNTE CREEK
 S.B.I. RT15 SEC. 78R
 WASHINGTON COUNTY
 STATION 1844+23

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

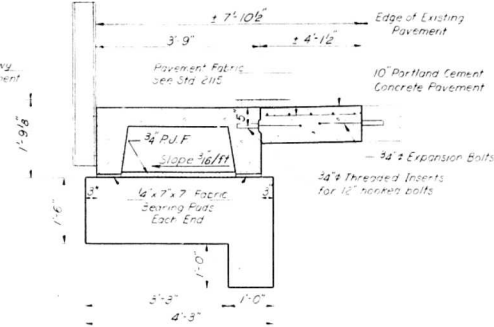
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. OF SHEETS
1-1-15	7847 BBE1	Washington	13	5	5 SHEETS

PRE. ROAD DIST. NO. 2 (ILLINOIS) FEB. 1910 PROJECT

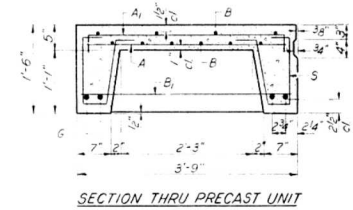


ELEVATION

Grade Line Elev. at 6' Friday Top of swat conc. pavement



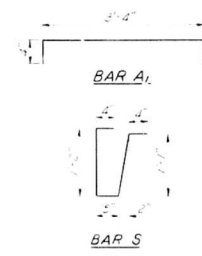
SECTION A-A



BAR LIST - ONE UNIT

Reinforcement to be cast into slab

Bar	No	Size	Length	Shape
A	52	#4	3'-3"	[Diagram]
A1	27	#4	4'-0"	[Diagram]
B	10	#4	19'-6"	[Diagram]
B	6	#4	3'-6"	[Diagram]
G	4	#10	19'-6"	[Diagram]
S	42	#3	3'-4"	[Diagram]

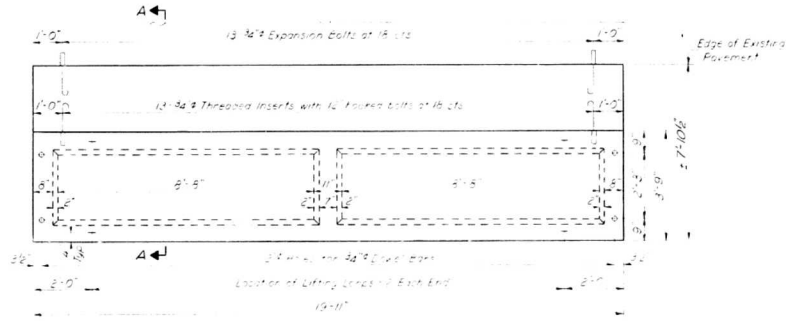


NOTES

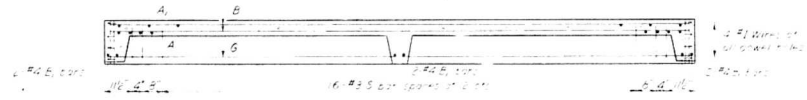
1. All columns as approved by the Engineer, lifting loops shall be 1/2" 6x19 glass wire rope with fiber core and shall have a minimum ultimate strength of 4,700 lbs. Loops shall be buried off after slab has been erected. Holes shall be drilled and anchor bolts grouted in place.
2. List of reinforcement and accessories cast into the slab unit, bearing bars, anchoring, grouting, and grouting anchor details and 3/4" hooked bolts included in Unit Bid Price for "Precast Concrete Bridge Slab".
3. The Precast Concrete Bridge Slab shall be erected and aligned with the exterior face of the exterior Deck Beam after Deck Beams are in final position.

BILL OF MATERIAL

Item	Unit	Quantity
Precast Concrete Bridge Slab	Sq Ft	299
Formwork	Sq Yds	36
Portland Cement Concrete Pavement (10")	Sq Yds	36
Pavement Fabric	Sq Yds	36
Expansion Bolts 3/4" Each	Each	52
Class X Concrete	Cu Yds	1.6



PARTIAL PLAN OF APPROACH

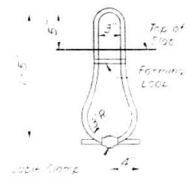


LONGITUDINAL SECTION



SLAB REINFORCEMENT

DESIGNED	By Raymond P. Blumman
EXAMINED	By Carl E. [Signature]
CHECKED	By [Signature]
DRAWN	By J.L. Armstrong
CHECKED	By P



LIFTING LOOP DETAIL

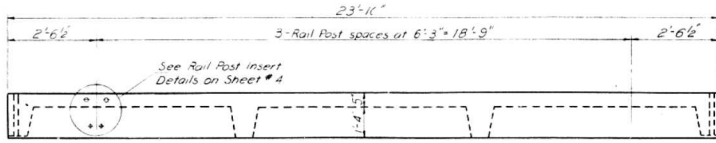
STRESSES

f_c = 4,500 psi
f_t = 1,800 psi
f_s = 20,000 psi
n = 8

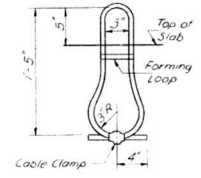
LOADING HS-20

APPROACH DETAILS
S.B.I. AT 15 SEC 78R
WASHINGTON COUNTY
STATION 1844+23

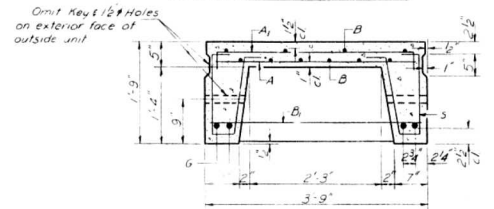
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS



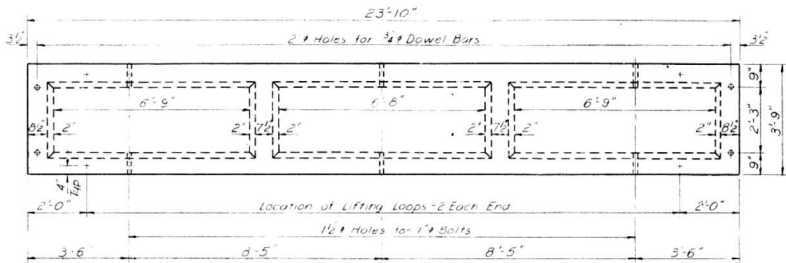
ELEVATION



LIFTING LOOP DETAIL



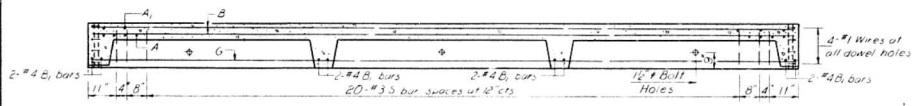
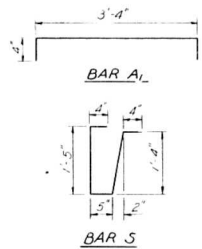
SECTION THRU PRECAST UNIT



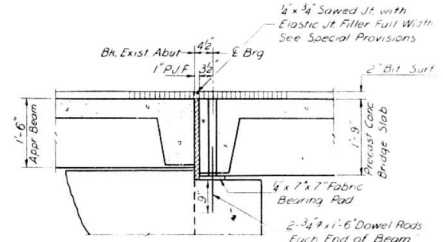
PLAN OF ONE UNIT

BAR LIST-ONE UNIT
Reinforcement to be cast into slab

Bar No	Size	Length	Shape
A	#3	3'-3"	[]
A1	#4	4'-0"	[]
B	#4	23'-6"	[]
B1	#4	3'-6"	[]
G	#10	23'-6"	[]
S	#3	3'-10"	[]

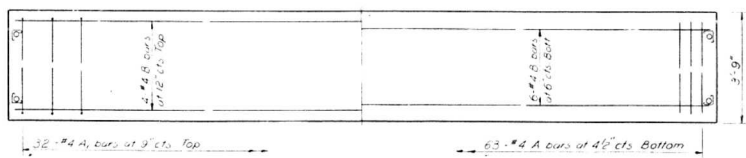


LONGITUDINAL SECTION

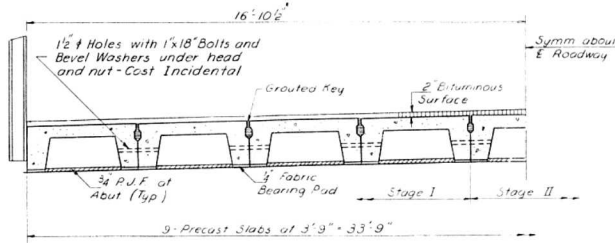


SECTION THRU ABUT AT OUTSIDE BEAM

NOTES
Unless otherwise approved by the Engineer, lifting loops shall be 6" x 5" x 13-class wire rope with fiber core and shall have a minimum ultimate strength of 8,000 lbs. Loops shall be burned off after slab has been erected. Holes shall be drilled and anchor dowels grouted in place. Cost of reinforcement and accessories cast into the slab unit, bearing rods, furnishing, drilling for placing and grouting anchor dowels is included in Unit bid price for "Precast Concrete Bridge Slab".



SLAB REINFORCEMENT



HALF CROSS SECTION (Looking East)

BILL OF MATERIAL

Item	Unit	Quantity
Precast Concrete Bridge Slab	Sq Ft	804
Removal of Existing Superstructure	Each	1

SUPERSTRUCTURE
S.B.I. RT. 15 SEC 7BR
WASHINGTON COUNTY
STATION 1844+23

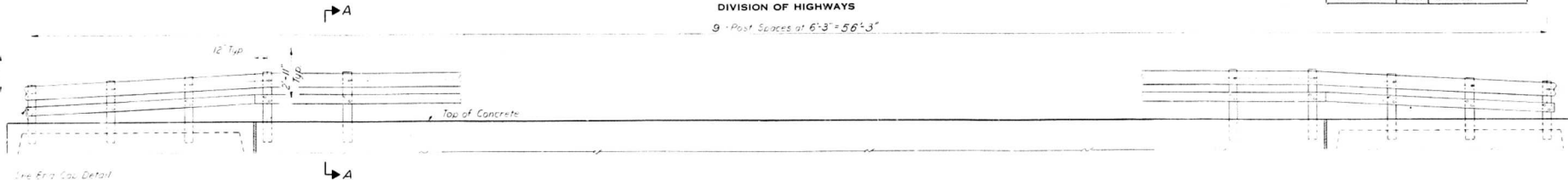
DESIGNED BY: Raymond P. Summer
CHECKED BY: [Signature]
DRAWN BY: R. P. Summer
CHECKED BY: [Signature]

EXAMINED BY: [Signature]
PASSED BY: [Signature]
APPROVED BY: [Signature]

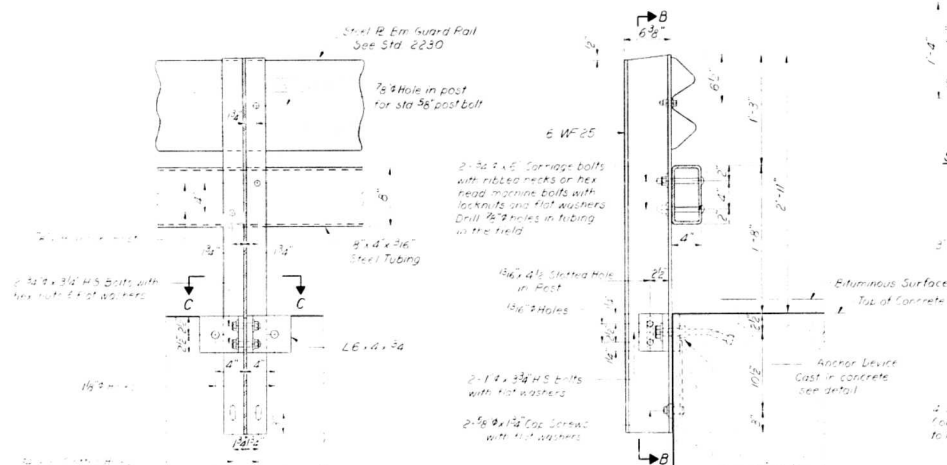
STRESSES
f_c = 4,500 psi
f_t = 1,800 psi
f_s = 20,000 psi
n = 8

LOADING HS-20

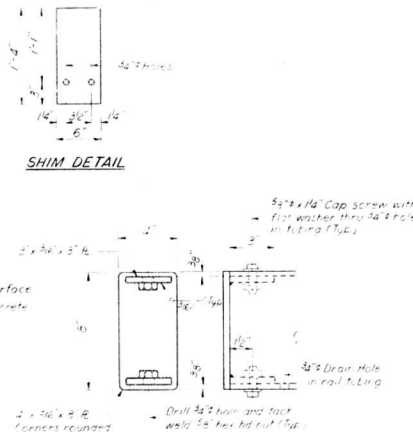
9' Post Spaces at 6'-3" = 56'-3"



ELEVATION
Showing mark face of railing



SECTION B-B



SHIM DETAIL

END CAP DETAIL
4 Required

NOTES

Hollow structural steel tubing shall conform to the requirements of ASTM designation A-501 "Hot Formed Welded and Seamless Carbon Steel Structural Tubing."

All other steel shapes and plates shall conform to the requirements of ASTM designation A-36.

Bolts, cap screws, and nuts shall conform to the requirement of ASTM designation A-307 except for high strength bolts, nuts and washers which shall conform to ASTM designation A-325.

All bolts, nuts, cap screws, washers and lock washers shall be galvanized in accordance with ASTM designation A-153.

All posts, railing rail splices, anchor devices and angles shall be galvanized after shop fabrication in accordance with ASTM designation A-153 and A-385. Galvanized rail shall not be painted.

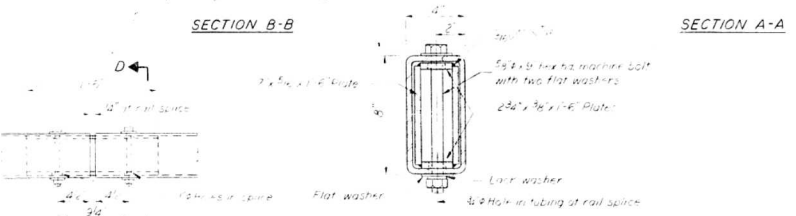
Railing shall be in accordance with Section 508 of the Standard Specifications, except as noted, and shall be paid for at the contract unit price per linear foot for STEEL RAILING, TYPE W.

All field drilled holes shall be coated with an approved zinc rich paint before erection.

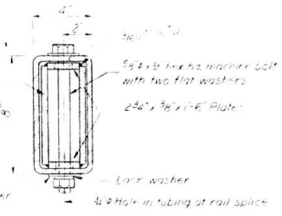
The lower portion of the post flange in contact with concrete shall receive two coats of asphalt joint conforming to Section 714.08 Type B or plastic fabric bearing pad between the post and concrete.

The 3/4" high strength bolts used to connect the 6" x 4" x 3/4" angles to the post shall be hardened in accordance with Article 710.11 of the Standard Specifications. The 1/2" x 1/2" strength bolts connecting the angles to the concrete shall be plastic hardened to a snug fit and given an additional 3/4" turn.

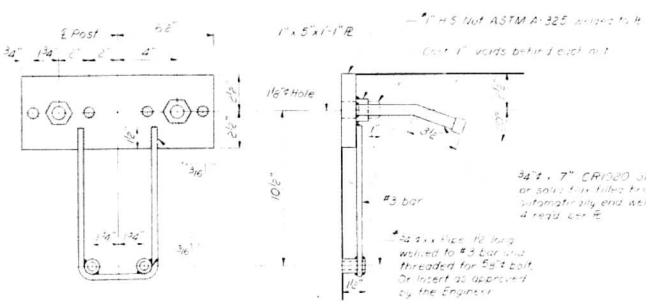
All angles or straps shall be 1/4" x 4" x 1/4" galvanized steel which shall be welded to the railing.



SECTION A-A



SECTION D-D



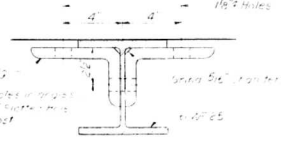
ANCHOR DEVICE

RAIL SPLICE

DESIGNED	Approved J. Sumner
CHECKED	J. Sumner
DRAWN	J. Sumner
CHECKED	J. Sumner

EXAMINED
ASSED
APPROVED

Oct 30 1964
J. Sumner



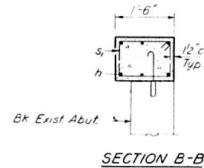
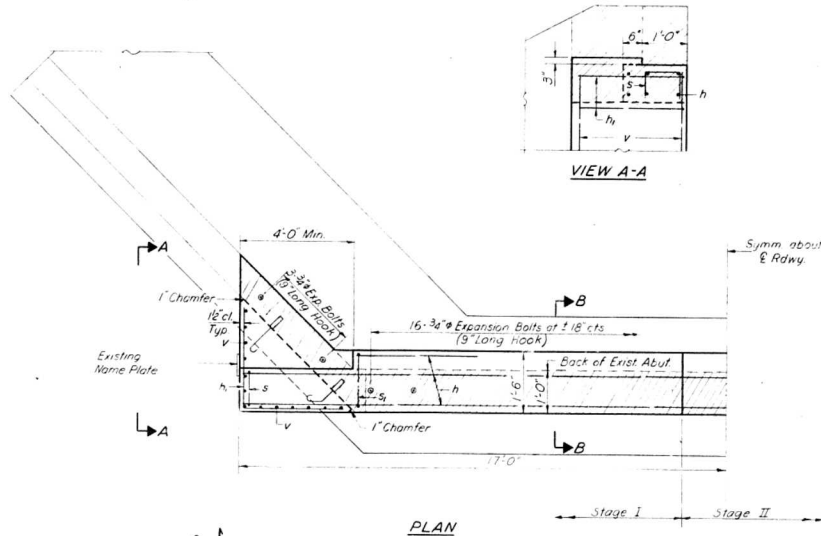
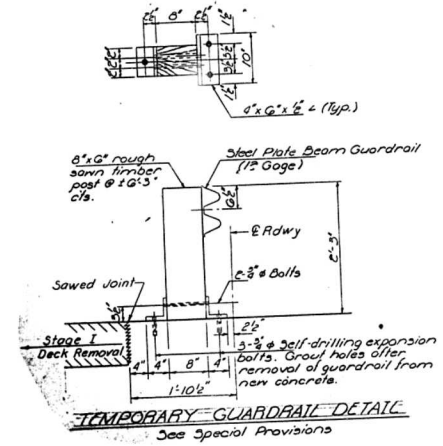
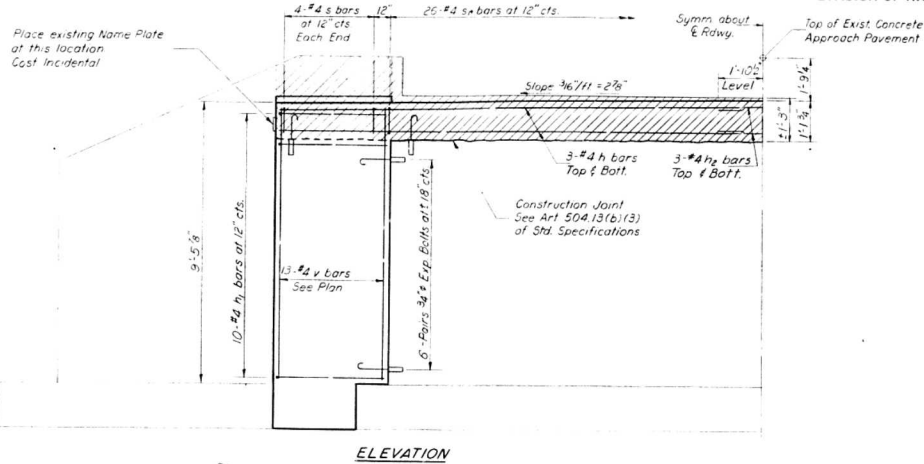
SECTION C-C

Item	Unit	Quantity
STEEL RAILING TYPE W	LC FT	73

**TYPE W
STEEL RAILING**
S.B.I. RT 15 SEC 7BR
WASHINGTON COUNTY
STATION 1844+23

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
15	184A	Washington	15	5
PER ROAD DIST. NO. 7	ILLINOIS	PER A.B. PROJECT		



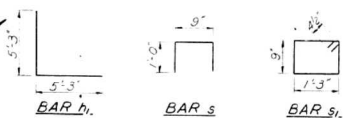
TWO ABUTMENTS
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h	12	#4	16'-0"	—
h ₁	40	#4	10'-6"	L
D ₂	12	#2	18'-9"	—
s	16	#2	2'-9"	□
s ₁	52	#6	4'-9"	□
v	1	#4	9'-3"	—
		Class X Concrete	Cu Yds.	28.9
		Reinforcement Bars	Lbs	1080
		Expansion Bolts #3/8	Each	92
		Concrete Removal	Cu Yds.	—

NOTES:
Hatched area indicates Concrete Removal. Reinforcement extending into removed area shall be cleaned and incorporated into the new construction.
Expansion bolts shall be anchored in sound concrete.
All edges shall have standard 3/4 inch chamfers except as noted.

DESIGNED	Raymond P. Summers
CHECKED	R. P. Summer
DRAWN	J. L. Remstrong
CHECKED	JP

EXAMINED	Oct 30 1969
PASSED	CONSENT
APPROVED	



ABUTMENTS
S.B.I. RT. 15 SEC. 74B
WASHINGTON COUNTY
STATION 1844+23