

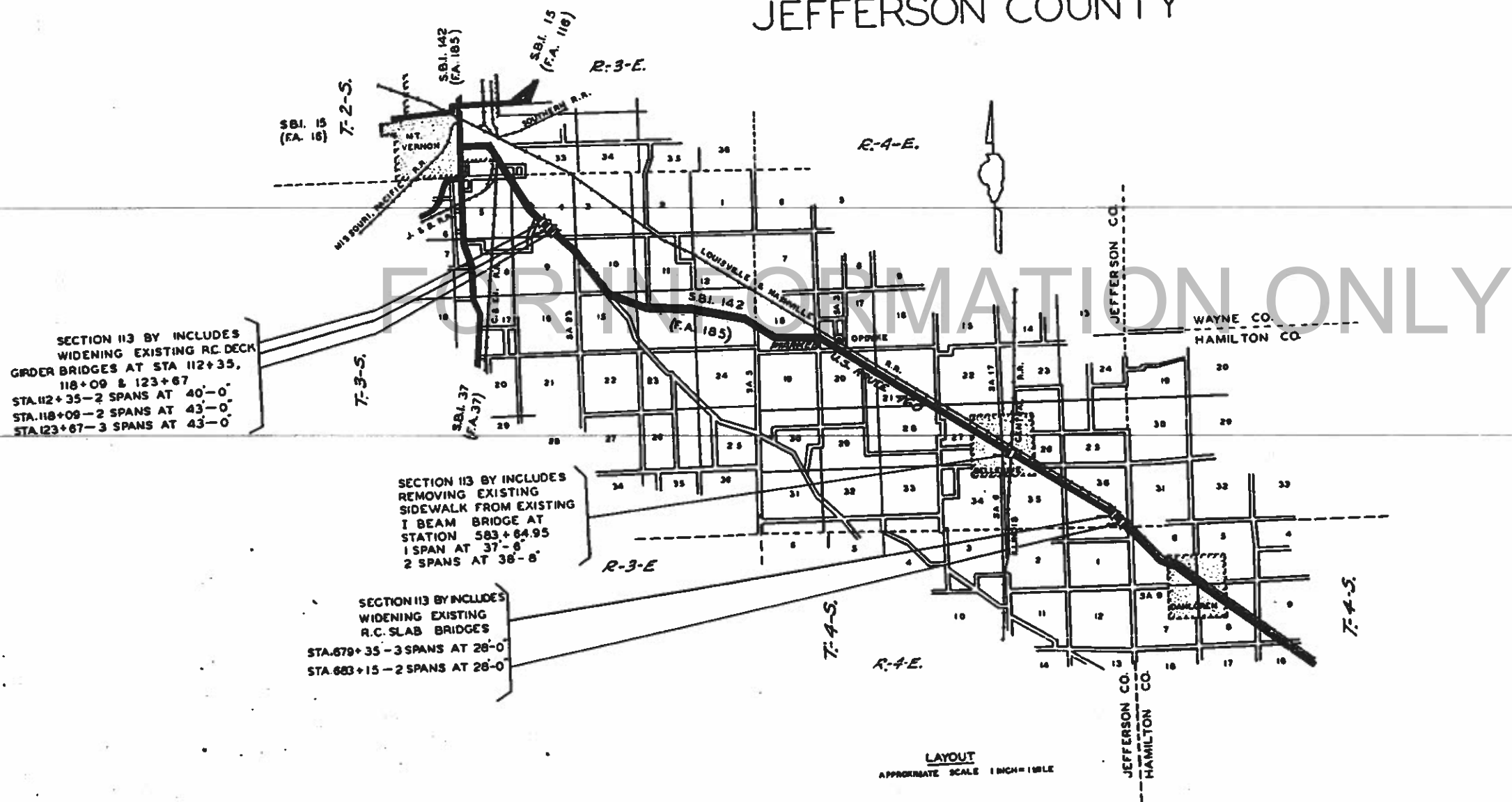
STATE OF ILLINOIS DEPARTMENT OF PUBLIC WORKS AND BUILDINGS DIVISION OF HIGHWAYS PLANS FOR PROPOSED STATE BOND ISSUE HIGHWAY

041-0041
1952

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
142	113BY	JEFFERSON	30	1

PLAN 1 INCH = 100 FT.
 PROFILE HOR. 1 INCH = 100 FT.
 PROFILE VERT. 1 INCH = 10 FT.
 CROSS SECTIONS 1 INCH = 5 FT.

S.B.I. RT. 142 SEC. 113 BY JEFFERSON COUNTY



SECTION 113 BY INCLUDES WIDENING EXISTING R.C. DECK GIRDER BRIDGES AT STA 112+35, 118+09 & 123+67
 STA. 112+35 - 2 SPANS AT 40'-0"
 STA. 118+09 - 2 SPANS AT 43'-0"
 STA. 123+67 - 3 SPANS AT 43'-0"

SECTION 113 BY INCLUDES REMOVING EXISTING SIDEWALK FROM EXISTING I BEAM BRIDGE AT STATION 583+64.95
 1 SPAN AT 37'-8"
 2 SPANS AT 38'-8"

SECTION 113 BY INCLUDES WIDENING EXISTING R.C. SLAB BRIDGES
 STA. 679+35 - 3 SPANS AT 28'-0"
 STA. 683+15 - 2 SPANS AT 28'-0"

LAYOUT
APPROXIMATE SCALE 1 INCH = 1 MILE

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

DRAFTED: *T. B. ...*
 EXAMINED: *8-28-52*
 PASSED: *[Signature]*
 APPROVED: *[Signature]*
 APPROVED: *[Signature]*

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

RECOMMENDED FOR APPROVAL

DISTRICT ENGINEER DATE
 DIVISION ENGINEER DATE

7-20

REV. 8/22/52 P.01

INDEX OF SHEETS S.B.I. NO. 142 SECTION 113-84

Sheet No.	Description
1.	Cover Sheet
2.	Index, Summary of Quantities and Signatures
3.	Std. 1971-S, Std. 1543-S, Std. 2070-S
4.	Std. 1080
5.	Plan and Profile, Bridges at Sta. 112+35, 118+09, 123+67
6.	Plan and Profile, Bridge at Sta. 583+64.95
7.	Plan and Profile, Bridges at Sta. 679+35 and 683+15
8-12	Sheets 1 to 5, Bridge Plans, Station 112+35
13-17	Sheets 1 to 5, Bridge Plans, Station 118+09
18-21	Sheets 1 to 4, Bridge Plans, Station 123+67
22	Sheet 1, Bridge Plans, Station 583+64.95
23-26	Sheets 1 to 4, Bridge Plans, Station 679+35
27-30	Sheets 1 to 4, Bridge Plans, Station 683+15

S.B.I. NO. 142 SECTION 113-84
 PLANS PREPARED BY DISTRICT 7 DESIGN OFFICE

Examined 7-22 1952 H. H. Batten
 DISTRICT DESIGN ENGINEER

Examined 7/22 1952 J. C. Blair
 DISTRICT ENGINEER OF CONSTRUCTION

Examined 7-22 1952 Henry E. Anderson
 DISTRICT ENGINEER OF MAINTENANCE

Examined 7-23 1952 H. H. Weller
 DIST. RESEARCH AND PLANNING ENG.

Examined 7-24 1952 J. R. Fidler
 DISTRICT TRAFFIC ENGINEER

Approved 7-24 1952 P. H. McEgan
 DISTRICT ENGINEER

FOR INFORMATION ONLY

SUMMARY OF QUANTITIES S.B.I. NO. 142 SECTION 113-84

ITEM	UNIT	QUANTITY
Class "X" Concrete	Cu. Yd.	1251.2
Handrail Concrete	Cu. Yd.	26.5
Reinforcement Bars	Lb.	112330.
Expansion Bolts 1" ϕ , Type A	Each	944.
Expansion Bolts 1" ϕ , Type B	Each	52.
Expansion Bolts 7/8" ϕ , Type C	Each	130.
Base Plates	Each	5.
Masonry Removal	Cu. Yd.	183.
Class A Excavation For Structures	Cu. Yd.	1037.
Class B Excavation For Structures	Cu. Yd.	1711.
Purchasing Untreated Piles (up to 30')	Lin. Ft.	1656.
Purchasing Untreated Piles (30.1' to 45')	Lin. Ft.	2208.
Driving Timber Piles	Lb.	6864.
Structural Steel	Cu. Yd.	5174.
Earth Excavation	Lin. Ft.	432.
Wood Guard Rail Renewal	Lin. Ft.	756.

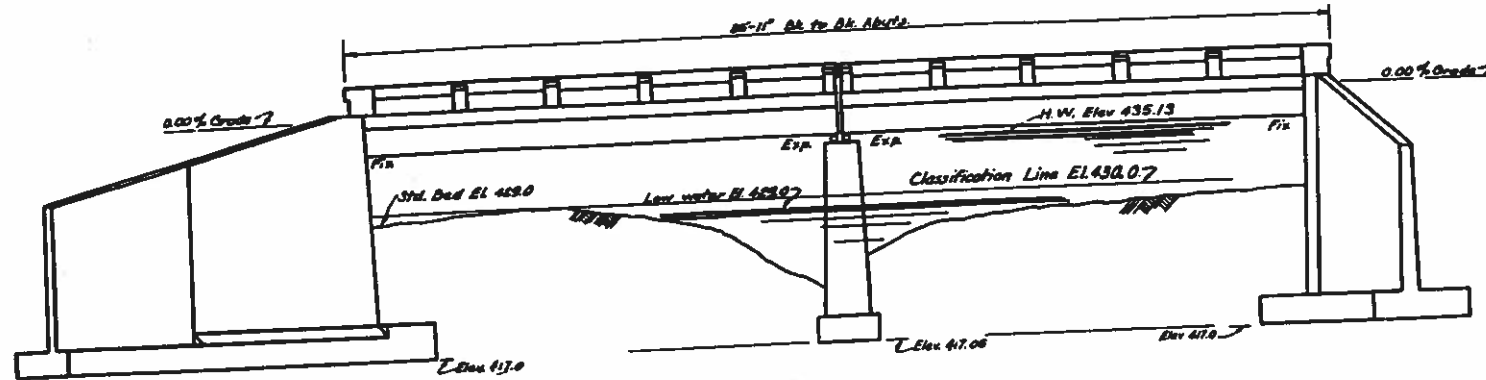
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

3 M. Top S.W. Wing Existing Bridge Elev. 438.50
Existing Structure R.C. Deck Girder 2 Spans @ 45'-0" on C.
25' Roadway, R.C. Classed Abutments, Solid R.C. Pier.
Handrail and other Concrete to be removed as indicated
on Plans.

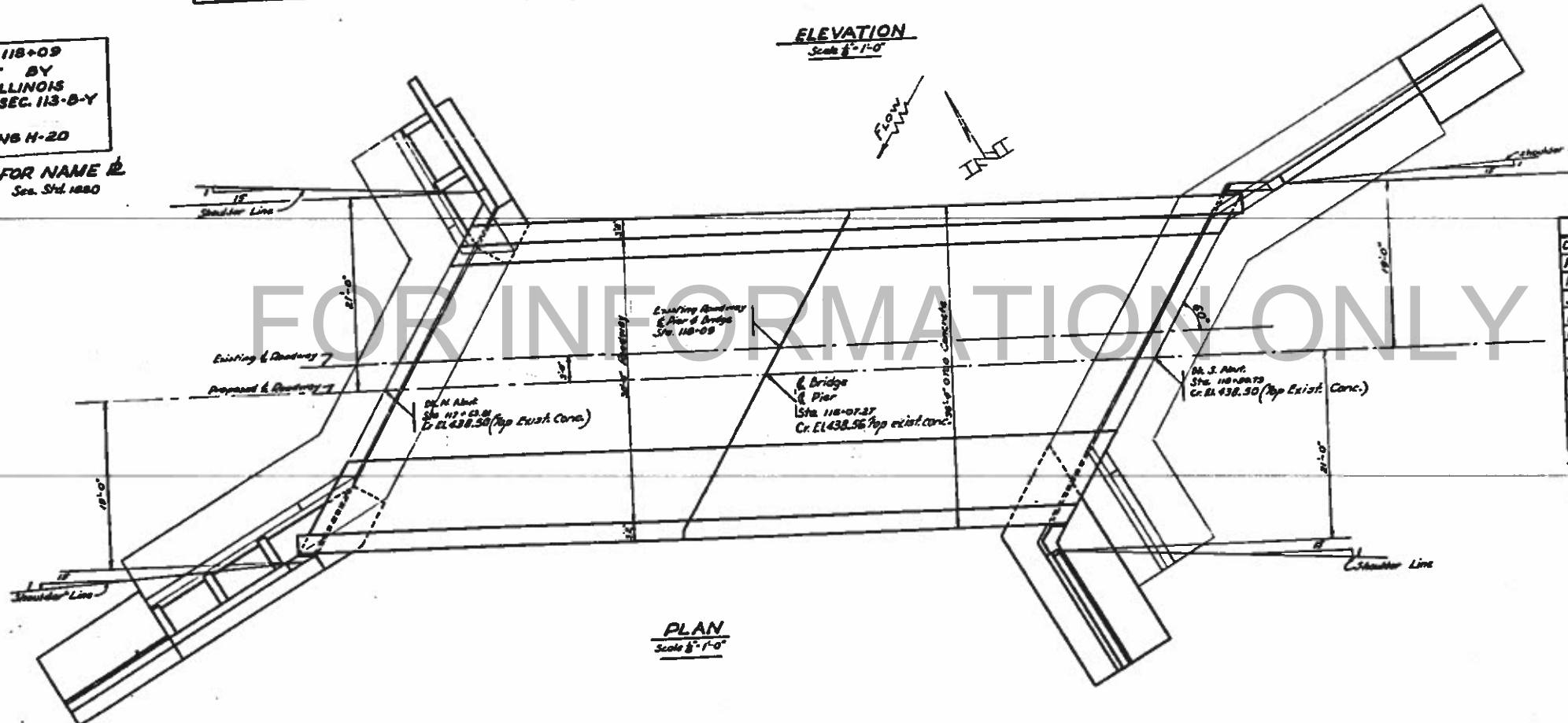
GENERAL NOTES

- Class X Concrete shall be used except as noted.
- Handrail Concrete shall be used in rails and posts.
- The Handrail and curbs shall not be poured until after the falsework has been removed.
- All structural steel shall receive one shop coat of red lead paint and two field coats of aluminum paint.
- All paint shall be furnished and applied by the Contractor.
- Contract unit price each for Expansion Bolts shall include furnishing, drilling holes, and setting Expansion Bolts.
- The concrete floor shall be finished in accordance with Sec 29 of the Standard Specifications, and shall be poured in one continuous operation in each span on either side of the existing structure.

WATERWAY INFORMATION
Drainage Area 60,800 Acres for Bridges Sta. 117+35, 118+09, 123+67
Opening Rapid (C=0.5) 483'²
Opening Provided 499'



STATION 118+09
BUILT 195 BY
STATE OF ILLINOIS
SBI RT 142 SEC. 113-B-Y
LOADING H-20
LETTERING FOR NAME R
See Std. 1000

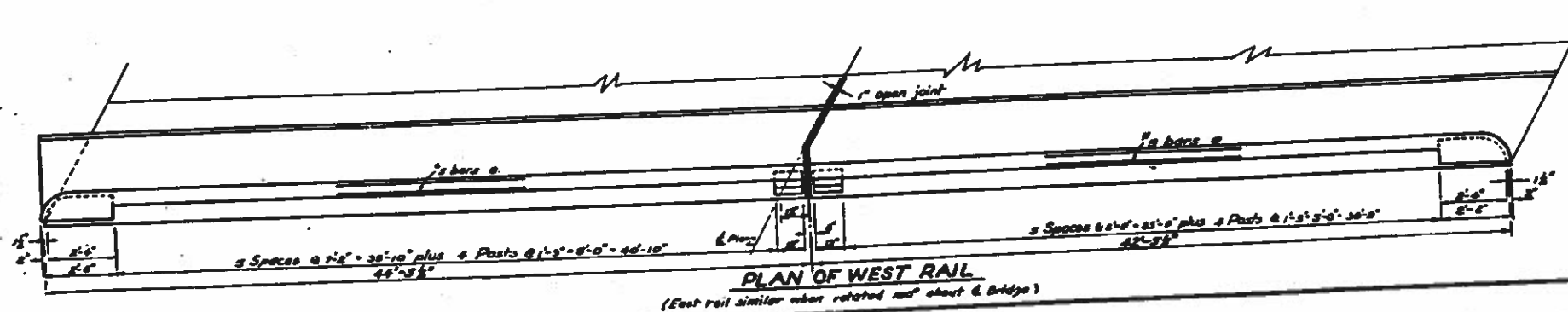


TOTAL BILL OF MATERIAL

ITEM	Super	Sub	TOTAL
Class X Concrete Cu Yds	60.5	192.2	252.7
Handrail Concrete Cu Yds	5.3		5.3
Reinforcement Bars Lbs	16180	10330	26510
Structural Steel Lbs	1478		1478
Masonry Removal Cu Yds	24	13.2	37.2
Expansion Bolts (1") Type A Ea		13	13
Expansion Bolts (1") Type B Ea			1596
Unriveted Timber Piles (24") Lin Ft			1
Name R Ea		31	31
Class A Excavation for Stru Cu Yds		667	667
Class B Excavation for Stru Cu Yds			

DESIGN STRESSES
 $f_s = 16000 \text{ psi}$ (Structural)
 $f_s = 20000 \text{ psi}$ (Reinforcement)
 $f_c = 4500 \text{ psi}$ (Super)
 $f_c = 800 \text{ psi}$ (Sub)

H-20 Loading



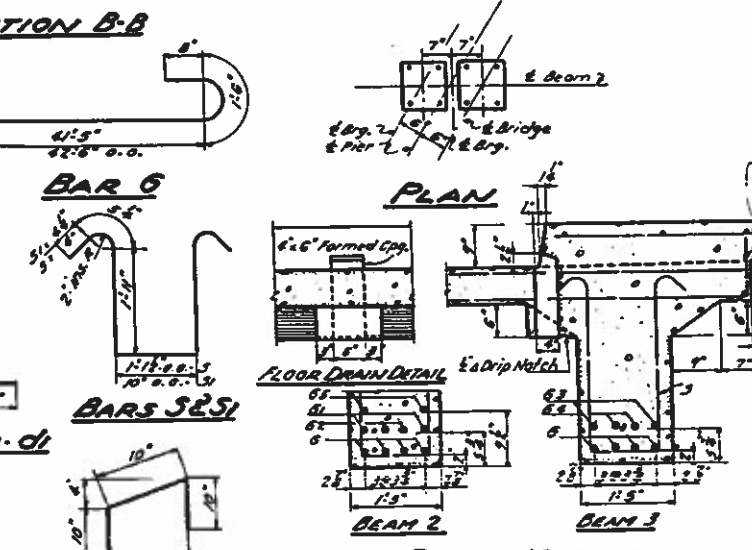
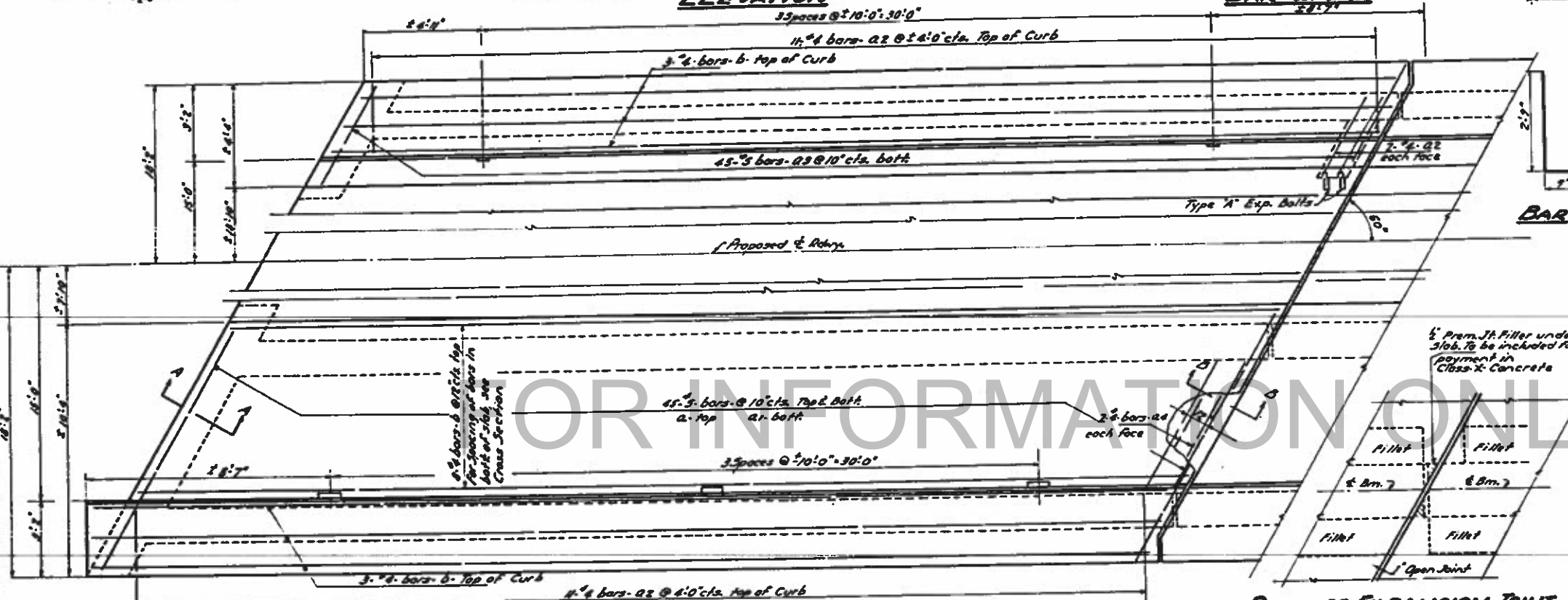
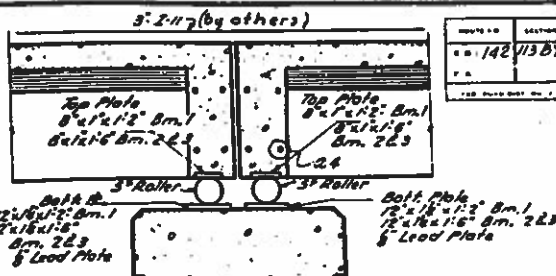
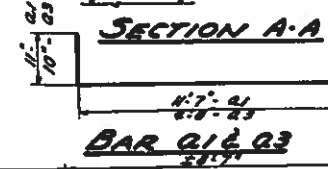
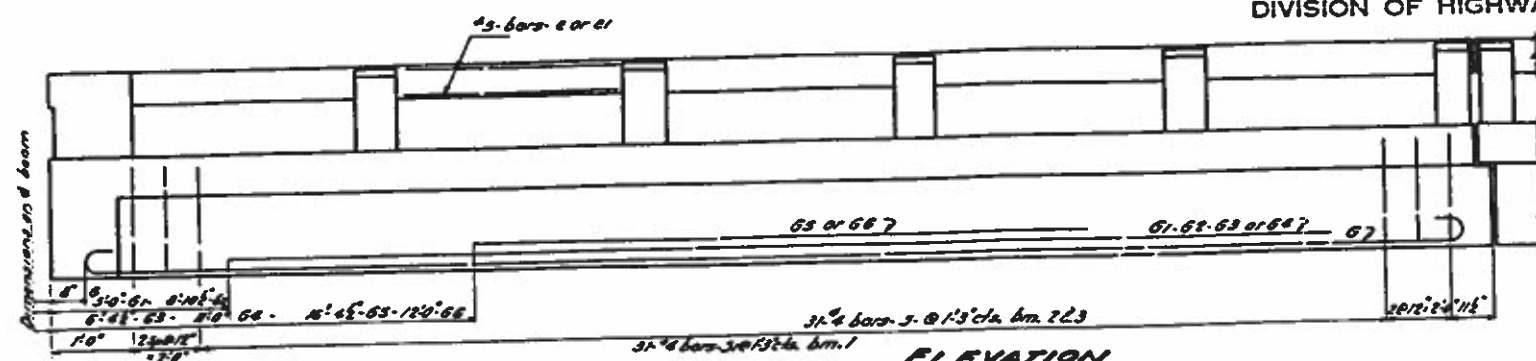
SBI RT 142 (FAR 185) SEC 113-B-Y
JEFFERSON CO.
STA. 118+09

DESIGNED BY: W.B. Hanson
CHECKED BY: J.L. Kelly
DATE: July 10, 1952
APPROVED BY: F.M. Cook

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

PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
142	113BY	Jefferson	30	14

SHEET NO. 2
5 SHEETS

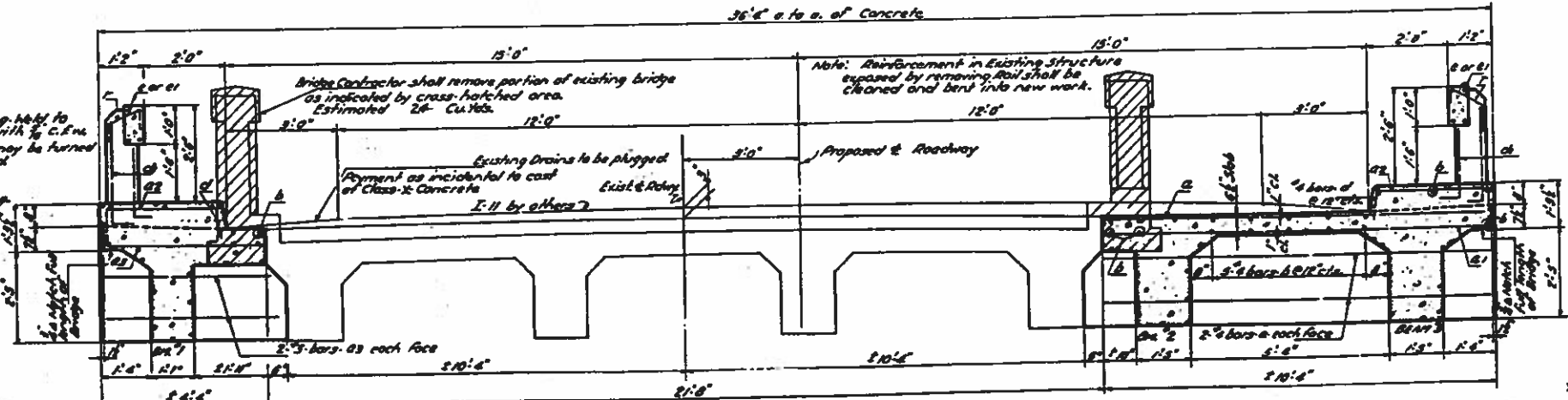
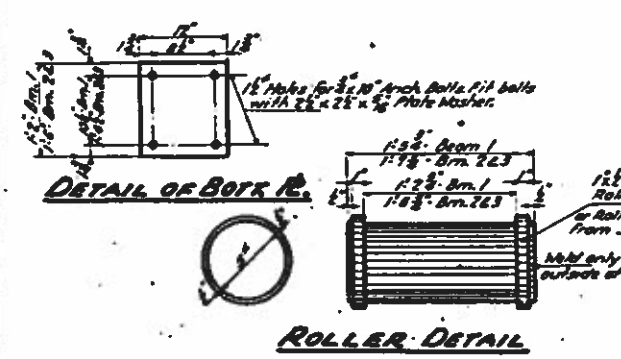


BILL OF MATERIAL

BAR NO.	SIZE	LENGTH	SHAPE
6	22	11	45°
6r	10	11	35°
62	4	11	25°
63	4	11	30°
64	4	11	27°
65	4	10	10°
66	4	9	19°
2	78	5	11°
2r	90	5	12°
23	52	4	5°
23r	90	5	5°
24	8	4	9°
5	108	4	22°
d	180	4	15°
db	100	5	3°
1	48	4	2°
3	168	4	6°
3r	76	4	6°
6	16	5	21°
6r	18	5	22°

Class-X Concrete Cu. Yds. 86.5
Handrail Concrete Cu. Yds. 5.3
Reinforcement Bars Lbs. 16200
Structural Steel Lbs. 1478
Masonry Removal Cu. Yds. 2.4
Exp. Bolts (Type A) Each 8

All bars shall be round ASTM A305-47
The size number is the number of
8 inches in the nominal diameter

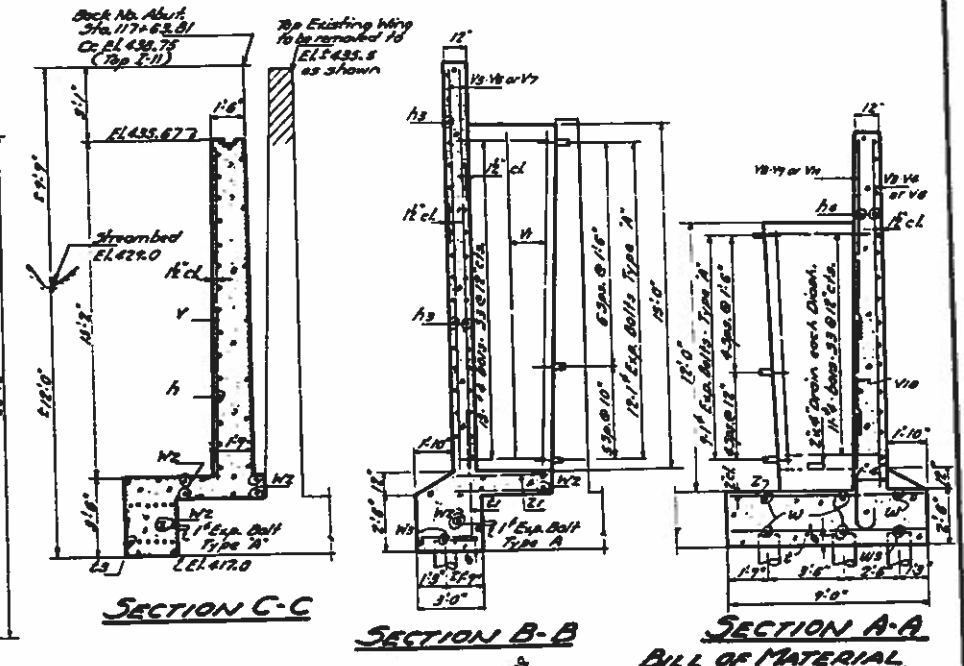
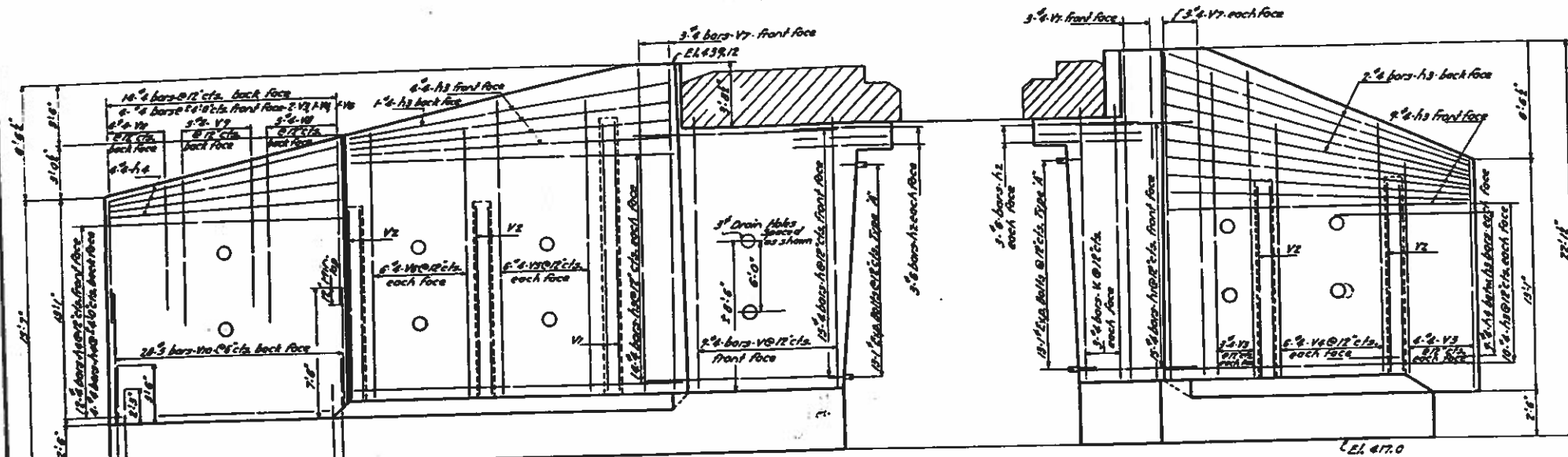


CROSS SECTION AT ABUTMENT
Scale: 1/4" = 1'-0"

DESIGNED BY
CHECKED BY
APPROVED BY
DATE
July 10 '52
W. E. Hanson
J. M. Parker

SOI R. 142 (C.A. R. 145) SEC. 113-B-Y
JEFFERSON COUNTY
37A.113+0.2

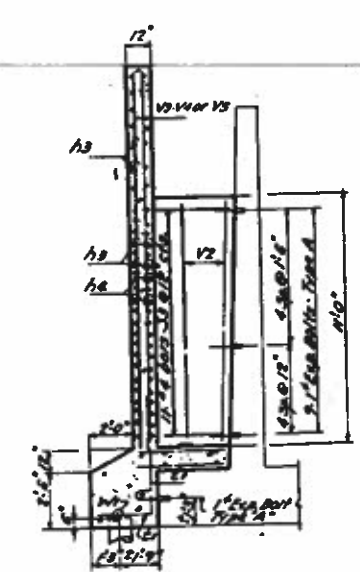
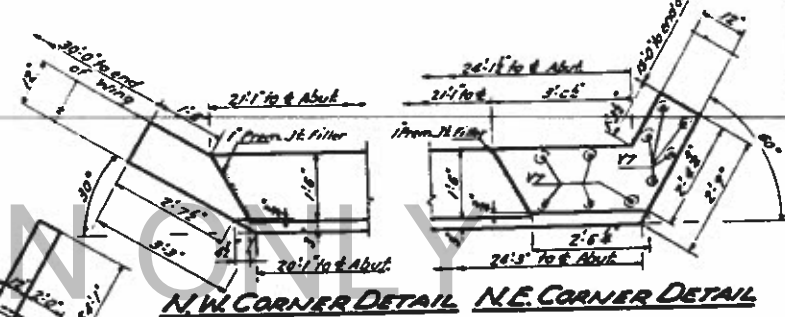
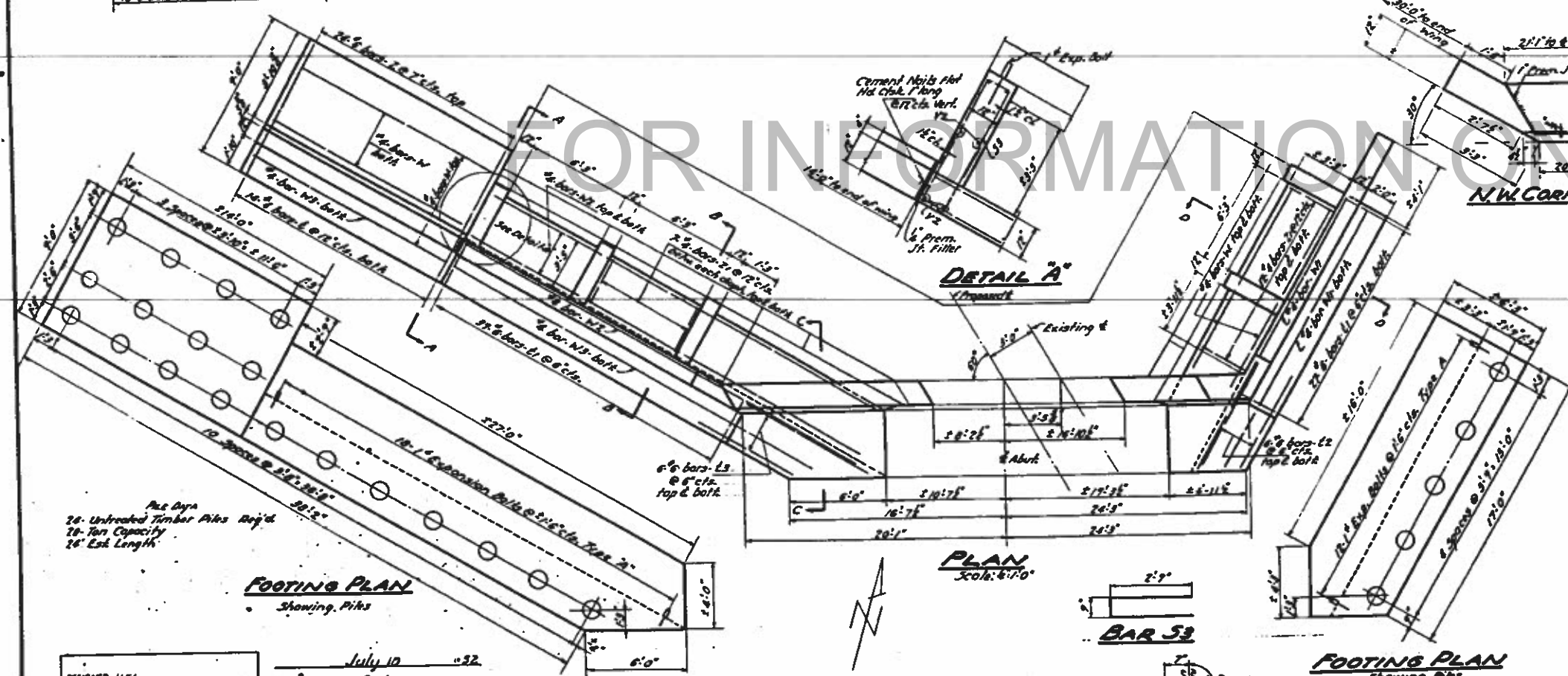
Bridge Contractor shall remove cross-hatched portion of existing Abutment to EL. 435.00. To be paid for as Masonry Removal Est. 3 Cu. Yds.



BILL OF MATERIAL

BAR	No.	SIZE	LENGTH	SHAPE
V	12	1/2"	18'-3"	
V1	6	3/4"	18'-0"	
V2	6	3/4"	18'-0"	
V3	10	3/4"	18'-0"	
V4	18	3/4"	18'-0"	
V5	18	3/4"	18'-0"	
V6	12	3/4"	18'-0"	
V7	12	3/4"	18'-0"	
V8	5	3/4"	18'-0"	
V9	5	3/4"	18'-0"	
V10	20	1/2"	18'-0"	
V11	4	1/2"	18'-0"	
H	18	1/2"	8'-0"	
H1	18	1/2"	8'-0"	
H2	18	1/2"	8'-0"	
H3	64	1/2"	18'-0"	
H4	38	1/2"	18'-0"	
N	18	3/8"	8'-0"	
N1	18	3/8"	8'-0"	
E	18	3/8"	8'-0"	
E1	68	3/8"	7'-3"	
E2	12	3/8"	7'-0"	
E3	12	3/8"	7'-0"	
Z	24	3/8"	8'-0"	
Z1	32	3/8"	8'-0"	
W	7	3/8"	8'-0"	
W1	2	3/8"	18'-0"	
W2	2	3/8"	18'-0"	
W3	2	3/8"	18'-0"	
W4	2	3/8"	18'-0"	
W5	110	3/8"	8'-0"	

Class-B Concrete Cu. Yds. 88.6
Reinforcement Bars Lbs. 3270
Masonry Removal Cu. Yds. 3
Exp. Bolt Type A Each 104
Unthreaded Bolt Type A Lbs. 378
Class-A Rec. for Struct Cu. Yds. 78
Class-B Rec. for Struct Cu. Yds. 8.8

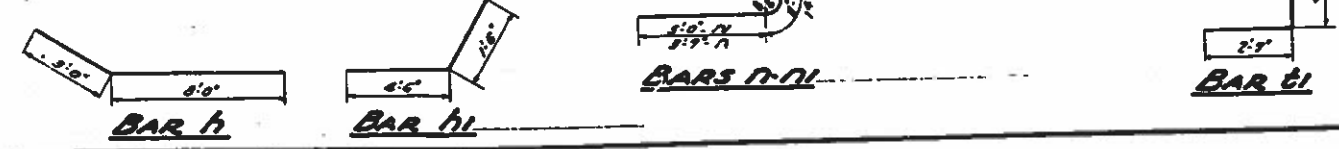


DESIGNED H.F.L.
CHECKED V. Z. Enslin
DRAWN H.F.L.
CREATED V. Z. Enslin

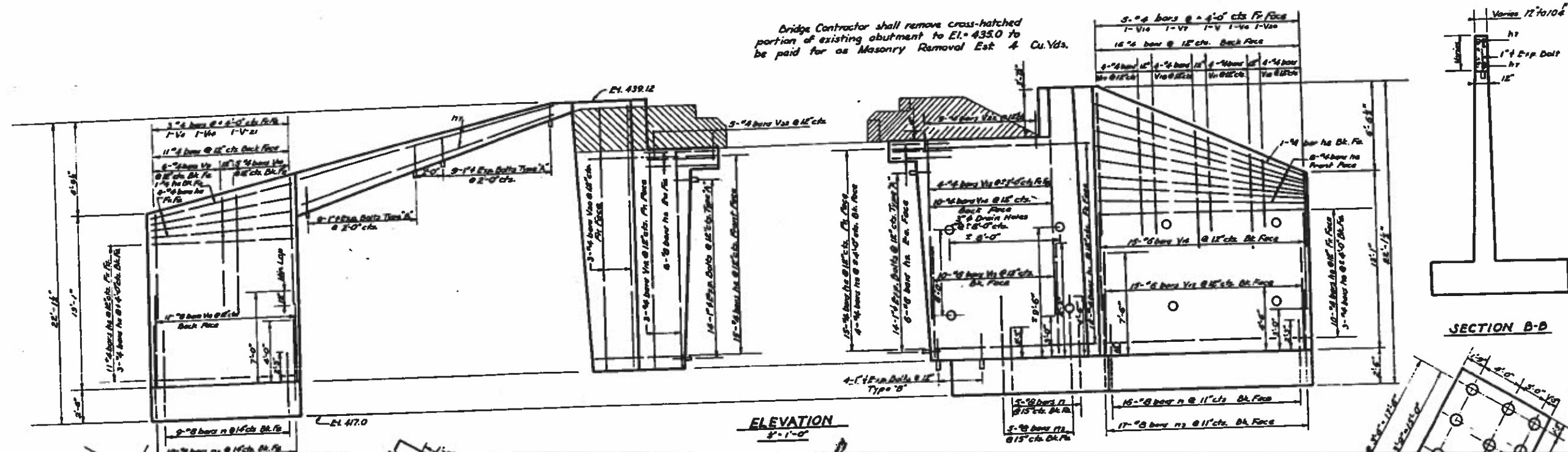
DATE July 10 '32
BY W.E. Hanson
CHECKED J. J. Enslin
DRAWN H.F.L.
CREATED V. Z. Enslin

All bars shall be round, ASTM A305-27
The size number is the number of
inches in the nominal diameter

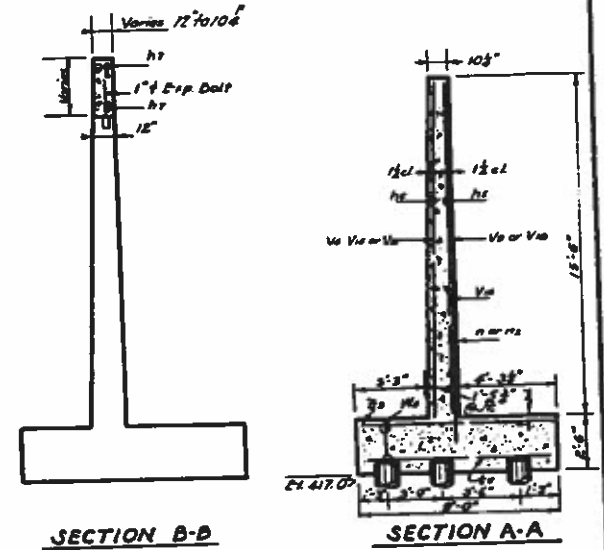
NORTH ABUTMENT
S.B.I. 142 (P.A. RE. 18) SEC. 113-B-Y
JEFFERSON COUNTY
STA. 118+0.9



Bridge Contractor shall remove cross-hatched portion of existing abutment to El. 435.0 to be paid for as Masonry Removal Est 4 Cu Yds.

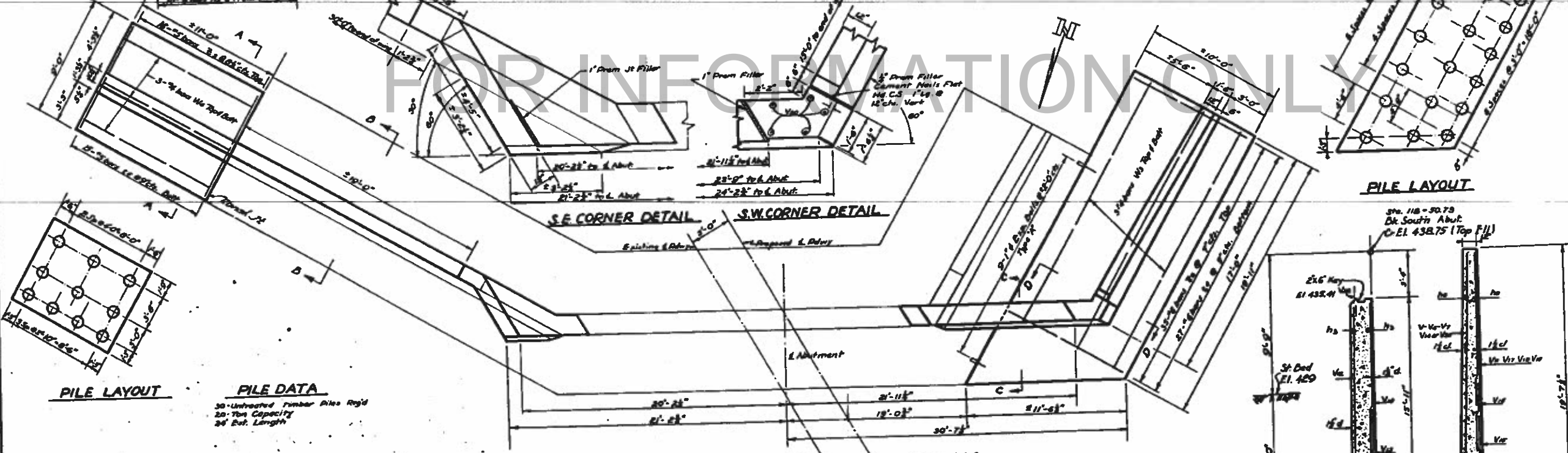


ELEVATION
3'-1'-0"



SECTION B-B

SECTION A-A



PLAN
3'-1'-0"

PILE LAYOUT

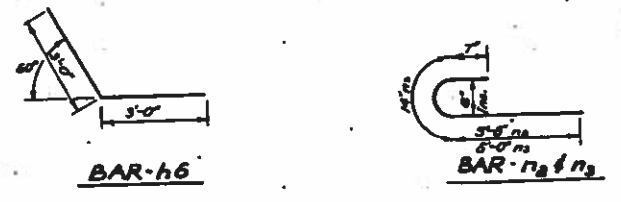
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
V	1	1/2"	15'-3"	
V	2	1/2"	15'-3"	
V	3	1/2"	15'-3"	
V	4	1/2"	15'-3"	
V	5	1/2"	15'-3"	
V	6	1/2"	15'-3"	
V	7	1/2"	15'-3"	
V	8	1/2"	15'-3"	
V	9	1/2"	15'-3"	
V	10	1/2"	15'-3"	
V	11	1/2"	15'-3"	
V	12	1/2"	15'-3"	
V	13	1/2"	15'-3"	
V	14	1/2"	15'-3"	
V	15	1/2"	15'-3"	
V	16	1/2"	15'-3"	
V	17	1/2"	15'-3"	
V	18	1/2"	15'-3"	
V	19	1/2"	15'-3"	
V	20	1/2"	15'-3"	
V	21	1/2"	15'-3"	
V	22	1/2"	15'-3"	
V	23	1/2"	15'-3"	
V	24	1/2"	15'-3"	
V	25	1/2"	15'-3"	
V	26	1/2"	15'-3"	
V	27	1/2"	15'-3"	
V	28	1/2"	15'-3"	
V	29	1/2"	15'-3"	
V	30	1/2"	15'-3"	
V	31	1/2"	15'-3"	
V	32	1/2"	15'-3"	
V	33	1/2"	15'-3"	
V	34	1/2"	15'-3"	
V	35	1/2"	15'-3"	
V	36	1/2"	15'-3"	
V	37	1/2"	15'-3"	
V	38	1/2"	15'-3"	
V	39	1/2"	15'-3"	
V	40	1/2"	15'-3"	
V	41	1/2"	15'-3"	
V	42	1/2"	15'-3"	
V	43	1/2"	15'-3"	
V	44	1/2"	15'-3"	
V	45	1/2"	15'-3"	
V	46	1/2"	15'-3"	
V	47	1/2"	15'-3"	
V	48	1/2"	15'-3"	
V	49	1/2"	15'-3"	
V	50	1/2"	15'-3"	
V	51	1/2"	15'-3"	
V	52	1/2"	15'-3"	
V	53	1/2"	15'-3"	
V	54	1/2"	15'-3"	
V	55	1/2"	15'-3"	
V	56	1/2"	15'-3"	
V	57	1/2"	15'-3"	
V	58	1/2"	15'-3"	
V	59	1/2"	15'-3"	
V	60	1/2"	15'-3"	
V	61	1/2"	15'-3"	
V	62	1/2"	15'-3"	
V	63	1/2"	15'-3"	
V	64	1/2"	15'-3"	
V	65	1/2"	15'-3"	
V	66	1/2"	15'-3"	
V	67	1/2"	15'-3"	
V	68	1/2"	15'-3"	
V	69	1/2"	15'-3"	
V	70	1/2"	15'-3"	
V	71	1/2"	15'-3"	
V	72	1/2"	15'-3"	
V	73	1/2"	15'-3"	
V	74	1/2"	15'-3"	
V	75	1/2"	15'-3"	
V	76	1/2"	15'-3"	
V	77	1/2"	15'-3"	
V	78	1/2"	15'-3"	
V	79	1/2"	15'-3"	
V	80	1/2"	15'-3"	
V	81	1/2"	15'-3"	
V	82	1/2"	15'-3"	
V	83	1/2"	15'-3"	
V	84	1/2"	15'-3"	
V	85	1/2"	15'-3"	
V	86	1/2"	15'-3"	
V	87	1/2"	15'-3"	
V	88	1/2"	15'-3"	
V	89	1/2"	15'-3"	
V	90	1/2"	15'-3"	
V	91	1/2"	15'-3"	
V	92	1/2"	15'-3"	
V	93	1/2"	15'-3"	
V	94	1/2"	15'-3"	
V	95	1/2"	15'-3"	
V	96	1/2"	15'-3"	
V	97	1/2"	15'-3"	
V	98	1/2"	15'-3"	
V	99	1/2"	15'-3"	
V	100	1/2"	15'-3"	

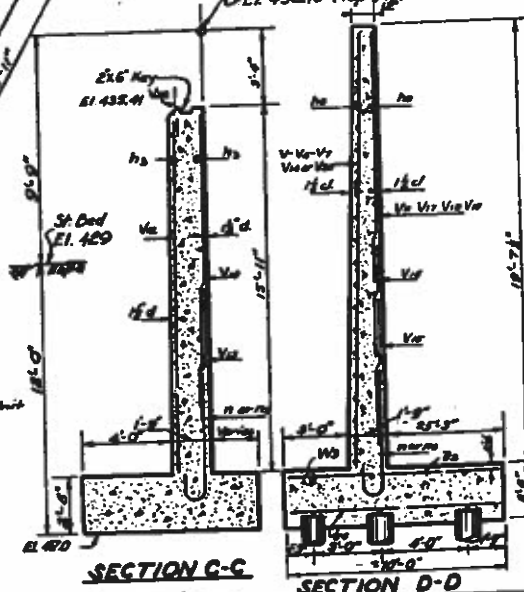
PILE DATA

30 Untreated Timber Piles Rigid
20-Ton Capacity
34' Brl. Length

DESIGNED	H.F.L.	DATE	July 10 1952
CHECKED	T.H. Zandy	DRAWN	H.F.L.
APPROVED	<i>[Signature]</i>		



EXPANSION BOLT DETAIL



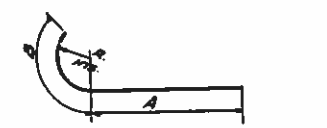
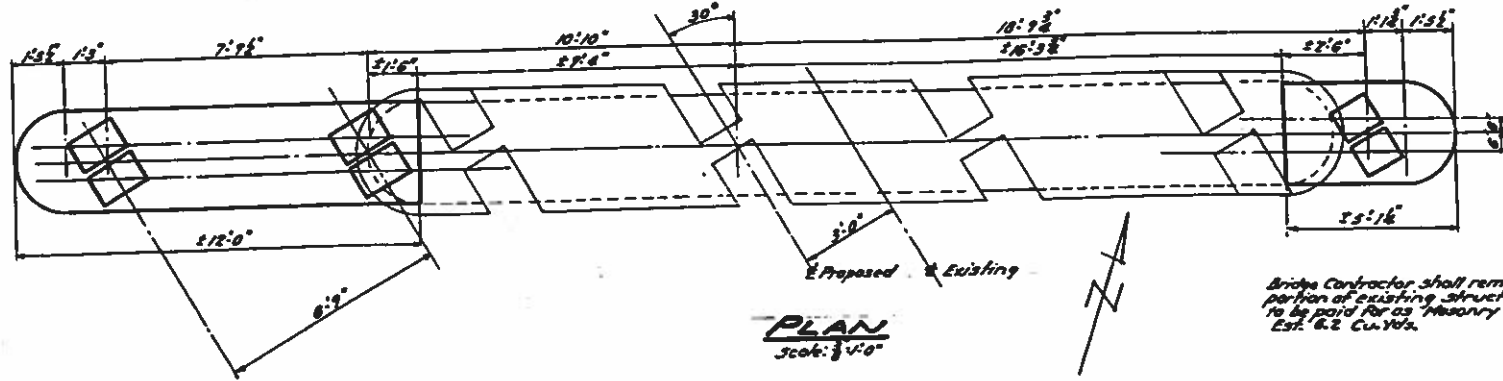
SECTION C-C

SECTION D-D

Class II Concrete Cu Yds. 60.9
Reinforcement Bars Lbs. 4080
Masonry Removal Cu Yds. 4
Expansion Bolts (Type X) Ea. 45
Expansion Bolts (Type Y) Ea. 15
Untreated Timber Piles (34' Brl. Lg.) P. 720
Class A Em. For Structure Cont. 15
Class B Em. For Structure Cu Yds. 22.3

Note: All bars shall be round A.S.T.M. A-305-49. The size number of 1/2 inches in the nominal diameter.

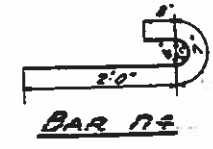
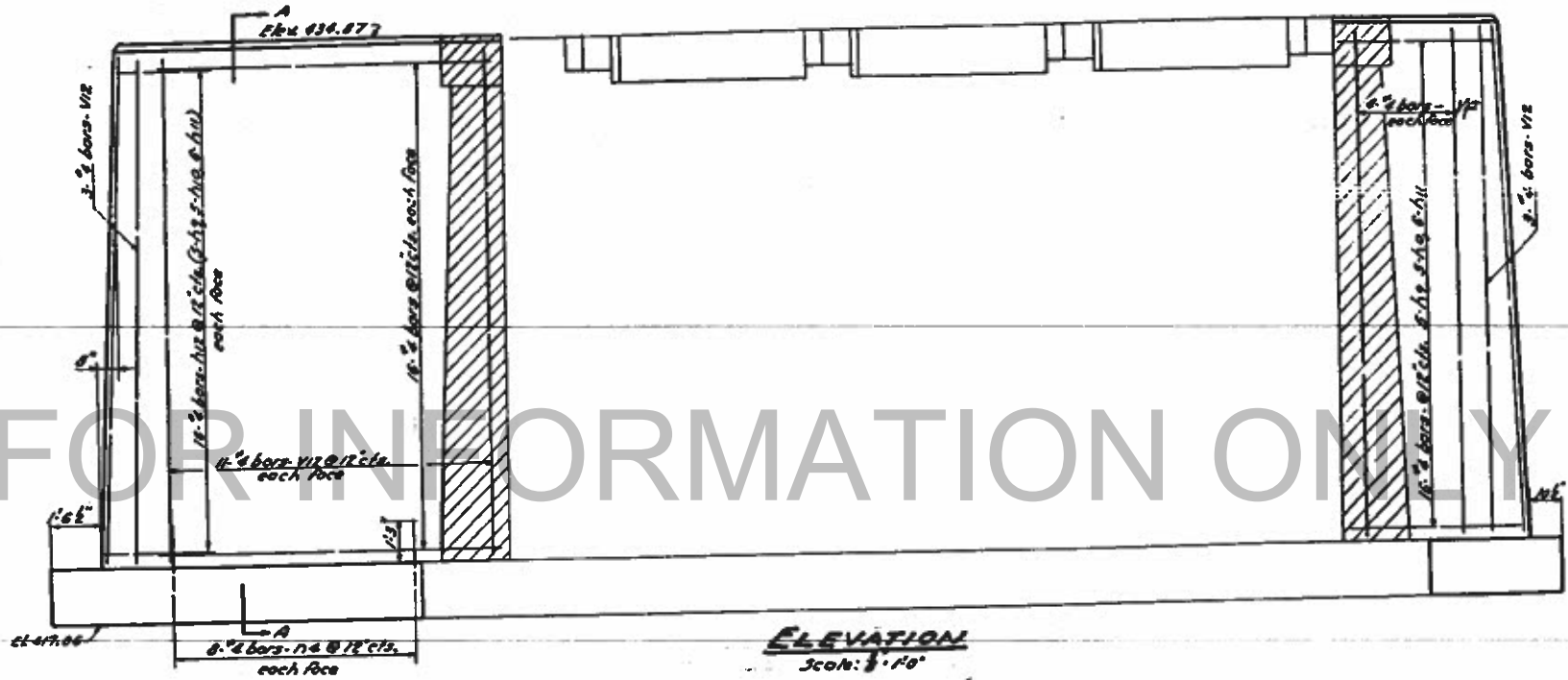
SOUTH ABUTMENT
S.A.I.R. 142 (FAR. 185) SEC. 113-B-Y
JEFFERSON CO.
STA. 118+09



BAR	A	B	R
h9	3'-3"	3'-3"	1'-4"
h10	3'-3"	3'-3"	1'-6"
h11	3'-3"	4'-3"	1'-9"

4 Pier & Bridge
Sta. 118+07.37
Ct. Elev. 438.81 (Top 1-0)

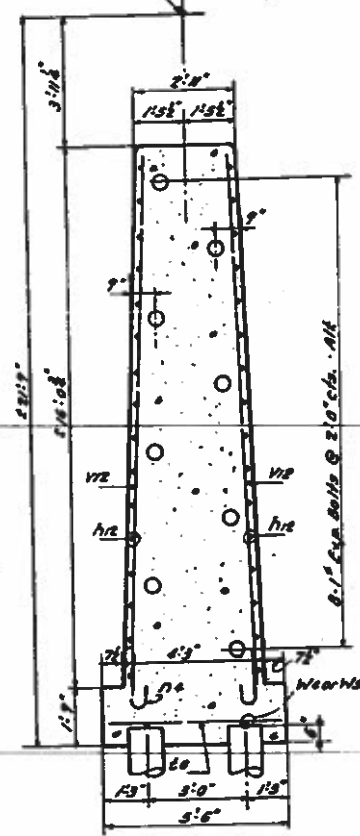
Bridge Contractor shall remove cross-hatched portion of existing structure to El. 437.31. To be paid for as Masonry Removal. Est. R.2 Cu.Yds.



BILL OF MATERIAL

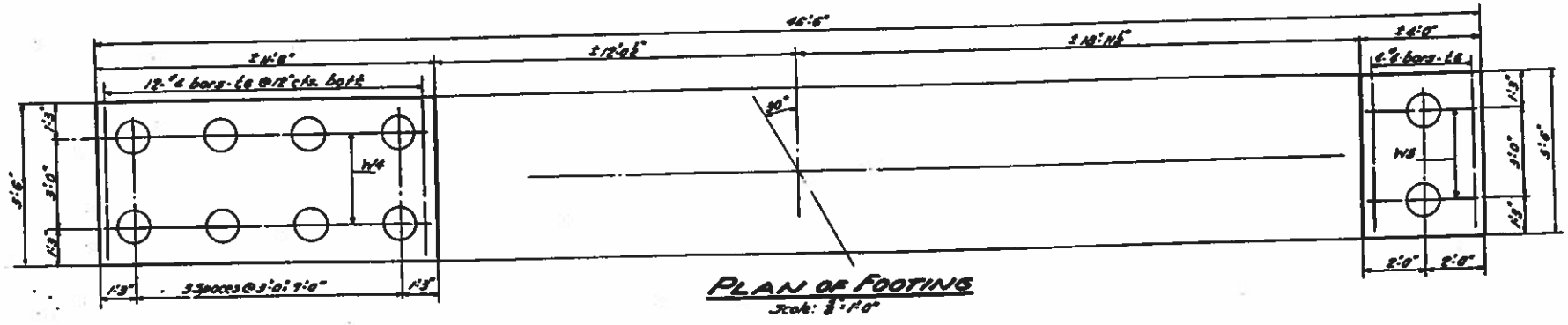
BAR	No.	Size	Length	Shape
v12	36	1/2"	15'-9"	—
h9	20	1/2"	6'-6"	U
h10	20	1/2"	7'-0"	U
h11	24	1/2"	7'-6"	U
h12	32	1/2"	9'-0"	—
v14	16	1/2"	3'-3"	U
v16	16	1/2"	3'-0"	—
v18	2	1/2"	10'-6"	—
v19	2	1/2"	3'-9"	—
Class-2 Concrete				Cu Yds. 4.7
Reinforcement Bars				Lbs. 980
Exp. Balls (P) Type-A				Each 10
Masonry Removal				Cu Yds. 6.2
Untreated Timber Piles (24) Lin. Ft. 240				24
Class-B Exc. for Struct.				Cu Yds. 8.8

All bars shall be round ASTM A305-67. The size number is the number of 1/8 inches in the nominal diameter.



PILE DATA

10 Untreated Timber Piles Req'd. = 20 Tons Capacity
26'-0" Est. Length



DESIGNED H.F.L.
CHECKED J. L. Truby
DRAWN H.F.L.
CHECKED J. L. Truby

July 10 1952
W. E. Hunsaker
J. N. Baker

S.D.P. 142 (PART 115) SEC. 113-B-1
JEFFERSON COUNTY
Sta. 118+09