

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

9

FAS 3	W&WR	LAKE	50
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P-91-619-70

PLANS FOR PROPOSED
FEDERAL AID SECONDARY HIGHWAY

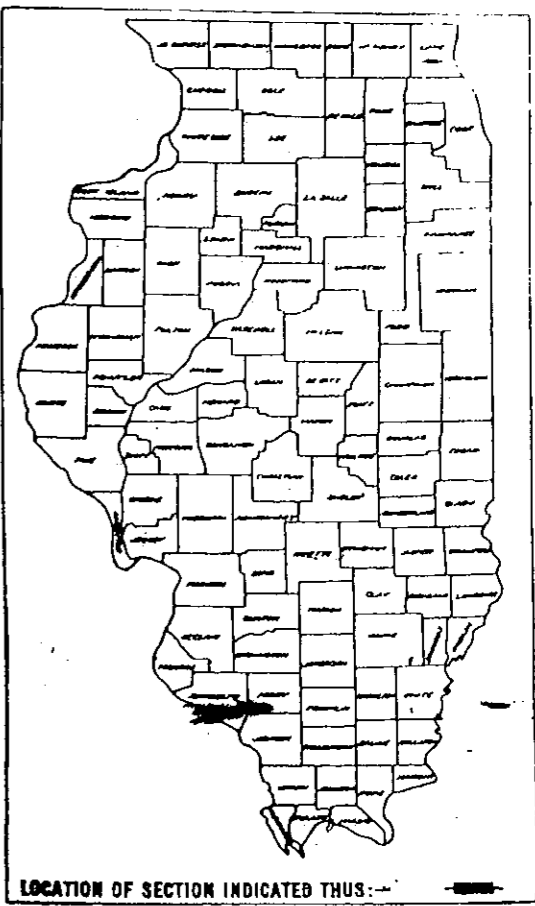
IL 132
Dry Land Bridge
Widening

SCALES

PLAN	1 INCH	100 FT.
PROFILE, HOR.	1 INCH	100 FT.
PROFILE, VERT.	1 INCH	10 FT.
CROSS-SECTIONS	1 INCH	8 FT. VERT.
	1 INCH	10 FT. HORIZ.

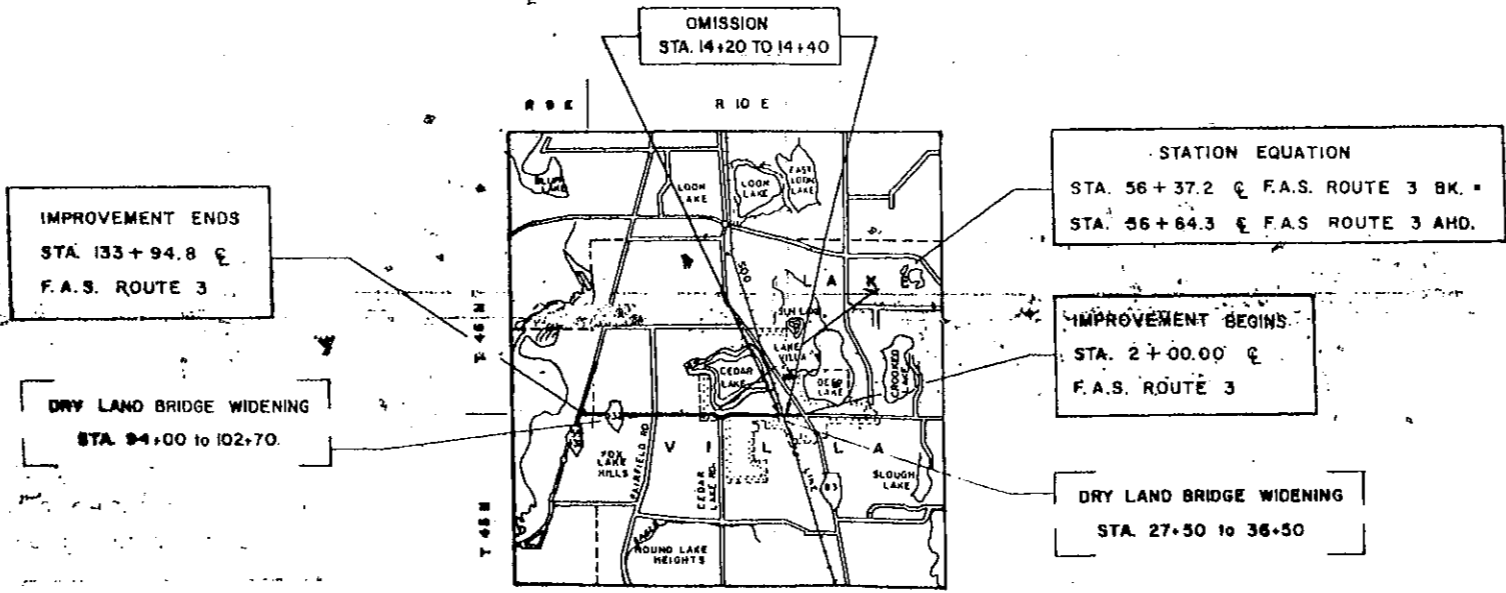
F.A.S. ROUTE 3 (ILL. RTE. 132)
SECTION W&WR(W & RS)
LAKE COUNTY

C-91-920-70



LOCATION OF SECTION INDICATED THIS:—

FOR INDEX OF SHEETS, SEE SHEET NO. 7



NET LENGTH OF IMPROVEMENT = 13,177 FEET OR 2.490 MILES

SCALE 1" = 1 MILE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

6-3-75

William B. ...

6-3-75

W. J. ...

6-3-75

W. J. ...

SECRETARY OF TRANSPORTATION ENGINEER

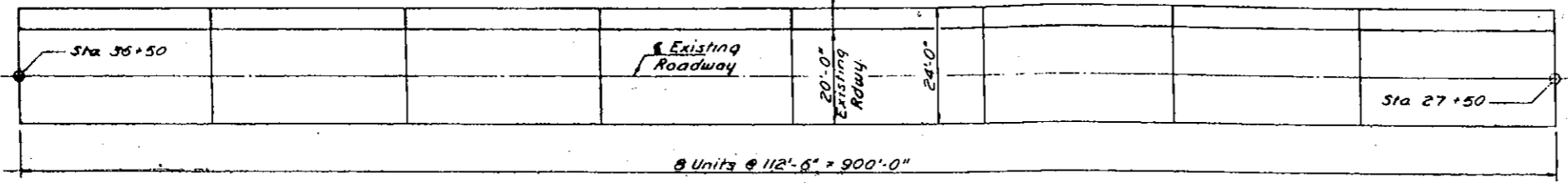
SECRETARY

Doc Review

9

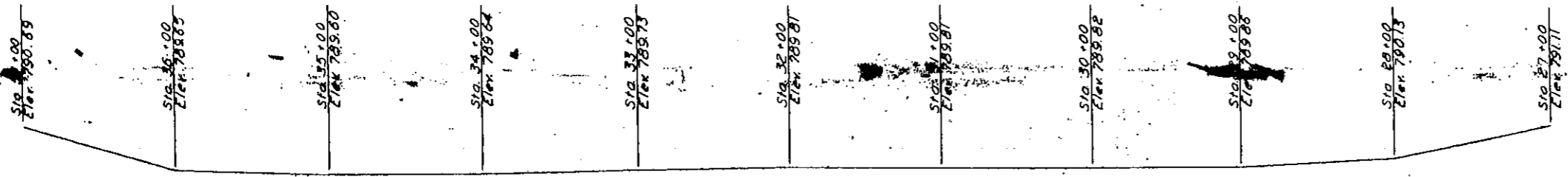
350

CONTRACT NO. 28585

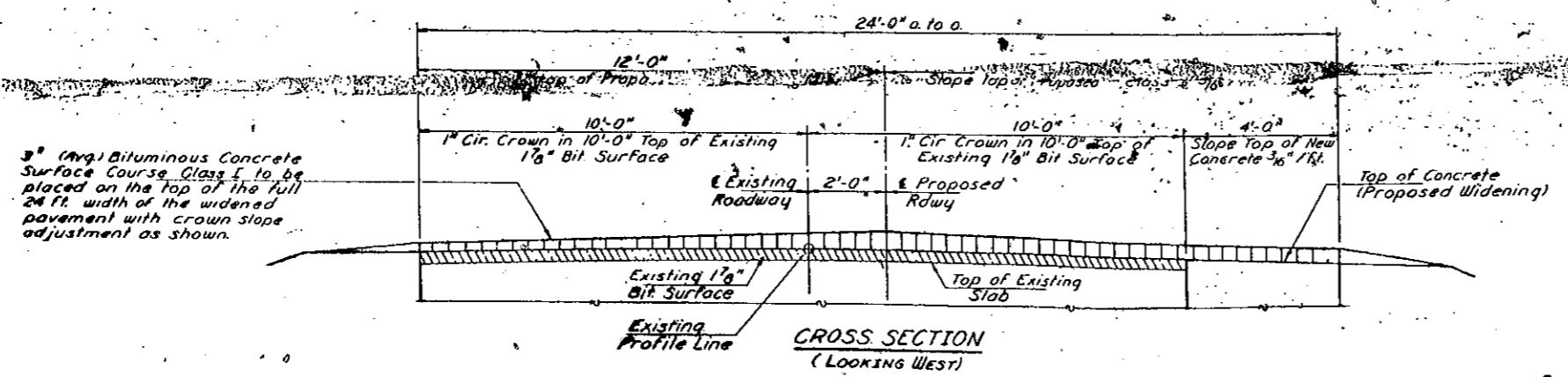


GENERAL PLAN

GENERAL NOTES
 All reinforcement bars shall be lapped 24 diameters unless otherwise shown.
 Expansion bolts shall consist of cast drilling expansion anchors and 3/4" # 4 1/2" hooked bolts.
 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.



EXISTING PROFILE
(ALONG E. Existing Rdwy)



3" (Avg.) Bituminous Concrete Surface Course Class I to be placed on the top of the full 24 ft. width of the widened pavement with crown slope adjustment as shown.

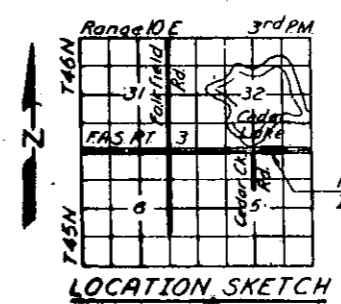
CROSS SECTION
(LOOKING WEST)

TOTAL BILL OF MATERIAL

Item	Unit	Super.	Sub.	Total
Expansion Bolts 3/4" #	Each	896	36	932
Class X Concrete	Cu Yd	1832	63	1895
Reinforcement Bars	Pounds	41840	1080	42920
Crested Piles 20.1'-38'	Lin Ft.		904	904
Crested Piles 38' up	Lin Ft.		520	520

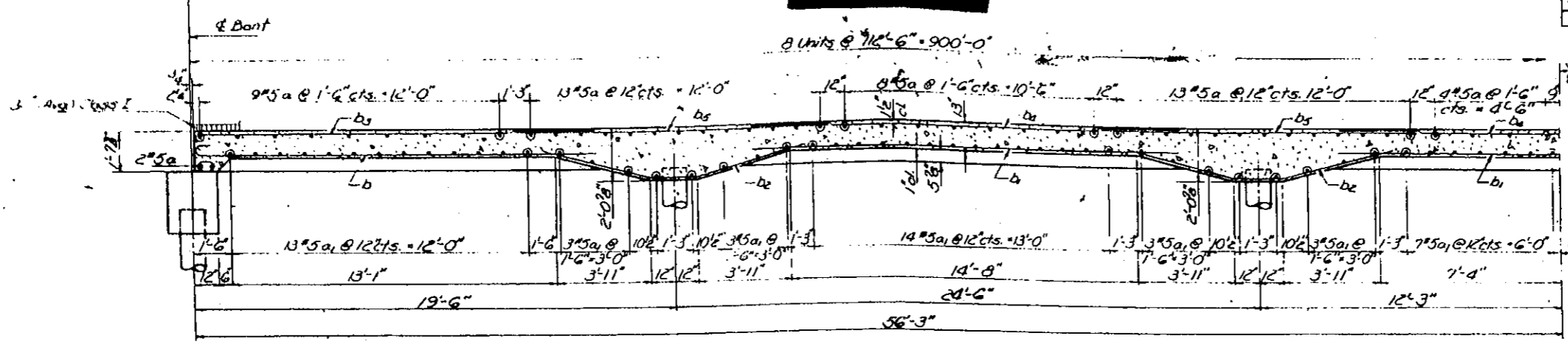
DESIGNED: Stanley S. Lin
 CHECKED: Kevin C. Miller, P.E.
 DRAWN: G.M. Ritchie
 CHECKED: K.L.A.
 EXAMINED: [Signature]
 PASSED: [Signature]
 APPROVED: [Signature]
 MARCH 8 1951

DESIGN STRESSES
 Fc = 1400 psi Deck Slab
 Fc = 1000 psi Pile Bent
 Fs = 12,000 psi Reinforcement
 Vc = 90 psi
 n = 10
 Allowable & Δ = 1/1000
 LOADING - HS20-44

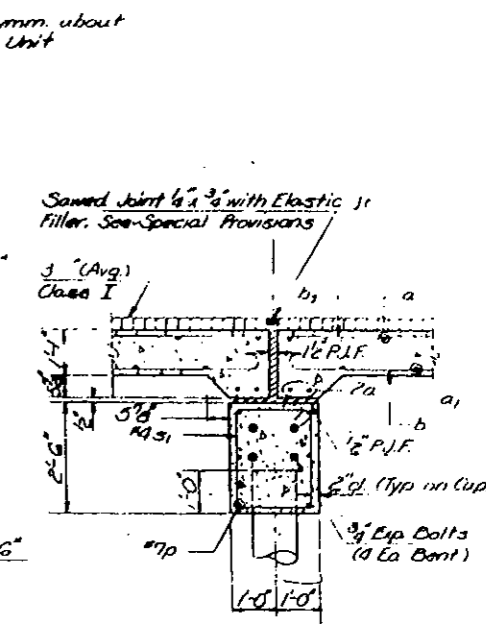


LOCATION SKETCH

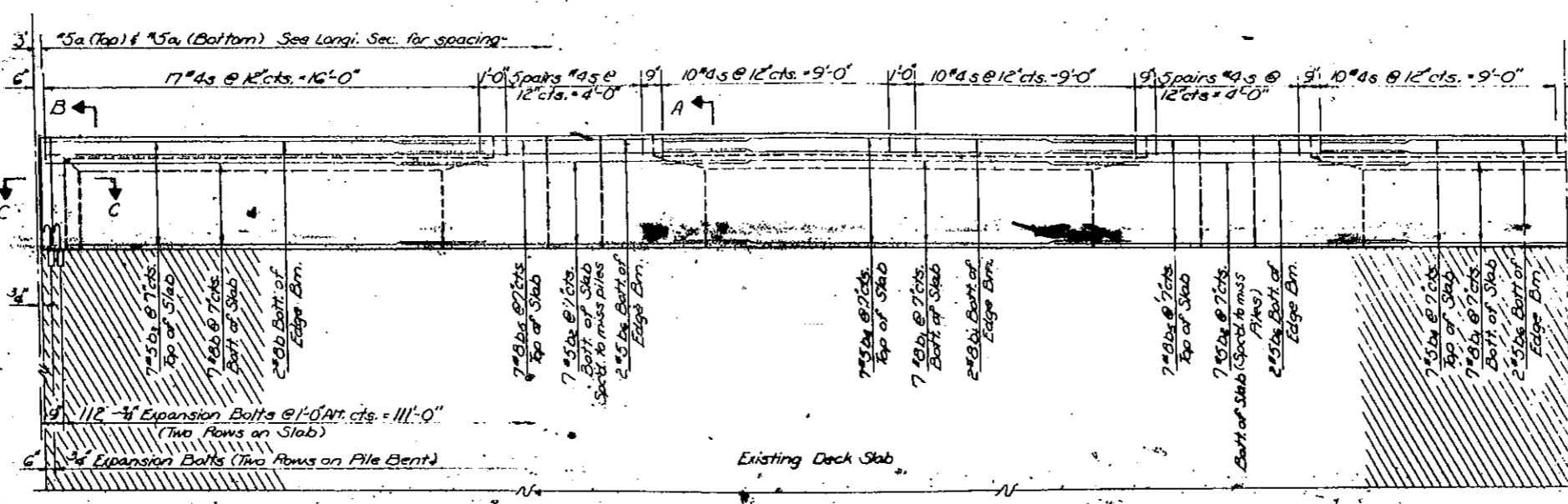
GENERAL PLAN AND CROSS SECTION
 F.A.S. RT. 3 - SEC. W & W R
 LAKE COUNTY
 STA. 27+50 to 36+50



HALF LONGITUDINAL SECTION OF ONE UNIT (TYP.)



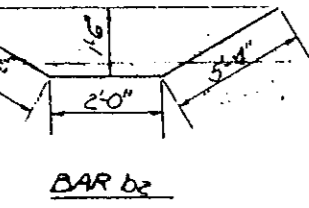
SEC. C-C
(AT Expansion Joint)



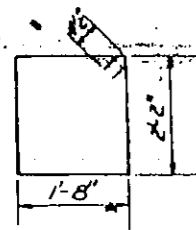
PLAN

ONE UNIT
BILL OF MATERIAL

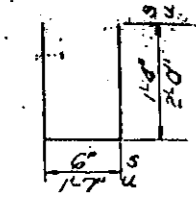
Bar No	Size	Length	Shape
a	#8	5'-3"	
a1	#5	5'-3"	
b	#8	16'-9"	
b1	#8	13'-0"	
b2	#5	14'-0"	
b3	#5	16'-0"	
b4	#5	13'-0"	
b5	#8	13'-0"	
b6	#5	13'-0"	
c	#7	3'-9"	
d	#4	3'-2"	
e	#4	8'-5"	
u	#6	5'-7"	
** Class X Concrete Cu. Yd. 22.4			
** Class Y Concrete Cu. Yd. 0.7			
** Reinforcement Bars Found 32.30			
** Reinforcement Bars Found 120			
** Expansion Bolts @ Each 112			
** Expansion Bolts @ Each 4			
* For one pile Bent only.			
** For Superstructure only.			



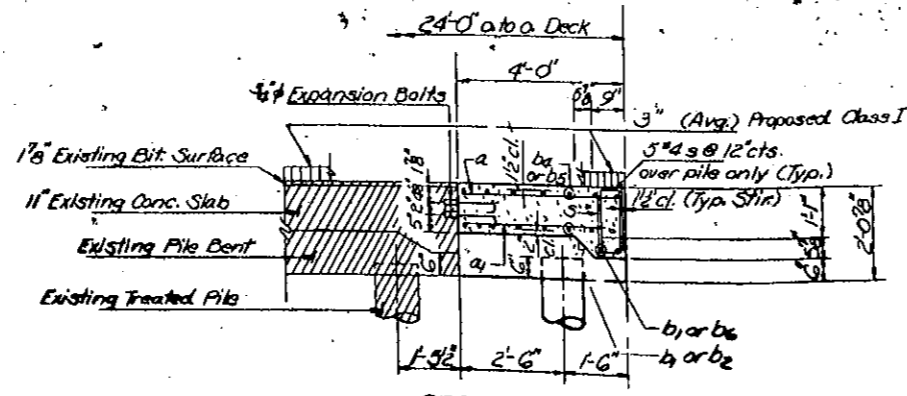
BAR b2



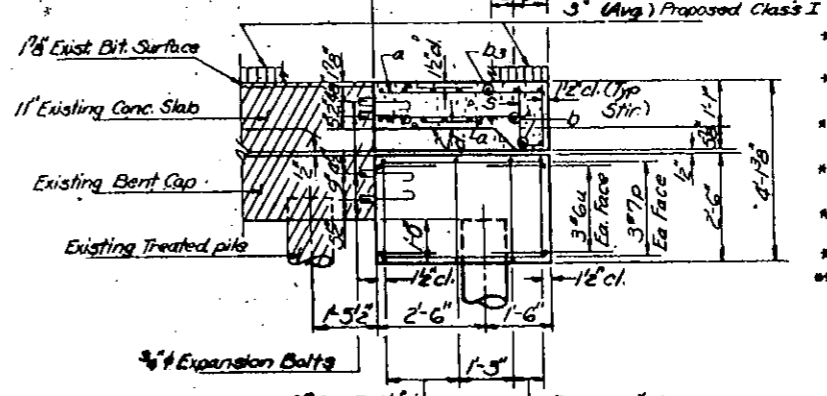
BAR s1



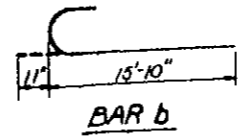
BARS s1u



SEC. A-A



SEC. B-B



BAR b

DESIGNED Stanley S. Lee
 CHECKED Kenneth C. Patton, P.E.
 DRAWN J. Sutherland
 CHECKED K.C.N.

EXAMINED [Signature]
 PASSED W.B. [Signature]
 APPROVED Richard H. [Signature]

MARCH 9, 1971

SUPERSTRUCTURE
 F.A.S. RT. 3 SEC. W/W/R
 LAKE COUNTY
 STATION 27+50 to 36+50

PILE DATA

Type: *Crossed*
Capacity: 20 Tons

ESTIMATED LENGTH
& NO. REQUIRED

Station	Est. Length	No. Req'd
27+50.00	21'-0"	1
27+69.50	21'-0"	1
27+94.00	22'-0"	1
28+13.50	21'-0"	1
28+43.00	22'-0"	1
28+62.50	23'-0"	1
28+82.00	33'-0"	1
29+06.50	30'-0"	1
29+31.00	31'-0"	1
29+55.50	31'-0"	1
29+80.00	34'-0"	1
29+94.50	36'-0"	1
30+19.00	34'-0"	1
30+43.50	34'-0"	1
30+68.00	32'-0"	1
30+87.50	38'-0"	1
31+07.00	26'-0"	1
31+31.50	26'-0"	1
31+56.00	27'-0"	1
31+80.50	34'-0"	1
32+00.00	33'-0"	1
32+19.50	32'-0"	1
32+44.00	32'-0"	1
32+68.50	32'-0"	1
32+93.00	33'-0"	1
33+17.50	36'-0"	1
33+42.00	37'-0"	1
33+66.50	44'-0"	1
33+91.00	50'-0"	1
34+15.50	55'-0"	1
34+40.00	36'-0"	1
34+64.50	35'-0"	1
34+89.00	50'-0"	1
34+93.50	43'-0"	1
35+18.00	40'-0"	1
35+37.50	43'-0"	1
35+57.00	39'-0"	1
35+81.50	36'-0"	1
36+06.00	35'-0"	1
36+30.50	30'-0"	1
36+30.00	28'-0"	1

*Use K...
(S)*

Note:
Estimated pile lengths are
based on pile driving record from
the existing construction.

DESIGNED	<i>Stanley S. Lee</i>
CHECKED	<i>Kenneth C. Baller, P.E.</i>
DRAWN	<i>R. Doty</i>
CHECKED	<i>K.L.A.</i>

MARCH 9 1971

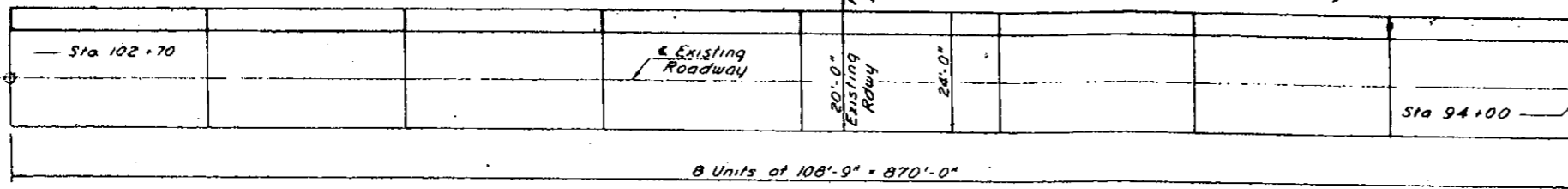
EXAMINED *[Signature]*

PASSED *W. C. Baumann*

APPROVED *Richard H. Holterman*

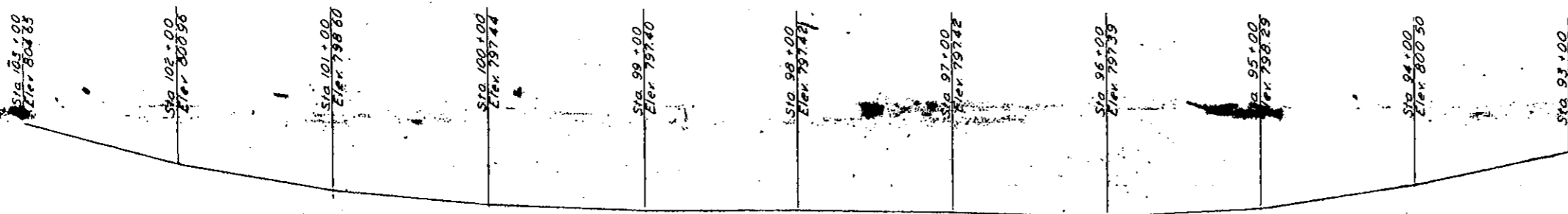
PILE DATA
F.A.S. RT.3 SEC. W 1/4 WR
LAKE COUNTY
STATION 27+50 to 36+50

PROJECT NO.	DATE	BY	CHECKED	SCALE
1153	11/18/85	WLR	LWC	1" = 100'



GENERAL PLAN

GENERAL NOTES
 All reinforcement bars shall be lapped 24 diameters unless otherwise shown.
 Expansion bolts shall consist of self drilling expansion anchors and 3/4" x 12" hooked bolts.
 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.

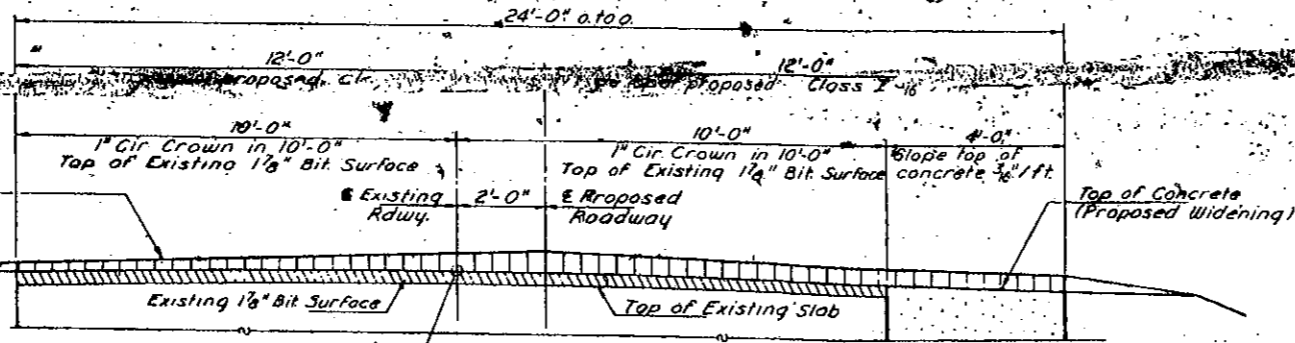


EXISTING PROFILE (ALONG EXISTING RDWY)

TOTAL BILL OF MATERIAL

Item	Unit	Super.	Sub	Total
Expansion Bolts 3/4"	Each	364	36	400
Reinforcement Bars	Pound	40560	1080	41640
Crested Piles 25'-38'	Lin Ft		875	875
Crested Piles 38' up	Lin Ft		555	555

3" (Avg.) Bituminous Concrete Surface Course Class I (to be placed on the top of the full 24 ft. width of widened pavement with crown slope adjustment as shown.)



CROSS SECTION (LOOKING WEST)

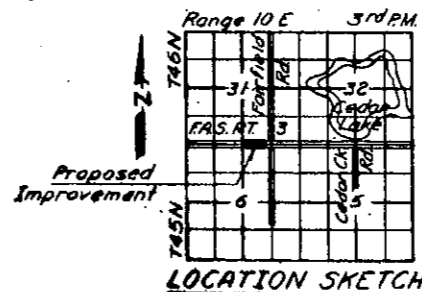
DESIGNED: *Stacy S. Lee*
 CHECKED: *Kevin C. Niles PE.*
 DRAWN: *G.M. Ritchie*
 CHECKED: *K.C.A.*

EXAMINED: *[Signature]*
 PASSED: *[Signature]*
 APPROVED: *[Signature]*

DATE: *March 8 1971*

DESIGN STRESSES
 Fc = 4000 p.s.i. Deck Slab
 Fc = 1000 p.s.i. Pile Bent
 Fs = 20000 p.s.i. Reinforcement
 Vc = 90 p.s.i.
 n = 10

ALLOWABLE $\Delta = L/1000$
 LOADING - HS20-44

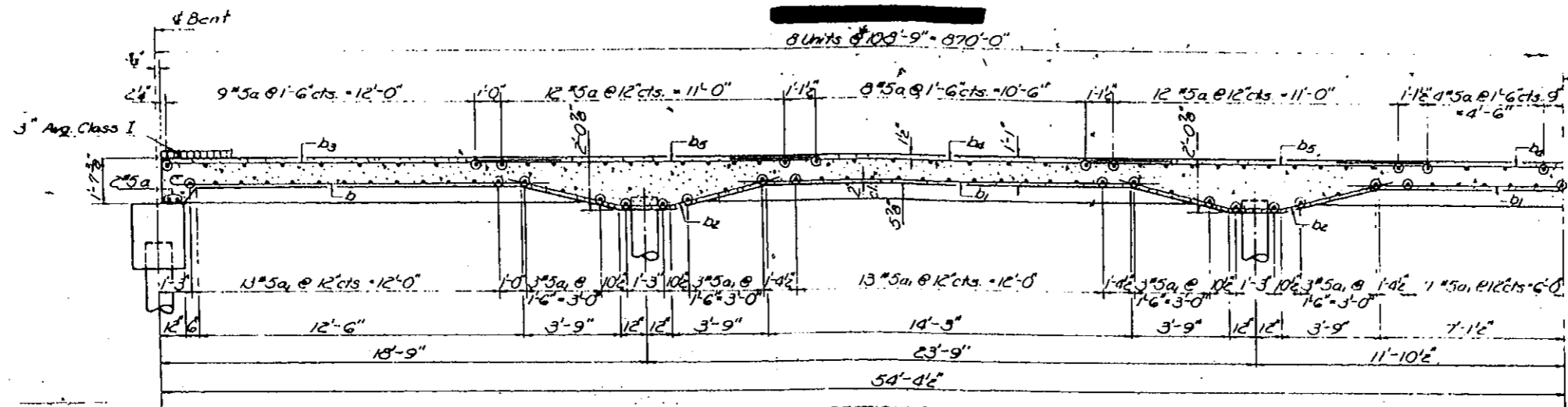


LOCATION SKETCH

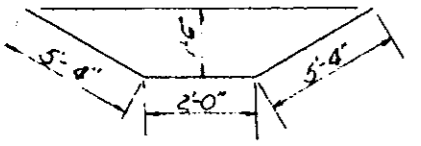
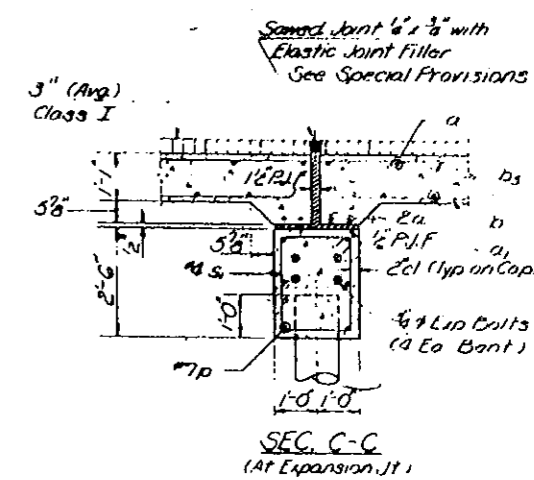
GENERAL PLAN AND CROSS SECTION
 F.A.S. RT. 3 - SEC. W.E.W.R.
 LAKE COUNTY
 STA. 94+00 TO 102+70

NO. 3	W. H. W.	3	1
DATE	NO.	BY	CHKD.

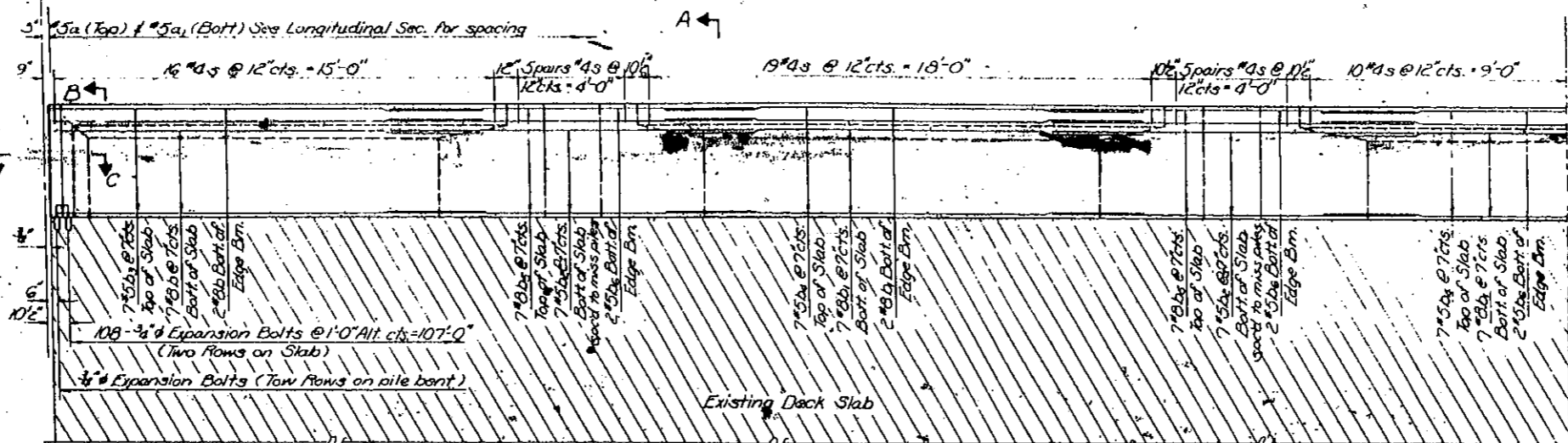
SHEET NO. 3
3 SHEETS



HALF LONGITUDINAL SECTION OF ONE UNIT (TYP.)



BAR b

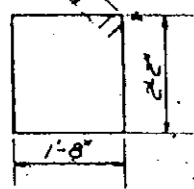


BAR s

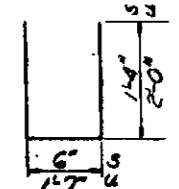
ONE UNIT
BILL OF MATERIAL

Bar No	Size	Length	Notes
a	#5	3'-9"	
a1	#5	3'-3"	
b	#8	16'-3"	
b1	#8	17'-6"	
b2	#5	12'-8"	
b3	#5	15'-6"	
b4	#5	17'-6"	
b5	#8	13'-0"	
b6	#5	13'-0"	
d	#7	3'-9"	
s	#4	3'-2"	
s1	#4	3'-5"	
u	#6	3'-7"	
** Class X Concrete Cu. Yd. 22.2			
** Class A Concrete Cu. Yd. 2.7			
** Reinforcement Bars Pound 3070			
** Reinforcement Bars Pound 120			
** Expansion Bolts #4 Each 108			
** Expansion Bolts #5 Each 4			

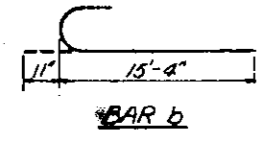
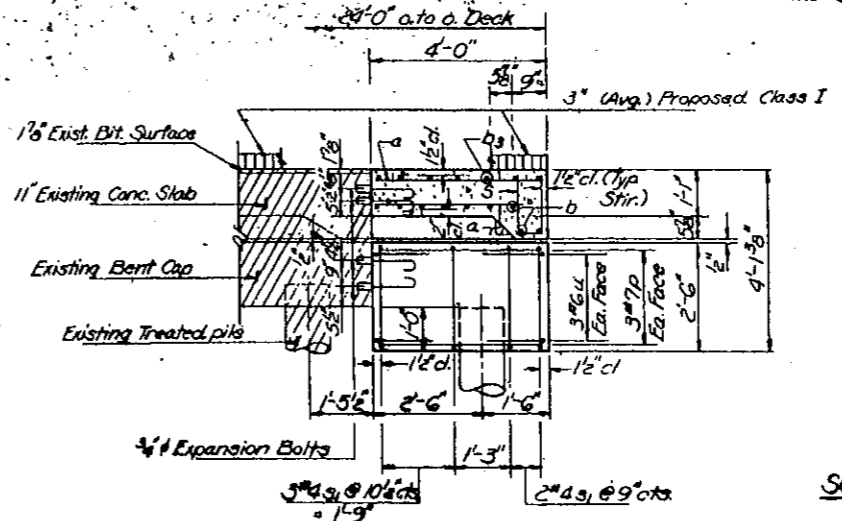
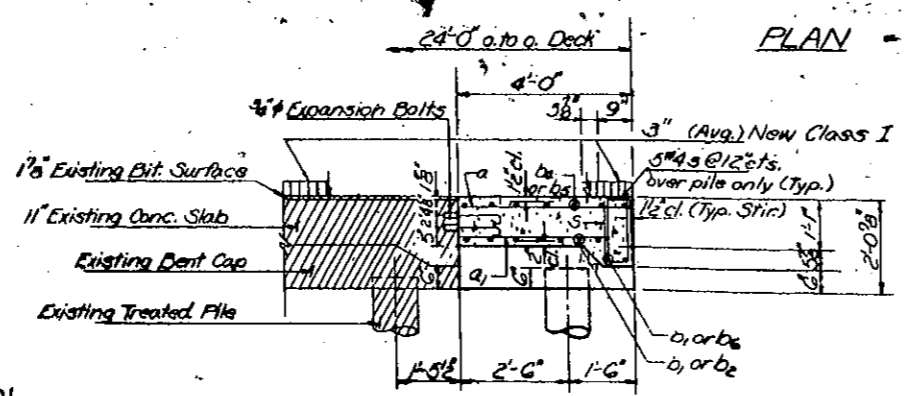
* For one pile bent only.
** For Superstructure only.



BAR s



BARS s & u



BAR b

DESIGNED	Stanley S. Linn
CHECKED	W. H. W.
APPROVED	W. H. W.
CHECKED	K. C. A.

March 8 1971

EXAMINED

APPROVED

Richard H. Hoffman

SUPERSTRUCTURE & PILE BENT DETAILS
F.A.S. RT. 3 SEC. W & WR
LAKE COUNTY
STATION 94+00 to 102+00

PROJECT NO.	W 18 W R	SECTION	53	SHEET NO.	70
DATE	1/1/73	NAME	Lake	NO.	53

PILE DATA

Type: Crossed
Capacity: 20 Tons

ESTIMATED LENGTH
& NO. REQUIRED

Station	Est. Length	No. Piles
94+00.00	28'0"	1
94+18.75	31'0"	1
94+27.50	34'0"	1
94+66.25	33'0"	1
94+92.00	30'0"	1
95+03.75	34'0"	1
95+27.50	24'0"	1
95+51.25	43'0"	1
95+75.00	46'0"	1
96+17.50	46'0"	1
96+36.25	42'0"	1
96+60.00	41'0"	1
96+83.75	41'0"	1
97+07.50	30'0"	1
97+26.25	44'0"	1
97+45.00	43'0"	1
97+28.75	48'0"	1
97+92.50	34'0"	1
98+16.25	40'0"	1
98+35.00	36'0"	1
98+53.75	40'0"	1
98+72.50	39'0"	1
99+01.25	31'0"	1
99+25.00	34'0"	1
99+43.75	36'0"	1
99+62.50	35'0"	1
100+01.00	34'0"	1
100+33.75	30'0"	1
100+52.50	30'0"	1
100+71.25	32'0"	1
100+90.00	30'0"	1
101+18.75	32'0"	1
101+47.50	31'0"	1
101+66.25	30'0"	1
101+85.00	30'0"	1
102+03.75	29'0"	1
102+27.50	25'0"	1
102+51.25	29'0"	1
102+70.00	24'0"	1

Note:
Estimated pile lengths are based on pile driving record from the existing construction.

DESIGNED	Stanley S. Lin	DATE	1/1/73
CHECKED	Kenneth C. Nelson, Lt.	EXAMINED	[Signature]
DRAWN	R. Doly	PASSED	[Signature]
CHECKED	K.C.A.	APPROVED	[Signature]

FILE DATA
FAS RT.3 SEC. W 18 W R
LAKE COUNTY
STATION 94+00 to 102+70

28 W 18 W R (28 W 18 W R) 53