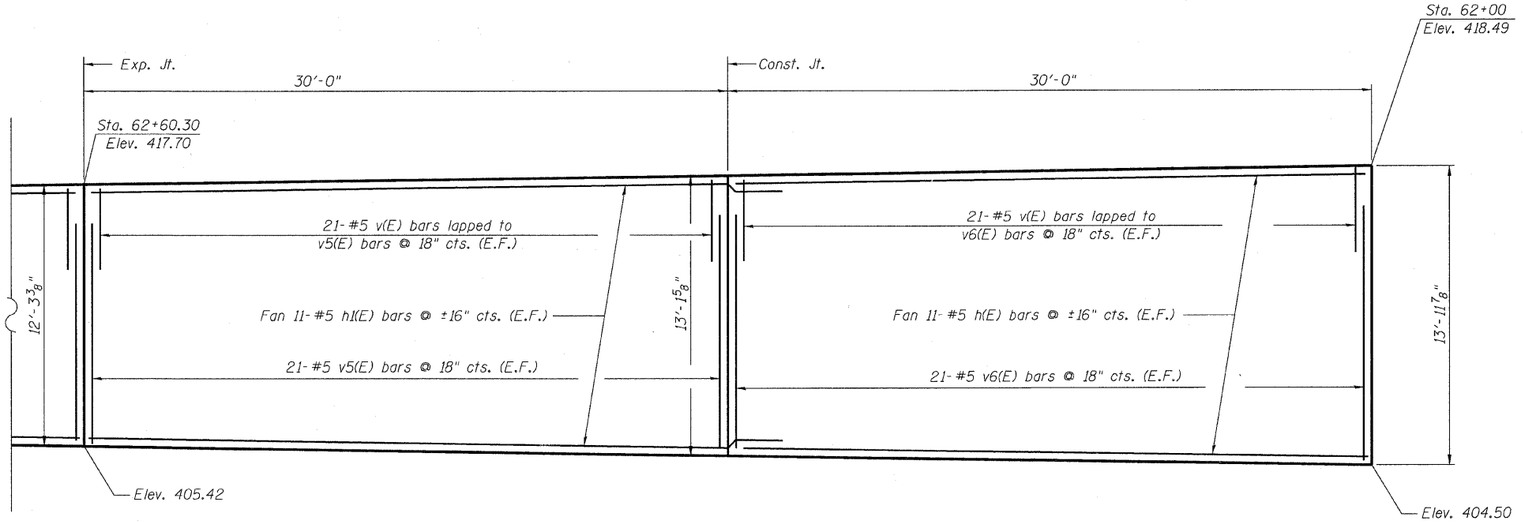
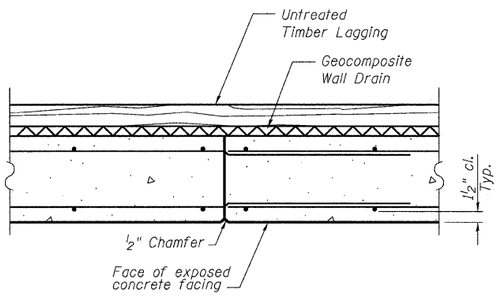
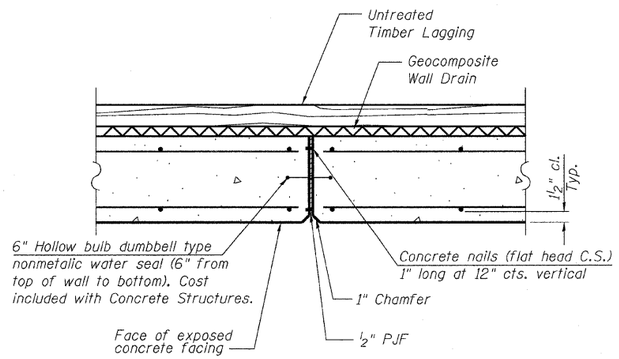


ELEVATION

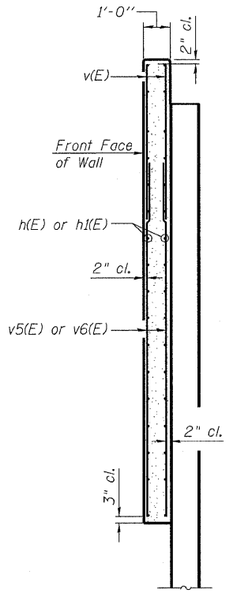
(Concrete Facing Section 1)



CONSTRUCTION JOINT



EXPANSION JOINT



SECTION THRU CONCRETE FACING

MIN. BAR LAPS

#5 bar = 2'-2"

HOELSCHER ENGINEERING
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Springfield, IL
Champaign, IL

CONCRETE FACING SECTION 1
STRUCTURE NO. 082-W301

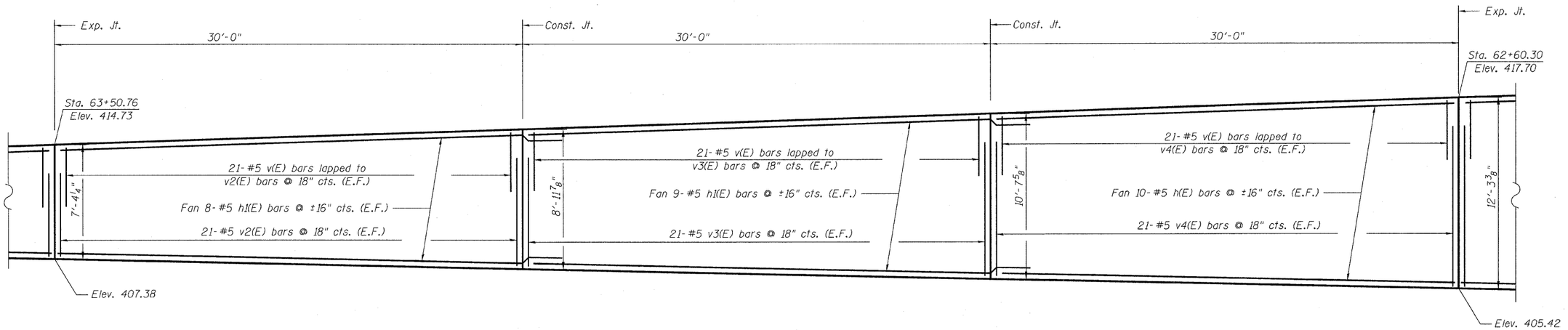
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	PLOT DATE = 10/5/2009	DATE - OCT 9, 2009	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONCRETE FACING SECTION 1 – RETAINING WALL 082-W301

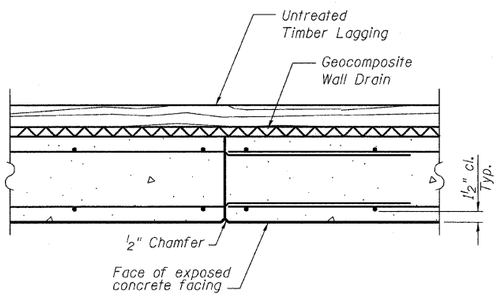
SCALE: N.T.S. | SHEET NO. 5 OF 9 SHEETS | STA. 62+00.00 TO STA. 64+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-1-1HB	ST. CLAIR	236	201
		CONTRACT NO. 76C55		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

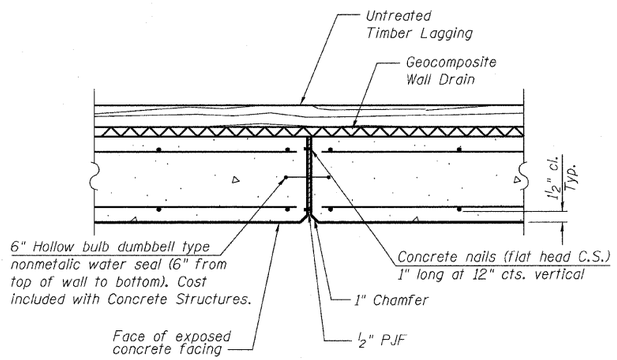


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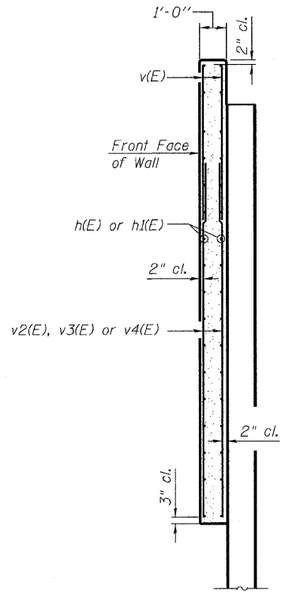
(Concrete Facing Section 2)



CONSTRUCTION JOINT



EXPANSION JOINT



SECTION THRU CONCRETE FACING

MIN. BAR LAPS

#5 bar = 2'-2"

HOELSCHER ENGINEERING
Fairview Heights, IL
Springfield, IL
Champaign, IL

CONCRETE FACING SECTION 2
STRUCTURE NO. 082-W301

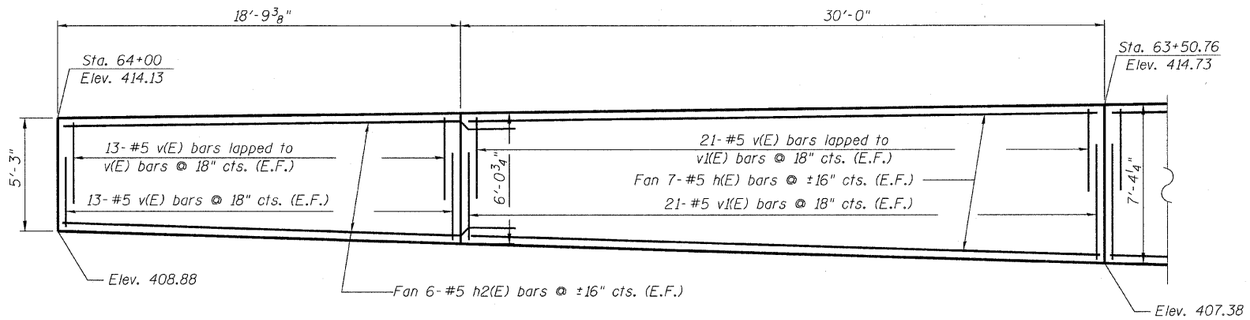
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		DRAWN - TJW	REVISED -
	PLOT SCALE = 2688 '/ IN.	CHECKED - JSA	REVISED -
	PLOT DATE = 10/5/2009	DATE - OCT 9, 2009	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONCRETE FACING SECTION 2 – RETAINING WALL 082-W301

SCALE: N.T.S. | SHEET NO. 6 OF 9 SHEETS | STA. 62+00.00 TO STA. 64+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-1-1HB	ST. CLAIR	236	202
		CONTRACT NO. 76C55		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



ELEVATION

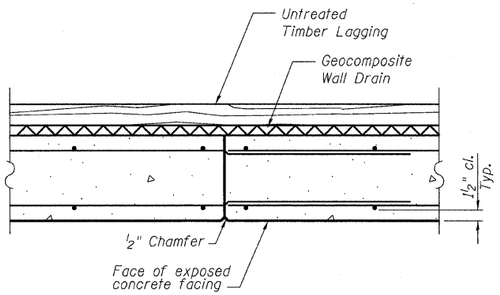
(Concrete Facing Section 3)

MIN. BAR LAPS

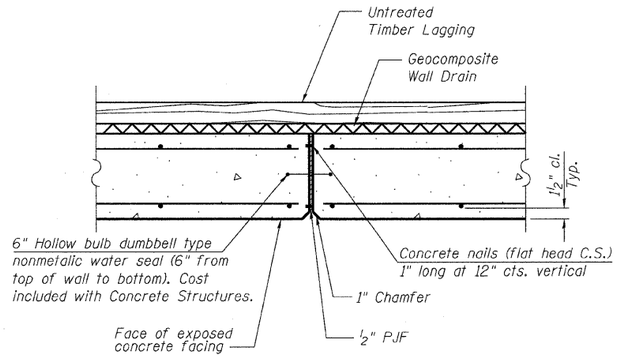
#5 bar = 2'-2"

BILL OF MATERIAL

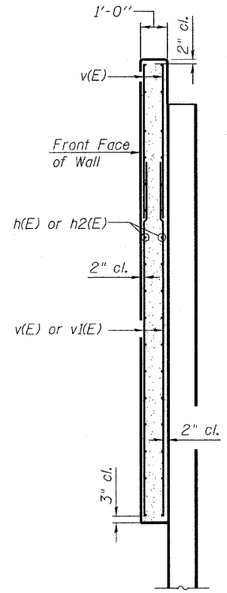
Bar	No.	Size	Length	Shape
h(E)	56	#5	29'-8"	———
h_1(E)	56	#5	32'-2"	———
h_2(E)	12	#5	20'-9"	———
v(E)	304	#5	4'-0"	———
v_1(E)	42	#5	5'-2"	———
v_2(E)	42	#5	6'-9"	———
v_3(E)	42	#5	8'-5"	———
v_4(E)	42	#5	10'-0"	———
v_5(E)	42	#5	10'-11"	———
v_6(E)	42	#5	11'-9"	———
Concrete Structures			Cu. Yd.	73.3
Reinforcement Bars, Epoxy Coated			Pound	7460



CONSTRUCTION JOINT



EXPANSION JOINT



SECTION THRU CONCRETE FACING

Note: E.F. = Each Face

HOELSCHER ENGINEERING
Fairview Heights, IL
Springfield, IL
Champaign, IL

CONCRETE FACING SECTION 3
STRUCTURE NO. 082-W301

FILE NAME = H:\SN 082-W301 Final Plans 100909.dgn	USER NAME = default	DESIGNED - CMW	REVISED -
		DRAWN - TJW	REVISED -
	PLOT SCALE = 2688 '1' / IN.	CHECKED - JSA	REVISED -
	PLOT DATE = 10/5/2009	DATE - OCT 9, 2009	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONCRETE FACING SECTION 3 – RETAINING WALL 082–W301

SCALE: N.T.S. | SHEET NO. 7 OF 9 SHEETS | STA. 62+00.00 TO STA. 64+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-1-1HB	ST. CLAIR	236	203
		CONTRACT NO. 76C55		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
Geotechnology

SOIL BORING LOG

Date 2/5/09

ROUTE FAP 998 DESCRIPTION Trilevel Interchange LOGGED BY RFW

SECTION 82-1 LOCATION East St. Louis, IL, SEC. 7, TWP. 2N, RNG. 9W

COUNTY St. Clair DRILLING METHOD HSA HAMMER TYPE CME 75 / 80%

STRUCT. NO. NA
Station NA

BORING NO. SB-405
Station
Offset
Ground Surface Elev. 419.5 ft

Surface Water Elev. Unknown ft
Stream Bed Elev. Unknown ft

Groundwater Elev.:
First Encounter Not Measured ft
Upon Completion Not Measured ft
After Hrs. Not Measured ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Crushed limestone GRAVEL base (FILL) 419.2			
Brown, SILT with sand, gravel, clay, and concrete debris (FILL)	8		
	12		14
	3		
	3		
	50/1"		16
414.0 -5			
Loose, brown, FINE GRAINED SAND, trace silt (FILL)	2		
	3		16
	3		
	2		
	2		14
409.0 -10	3		
Loose, brown, SANDY LOAM, with clay seams	2		
	3		16
	3		
	0		
	1		28
404.0 -15	3		
Loose to medium dense, gray, FINE GRAINED SAND	3		
	5		
	5		
399.5 -20	6		

End of Boring
The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

* Rimac attempted, not measured due to sample disturbance
** Not measured due to drilling methods used

Illinois Department of Transportation
Division of Highways
Geotechnology, Inc

SOIL BORING LOG

Date 11/2/00

ROUTE FAP 998 DESCRIPTION Trilevel Interchange LOGGED BY BEC

SECTION 82-1 LOCATION East St. Louis, IL, SEC. 7, TWP. 2N, RNG. 9W

COUNTY St. Clair DRILLING METHOD Hollow Stem Auger and Mud Rotary HAMMER TYPE Automatic Hammer

STRUCT. NO. 082-0378
Station NA

BORING NO. B-18
Station 16+43.34
Offset 57.65ft Right
Ground Surface Elev. 420.00 ft

Surface Water Elev. Unknown ft
Stream Bed Elev. Unknown ft

Groundwater Elev.:
First Encounter ** ft
Upon Completion ** ft
After ** Hrs. ** ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown, CLAY with gravel/crushed limestone (FILL)	1		
	3	1.0	20
	4	P	
415.00	1		
Gravel/crushed limestone (FILL) 415.50	13	*	15
Very stiff, brown, SANDY CLAY -5	10		
414.50			
Stiff, dark brown to brown, SILTY CLAY with laminations of brown, FINE GRAINED SAND @ 8'-10'	3		
	4	2.5	30
	6	P	
	3		
410.00 -10	6	*	21
	5		
Loose, brown, SANDY LOAM	1		
	3	*	18
407.00	3		
Soft, brown/gray, mottled, SILTY CLAY sandy in places with Fe staining @ 16'-19'	1		
	1	1.0	23
-15	3	S	
	1		
	2	1.0	
	2	P	
401.00	1		
-20	4		
	3		

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Loose, brown, FINE GRAINED SAND with seams of brown/gray, mottled, silt 398.50	3		
Started mud rotary drilling @ 20' *(continued)*	5	*	
Loose, brown, SANDY LOAM with Fe staining	5		
	3		
394.50 -25			
Interbedded, stiff, gray, SILT and medium dense, brown, FINE GRAINED SAND	3		
	5	*	
392.00	6		
Medium dense, brown, SANDY LOAM with laminations of gray, silt	5		
	7		
-30	9		
388.00	7		
Medium dense, brown, FINE GRAINED SAND with laminations of black organic material and rare rounded quartz -35	8		
	8		
	8		
	9		
-40	11		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

* Rimac not measured due to sample disturbance
** Not measured due to drilling methods used

Illinois Department of Transportation
Division of Highways
Geotechnology, Inc

SOIL BORING LOG

Date 11/2/00

ROUTE FAP 998 DESCRIPTION Trilevel Interchange LOGGED BY BEC

SECTION 82-1 LOCATION East St. Louis, IL, SEC. 7, TWP. 2N, RNG. 9W

COUNTY St. Clair DRILLING METHOD Hollow Stem Auger and Mud Rotary HAMMER TYPE Automatic Hammer

STRUCT. NO. 082-0378
Station NA

BORING NO. B-18
Station 16+43.34
Offset 57.65ft Right
Ground Surface Elev. 420.00 ft

Surface Water Elev. Unknown ft
Stream Bed Elev. Unknown ft

Groundwater Elev.:
First Encounter ** ft
Upon Completion ** ft
After ** Hrs. ** ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Medium dense, brown, FINE GRAINED SAND with laminations of black organic material and rare rounded quartz *(continued)*			
376.00			
Medium dense to dense, gray, FINE GRAINED SAND with layers of black organic material	8		
	11		
-45	14		
	10		
	12		
-50	13		
	11		
	13		
-60	15		

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Medium dense to dense, gray, FINE GRAINED SAND with layers of black organic material *(continued)*			
	6		
	7		
-65	14		
355.00			
Medium dense to very dense, gray, FINE GRAINED SAND	8		
	12		
-70	13		
	2		
	12		
-75	18		
See Attached Gradation Test Results			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

* Rimac not measured due to sample disturbance
** Not measured due to drilling methods used

HOELSCHER ENGINEERING
Fairview Heights, IL
Springfield, IL
Champaign, IL

BORINGS
STRUCTURE NO. 082-W301

FILE NAME = H:\SN 082-W301 Final Plans 100909.dgn	USER NAME = default	DESIGNED - CMW	REVISED -
		DRAWN - TJW	REVISED -
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	PLOT DATE = 10/5/2009	DATE - OCT 9, 2009	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORINGS - RETAINING WALL 082-W301

SCALE: N.T.S. | SHEET NO. 8 OF 9 SHEETS | STA. 62+00.00 TO STA. 64+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-1-1HB	ST. CLAIR	236	204
		CONTRACT NO. 76C55		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
Geotechnology, Inc

SOIL BORING LOG

Date 11/2/00

ROUTE FAP 998 DESCRIPTION Trilevel Interchange LOGGED BY BEC

SECTION 82-1 LOCATION East St. Louis, IL, SEC. 7, TWP. 2N, RNG. 9W

COUNTY St. Clair DRILLING METHOD Hollow Stem Auger and Mud Rotary HAMMER TYPE Automatic Hammer

STRUCT. NO. 082-0378
Station NA

BORING NO. B-18
Station 16+43.34
Offset 57.65ft Right
Ground Surface Elev. 420.00 ft

Surface Water Elev. Unknown ft
Stream Bed Elev. Unknown ft

Groundwater Elev.:
First Encounter ** ft
Upon Completion ** ft
After ** Hrs. ** ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Medium dense to very dense, gray, FINE GRAINED SAND *(continued)*				Medium dense, brown, FINE GRAINED SAND with rounded quartz and lenses of light gray weathered limestone (109-114)			
	18				8		
	33				14		
-85	35			-105	18		
330.00 -90				-110			
Medium dense, gray, MEDIUM GRAINED SAND with rounded quartz				306.00	22		
	11				41		
	14			GRAVEL, BOULDERS (glacial outwash)			
-95	15			-115	53		
320.00 -100				-120			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

* Rimac not measured due to sample disturbance
** Not measured due to drilling methods used

Illinois Department of Transportation
Division of Highways
Geotechnology, Inc

SOIL BORING LOG

Date 11/2/00

ROUTE FAP 998 DESCRIPTION Trilevel Interchange LOGGED BY BEC

SECTION 82-1 LOCATION East St. Louis, IL, SEC. 7, TWP. 2N, RNG. 9W

COUNTY St. Clair DRILLING METHOD Hollow Stem Auger and Mud Rotary HAMMER TYPE Automatic Hammer

STRUCT. NO. 082-0378
Station NA

BORING NO. B-18
Station 16+43.34
Offset 57.65ft Right
Ground Surface Elev. 420.00 ft

Surface Water Elev. Unknown ft
Stream Bed Elev. Unknown ft

Groundwater Elev.:
First Encounter ** ft
Upon Completion ** ft
After ** Hrs. ** ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
299.50			
CRYSTALLINE LIMESTONE - See Rock Core Log			
-125			
-130			
289.50			
End of Boring			
-136			
-140			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

* Rimac not measured due to sample disturbance
** Not measured due to drilling methods used

HOELSCHER ENGINEERING
Fairview Heights, IL
Springfield, IL
Champaign, IL

BORINGS
STRUCTURE NO. 082-W301

FILE NAME = H:\SN 082-W301 Final Plans 100909.dgn	USER NAME = default	DESIGNED - CMW	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

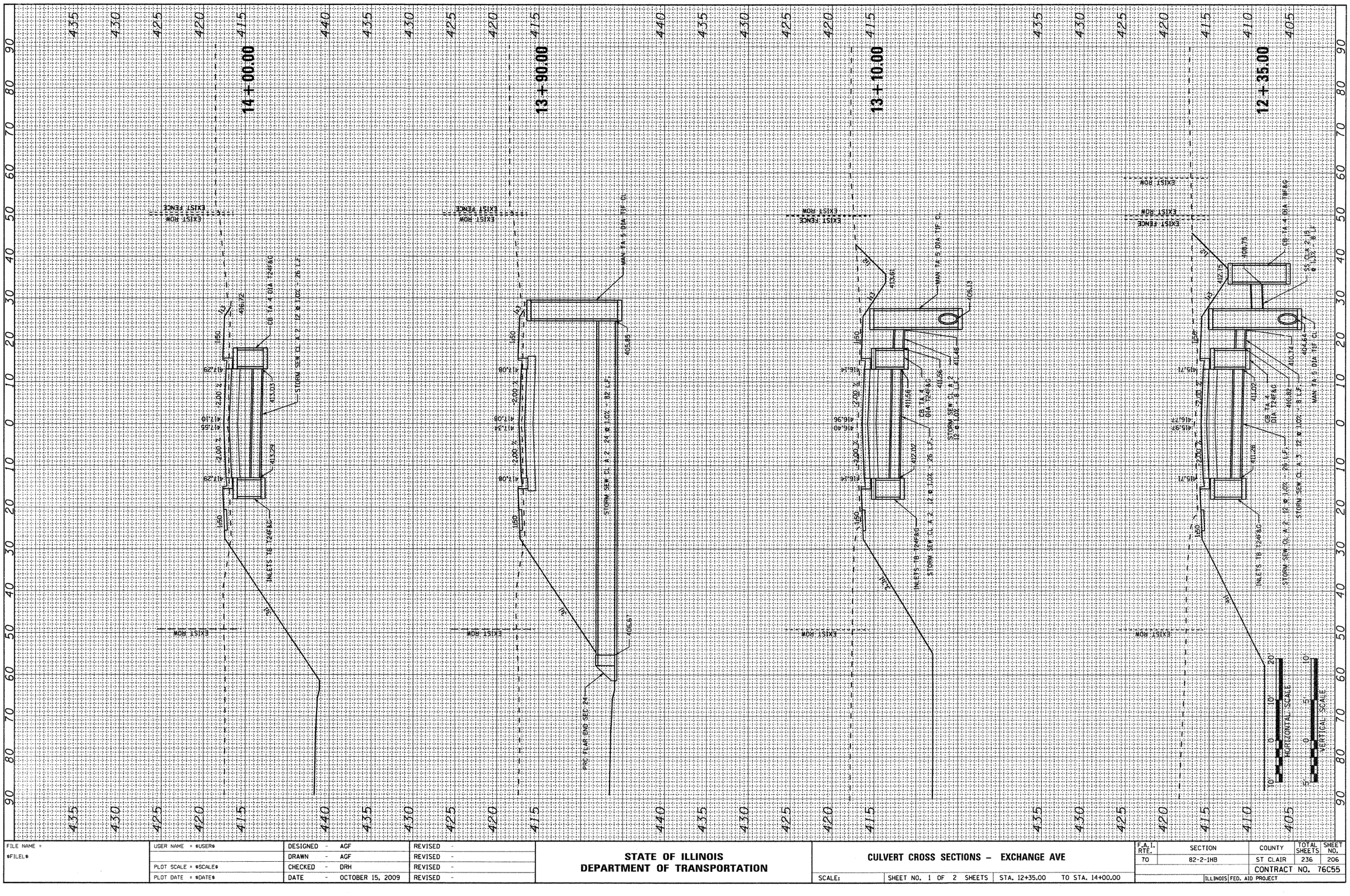
BORINGS – RETAINING WALL 082-W301

SCALE: N.T.S. | SHEET NO. 9 OF 9 SHEETS | STA. 62+00.00 TO STA. 64+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-1-1HB	ST. CLAIR	236	205
		CONTRACT NO. 76C55		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TYPICAL SECT.		
	AREAS		
	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TYPICAL SECT.		
	AREAS		
	AREAS CHECKED		



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		DRAWN - AGF	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - DRH	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

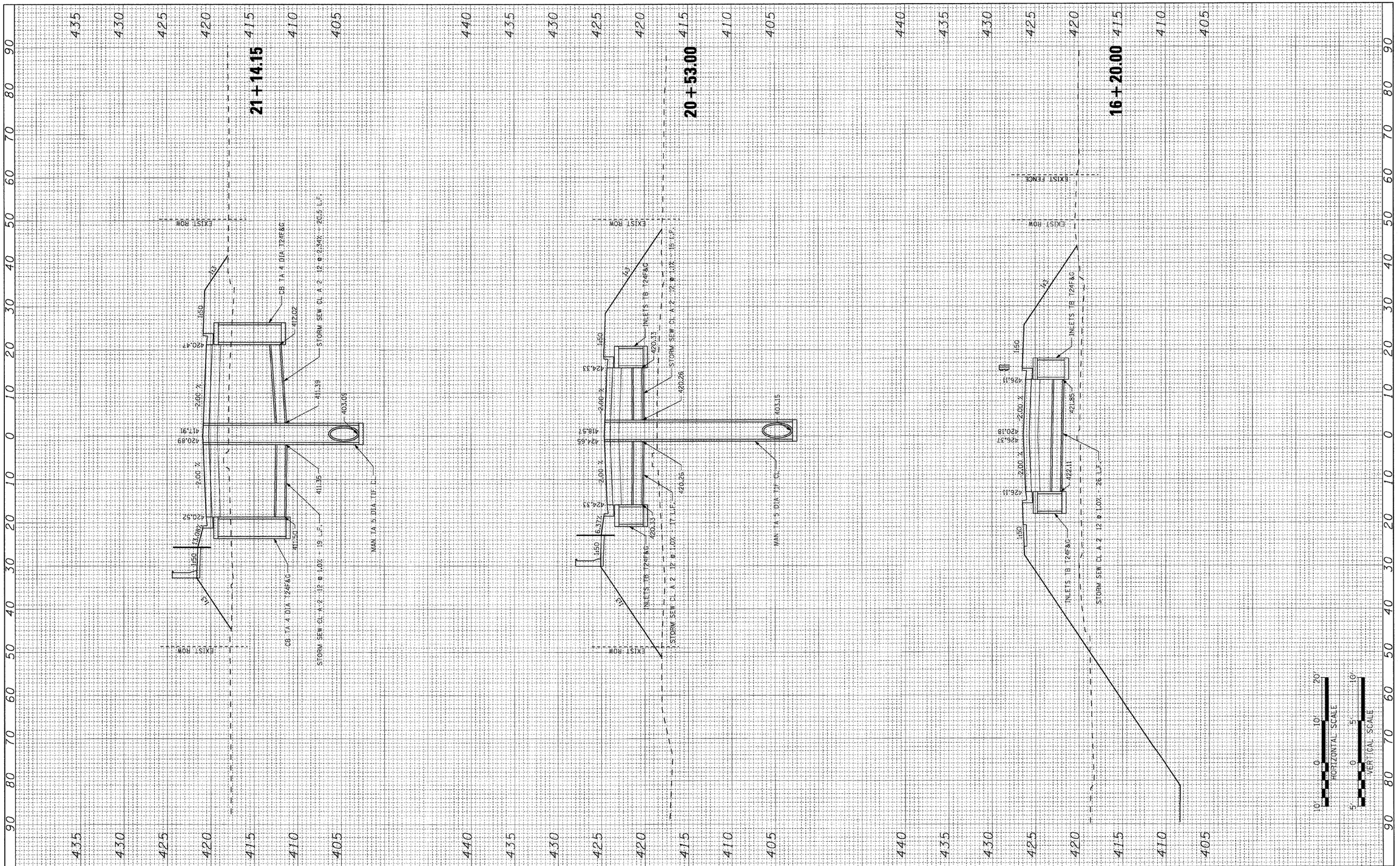
CULVERT CROSS SECTIONS – EXCHANGE AVE

SCALE: | SHEET NO. 1 OF 2 SHEETS | STA. 12+35.00 TO STA. 14+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-2-1HB	ST CLAIR	236	206
		CONTRACT NO. 76C55		
	ILLINOIS FED. AID PROJECT			

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS		
	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS		
	AREAS CHECKED		



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		DRAWN - AGF	REVISED -
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	PLOT DATE = $DATE$	DATE - OCTOBER 9, 2009	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CULVERT CROSS SECTIONS – EXCHANGE AVE

SCALE: | SHEET NO. 2 OF 2 SHEETS | STA. 16+20.00 TO STA. 21+14.15

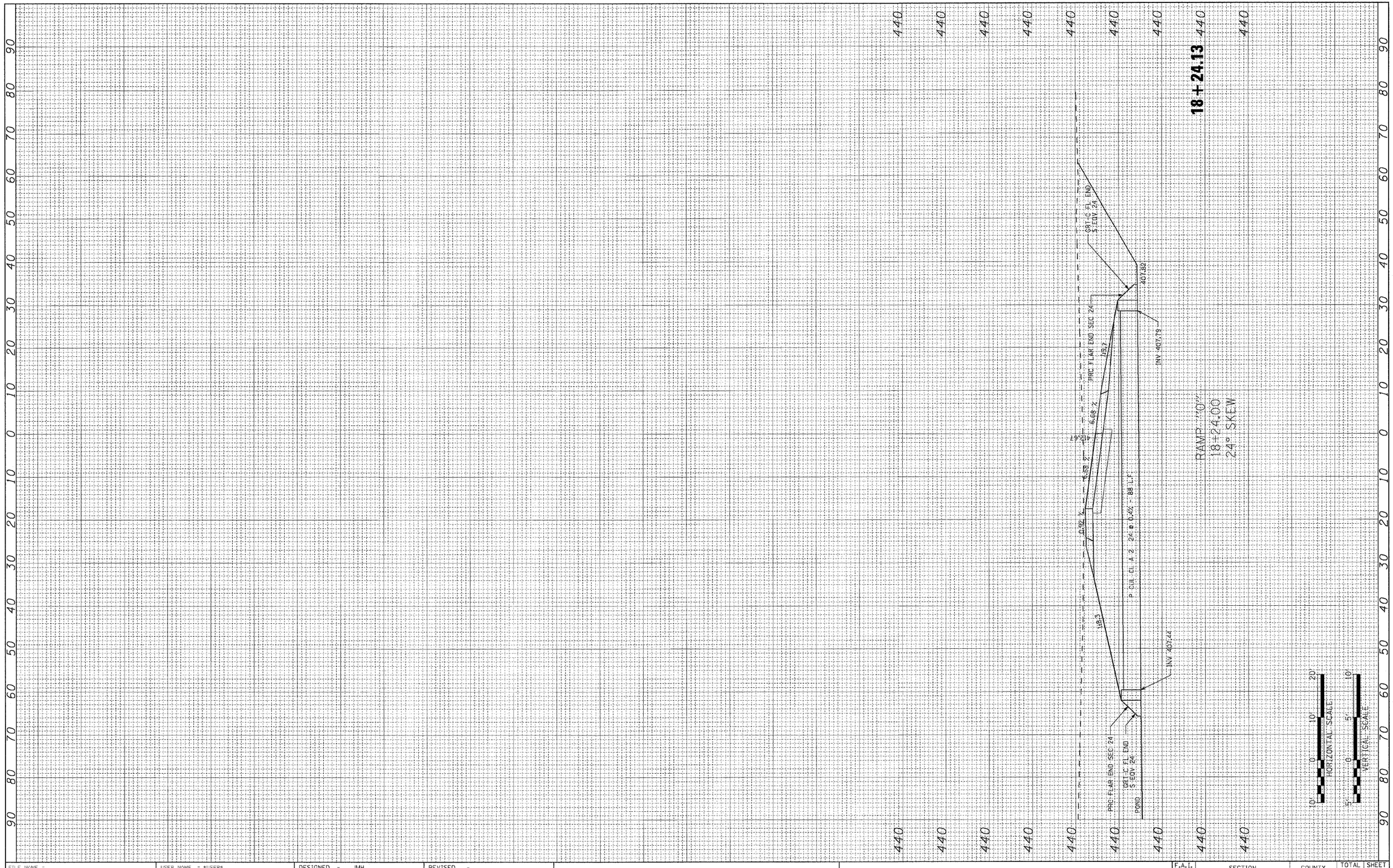
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-2-1HB	ST CLAIR	236	207

CONTRACT NO. 76C55

ILLINOIS FED. AID PROJECT

FINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TEMPLATE		
NO.	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TEMPLATE		
NO.	AREAS CHECKED		



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		DRAWN - JMH	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

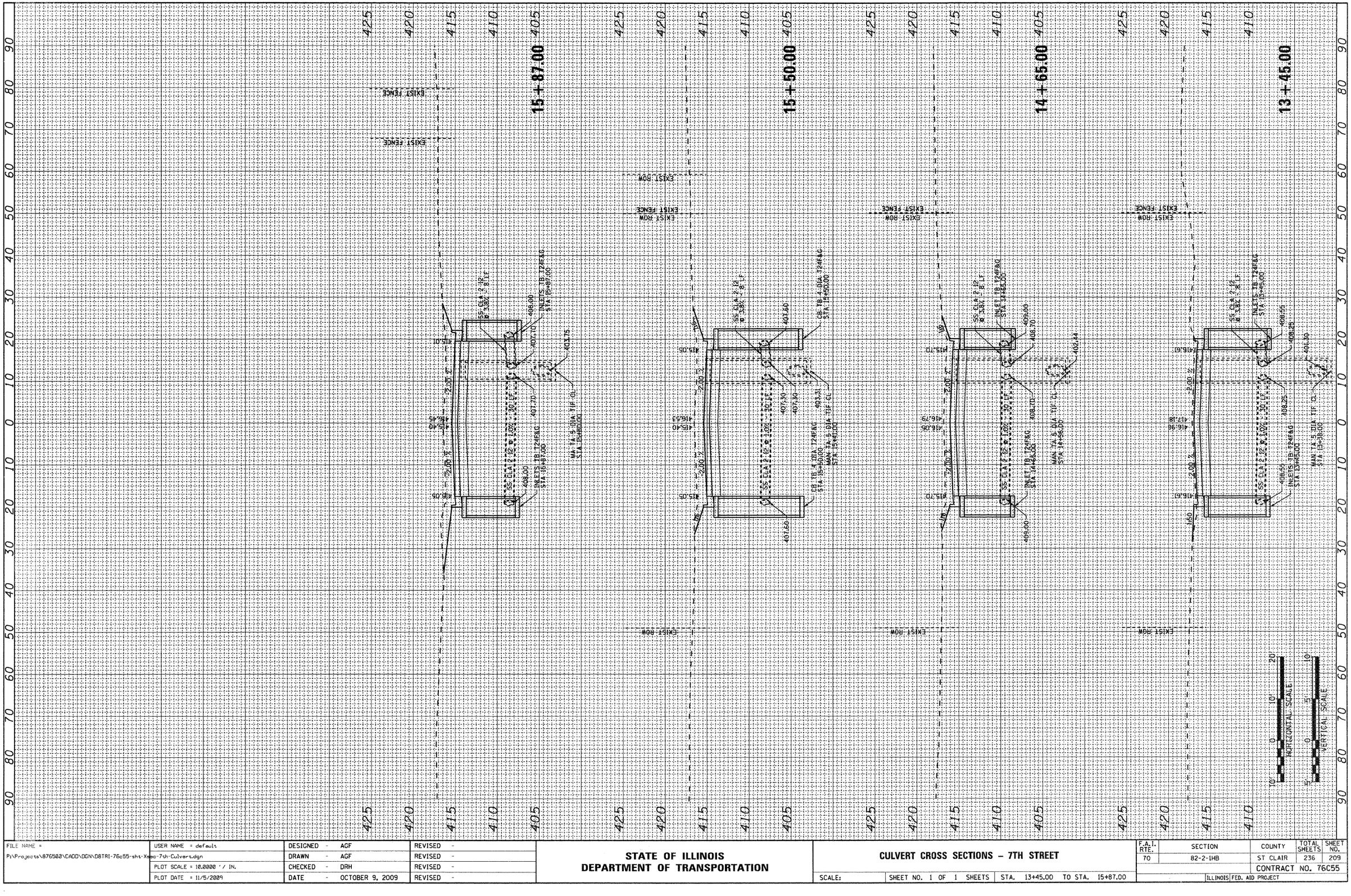
CULVERT CROSS SECTIONS – RAMP "O"

SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. 18+24.13 TO STA. 18+24.13

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-2-1HB	ST. CLAIR	236	208
		CONTRACT NO. 76C55		
	ILLINOIS FED. AID PROJECT			

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	CROSS SECTIONS		
	AREAS		
	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	CROSS SECTIONS		
	AREAS		
	AREAS CHECKED		



FILE NAME = P:\Projects\876502\CADD\DGN\D8TRI-76c55-sht-Xsec-7th-Culvert.dgn	USER NAME = default	DESIGNED - AGF	REVISED -
		DRAWN - AGF	REVISED -
	PLOT SCALE = 10.0000 ' / IN.	CHECKED - DRH	REVISED -
	PLOT DATE = 11/5/2009	DATE - OCTOBER 9, 2009	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CULVERT CROSS SECTIONS – 7TH STREET

SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. 13+45.00 TO STA. 15+87.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-2-1HB	ST CLAIR	236	209
		CONTRACT NO. 76C55		
	ILLINOIS FED. AID PROJECT			

FINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TEMPLATE		
NO.	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TEMPLATE		
NO.	AREAS CHECKED		



FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - AGF	REVISED -
		DRAWN - AGF	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - DRH	REVISED -
	PLOT DATE = $DATE$	DATE - OCTOBER 9, 2009	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

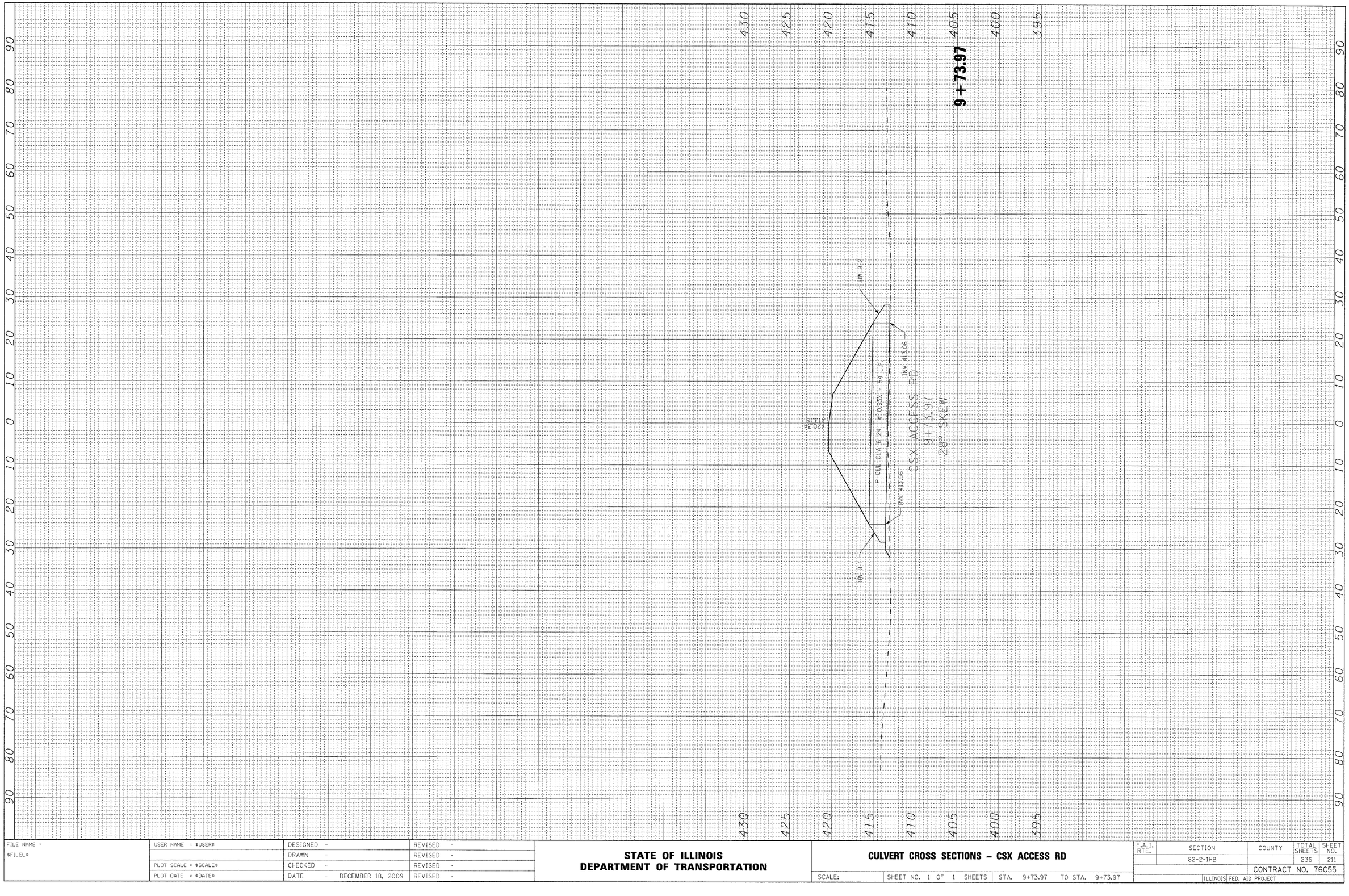
CULVERT CROSS SECTIONS – 9TH STREET

SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. 4+00.00 TO STA. 5+60.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-2-1HB	ST. CLAIR	236	210
		CONTRACT NO. 76C55		
	ILLINOIS	FED. AID PROJECT		

FINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TEMPLATE		
NO.	AREAS		
	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TEMPLATE		
NO.	AREAS		
	AREAS CHECKED		



FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = $SCALE$	CHECKED -	REVISED -
	PLOT DATE = $DATE$	DATE - DECEMBER 18, 2009	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

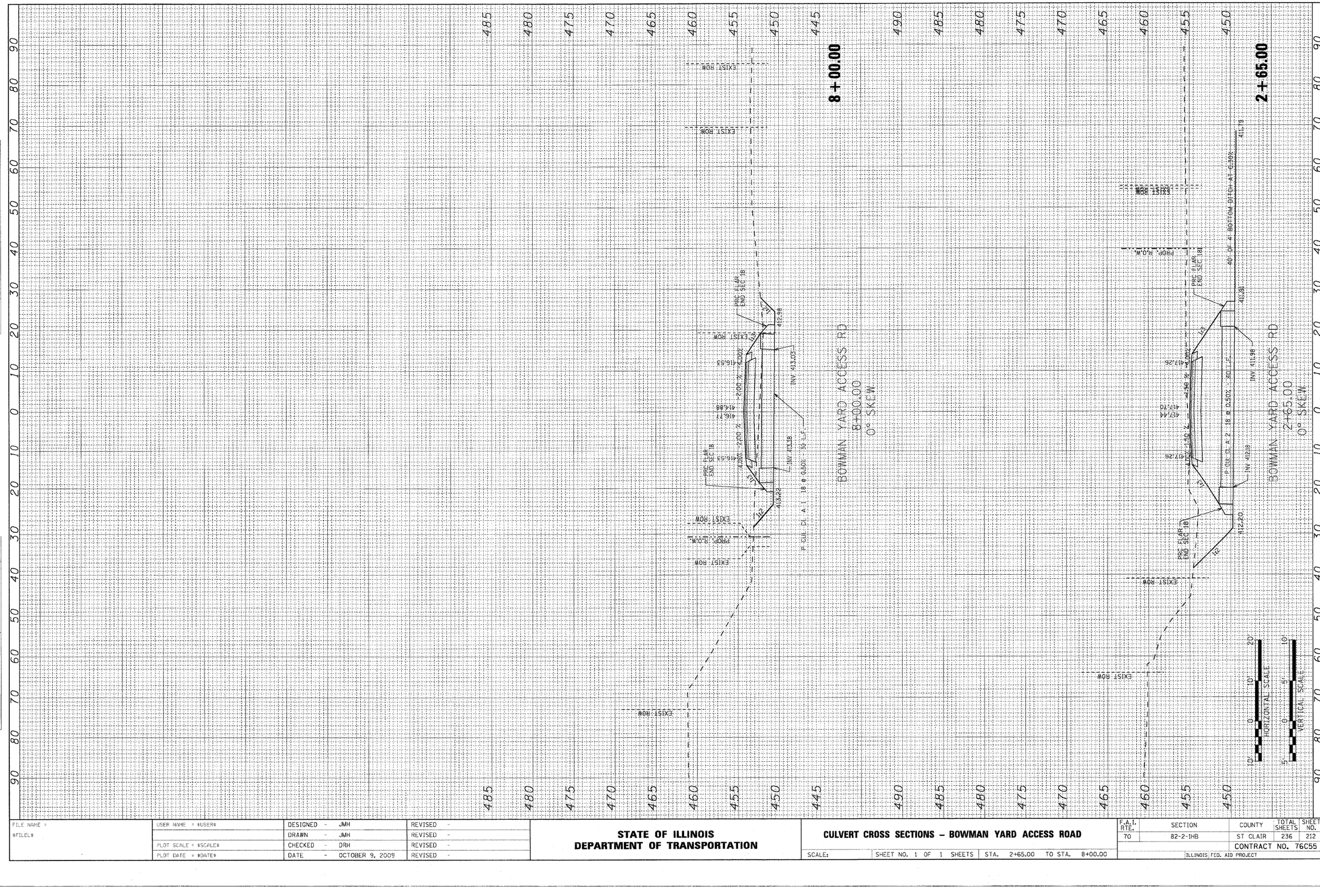
CULVERT CROSS SECTIONS – CSX ACCESS RD

SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. 9+73.97 | TO STA. 9+73.97

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	82-2-1HB		236	211
		CONTRACT NO. 76C55		
	ILLINOIS FED. AID PROJECT			

FINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
NO.	PLOTTED		
	TEMPLATE		
	AREAS		
	AREAS CHECKED		

ORIGINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
NO.	PLOTTED		
	TEMPLATE		
	AREAS		
	AREAS CHECKED		



FILE NAME = $FILE1$	USER NAME = $USER$	DESIGNED - JMH	REVISED -
		DRAWN - JMH	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - DRH	REVISED -
	PLOT DATE = $DATE$	DATE - OCTOBER 9, 2009	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CULVERT CROSS SECTIONS – BOWMAN YARD ACCESS ROAD

SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. 2+65.00 TO STA. 8+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-2-1HB	ST CLAIR	236	212
		CONTRACT NO. 76C55		
	ILLINOIS FED. AID PROJECT			

FINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TEMPLATE		
NO.	AREAS		
	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TEMPLATE		
NO.	AREAS		
	AREAS CHECKED		

12+50.00

EXIST FENCE
EXIST ROW
EXIST ROW
415.78
416.04
416.64
412.96
24" SS
15" SS
8" W
8" W
4" SW
4" SW
2.00%
2.00%
2.00%
2' CURB & GUTTER
C= 113 SQ. FT.
F= 0 SQ. FT.

12+00.00

24" SS
C= 112 SQ. FT.
F= 0 SQ. FT.

11+59.24

EXIST ROW
415.98
416.46
416.65
416.03
4" SW
4" SW
6.00%
2.00%
2.00%
2' CURB & GUTTER
C= 33 SQ. FT.
F= 0 SQ. FT.

11+00.00

EXIST ROW
417.19
417.33
416.91
8" W
2.00%
2.00%
C= 36 SQ. FT.
F= 0 SQ. FT.

10+62.50

EXIST ROW
418.09
418.36
416.05
2.00%
2.00%
C= 36 SQ. FT.
F= 0 SQ. FT.

10+50.00

EXIST ROW
418.90

10+00.00

EXIST ROW
421.41

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = $SCALE$	CHECKED -	REVISED -
	PLOT DATE = $DATE$	DATE - DECEMBER 18, 2009	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

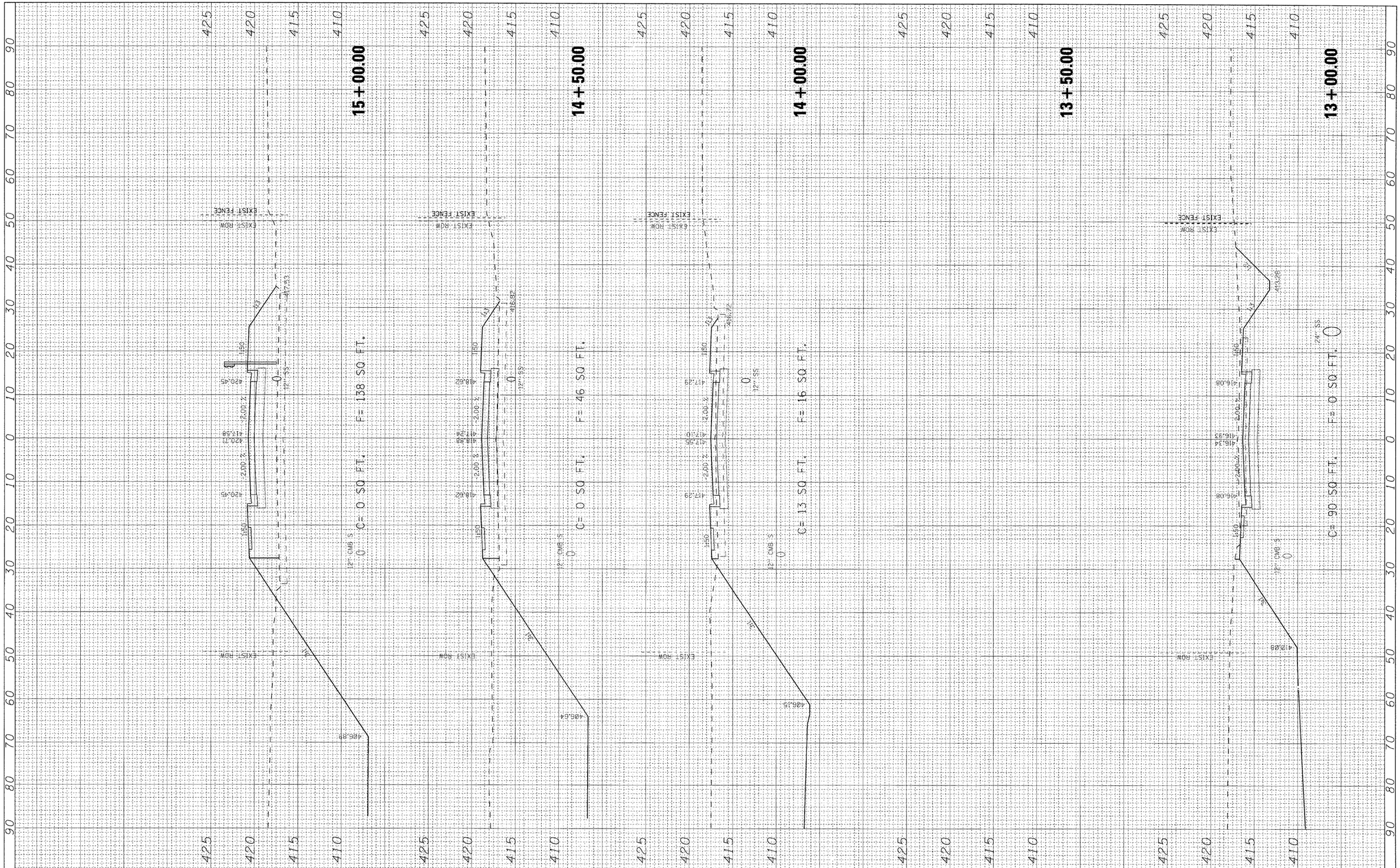
CROSS SECTIONS – EXCHANGE AVE

SCALE: | SHEET NO. 1 OF 5 SHEETS | STA. 10+00.00 TO STA. 12+50.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-2-1HB	ST. CLAIR	236	213
		CONTRACT NO. 76C55		
	ILLINOIS FED. AID PROJECT			

FINAL SURVEY	SURVEYED	BY	DATE
	ADDITIONS		
NOTE BOOK	TEMPLATE		
NO.	AREAS		
	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
	ADDITIONS		
NOTE BOOK	TEMPLATE		
NO.	AREAS		
	AREAS CHECKED		



FILE NAME = *FILEL*	USER NAME = $USER$	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - AGF	REVISED -
	PLOT DATE = $DATE$	DATE - DECEMBER 18, 2009	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS – EXCHANGE AVE

SCALE: | SHEET NO. 2 OF 5 SHEETS | STA. 13+00.00 TO STA. 15+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-2-1HB	ST. CLAIR	236	214
		CONTRACT NO. 76C55		
	ILLINOIS FED. AID PROJECT			

FINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TEMPLATE		
NO.	AREAS		
	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TEMPLATE		
NO.	AREAS		
	AREAS CHECKED		

16+71.95

*SKEWED CROSS SECTION

EXIST FENCE

428.87 — 421.54 — 429.66 — 430.07

10.25 % — 3.53 %

F= 251 SQ FT.

C= 0 SQ FT.

EXIST FENCE

427.81 — 420.84 — 428.31 — 428.59

4.50 % — 2.00 %

16+50.00

F= 226 SQ FT.

C= 0 SQ FT.

EXIST ROW — EXIST FENCE — EXIST ROW

425.15 — 419.71 — 425.40 — 425.15

2.00 % — 1:50 — 12" SS — 0 — 1:50 — 1:2 — 419.31

EXIST ROW

16+00.00

F= 331 SQ FT.

C= 0 SQ FT.

EXIST ROW — EXIST FENCE

422.75 — 418.60 — 423.01 — 422.75

2.00 % — 1:50 — 12" SS — 0 — 1:50 — 1:2 — 418.28

EXIST ROW

15+50.00

F= 243 SQ FT.

C= 0 SQ FT.

EXIST ROW — 1:50 — 1:2 — 407.14 — 407.40 — EXIST ROW

FILE NAME = *FILE*	USER NAME = *USER*	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = *SCALE*	CHECKED -	REVISED -
	PLOT DATE = *DATE*	DATE - OCTOBER 9, 2009	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS – EXCHANGE AVE

SCALE: | SHEET NO. 3 OF 5 SHEETS | STA. 15+50.00 | TO STA. 16+71.95

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-2-1HB	ST. CLAIR	236	215
		CONTRACT NO. 76C55		
	ILLINOIS FED. AID PROJECT			

FINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TEMPLATE		
NO.	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TEMPLATE		
NO.	AREAS CHECKED		

FILE NAME = $FILE1$	USER NAME = $USER$	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = $SCALE$	CHECKED -	REVISED -
	PLOT DATE = $DATE$	DATE - OCTOBER 9, 2009	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS – EXCHANGE AVE

SCALE: | SHEET NO. 4 OF 5 SHEETS | STA. 19+73.76 | TO STA. 21+84.33

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-2-1HB	ST. CLAIR	236	216
		CONTRACT NO. 76C55		
	ILLINOIS	FED. AID PROJECT		

FINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = $SCALE$	CHECKED -	REVISED
	PLOT DATE = $DATE$	DATE - OCTOBER 9, 2009	REVISED -

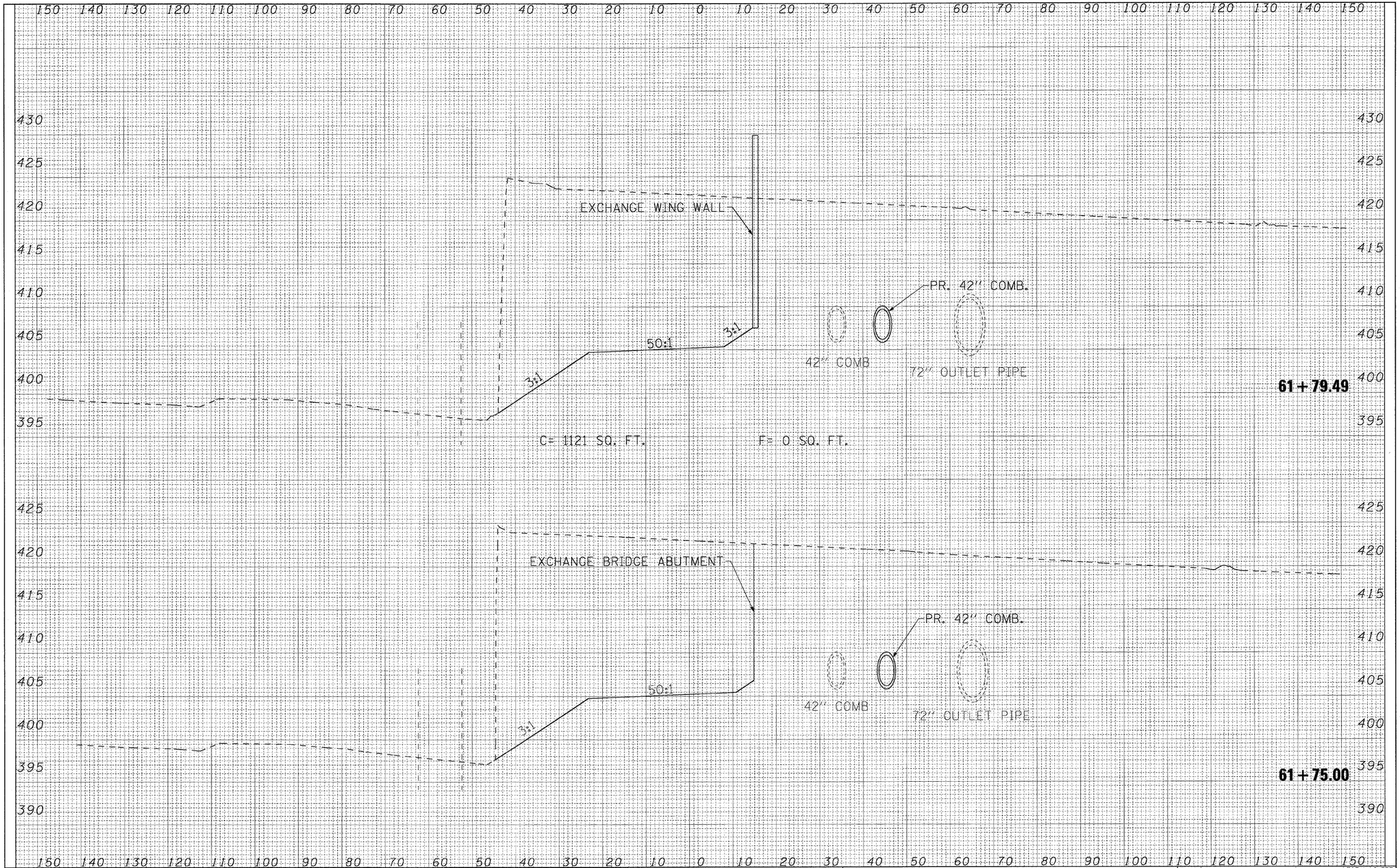
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS – EXCHANGE AVE

SCALE: | SHEET NO. 5 OF 5 SHEETS | STA. 22+50.00 | TO STA. 24+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-2-1HB	ST. CLAIR	236	217
		CONTRACT NO. 76C55		
	ILLINOIS	FED. AID PROJECT		

FINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TEMPLATE		
NO.	AREAS CHECKED		



ORIGINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TEMPLATE		
NO.	AREAS CHECKED		

FILE NAME = $FILE1$	USER NAME = $USER$	DESIGNED - DRH	REVISED -
		DRAWN - DRH	REVISED -
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	PLOT DATE = $DATE$	DATE - OCTOBER 15, 2009	REVISED -

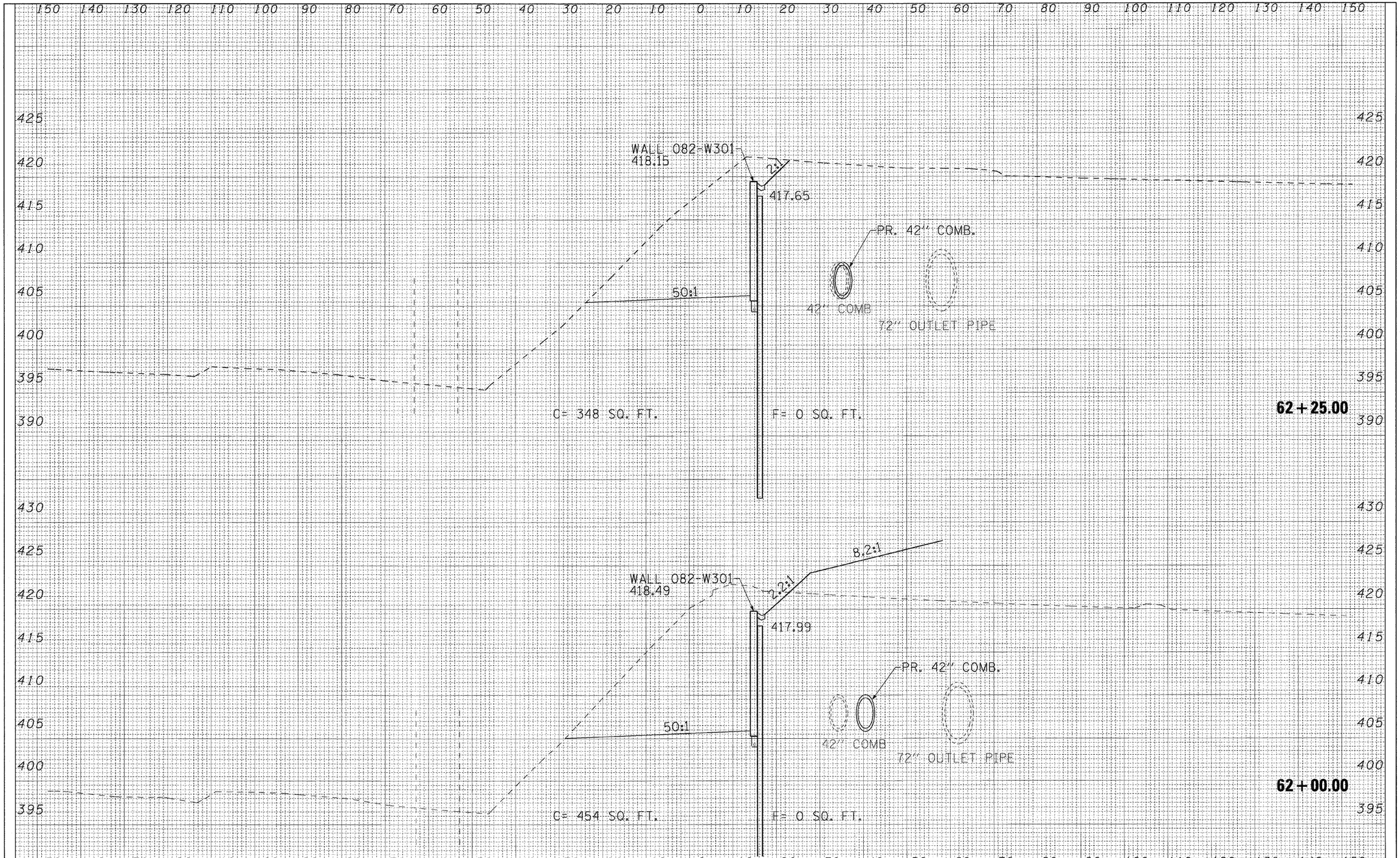
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS – RETAINING WALL 082-W301

SCALE: | SHEET NO. 1 OF 7 SHEETS | STA. 61+75.00 | TO STA. 61+79.49

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-2-1HB	ST. CLAIR	236	218
		CONTRACT NO. 76C55		
ILLINOIS	FED. AID PROJECT			

FINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		



ORIGINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - DRH	REVISED -
		DRAWN - DRH	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - AGF	REVISED -
	PLOT DATE = $DATE$	DATE - OCTOBER 15, 2009	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

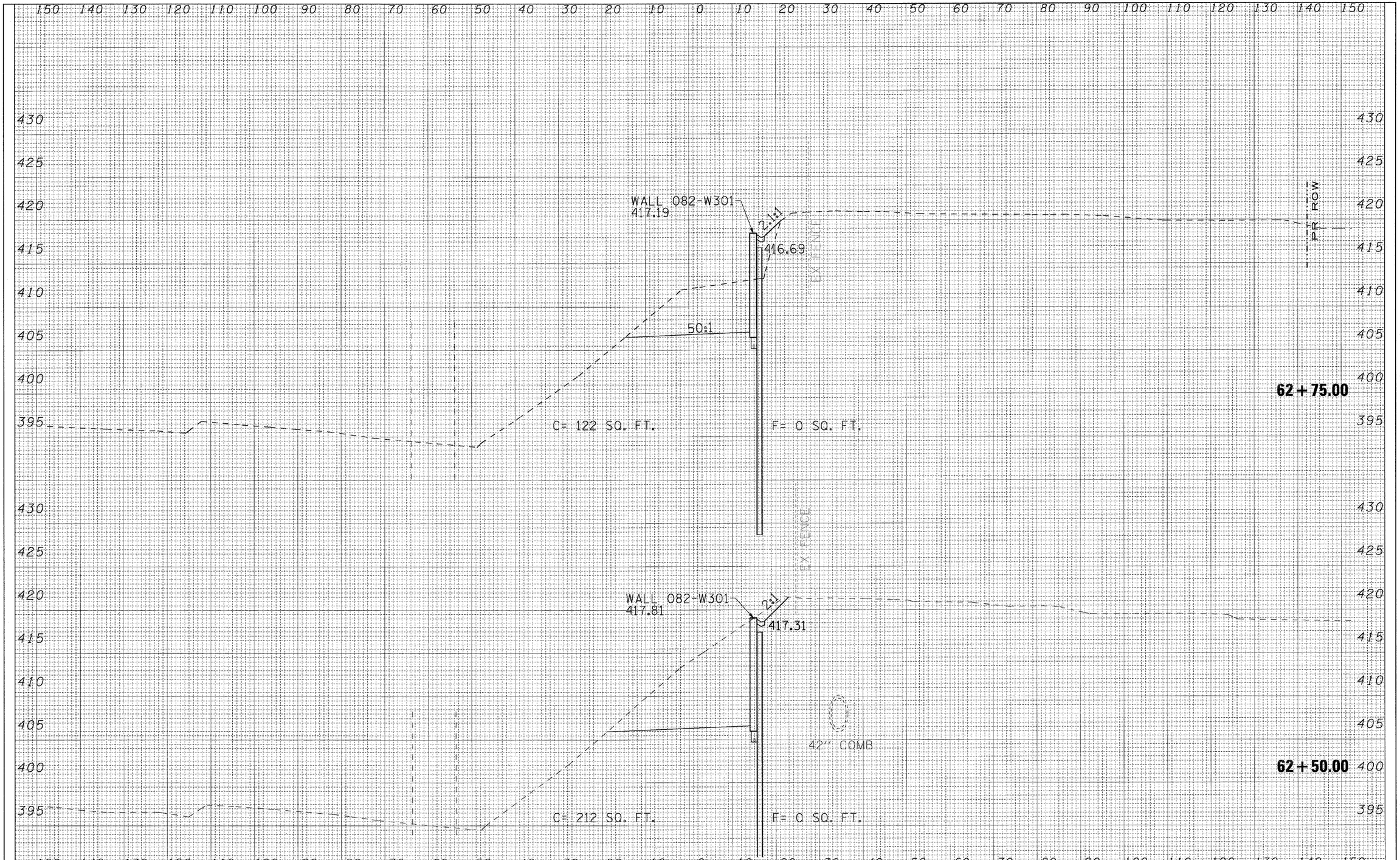
CROSS SECTIONS – RETAINING WALL 082–W301

SCALE: | SHEET NO. 2 OF 7 SHEETS | STA. 62+00.00 | TO STA. 62+25.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-2-1HB	ST. CLAIR	236	219
		CONTRACT NO. 76C55		
ILLINOIS	FED. AID PROJECT			

FINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		



FILE NAME = #FILEL#	USER NAME = #USER#	DESIGNED - DRH	REVISED -
		DRAWN - DRH	REVISED -
	PLOT SCALE = #SCALE#	CHECKED - AGF	REVISED -
	PLOT DATE = #DATE#	DATE - OCTOBER 15, 2009	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

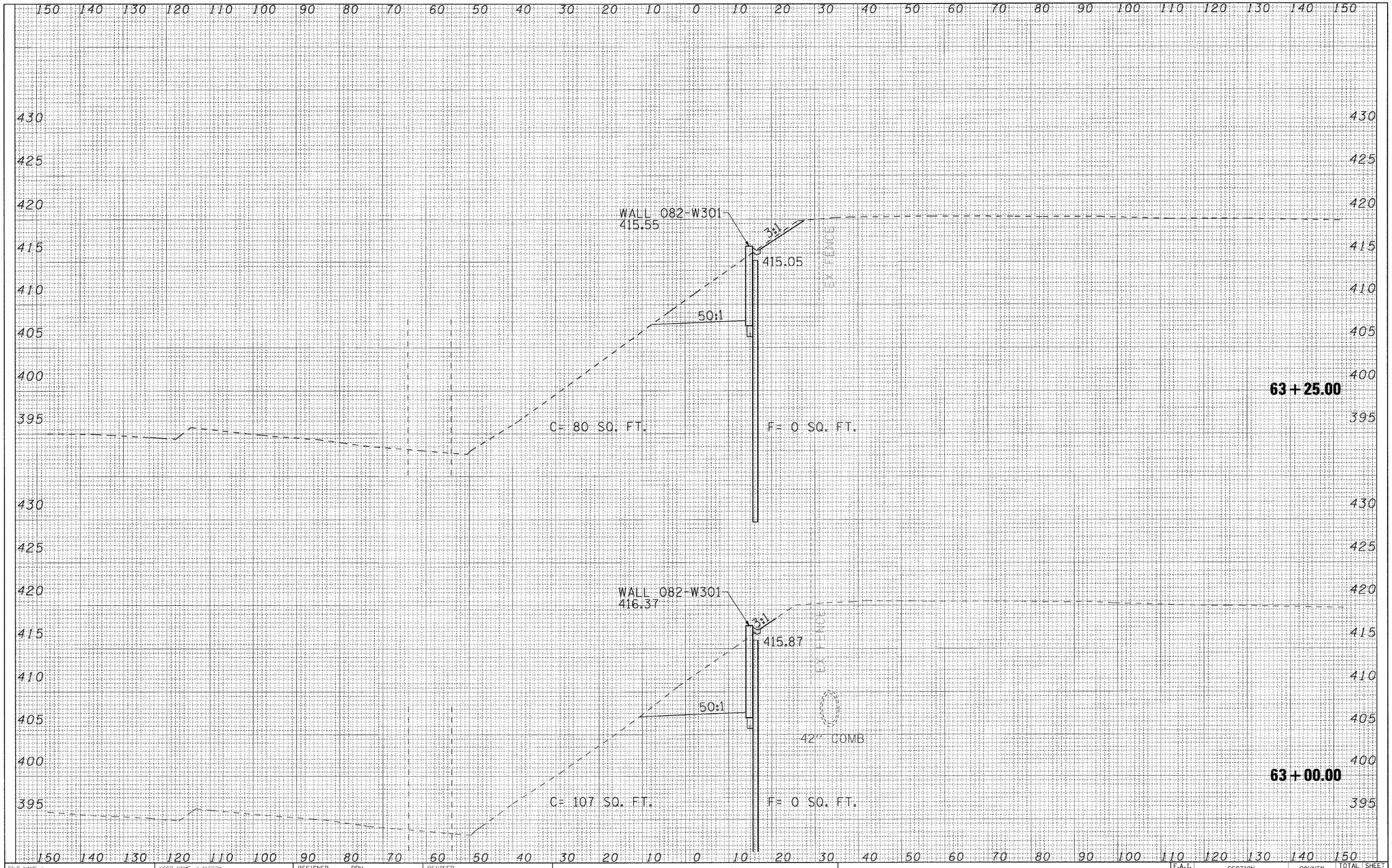
CROSS SECTIONS – RETAINING WALL 082-W301

SCALE: | SHEET NO. 3 OF 7 SHEETS | STA. 62+50.00 | TO STA. 62+75.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-2-1HB	ST. CLAIR	236	220
		CONTRACT NO. 76C55		
	ILLINOIS FED. AID PROJECT			

FINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK		
TEMPLATE		
AREAS		
NO.	AREAS CHECKED	

ORIGINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK		
TEMPLATE		
AREAS		
NO.	AREAS CHECKED	



FILE NAME = $FILE1$	USER NAME = $USER1$	DESIGNED - DRH	REVISED -
		DRAWN - DRH	REVISED -
	PLOT SCALE = $SCALE1$	CHECKED - AGF	REVISED -
	PLOT DATE = $DATE1$	DATE - OCTOBER 15, 2009	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

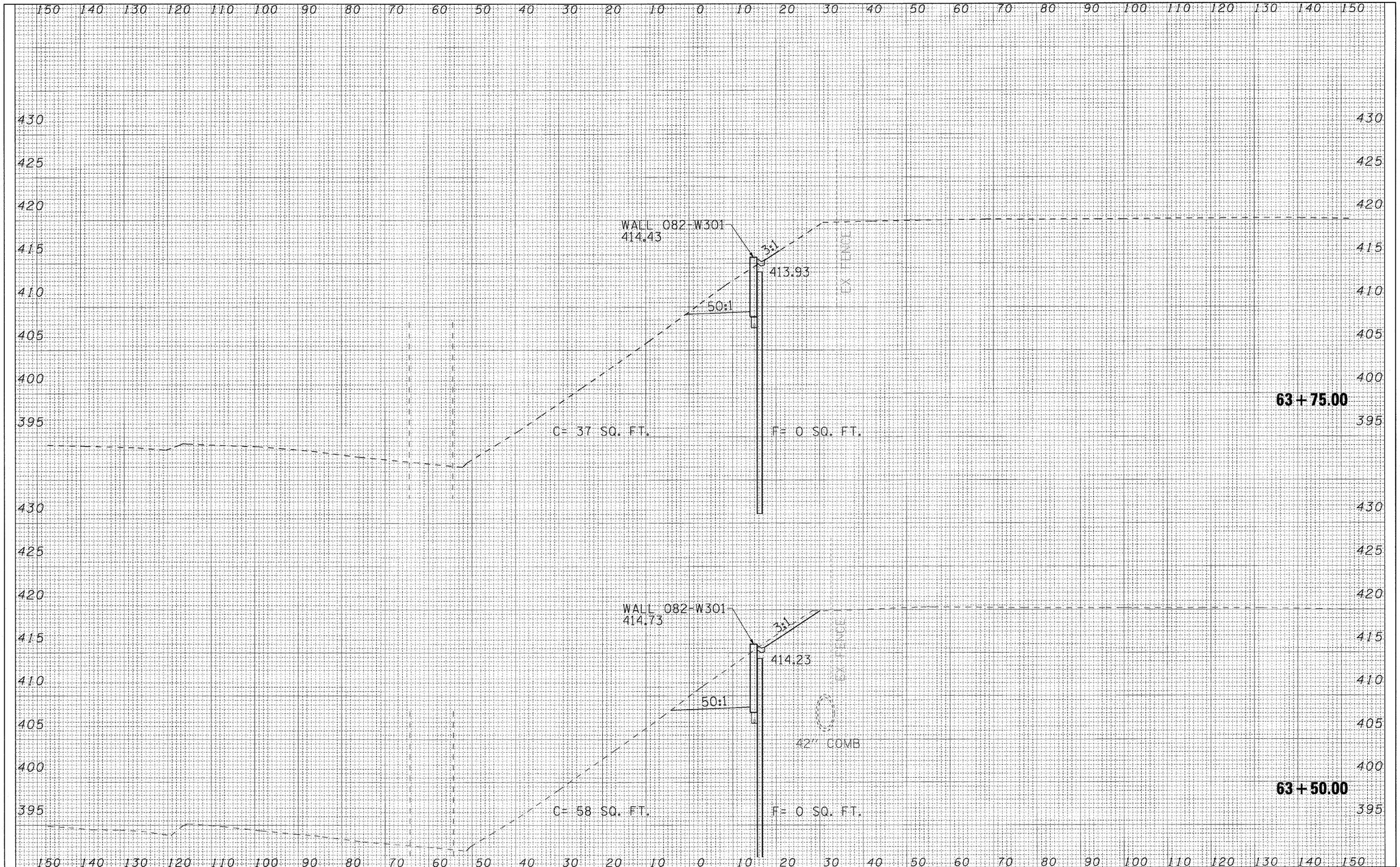
CROSS SECTIONS – RETAINING WALL 082-W301

SCALE: | SHEET NO. 4 OF 7 SHEETS | STA. 63+00.00 | TO STA. 63+25.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-2-1HB	ST. CLAIR	236	221
		CONTRACT NO. 76C55		
ILLINOIS	FED. AID PROJECT			

FINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TEMPLATE		
NO.	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TEMPLATE		
NO.	AREAS CHECKED		



FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - DRH	REVISED -
		DRAWN - DRH	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - AGF	REVISED -
	PLOT DATE = $DATE$	DATE - OCTOBER 15, 2009	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

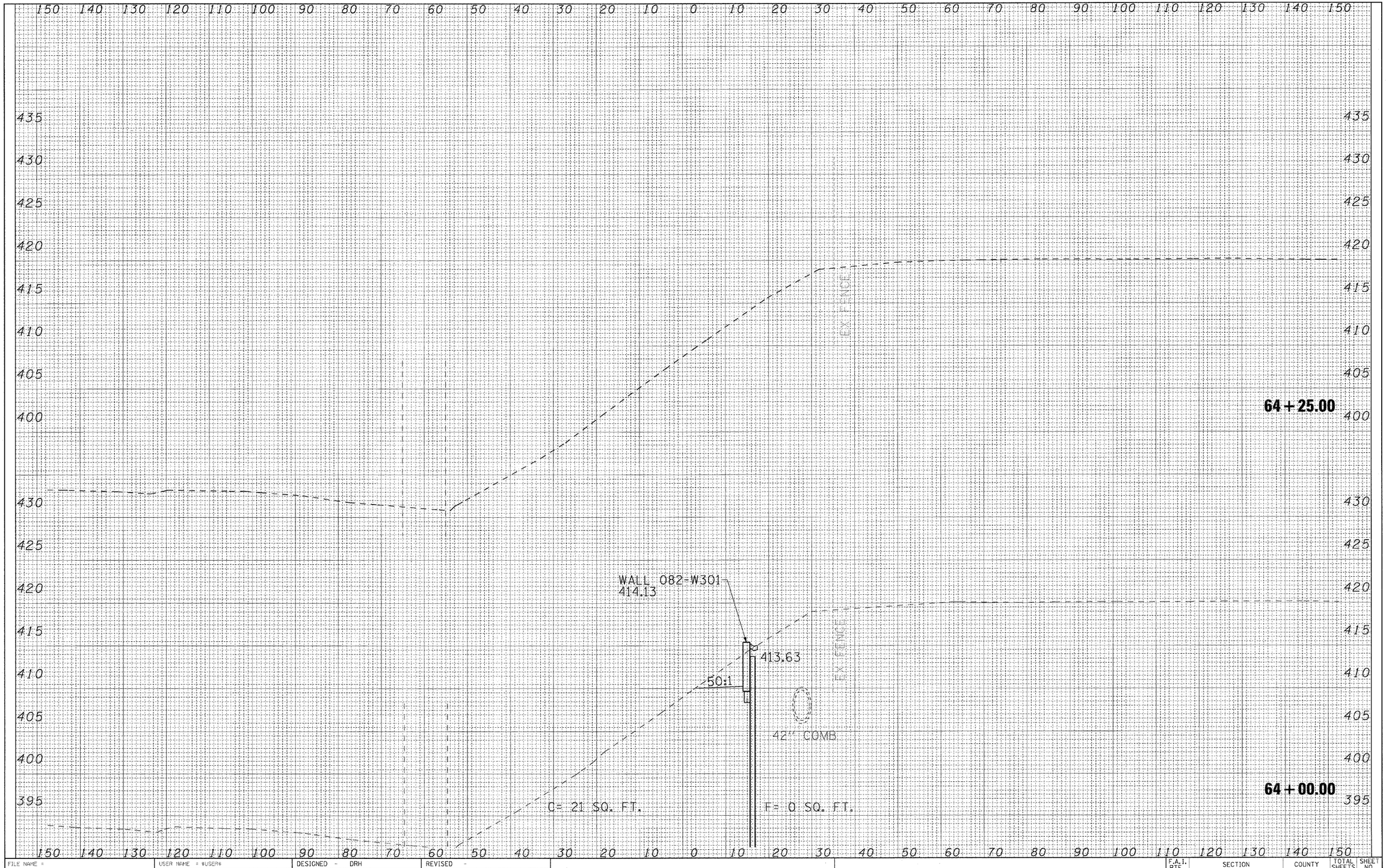
CROSS SECTIONS – RETAINING WALL 082-W301

SCALE: | SHEET NO. 5 OF 7 SHEETS | STA. 63+50.00 | TO STA. 63+75.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-2-1HB	ST. CLAIR	236	222
		CONTRACT NO. 76C55		
	ILLINOIS	FED. AID PROJECT		

FINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

ORIGINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		



FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - DRH	REVISED -
		DRAWN - DRH	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - AGF	REVISED -
	PLOT DATE = $DATE$	DATE - OCTOBER 15, 2009	REVISED -

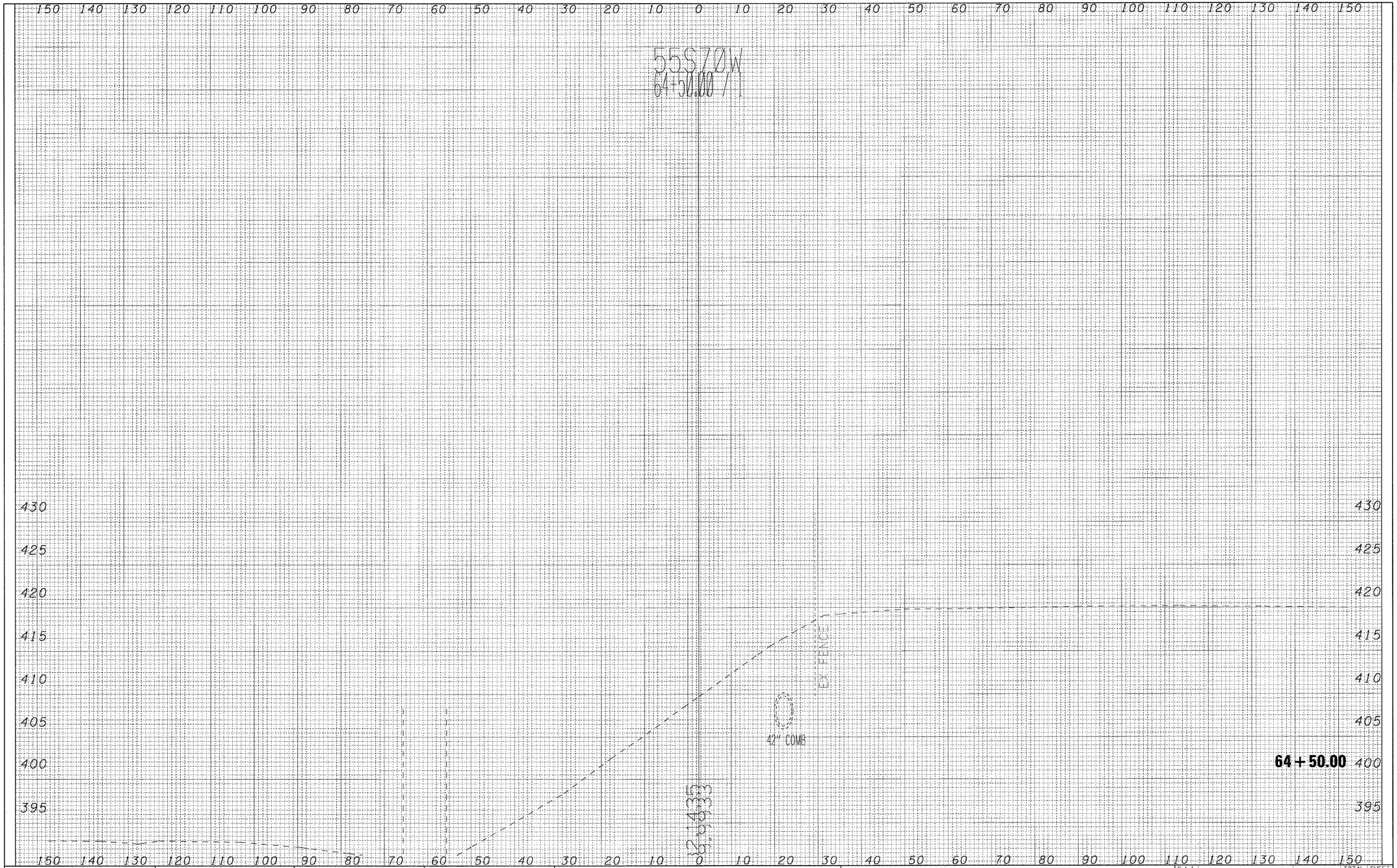
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS – RETAINING WALL 082-W301

SCALE: | SHEET NO. 6 OF 7 SHEETS | STA. 64+00.00 | TO STA. 64+25.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-2-1HB	ST. CLAIR	236	223
		CONTRACT NO. 76C55		
	ILLINOIS FED. AID PROJECT			

FINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		



ORIGINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

FILE NAME = $FILE1$	USER NAME = $USER$	DESIGNED - DRH	REVISED -
		DRAWN - DRH	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - AGF	REVISED -
	PLOT DATE = $DATE$	DATE OCTOBER 9, 2009	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS – RETAINING WALL 082–W301

SCALE: | SHEET NO. 7 OF 7 SHEETS | STA. 64+50.00 | TO STA. 64+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-2-1HB	ST. CLAIR	236	224
		CONTRACT NO. 76C55		
	ILLINOIS FED. AID PROJECT			

FINAL SURVEY	SURVEYED	BY	
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

14+00.00

C= 105 SQ FT. F= 0 SQ FT.

13+00.00

C= 33 SQ FT. F= 0 SQ FT.

12+00.00

C= 8 SQ FT. F= 0 SQ FT.

11+00.00

C= 12 SQ FT. F= 0 SQ FT.

10+06.39

C= 0 SQ FT. F= 0 SQ FT.

EXIST ROW

EXIST FENCE

HORIZONTAL SCALE

VERTICAL SCALE

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - DRH	REVISED -
		DRAWN - DRH	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - AGF	REVISED -
	PLOT DATE = $DATE$	DATE - OCTOBER 9, 2009	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

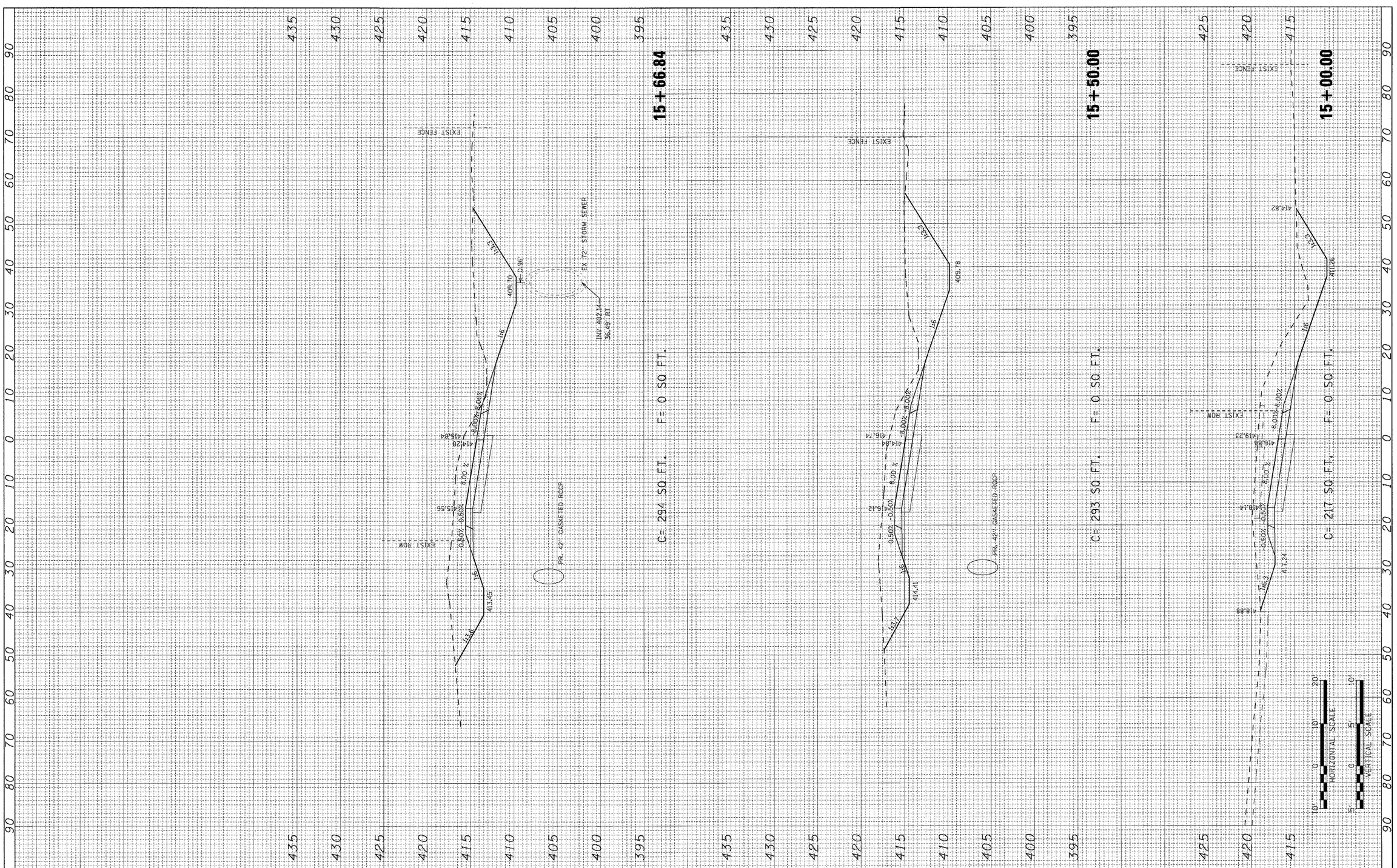
CROSS SECTIONS – RAMP O

SCALE: | SHEET NO. 1 OF 4 SHEETS | STA. 10+06.39 TO STA. 14+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-2-1HB	ST. CLAIR	236	225
		CONTRACT NO. 76C55		
	ILLINOIS	FED. AID PROJECT		

FINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		



FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - DRH	REVISED -
		DRAWN - DRH	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - AGF	REVISED -
	PLOT DATE = $DATE$	DATE - OCTOBER 9, 2009	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS – RAMP O

SCALE: | SHEET NO. 2 OF 4 SHEETS | STA. | TO STA. 15+66.84

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-2-1HB	ST. CLAIR	236	226
		CONTRACT NO. 76C55		
ILLINOIS	FED. AID PROJECT			

FINAL SURVEY	SURVEYED	BY	
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

18 + 00.00

F= 0 SQ FT.

C= 283 SQ FT.

414.68 — 412.26 — 415.85 — 407.93 — 413.47 — 415.38 — 408.13

7.67% — 8.00% — 0.50% — 1V:6H — 1V:3H — 1V:2H

LIMITS OF EARTHWORK

17 + 00.00

F= 0 SQ FT.

C= 415 SQ FT.

414.50 — 411.79 — 415.54 — 408.42 — 415.38 — 410.68

8.00% — 0.50% — 1V:6H — 1V:3H — 1V:2H

EXIST ROW

72" STORM SEWER

INV. 402.51
31.88' RT

PR. 42" GASKETED RCCP

PR. 52" GASKETED RCCP

16 + 00.00

F= 0 SQ FT.

C= 287 SQ FT.

414.74 — 411.57 — 415.47 — 405.63

8.00% — 0.50% — 1V:6H — 1V:3H — 1V:2H

EXIST FENCE

EXIST ROW

72" STORM SEWER

INV. 402.24
21.46' RT

PR. 42" GASKETED RCCP

15 + 89.03

F= 0 SQ FT.

C= 238 SQ FT.

414.17 — 412.19 — 414.90 — 413.62

8.00% — 0.50% — 1V:6H — 1V:2H

EXIST FENCE

EXIST MH

EXIST ROW

EX. TOP 413.36

32.50' OFFSET

PROP. 24" RCCP
EL. 409.59

0.65%

0.71'

12" PIPE

ADJ. TOP 412.35

72" STORM SEWER

INV. 402.21
24.89' RT.

PR. 42" GASKETED RCCP

HORIZONTAL SCALE
10' 0 10' 20'

VERTICAL SCALE
5' 0 5' 10'

FILE NAME = #FILEL#	USER NAME = #USER#	DESIGNED -	REVISED - DRH
		DRAWN -	REVISED - DRH
	PLOT SCALE = #SCALE#	CHECKED -	REVISED - AGF
	PLOT DATE = #DATE#	DATE -	REVISED - OCTOBER 9, 2009

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

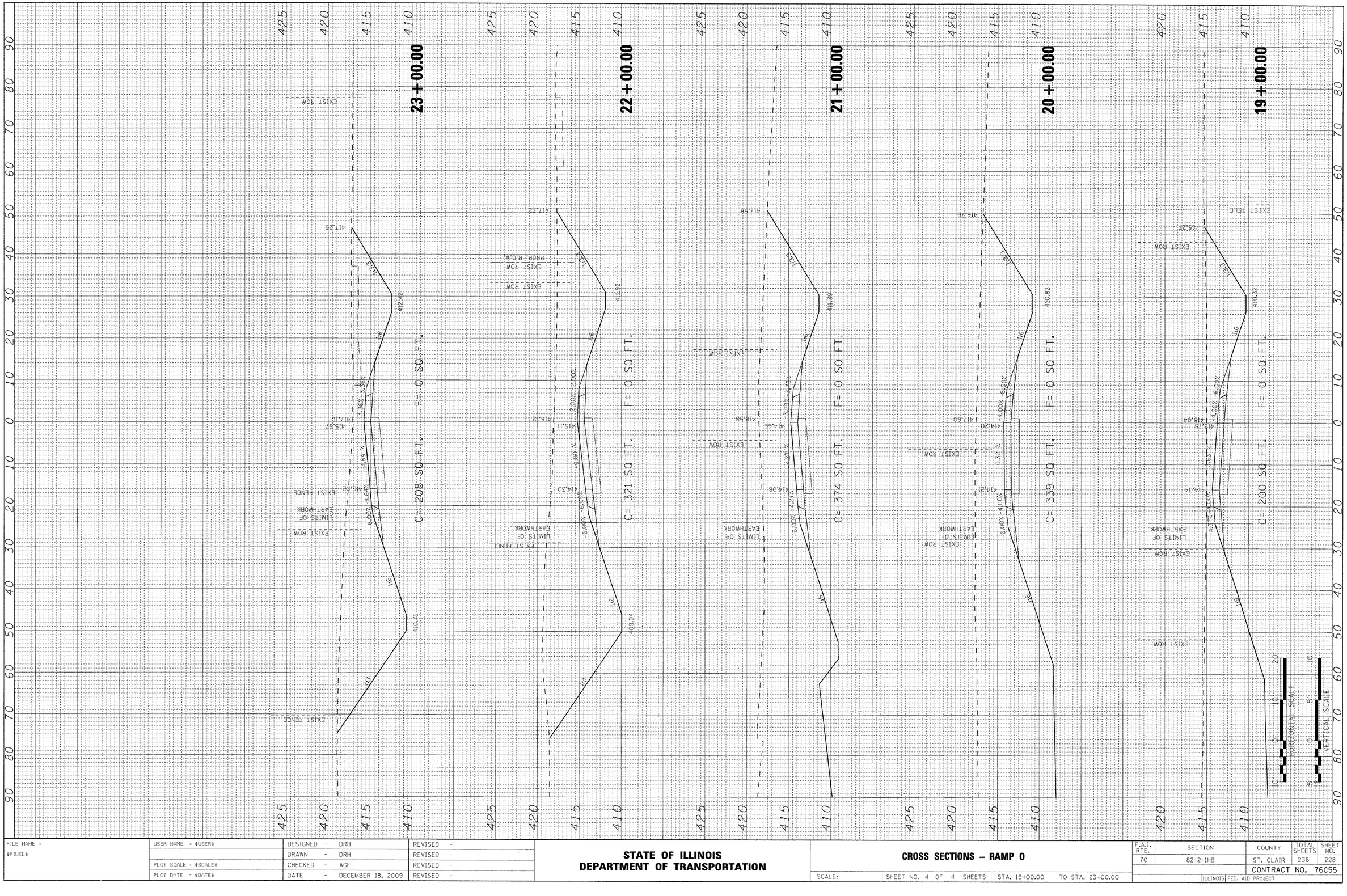
CROSS SECTIONS – RAMP O

SCALE: | SHEET NO. 3 OF 4 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-2-1HB	ST. CLAIR	236	227
		CONTRACT NO. 76C55		
	ILLINOIS FED. AID PROJECT			

FINAL SURVEY	SURVEYED	BY	
	PLOTTED		DATE
NOTE BOOK	TEMPLATE		
NO.	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	
	PLOTTED		DATE
NOTE BOOK	TEMPLATE		
NO.	AREAS CHECKED		



FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED - DRH	REVISED -
		DRAWN - DRH	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - AGF	REVISED -
	PLOT DATE = $DATE$	DATE - DECEMBER 18, 2009	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

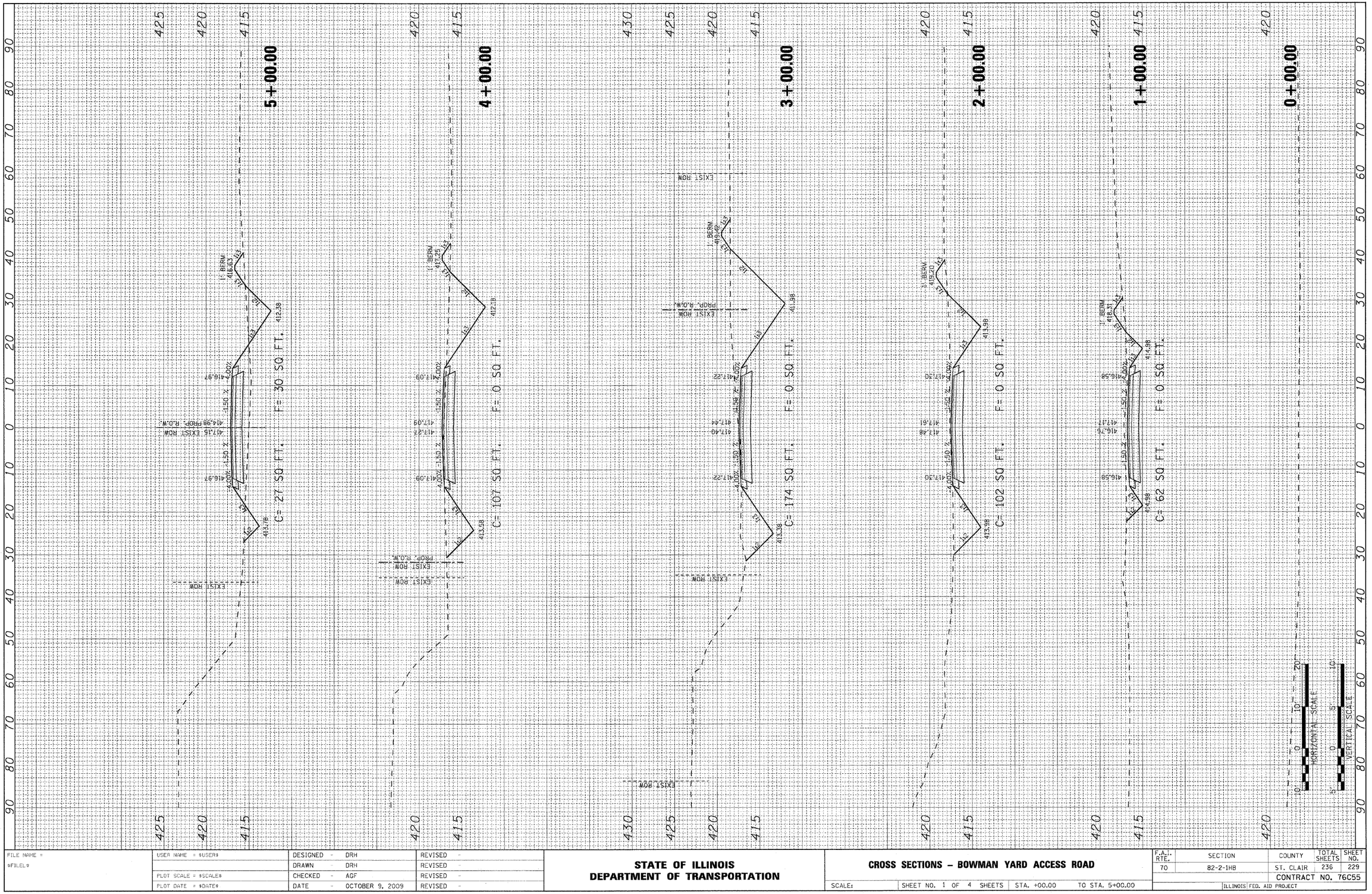
CROSS SECTIONS – RAMP O

SCALE: | SHEET NO. 4 OF 4 SHEETS | STA. 19+00.00 TO STA. 23+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-2-1HB	ST. CLAIR	236	228
		CONTRACT NO. 76C55		
	ILLINOIS	FED. AID PROJECT		

FINAL SURVEY	SURVEYED	BY	
	PLOTTED		
NOTE BOOK	TEMPLATE		
NO.	AREAS		
	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	
	PLOTTED		
NOTE BOOK	TEMPLATE		
NO.	AREAS		
	AREAS CHECKED		



FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - DRH	REVISED -
		DRAWN - DRH	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - AGF	REVISED -
	PLOT DATE = $DATE$	DATE - OCTOBER 9, 2009	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

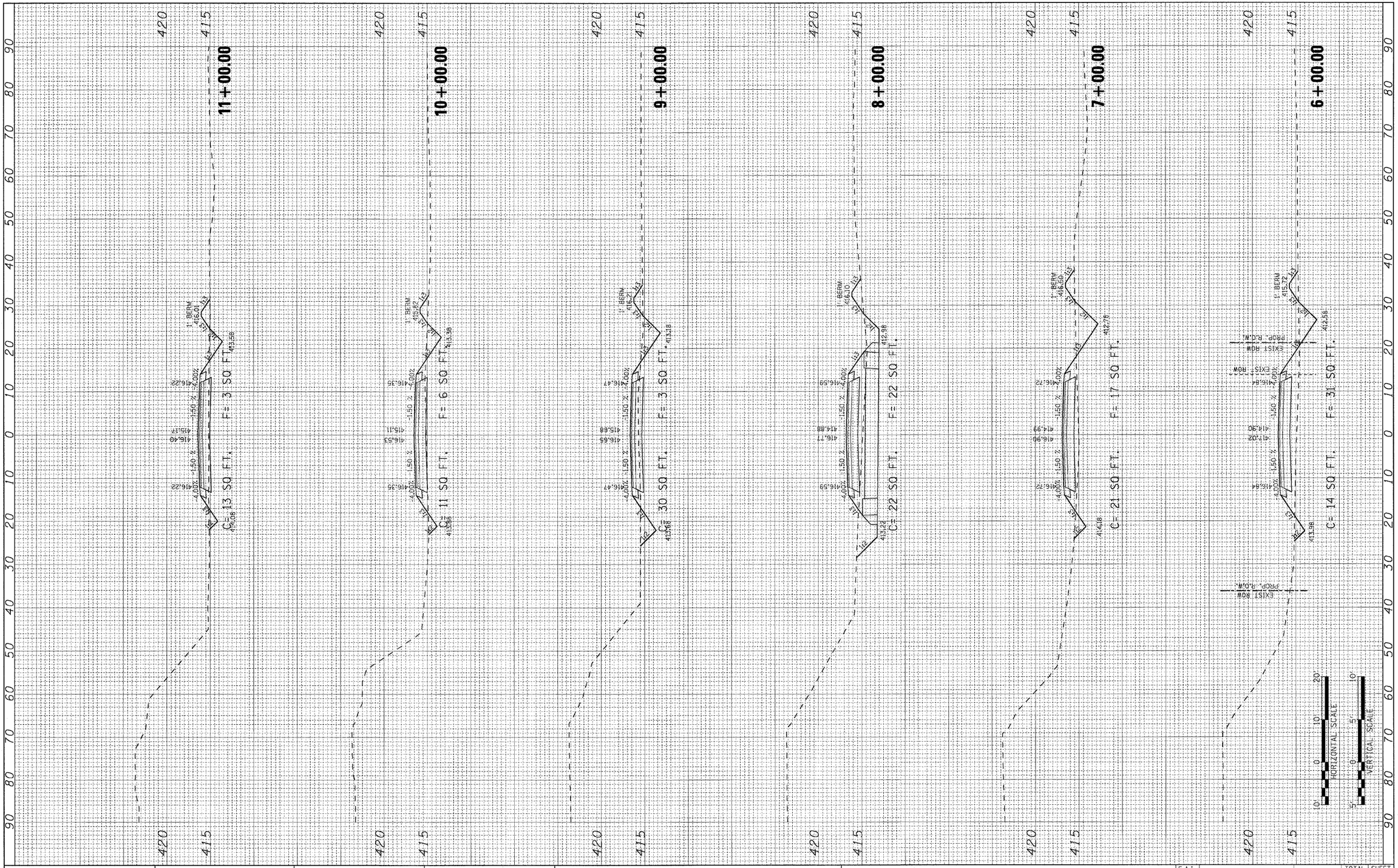
CROSS SECTIONS – BOWMAN YARD ACCESS ROAD

SCALE: | SHEET NO. 1 OF 4 SHEETS | STA. +00.00 | TO STA. 5+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-2-1HB	ST. CLAIR	236	229
		CONTRACT NO. 76C55		
	ILLINOIS FED. AID PROJECT			

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS		
	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS		
	AREAS CHECKED		



FILE NAME =	USER NAME = #USER#	DESIGNED - DRH	REVISED -
#FILEL#		DRAWN - DRH	REVISED -
	PLOT SCALE = #SCALE#	CHECKED - AGF	REVISED -
	PLOT DATE = #DATE#	DATE - OCTOBER 9, 2009	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS – BOWMAN YARD ACCESS ROAD

SCALE: | SHEET NO. 2 OF 4 SHEETS | STA. 6+00.00 | TO STA. 11+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-2-1HB	ST. CLAIR	236	230
		CONTRACT NO. 76C55		
	ILLINOIS FED. AID PROJECT			

FINAL SURVEY	SURVEYED	BY	
	PLOTTED		
NOTE BOOK	TEMPLATE		
NO.	AREAS		
	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	
	PLOTTED		
NOTE BOOK	TEMPLATE		
NO.	AREAS		
	AREAS CHECKED		



FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - DRH	REVISED -
		DRAWN - DRH	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - AGF	REVISED -
	PLOT DATE = $DATE$	DATE - OCTOBER 9, 2009	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

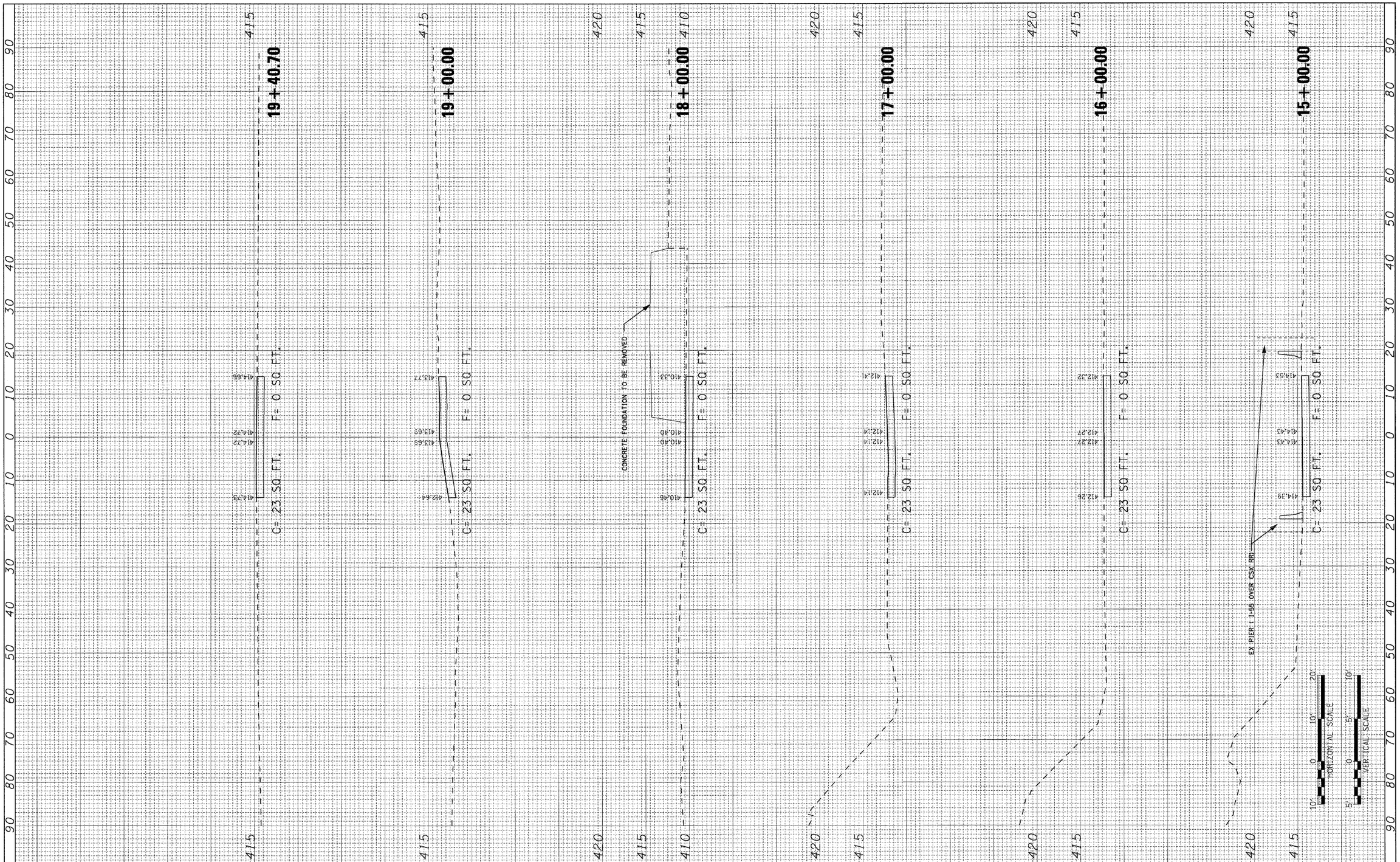
CROSS SECTIONS – BOWMAN YARD ACCESS ROAD

SCALE: | SHEET NO. OF SHEETS | STA. 11+60.00 TO STA. 14+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-2-1HB	ST. CLAIR	236	231
		CONTRACT NO. 76C55		
	ILLINOIS FED. AID PROJECT			

FINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TEMPLATE		
NO.	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TEMPLATE		
NO.	AREAS CHECKED		



FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - DRH	REVISED -
		DRAWN - DRH	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - AGF	REVISED -
	PLOT DATE = $DATE$	DATE - OCTOBER 9, 2009	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

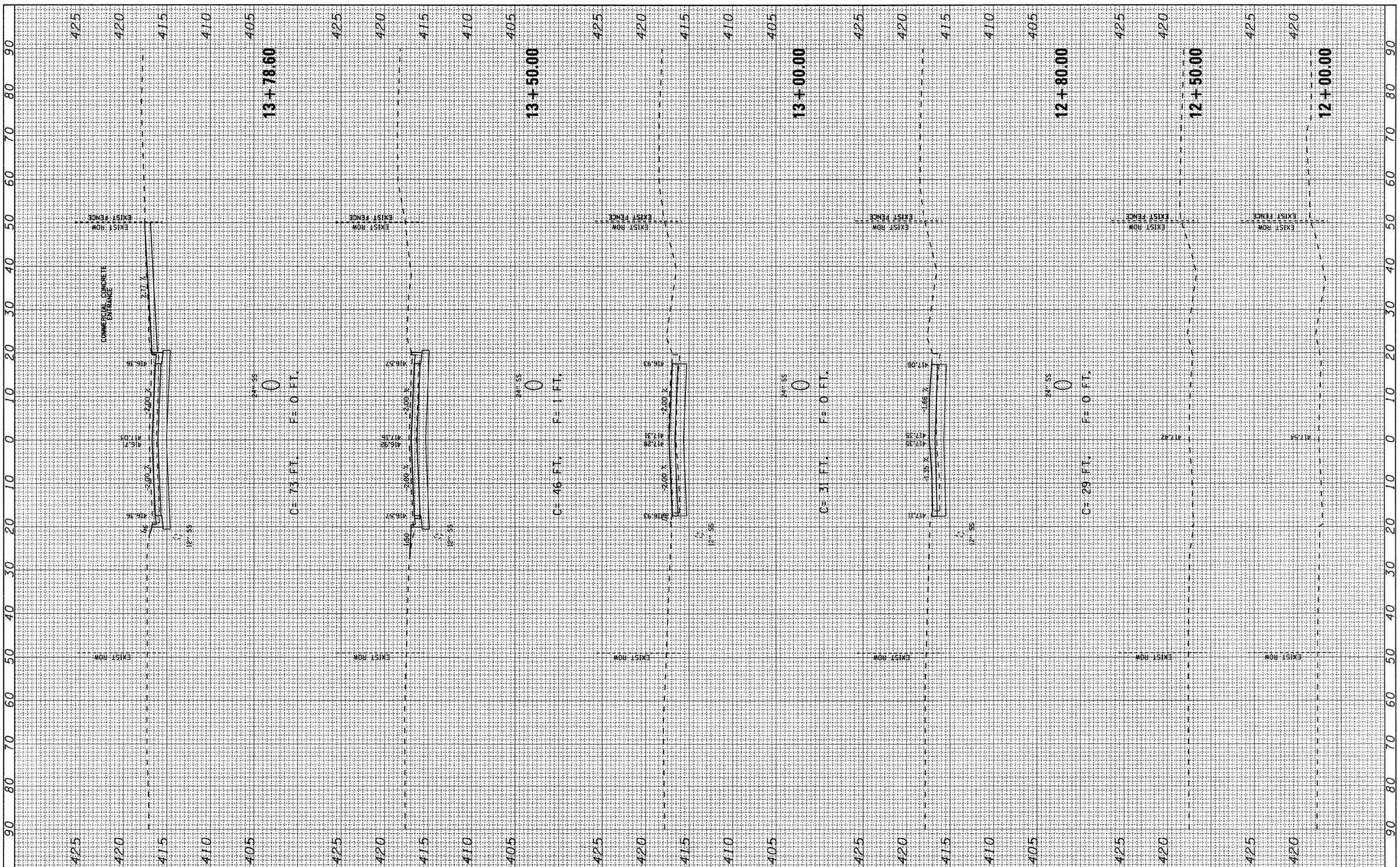
CROSS SECTIONS – BOWMAN YARD ACCESS ROAD

SCALE: | SHEET NO. 4 OF 4 SHEETS | STA. 15+00.00 TO STA. 19+40.70

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-2-1HB	ST. CLAIR	236	232
		CONTRACT NO. 76C55		
	ILLINOIS FED. AID PROJECT			

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TYPING & LITE		
	AREAS		
	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TYPING & LITE		
	AREAS		
	AREAS CHECKED		



FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = $SCALE$	CHECKED -	REVISED -
	PLOT DATE = $DATE$	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

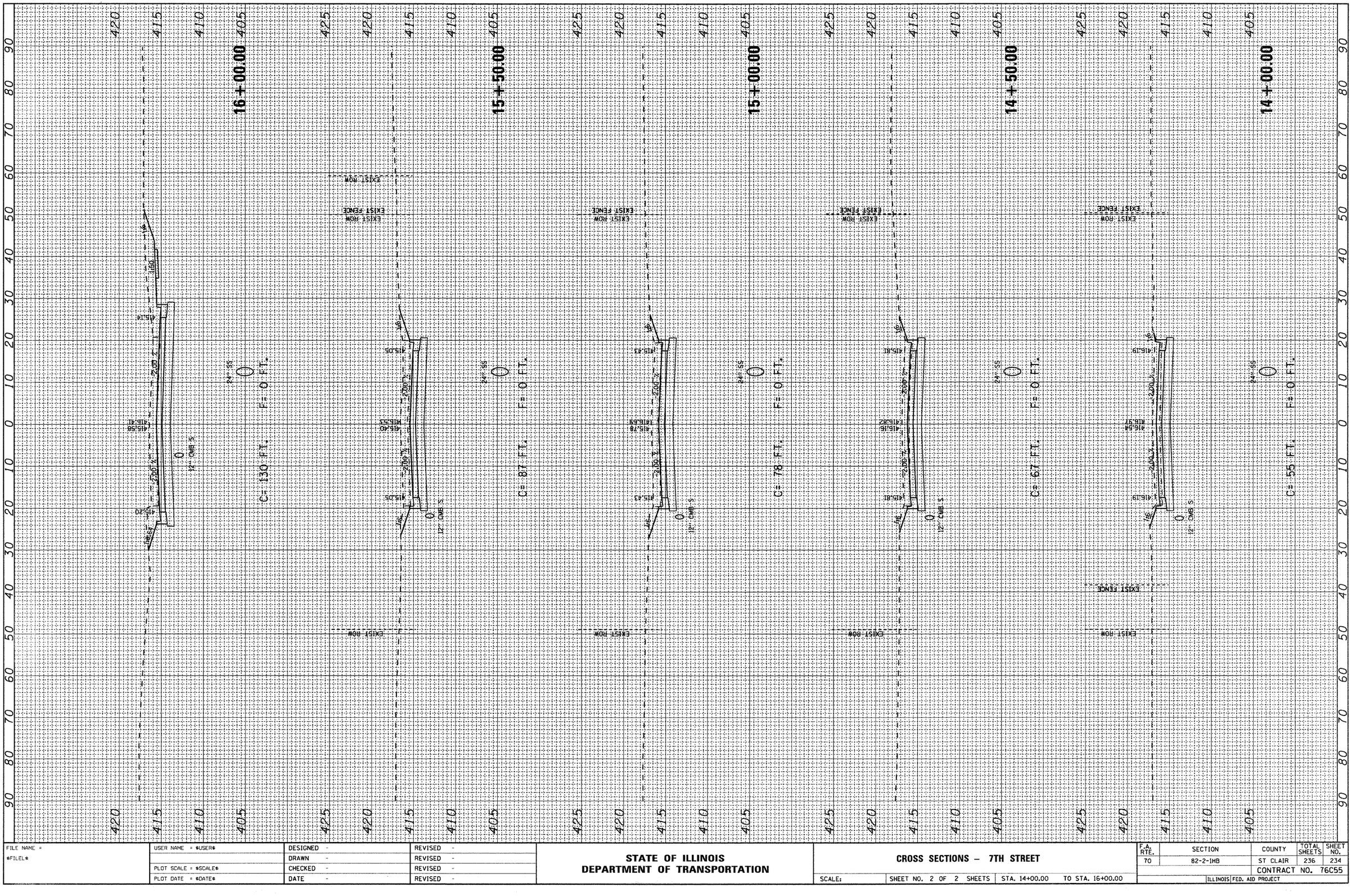
CROSS SECTIONS – 7TH STREET

SCALE: | SHEET NO. 1 OF 2 SHEETS | STA. 12+00.00 TO STA. 13+78.60

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	82-2-1HB	ST CLAIR	236	233
		CONTRACT NO. 76C55		
	ILLINOIS FED. AID PROJECT			

FINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK		
NO.	AREAS CHECKED	

ORIGINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK		
NO.	AREAS CHECKED	



FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = $SCALE$	CHECKED -	REVISED -
	PLOT DATE = $DATE$	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

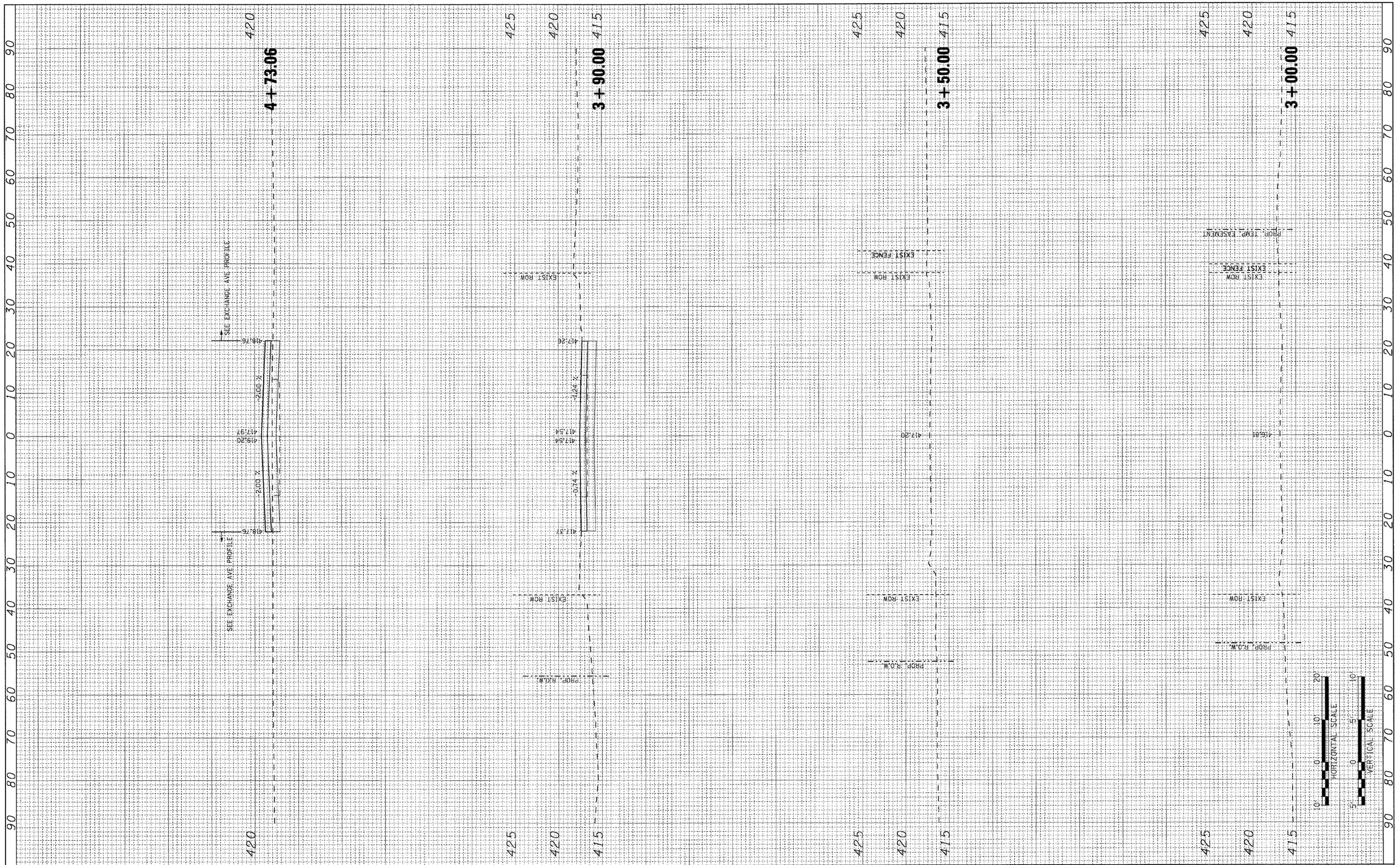
CROSS SECTIONS – 7TH STREET

SCALE: | SHEET NO. 2 OF 2 SHEETS | STA. 14+00.00 | TO STA. 16+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-2-1HB	ST CLAIR	236	234
		CONTRACT NO. 76C55		
		ILLINOIS	FED. AID PROJECT	

FINAL SURVEY	SURVEYED	BY	
	PLOTTED		
NOTE BOOK	TEMPLATE		
NO.	AREAS		
	AREAS CHECKED		DATE

ORIGINAL SURVEY	SURVEYED	BY	
	PLOTTED		
NOTE BOOK	TEMPLATE		
NO.	AREAS		
	AREAS CHECKED		DATE



FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - DRH	REVISED -
		DRAWN - DRH	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - AGF	REVISED -
	PLOT DATE = $DATE$	DATE - OCTOBER 9, 2009	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

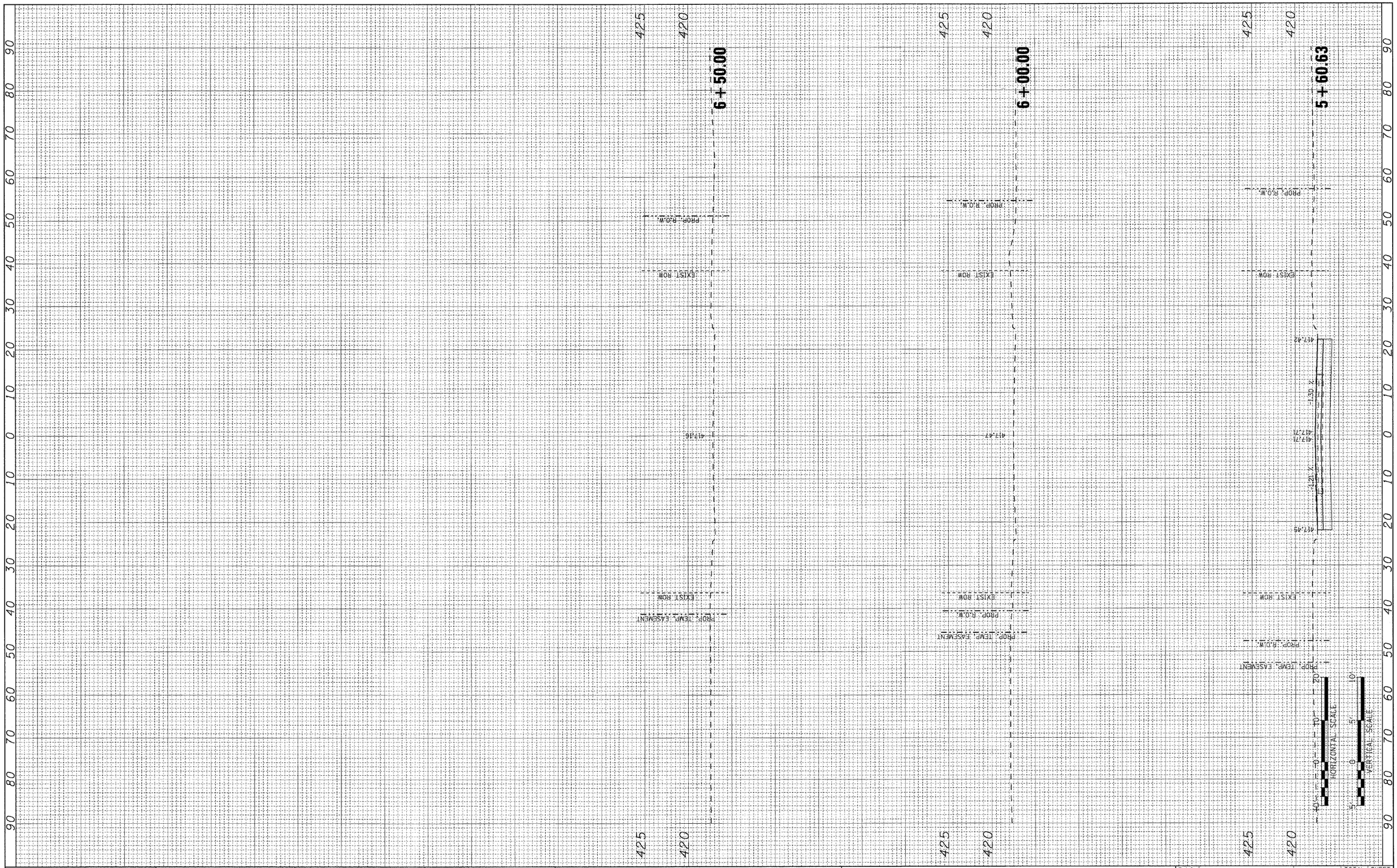
CROSS SECTIONS – 9TH STREET

SCALE: | SHEET NO. 1 OF 2 SHEETS | STA. 3+00.00 | TO STA. 4+73.06

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-2-1HB	ST. CLAIR	236	235
		CONTRACT NO. 76C55		
	ILLINOIS FED. AID PROJECT			

FINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TEMPLATE		
NO.	AREAS		
	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TEMPLATE		
NO.	AREAS		
	AREAS CHECKED		



FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - DRH	REVISED -
		DRAWN - DRH	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - AGF	REVISED -
	PLOT DATE = $DATE$	DATE - OCTOBER 9, 2009	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

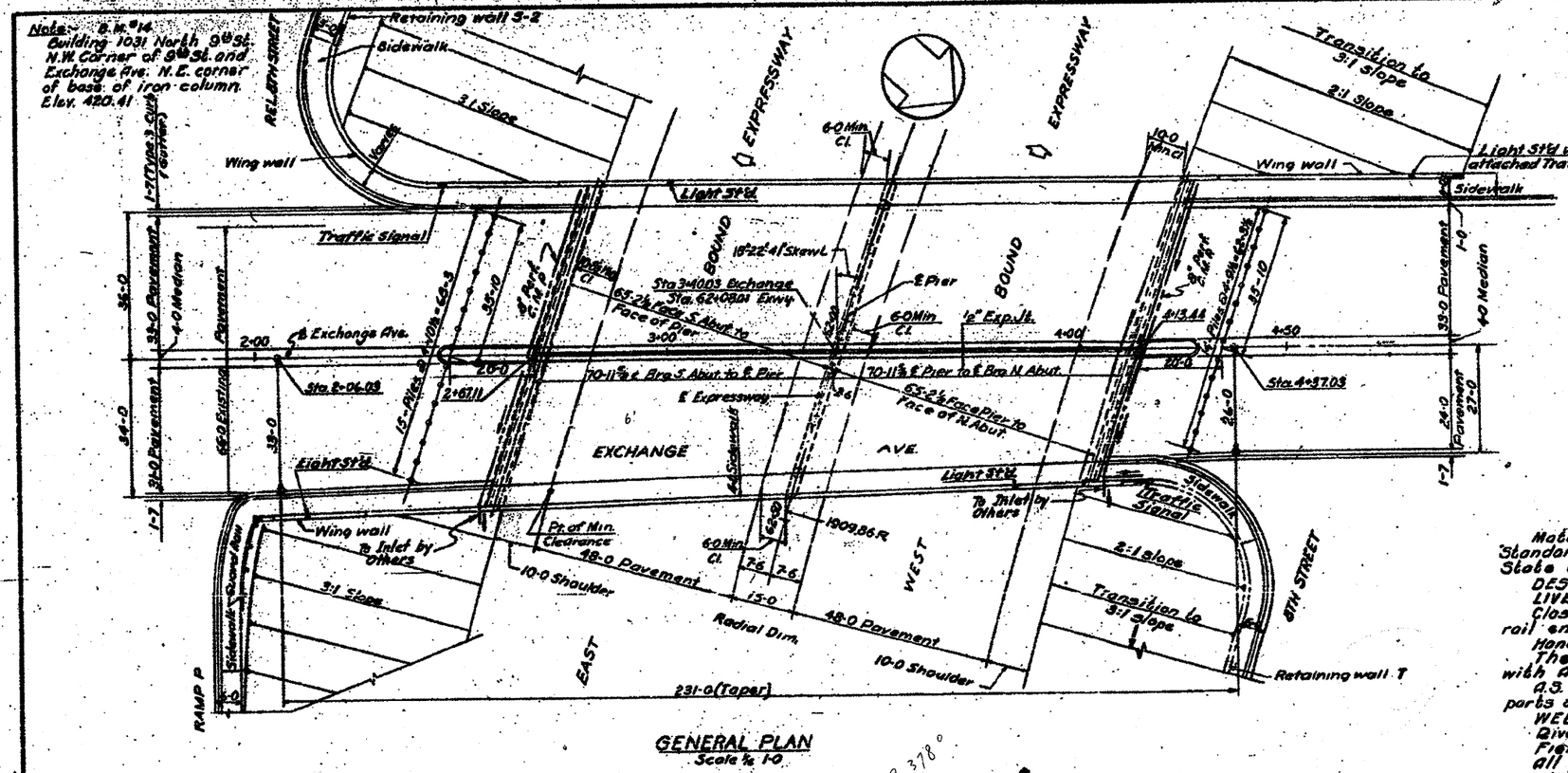
CROSS SECTIONS – 9TH STREET

SCALE: | SHEET NO. 2 OF 2 SHEETS | STA. 5+60.63 | TO STA. 6+50.00

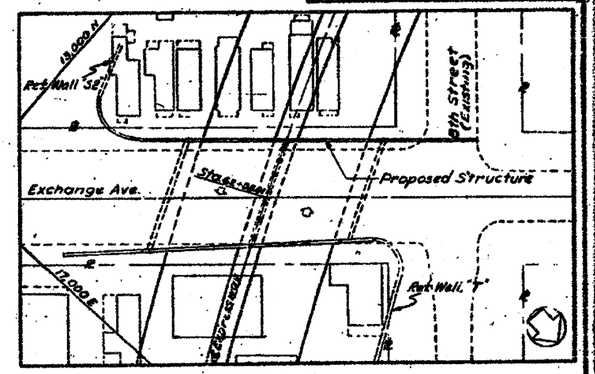
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-2-1HB	ST. CLAIR	236	236
		CONTRACT NO. 76C55		
ILLINOIS	FED. AID PROJECT			

FEDERAL AID SERIES NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-2HB-3	ST. CLAIR	79	25

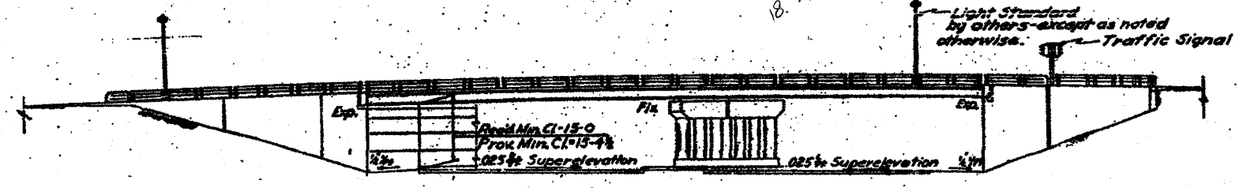
Note:- B.M. #14
Building 1031 North 9th St.
N.W. Corner of 9th St. and Exchange Ave. N.E. corner of base of iron column.
Elev. 420.41



GENERAL PLAN
Scale ⅛ 1-0



LOCATION PLAN
SCALE 1" = 50'-0"



ELEVATION
Scale ⅛"-1-0"

TOTAL BILL OF MATERIAL FOR BRIDGE NO. 8 & WALLS (S2,T,U,V)

UNIT	DESCRIPTION	SEC. 82-2-HB3 SUPER STRUCTURE	SUB STRUCTURE	TOTAL
CY	CLASS A EXCAVATION FOR STRUCTURES		3836	3836
CY	CLASS X CONCRETE	284.1	2091.2	2375.3
CY	HANDRAIL CONCRETE	1.7	-	1.7
LB	REINFORCEMENT BARS	58,220	157,290	215,510
LB	STRUCTURAL STEEL	389,350		389,350
LF	METAL HANDRAIL	483	113	596
Ea.	TEST PILES (CONCRETE)		3	3
LF	FURNISHING CONCRETE PILES		6570	6570
LF	DRIVING CONCRETE PILES		6570	6570
EA.	NAME PLATE	2		2
L.F.	Driving Timber Piles.		14,737	14,737
L.F.	Furnishing Creosoted Piles. (20.1' to 38')		7,377	7,377
L.F.	Furnishing Creosoted Piles (up to 21')		7360	7360
EA.	Test Piles (Timber)		6	6
L.F.	8"ø Perf. C.M.P.		1,295	1,295
C.Y.	Special Excavation		14,792	14,792
L.F.	Chain Link Fence		210	210

GENERAL NOTES

Material and workmanship shall be in accordance with "Standard Specification for Road and Bridge Construction" State of Illinois, adopted Jan. 2, 1958.

DESIGN:- AASHO 1953 Specifications, except as noted below.

LIVE LOAD:- M 20-S16-44

Class X Concrete shall be used throughout except in handrail endposts.

Handrail concrete shall be used in handrail endposts.

The concrete floor slab shall be finished in accordance with Article 31.19 of the Standard Specifications.

A.S.T.M. designation A373 steel shall be used in all welded parts designed to carry stress.

WELDING and DAINTING: See specifications.

Rivets ⅞"ø; open holes 15/16" unless noted.

Field connections riveted unless noted.

All girder splices shall be punched 1/16" and reamed to size while shop assembled.

All rockers, bolsters, bearing plates, lead plates, pintles and anchor bolts shall be fabricated and set in accordance with Article 51.13 of the Standard Specifications and are included for payment as Structural Steel. Est. Wt. 12350 lb.

Anchor bolts shall be set before riveting diaphragms over supports.

The roadway expansion guards shall be fabricated and erected to fit the crown of roadway.

The following surfaces of expansion guards shall be given two shop coats of red lead paint: the backs of the vertical legs of the angles.

Except as otherwise provided, all structural steel shall receive one shop coat of red lead paint and two field coats of aluminum paint. See Article 36.1 to 36.5 inclusive of the Standard Specifications.

All paint shall be furnished and applied by the Contractor.

EARTH PRESSURE: The horizontal pressure shall be that of fluid weighing 40 p.c.f. and the vertical pressure in such instance that at a fill weighing 120 p.c.f.

PILES:- They shall be concrete and timber piles with a min. load capacity as shown on plans. Test Piles (Concrete & Timber) shall be driven in permanent locations shown on the plans as directed by the Engineer before ordering remainder of piles.

PILE DATA
(Approach Slab Bents)

No. Req'd. { 14 @ North Abutment. / 15 @ South Abutment.

Min. Capacity = 15 Ton

Type = Creosoted Piles

Estimated Length = 30'

870 l/n. ft. (20.1 to 38') piles

The back of abutment walls, wing walls and retaining walls shall be waterproofed from top of footing to ground surface in accordance with Article 8.2.1 of the Standard Specifications.

DESIGN-STRESSES

fc = 1,400 p.s.i. (Superstructure)
fc = 1,000 p.s.i (Substructure - with earth pressure)
fs = 20,000 p.s.i. (Reinforcement)
fs = 18,000 p.s.i. (Structural Steel)
n = 10
v = 75 p.s.i. (Footings)

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

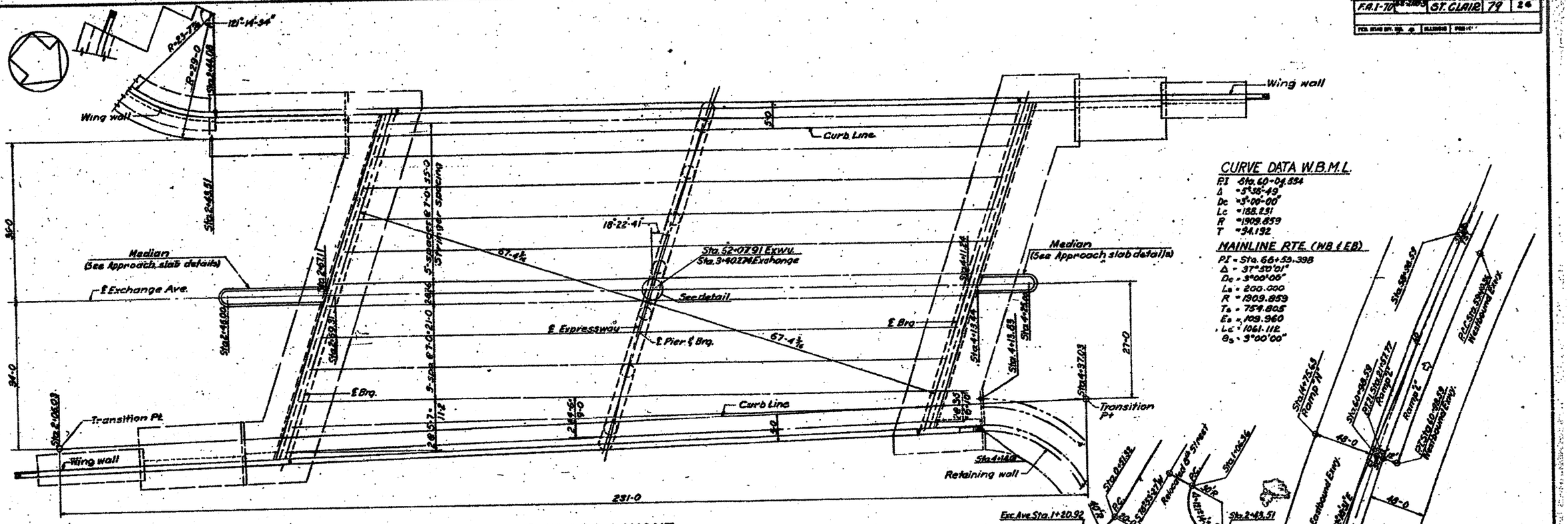
EXCHANGE AVE. OVER EXPRESSWAY (SR 9)

GENERAL PLAN & BILL OF MATERIAL

H. W. LOCHNER, INC.
ENGINEERS
DATE JANUARY 1958 CHICAGO, ILLINOIS SHEET NO. 1

FOR INFORMATION ONLY

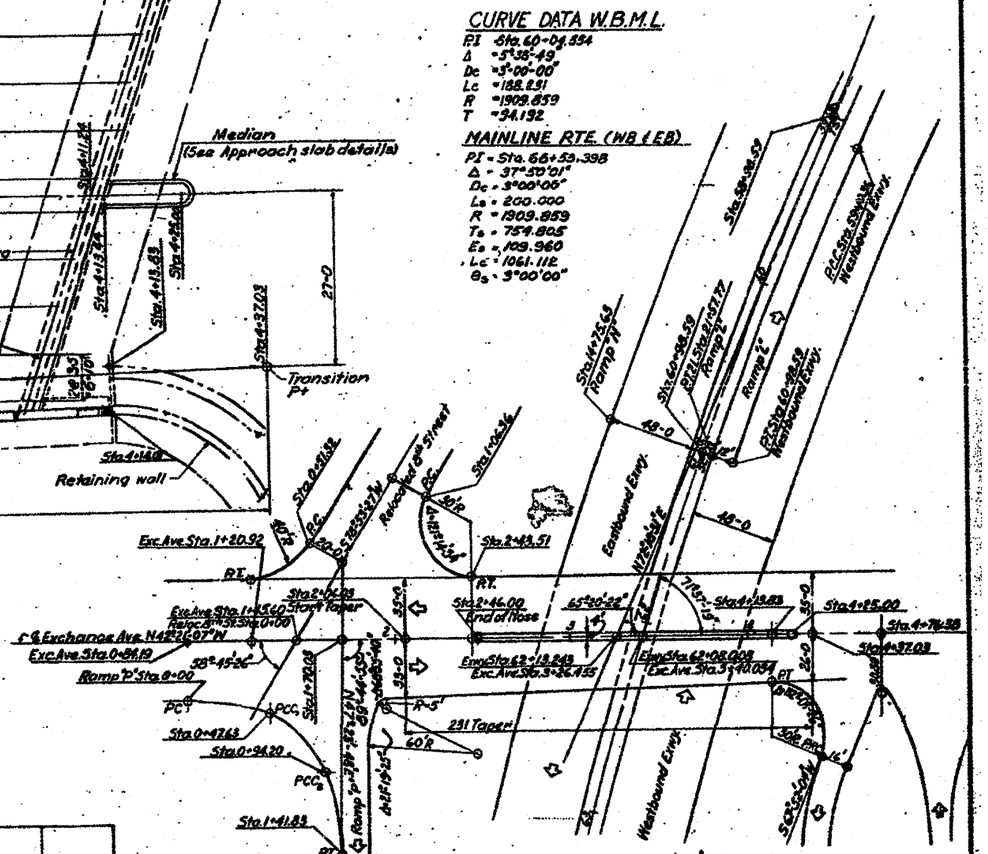
FEDERAL AID PROJECT NO.	SECT.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I-70		ST. CLAIR	79	26
FED. ROAD DIST. NO. 8	ILLINOIS			



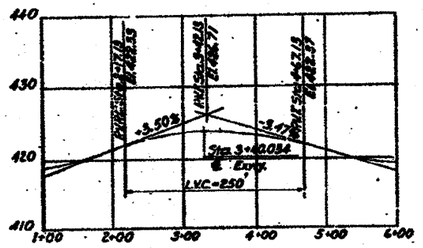
GENERAL LAYOUT
Scale: 1"=1-0

CURVE DATA W.B.M.L.
P.I Sta. 60+04.334
Δ =5°35'-49
Dc =3°-00'-00"
Lc =188.231
R =1909.859
T =94.132

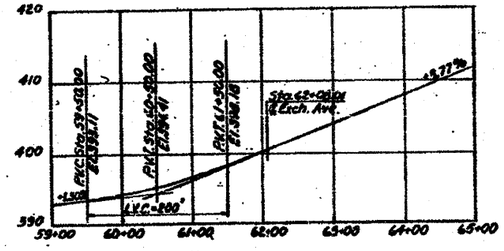
MAINLINE RTE. (WB & EB)
P.I = Sta. 66+53.398
Δ = 37°50'01"
Dc = 3°00'00"
La = 200.000
R = 1909.859
Ta = 754.805
Ea = 109.960
Lc = 1061.112
Ba = 3°00'00"



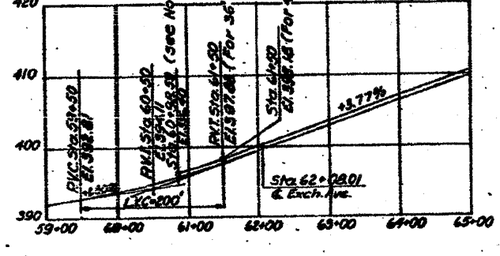
GEOMETRIC LAYOUT
Scale: 1"=40-0



EXCHANGE AVE.



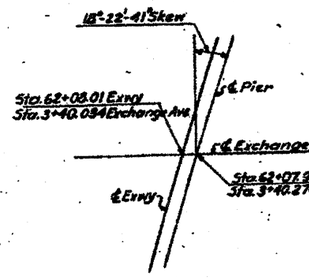
EASTBOUND EXPRESSWAY



WESTBOUND EXPRESSWAY

PROFILES
Horz. scale: 1"=100'
Vert. scale: 1"=10'

Note 'A' Horizontal shift in Profile Edge of 12' @ Sta. 60+98.59
36' Part. width - El. 396.101
48' Part. width - El. 396.401



STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

EXCHANGE AVE OVER EXPRESSWAY

GENERAL GEOMETRIC LAYOUT

H.W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

DATE JANUARY 1958

SHEET NO. 2.

Designed by B.T.
Drawn by E.S.
Checked by E.M.R.

FOR INFORMATION ONLY

SHEET A-2 236B

F.A.I.-70	S.	COUNTY	TOTAL SHEETS	SHEET NO.
82-1H-3		ST. CLAIR	79	27
FED. ROAD DIV. NO. 4	ILLINOIS	PROJ.		

NO. B 15

ELEV. 430

Ground surface — Elev. 417.0 — 0'-0"

Dark grey organic clay trace cinders.	10	6'-0"
Brown grey silty clay.	12	8'-0"
Grey silty clay trace very fine sand.	13 12 22½	11'-0" ST 2"O.D. 13'-0½" 14'-0"
Fine brown silty sand, trace of clay.	16	* 16'-6"
Coarse to fine sand & small gravel	4 19	* 26'-0"
Fine brown sand	39	* 33'-6"
Fine brown sand trace small gravel	14	38'-0"
Coarse to fine sand, trace decomposed wood	20	WL 42'-0"
Fine silty grey sand, trace clay	60	* 47'-0"
Coarse to fine sand trace small gravel	14	* 53'-0"
Medium to fine grey silty sand	48 34	* 60'-0"

Used 44' of 2½" casing.

Water level 41' below ground surface 24hrs. after completion.

Date: 4-20-1936.

NO B2-15

Ground surface — Elev. 418.0 — 0'-0"

Brown silty clay w/very fine sand.	9	3'-0"
Brown clayey silty & very fine sand in wood.	6 5	9'-0"
Brown very fine to fine sand.	6 16 14	22'-6"
Brown fine to medium sand.	31 20 26	39'-0"
Brown fine to coarse sand tr. sm. gravel.	50	* 42'-0" WL
Grey fine to medium sand tr. silt.	33	45'-0"

Boring stopped by client.

Used 49' of 2½" casing.

Water level 41½' below ground surface 2hrs. after completion. Boring caved 21'

Date: 4-20-1936.

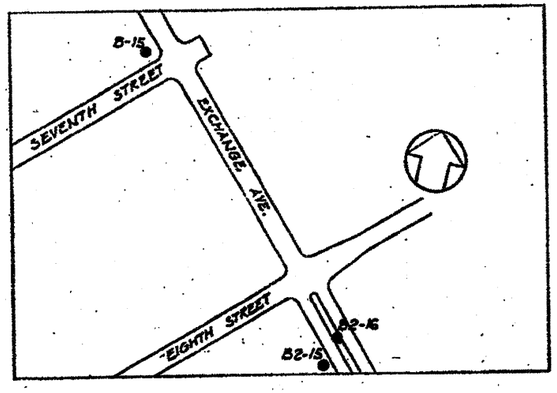
NO B2-16

Ground surface — Elev. 418.0 — 0'-0"

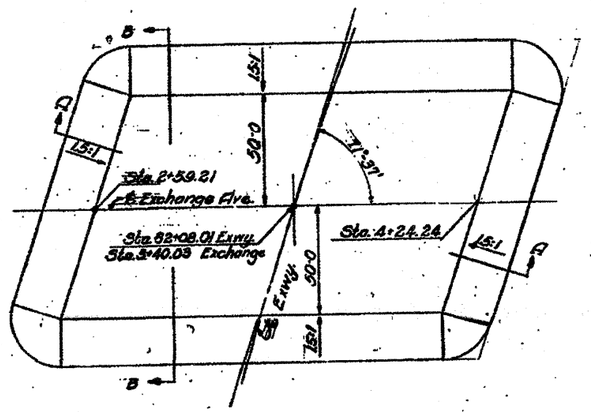
Cinders & gravel fill.	11	2'-0"
Brown silty clay w/very fine sand.	13 7 18 100 33	6'-0" ST 2"O.D. 10'-0"
Brown very fine to fine sand.	7 6	16'-6"
Brown fine sand.	13 14 21 39	38'-0"
Brown fine to medium sand trace gravel.	38 39	47'-0"
Grey fine to medium sand.	21	50'-0"

Boring stopped by client.

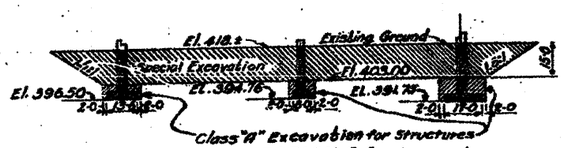
KEY:
WL - Water line.
* - Indicates water loss in strata.
ST - Indicates Shelby tube.



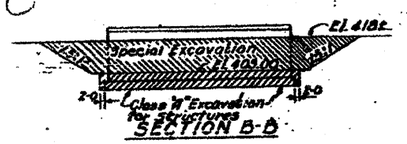
LOCATION PLOT OF BORINGS



EXCAVATION PLAN



SECTION A-A



SECTION B-B

NOTES:-
Classifications are made by visual inspection
Water levels (W.L.). Figure indicates time of reading (hours) after completion of boring.
Water levels indicated are those observed when borings were made, or as noted.
Porosity of the soil strata, variations of rainfall, site topography, etc., may cause changes in these levels.
Figures in right hand column indicate number of blows required to drive 2" O.D sampling pipe one foot, using 140 lb weight falling 30".

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS
EAST ST. LOUIS EXPRESSWAY

EXCHANGE AVE. OVER EXPRESSWAY (BR 3)

BORING LOGS & EXCAVATION PLAN

H. W. LOCHNER, INC.
ENGINEERS
DATE JUNE 1937 CHICAGO, ILLINOIS SHEET NO 3

Drawn by: V.B.
Checked by: B.T

SHEET A-3 236C

FOR INFORMATION ONLY

FEDERAL AID PROJECT NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S.-701		ST. CLAIR	79	28

FED. ROAD DIST. NO. 8 | ILLINOIS | PROJECT

PLAN

NOTE:- 6" of gravel or crushed stone encasement around 8" drain pipe shall be considered incidental to the cost of 8"ø perforated C.M.P.

SECT. B-B

SECT. E-E

SECT. F-F

ELEVATION

SECTION A-A

SECT. C-C

SECT. D-D

VIEW G-G

VIEW H-H

Notes.
For additional details, bar list & Scaf elevations see sh. no. 7
For details of vertical expansion & construction joints see sh. 7
For pile details see Sh. No. 15

Designed by: RMR
Drawn by: ES.
Checked by: RMR

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

EXCHANGE AVE. OVER EXPRESSWAY (SR 9)
SOUTH ABUTMENT

H. W. LOCHNER, INC.
ENGINEERS
DATE JANUARY 1958 CHICAGO, ILLINOIS SHEET NO. 4

SHEET A-4

FOR INFORMATION ONLY

FED. AID PROJECT NO.	DIST.	COUNTY	SHEET NO.	TOTAL SHEETS
FAI-70	8-STRS-1	ST. CLAIR	79	29
FED. ROAD DIV. NO. 5	ILLINOIS	FED.		

Note A:
Recessed formed opening for 6-60 AMP-2 pole ckt. brks. Cabinet. Size of opening & method of installment to be approved by the Engineer.

PLAN

ELEVATION

SECTION A-A

SECTION H-H

SECTION B-B

SECTION C-C

SECTION E-E

VIEW F-F

VIEW G-G

SECTION D-D

Notes:
For additional details, see list of Sections & elevations see sh no. 7.
For details of vertical expansion & construction joints see sh. No. 7
For pile details see Sh. No. 15.

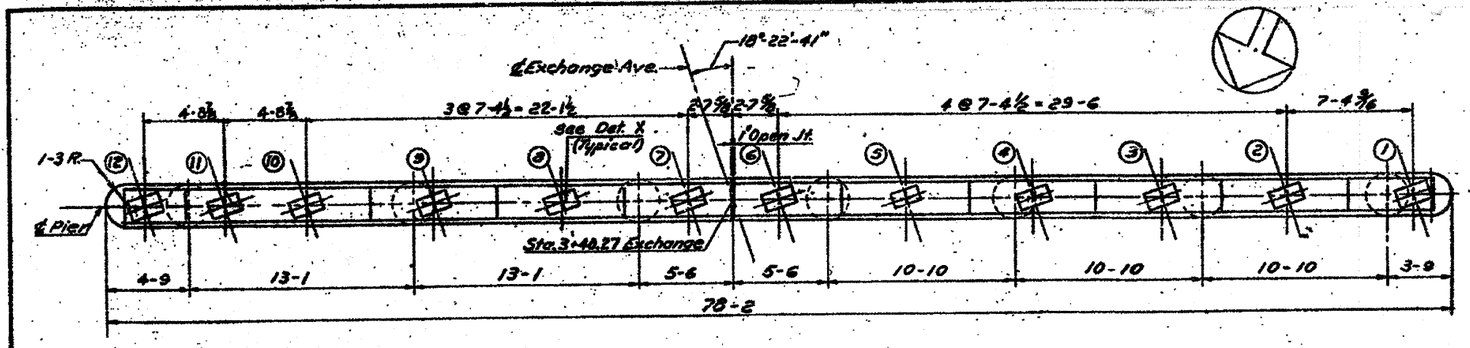
Designed by RMR
Drawn by ES
Checked by RMR

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS
EAST ST. LOUIS EXPRESSWAY
EXCHANGE AVE. OVER EXPRESSWAY (BR 8)
NORTH ABUTMENT
H. W. LOCHNER, INC.
ENGINEERS
DATE JANUARY 1958 CHICAGO, ILLINOIS SHEET NO. 5

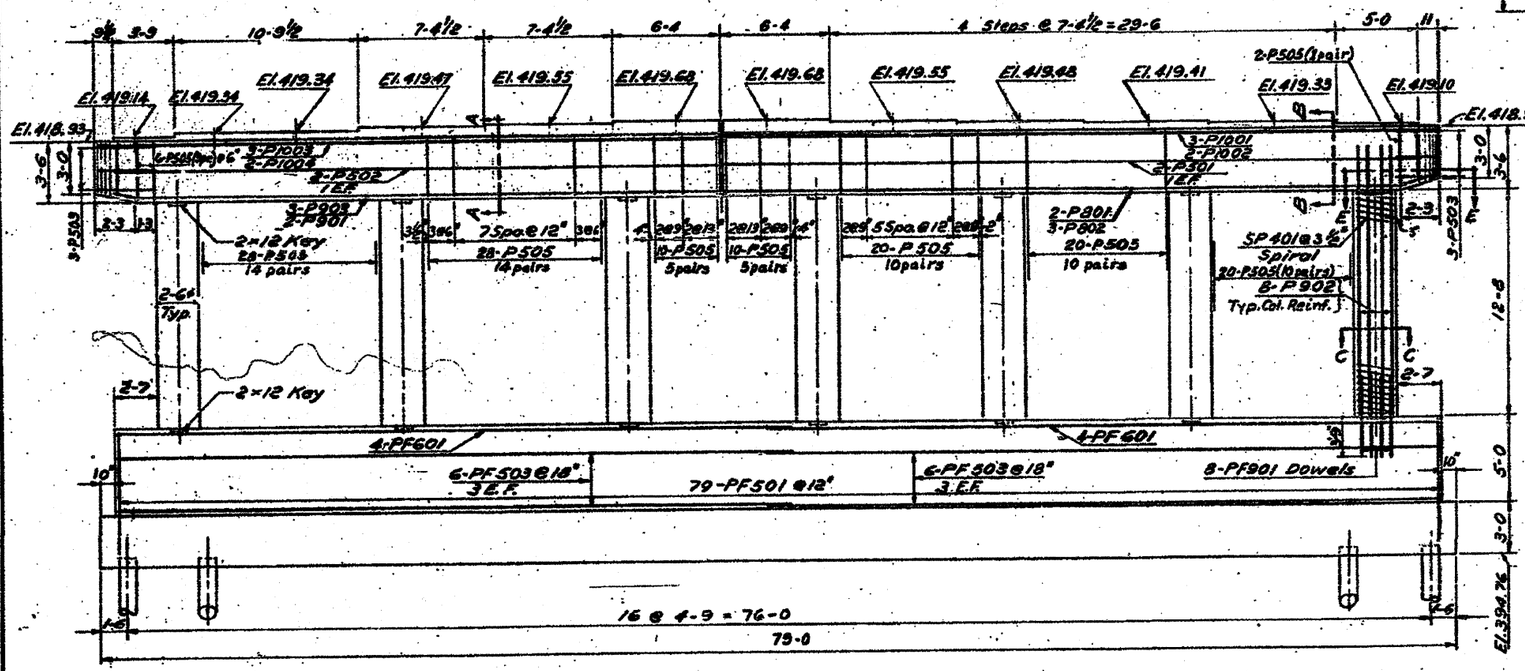
SHEET A-5

FOR INFORMATION ONLY

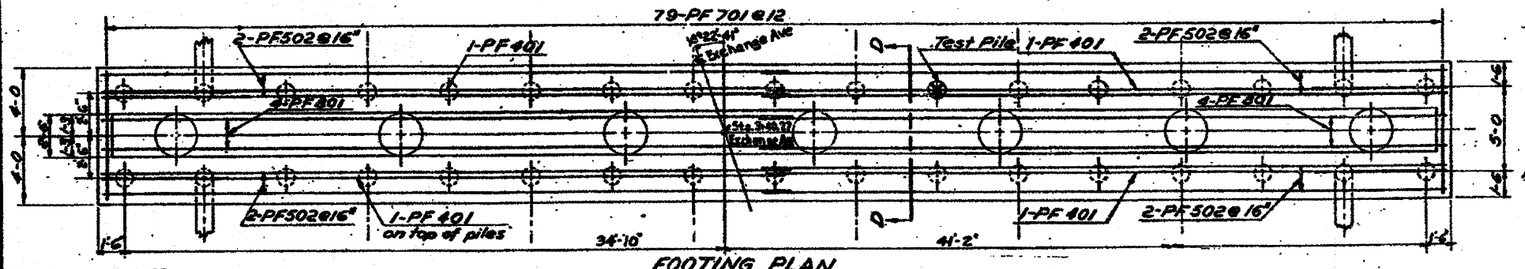
FEDERAL AID PROJECT NO.	S.N.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I-70		ST. CLAIR	79	30
FED. ROAD DIST. NO. 4	ILLINOIS	FED.AID		



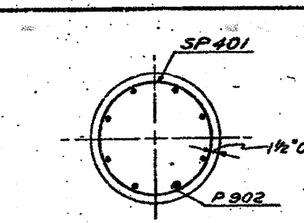
PIER CAP



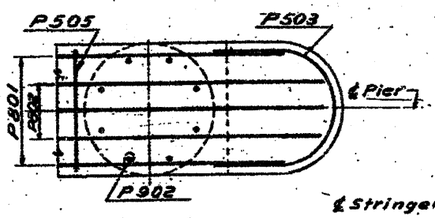
ELEVATION



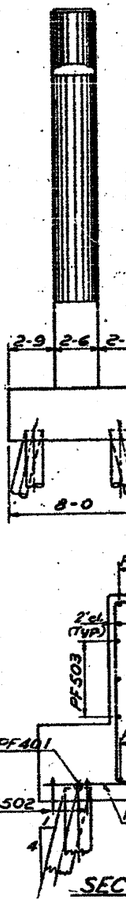
FOOTING PLAN

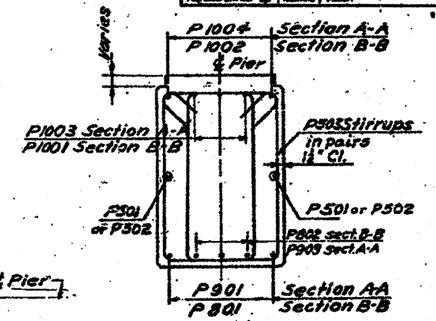


SECTION C-C

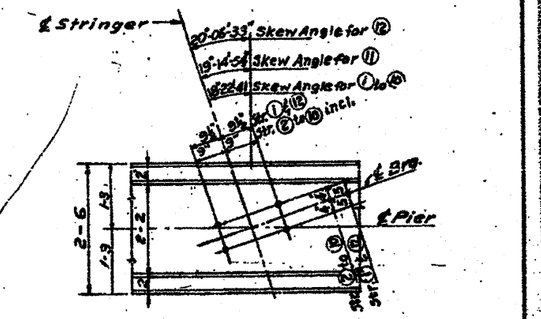


SECTION E-E

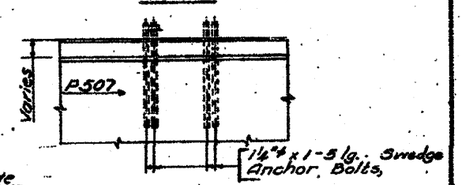




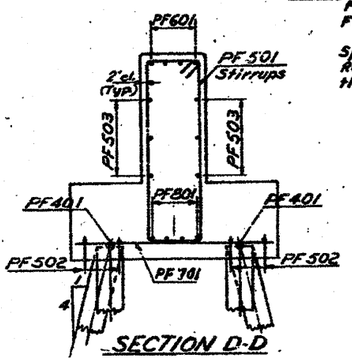
SECTION A-A & SECTION B-B



PLAN



DETAIL X



SECTION D-D

NOTE:
For Bar List see Sheet No. 7.
For pile details see Sh. No. 15.

Special care shall be taken in placing Reinforcement bars in Bridge seat so they will not interfere with Anchor Bolts

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS
EAST ST. LOUIS EXPRESSWAY

EXCHANGE AVE. OVER EXPRESSWAY BR 8

PIER

H. W. LOCHNER, INC.
ENGINEERS
DATE JANUARY 1958 CHICAGO, ILLINOIS SHEET NO. 6

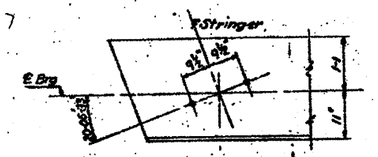
Designed by: F.Z.
Drawn by: E.M.
Checked by: E.M.R.

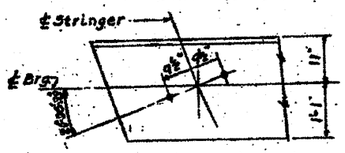
FOR INFORMATION ONLY

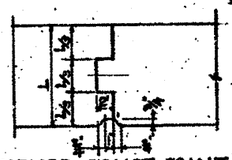
PROJECT NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	63-2118-3	ST. CLAIR	79	31
FED. ROAD DIST. NO. 4	ILLINOIS	PROJECT		

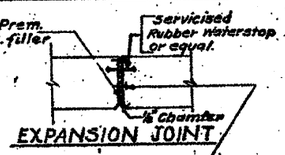
BRIDGE SEAT ELEVATIONS

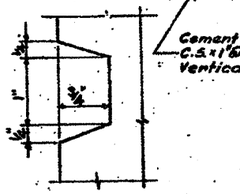
Stringers	1	2	3	4	5	6	7	8	9	10	11	12
S. Abutment	419.10	419.10	419.16	419.16	419.16	419.27	419.27	419.09	418.97	418.85	418.74	418.64
N. Abutment	418.70	418.83	418.95	419.07	419.19	419.36	419.36	419.28	419.28	419.28	419.22	419.22

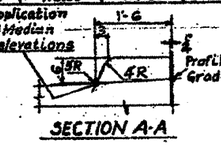


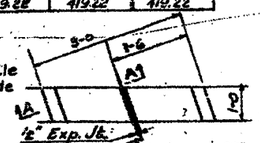


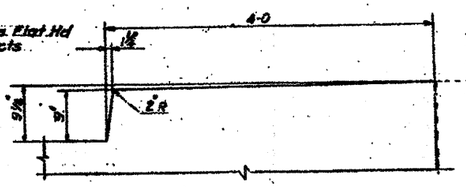












NOTE:
Special care shall be taken in placing Reinforcement bars in Bridge seat so they will not interfere with Anchor bolts.

SPIRAL REINFORCING BARS

This "LENGTH" shown in the steel list for the spiral bars is the distance from the top of crashwall to the bottom of the pier cap.
The "No. of TURNS" shown in the steel list for spiral bars is the "LENGTH" divided by the "PITCH" plus 3 turns (total number of closed coils), expressed as the nearest whole number.
Spiral reinforcing bars shall not have deformations, but shall in other respects conform to Article 1241.8 of the Std. Specs. 1½ closed coils shall be provided at the ends of each spiral unit. Four steel channels, tee or angle spacers, weighing approximately 0.68 lb. per lin. ft. of spacer, shall be provided for each spiral unit. They shall be equally spaced along the periphery of the coil. The number of pounds of these spacers, based on 0.68 lb. per lin. ft. will be paid for as reinforcing steel and is included in the tabulated quantity of spiral bars.

Note:
Weight of spiral reinf. is included in total weight of reinf. for Pier.

PIER BAR LIST

Mark	No. Req.	Size	Length	Shape
P501	2	5	40-4	
P502	2		35-0	
P503	6		5-11	
P505	144	5	11-0	
P801	2	8	40-7	
P802	3	8	41-3	
P901	2	9	35-5	
P902	56	9	16-5	
P903	3	9	38-11	
P1001	3	10	43-9	
P1002	2	10	43-0	
P1003	3	10	38-5	
P1004	2	10	37-7	
PF401	4	4	30-2	
PF301	79	3	19-8	
PF502	8	3	40-0	
PF503	12	3	39-3	
PF601	8	6	39-3	
PF701	79	7	7-8	
PF801	8	8	40-3	
PF901	56	9	7-6	

SOUTH ABUTMENT BAR LIST

Mark	No. Req.	Size	Length	Shape
A501	62	5	27-9	
A502	7		28-6	
A503	28		18-9	
A504	54		10-9	
A505	2		41-6	
A506	65		7-7	
A507	12		6-7	
A508	19		6-2	
A509	2		37-9	
A510	7		7-7	
A511	NOT	USED		
A512	NOT	USED		
A513	16		9-2	
A514	8		3-2	
A515	17		10-2	
A516	8		24-0	
A517	12		10-7	
A518	15	5	11-7	
A519	10	5	3-0	
A602	9	6	27-9	
A701	15	7	14-3	
A801	69	8	15-3	
A901	66	9	8-1	
A902	13	9	9-9	
F401	4	4	36-0	
F402	6	4	30-2	
F403	6	4	71-0	
F501	6	5	37-7	
F502	6	5	10-6	
F801	98	8	8-6	
F802	16	8	13-2	
F803	18	8	6-0	
F908	50	9	13-2	
F902	64	9	7-6	
F1001	11	10	10-1	
F1002	28	10	8-8	
F1101	138	11	8-7	

NORTH ABUTMENT BAR LIST

Mark	No. Req.	Size	Length	Shape
A 501	26	5	23-0	
A 502	19		23-3	
A 503	27		33-8	
A 504	51		10-9	
A 505	2		41-6	
A 506	2		33-4	
A 507	27		22-3	
A 508	71		7-5	
A 509	18		6-0	
A 510	18		6-9	
A 511		NOT	USED	
A 512		NOT	USED	
A 513	4		28-3	
A 514	8		3-2	
A 515	11		12-2	
A 516	36		13-9	
A 517	9		11-4	
A 518	2		10-6	
A 519	8		24-0	
A520	2	5	29-0	
A321	20	5	2-6	
A601	6	6	23-9	
A602	3	6	33-9	
A603	21	6	15-0	
A701	76	7	8-6	
A801	40	8	10-10	
A901	75	9	9-3	
A902	76	9	12-9	
A1001	40	10	8-0	
F401	4	4	35-2	
F402	6	4	29-9	
F403	6	4	13-9	
F501	6	5	33-2	
F502	6	5	13-0	
F701	140	7	10-6	
F801	16	8	15-2	
F802	47	8	16-8	
F803	137	8	8-3	
F1001	20	10	10-1	
F1002	23	10	10-6	
F1101	40	11	8-2	
F1102	151	11	9-7	

SPIRAL BAR LIST

Mark	No. Req.	Core Dia. & Spiral	Length	Pitch	No. of Turns	Weight*
S1P401	7	25"	12-5	3"	46	1730

*#4 Bar

BILL OF MATERIAL - PIER

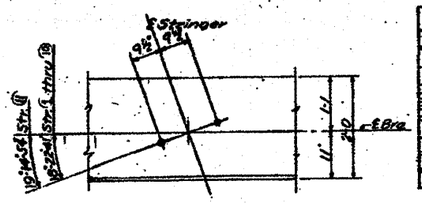
Description	Unit	Total
Class 'X' Concrete	C.Y.	149.9
Reinforcement Bars	LB.	16080.
Furnishing Concrete Piles	L.F.	990
Driving Concrete Piles	L.F.	990
Test Pile (Concrete)	Ea.	1
PILE DATA - PIER		
No.	Capacity	Est. Length
93	31 Tons	30 Ft.

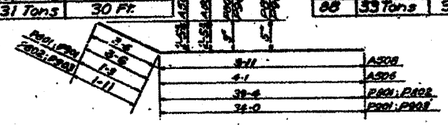
BILL OF MATERIAL S. ABUTMENT

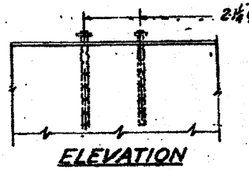
Description	Unit	Total
Class 'X' Concrete	C.Y.	314.2
Reinforcement Bars	LB.	25,050.
Furnishing Concrete Piles	L.F.	2640
Driving Concrete Piles	L.F.	2640
Test Pile (Concrete)	Ea.	1
PILE DATA - S. ABUTMENT		
No.	Capacity	Est. Length
88	35 Tons	30 Ft.

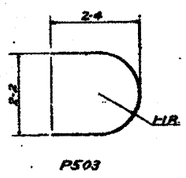
BILL OF MATERIAL - N. ABUTMENT

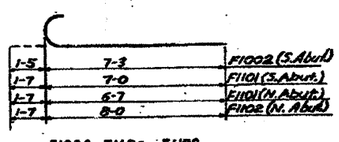
Description	Unit	Total
Class 'X' Concrete	C.Y.	134.7
Reinforcement Bars	LB.	36,310.
Furnishing Concrete Piles	L.F.	2940
Driving Concrete Piles	L.F.	2940
Test Pile (Concrete)	Ea.	1
PILE DATA - N. ABUT.		
No.	Capacity	Est. Length
98	36 Tons	30 Ft.

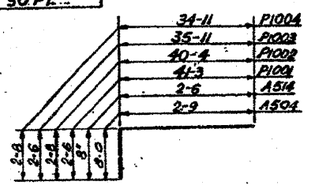


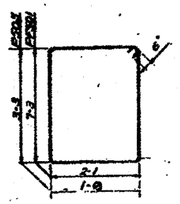












Note: For Pile Details see Sh. No. 15.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

EXCHANGE AVE. OVER EXPRESSWAY (SR 8)

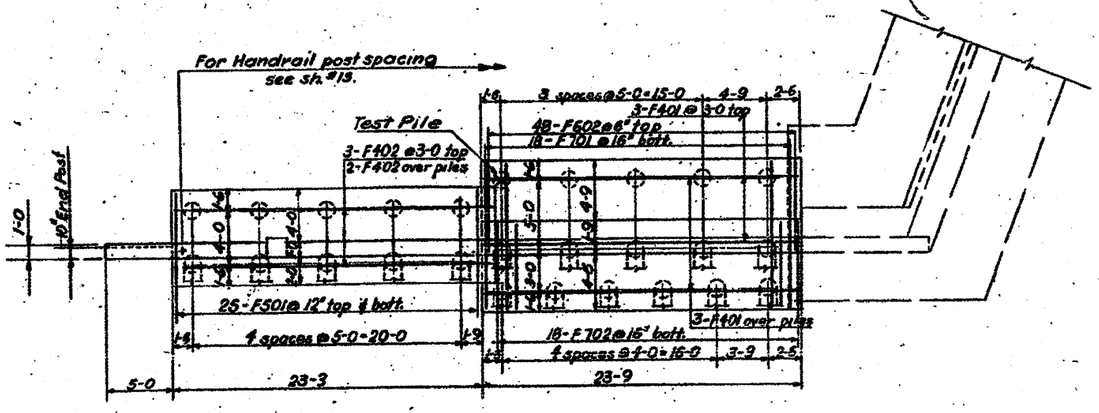
NORTH ABUTMENT, SOUTH ABUTMENT, PIER, BAR LIST AND DETAILS

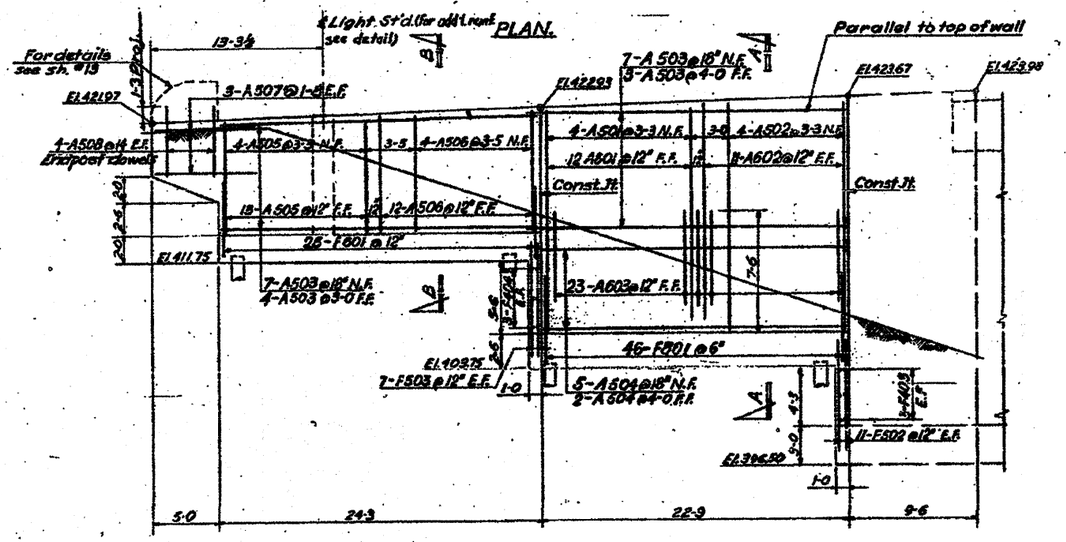
H. W. LOCHNER, INC.
ENGINEERS
DATE JANUARY 1958 CHICAGO, ILLINOIS SHEET NO. 7

Designed by: B.S.T.
Drawn by: ES
Checked by: RMR

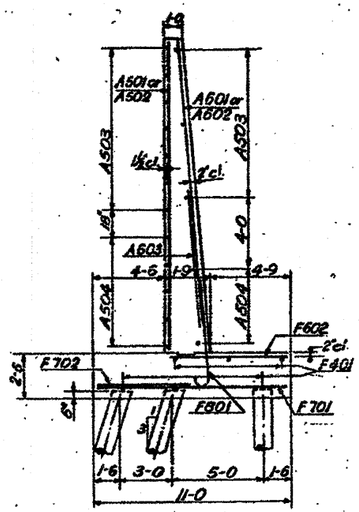
FOR INFORMATION ONLY

TYPWORK FOR FUNCTIONAL CLASS	SEC.	COUNTY	SHEET NO.	SHEET NO.
F.A.I.-70	82-8 INB-3	ST. CLAIR	79	52
STD. SHEET NO. 4	PLANNING	PROJ.		





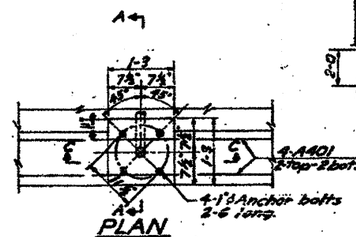
ELEVATION.



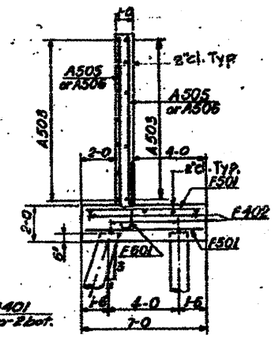
SECTION A-A.

BAR LIST

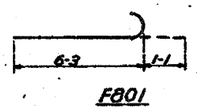
	MARK	NO. REQ.	SIZE	LENGTH	SHAPE
FOOTINGS	F401	6	#4	23-5	
	F402	5	4	23-10	
	F403	8	4	10-8	
	F404	6	4	6-8	
	F501	50	#5	6-8	
	F502	22	5	7-6	
	F503	14	5	8-6	
	F601	26	#6	5-2	
	F602	48	6	6-9	
	F701	18	#7	10-8	
	F702	18	7	6-8	
	F801	46	#8	7-4	
WALLS	A401	4	#4	8-0	
	A402	6	4	4-2	
	A501	4	#5	16-6	
	A502	4	5	17-1	
	A503	21	5	23-10	
	A504	7	5	22-6	
	A505	17	5	8-2	
	A506	16	5	8-8	
	A507	6	5	7-9	
	A508	8	5	4-9	
	A601	12	#6	15-6	
	A602	11	6	16-3	
	A603	23	6	6-0	
	A604	4	6	8-2	



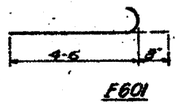
PLAN



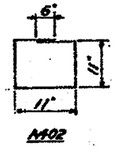
SECTION B-B.



F801



F601



A402

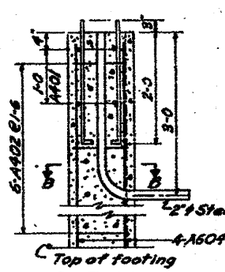
Grout fill to provide level surface
1-3
Top of wall

SECTION C-C

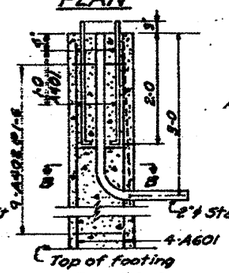
NOTES:
For handrail layout, details and endpost see sheet No 15.
For details of expansion and construction joints see sheet No 7.

PILE DATA		
No.	Capacity	Est. Length
25	20 Tons	27 Ft.

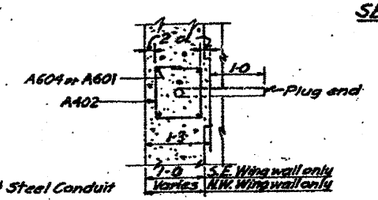
BILL OF MATERIAL - S.E. WING WALL		
Description	Unit	Quantity
Class 'X' Concrete	C.Y.	68.5
Reinforcement Bars	Lbs.	5180
Furnish Creosoted Piles (20' to 35')	L.Ft.	675
Driving Timber Piles	L.Ft.	675
Test Piles (Timber)	Ea.	1



SECTION A-A
S.E. Wing wall only



SECTION A-A
N.W. Wing wall only



SECTION B-B

DETAIL AT LIGHT STANDARD

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

EXCHANGE AVE. OVER EXPRESSWAY (88/8)

SOUTHEAST WINGWALL

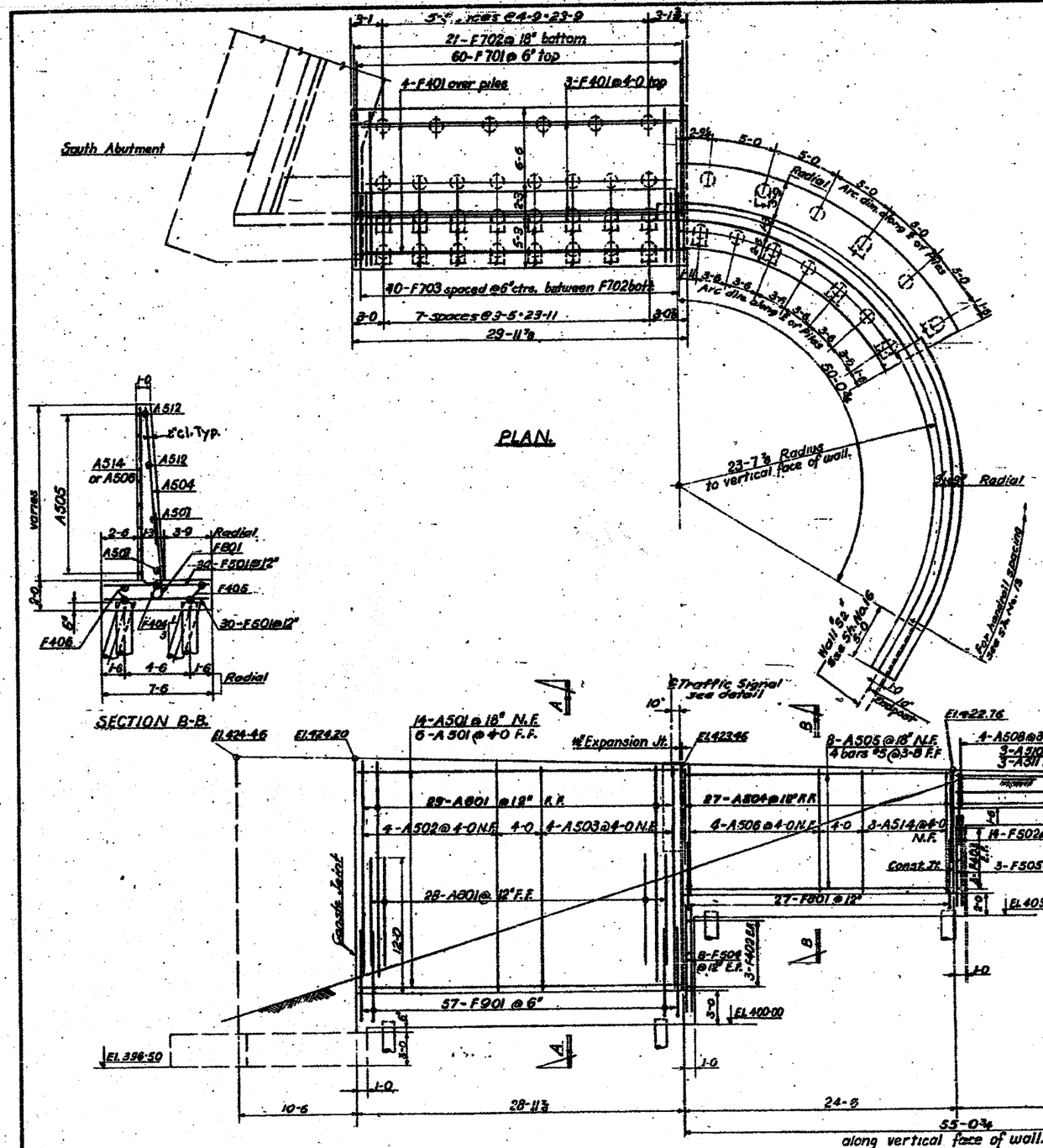
H. W. LOCHNER, INC.
ENGINEERS
DATE JANUARY 1958 CHICAGO, ILLINOIS SHEET NO. 8

Designed by RMR
Drawn by EW
Checked by RMR

FOR INFORMATION ONLY

F.A.I. Route No.	Sec.	County	Total Sheets	Sheet No.
F.A.I.-70	82-2WB-3	ST. CLAIR	79	33

Fed. Road Dist. No. 4 | Illinois | Project



BAR LIST

	Mark	Nº Req.	Size	Length	Shape
FOOTINGS	F401	7	#4	29-8	
	F402	6	4	7-2	
	F403	6	4	2-2	
	F404	1	4	25-3	
	F405	2	4	29-0	
	F406	2	4	24-1	
	F407	1	4	29-6	
	F408	1	4	30-10	
	F409	1	4	31-6	
	F410	31	4	2-2	
	F501	60	#5	7-2	
	F502	14	5	5-1	
	F503	18	5	4-5	
	F504	16	5	9-0	
	F505	6	5	8-3	
	F701	60	#7	8-9	
	F702	21	7	13-8	
	F703	40	7	7-5	
	F801	27	#8	7-8	
	F901	57	#9	8-9	
WALLS	A401	4	#4	5-0	
	A402	6	4	5-2	
	A501	20	#5	28-7	
	A502	4	5	20-8	
	A503	4	5	20-3	
	A504	27	5	9-8	
	A505	8	5	24-2	
	A506	4	5	11-5	
	A507	2	5	25-4	
	A508	4	5	3-2	
	A509	6	5	2-10	
	A510	3	5	30-3	
	A511	3	5	30-6	
	A512	2	5	24-11	
	A513	6	5	3-0	
	A514	3	5	11-0	
	A601	29	#6	19-6	
	A602	4	6	10-0	
	A801	28	#8	10-5	

PILE DATA

No.	CAPACITY	EST. LENGTH
43	20 TON	27 FT.

BILL OF MATERIAL - S.W. WING WALL

Description	Units	Quantity
Class 'X' Concrete	C.Y.	120.4
Reinforcement Bars	Lbs.	8850
Furnishing Creosoted Piles (20 to 35)	L.F.	1161
Driving Timber Piles	L.F.	1161

Notes:
For handrail layout, details and End Post see Sh. no. 13.
For details of expansion and construction joints see sh. no. 7

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

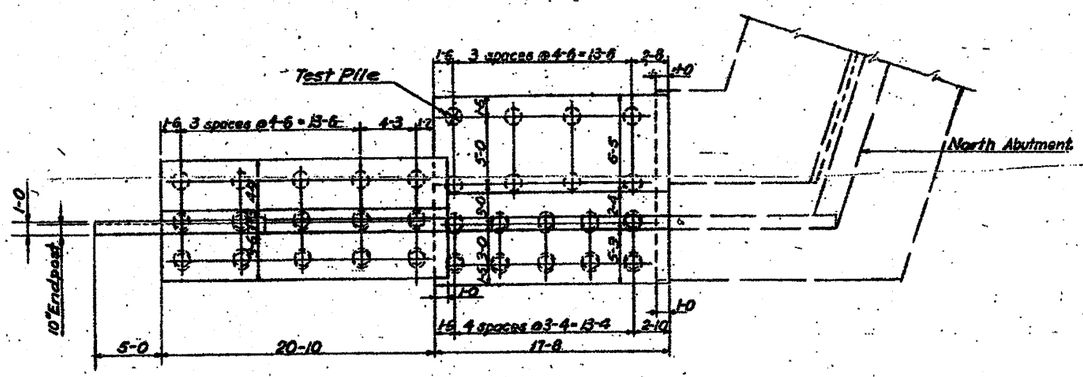
EXCHANGE AVE. OVER EXPRESSWAY (SR 8)
SOUTHWEST WINGWALL

H W. LOCHNER, INC
ENGINEERS
DATE JANUARY 1958 CHICAGO, ILLINOIS SHEET NO. 9

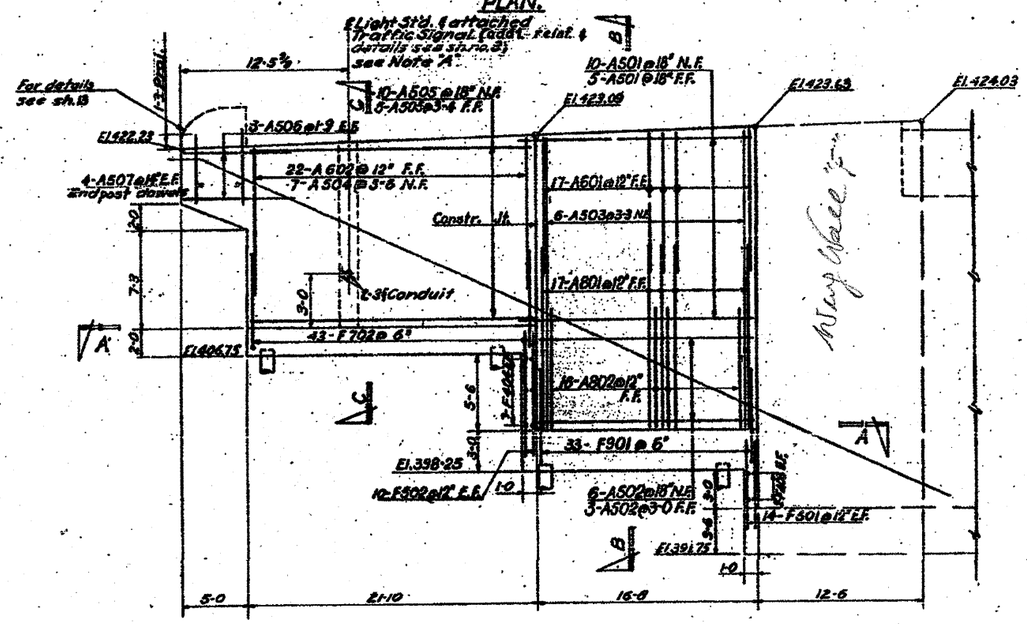
Designed by RMR
Drawn by EW
Checked by RMR

FOR INFORMATION ONLY

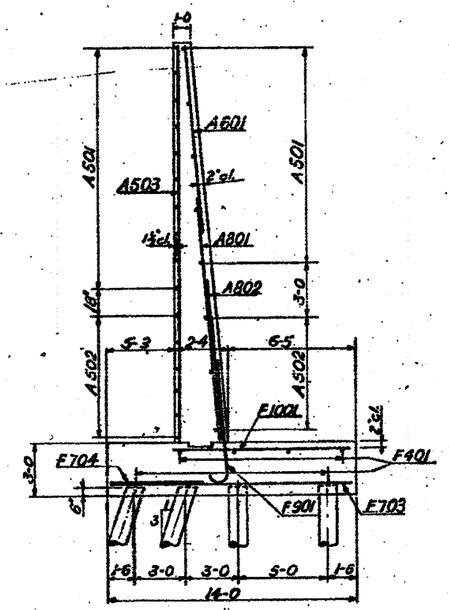
PROJECT NO.	SEC.	COUNTY	FED. SHEET NO.	SHEET NO.
F.A.I-70	82-2 HB-3	ST. CLAIR	79	34
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



PLAN.



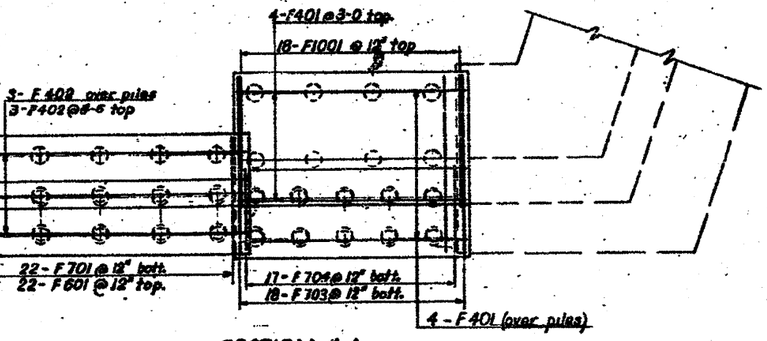
ELEVATION.



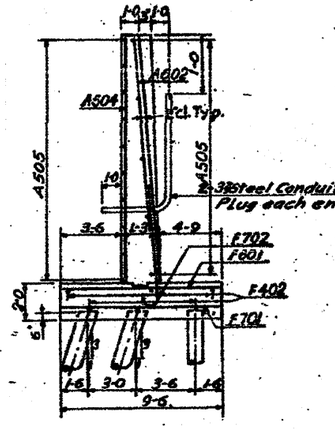
SECTION B-B.

Note 'A'
This Light Standard with attached Traffic Signal will be included in this contract.

BAR LIST					
	MARK	NO. REQ.	SIZE	LENGTH	SHAPE
FOOTINGS	F401	8	#4	11-4	
	F402	6	4	21-6	
	F403	4	4	13-8	
	F404	6	4	9-2	
	F501	28	#5	6-6	
	F502	20	5	8-6	
	F601	22	#6	9-2	
	F701	22	#7	9-2	
	F702	43	7	7-4	
	F703	18	7	13-3	
	F704	17	7	7-3	
	F901	33	#9	7-6	
	F1001	18	#10	9-6	
WALLS	A401	4	#4	8-0	
	A402	9	4	4-2	
	A501	15	#6	17-7	
	A502	9	5	16-4	
	A503	6	5	21-9	
	A504	7	5	13-4	
	A505	15	5	21-6	
	A506	6	5	7-9	
	A507	8	5	5-3	
	A601	21	#6	13-3	
	A602	22	6	11-4	
	A801	17	#8	12-0	
	A802	16	8	7-6	

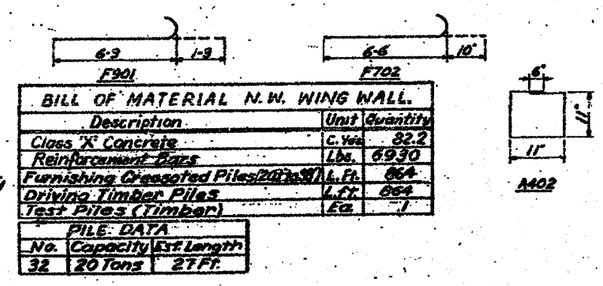


SECTION A-A.
SHOWING FOOTING REINFORCEMENT.



SECTION C-C.

NOTES
For handrail layout details and End Post see sheet No 13.
For details of expansion and construction joints see sheet No 7.



BILL OF MATERIAL N.W. WING WALL.		
Description	Unit	Quantity
Class 'X' Concrete	C.Yds.	32.2
Reinforcement Bars	Lbs.	6930
Furnishing Creosoted Piles 20' to 35'	L.Ft.	864
Driving Timber Piles	L.Ft.	864
Test Piles (Timber)	Ea.	1

PILE DATA		
No.	Capacity	Est. Length
32	20 Tons	27 Ft.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

EXCHANGE AVE. OVER EXPRESSWAY (BR 8)
NORTHWEST WINGWALL

H. W. LOCHNER, INC.
ENGINEERS
DATE JANUARY 1958 CHICAGO, ILLINOIS SHEET NO. 10

Designed by: RMB
Drawn by: EW
Checked by: RMB

SHEET A-10

FOR INFORMATION ONLY

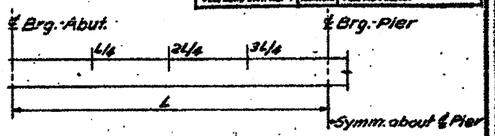
COUNTY NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	65-21B-1	ST. CLAIR	79	35
STA.		TO STA.		
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		

STRINGER SCHEDULE

Mark	Material	Length "L"
①	36 WF 194	141-11½
②		
③		
④		
⑤	36 WF 194	
⑥	36 WF 150	
⑦	36 WF 150	
⑧	36 WF 194	
⑨		
⑩		141-11½
⑪		142-8 7/16
⑫	36 WF 194	143-5 7/16

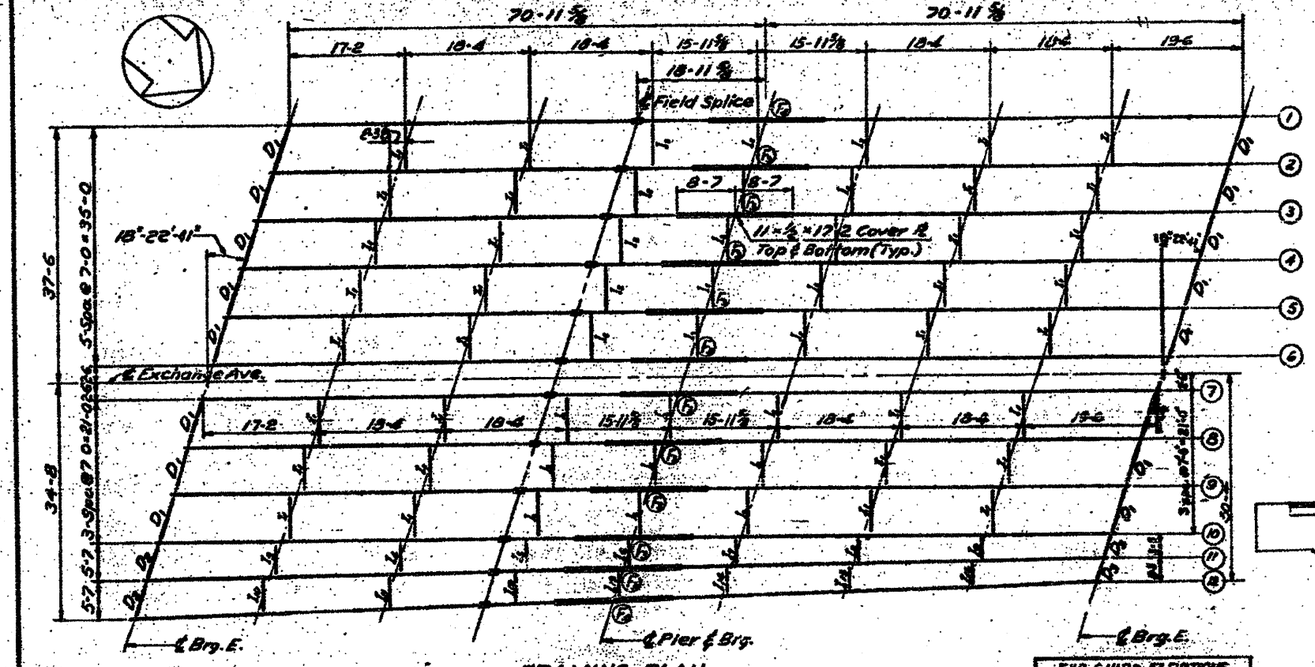
DIAPHRAGM SCHEDULE

Mark	Material
D_1	14 WF 30
D_2	
D_3	14 WF 30
I_1 to I_{11}	16 WF 36

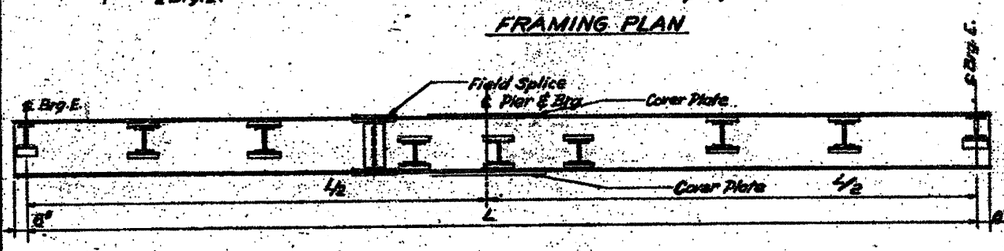


D.L. DEFLECTION

Location	Exterior Stringer			Interior Stringers 2, 3, 4 & 5			Interior Stringers 6 & 7			Interior Stringer 11			Exterior Stringer 12		
	L/4	2L/4	3L/4	L/4	2L/4	3L/4	L/4	2L/4	3L/4	L/4	2L/4	3L/4	L/4	2L/4	3L/4
Deflection due to wt. of steel	1/8"	1/8"	1/16"	1/10	1/8"	1/16"	1/8"	1/8"	1/16"	3/16"	1/8"	1/16"	1/8"	1/8"	1/16"
Deflection due to wt. of conc.	5/8"	3/4"	5/16"	3/10	7/16"	3/16"	7/16"	1/2"	3/16"	1/4"	5/16"	1/8"	1/2"	5/8"	1/4"
Total D.L. deflection	3/4"	7/8"	3/8"	1/2"	9/16"	1/4"	9/16"	5/8"	1/2"	3/8"	7/16"	3/16"	5/8"	3/4"	5/16"

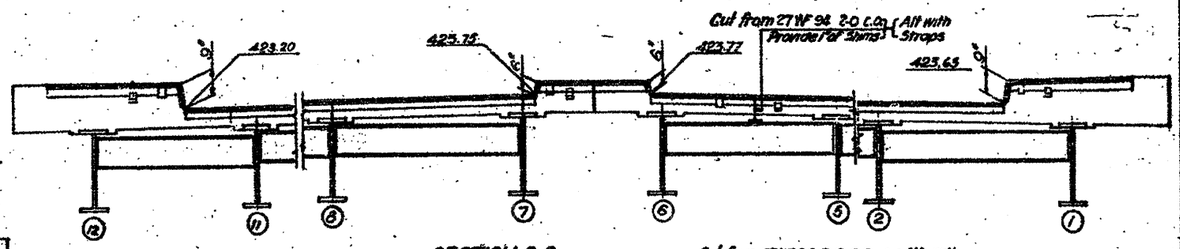


FRAMING PLAN

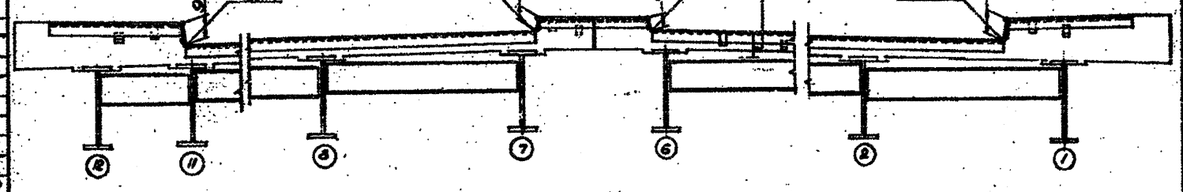


TYPICAL STRINGER

EXT GUARD ELEVATIONS (Given above Str. Brg.)		
STR.	ELEVATION	
	Sec. C-C	Sec. D-D
②	423.43	423.35
③	423.49	423.41
④	423.72	423.59
⑤	423.74	423.71
⑥	423.77	423.69
⑦	423.74	423.96
⑧	423.41	423.83
⑨	423.49	423.80
⑩	423.57	423.77
⑪	423.27	423.75

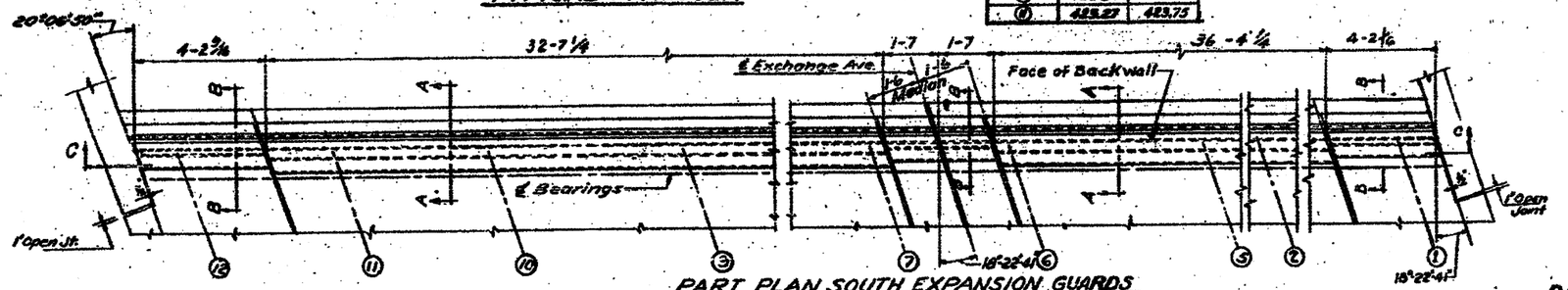


SECTION C-C

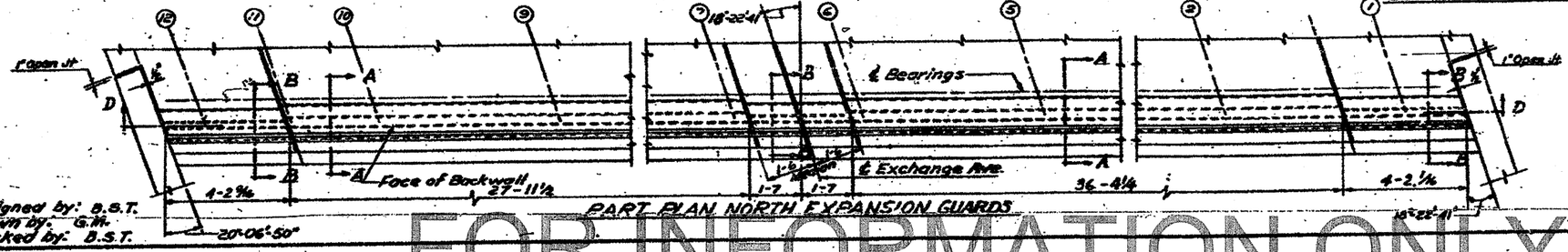


SECTION D-D

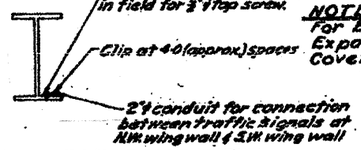
Curb elevations given at points above ℄ bearings



PART PLAN SOUTH EXPANSION GUARDS



PART PLAN NORTH EXPANSION GUARDS



DETAIL FOR CONDUIT SUPPORT ON STRINGER ①

NOTE: For Bearings, Diaphragm connections, Expansion Guard Sections A-A & B-B, Splice, Cover ℄ Welding Details, see Sh. No. 14.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

EXCHANGE AVE. OVER EXPRESSWAY (SR 9)
FRAMING PLAN & STEEL DETAILS

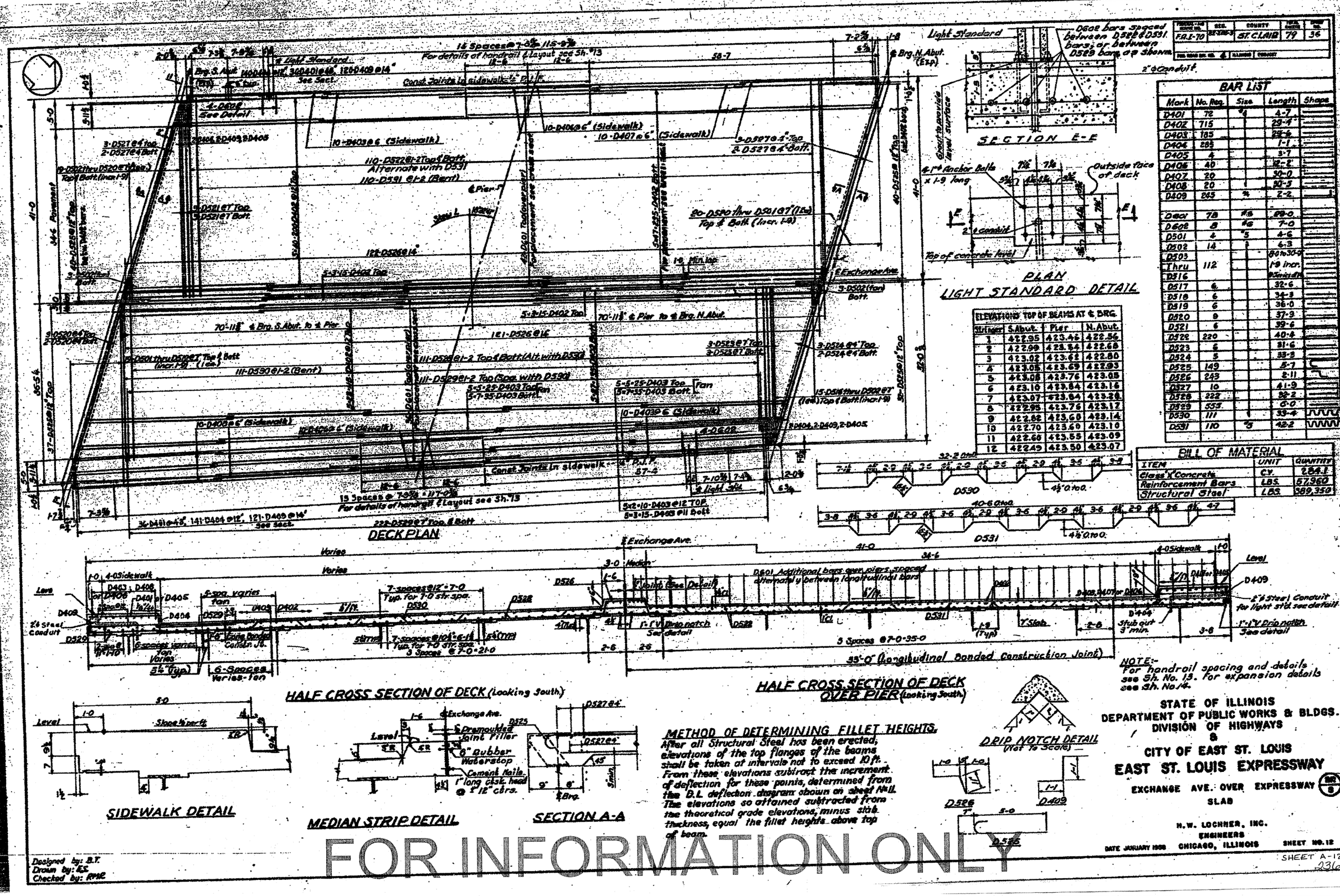
H.W. LOCHNER, INC.
ENGINEERS

DATE JANUARY 1958 CHICAGO, ILLINOIS SHEET NO. 11

Designed by: B.S.T.
Drawn by: G.M.
Checked by: B.S.T.

FOR INFORMATION ONLY

PROJECT NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	87-1108-5	ST. CLAIR	79	36



BAR LIST

Mark	No. Req.	Size	Length	Shape
D401	72	#9	4-7	
D402	715		29-4	
D403	185		29-6	
D404	285		1-1	
D405	4		3-7	
D406	40		12-2	
D407	20		50-0	
D408	20		50-5	
D409	245	#4	2-2	
D601	78	#6	99-0	
D602	8	#6	7-0	
D501	4	#5	4-6	
D502 Thru D516	14		6-3	
D517 Thru D519	112		30 to 30-9 in 1-9 incr.	
D520	6		32-6	
D521	6		34-3	
D522	6		36-0	
D523	9		37-3	
D524	6		39-6	
D525	5		40-4	
D526	149		31-6	
D527	243		33-3	
D528	10		5-7	
D529	222		8-11	
D530	555		41-9	
D531	111		38-2	
	110	#5	6-0	
			33-4	
			42-2	

ELEVATIONS TOP OF BEAMS AT ℄ BRG.

Stringer	S. Abut.	Pier	N. Abut.
1	422.95	423.45	422.56
2	422.99	423.54	422.68
3	423.02	423.61	422.80
4	423.05	423.69	422.93
5	423.08	423.76	423.05
6	423.10	423.84	423.16
7	423.07	423.84	423.28
8	422.95	423.76	423.12
9	422.82	423.60	423.14
10	422.70	423.60	423.10
11	422.66	423.55	423.09
12	422.49	423.50	423.07

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Class 'X' Concrete	C.Y.	2541
Reinforcement Bars	LBS.	57,960
Structural Steel	LBS.	389,350

METHOD OF DETERMINING FILLET HEIGHTS.
After all Structural Steel has been erected, elevations of the top flanges of the beams shall be taken at intervals not to exceed 10 ft. From these elevations subtract the increment of deflection for these points, determined from the D.L deflection diagram shown on sheet No. 11. The elevations so attained subtracted from the theoretical grade elevations, minus slab thickness, equal the fillet heights above top of beam.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS
EAST ST. LOUIS EXPRESSWAY
EXCHANGE AVE. OVER EXPRESSWAY
SLAB

H.W. LOCHNER, INC.
ENGINEERS
DATE JANUARY 1968 CHICAGO, ILLINOIS SHEET NO. 12

Designed by: B.T.
Drawn by: E.S.
Checked by: R.M.E.

FOR INFORMATION ONLY

SHEET A-12
236

F.A.I.-70		ST. CLAIR	79	37
FED. ROAD DIST. NO. 8	ILLINOIS	PROJECT		

ENDPOST BILL OF MATERIAL

ITEM	UNIT	1 WALL	4 WALLS
Handrail concrete	C.Y.	0.43	1.7
Reinforcement bars	Lb.	65.	260.

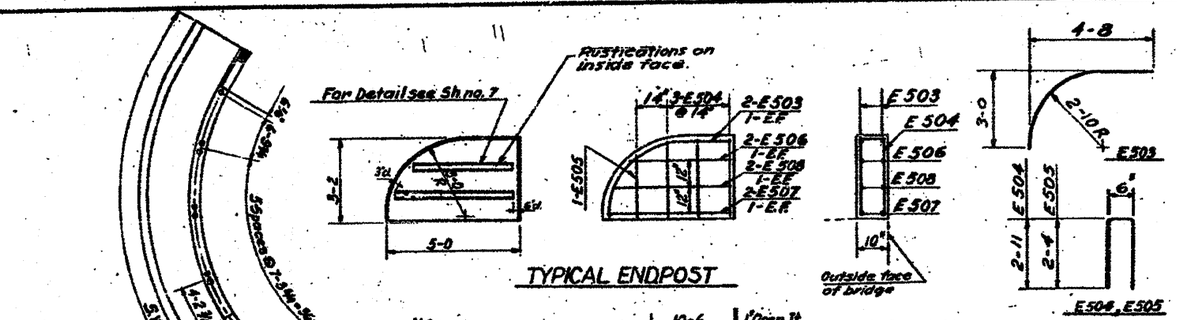
Sta. 62+08.01
Built in by
State of Illinois
FAI Rt. 70 Sec. 82-2-HB3
FA Project I-70-1(20)
Loading H20-S16

Lettering for Name Plate
See Standard No 2113

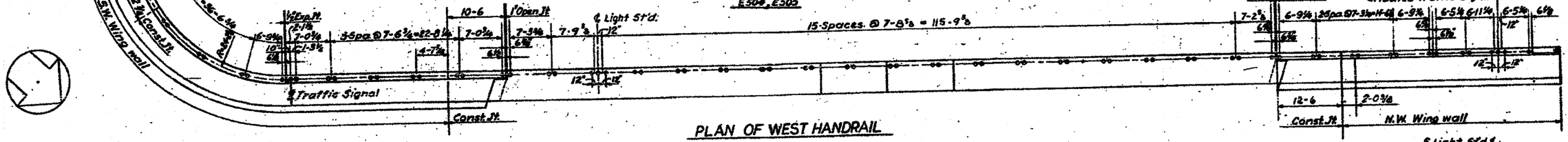
ENDPOST BAR LIST

MARK	NO. REQ.	SIZE	LENGTH	SHAPE
E503	2	5	6-5	
E504	3	5	6-6	
E505	1	5	5-2	
E506	2	5	5-9	
E507	2	5	4-8	
E508	2	5	4-5	

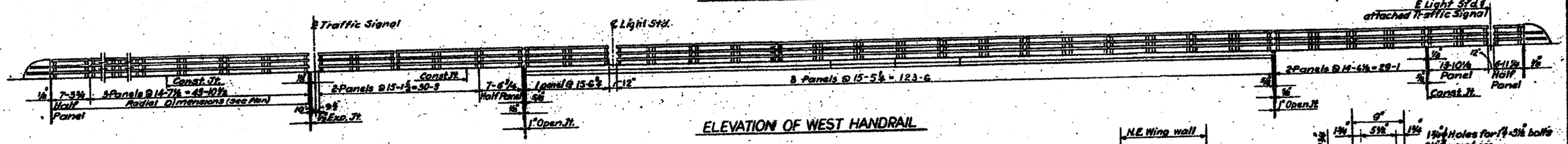
Note: Above Bar List is for one wall.
4 of same reqd.



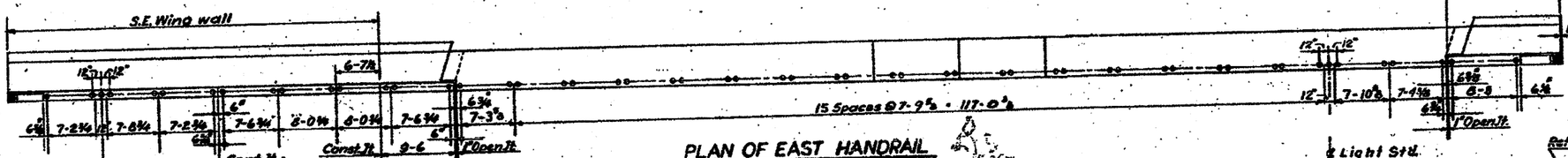
TYPICAL ENDPOST



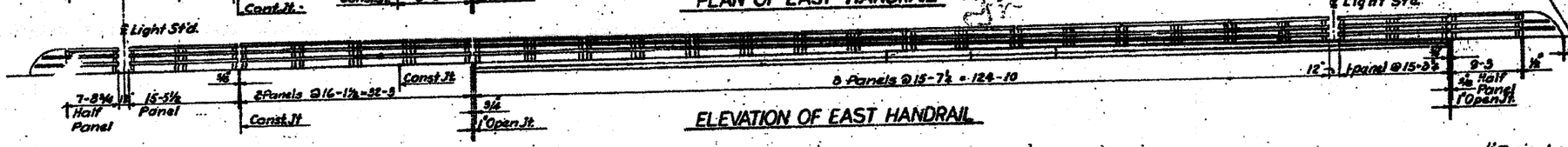
PLAN OF WEST HANDRAIL



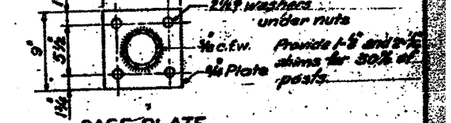
ELEVATION OF WEST HANDRAIL



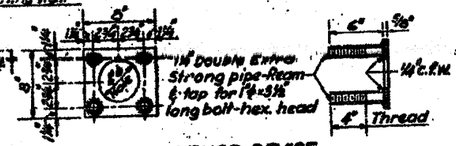
PLAN OF EAST HANDRAIL



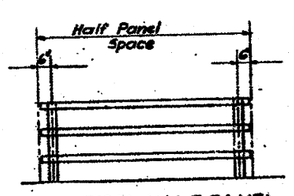
ELEVATION OF EAST HANDRAIL



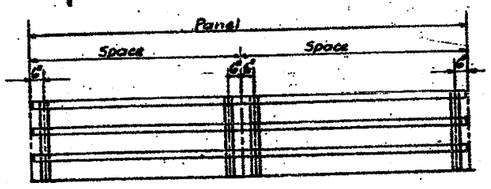
BASE PLATE
ALL POSTS-SUPERSTRUCTURE



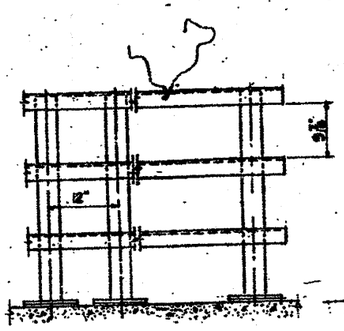
ANCHOR DEVICE
At Single Post



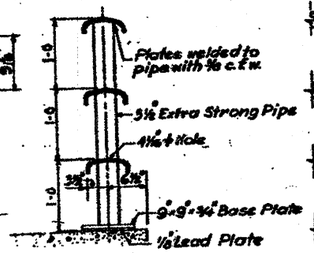
TYPICAL HALF PANEL



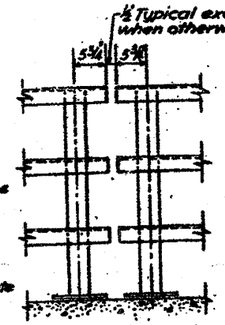
TYPICAL PANEL



TYPICAL DOUBLE POST

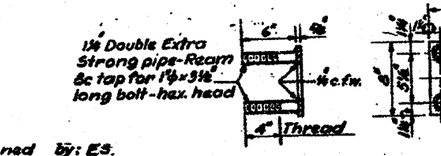


TYPICAL CROSS SECTION

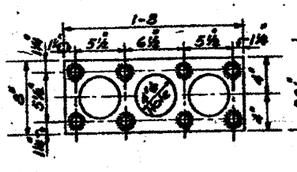


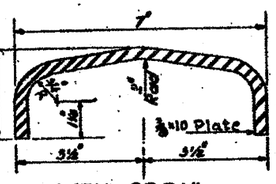
POSTS AT PANEL END

BILL OF MATERIAL		
ITEM	UNIT	QUANTITY
Metal Handrail	L.F.	483
Name Plate	Each	1



ANCHOR DEVICE
At Double Posts





DETAIL OF RAIL

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

EXCHANGE AVE. OVER EXPRESSWAY (SR 8)
HANDRAIL DETAILS

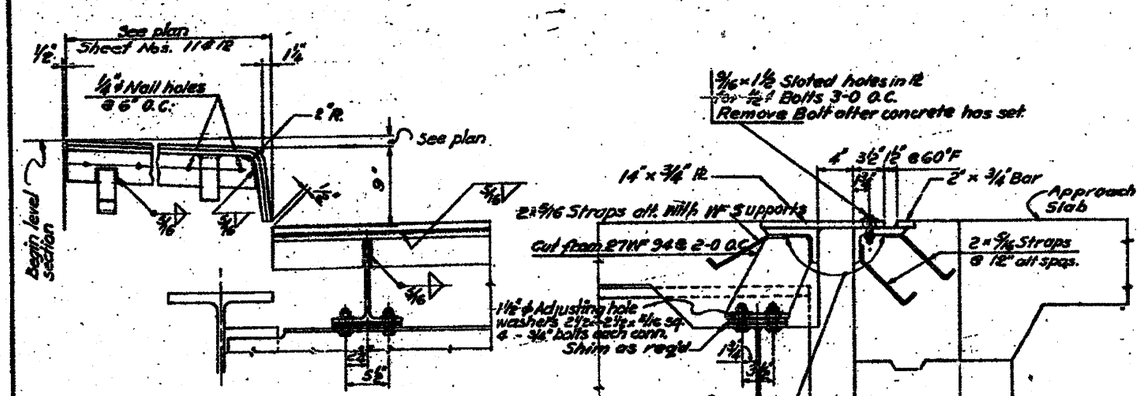
H. W. LOCHNER, INC.
ENGINEERS
DATE JANUARY 1958 CHICAGO, ILLINOIS SHEET NO. 13

Designed by: E.S.
Drawn by J.C.
Checked by E.S

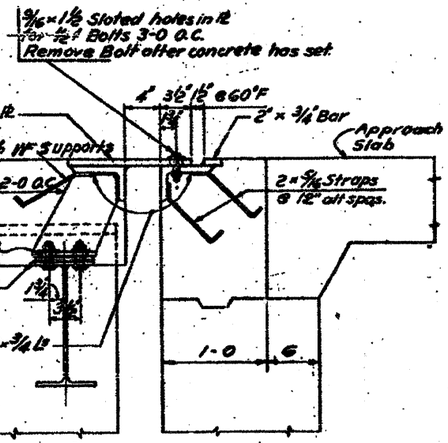
FOR INFORMATION ONLY

SHEET A-13
236 M

F.A.I.-70	87-2.05	ST. CLAIR	79	38
STA.		TO STA.		

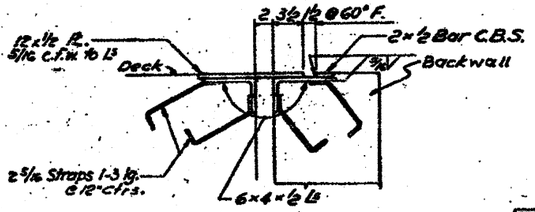


CURB EXPANSION R.S.

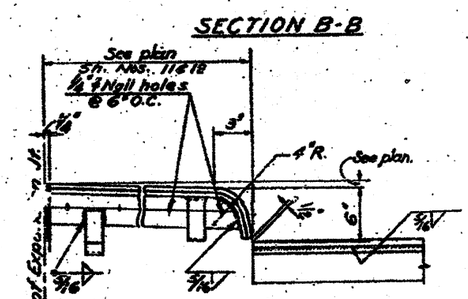


All welds shown are 5/16 continuous fillet welds

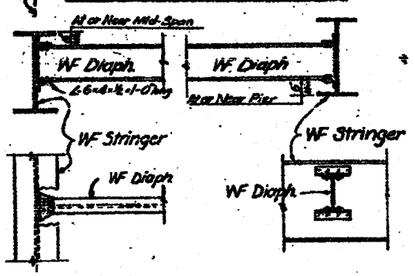
SECTION A-A



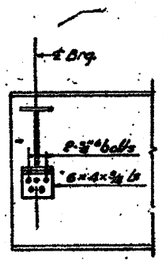
SECTION B-B

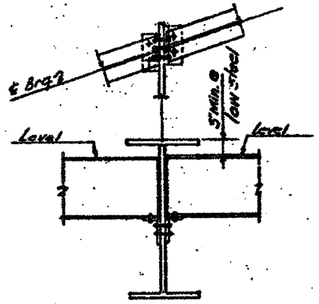


MEDIAN EXPANSION R.S.



INTERMEDIATE DIAPHRAGMS

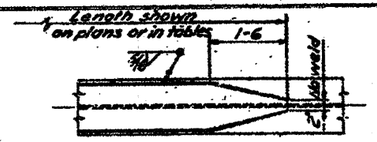




END DIAPHRAGM CONNECTION

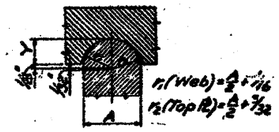
TABLE OF SHIMS

So. ABUTMENT		No. ABUTMENT		PIER	
Brg.	Shim	Brg.	Shim	Brg.	Shim
6	1/16"	7	3/16"	10	5/16"
5	3/16"	8	3/16"		
4	3/16"	10	3/16"		
2	3/16"	11	1/16"		

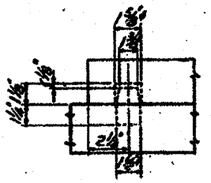


COVER PLATE DETAIL

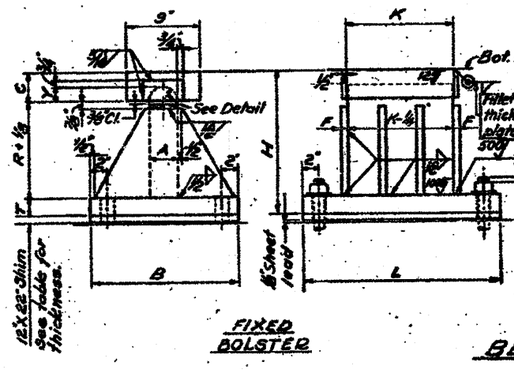
Type		Dimensions Inches												
Fix.	Exp.	A	B	C	D	F	G	H	K	L	M	R	T	Y
	E	2½	8	2½	1¼	½	7	9 5/8	9	23	15	5½	1½	1 3/16
F3		3	12	3	—	½	—	13 3/8	11½	22	—	8½	1¾	1 7/16
F4		3	14	3½	—	½	—	15 3/8	12	23	—	9½	2	1 7/16



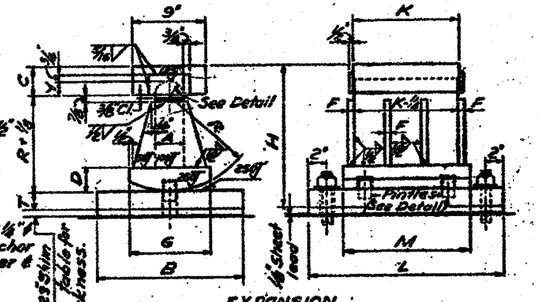
TOP BEARING DETAIL



PINTLE DETAIL

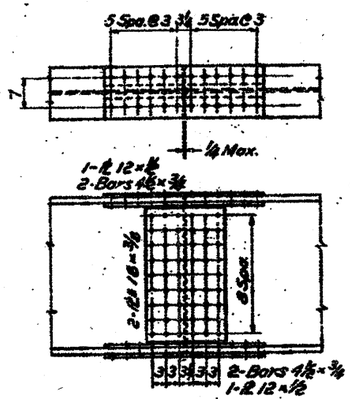


FIXED BOLSTER

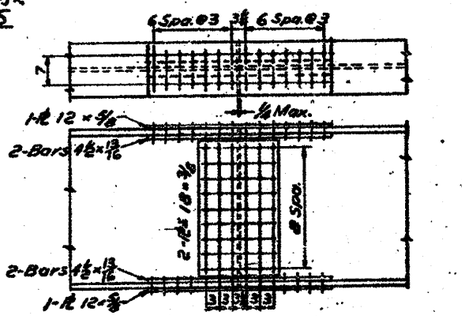


EXPANSION ROCKER

BEARING DETAILS



36 WF 150



36 WF 194

SPLICE DETAILS

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

BR 8

STEEL DETAILS
STANDARD SD 1

H. W. LOCHNER, INC.
ENGINEERS

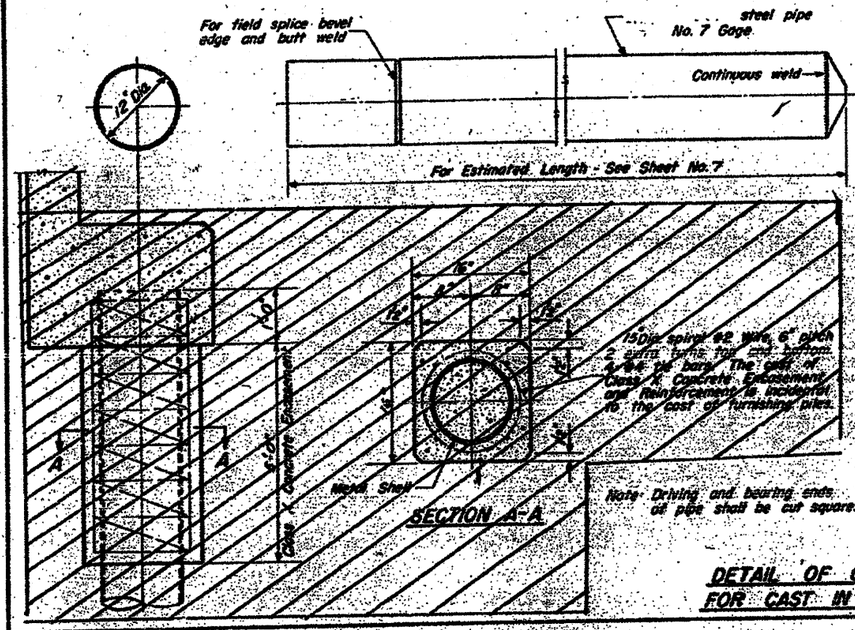
DATE JANUARY 1958 CHICAGO, ILLINOIS SHEET NO. 14

Designed by: B.S.T
Drawn by: E.M.
Checked by: B.S.T.

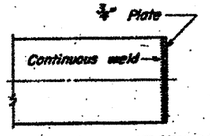
FOR INFORMATION ONLY

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

					SHEET NO.
S.B.I. No.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
F.A.I. No. 72/183	2R	ST. CLAIR	77	59	SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

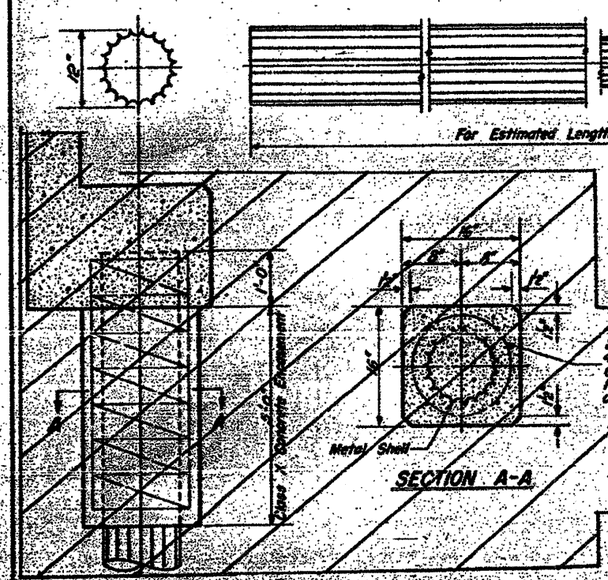


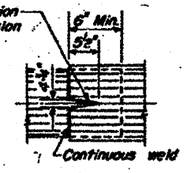
Note: Driving and bearing ends of pipe shall be cut square.



OPTIONAL FLAT END

DETAIL OF CYLINDRICAL STEEL SHELL FOR CAST IN PLACE CONCRETE PILES



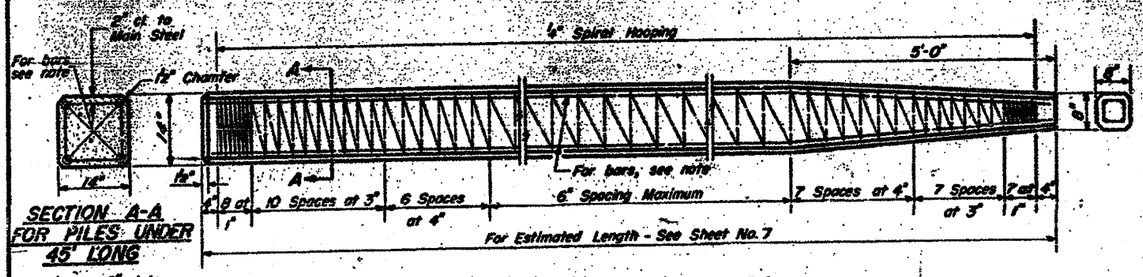


SPLICE TO BE USED AS REQUIRED

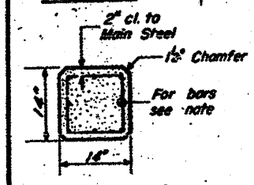
ALLOWABLE TAPERS

1-Taper 1'12'-6" for 10' + 12" Cylindrical Section Extension
2-Taper 1'14'-0" for 17' + 12" Cylindrical Section Extension
3-Taper 1'17'-0" for + Cylindrical Section Extension

DETAIL OF TAPERERED METAL SHELL FOR CAST IN PLACE CONCRETE PILES



SECTION A-A FOR PILES UNDER 45' LONG



SECTION A-A FOR PILES 45' OR MORE

Note: For 14" Piles 45' long or more use 8-#8 bars 4 for the full length and 4 to the point of bevel. For 14" Piles under 45' long use 6-#9 bars the full length.

Handling: For Pile lengths up to 45', use two slings placed at a distance of 0.21 L* from each end. For Piles longer than 45', use three slings placed at a distance of 0.12 L* from each end and at mid-point of pile.

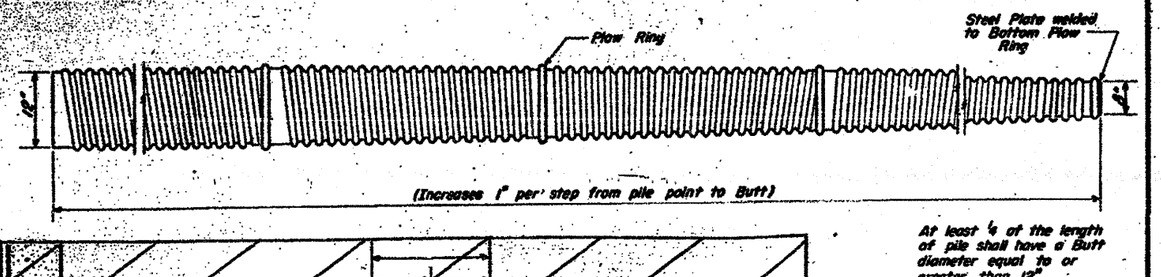
*L = Over all length of pile to be handled.

DESIGNED	
CHECKED	
DRAWN	W. A. Sausaman
CHECKED	

EXAMINED July 25 1960 M. E. Paarmann
PASSED
APPROVED

X-1 Re-drawn 9-24-59

DETAIL OF PRECAST CONCRETE PILES



DETAIL OF MANDREL DRIVEN STEP-TAPER PILES FOR CAST IN PLACE CONCRETE PILES

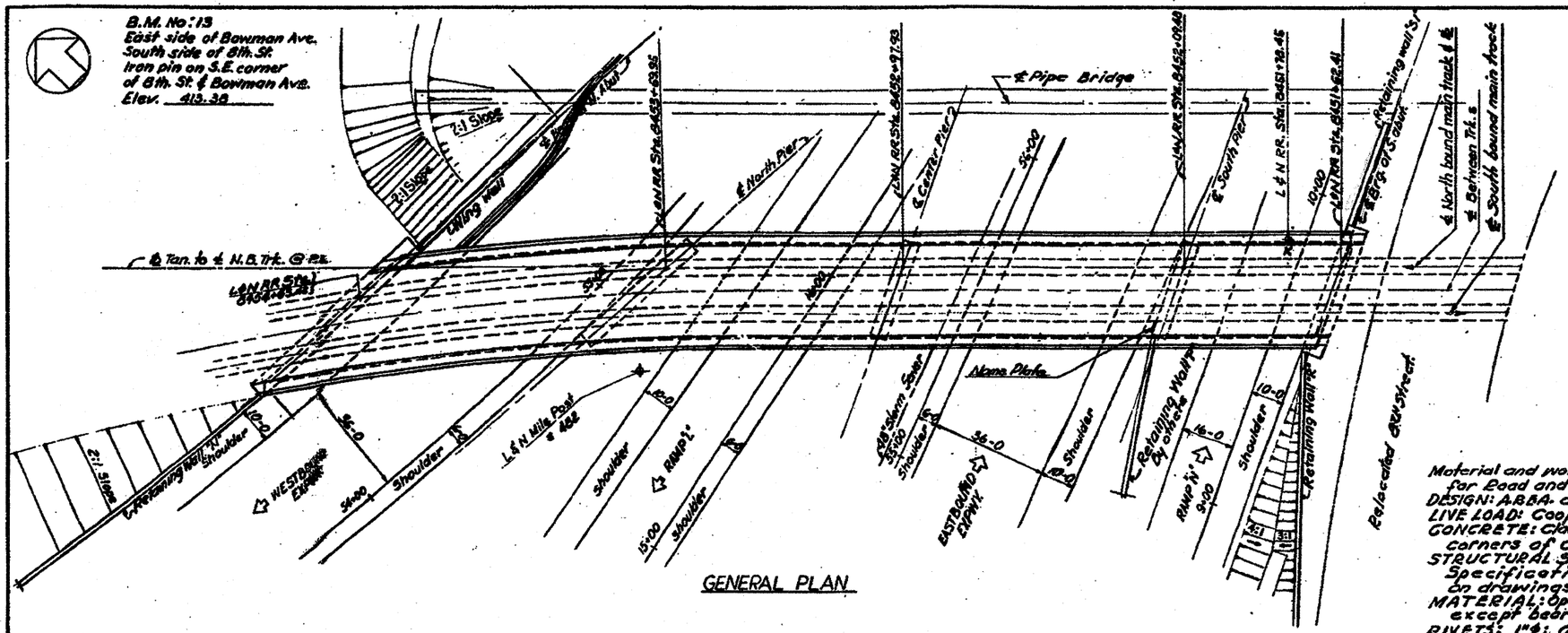
PILE DETAIL
F.A.I. RTE 70-SEC. 82-2HB-3
ST. CLAIR COUNTY

SHEET A-15

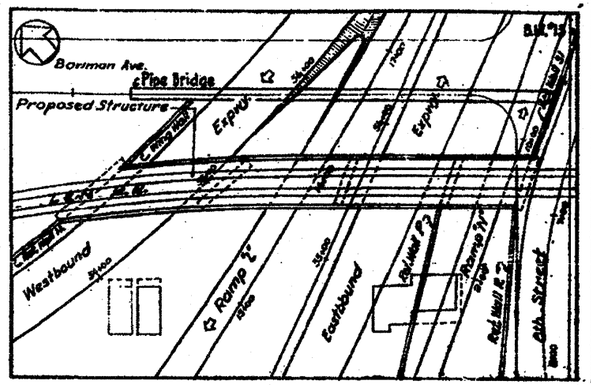
2360

FOR INFORMATION ONLY

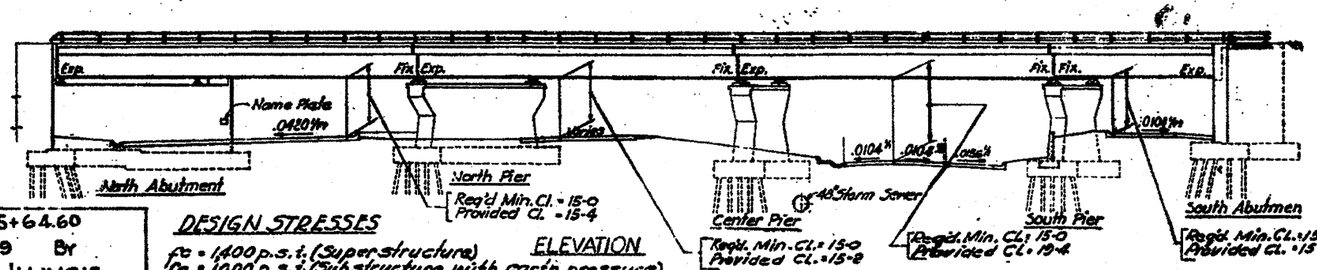
B.M. No: 13
East side of Bowman Ave.
South side of 8th St.
Iron pin on S.E. corner
of 8th St. & Bowman Ave.
Elev. 413.38



GENERAL PLAN



LOCATION PLAN



ELEVATION

Sta. 55+64.60
Built 19 By
State Of Illinois
F A I Rt. 70 Sec. 82-2 SB
FA Project RIG-70-1 (13) V
Loading E 72

LETTERING FOR NAME PLATE
See Standard 606701

DESIGN STRESSES

fc = 1,400 p.s.i. (Superstructure)
fc = 1,000 p.s.i. (Substructure with earth pressure)
fs = 20,000 p.s.i. (Reinforcement)
fs = 18,000 p.s.i. (Structural Steel)
n = 10
V = 75 p.s.i. (Footings)

TOTAL BILL OF MATERIAL
FOR BRIDGE NO. 7, PIPE BRIDGE AND WALLS "N", "O", "R" & "SI"

UNIT	DESCRIPTION	SECTION 82-2SB			SEC. 82-2SF
		SUPER STRUCTURE	SUB-STRUCTURE	TOTAL	TOTAL
C Y	SPECIAL EXCAVATION		61,520	61,520	✓
C Y	CLASS "A" EXCAVATION FOR STRUCTURES		4,597	4,597	✓
C Y	CLASS "X" CONCRETE	534	4,166	4,700	✓
L B	REINFORCEMENT BARS	83,565	368,165	452,330	✓
L B	STRUCTURAL STEEL	8,154,240		8,154,240	✓ 2 154,240
L F	PIPE HANDRAIL (GALVANIZED)	629		629	✓
Ea	TEST PILES (CONCRETE)		5	5	✓
L F	FURNISHING CONCRETE PILES		14,643	14,643	✓
L F	DRIVING CONCRETE PILES		14,643	14,643	✓
Ea	TEST PILE (CREOSOTED)		11	11	✓
L F	FURNISHING CREOSOTED PILES		27,642	27,642	✓
L F	DRIVING TIMBER PILES		27,642	27,642	✓
Ea	NAME PLATES		2	2	
L F	8" C.M.P., PERFORATED, GALVANIZED		4,888	4,888	✓
S F	MEMBRANE WATER PROOFING	9,170		9,170	
Month	PUMPING	18		18	
L S	WROUGHT IRON PIPE DRAIN SYSTEM			LUMP SUM	
L S	TEMPORARY SHEETING & BRACING			LUMP SUM	✓
L F	CHAIN LINK FENCE		787	787	✓
C Y	POROUS GRANULAR EMBANKMENT		965	965	

GENERAL NOTES

Material and workmanship shall be in accordance with "Standard Specifications for Road and Bridge Construction" State of Illinois, adopted January 2, 1958.
DESIGN: A.R.B.A. current specifications, except as noted below and shown on drawings.
LIVE LOAD: Cooper E 72.
CONCRETE: Class 'X' concrete shall be used throughout. All exposed edges and corners of concrete shall be chamfered ¾".
STRUCTURAL STEEL shall be fabricated in accordance with A.R.B.A. Specifications for Steel Railway Bridges (current), except as noted on drawings.
MATERIAL: Open hearth structural and rivet steel, A.S.T.M. A 7 and A 141 current, except bearings shall be of cast steel annealed as noted.
RIVETS: 1"ϕ; Open holes 1⅛".
FIELD CONNECTIONS to be riveted.
COVER PLATES: Universal Mill Plates with both edges rolled shall be used for cover pls.
Bottoms of end stiffener angles and their fills shall be milled to bear on bottom flange angles. The stiffener angles shall be ground to fit the fillets of the flange angles.
The backs of the bottom flange angles at end bearings shall be in a true plane (perpendicular to center line of web) for the full width of the flange and the full length of the sole plate, so the flange angles will have a full bearing on the sole plate or cover plate.
Diaphragm webs shall be flush with the backs of the top and bottom diaphragm angles to avoid grooves that will hold water.
No welding of steel will be permitted except as noted.
REAMING: All holes in cover plates, flange angles, web splice plates and end stiffeners (except OSL) and their fills shall be sub-punched 1⅛" ϕ and reamed to 1 1/16" while assembled. Holes in laterals, lateral plates, diaphragms, Ink stiffeners and their fills, and OSL of end stiffeners may be punched to 1 1/16".
ANCHOR BOLTS: 1¼" ϕ; 18" in masonry; 10" sweege.
PAINT: See Article 56.1 to 56.5 inclusive of the Standard Specifications.
Shop Paint:- One coat Red Lead and Linseed Oil except for finished surfaces of pedestal which shall be coated with White Lead and Tallow applied hot as soon as the surfaces have been finished and accepted by the Inspector.
Field Paint:- First and second field coats shall be Aluminum paint.
All paint shall be furnished and applied by the contractor involved.
All roller pins, bearing plates, pintles and anchor bolts shall be fabricated and set in accordance with A.R.E.A. Specifications for Steel Railway Bridges (current) and are included for payment as Structural Steel. Estimated Weight, 40,750 lbs.
All steel expansion devices between slabs and at piers and abutments and the perforated drainage angles shall be fabricated and set in accordance with Standard Specifications and are included for payment as Structural Steel. Estimated Weight, 39,460 lbs.

GENERAL NOTES - Continued

REINFORCEMENT: All reinforcement shall be deformed bars (A305), new billet steel, intermediate grade ASTM-A15 (Current).
PILES shall be concrete and timber with a minimum load capacity as shown on the plans.
TEST PILES: (Concrete and timber), shall be driven in permanent locations shown on the plans as directed by the Engineer, before ordering remainder of piles.
BORING DATA is shown on the drawings as a guide to bidders in estimating soil conditions which may be encountered in the work.
The back and ends of abutment walls, wingwalls and retaining walls shall be water proofed from top of footing to ground surface in accordance with Article 51.01 of the Standard Specifications. The bitumen used shall be asphalt.
Membrane Waterproofing shall be in accordance with Section 53 of the Standard Specifications. The bitumen used shall be asphalt.
EARTH PRESSURE: The horizontal pressure shall be that of fluid weighing 40 p.c.f and the vertical pressure in such instance that of a fill weighing 125 p.c.f.
The live load surcharge shall be 1030 pounds p.s.f., 14 feet wide per track on a material with an angle of repose of 30°.
Provide 3 feet of Porous Granular Embankment behind the shafts of the North and South abutments, and the stems of Wall 'N', Northeast Wing Wall, Walls 'R' and 'SI,' as called for on drawings.
The 6"ϕ Corrugated Metal Pipe, Perforated, shall be galvanized.

Note:
For General Note covering the Bridge for 2-30"ϕ water pipes see Sh. No. 23.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

L. & N. R. R. OVER WEST BOUND EXPWAY., RAMP "L", EAST BOUND EXPWAY. AND RAMP "N" (SR 7)

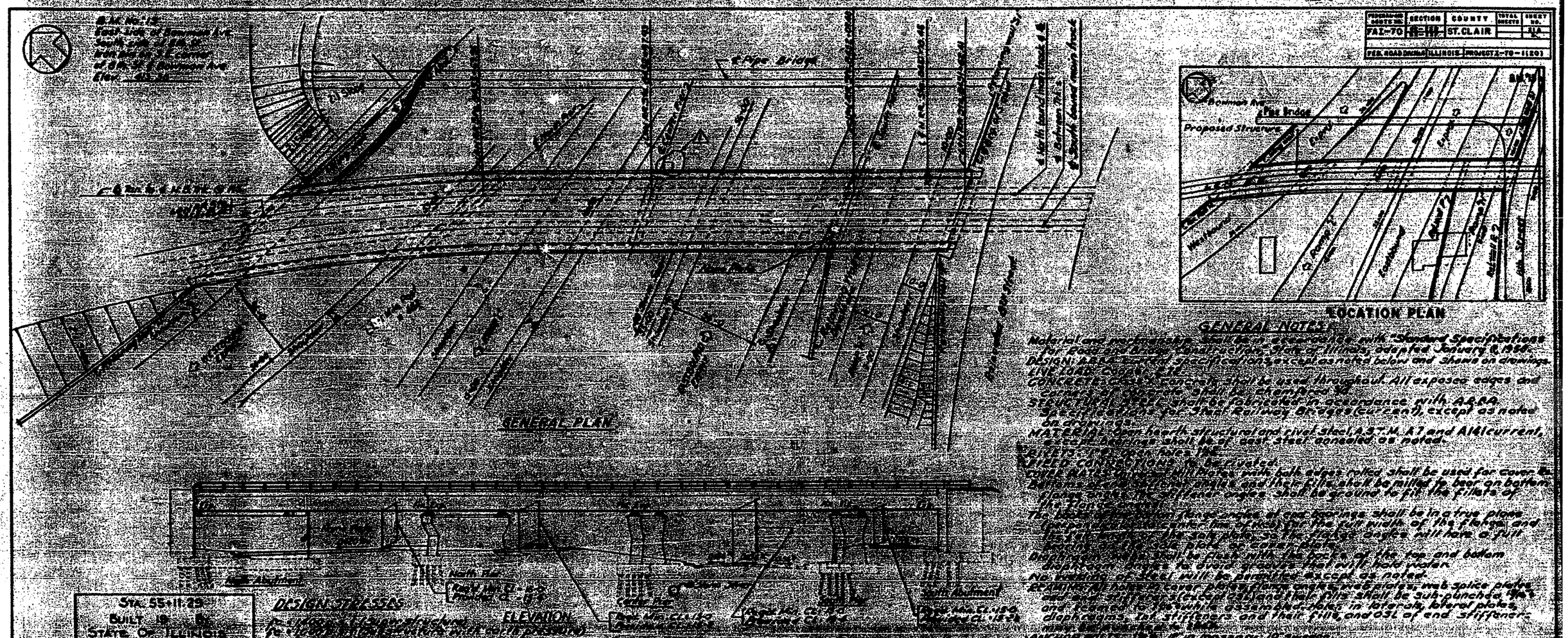
GENERAL PLAN

H. W. LOCHNER, INC.
ENGINEERS
DATE JULY 1960 CHICAGO, ILLINOIS SHEET NO. 1

SHEET A-16
As Awarded 236 P

FOR INFORMATION ONLY

PROJECT NUMBER	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-70	[illegible]	ST. CLAIR		[illegible]
FED. ROAD DIST. NO.	ILLINOIS	PROJECT I-70-1(203)		



FEDERAL AID ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-70	82-2CB 82-3CB	St. Clair	37	2A
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

STRUCTURE LAYOUT

ROADWAY LAYOUT

CURVE DATA

WESTBOUND EXPWY.
PI=Sta.54+53.26
Δ=26°18'41"
Dc=4°30'00"
Lc=584.70
R=1273.240
T=297.60

RAMP "N"
PI=Sta.10+08.56
Δ=17°23'46"
Dc=0°17'26"
Lc=491.19
R=19702.69
T=246.54
E=1.89

RAMP "L"
PI=Sta.13+95.61
Δ=11°37'00"
Dc=2°15'09"
Lc=506.61
R=2546.80
T=254.25
E=12.68

L & N RR
PI=Sta.64+52+75.00
Δ=64°03'=75.00'
Lc=122'
Δc=37°39'00"
Dc=6°
R=955.366
Lc=300'

PROFILES
Horz. scale: 1"=100'
Vert. scale: 1"=10'

WESTBOUND EXPRESSWAY

EASTBOUND EXPRESSWAY

RAMP "L"

RAMP "N"

Designed by: W.J.F.
Drawn by: A.B.
Checked by: P.K.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

L & N R.R. OVER WEST BOUND EXPWAY. RAMP "L", EAST BOUND EXPWAY, AND RAMP "N"

GENERAL GEOMETRIC LAYOUT

H.W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

DATE: JULY 1960

SHEET NO. 2

FOR INFORMATION ONLY

FAI-70	SEC. 68-838	COUNTY St Clair	SHEET NO. 77	TOTAL SHEETS 29
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

NO. B2-12

ELEV. 425

Ground surface 0'-0"

Elev. 418.0		
Cinder & coal fill.	4	3'-0"
Brown silty clay.	10	6'-0"
Brown sandy silty clay.	12	9'-0"
Brown very fine to fine sand.	6	13'-0"
Brown & grey silty clay.	4	18'-0"
Brown fine sand trace silt.	20	22'-0"
Grey clayey silty & very fine sand.	3	26'-6"
Grey very fine to fine sand.	15	34'-0"
Grey fine to medium sand.	32	
	10	43'-0"
Brown fine to coarse sand trace small gravel.	15	
	8	
	17	57'-0"
Grey fine to medium sand.	30	60'-0"

Boring stopped by client.

Used 59' of 2½" casing.

Water level 39' below ground surface 24 hrs. after completion.

Date: 4-24-56

NO. B2-13

Ground surface 0'-0"

Elev. 418.0		
Cinders & clay fill.	6	4'-0"
Brown & grey silty clay.	8	12'-0"
Brown very fine to fine sand tr. clay.	8	
	4	19'-0"
Brown silty clay w/very fine sand.	5	24'-0"
	4	28'-0"
Brown very fine to fine silty sand.	5	33'-0"
	6	39'-0"
	50	Note
Grey clayey silt & very fine sand.	4 *	26'-0"
Grey fine to medium sand w/clay.	11	29'-0"
Gray fine sand.	24	32'-0"
Grey fine to medium sand.	28	39'-0"
Grey fine to coarse sand tr. sm. gravel.	8	44'-0"
Grey fine to medium sand.	21	46'-0"
Grey fine to coarse sand tr. sm. gravel.	5	54'-0"
Grey fine to coarse sand.	22 *	
	32	60'-0"

Boring stopped by client.

Note: ST #4 (cont'd) 18'-2"

9	Total rec. 18"
11	19'-6"

Used 59' of 2½" casing.

Water level 39' below ground surface 1 hr. after completion.

Date: 4-25-56.

NO. B2-14

Ground surface 0'-0"

Elev. 418.0		
Cinders & clay fill.	5	2'-6"
Brown silty clay w/very fine sand.	14	
	14	8'-0"
Brown very fine to fine silty sand trace clay.	4	
	6	
	4	22'-0"
Grey clayey silt & very fine sand.	4	26'-0"
Grey silty clay.	4	29'-0"
Grey fine to medium sand.	12	32'-0"
Grey fine to coarse sand.	67	37'-6"
Grey fine to coarse sand trace sm. gravel.	9	
	12	
	13	
	17	58'-0"
Note A	20	60'-0"

Boring stopped by client.

Note A:
Grey fine to medium sand w/clay.

Used 59' of 2½" casing.

Date: 4-26-56.

KEY:
W.L. - Water line.
@ - Indicates water loss in strata.
ST - Indicates shelby tube.

NO. B-12

Ground surface 0'-0"

Elev. 416.8		
Brown silty clay	11	4'-0"
Brown silt & very fine sand trace clay	6	
	5	
	5	
	11	
	4	22'-0"
Gray silt & very fine sand	3	26'-6"
Gray silty very fine sand	16	33'-0"
Gray fine sand *	60	57'-0"
Gray coarse sand & small gravel *	18	42'-0"
Gray medium to coarse sand *	8	
	16	
	14	57'-0"
Gray fine sand *	8	
	6	60'-0"

Boring stopped by client at El. 326.8
From El. 346.8 to El. 344.8
Gray very fine to fine sand. 30 blows per ft.
From El. 344.8 to El. 338.8
Gray medium to coarse sand, trace small gravel 9 blows per ft.
From El. 338.8 to El. 335.8
Gray fine sand, trace clay. 14 blows per ft.
From El. 335.8 to El. 326.8
Gray medium to coarse sand with small gravel 8 to 18 blows per ft.
In all cases circulating water lost in strata
Bailed to 48'-0"
Date: 3-10-1958

NO. B-16

Ground surface 0'-0"

Elev. 418.3		
Sandy silty clay & cinder fill	7	3'-0"
Brown silty clay with very fine sand	8	6'-0"
Fine silty grey sand	7	9'-0"
Fine silty brown sand, trace clay	4	
	4 *	17'-0"
Brown grey silty clay with very fine sand	4	19'-0"
	4	23'-0"
Fine silty grey sand	6	
	12	
	23	
	10	44'-0"
Fine to coarse grey sand with small to large gravel	17	
	24	54'-0"
Fine to coarse silty grey sand	23	
	23	61'-0"

S.T. Denotes shelby tube samples
* Circulating water lost
Used 60' of 2½" casing.
Waterlevel is 34'-8" below ground surface 1 hour after completion.
Date: 5-28-1958

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST LOUIS

EAST ST. LOUIS EXPRESSWAY

L. & N. R. R. OVER WEST BOUND EXPWY.
RAMP L, EAST BOUND EXPWY AND RAMP N
BORING LOGS

H. W. LOCHNER, INC.
ENGINEERS
DATE JULY 1960 CHICAGO, ILLINOIS SHEET NO. 3

Drawn by: V.B.
Checked by: B.S.T.

FOR INFORMATION ONLY

FEDERAL AID PROJECTS	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	59-2ES	ST. CLAIR	77	24

NO. B-6

ELEV. 425

Ground surface

	Elev. 417.6		0'-0"
	Brown silty clay topsoil	12	3'-0"
	Brown silty clay	9	6'-0"
	Brown silt & very fine sand trace clay	9 6	15'-0"
	Brown very fine sand	10	18'-0"
	Gray silt	2	19'-0"
	Brown silt & very fine sand	3	22'-0"
*	Gray fine sand	6	27'-0"
*	Gray fine to coarse sand	29	32'-0"
*	Gray medium to coarse sand trace clay & small gravel	51	34'-6"
*	Gray medium to coarse sand trace small gravel	9 10 21 W.L.	52'-0"
*	Gray fine sand	95	
		66	63'-6"
*	Gray fine to coarse sand	20	66'-6"
*		20	
	Gray fine to medium sand	116 66 51 51	92'-0"

Boring stopped by Mr. Hanson

Used 68'-0" of 2½" casing.
Water levels below ground surface
17'-0" with casing at 68'-0"
41'-0" with casing at 64'-0"
51'-0" with casing at 69'-0"
51'-0" 1½ hours after completion.

NO. B-7

Ground surface

	Elev. 416.2		0'-0"
	Cinder fill		2'-0"
	Brown silty clay	5 7	6'-0"
	Brown silt & very fine sand with clay	6 3 3	17'-0"
*	Brown fine to medium sand; trace clay	10 32 29	34'-0"
*	Brown medium to coarse sand	10 7	44'-0"
*	Gray fine sand	55 22 W.L.	52'-0"
*	Gray medium sand	15 8	62'-6"
*	Gray fine sand	62 45 31 31 42	66'-7"

Refusal: Rock or boulder
Boring bailed to 70'-0"

Used 68'-1" of 2½" casing.
Water levels below ground surface
53'-0" 1½ hours
caved- 23'-0" 28 hours after completion

* Circulating water loss in strata

Date: March 10, 1958

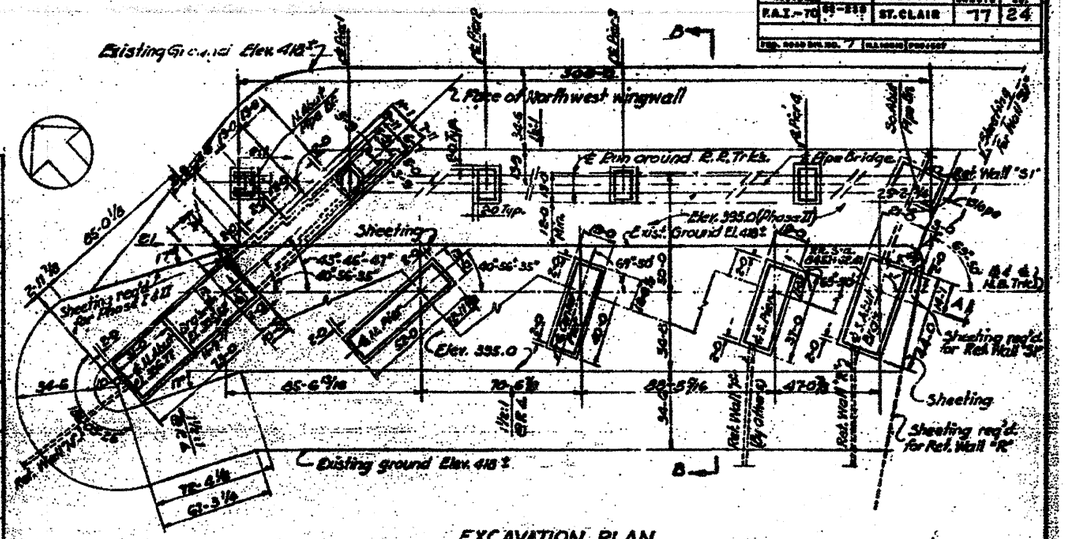
NO. B-8

Ground surface

	Elev. 417.7		0'-0"
	Dark brown silty clay topsoil	10	3'-0"
	Brown silty clay	6	6'-0"
	Brown very fine silty sand	6 5	15'-0"
	Brown silt & very fine sand	4	18'-0"
	Brown & gray clayey silt with thin sand seams	5	23'-6"
	Brown fine sand trace silt	23	26'-6"
	Gray clayey silt with very fine sand	3	35'-0"
	Gray clayey silt & very fine sand	13	51'-0"
*	Gray medium to coarse sand with small gravel	52 46	48'-0"
*	Gray medium to coarse sand trace large gravel	15 W.L.	53'-6"
*	Gray very fine silty sand	17	56'-6"
*	Gray fine sand with silt	40 40	66'-0"
*	Gray fine to coarse sand with sm. to lge. gravel	40	72'-0"
*	Gray fine sand	51 31 21 43	91'-0"

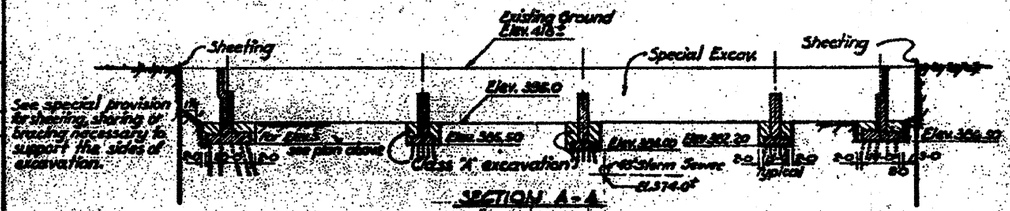
Boring stopped by Mr. Hanson.
Boring bailed to 93'-0"

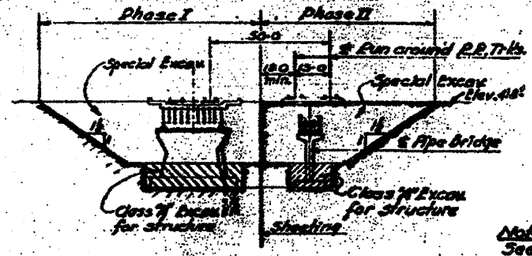
Used 60'-0" of 2½" casing.
Water levels below ground surface.
53'-0" 1 hour
caved- 36'-0" 8½ hours after completion



EXCAVATION PLAN

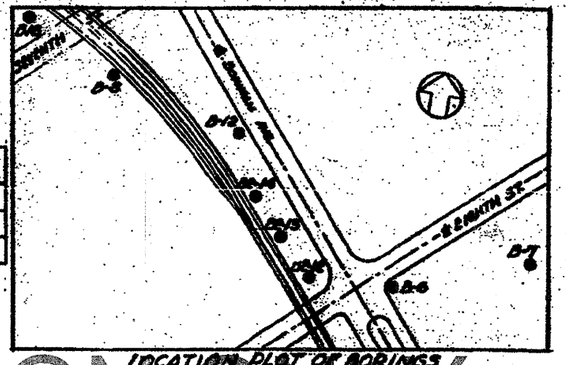
Note: For excavation and sheeting required for Retl. Walls, see highway plans.





Note: See 'Special Provisions' for sequence of construction.

EXCAVATION QUANTITIES FOR BRIDGE & NORTH EAST WING WALL		
Class 'A' Excav. for Structure	c.y.	8,500
Special Excav. (Phase I)	c.y.	22,500
Special Excav. (Phase II)	c.y.	14,800



LOCATION PLOT OF BORINGS

NOTES:
- Classifications are made by visual inspection.
- Water levels (W.L.) Figure indicates time of reading taken after completion of boring. Water levels indicated are those observed when borings were made or as noted. Porosity of the soil strata, variations of rainfall, site topography, etc., may cause changes in these levels.
- Figures in right hand column indicate number of blows required to drive 2" O.D. sampling pipe 24 inches, using 140-lb weight falling 30 inches.

Designed by: A.D.
Drawn by: R.B.
Checked by: L.B.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

L. & N. R.R. OVER WEST BOUND EXPWAY., RAMP "L" EAST BOUND EXPWAY AND RAMP "N"

BORING LOGS & EXCAVATION PLAN

H. W. LOCHNER, INC.
ENGINEERS

DATE JULY 1960 CHICAGO, ILLINOIS SHEET NO. 4

FOR INFORMATION ONLY

F.A.I. ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-70	82-3 TB 82-1 TP	St. Clair	25	9
FED. ROAD DIST. NO. 7	ILLINOIS	FISCAL YEAR		

TOP PLAN

ELEVATION

FOOTING PLAN

SECTION A-A

DETAIL "A" (TYP.)

CONSTRUCTION JOINT DETAIL

BAR SCHEDULE

Mark	Wt. Req'd	Size	Length	Shape	Mark	Wt. Req'd	Size	Length	Shape
F501	35	#5	3-0	—	A 509	6	#5	7-4	
F502	6	#5	34-9	—	A 510	1		8-4	
F503	6	#5	39-0	—	A 511	2		3-0	
					A 512	2		3-6	
F601	26	#6	34-9	—	A 513	2		10-4	
F602	20	#6	39-0	—	A 514	2		10-11	
					A 515	2		3-6	
					A 516	1		11-10	
F801	110	#8	12-0	—	A 517	1		9-8	
F802	88	#8	19-6	—	A 518	3		6-2	
					A 519	1		2-5	
					A 520	1		5-9	
F1101	69	#11	12-3	⊃	A 521	3		3-6	
F1102	91	#11	18-6	—	A 522	3		8-9	
F1103	69	#11	17-2	⊃	A 523	12		9-9	
F1104	47	#11	19-6	—	A 524	10		7-6	
					A 525	39		33-9	
					A 526	40		4-0	
					A 527	1		33-3	
A 501	16	#5	14-6	—	A 528	2	5	4-11	
A 502	15		15-3	—					
A 503	2		27-2	—	A 601	16	#6	34-9	
A 504	2		28-4	—	A 602	66	#6	7-5	
A 505	39		34-9	—					
A 506	25		12-0	—	A 701	198	#7	15-9	
A 507	7		14-0	—	A 801	35	#8	14-10	
A 508	36	#5	3-10	⊓	A 802	34	#8	16-1	

A 508 & 505	1-6
A 510	2-4
A 511	3-0
A 512	3-6
A 513	4-4
A 514 & 602	4-11
A 520	3-3

F 1101	10-8	17
F 1103	18-7	1-7

A 515	6-6
A 701	12-4
A 516	3-8
A 524	5-5
A 525	6-10

A 516	12-1
A 517	7-9
A 521	1-9

A508, A510 & A514 incl. (A506)

A509, A510 & A514 incl. (A506)

BILL OF MATERIAL

Class "X" concrete	Cu. Yd.	451
Reinforcement bars	lbs.	47,035
Furnishing concrete piles	L.F.	4560
Driving concrete piles	L.F.	4560
Test piles (concrete)	Ea.	1
Porous Granular Embankment	Cu.	176
⊛ Membrane Waterproofing	S.F.	45
8" C.M.P. Perforated (ft. in.)	L.F.	69

⊛ Incidental to cost of Class "X" Concrete

PILE DATA

Type	Concrete
Length	40 Ft.
Capacity	40 Tons
No. Required	114 Ea.
Test Pile	1 Ea.

TYPICAL SECTION THRU ABUTMENT

PLAN

SECTION B-B

W. CORNER REINF. DETAIL

NOTES
See Sh. #1 for Gen. Notes
See Sh. #2 for Location
See Sh. #25 for Drainage Details
See Sh. #7 for Expansion Joint Detail at ends of abutments.
For pile details see sheet No. 26
Care shall be taken in placing reinforcement bars so as to clear anchor bolts.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

L. & N. R.R. OVER WEST BOUND EXPWY. RAMP "L" EAST BOUND EXPWY AND RAMP "N" (RR 7)

NORTH ABUTMENT

H. W. LOCHNER, INC.
ENGINEERS

DATE JULY 1960 CHICAGO, ILLINOIS SHEET NO. 9

Designed by: J. V.
Drawn by: R. B.
Checked by: L. K.

FOR INFORMATION ONLY

SECTION NO.	SEC.	COUNTY	SHEET NO.	TOTAL SHEETS
FAS-707(3&4)	3	St. Clair	7	8

BAR SCHEDULE				
Mark	No. Req'd	Size	Length	Shape
F301	16	3	39-6	
F302	20	3	3-0	
F701	24	7	9-0	
F901	40	9	16-6	
F902	39	9	11-0	
F1101	40	11	11-7	
F1102	40	11	12-7	
F702	26	7	16-6	
A501	20	5	16-0	
A502	57	5	21-8	
A503	37	5	20-2	
A504	6	5	9-6	
A505	15	5	8-1	
A506	35	5	5-0	
A507	35	5	3-4	
A508	3	5	5-1	
A509	8	5	1-10	
A510	4	5	2-8	
A511	3	5	4-3	
A512	2	5	2-4	
A513	4	5	10-2	
A514	2	5	5-0	
A605	5	6	21-7	
A603	5	6	20-3	
A604	38	6	6-3	
A701	41	7	13-7	
A801	41	8	16-4	

BILL OF MATERIAL		
Class "K" Concrete	C.Y.	232
Reinforcement bars	Lbs.	17,780
Furnishing Concrete Piles	Lin. Ft.	2,460
Driving Concrete Piles	Lin. Ft.	2,460
Test Pile (Concrete)	Each	1
Porous Granular Embankment	C.Y.	102
Membrane Waterproofing	S.Y.	47
8"ø C.M.P. Perforated (Galv.)	Lin. Ft.	30

● Incidental to cost of Class X Concrete

PILE DATA	
Type	Concrete
Length	33 Ft.
Capacity	40 Ton
No. Required	64 Ea.
Test Pile	1 Ea.

Notes:
For pile details see Sh.# 24.
Care shall be taken in placing reinforcement bars so as to clear anchor bolts.
For General Notes see Sh.# 1.
For location see Sh.# 2.
See Sh.# 7 for Expansion Joint Details at ends of abutments.

TOP PLAN

CONST. JOINT DETAIL

PLAN
ANCHOR BOLTS DETAIL

ELEVATION

SECTION D-D

FOOTING PLAN

VIEW A-A

VIEW B-B

VIEW C-C

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY
L. & N. R.R. OVER WEST BOUND EXPWAY, RAMP "L", EAST BOUND EXPWAY AND RAMP "K"

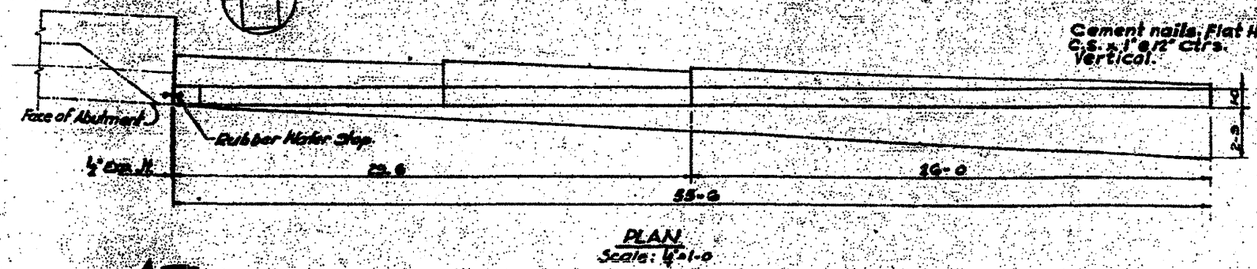
SOUTH ABUTMENT

H. W. LOCHNER, INC.
ENGINEERS
DATE JULY 1960 CHICAGO, ILLINOIS SHEET NO. 6

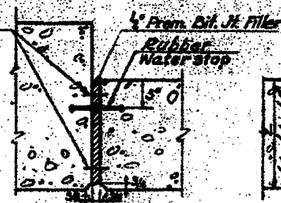
Designed by: R.K.
Drawn by: T.L.
Checked by: J.M.

FOR INFORMATION ONLY

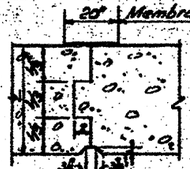
FAI-70	82-2SB	St. Clair	77	27



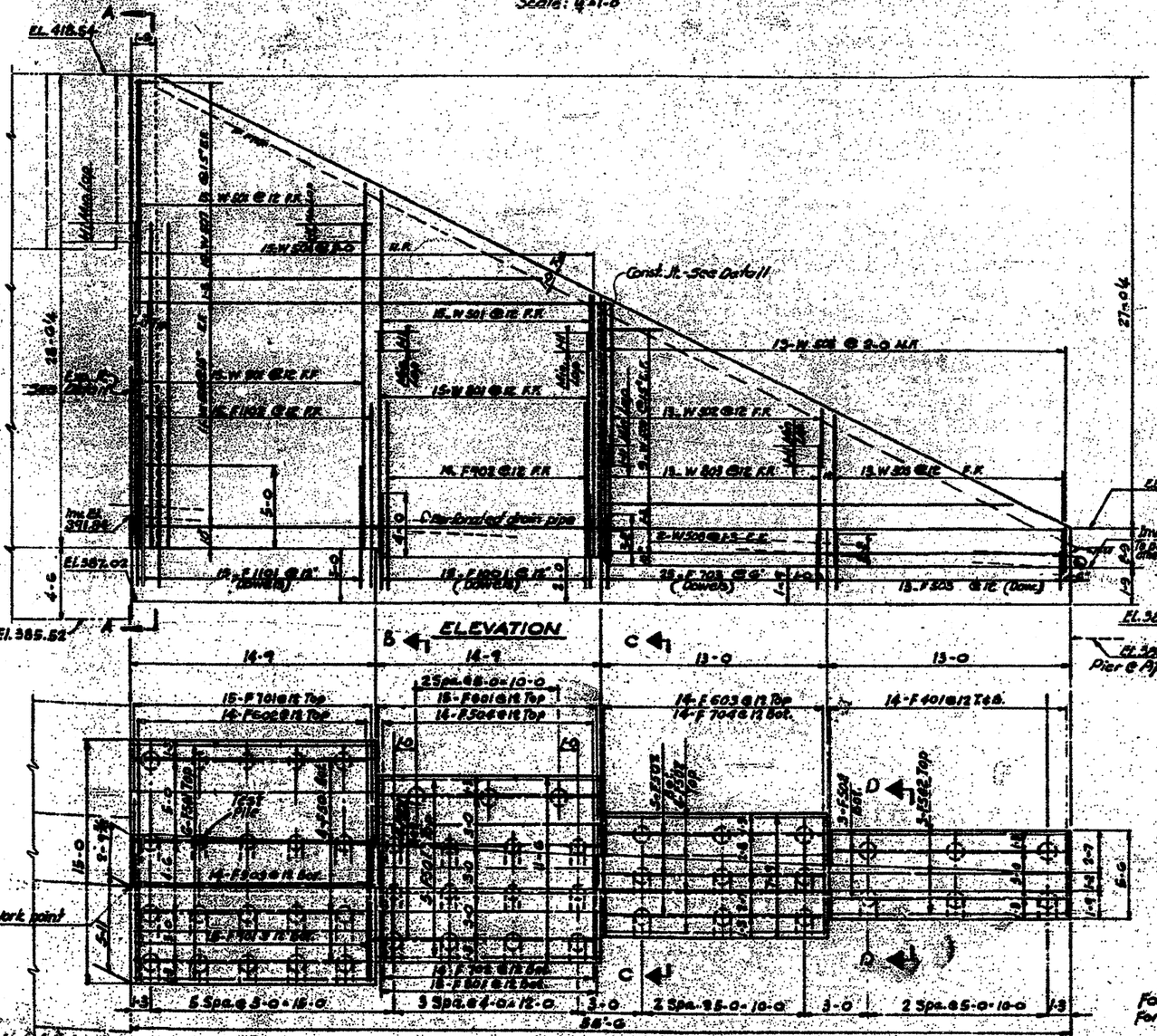
PLAN
Scale: ⅛"=1'-0"



EXP. JOINT



CONST. JOINT


El. 418.54
A
1-2
W. Abutment
15-W 501 @ 12" F.F.
15-W 502 @ 12" F.F.
15-W 503 @ 12" F.F.
15-W 504 @ 12" F.F.
15-W 505 @ 12" F.F.
15-W 506 @ 12" F.F.
15-W 507 @ 12" F.F.
15-W 508 @ 12" F.F.
15-W 509 @ 12" F.F.
15-W 501 @ 12" F.F.
15-W 502 @ 12" F.F.
15-W 503 @ 12" F.F.
15-W 504 @ 12" F.F.
15-W 505 @ 12" F.F.
15-W 506 @ 12" F.F.
15-W 507 @ 12" F.F.
15-W 508 @ 12" F.F.
15-W 509 @ 12" F.F.
11.8"
Const. Jt. - See Detail
15-W 502 @ 2-0 M.F.
15-W 503 @ 2-0 M.F.
15-W 504 @ 2-0 M.F.
15-W 505 @ 2-0 M.F.
15-W 506 @ 2-0 M.F.
15-W 507 @ 2-0 M.F.
15-W 508 @ 2-0 M.F.
15-W 509 @ 2-0 M.F.
15-F 701 @ 12" F.F.
15-F 702 @ 12" F.F.
15-F 703 @ 12" F.F.
15-F 704 @ 12" F.F.
15-F 705 @ 12" F.F.
15-F 706 @ 12" F.F.
15-F 707 @ 12" F.F.
15-F 708 @ 12" F.F.
15-F 709 @ 12" F.F.
Inv. El. 391.54
5'-0
Cap. Corrugated drain pipe
4'-0
2-W 506 @ 12" F.F.
El. 387.02
4'-6
15-F 1101 @ 12" (bottom)
15-F 1102 @ 12" (bottom)
15-F 705 @ 12" (bottom)
15-F 705 @ 12" (bottom)
El. 385.52
A
14'-9"
B
14'-9"
C
13'-0"
13'-0"
55'-0"
25 Spa. @ 2'-0" = 50'-0"
15-F 701 @ 12" Top
14-F 502 @ 12" Top
15-F 501 @ 12" Top
15-F 504 @ 12" Top
14-F 603 @ 12" Top
14-F 704 @ 12" Bot.
14-F 401 @ 12" T. & B.
3-F 504 Bent Top
3-F 502 Top
3-F 502 Bent Top
3-F 502 Top
3-F 502 Top
3-F 502

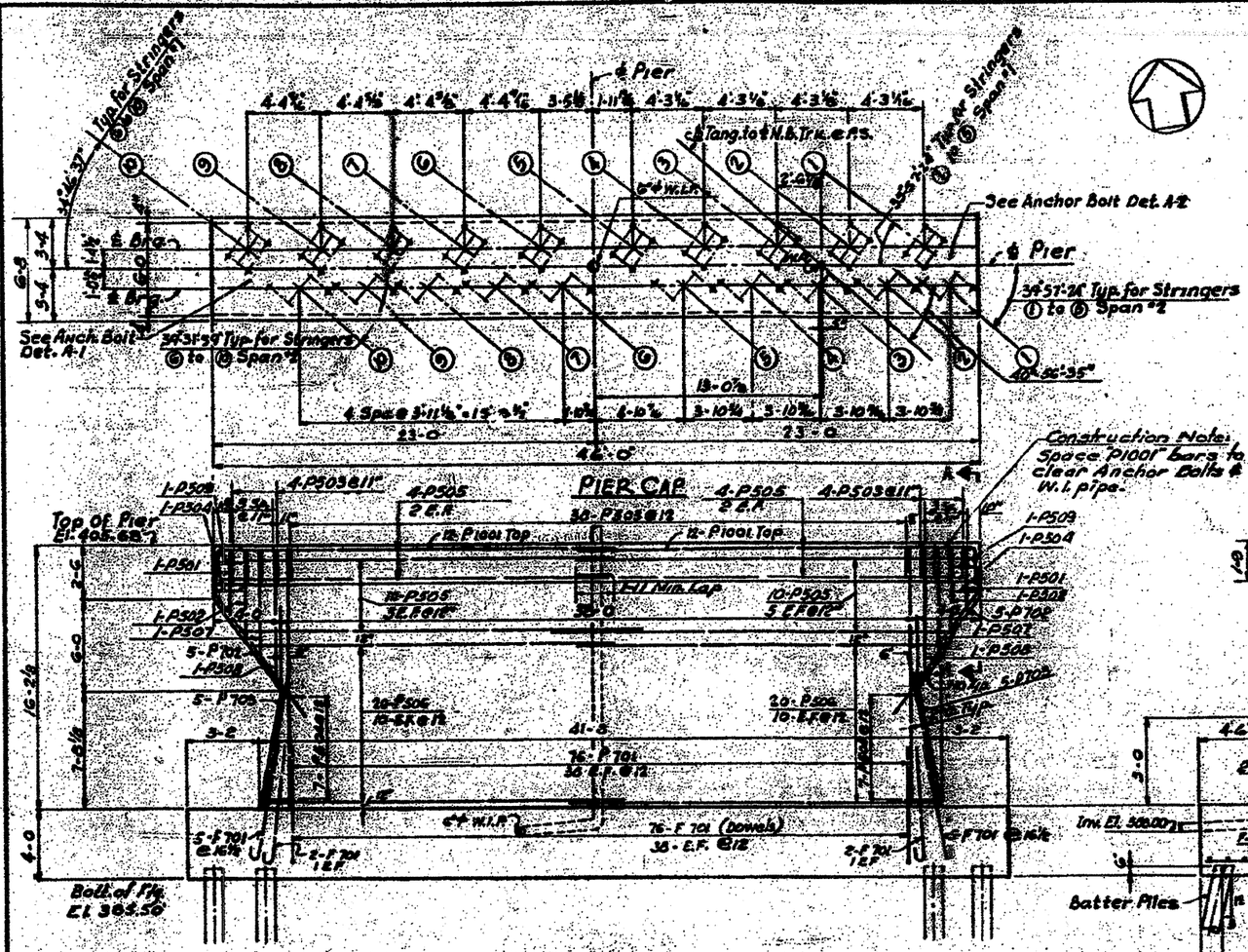
FED. ROAD DIST. NO.	STATE	COUNTY	TOTAL SHEETS	SHEET NO.
FAS-70	[illegible]	St Clair	[illegible]	[illegible]
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

BAR SCHEDULE

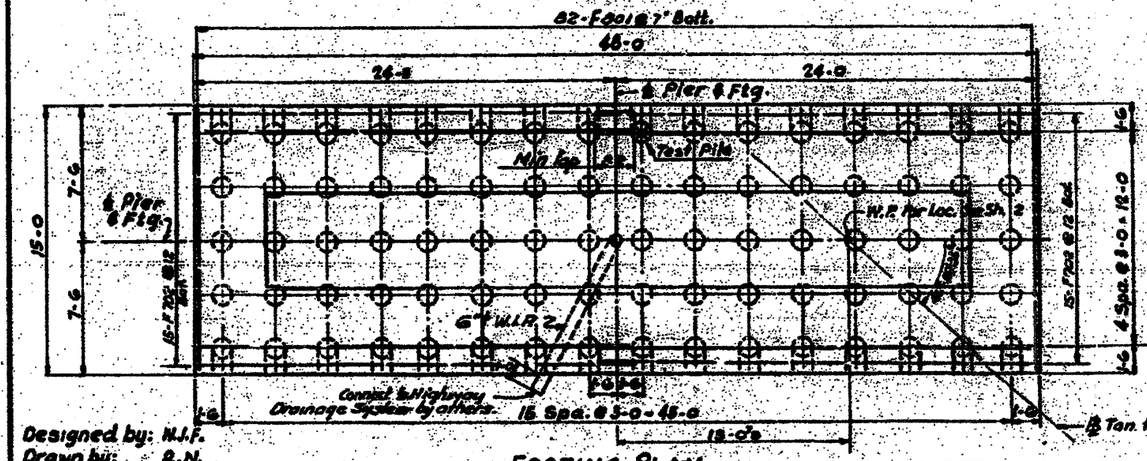
Mark.	No. Reqd.	Size	Length	Shape
F 701	90	#7	7-4	
F 702	30	#7	25-1	
F801	82	#8	14-6	
P 501	2	#8	12-2	
P 502	8	#8	15-0	
P 503	46	#8	9-2	
P 504	16	#8	6-0	
P 505	88	#8	23-10	
P 506	40	#8	21-3	
P507	2	#8	17-8	
P508	6	#8	20-6	
P509	2	#8	8-8	
P701	76	#7	15-0	
P702	10	#7	11-9	
P703	16	#7	10-3	
P1001	24	#10	25-1	

BILL OF MATERIALS

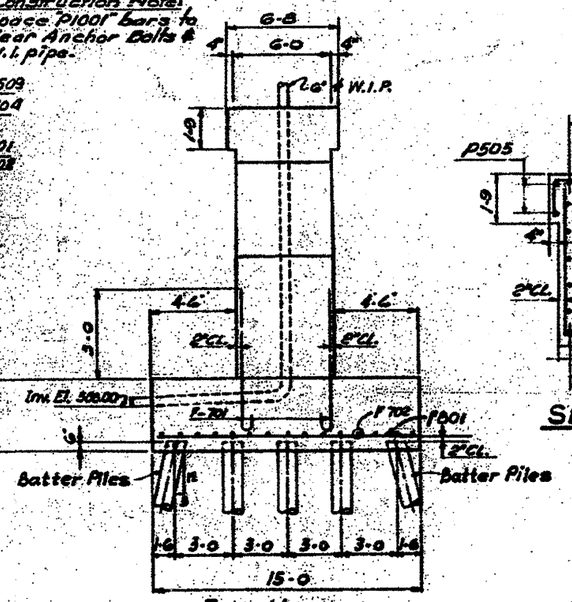
Class 'A' Concrete	C.Y.	258
Reinforcement Bars	lbs.	15,660
Furnishing Concrete Piles	L.F.	3,453
Driving Concrete Piles	L.F.	3,453
Test Pile (Concrete)	ea.	1



ELEVATION



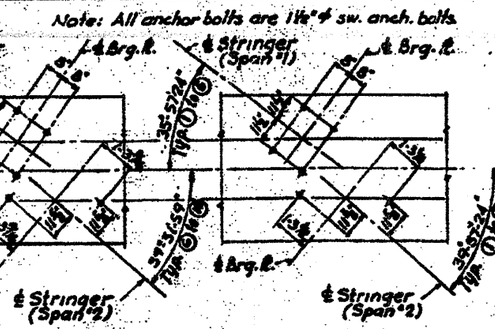
FOOTING PLAN



END VIEW

PILE DATA

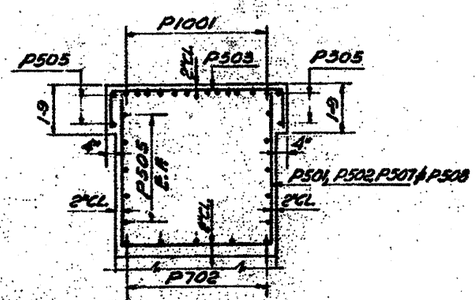
No. Required	79
Estimated Length	65 ft.
Capacity	90 ton
Type: Concrete Piles	
Test pile	1



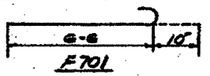
PLAN A-1

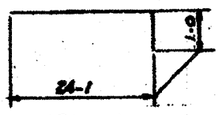
PLAN A-2

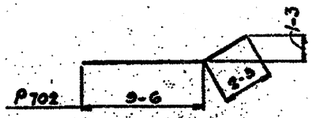
ANCHOR BOLT DETAILS

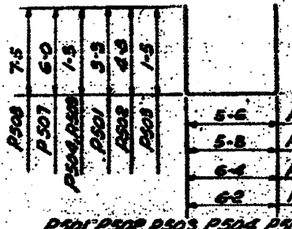


SECTION A-A









NOTES

For general notes see sh. #1
For Location see sh. # 2
For Drainage see sh # 23
Care shall be taken in placing reinforcement bars so as to clear anchor bolts.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

L & N. R. R. OVER WESTBOUND EXPWAY., RAMP "L", EASTBOUND EXPWAY AND RAMP "N"
NORTH PIER

Designed by: M.J.F.
Drawn by: R.N.
Checked by: J.V.

H. W. LOCHNER, INC.
ENGINEERS
DATE JULY 1968 CHICAGO, ILLINOIS

SHEET NO. 8

SHEET A-24

FOR INFORMATION ONLY

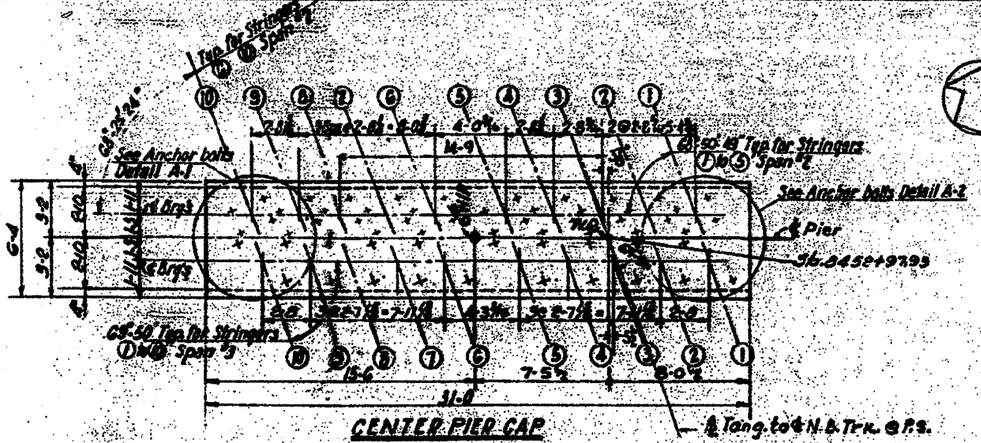
FED. ROAD DIST. NO.	STATE	COUNTY	TOTAL SHEETS	SHEET NO.
FAS-702(E-1)S	Ill.	St. Clair	25	A
THIS SHEET NO. 7 INCLUDED				

BAR LIST

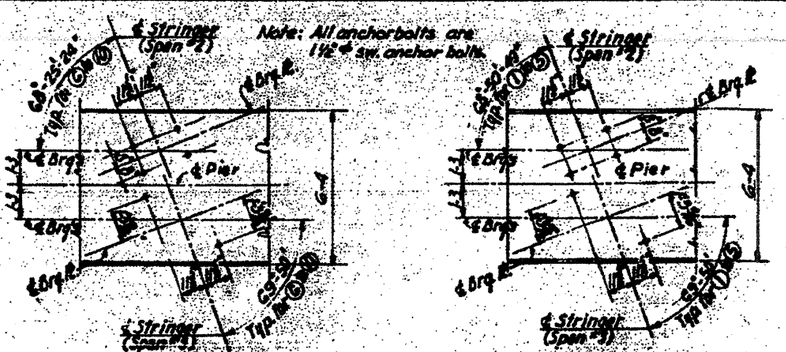
Mark	No. Reqd.	Size	Length	Shape
F601	30	#6	19-0	
F602	108	#6	6-9	
F701	71	#7	14-8	
F702	28	#7	12-3	
P501	6	#5	10-0	
P502	20	#5	8-0	
P503	20	#5	16-5	
P504	36	#5	8-10	
P505	12	#5	16-5	
P506	24	#5	13-1	
P507	28	#5	14-8	
P508	16	#5	10-3	
P510	2	#5	121-0	
P511	2	#5	146	
P512	44	#5	8-6	
P513	8	#5	17-0	
P514	2	#5	18-6	
P515	2	#5	8-5	
P601	48	#6	16-2	
P901	8	#9	34-6	

BILL OF MATERIALS

Class 'A' Concrete	C.Y.	1,186.6
Reinforcement Bars	lbs.	9,870
Furnishing Concrete piles	L.F.	8,360
Driving Concrete piles	L.F.	8,360
Test Pile (Concrete)	Ea.	1

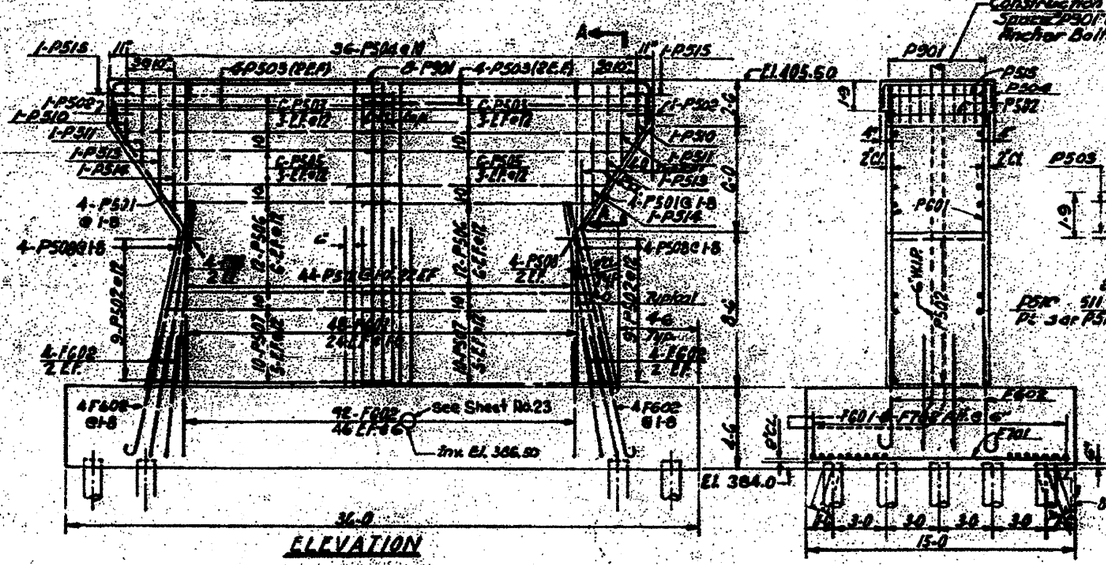


CENTER PIER CAP

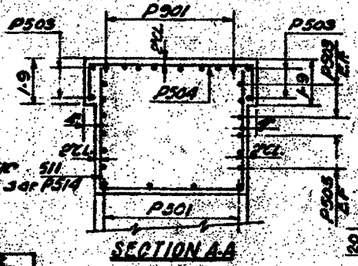


PLAN A-1 PLAN A-2

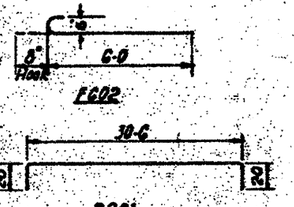
ANCHOR BOLT DETAILS

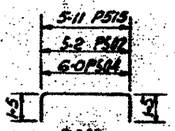


ELEVATION END VIEW

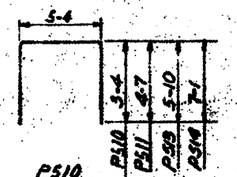


SECTION A-A





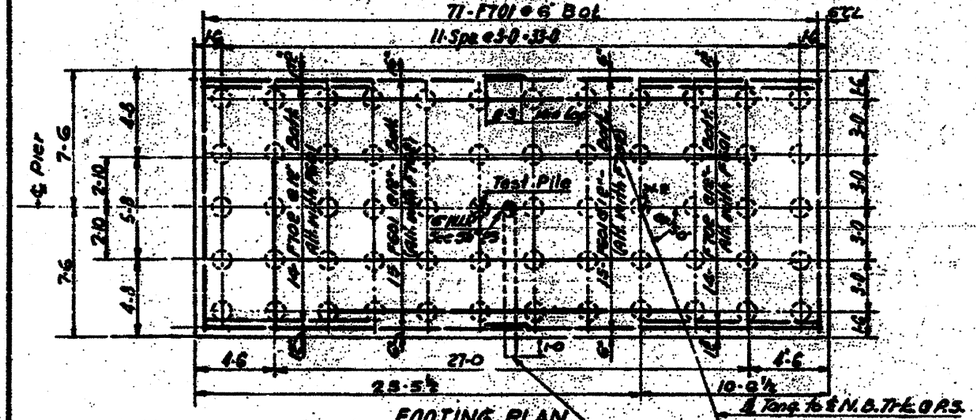
P502 P504 P515





PILE DATA

Type: Concrete Piles	
Estimated Length	40
Capacity	40 Tons
No. Required	59
Test Pile	1



FOOTING PLAN

Notes
See Sh#1 for Gen. Notes
See Sh#2 for Location
See Sh#23 for Drainage Details
Care shall be taken in placing reinforcement bars so as to clear anchor bolts.
For pile details see Sheet No. 24

Designed by: B.M.
Drawn by: W.K.
Checked by: J.W.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

L. & N. R.R. OVER WEST BOUND EXPWAY, RAMP "L", EAST BOUND EXPWAY AND RAMP "N"

CENTER PIER

H. W. LOCHNER, INC.
ENGINEERS
DATE JULY 1960 CHICAGO, ILLINOIS SHEET NO. 6

FOR INFORMATION ONLY

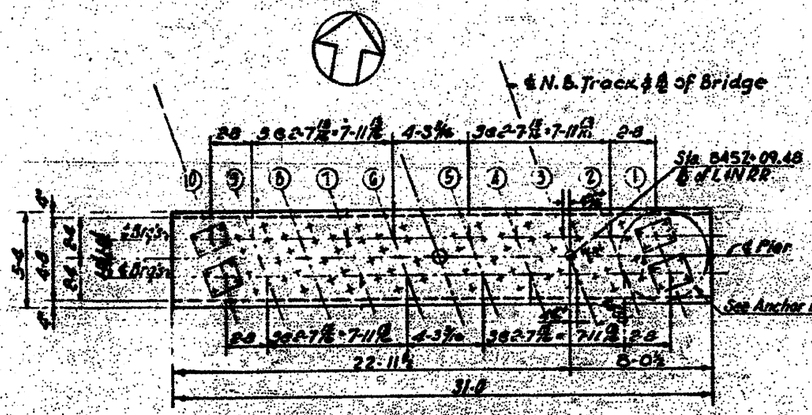
FAI-70	63-2	St. Clair		

BAR SCHEDULE

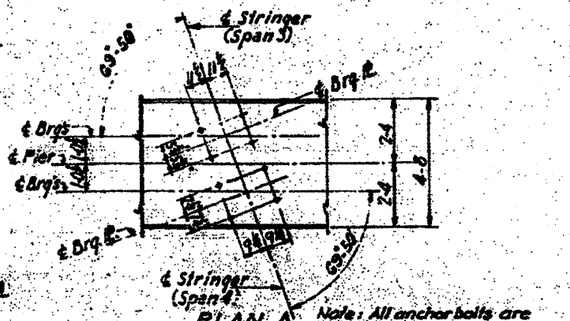
Mark	No. Reqd	Size	Length	Shape
F501	7	#5	18-0	
F401	6	#4	7-10	
F601	65	#8	14-6	
F601	30	#6	10-3	
F602	118	#6	6-8	
P501	8	#5	10-0	
P502	36	#5	7-10	
P503	20	#5	14-6	
P504	12	#5	15-1	
P505	28	#5	13-0	
P506	28	#5	14-6	
P507	2	#5	11-0	
P508	6	#5	9-0	
P509	24	#5	6-8	
P510	2	#5	13-6	
P511	2	#5	16-0	
P512	2	#5	18-6	
P513	34	#5	14-9	
P514	2	#8	7-4	
PG01	48	#6	19-7	
P901	6	#9	34-6	
P401	12	#4	4-5	

BILL OF MATERIALS

Class 'A' Concrete	CY	168.4
Reinforcement, bars	lbs	9250
Furnishing concrete piles	L.F.	2052
Driving concrete piles	LF	2052
Test Pile (Concrete)	Ea	1

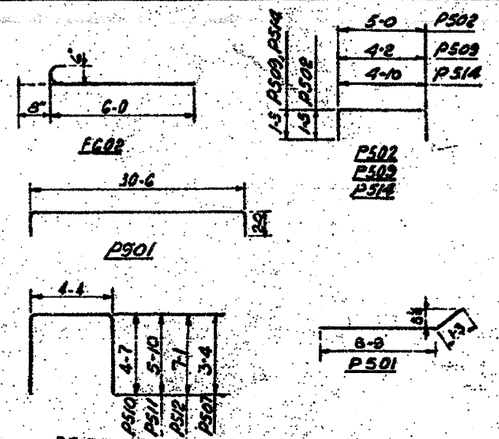


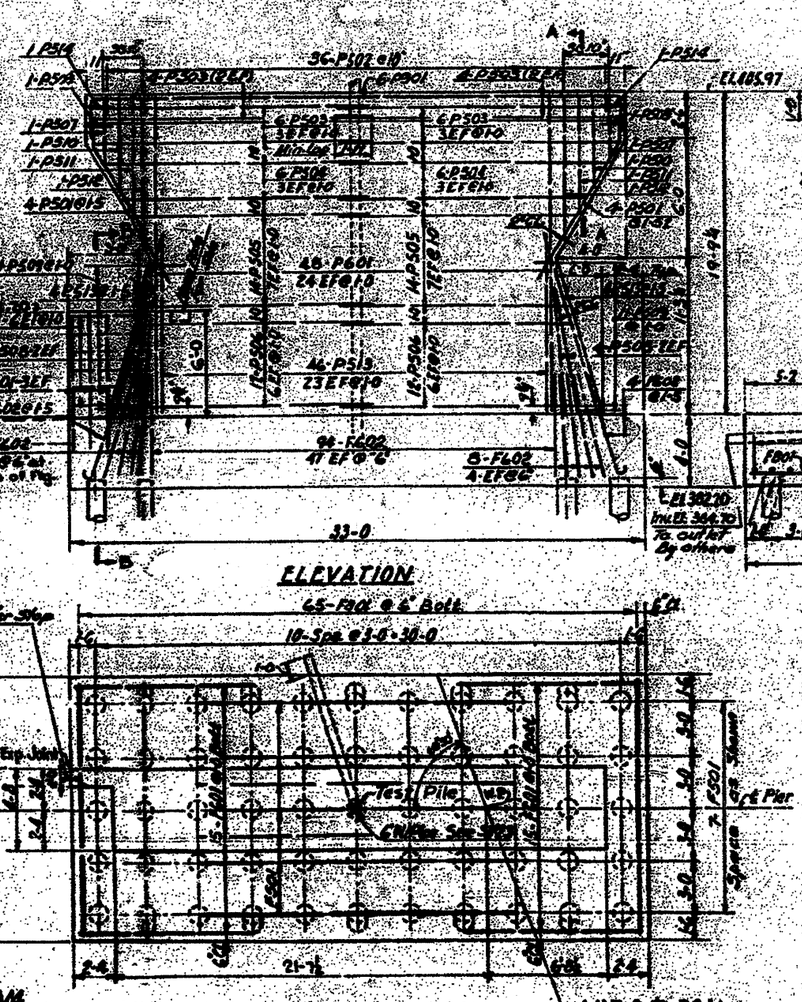
SOUTH PIER CAP



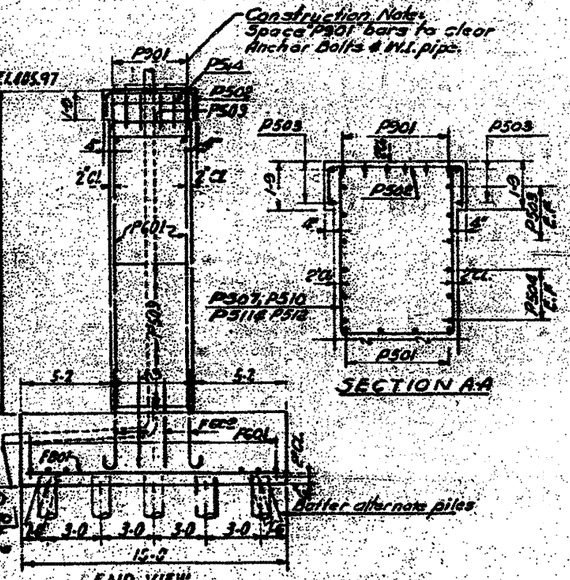
PLAN A

ANCHOR BOLTS DETAIL



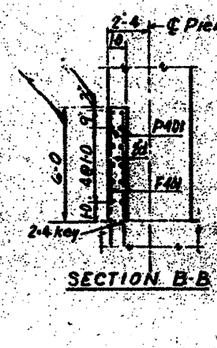


ELEVATION



END VIEW

SECTION A-A



SECTION B-B

PILE DATA

Type: Concrete Piles	
Estimated Length	38 Ft.
Capacity	40 tons
No. Required	34 Ea.
Test Pile	1 Ea.

NOTES:
See Sheet #1 for Gen. Notes
See Sheet #2 for Location
See Sheet #23 for Drainage Details
See Sheet # 7 for Exp. Joint details.
Care shall be taken in placing reinforcement bars so as to clear anchor bolts.
For pile details see Sh. #24

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

L & N. R.R. OVER WEST BOUND EXPWAY, RAMP "L" EAST BOUND EXPWAY AND RAMP "M" (IR 70)

SOUTH PIER

H. W. LOCHNER, INC.
ENGINEERS
DATE JULY 1960 CHICAGO, ILLINOIS SHEET NO. 10

FOR INFORMATION ONLY

FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT
FAI-70	SEC. 82-2-12 82-2-12	COUNTY St. Clair

SECTION E-E

PLAN OF DECK "A"

TYPICAL DETAIL

BARS IN TOP OF SLAB

BARS IN BOTTOM OF SLAB

SECTION A-A

JOINT DETAIL (TYPICAL)

CHANNELS

DECK

BARS IN TOP OF SLAB

Note: The cost of furnishing and installing copper flashing and copper water seal is incidental to the cost of Class "K" Concrete.

NOTES:
For Handrail Post spacing see Sh. No. 22.
For Bar Schedule and Bill of Materials see Sh. No. 18.
For Deck Drainage and El. Top Deck see Sh. No. 23
For General Notes see Sh. No. 1

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

L. & N. R. R. OVER WEST BOUND EXPWY., RAMP "L" EAST BOUND EXPWY. AND RAMP "B" (SR 7)
DECK "A" AND DETAILS

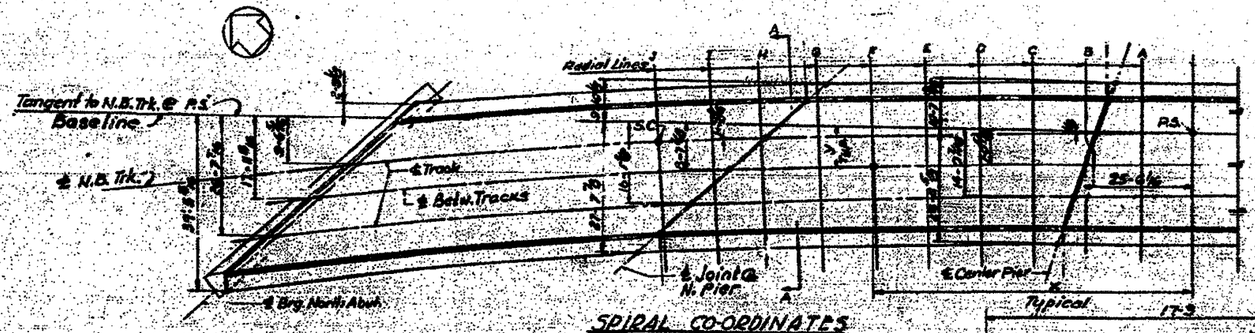
H. W. LOCHNER, INC.
ENGINEERS
DATE JULY 1960 CHICAGO, ILLINOIS SHEET NO. 11

Designed By PAE
Drawn By J.C.S.
Checked by W.J.F

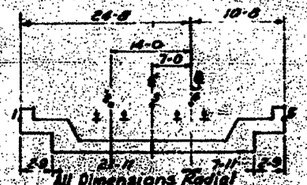
FOR INFORMATION ONLY

FEDERAL ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-70	82-3 &B 82-3 &B	St. Clair	12	5

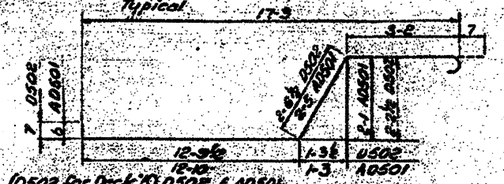
FED. RD. DIV. No. 7 | ILLINOIS PROJECT

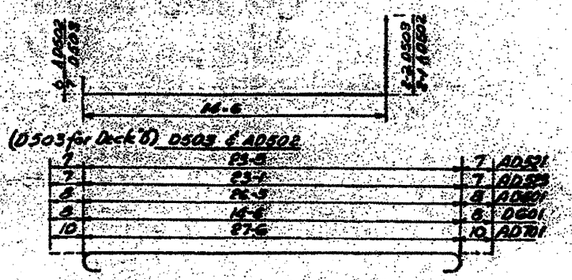


SPIRAL CO-ORDINATES



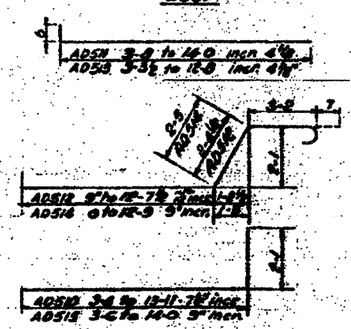
SECTION A-A

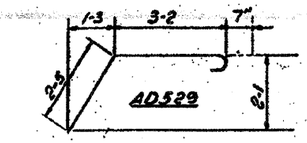


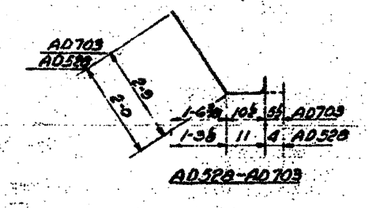


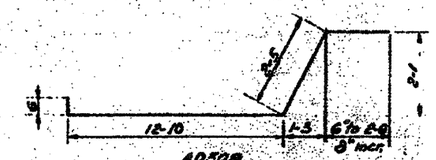


D501









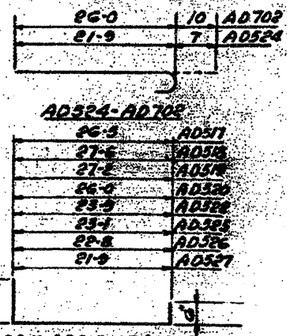


TABLE OF OFFSETS FOR FORMING CONCRETE DECK

A	X	Y
1	11-11⅝	24-8
2	11-11⅝	16-0
3	11-11⅝	7-0
4	12-0	0-0
5	12-0⅛	-10-8

B	X	Y
1	23-11⅝	24-8⅜
2	23-11⅝	16-0⅜
3	23-11⅝	7-0⅜
4	24-0	0-0⅜
5	24-0⅛	-10-7⅝

C	X	Y
1	35-10⅝	24-8⅝
2	35-11⅝	16-0⅝
3	35-11⅝	7-0⅝
4	36-0	0-0⅝
5	36-0⅛	-10-7⅝

D	X	Y
1	47-9	24-9⅜
2	47-10⅝	16-1⅜
3	47-11⅝	7-1⅜
4	48-0	0-2⅜
5	48-1⅛	-10-6⅛

E	X	Y
1	59-7⅛	24-11⅛
2	59-9⅛	14-3⅜
3	59-10⅛	7-7⅜
4	60-0	0-3⅜
5	60-2	-10-4⅜

F	X	Y
1	71-3⅜	25-2⅜
2	71-8⅛	14-8⅜
3	71-10⅛	7-8⅜
4	71-11⅝	0-8⅜
5	72-2⅜	-10-1⅝

G	X	Y
1	83-2⅜	25-8⅛
2	83-6⅛	14-10⅜
3	83-9⅜	7-10⅜
4	83-11⅛	0-10⅜
5	84-3⅜	-9-9⅜

W	X	Y
1	94-11⅞	25-11⅜
2	95-3⅜	15-3⅜
3	95-8⅜	8-3⅜
4	95-11⅜	1-3⅜
5	96-1⅞	-9-2⅜

I	X	Y
1	106-8⅜	26-5⅞
2	107-3⅜	15-9⅜
3	107-7⅞	8-9⅜
4	107-11⅜	1-10⅜
5	108-6⅜	-8-2⅜

J	X	Y
1	118-4⅜	27-1⅜
2	119-0⅜	16-5⅜
3	119-6⅜	9-6
4	119-11⅜	2-6⅜
5	120-7⅞	-8-1⅜

BAR SCHEDULE

Mark	No. Req.	Size	Length	Shape
D501	194	#3	5-7	
AD501	183		19-6	
AD502	159		17-1	
AD503	72		34-6	
AD504	72		36-0	
AD505	40		18-6	
AD506	50		16-6	
AD507	10		17-3	
AD508	2-Series ea 5 bars		18-10¾ to 19-2¾ incr. 1-0	
AD509	1-Series 4 bars		16-3¾ to 18-3¾ incr. 6"	
AD510	1-Series 18 bars		5-5 to 16-6 incr. 1½"	
AD511	1-Series 31 bars		8-2¾ to 14-6 incr. 6¾	
AD512	1-Series 20 bars		6-11¾ to 18-9 incr. 7½	
AD513	1-Series 26 bars		3-10¾ to 13-6 incr. 6½	
AD514	1-Series 18 bars		4-1 to 15-11 incr. 6"	
AD515	1-Series 15 bars		5-7¾ to 16-1 incr. 6"	
AD516	4		3-4	
AD517	5		28-11	
AD518	5	#5	30-0	
AD519	1		29-8	
AD520	1		28-6	
AD521	5		24-11	
AD522	5		26-3	
AD523	4		24-3	
AD524	1		22-4	
AD525	3		25-7	
AD526	1		25-2	
AD527	1		24-3	
AD528	1		3-3	
AD529	2	#5	6-2	
D601	317	#6	15-10	
AD601	5		27-9	
AD602	1-Series 28 bars		4-0 to 13-4 incr. 4"	
AD603	1-Series 34 bars		3-4 to 14-9 incr. 4"	
AD604	1-Series 31 bars		4-4 to 14-8 incr. 4"	
AD605	1-Series 30 bars	#6	4-1 to 14-9 incr. 4"	
AD701	4	#7	29-2	
AD702	1	#7	26-10	
AD703	1	#7	9-1	

BILL OF MATERIAL - SUPERSTRUCTURE

Structural Steel	lbs.	2,115A00
Class "X" Concrete	C.Y.	534
Reinforcement Bars	lbs.	83,365
Membrane Waterproofing	S.F.	9,170
Hand Rail	L.F.	629

Notes
For Gen. Notes See Sh. #1
For Location See Sh. #2

Design : R.L.
Drawn : J.S.C.
Checked : W.J.F.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

L & N.R.R. OVER WEST BOUND EXPWAY, RAMP "L" EAST BOUND EXPWAY AND RAMP "N" (BR 7)
DECK "A" BAR LIST AND DETAILS

H.W. LOCHNER, INC.
ENGINEERS
DATE: JULY 1960 CHICAGO, ILLINOIS SHEET NO. 12

FOR INFORMATION ONLY

SECTION	SHEET	COUNTY		SHEET
FAI-70	87-1-R	St Clair	24	12
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

BARS IN BOTTOM OF SLAB

BARS IN TOP OF SLAB

PLAN OF DECK "B"

SECTION B-B

SECTION F-F

Bars shown parallel to ℄

BAR SCHEDULE (Cont'd)

Mark	No. Req'd	Size	Length	Shape
D601	273	#6	15'-10"	
BD601	2		22'-10"	
BD602	1		5'-10"	
BD603	5		5'-10"	
BD604	1		4'-0"	
BD605	1		4'-10"	
BD606	3		7'-6"	
BD607	1	#5	22'-3"	
BD608	1	#6	24'-0"	

BAR SCHEDULE

Mark	No. Req.	Size	Length	Shape
D501	157	#5	5'-2"	
D502	134		19'-9"	
D503	134		17'-3"	
BD501	90		16'-8"	
BD502	96		34'-6"	
BD503	4		9'-2"	
BD504	1		7'-11"	
BD505	1		7'-11"	
BD506	4		7'-11"	
BD507	2		9'-8"	
BD508	2		9'-8"	
BD509	2		9'-8"	
BD510	2		6'-5"	
BD511	2		9'-8"	
BD512	40		19'-0"	
BD513	10		17'-0"	
BD514	10		18'-5"	
BD515	3		25'-11"	
BD516	2		24'-2"	
BD517	2		24'-2"	
BD518	1		25'-6"	
BD519	3		16'-9"	
BD520	5		13'-0"	
BD521	1		15'-5"	
BD522	1	#5	46'-0"	

BAR DETAILS

BD505	1-11 to 12-11 (Equal)
BD506	2-1 to 1-10 (1'-4" Incr.)
BD508	2-1 to 1-10 (3'-8" Incr.)
BD511	2-1 to 1-9 (3" Incr.)

BAR DETAILS

For D501, D502, D503 & D604 See Sh. No. 12

NOTES:
For Headrail Post Spacing See Sh. #22.
For Bill of Material See Sh. #12.
For Deck Drainage & El. Top of Deck See Sh. #23.
For General Notes See Sh. #1.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

L. & N. R. R. OVER WEST BOUND EXPWAY, RAMP "L", EAST BOUND EXPWAY AND RAMP "N"
DECK "B" AND DETAILS

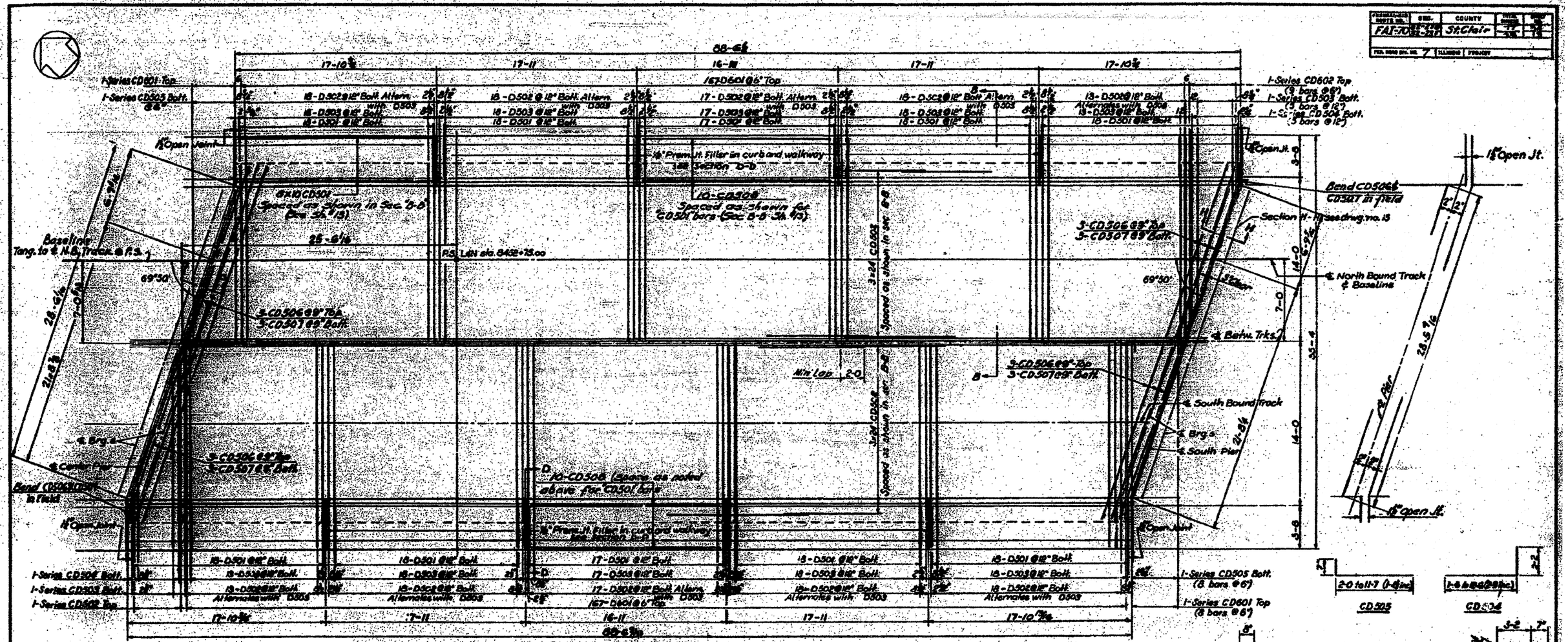
(SR 1)

H. W. LOCHNER, INC.
ENGINEERS
DATE: JULY 1958 CHICAGO, ILLINOIS SHEET NO. 13

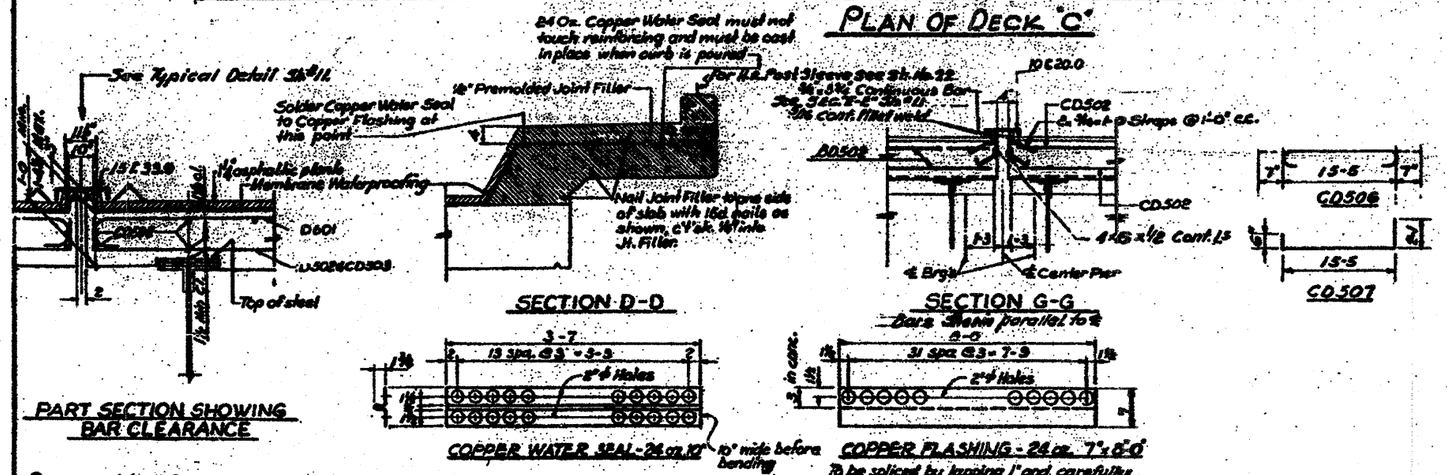
Design : RAE
Drawn : JGS
Checked : MJF

FOR INFORMATION ONLY

FED. ROAD DIST. NO.	STATE	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-70	8-Sect	St.Clair	30	14
FED. ROAD DIV. NO. 7	ILLINOIS	PROJECT		



PLAN OF DECK "C"



BAR SCHEDULE				
Mark	No. Req.	Size	Length	Shape
D501	178	#5	5-7	
D502	168		16-8	
D503	168		17-3	
CD501	80		17-7	
CD502	144		31-0	
CD503	8 Series Stags		2-9 to 8-8 (1-4½ inch)	
CD504	3 Series Stags		1-6 to 9-8 (1-4½ inch)	
CD505	8 Series Stags		2-0 to 11-7 (1-4½ inch)	
CD506	12		16-7	
CD507	12		18-0	
CD508	20	#5	16-7	
CD601	9 Series 8 bars Ea.	#6	2-0 to 11-7 (1-4½ inch) 1-6 to 9-8 (1-4½ inch)	
CD602	9 Series 9 bars Ea.	#6	2-0 to 11-7 (1-4½ inch) 1-6 to 9-8 (1-4½ inch)	
D601	334	#6	13-10	

For D501, D502, D503 & D601 See Sh. #15

Note: The cost of furnishing and installing copper flashing and copper water-seal is incidental to the cost of Class "X" concrete

NOTES
For handrail post spacing see Sht. #22
For Bill of Materials see Sh. #12
For Deck Drainage and El. Top Deck see Sht. #23.
For Section B-B See Sh. No. 13
For General Notes see Sh. #2

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

L. & N. R.R. OVER WEST BOUND EXPWAY., RAMP "L", EAST BOUND EXPWAY AND RAMP "K" (BR 7)

DECK "C" AND DETAILS

H. W. LOCHNER, INC.
ENGINEERS
DATE: JULY 1960 CHICAGO, ILLINOIS SHEET NO. 14

Designed by : PAE
Drawn by : JCS
Checked by : W.J.F

FOR INFORMATION ONLY

236 DD.
SHEET A-30
As Awarded

PROJECT NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-70	82-1-12	St. Clair	24	13
FAI 1000 SEC. NO. 7	FEDERAL PROJECT			

DETAIL 'B'

SECTION H-H
Bars shown parallel to ℄

SECTION J-J
Bars shown parallel to ℄

PLAN OF DECK 'D'

DETAIL 'A'

SECTION C-C

BAR SCHEDULE

Mark	No. Req.	Size	Length	Shape
DD501	88	#5	19-11	
DD502	67		17-6	
DD503	40		15-8	
DD504	96		25-0	
DD505	8-Series ea 5 bars		7-2 to 12-2 incr. 2-9	
DD506	8-Series ea 5 bars		4-6 to 15-6 incr. 2-9	
DD507	1-Series ea 9 bars		8-6 to 18-6 incr. 1-4½	
DD508	1-Series ea 8 bars		8-6 to 19-1 incr. 1-4½	
DD509	2		14-9	
DD510	2		15-1	
DD511	4		15-7	
DD512	2		15-10	
D501	83		5-7	
DD513	1		6-2	
DD514	13		16-7	
DD515	12		18-4	
DD516	1		7-8	
DD517	3		3-6	
DD518	6		16-3	
DD519	8	#5	18-9	
DG01	173	#6	15-0	
DD601	1-Series 9 bars		2-8 to 13-8 incr. 1-4½	
DD602	8-Series 9 bars ea		3-8 to 14-0 incr. 1-4½	
DD603	1-Series 8 bars	#6	9-8 to 12-8 incr. 1-4½	

For Detail of D501 & DG01 See Sh. #12.

NOTES
For handrail post spacing see Sht. #22
For Bill of Material See Sheet #12
For Deck Drainage and EL. Top Deck, see Sht. #23
For General Notes see Sh. #1

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

L. & N. R. R. OVER WEST BOUND EXPWY., RAMP "L", EAST BOUND EXPWAY AND RAMP "N"
DECK "D" AND DETAILS

H. W. LOCHNER, INC.
ENGINEERS
DATE: JULY 1960 CHICAGO, ILLINOIS SHEET NO. 13

Designed by: PAE
Drawn by : JCS
Checked by: WJF

FOR INFORMATION ONLY

PLAN OF DECK "C"

PART SECTION SHOWING BAR CLEARANCE

SECTION D-D

SECTION G-G

SECTION X-X

Note: In Section X-X only reinforcement bars pertaining to the addition of platform is shown. For remainder of reinforcement bars refer to typical Section thru deckfloor.

SCHEDULE

Designed by : PAE
Drawn by : JCS
Checked by : WEF

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

L.S.R.B.R.B. OVER WEST BOUND ENTRY, "A" & "C" EAST BOUND EXPRESS AND RAMP "B"
DECK "C" AND DETAILS

Revision C-16-61 Added Bracket

DIST. JULY 1960 BRIDGE NO. 236 FF

SHEET NO. 32 OF 32 SHEETS

As Built

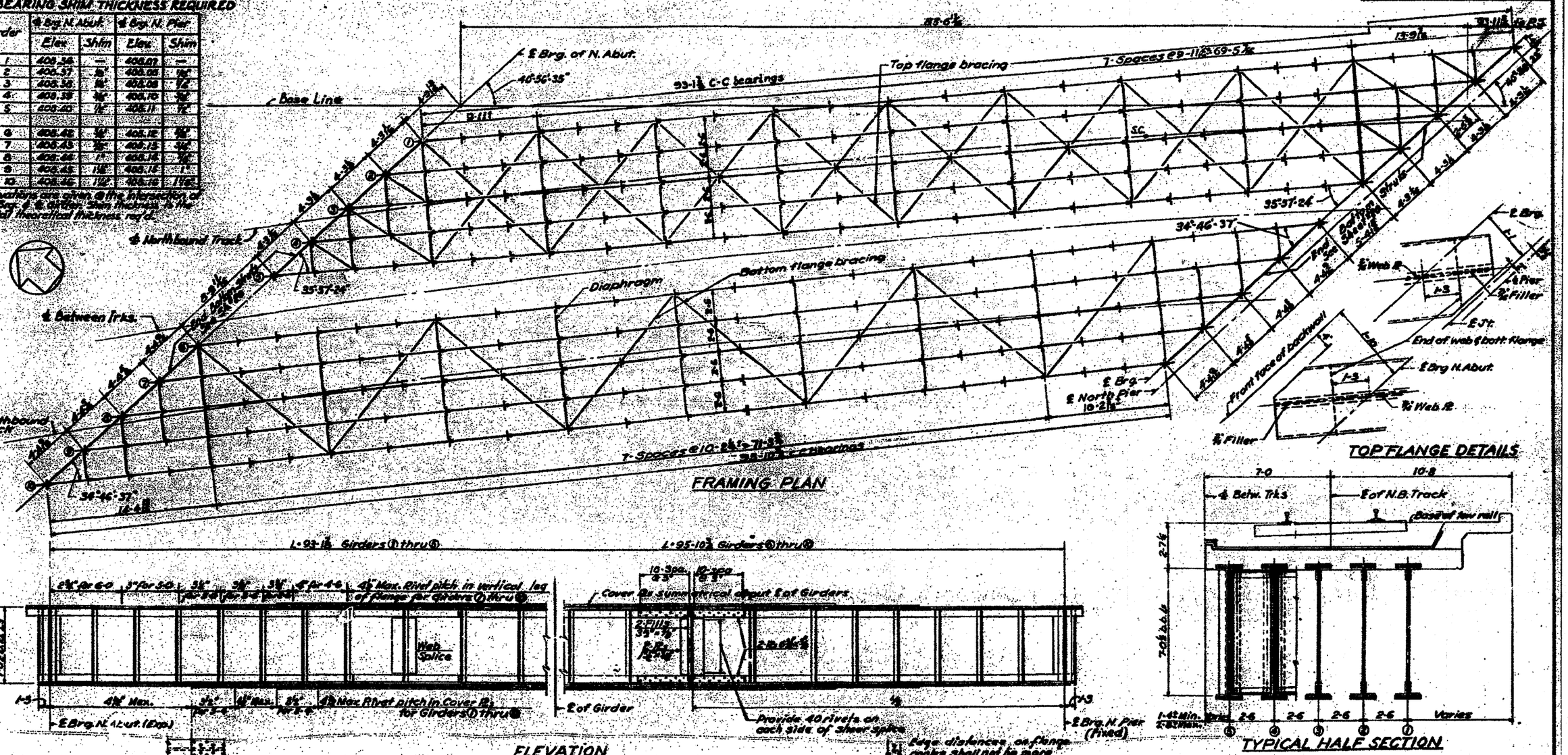
FOR INFORMATION ONLY

	DIST.	COUNTY	SHEET NO.	TOTAL SHEETS
FAE-70	8-9-10	St. Clair	33	116

ELEVATIONS BACK OF BOTTOM FLANGE ANGLES & BEARING SHIM THICKNESS REQUIRED

Girder	℄ Brg. N. Abut.		℄ Brg. N. Pier	
	Elev.	Shim	Elev.	Shim
1	408.36	—	408.07	—
2	408.37	1/16"	408.08	1/16"
3	408.38	1/8"	408.08	1/8"
4	408.38	1/8"	408.10	1/8"
5	408.40	1/4"	408.11	1/4"
6	408.42	1/4"	408.12	1/4"
7	408.43	5/16"	408.13	5/16"
8	408.44	5/16"	408.14	5/16"
9	408.45	1/16"	408.15	1/16"
10	408.46	1/2"	408.16	1/16"

Elevations are given @ the intersection of ℄ Brg. & ℄ Girder. Shim thickness is the total theoretical thickness req'd.



DEAD LOAD PER TRACK

Ballast, Ties & Rails	2.73 k/ft	
Slab, Waterproof & Walk	3.00 k/ft	
	5.73 k/ft	
	Gir. 1 ecc 1.71	Gir. 6 ecc = .57
D.L.	1.15 %	1.13 %
D.L. ecc. (5.73 = ecc. / 3.00)	.78 %	- .17 %
D.L. Steel	.71 %	.73 %
	2.64 %	1.77 %

IMPACT

	Gir. 1 thru 5	Gir. 6 thru 10
Vertical (50/(L+125))	42.7 %	41.6 %
Rolling (20/(L+125))	20.0 %	20.0 %
	62.7 %	61.6 %

MOMENTS & SHEAR FOR GIRDER NO. 1 & 6

End Shear	Gir. 1	Gir. 6	Max. Moment	Gir. 1	Gir. 6
D.L.	124.1 k	62.1 k	D.L.	2916 ft-k	1970 ft-k
L.L.	102.5 k	104.1 k	L.L.	2077 ft-k	2156 ft-k
Imp.	69.6 k	64.0 k	L.L. ecc.	324 ft-k	336 ft-k
Centri.	35.7 k	36.2 k	Imp.	1431 ft-k	1468 ft-k
Total	329.9 k	266.4 k	Centri.	723 ft-k	750 ft-k
Prime Transfer	25.6 k	39.3 k	Total	7147 ft-k	6680 ft-k
Total	355.5 k	316.7 k			

CENTRIFUGAL
2½ super
1.755 (2½ + 3) = 9.65%

SECTION ALL GIRDERS BOTH FLANGES

	Gross	Net
½ Web 84"-⅜"	4.60	4.60
2 Lrs 8"-8"-⅞"	26.46	22.52
1 PL 17"-1⅛"	14.88	12.91 Full lg. top & bott.
1 PL 17"-1⅛"	14.88	12.91 69-9 lg. Gir. 1 to 5
1 PL 17"-⅞"	14.88	12.91 51-0 lg. Gir. 1 to 5
Total	75.70 " Gross	65.85 " Net

Gross I = 275,865 in⁴ Gross S.M. = 6,147 in³
Net I = 235,369 in⁴ Net S.M. = 5,245 in³
Allow. Stress = 17,200 lbs/in² Gir. 1 thru 5; 16,800 lbs/in² Gir. 6 thru 10
Unit Stress = Gir. 1 = 17,100 lbs/in²
Gir. 6 = 15,300 lbs/in²

Gusset Pl. 20.25 lb

ADDITIONAL MATERIAL

End Diaphragm & Inter. Diaph.
2 Lrs top & bott. 4"-4"-½" to Web.
Lateral Rds & Horizontal Gussets 7/8".
Top Laterals - 2 Lrs 4"-3½"-½" & Pl. 6" x 1/2".
Bott. Laterals - 1 L 4"-3½"-½" & 3 Rivets.
End Bottom Struts - 2 L 4"-3½"-½".
Locate Web Splice 6 or near ½ Point.
Max. distance c.c. rivets on outside gage line of cover plates shall be 9".
Min. pitch 3" in bottom cover plate near ℄ of span on account of rail section.

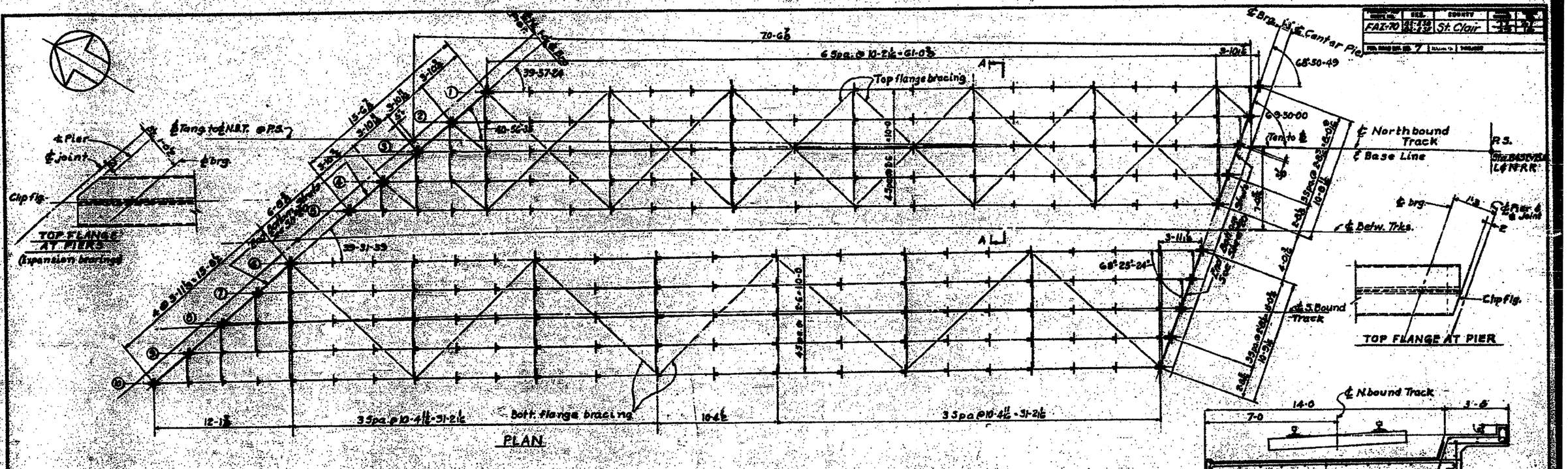
Notes:
For details of Diaphragm, Lateral bracing & Connections see sh. no. 20
For details of bearings see sh. no. 21
For General Notes see sh. no. 5.
For Detailing Notes see sh. no. 7.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS
EAST ST. LOUIS EXPRESSWAY
I. C. R.R. OVER WEST BOUND EXPWY., RAMP "L" EAST BOUND EXPWY. AND RAMP "N"
FRAMING PLAN SPAN 1
H. W. LOCHNER, INC.
ENGINEERS
DATE JULY 1960 CHICAGO, ILLINOIS SHEET NO. 33

Designed by: LK
Drawn by: GS
Checked by: PK & FAE

FOR INFORMATION ONLY

FAI-70	31-1 R 31-1 SP	St. Clair	



ELEVATION (Girders "6-"10)

ELEVATIONS BACK OF BOTTOM FLANGE ANGLES & BEARING SHIM THICKNESS REQUIRED

Girder	℄ Brg. N. Pier		℄ Brg. Center Pier	
	Elev.	Shim	Elev.	Shim
1	408.06	¼"	407.67	¾"
2	408.06	¼"	407.61	1"
3	408.07	⅛"	407.55	1⅛"
4	408.08	0"	407.50	1¼"
5	408.09	⅛"	407.46	1⅜"
6	408.11	⅜"	407.43	1½"
7	408.12	½"	407.39	1⅝"
8	408.13	⅝"	407.36	1¾"
9	408.14	¾"	407.33	1⅞"
10	408.15	⅞"	407.30	2"

Elevations are given @ the intersection of ℄ Brg. & ℄ girder. Shim thickness is the total theoretical shim thickness req'd.

ELEVATION (Girders "1-"5)

Span lengths (℄-℄ bearings)

①	66-10½	④	76-8
②	66-11	⑤	76-8½
③	68-11½	⑥	80-9
④	70-11⅜	⑦	82-9½
⑤	72-11⅝	⑧	84-10

Edge distances on flange angles shall not be more than 8" or less than 1½"

Gage on FL's

Notes:
1. For details of diaphragms, lateral bracing & connections, see Sh. "20.
2. For details of bearings see Sh. "21
3. For Notes see Sh. "4
Max. distance c.c. rivets on outside gage line of cover plates shall be 6".
In bottom cover plate near ℄ span on account of net section Min. pitch 3½".

GIRDER SHEARS (Kips)

Girder	No.10	No.9	No.8	No.7	No.6	No.1
D.L.	95.4	67.6	62.5	52.5	54.5	67.5
L.L.	24.6	20.9	26.7	23.2	79.1	75.2
Imp	61.8	60.4	59.1	57.8	54.9	53.7
C.F.	0.0	0.0	33.3	0.0	0.0	33.0
Total	251.8	218.9	247.6	193.1	188.5	229.4

IMPACT

	Gird. No.1	Gird. No.10
Vertical	31.4%	48.4%
Rolling	39.9%	20.0%
	71.4%	68.4%

DEAD LOAD PER TRACK

Ballast, Ties & Rail	2.75
Slab, Waterproof & Walk	3.00
Total	5.73 k/ft
D.L. Girder	1.15
D.L. acc. Girder "1	.54
D.L. Steel	.35
	2.86 k/ft

SECTION BOTH FLANGES

Girders "1-"5

	Gross	Net
1 Web 84-⅞	4.60 in²	4.60 in²
2 PL 8-⅜	22.50 in²	19.50 in²
1 L 17-⅝ Full length top & bott.	10.63 in²	9.22 in²
Total	38.11 in²	33.32 in²

Girders "6-"10

	Gross	Net
1 Web 84-⅞	4.60 in²	4.60 in²
2 PL 8-⅜	22.50 in²	19.50 in²
1 L 17-⅝ Full length top & bott.	10.63 in²	9.22 in²
1 L 17-⅝ - 30 " " "	10.63 in²	9.22 in²
Total	48.36 in²	42.54 in²

GIRDER MOMENTS (Ft. Kips)

Girder	No.10	No.8	No.6	No.5	No.3	No.1
D.L.	2025.6	1897.0	1806.9	1079.0	940.0	1103.6
L.L.	1152.	1608.	1456.	1337.	1213.	1095.
L.L. acc.	0	0.	102.	0.	0.	37.
Imp.	1148.	1089.	956.	926.	894.	799.
C.F.	0.	0	550.	0	0.	406.
Total	4900.0	4023.0	4869.0	3342.0	2997.0	3580.0

CENTRIFUGAL

1.755(1+.9) = 7.9 %

ADDITIONAL MATERIAL

Web 84 x ⅞ = 36.75#
End Shift 4# 7-4 = ½
Use 16 Rivets per pair (min.)
2 End Fills 14 (see elev.)
Inter. Stiff. 2# 6-3½ on fills at Diaphragms, 2# 6-3½ on fills elsewhere.
End Bottom Struts 2 L 4x4x½ 6-0 long

End & Inter. Diaphragms
2# Top & bott. 4x4x½ Web
Lateral Rs. & Horizontal Gussets @ Top laterals 2 L 4x4x½ Gr. rivets
Batt. laterals 1 L 4x4x½ Gr. rivets.
Locate Web Splices near ℄ span.

GIRDERS "1-"5

Gross I = 133,204 Gross S.M. = 5119
Net I = 108,604 Net S.M. = 4169
Allow. Stress = 18.0 ksi
Unit Stress = 3960 / 4869 = .822 ksi

GIRDERS "6-"10

Gross I = 173,184 Gross S.M. = 5960
Net I = 146,234 Net S.M. = 5362
Allow. Stress = 18.0 ksi
Unit Stress = 4900 / 5362 = .735 ksi

Designed by	L.K.
Drawn by	R.S.
Checked by	F.P.E. & R.K.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

L & N. R. R. OVER WEST BOUND EXPWAY., RAMP "L" EAST BOUND EXPWAY AND RAMP "N" (SN 7)

FRAMING PLAN SPAN 2

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

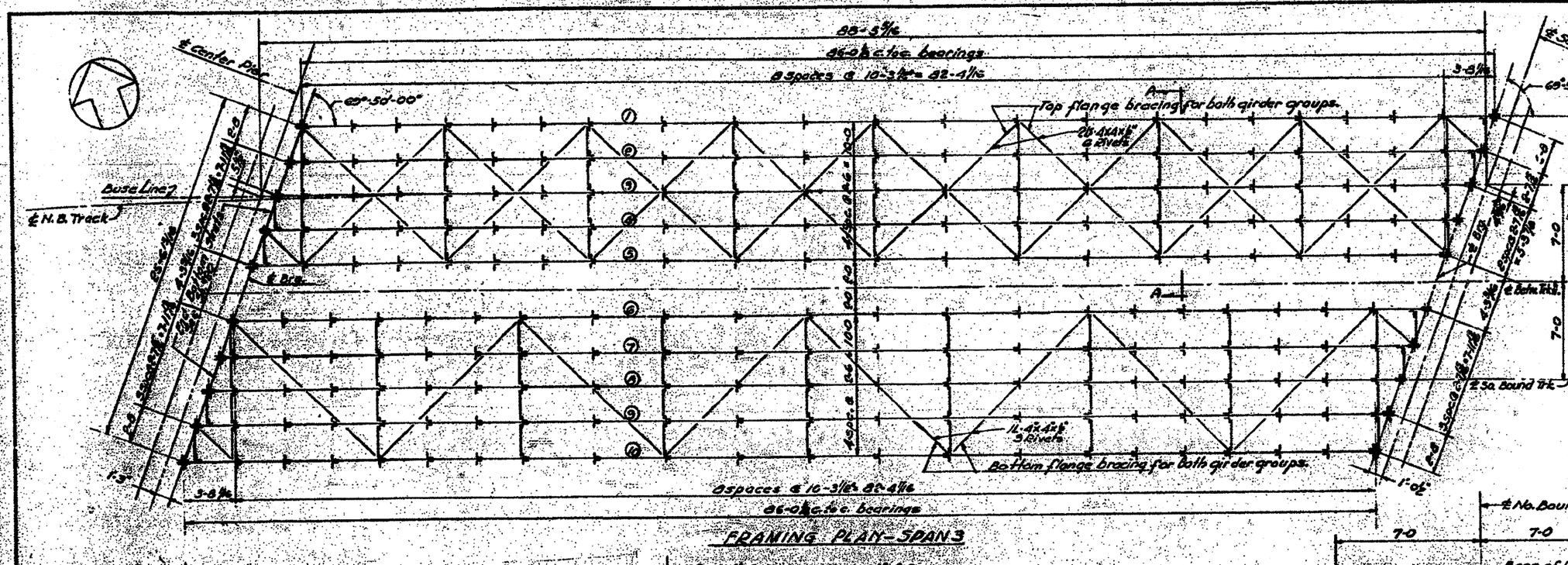
DATE JULY 1960

SHEET NO. 17

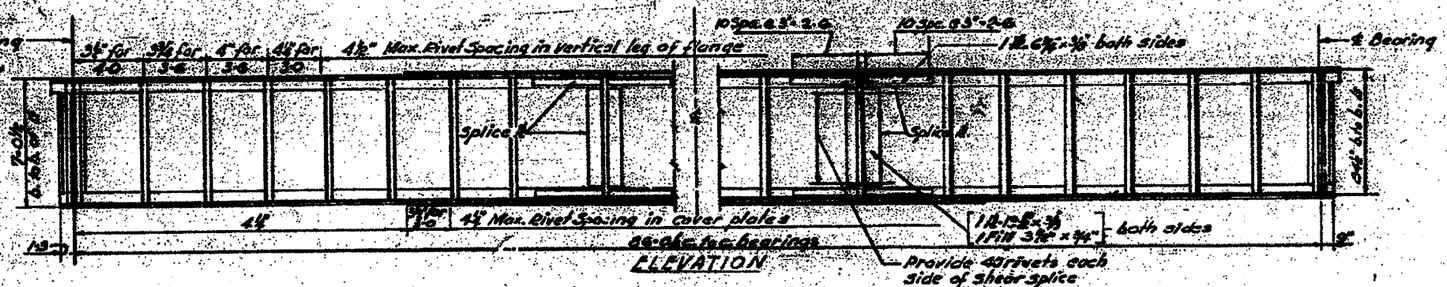
SHEET A-34 236 HH

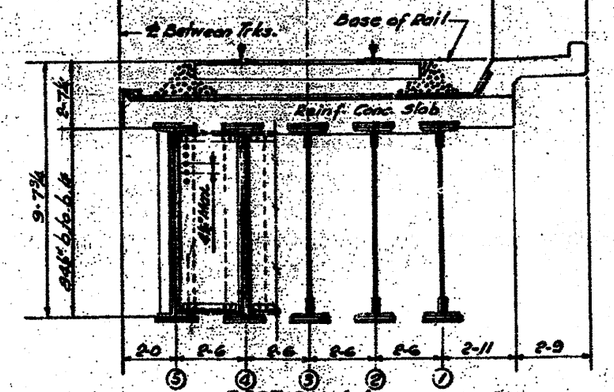
FOR INFORMATION ONLY

FED. ROAD DIST. NO. 7	STATE	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-70&64	121	St. Clair	48	19
	121		48	19



FRAMING PLAN—SPAN 3





SECTION A-A

ELEVATIONS BACK OF BOTTOM FLANGE ANGLES & BEARING SHIM THICKNESS REQUIRED

Girder	℄ Brg. Center Pier		℄ Brg. South Pier	
	Elev.	Shim.	Elev.	Shim.
1	407.57	—	407.60	1/16"
2	407.57	1/16"	407.61	1/8"
3	407.57	1/8"	407.61	1/8"
4	407.57	1/16"	407.61	1/8"
5	707.58	1/8"	407.61	1/16"
6	407.58	1/16"	407.62	1/16"
7	407.58	1/16"	407.62	1/16"
8	407.58	1/16"	407.62	1/16"
9	407.59	1/8"	407.62	1/16"
10	407.59	1/16"	407.63	1/8"

Elevations are given @ the intersection of ℄ Brg. & ℄ Girder. Shim thickness is the total theoretical thickness req'd

DEAD LOAD PER TRACK

Ballast, Ties & Rail	2.73 k
Slab, Waterproofing & Curb	3.00
Total	5.73 k
D.L. Girder No. 1	1.13 k
D.L. Lacg. & Struts	.48
D.L. Steel ℄	.43
Total	2.06 k

IMPACT

Vertical 60-82½ = .45%
Rolling 82½-125 = .20%
65% Girder Load

MOMENTS & SHEAR FOR GIRDER No. 1 *

	End Shear	Max. Moment
D.L.	82.5 k	1850 ft-k
L.L.	96.0	1310
Imp.	62.6	1172
Total	241.1 k	4332 ft-k

*Computed for 87' Span

SECTION ALL GIRDERS BOTH PLANES

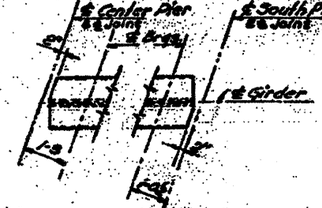
	Gross	Net
PL 36"x⅞"	= 4.60 in²	4.60 in²
2 L's 6"x6"x⅞"	= 22.88 in²	19.50 in²
1 PL 17"x⅜"	= 10.63 in²	9.22 in² Full length Top & Bott.
1 PL 17"x⅝"	= 10.63 in²	9.22 in² 50'-0" lg. Top & Bott.
Total	48.74 in²	42.54 in²

Gross I = 173,124.4 in⁴ Gross S.M. = 3980 in³
Net I = 144,234 in⁴ Net S.M. = 3382 in³
Allow. 18,000 #/in²
Unit Stress = 4332 x 1000 x 12 / 3382 = 17,550 #/in²

ADDITIONAL MATERIAL

Web 84"x 7/16" = 36.75 sq in
End Stiff: 4@ 7"x 4"x ⅝"
Use 16 rivets per pair (Min)
2 End Fills 14"x ⅜"
Intermed. Stiff'e 2@ 6"x 35"x ⅜" on fills of Diaphragms
2@ 6"x 24"x ⅜" on fills elsewhere.
Rivet diameter = ⅞"

End Diaphragms & Intermed. Diaphragms
2 L's 7½" x 7½" & Batt. 4"x 4"x ⅜" = 36" Web
Lateral Plates & Horizontal Gussets ⅜"
Top Laterals: 2@ 4"x 4"x ½" @ rivets
Bottom Laterals 12" x 4"x ½" @ 3 rivets
Web Splices on ⅜ panels approx.
Max. distance c.c. rivets on outside gage line of cover plates shall be 8⅛"
Min pitch 3½", in bottom cover plate near ℄ of span in vicinity of max. section.



TOP FLANGE DETAILS

NOTES

1. For details of diaphragms, lateral bracing, and connections, See Sheet 20.
2. For details of bearings see Sheet 21.
3. For General Notes see Sh. 1.
4. For Framing Notes see Sh. 1.

STATE OF ILLINOIS
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CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

L. & N. R. R. OVER WEST BOUND EXPWY., RAMP "L", EAST BOUND EXPWY. AND RAMP "N" (BR. 7)

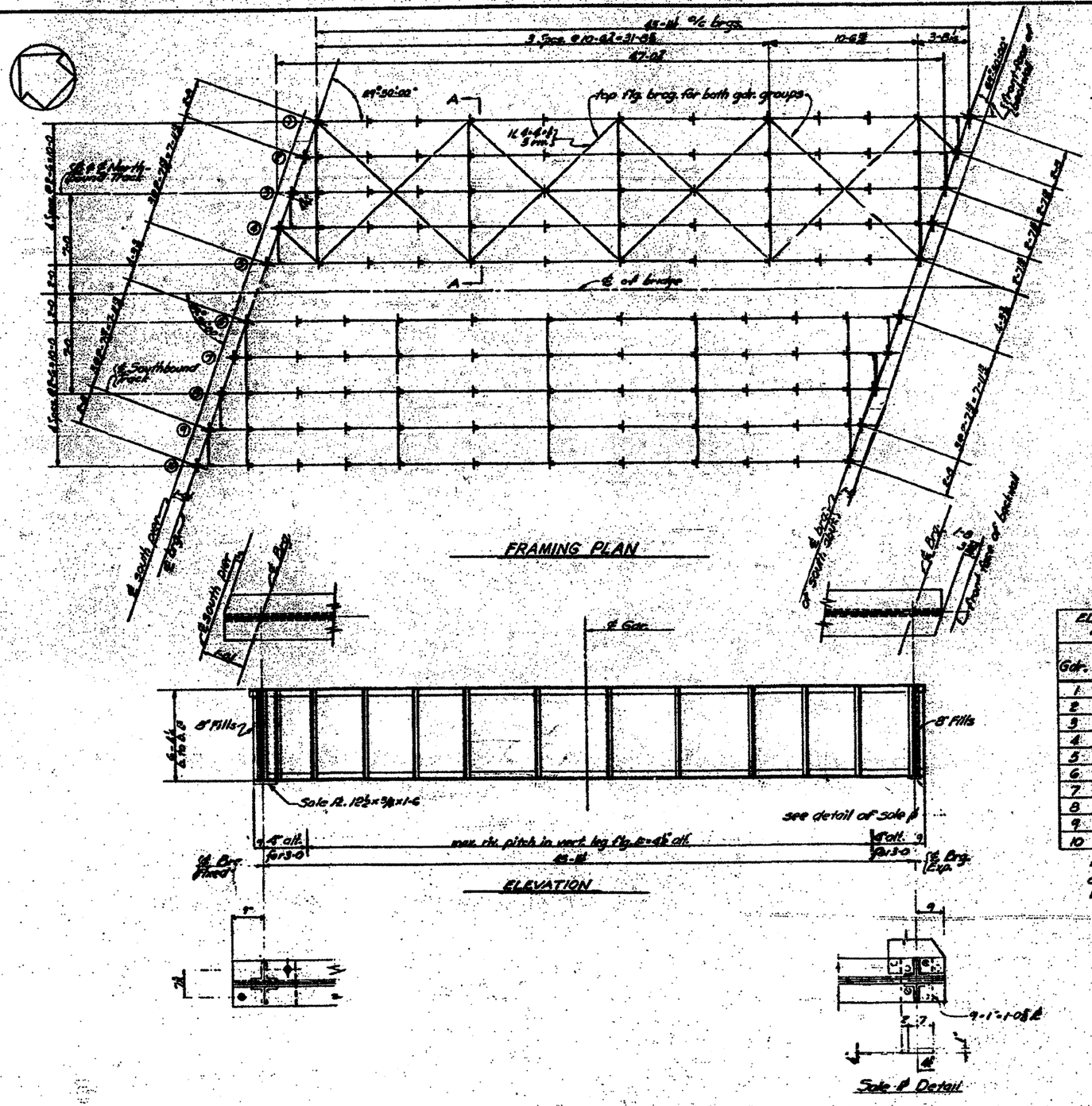
FRAMING PLAN SPAN 3

H. W. LOCHNER, INC.
ENGINEERS
DATE JULY 1960 CHICAGO, ILLINOIS SHEET NO. 48

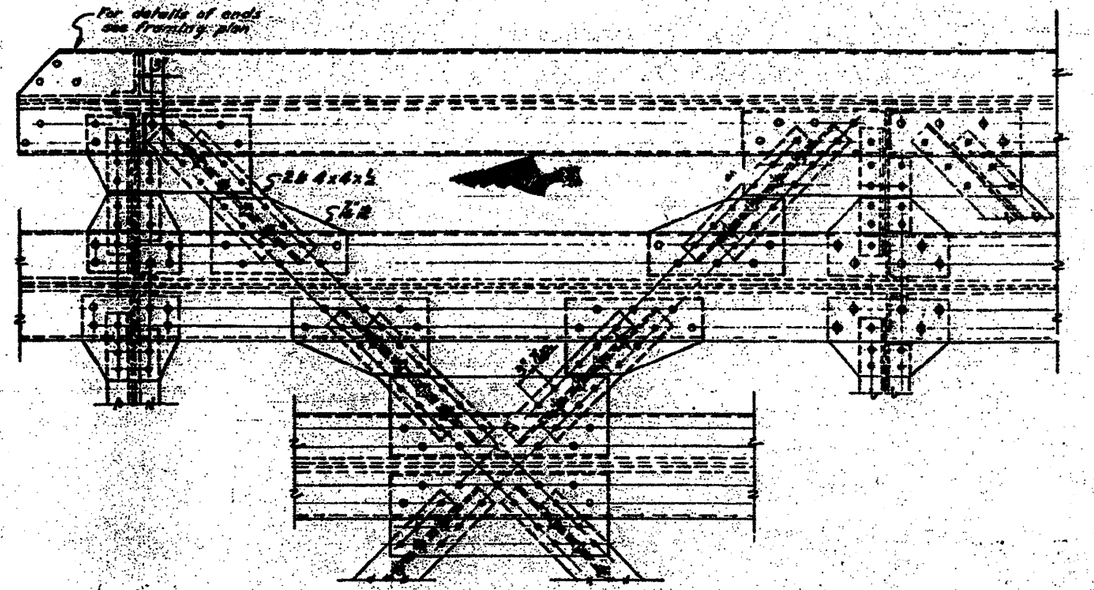
Designed By: L.K.
Drawn By: H.M.K.
Checked By: R.K. & P.A.E.

FOR INFORMATION ONLY

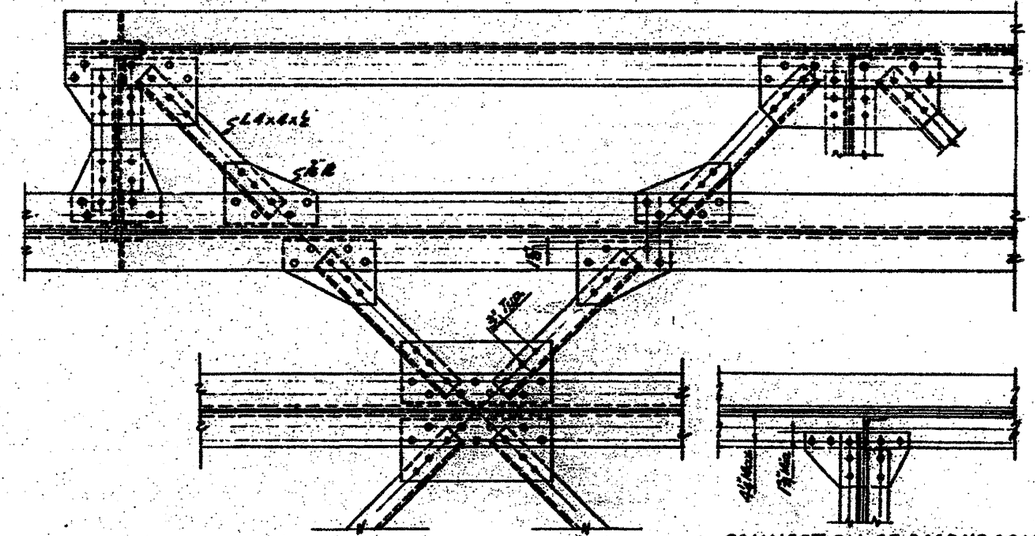
FAI-70	88-139	St. Clair		



FAI-70	Sec. 31-3	St. Clair	

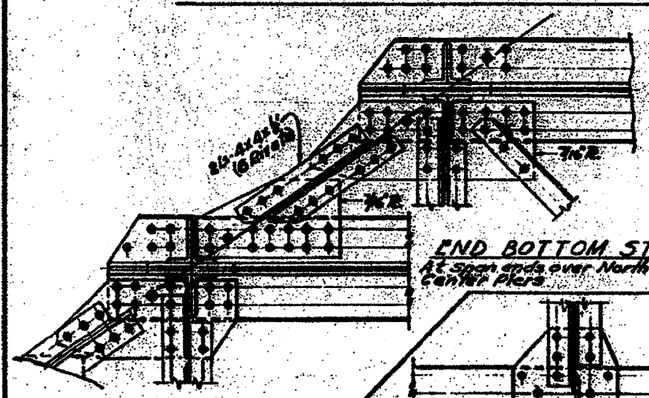


TOP LATERAL BRACING SPAN 1, 2 & 3

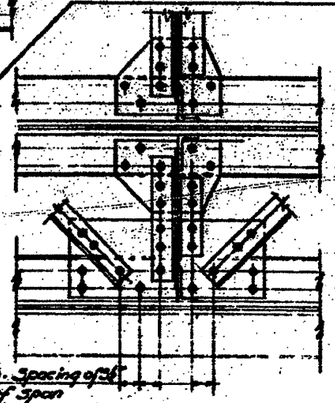


TOP LATERAL BRACING SPAN 4

CONNECTION OF DIAPHRAGM TO BOTTOM FLANGE FOR SPAN 4

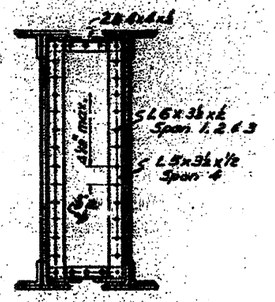


END BOTTOM STRUTS
At Span ends over North Abutment, North & Center Piers

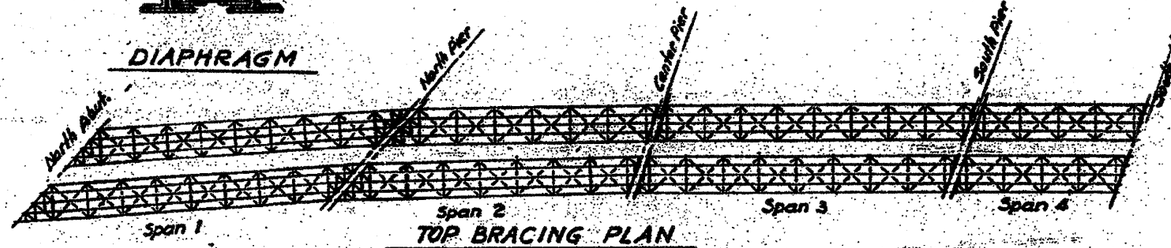


Use Min. Spacing of 24" near ℄ of Span

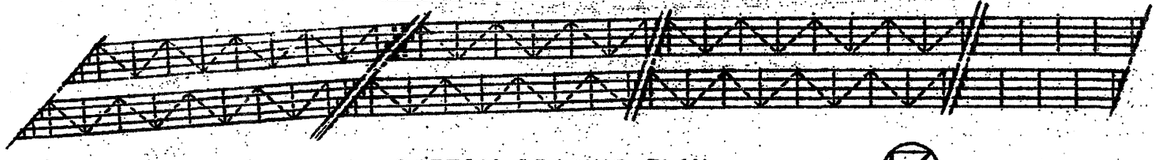
BOTTOM LATERAL BRACING SPAN 1 2 & 3



DIAPHRAGM



TOP BRACING PLAN



BOTTOM BRACING PLAN

NOTES
Edge distance not more than 2" or less than 1¼"
Laterals shall have one rivet pass through lateral and flange.

STATE OF ILLINOIS
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CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

I. & N. R.R. OVER WEST BOUND EXPWAY., RAMP "L" EAST BOUND EXPWAY AND RAMP "N" (31A 7)

LATERAL DETAILS

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

DATE JULY 1960 SHEET NO. 20

Designed by
Drawn by
Checked by

SHEET A-37
2316KK

FOR INFORMATION ONLY

	SEC.	COUNTY	SHEET NO.	TOTAL SHEETS
FAI-70	82-1 NB 82-1 SB	St. Clair	77	84
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

Total number of shims req'd for all R1 { 10 Shims ½" & ¼"

Note: All joints to be made as butt joints with packing (as shown). All corners of packing to be scarfed.

Cut to shape of web (Typical)

Set Level Post

℄ Bearings

Bolts 1¼"ø x 1'-11½" Hd. & 1'-6" Sq. Hd. Drill & Top Pin Hole in Base Plate

PLAN

℄ Girder

Pin For R1 & R2

1-1¾"ø hole for 1½"ø Turned Bolt

Bolts 1¼"ø x 1'-11½" Hd. & 1'-6" Sq. Hd. Drill & Top Pin Hole in Base Plate

Mt. Slab

Bearing area (note above)

3½"x3" ∠ Thipl.

SECTION A-A

EXPANSION BEARING R1

Pin

℄ 4"ø Pin

Holes to center of ℄ Pin Plug Tap in Hood at ℄ Pin

SECT. B-B

1-15/16"ø hole in 3"x3" Bar for 1½"ø Shoulder on 1½"ø Turned Bolt

Total number of shims req'd for all F1 { 10 Shims ½" & ¼"

PIN FOR F1 & F2

1-1¾"ø Hole for 1½"ø Turned Bolt

Core 3½"ø Bore 4"ø + ½"

Enclosure

℄ 4"ø Pin

Counterbore 5½"ø

FIXED BEARING F1

(ANNEALED CAST STEEL)

(FOR NORTH & CENTER PIERS) - 20 REQ'D

(SPAN 1) (SPAN 2)

1-1¾"ø Hole for 1½"ø Turned Bolt

2-1¾"ø Cored holes for 2-1½"ø Anchor Bolts

L 4"x3½"x½" Tap Conn. Rivets Ins. (Mill Bolt end)

Total number of Shims { 20 Shims ½" & ¼" (FOR NORTH ABUT.) 10 REQ'D

℄ R2

1½"ø Cored hole for 1½"ø Anchor Bolt

Bolts 1¼"ø x 1'-11½" Hd. & 1'-6" Sq. Hd. Drill & Top Pin Hole Note

Base Plate

℄ Girder

NOTE:- For Slab, Pin & Sect B-B on R2 and Similar to R1

Sand Packing

Pin hole Rad. 2"+⅛"

25" Rad. cut ½" deep for Pin Hole

Rad. Fillet (Typical)

Pin

Bolt Chairs

Total number of shims req'd for all F2 :- 10 Shims ½" & ¼"

EXPANSION BEARING R2

(For North & Center Piers) - 20 Req'd

(Span 1) (Span 2)

1-1¾"ø Hole for 1½"ø Turned Bolt

1½"ø Cored Hole for 1½"ø Anchor Bolt

Core 3½"ø Bore 4"ø + ½"

Counterbore 5½"ø

2-1¾"ø Cored holes for 2-1½"ø Anchor Bolts

Total number of Shims req'd for all C1 :- 10 Shims ½" & ¼"

EXPAN. BEARING C1

(ANNEALED CAST STEEL)

(FOR SOUTH ABUTMENT)

10 REQ'D

℄ C1 ~ ℄ Girder

℄ Brgs

PLAN

Total number of Shims req'd for all F3 :- 10 Shims ½" & ¼"

FIXED BEARING F3

ANNEALED CAST STEEL

(FOR SOUTH PIER)

(SPAN 4)

10 REQ'D

℄ Casting or Slab

℄ Girder

TYPICAL TOP VIEW

PIN FOR F3

Note:- Size of Shims = Size of Base Plates or Castings.

Note:
All material shall be Open-Hearth Structural Steel ASTM A7 unless noted otherwise.
Expansion shoes shall be detailed so that they can be disassembled for inspection.

DESIGNED BY	R.B.
DRAWN BY	R.B.
CHECKED BY	H.W.L.

FIXED BEARING F2

(ANNEALED CAST STEEL) (FOR SOUTH PIER) (SPAN 3) - 10 REQ'D

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
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CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

L. & N. R.R. OVER WEST BOUND EXPWAY, RAMP "L", EAST BOUND EXPWAY AND RAMP "M" (SR 7)

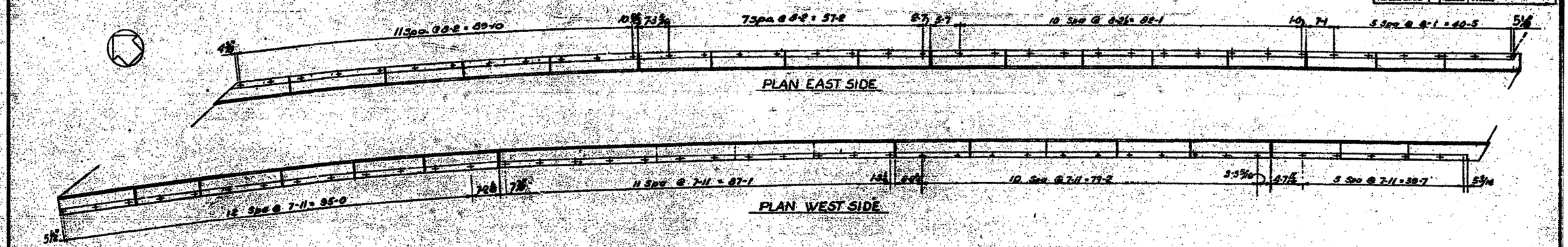
BEARING DETAILS

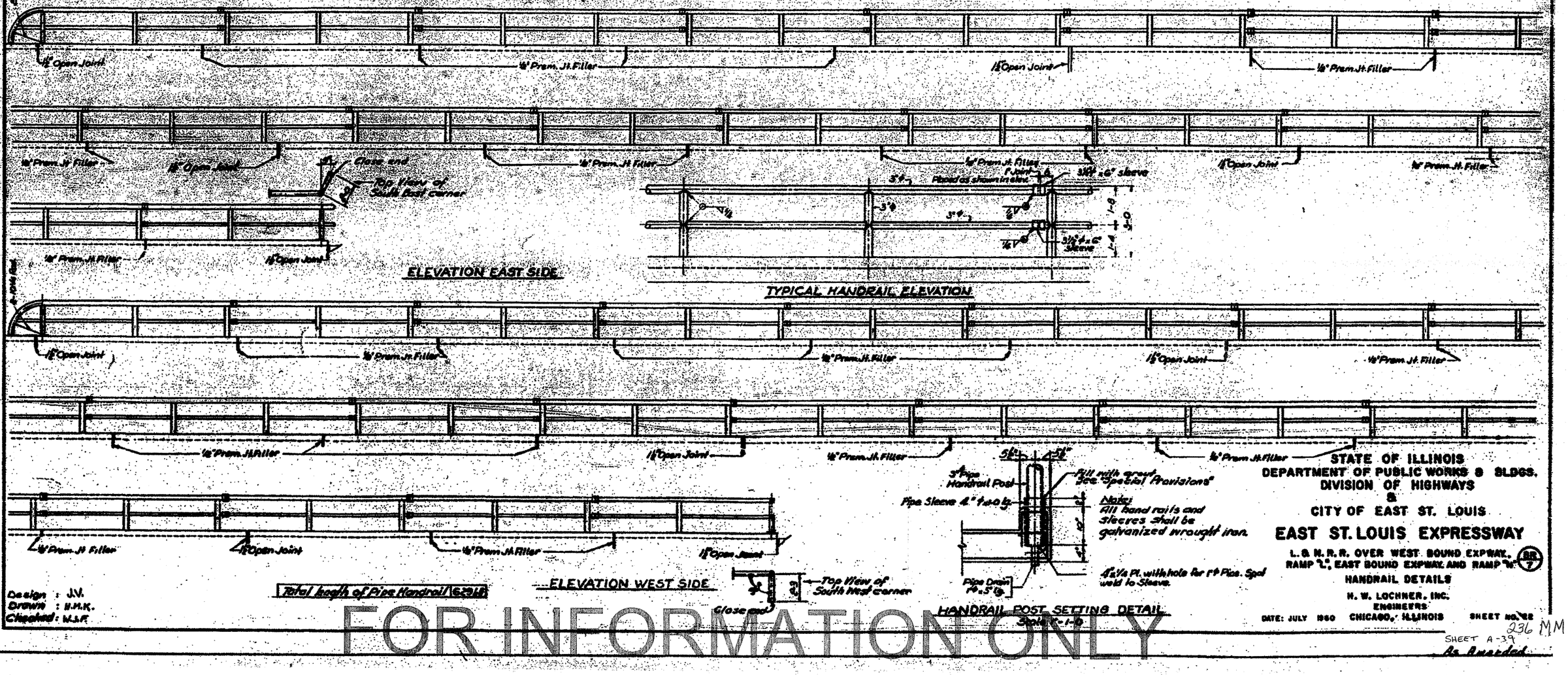
H. W. LOCHNER, INC.
ENGINEERS

DATE JULY 1960 CHICAGO, ILLINOIS SHEET NO. 21

FOR INFORMATION ONLY

FED. ROAD DIST. NO.	STATE	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-70	82-2-18	St. Clair	42	42
FED. AID PROJ. NO.	ILLINOIS	PROJECT		





Design : J.V.
Drawn : H.M.K.
Checked : M.S.F.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

L. & N. R. R. OVER WEST BOUND EXPWAY, RAMP "L", EAST BOUND EXPWAY AND RAMP "K" (SR 7)

HANDRAIL DETAILS

H. W. LOCHNER, INC.
ENGINEERS
DATE: JULY 1960 CHICAGO, ILLINOIS SHEET NO. 42

FOR INFORMATION ONLY

236 MM
SHEET A-39
As Amended

FAI-70	SEC. 82-1-10	COUNTY St. Clair		SHT. NO. 42A



Total length of Pipe Handrail 637 Lf.

Design : J.V.
Drawn : H.H.K.
Checked : W.J.F

Revision 6-28-61
Added Handrail for Bracket

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

I. C. R. R. OVER WEST BOUND EXPWY.
RAMP "L", EAST BOUND EXPWY. AND RAMP "K"

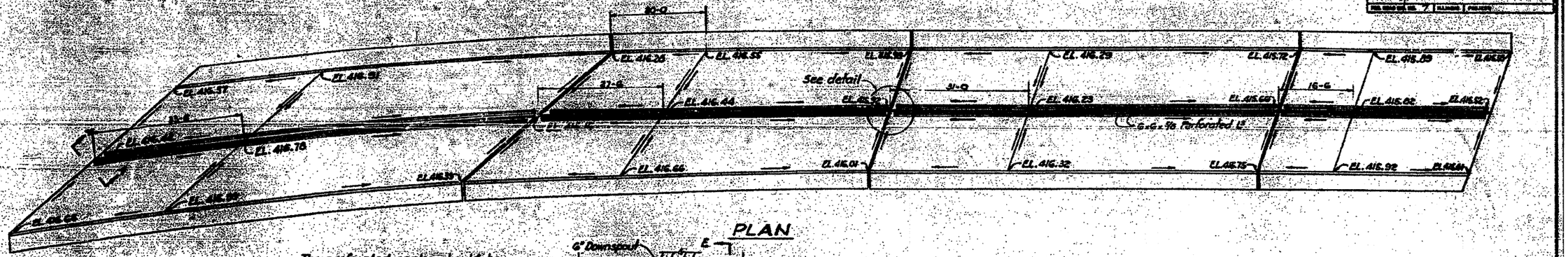
HANDRAIL DETAILS

H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET NO. 42A

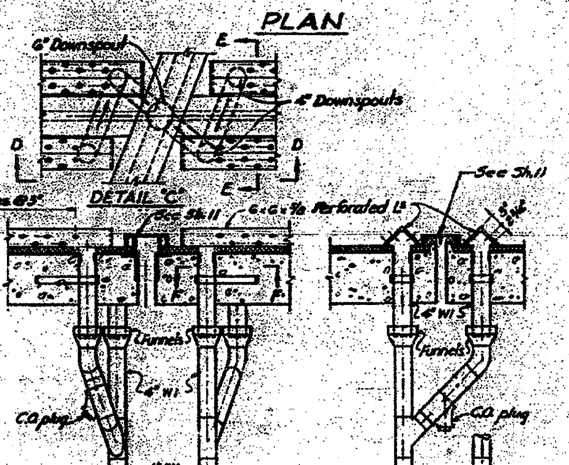
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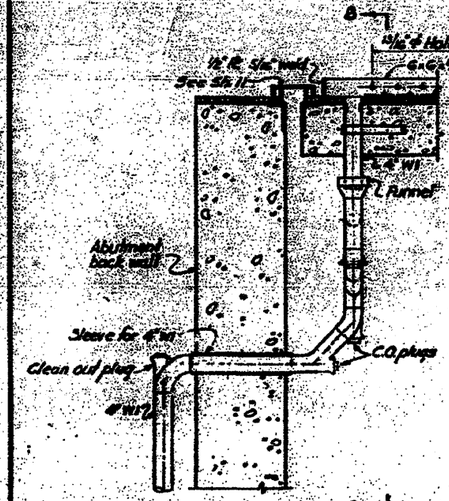
FOR INFORMATION ONLY



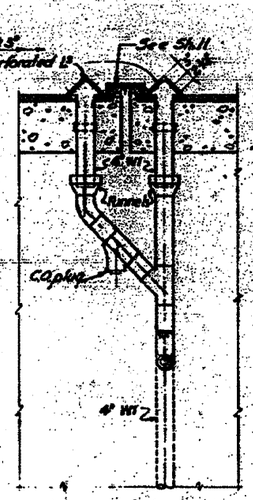
The perforated angles should be furnished in 10'-0 increments on curved slabs.

PLAN





SECTION A-A



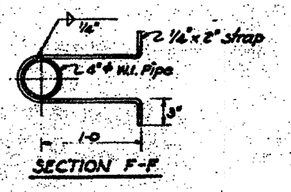
SECTION B-B

DOWNSPOUT AT ABUTMENTS

SECTION D-D

SECTION E-E

DOWNSPOUT AT PIERS



SECTION F-F

NOTE:
All Wrought iron pipe shall be standard weight, fittings shall be either screw joint or welded joint See special provisions.

Designed by : R.B.
Drawn by : M.E.
Checked by : F.D.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

L. & N. R.R. OVER WEST BOUND EXPWAY., RAMP "L" EAST BOUND EXPWAY AND RAMP "N" (SHEET 7)

DECK DRAINAGE DETAILS

H. W. LOCHNER, INC.
ENGINEERS
DATE JULY 1960 CHICAGO, ILLINOIS SHEET NO. 52

FOR INFORMATION ONLY

		COUNTY	SHEET NO.	TOTAL SHEETS
F.A.I. 70	82-116-3	ST. CLAIR	79	105

253-8½

9 spaces @ 25-0 = 225-0

Light Standard (By Others)

28-8½

Fence

8" Exp. Joint

El. 419.50

℄ Existing Ground Line

Inv. El. 406.0

Exp. Jt.

5" Constr. Jt.

Inv. El. 410.50

Inv. El. 415.84

Inv. El. 417.25

Inv. El. 417.50

4" Exp. Joint

El. 422.00

To connect to Southwest Wingwall Exchange Ave. Over Expressway Bridge, See Sheet No. 9

Inv. El. 396.75

Continuation of Drain Pipe by others

El. 398.50

Inv. El. 401.25

El. 395.75

El. 398.50

El. 401.25

El. 403.50

El. 405.75

6"ø Perf. Corr. Metal Pipe

El. 408.00

El. 410.50

El. 413.00

El. 415.50

ELEVATION.

Scale 1"=10'-0"

Retaining Wall S1 By Others

Face of Wall

6"ø Perf. Corr. Metal Pipe

26-0

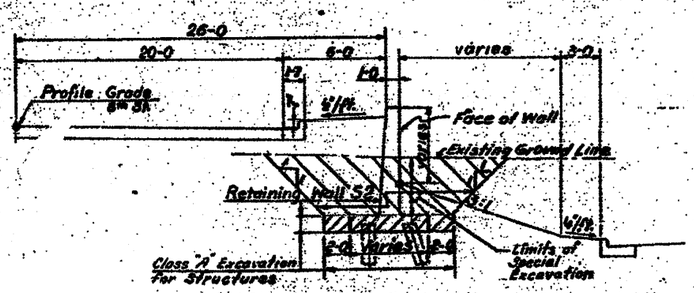
Sta. 3+65.068

Relocated 8th St. Profile Grade ℄ Base Line

Sta. 1+11.358

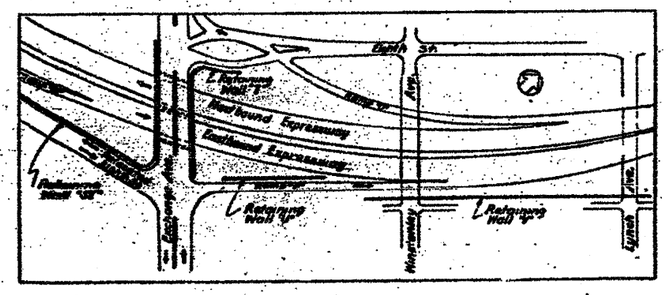
PLAN.

Scale 1"=10'-0"



TYPICAL SECTION.

Looking West.



LOCATION PLAN

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

RETAINING WALL "S2"
GENERAL PLAN

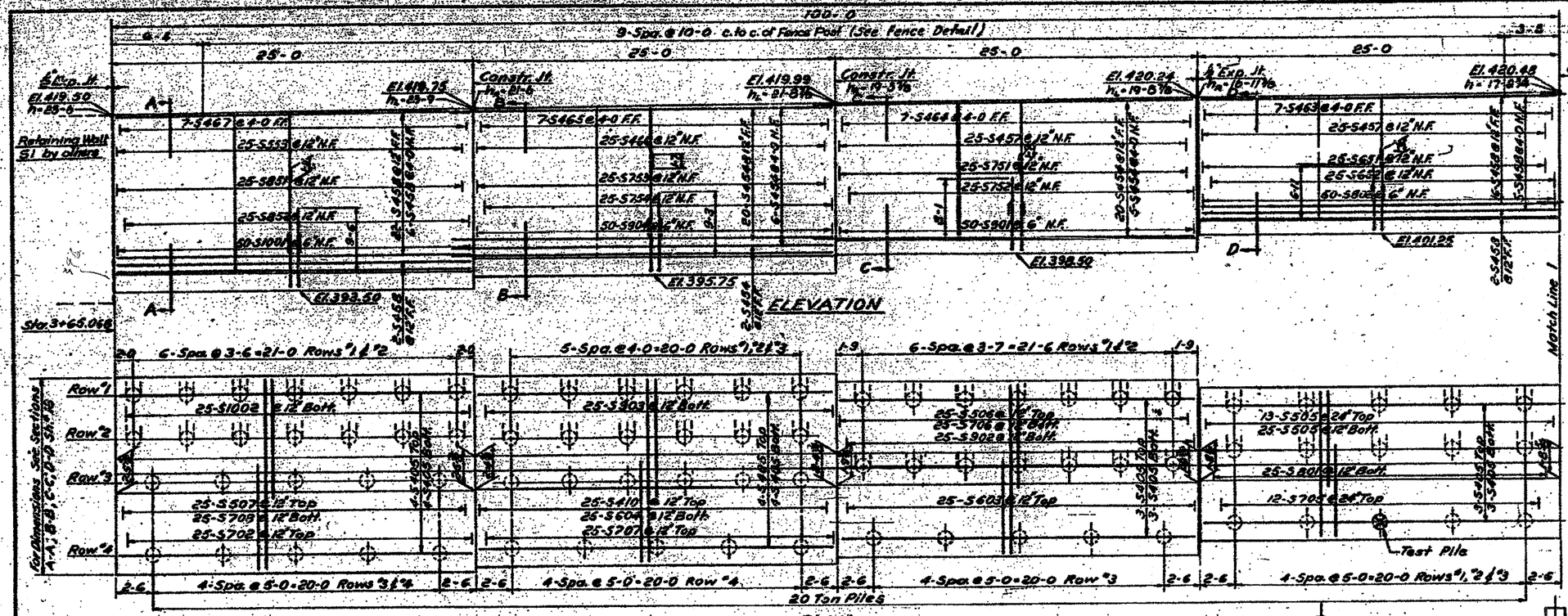
H. W. LOCHNER, INC.
ENGINEERS
DATE: APRIL 1958 CHICAGO, ILLINOIS SHEET NO. 16

Drawn by - E. W.
Checked by - A. T.

FOR INFORMATION ONLY

SHEET A-42, 236 PP

FISCAL YEAR OR CONTR. NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70	82-2IB-3	ST. CLAIR	79	41
FED. ROAD DIST. NO. 4	ILLINOIS	PROJECT		



NOTES.
For General Notes see Sheet No 1.
For Expansion Joint, Construction Joint and Drainage Details See Sheet No. 24.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

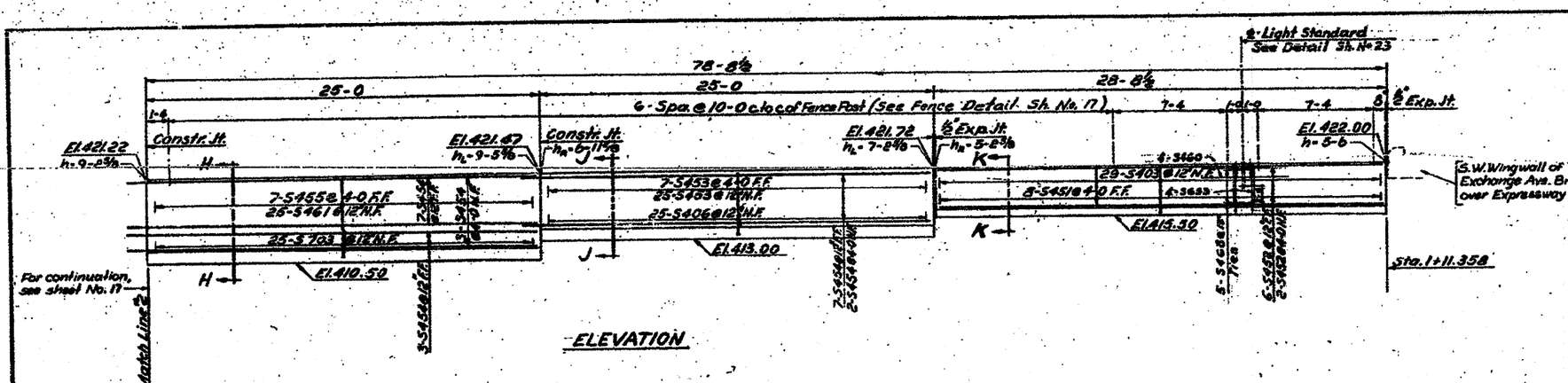
RETAINING WALL "32"
DETAILS

H. W. LOCHNER, INC.
ENGINEERS
DATE: APRIL 1958 CHICAGO, ILLINOIS SHEET NO. 17

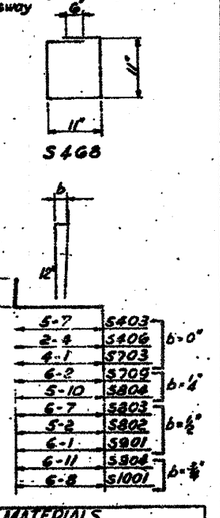
Designed by: F.Z.
Drawn by: E.M.
Checked by: S.K.

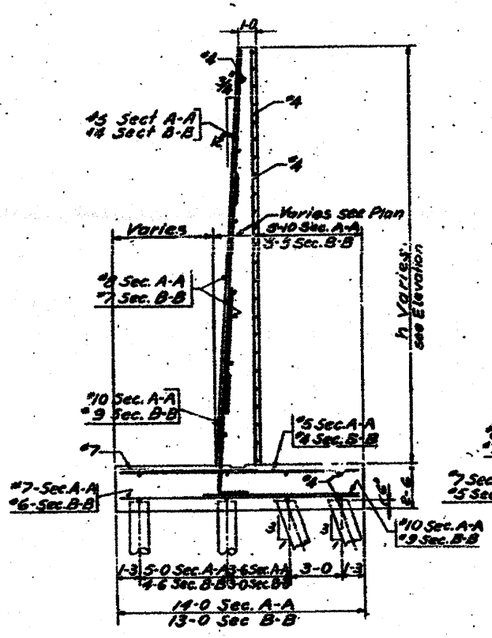
FOR INFORMATION ONLY

F.A.I.	SECTION	COUNTY	SHEET NO.	SHEETS
70	82-3 WB-1	ST. CLAIR	79	42

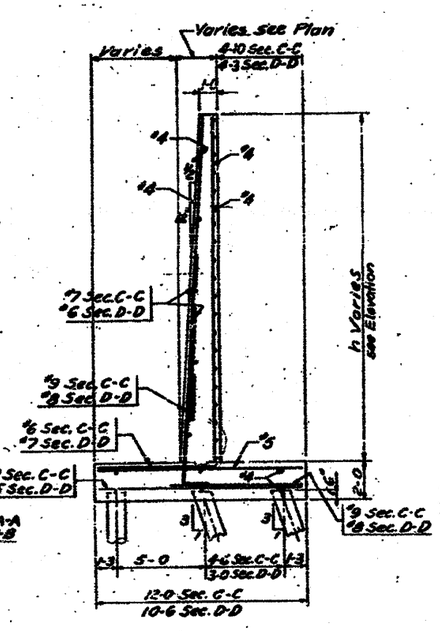


BAR SCHEDULE					
Location	Mark	No. Reqd.	Size	Length	Shape
FOOTING	S401	4	#4	28-2	
	S402	58		2-6	
	S403	29		6-3	
	S404	50		5-0	
	S405	52		24-6	
	S406	25		3-0	L
	S407	25		5-9	
	S408	25		6-9	
	S409	25		9-0	
	S410	25	#4	12-6	
	S501	25	#5	5-9	
	S503	25		7-9	
	S505	38		10-0	
	S506	25		11-6	
	S507	25	#5	13-6	
	S602	25	#6	9-0	
	S603	25	#6	2-0	
	S604	25	#6	12-6	
	S701	25	#7	6-9	
	S702	50		7-9	
	S703	25		8-2	
	S704	25		8-8	
	S705	12		6-6	
	S706	25		11-6	
	S707	25		7-3	
	S708	25		13-6	
	S709	14	#7	7-3	L
	S801	25	#8	6-6	
	S802	50		6-8	L
	S803	37		7-10	
	S804	34	#8	7-1	L
	S901	50	#9	7-6	L
	S902	25		7-9	
	S903	25		8-0	
	S904	50	#9	8-4	L
	S1001	50	#10	8-3	L
	S1002	25	#10	8-10	
STEM	S451	8	#4	5-1	
	S452	8		28-2	
	S453	32		6-10	
	S454	113		26-9	
	S455	7		8-1	
	S456	7		11-4	
	S457	50		6-8	
	S458	68		24-6	
	S459	7		13-1	
	S460	4		8-0	
	S461	25		7-10	
	S462	7		15-1	
	S463	7		16-10	
	S464	7		18-4	
	S465	7		20-7	
	S466	25		8-3	
	S467	7	#4	23-4	
	S468	5	#4	2-2	
	S551	19	#5	12-1	
	S552	18		4-3	
	S553	22		10-10	
	S554	17		4-0	
	S555	25	#5	6-2	
	S651	25	#6	8-4	
	S652	25	#6	8-4	
	S653	4	#6	6-7	L
	S751	25	#7	10-5	
	S752	25		6-0	
	S753	25		11-3	
	S754	25	#7	6-8	
	S851	25	#8	14-3	
	S852	25	#8	7-7	

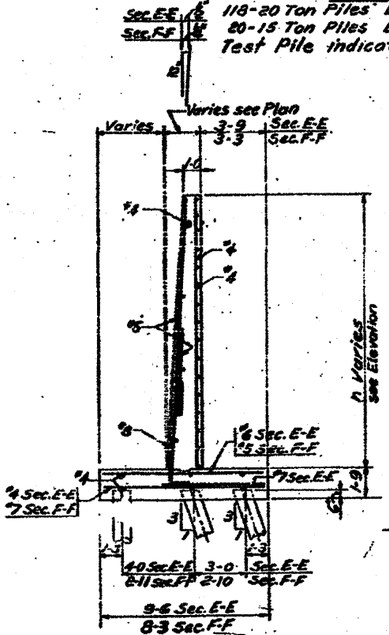




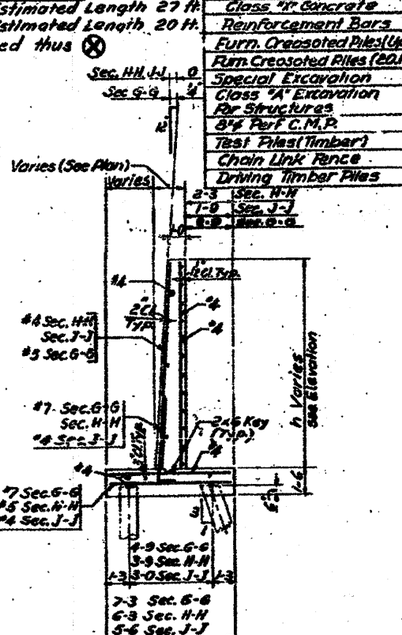
SECTION: A-A & B-B



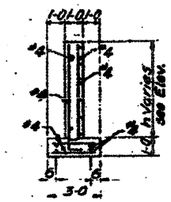
SECTION: C-C & D-D



SECTION: E-E & F-F



SECTION: G-G; H-H & J-J



SECTION K-K

PILE DATA	
Sec. E-E	118-20 Ton Piles Estimated Length 27 ft.
Sec. F-F	20-15 Ton Piles Estimated Length 20 ft.
	Test Pile indicated thus ⊗

BILL OF MATERIALS		
Class "A" Concrete	C.Y.	345.0
Reinforcement Bars	Lbs.	27,210
Furn. Creosoted Piles (Up to 20')	Lin. Ft.	400
Furn. Creosoted Piles (20' to 30')	Lin. Ft.	3186
Special Excavation	C.Y.	2016
Class "A" Excavation for Structures	C.Y.	230
8¾" Perf C.M.P.	Lin. Ft.	256
Test Piles (Timber)	Ea.	1
Chain Link Fence	Lin. Ft.	850
Driving Timber Piles	Lin. Ft.	3586

Designed by: A.T.
Drawn by: E.M.
Checked by: S.K.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

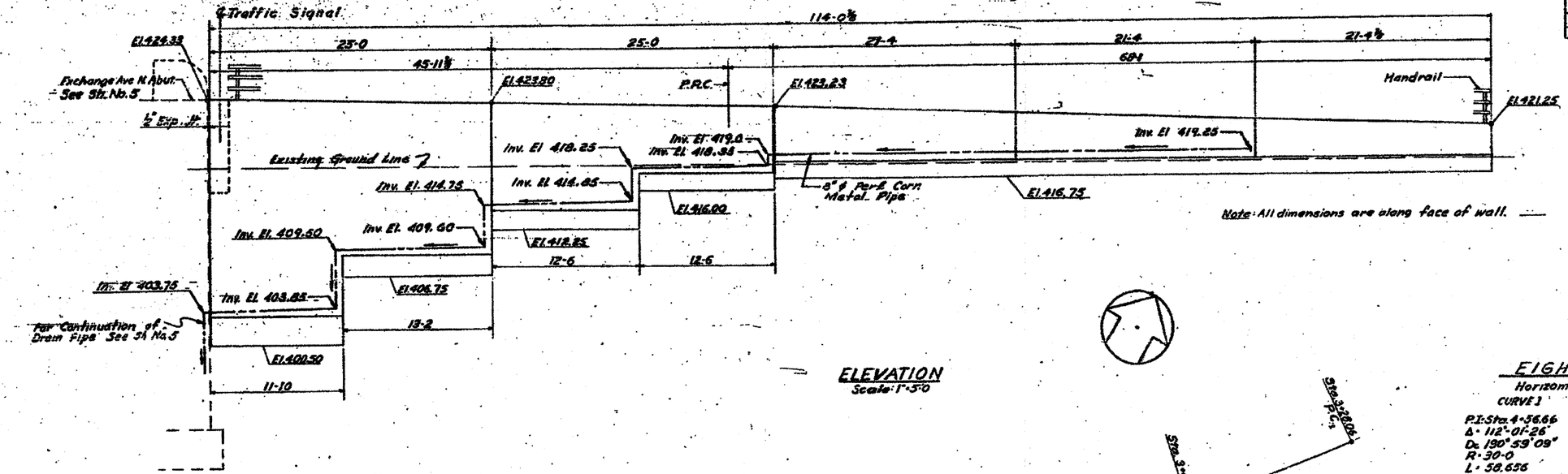
RETAINING WALL "S2" DETAILS

H. W. LOCHNER, INC.
ENGINEERS
DATE: APRIL 1958 CHICAGO, ILLINOIS SHEET NO. 16

FOR INFORMATION ONLY

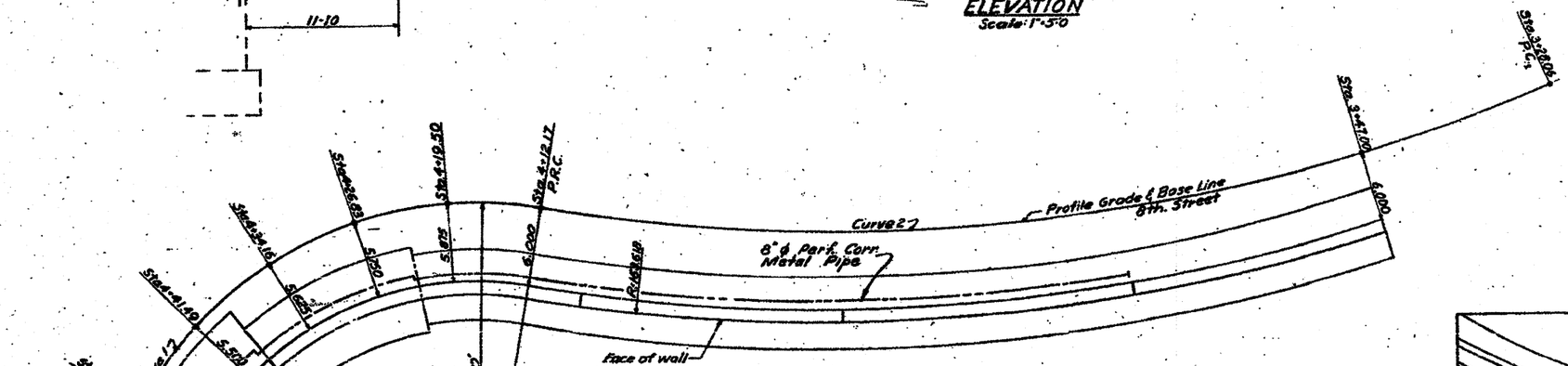
SHEET 44
236 RR

F.A.I.-Rte. 64-SIN-3	ST. CLAIR	79	43

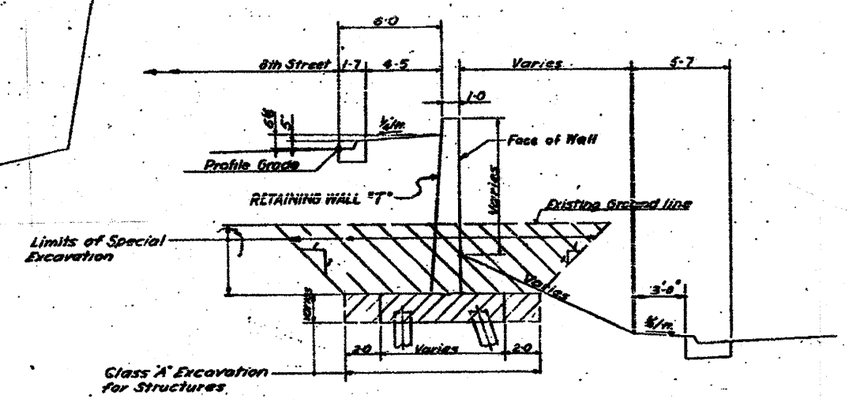


Note: All dimensions are along face of wall.

ELEVATION
Scale: 1"=5'0



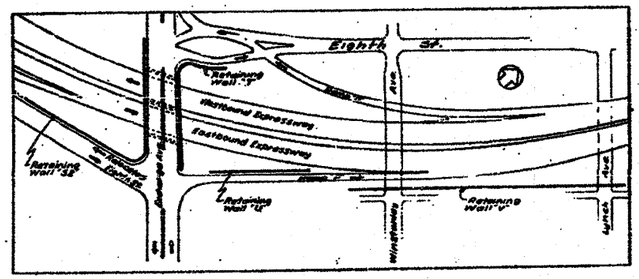
PLAN
Scale: 1"=5'0



TYPICAL SECTION
Looking North

EIGHTH STREET
Horizontal Curve Data

CURVE 1	CURVE 2
P.I. Sta. 4+56.66	P.I. 3+71.15
Δ = 112°-01'-26"	Δ = 30°-46'-09"
Dc 190°59'09"	Dc 36°-34'-59"
R = 30-0	R = 156.618
L = 58.636	L = 84.10
T = 44.407	T = 43.09
E = 23.67	E = 5.77



LOCATION PLAN

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

RETAINING WALL "T"
GENERAL PLAN

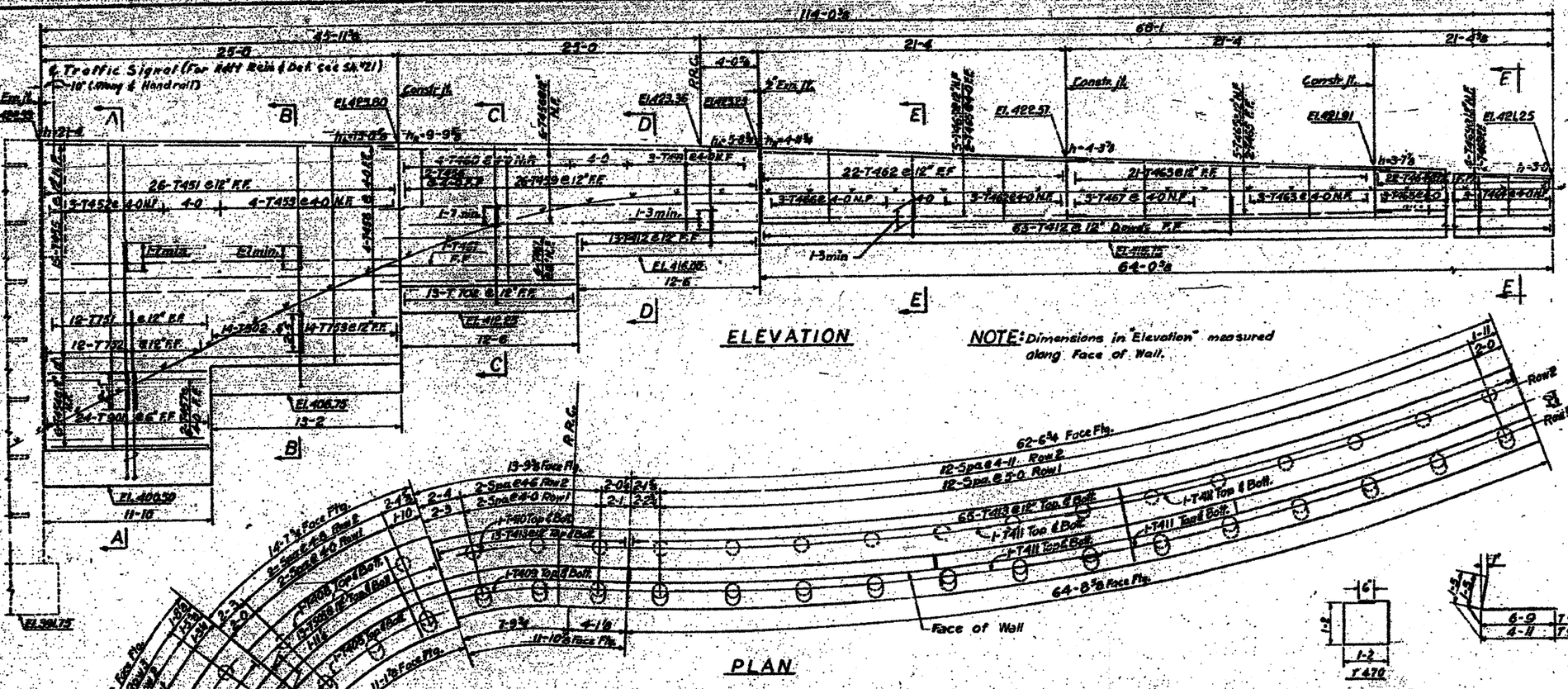
H. W. LOCHNER, INC.
ENGINEERS
DATE: APRIL 1958 CHICAGO, ILLINOIS SHEET NO. 19

Drawn by: EF
Checked by: M. N.

SHEET A-45
236 SS

FOR INFORMATION ONLY

SECTION	COUNTY	SHEET NO.	SHEET NO.
F.A.I.-70 W.S.H.P.S.	ST. CLAIR	79	44



BAR SCHEDULE

MARK	NO. REQ'D	SIZE	LENGTH	SHAPE
T401	2	4	8-6	
T402	2		11-0	
T403	2		12-6	
T404	2		14-3	
T405	4		11-4	
T406	2		15-0	
T407	2		15-2	
T408	2		13-6	
T409	2		11-8	
T410	2		12-10	
T411	2		22-2	
T412	78	4	3-6	L
T413	156	4	5-0	
T501	6	5	12-0	
T502	14	5	9-0	
T503	26	5	6-0	
T701	14	7	9-0	
T702	13	7	8-0	L
T901	24	9	8-8	L
T902	14	9	6-4	L
T1001	12	10	12-0	
T1002	6	10	8-2	
T451	26	4	8-8	
T452	3		20-11	
T453	4		14-10	
T454	6		11-7	
T455	15		24-8	
T456	8		26-5	
T457	2		12-7	
T458	4		25-6	
T459	33		5-7	
T460	4		9-5	
T461	5		13-4	
T462	25		4-2	
T463	24		3-8	
T464	25		2-10	
T465	14		22-5	
T466	3		4-7	
T467	3		3-10	
T468	3		3-3	
T469	6	4	21-0	
T470	4	4	5-2	
T631	4	6	10-8	
T751	12	7	7-0	
T752	12	7	11-9	
T753	14	7	7-3	

FOOTING

STEM

PILE DATA

25 - 20 Ton Piles Estimated average length 27 ft.
38 - 15 Ton Piles Estimated average length 20 ft.
Test Pile indicated thus ⊗

BILL OF MATERIALS

Class "A" Concrete	Cu. Yd.	949
Reinforcement Bars	Lbs.	3080
Furn. Creosoted Piles Up to 20'	Lin. Ft.	760
Furn. Creosoted Piles 20' to 35'	Lin. Ft.	627
Special excavation	Cu. Yd.	353
Class "A" excavation for structures	Cu. Yd.	82
8" ø Perf. C.M.P.	Lin. Ft.	109
Test Piles (Timber)	Ea.	1
Driving Timber Piles	Lin. Ft.	1381

NOTES: For General Notes see Sh. No. 1
For Expansion Joint, Construction Joint and Dreinage details see Sh. No. 26
Bend all circular horizontal bars in field

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

RETAINING WALL "T"
DETAILS

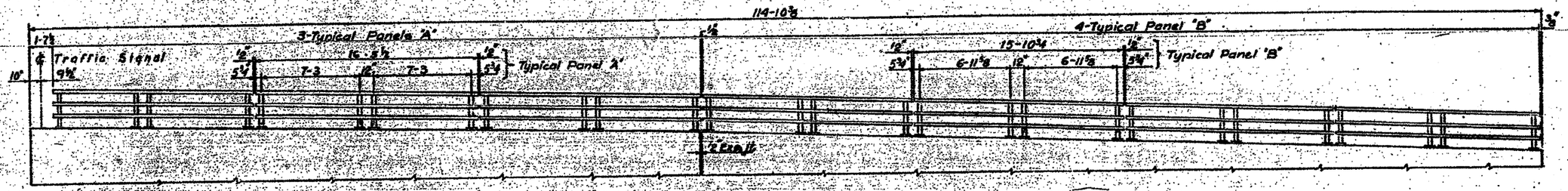
H. W. LOCHNER, INC.
ENGINEERS
CHICAGO, ILLINOIS

DATE: APRIL 1958 SHEET NO. 26

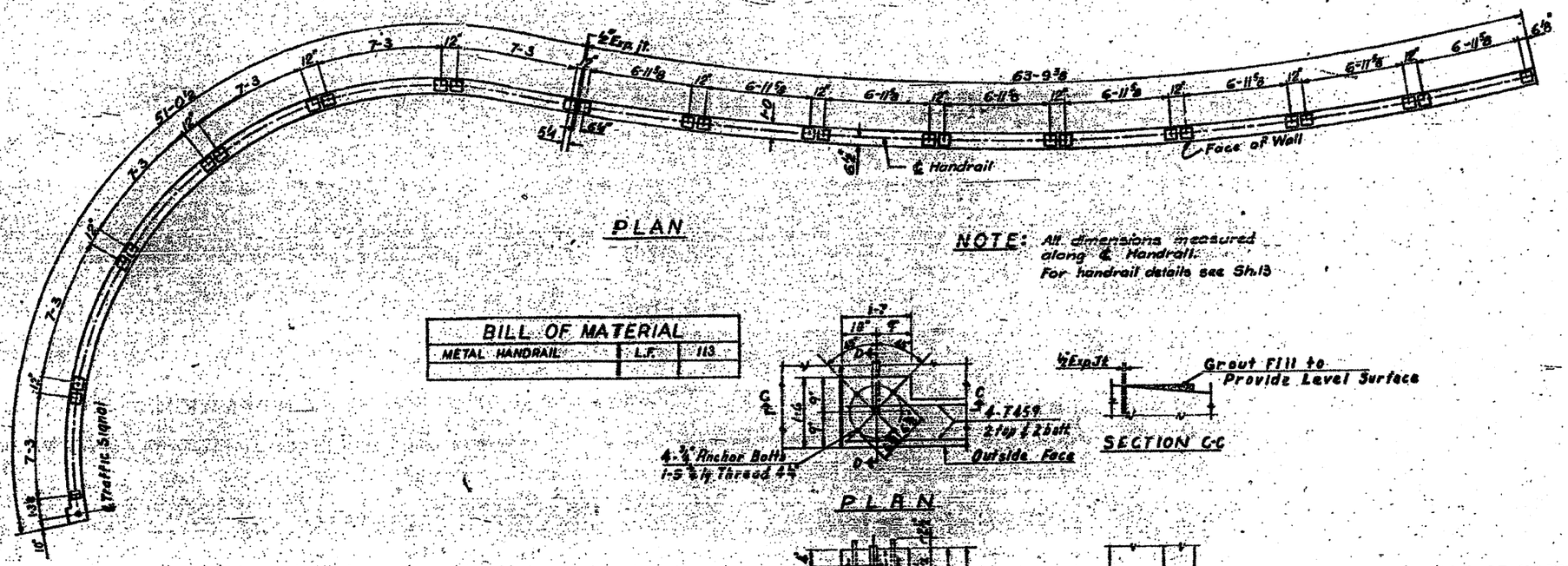
Designed by: SKrFZ
Drawn by: V.B.
Checked by: H.N.

FOR INFORMATION ONLY

PROJECT OR JOB NO.	SEC.	SHEET	SHEET NO.	TOTAL SHEETS NO.
F.A.I.-70	9R-1H0-3	ST. CLAIR	79	85
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT		



ELEVATION



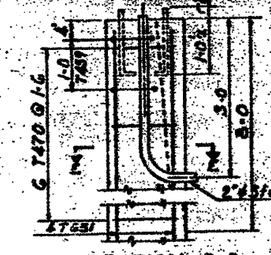
PLAN

NOTE: All dimensions measured along ℄ Handrail.
For handrail details see Sh.13

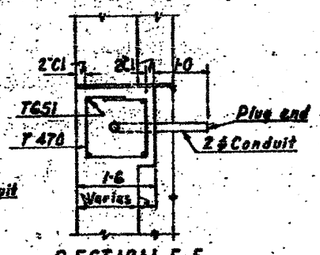
BILL OF MATERIAL		
METAL HANDRAIL	L.F.	113

SECTION C-C

PLAN



SECTION D-D



SECTION E-E

DETAIL AT TRAFFIC CONTROL SIGNAL

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

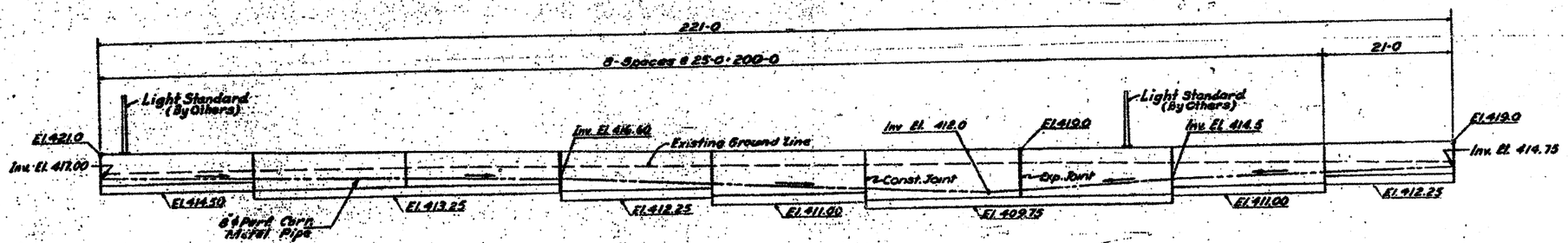
RETAINING WALL "T"
RAILING

H. W. LOCHNER, INC.
ENGINEERS
DATE: APRIL 1958 CHICAGO, ILLINOIS SHEET NO. 21

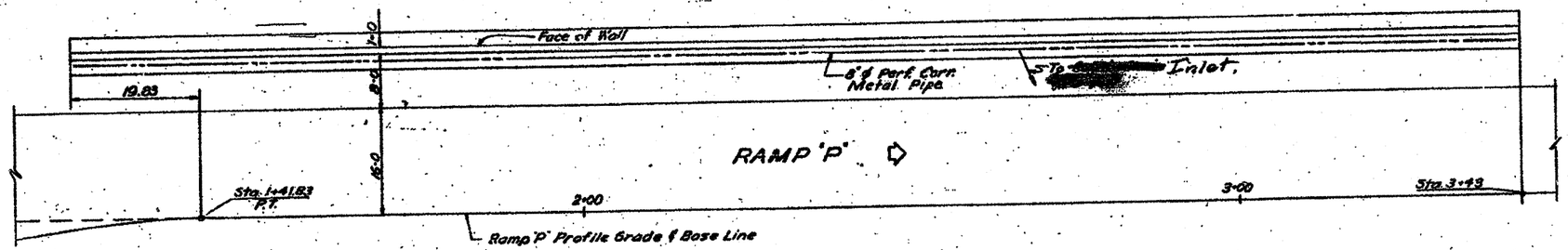
Designed by: V.B.
Drawn by: V.B.
Checked by: H.N.

FOR INFORMATION ONLY

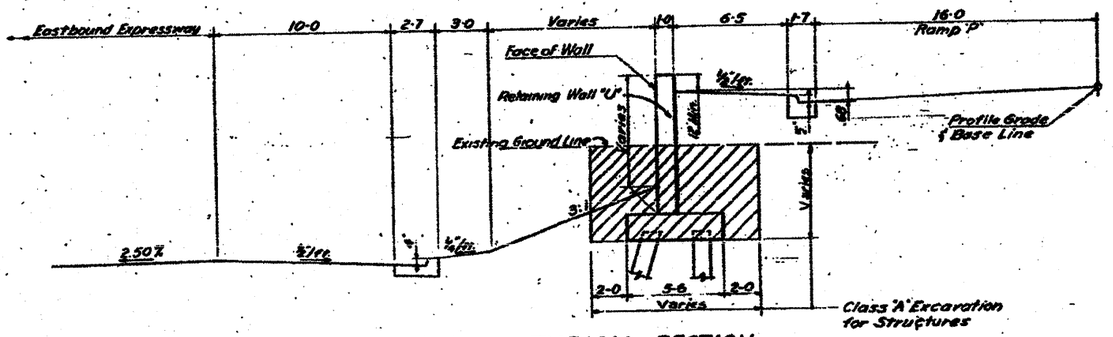
SECT.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-70 82 1H&3	ST. CLAIR	79	46



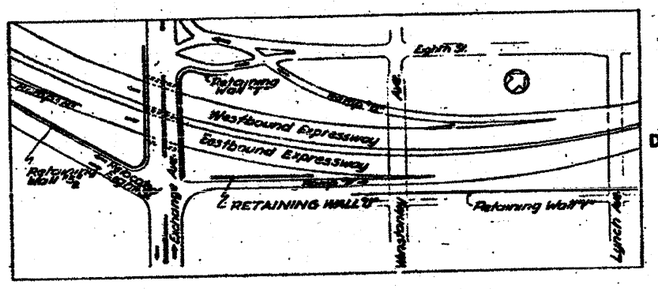
ELEVATION
Scale 1"=10'-0



PLAN
Scale 1"=10'-0



TYPICAL SECTION
LOOKING NORTHEAST



LOCATION PLAN

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

RETAINING WALL "U"
GENERAL PLAN

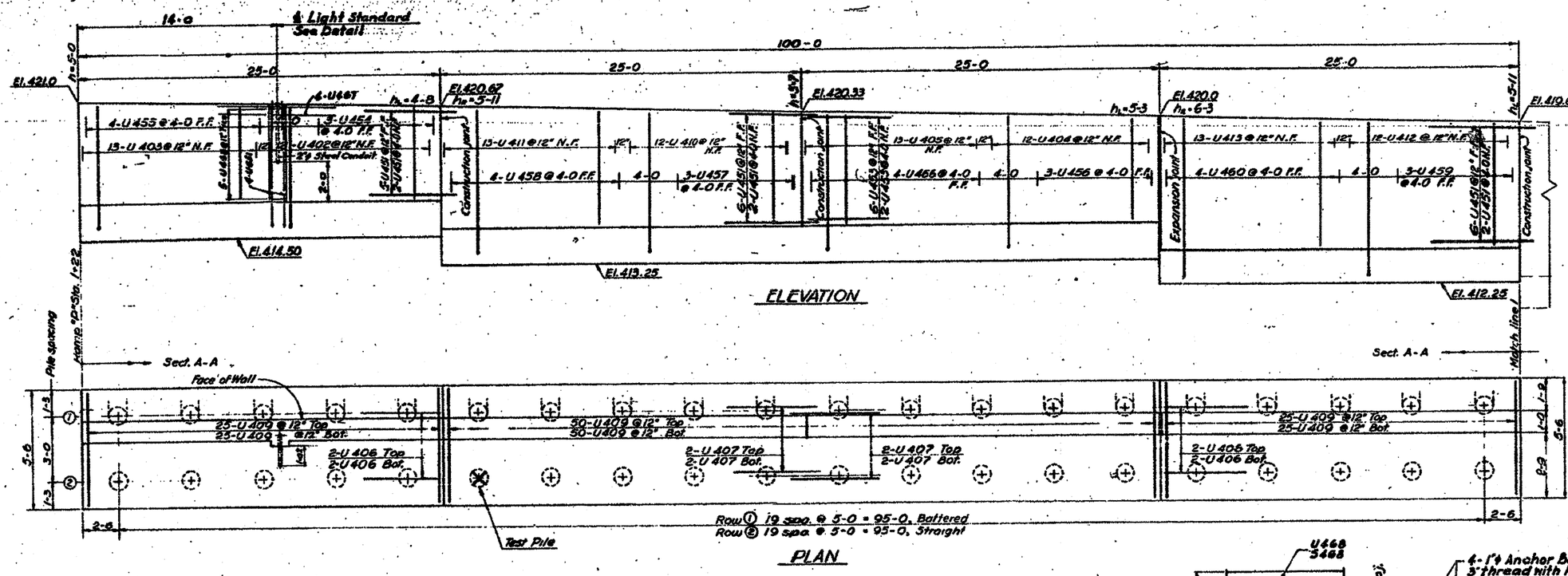
H. W. LOCHNER, INC.
ENGINEERS
DATE: APRIL 1958 CHICAGO, ILLINOIS SHEET NO. 22

Drawn by: [redacted]
Checked by: A.T.

FOR INFORMATION ONLY

SHEET A-48
236 VV

F.A.I.-70	103-2 HES	ST. CLAIR	79	43



STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
&
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

RETAINING WALL "U"
DETAILS

H. W. LOCHNER, INC.
ENGINEERS
DATE: APRIL 1958 CHICAGO, ILLINOIS SHEET NO. 23

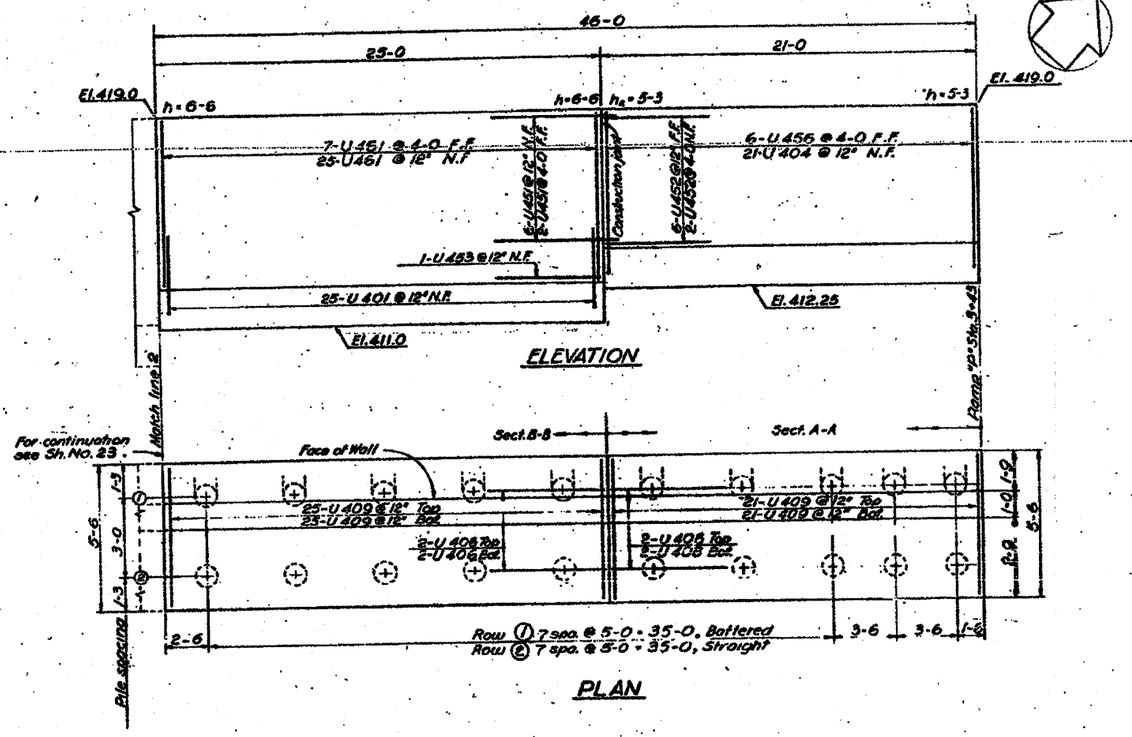
Designed by: A.T.
Drawn by: E.L.C.
Checked by: H.K.K.

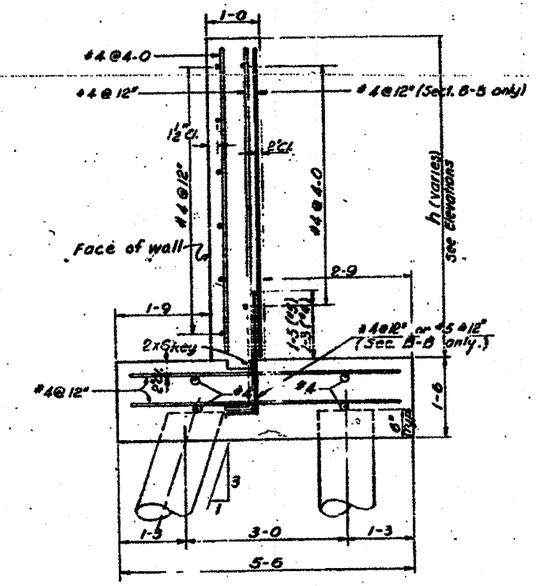
FOR INFORMATION ONLY

FED. ROAD DIST. NO.	STATE	DISTRICT	TOTAL SHEETS	SHEET NO.
F.A.I.- 70 (23-2)18-3	ILLINOIS	ST. CLAIR	79	48

PILE DATA

89 – 15 Ton piles. Estimated average length 20 ft.
Test Pile indicated thus ⊗.





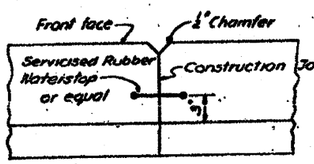
BAR SCHEDULE

LOCATION	MARK	NO. REQ.	SIZE	LENGTH	SHAPE
FOOTING	U501	50	#5	3-5	
	U401	50	#4	3-3	
	U402	12		6-1	
	U403	13		6-3	
	U404	33		6-8	
	U405	13		6-10	
	U406	16		24-6	
	U407	16		25-6	
	U408	4		20-6	
	U409	442		3-0	
	U410	12		7-0	
	U411	13		7-2	
	U412	12		7-4	
	U413	13	#4	7-6	
STEM	U451	50	#4	26-0	
	U452	8		20-9	
	U453	21		24-6	
	U454	3		4-6	
	U455	4		4-8	
	U456	9		5-1	
	U457	3		5-5	
	U458	4		5-7	
	U459	3		5-9	
	U460	4		5-11	
	U461	32		6-4	
	U462	28		6-8	
	U463	4		6-10	
	U464	60		7-7	
	U465	4		7-9	
	U466	4	#4	5-3	
	U467	8	#4	8-0	
	U468	10	#4	4-2	
	U651	4	#6	6-6	
	U652	4	#6	7-7	

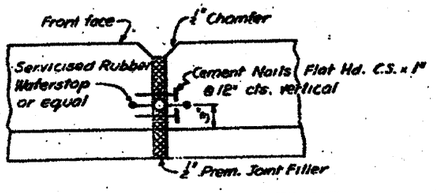
BILL OF MATERIALS

CLASS "X" CONCRETE	C.Y.	117.7
REINFORCEMENT BARS	Lbs.	5100
TEST PILES (TIMBER)	Ea.	1
FURN. CREOSOTED PILES (Up to 20')	Lin. ft.	1780
DRIVING TIMBER PILES	Lin. ft.	1780
CLASS "A" EXCAVATION FOR STRUCTURES	C.Y.	432
8"ϕ PERF. C.M.P.	Lin. ft.	222

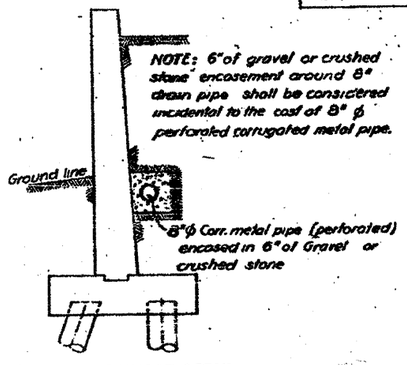
NOTE
Typical construction joint, expansion joint and drainage detail shown here are for battered walls, but they apply for walls that are not battered also.



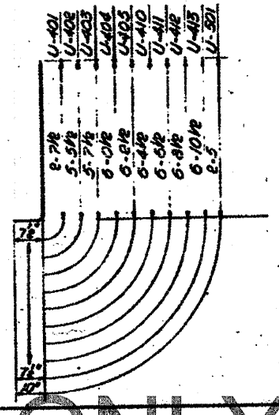
TYPICAL CONSTRUCTION JOINT

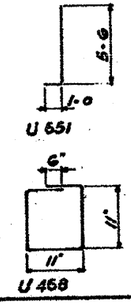


TYPICAL EXPANSION JOINT



TYPICAL DRAINAGE DETAIL
For Layout of Drainage see General Plan





STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
8"
CITY OF EAST ST. LOUIS

EAST ST. LOUIS EXPRESSWAY

RETAINING WALL "U"
DETAILS

H. W. LOCHNER, INC.
ENGINEERS
DATE: APRIL 1958 CHICAGO, ILLINOIS SHEET NO. 24

Designed by: A.T.
Drawn by: E.L.C.
Checked by: K.K.K.

SHEET A-50
23e XX

FOR INFORMATION ONLY