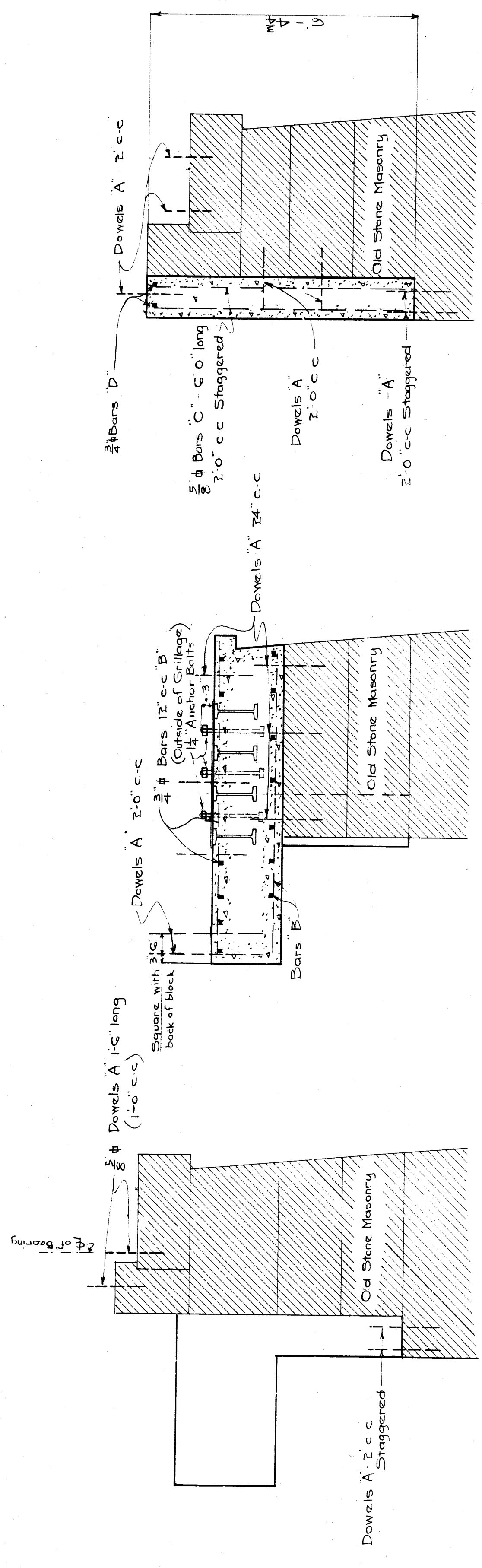
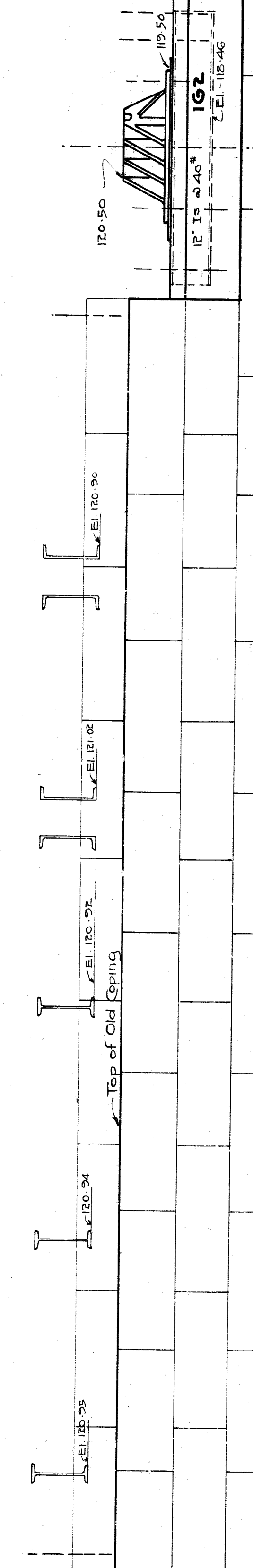
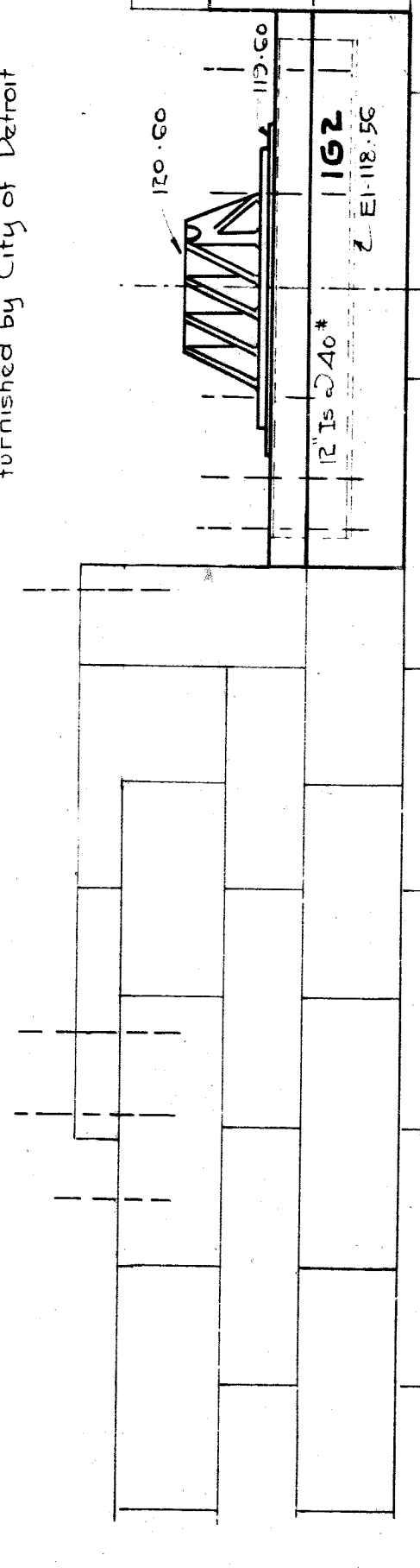


Grillage Casting & Bolts furnished by City of Detroit

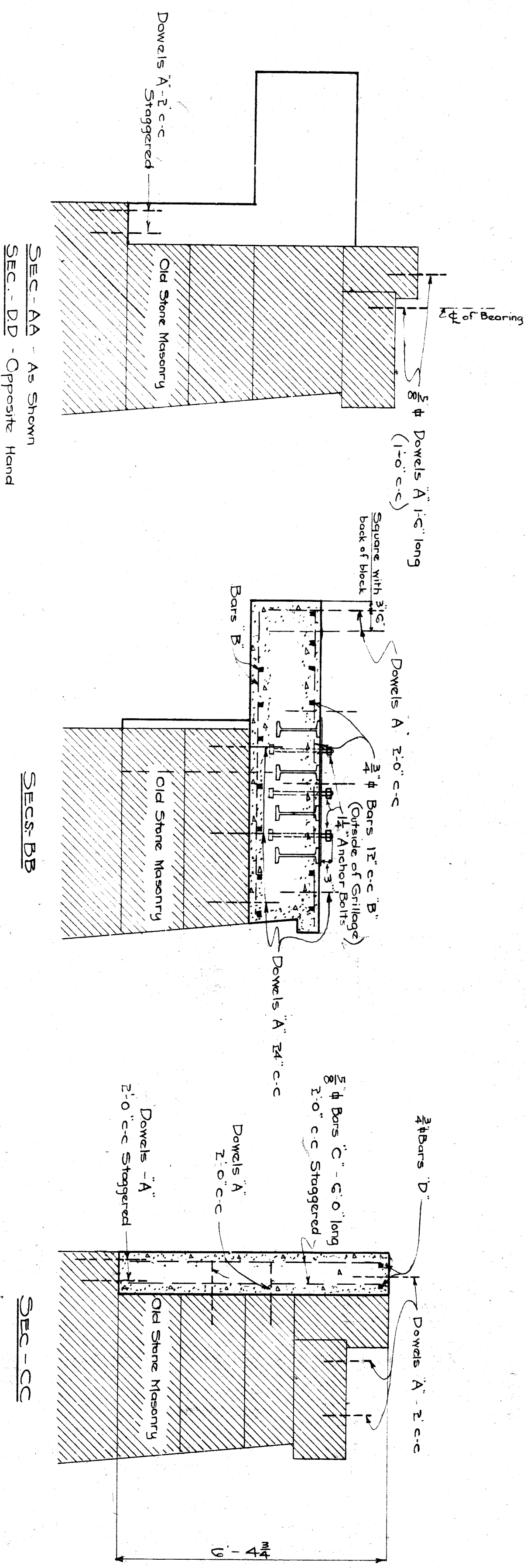
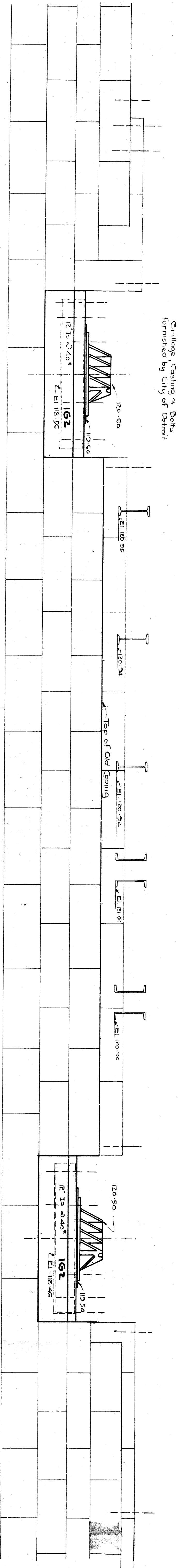
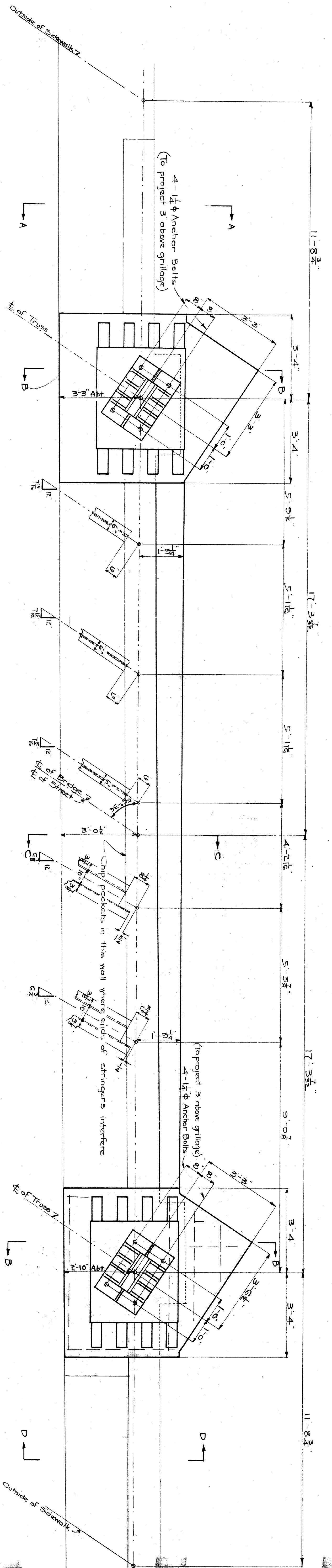


SEC-AA - As Shown  
SEC-DD - Opposite Hand

**NOTES**  
Concrete - 14 c y. (approx.)  
Reinforcing - #14's  
Concrete to be composed of 1 part cement, 2 parts sand and 3 parts stone. Exposed corners to be beveled.  
Reinforcing bars to be securely wired together at each intersection. At splices they shall lap for a length of 24 diameters and shall be securely wrapped with iron wire.

NO.	SIZE	LENGTH	MARK	LOCATION
1	1/2"	1'-0"	A	
2	3/8"	6'-0"	B	
3	1/2"	4'-0"		
4	1/2"	2'-0"		
5	3/8"	6'-0"	C	
6	3/8"	27'-0"	D	

**M.C.R.R. - MAIN LINE DIV.**  
**BRIDGE - 0-82 HOWARD ST.**  
**CHANGES IN EAST ABUTMENT**  
(FIXED END)  
SCALE: 1/2" = 1 FOOT  
DRAWN BY: J.C.M. Mar. 12, 1921  
CHECKED BY: H.S. 3-20-21  
APPROVED: \_\_\_\_\_  
TRACED BY: \_\_\_\_\_  
REVISED: J.C.M. 5-19-21, 7-1921  
BRIDGE ENGINEER SHEET **B** OF **X059** 0.82 M.L. #2



**NOTES**

Concrete - 14 c.y. (approx)  
 Reinforcing - 1145#  
 Concrete to be composed of 1 part cement, 2 parts sand and 3 parts stone. Exposed corners to be beveled  $\frac{3}{4}$ ".

Reinforcing bars to be securely wired together at each intersection. At splices they shall lap for a length of 24 diameters and shall be securely wrapped with iron wire.

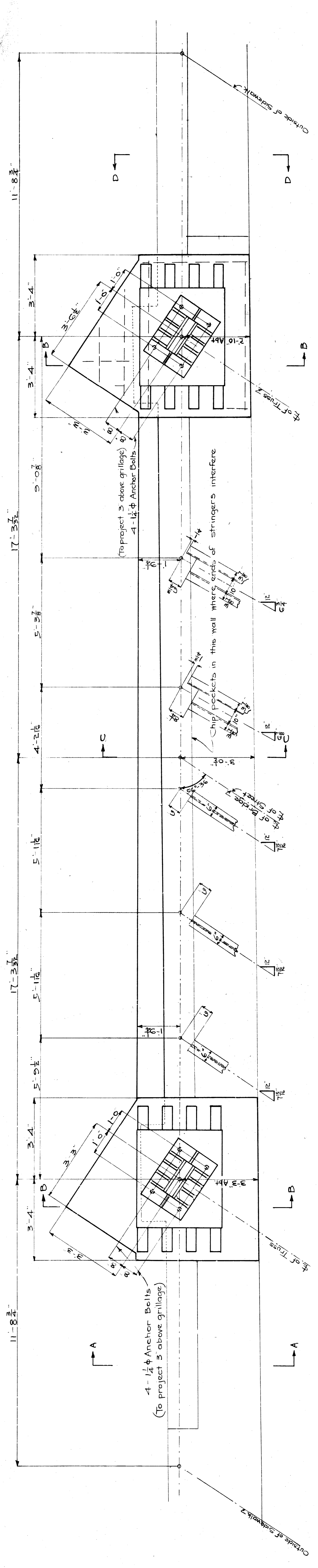
BILL OF BARS

NO	SIZE	LENGTH MARK	LOCATION
120	$\frac{1}{2}$ " #	I-C	A
32	$\frac{3}{4}$ " #	G-O	B
12	$\frac{1}{2}$ " #	A-C	-
4	"	E-O	-
4	"	F-O	-
15	$\frac{3}{8}$ " #	C-O	C
2	$\frac{1}{4}$ " #	D-O	D

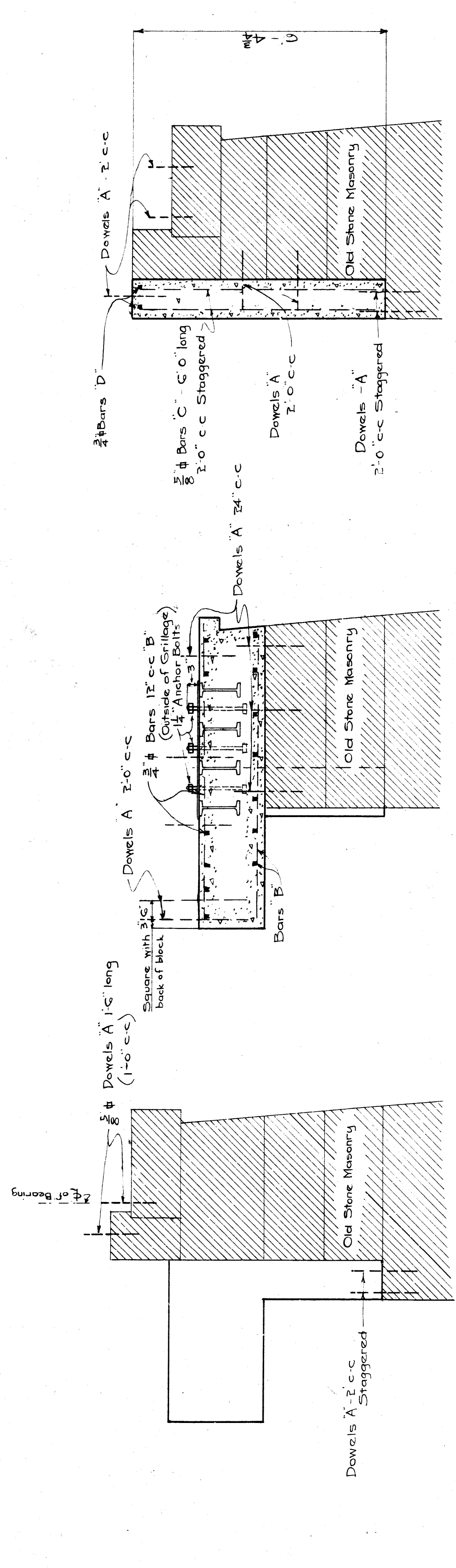
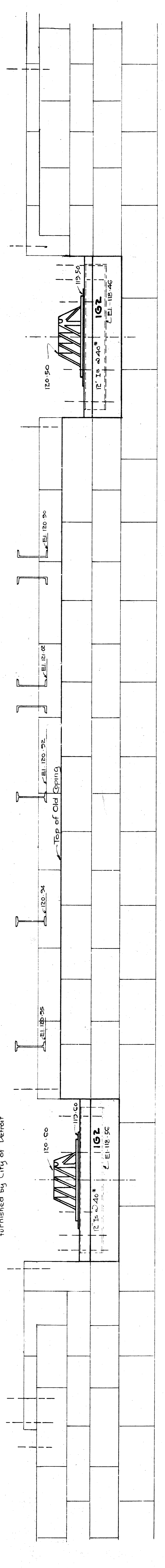
**M.C.R.R. - MAIN LINE DIV.**  
 BRIDGE - 0.82 HOWARD ST.  
**CHANGES IN EAST ABUTMENT**  
 (FIXED END)

SCALE:  $\frac{1}{2}$ " = 1 FOOT  
 DRAWN BY J.C.M. MAR. 12, 1921  
 CHECKED BY *M.G.* 3-22-21  
 TRACED BY  
 REVISED J.C.M. 5-13-21  
 SHEET **B** OF





Grillage, Casting & Bolts furnished by City of Detroit



**NOTES**  
 Concrete - 14 c.w. (approx.)  
 Reinforcing - 1445 #  
 Concrete to be composed of 1 part cement, 2 parts sand and 3 parts stone. Exposed corners to be beveled 3/4\"/>

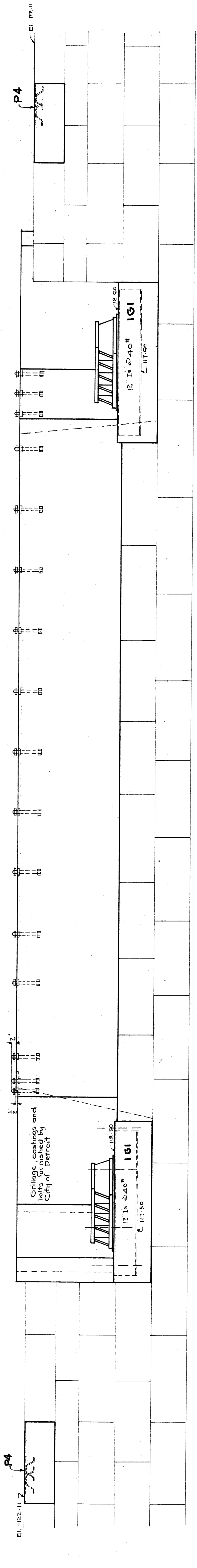
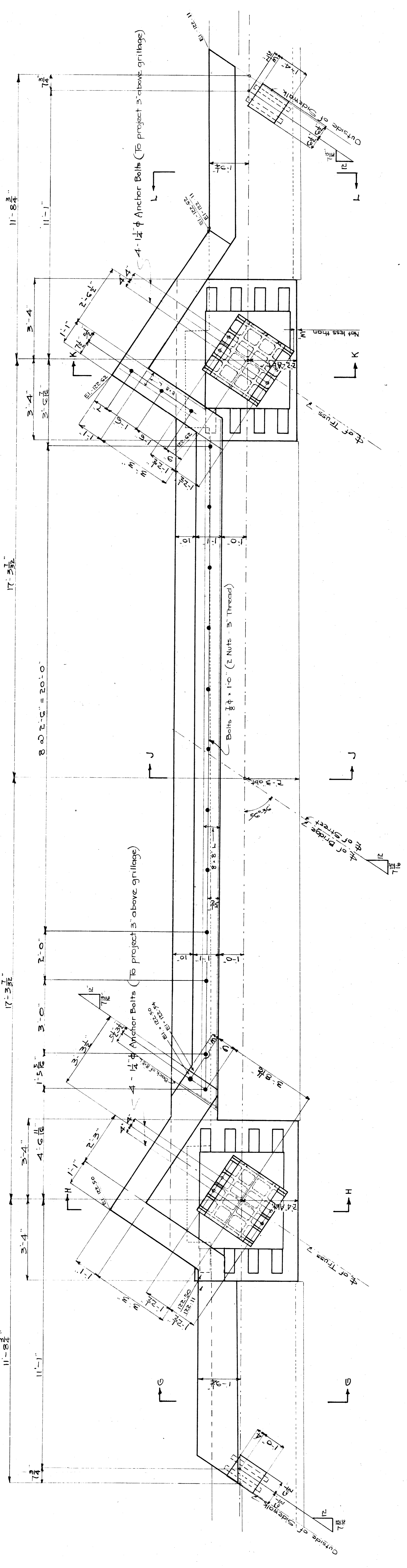
**BILL OF BARS**

NO	SIZE	LENGTH	MARK	LOCATION
190	1/2"	1'-6"	A	
191	3/8"	5'-0"	B	
192	3/8"	4'-0"		
193	1/2"	7'-0"	C	
194	3/8"	21'-5"	D	

**M.C.R.R. - MAIN LINE DIV.**  
**BRIDGE - 0.82 HOWARD ST.**  
**CHANGES IN EAST ABUTMENT**  
 (FIXED END)

SCALE: 1/4" = 1 FOOT  
 DRAWN BY: J.C.M. Mar. 12, 1921  
 CHECKED BY: J.C.M. 3-20-1921  
 APPROVED: J.C.M. 5-13-21 / 1921  
 BRIDGE ENGINEER SHEET B OF B

X059 0.82 M.L. #2



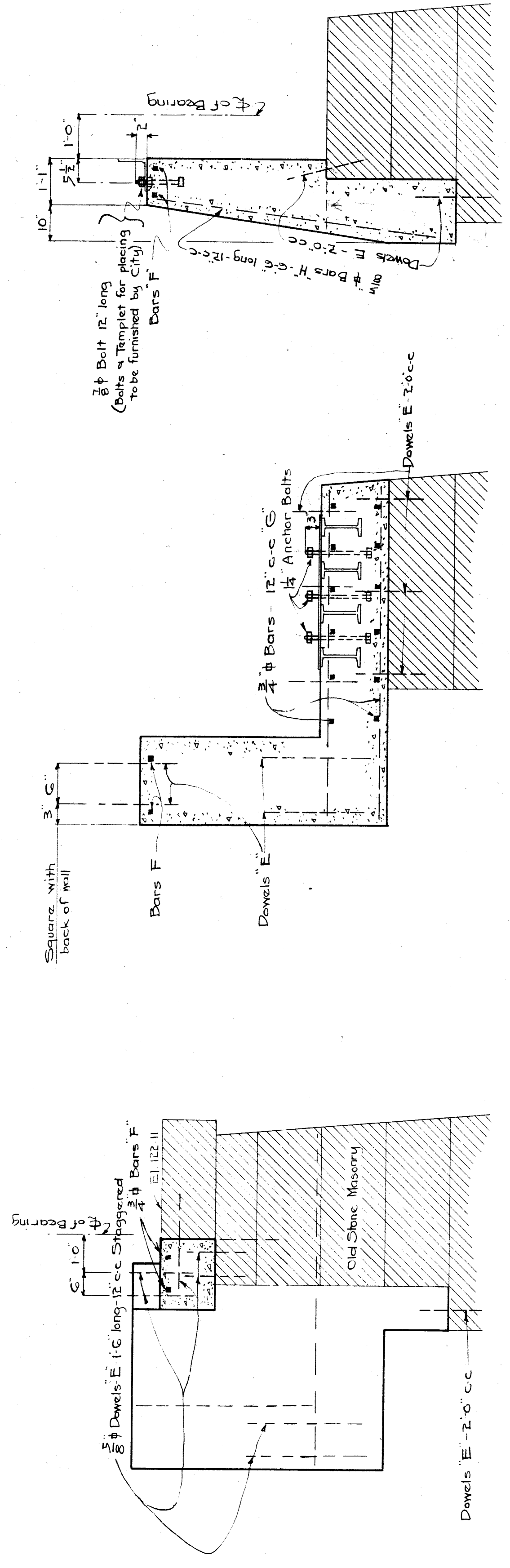
**NOTES**

Concrete - 20 c.y. (approx)  
 Reinforcing - 1160\*

Concrete to be composed of 1 part cement  
 2 parts sand and 3 parts stone. Exposed  
 corners to be beveled  $\frac{3}{4}$ ".

Reinforcing bars to be securely wired together  
 at each intersection. At splices the shall lap for  
 a length of 24 diameters and shall be  
 securely wrapped with iron wire.

NO.	SIZE	LENGTH	MARK
100	$\frac{3}{4}$ "	1'-6"	E
4	$\frac{3}{4}$ "	8'-0"	F
4	"	7'-0"	F
4	"	5'-0"	F
2	"	28'-0"	F
32	$\frac{3}{4}$ "	5'-0"	G
20	"	4'-0"	"
4	"	3'-0"	"

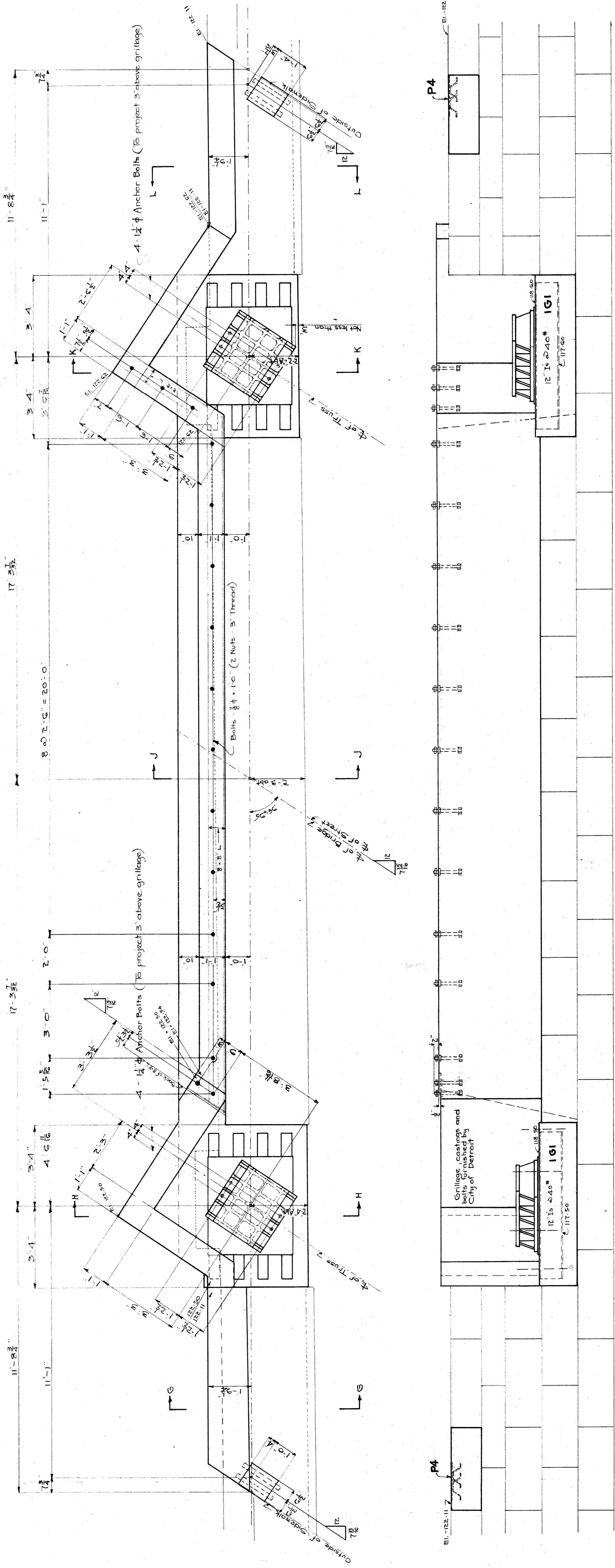


SEC-09 - As Shown  
 SEC-11 - Opposite Hand

SEC-14  
 SEC-15

SEC-11

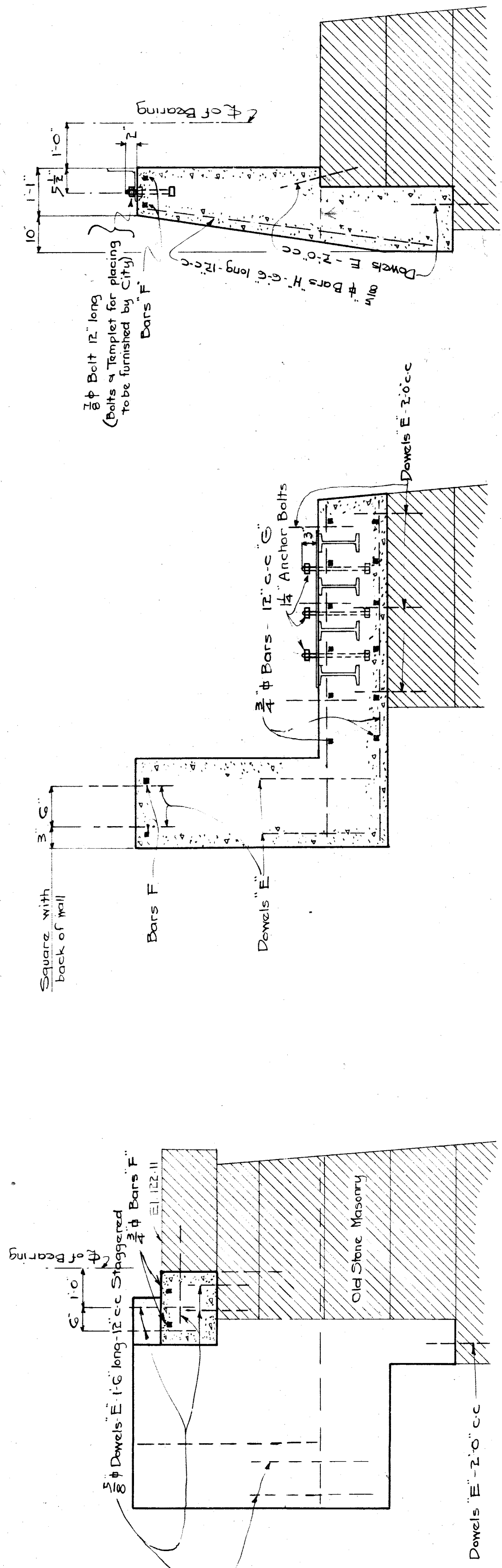




**NOTES**

Concrete - 20 c.y. (approx)  
 Reinforcing - 1166'<sup>2</sup>  
 Concrete to be composed of 1 part cement, 2 parts sand and 3 parts stone. Exposed corners to be beveled  $\frac{3}{4}$ ".  
 Reinforcing bars to be securely wired together at each intersection. At splices the shall lap for a length of 24 diameters and shall be securely wrapped with iron wire.

NO.	SIZE	LENGTH	MARK
1	10"	1'-6"	E
4	3/4"	8'-0"	F
4	1"	7'-0"	F
4	1"	5'-0"	F
2	1"	28'-0"	F
32	3/4"	5'-0"	G
20	1"	4'-0"	F
4	1"	3'-0"	F

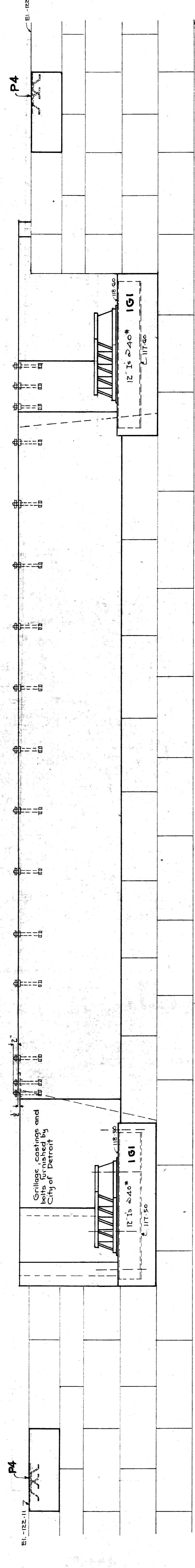
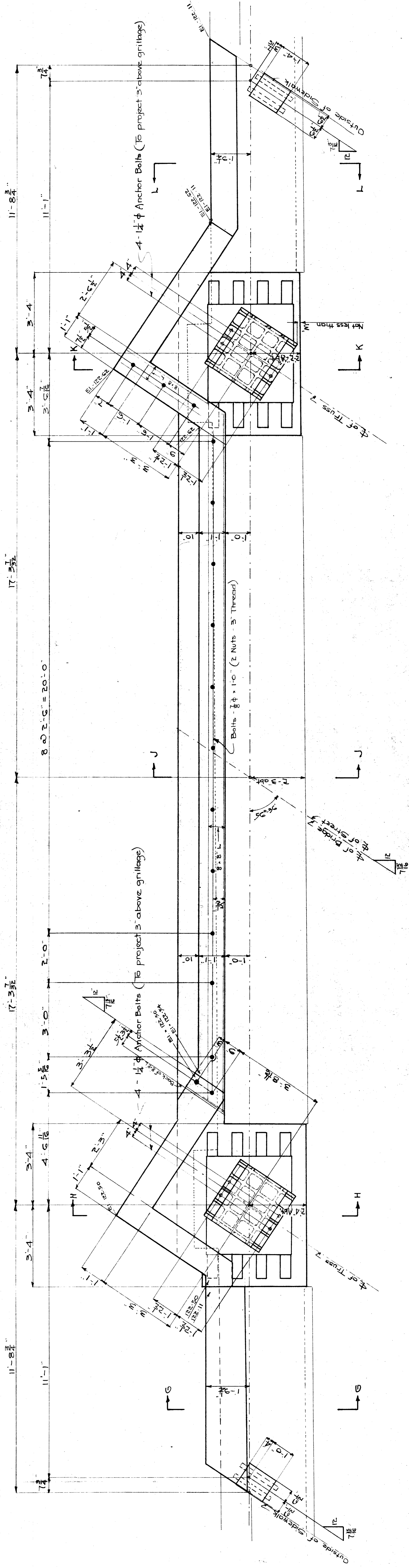


**M.C.R.R. - MAIN LINE DIV.**  
**BRIDGE 0-82 HOWARD ST**  
**CHANGES IN WEST ABUTMENT**  
 (EXPANSION END)

SCALE - 1 FOOT  
 DRAWN BY J.C.M. Mar. 15, 1921  
 CHECKED BY J.C.M. 5-5-21  
 TRACED BY J.C.M. 5-13-21  
 REVISED BY J.C.M. 5-13-21  
 APPROVED BY J.C.M. 5-13-21  
 SHEET C OF C

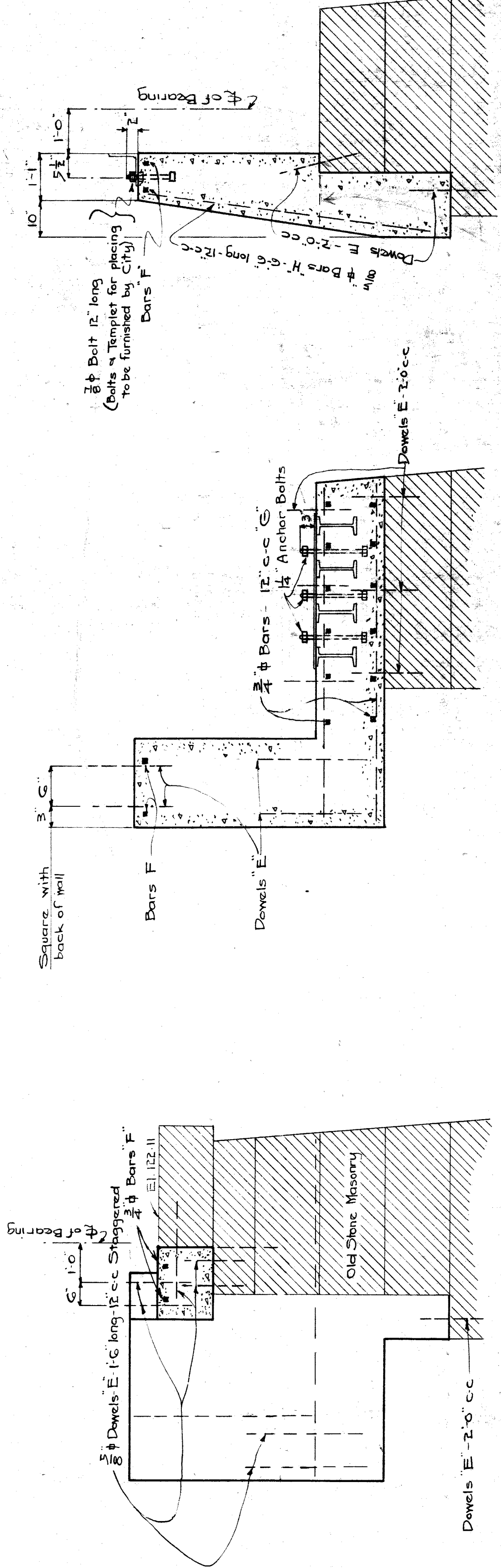
X059

0.82 M.L. 23

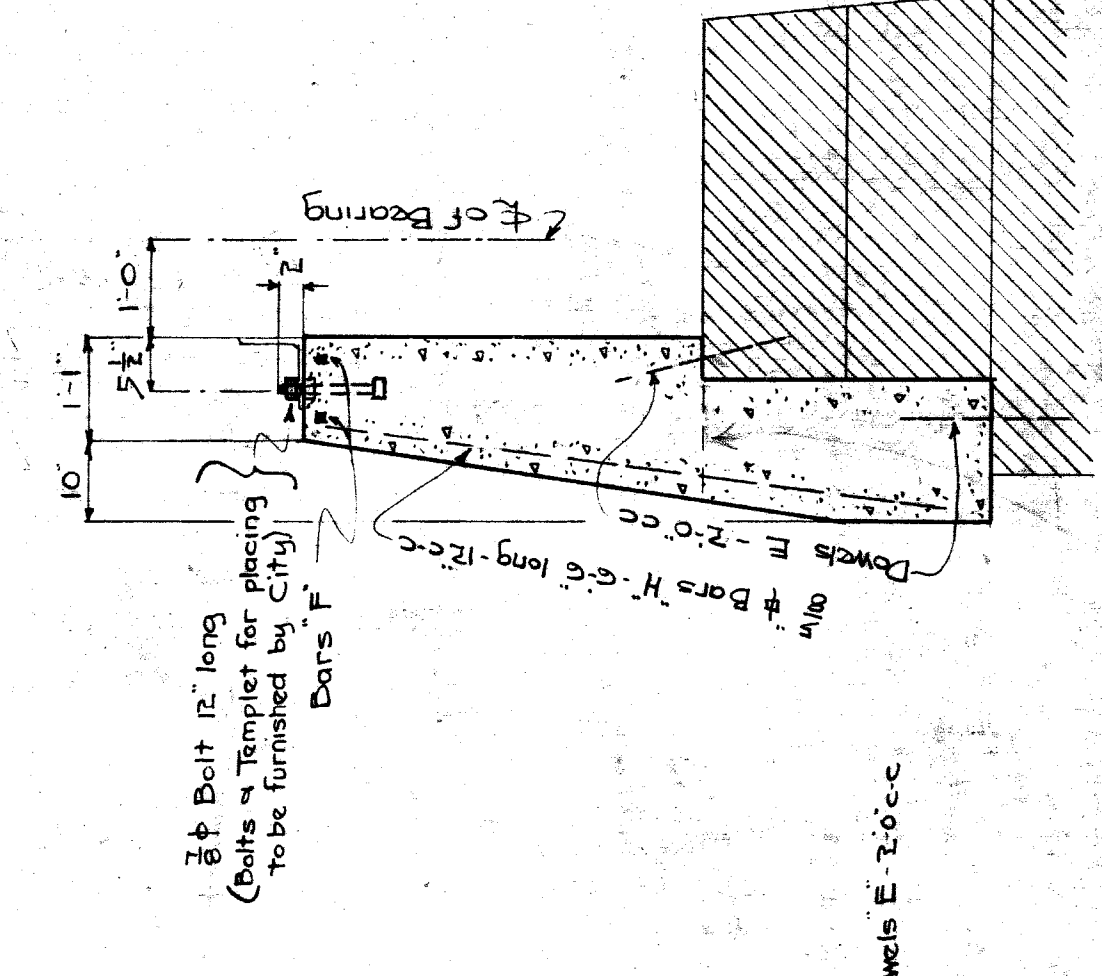


**NOTES**  
 Concrete - 20 c.y. (approx)  
 Reinforcing - 1160#  
 Concrete to be composed of 1 part cement, 2 parts sand and 3 parts stone. Exposed corners to be beveled  $\frac{3}{4}$ ".  
 Reinforcing bars to be securely wired together at each intersection. At splices the shall lap for a length of 24 diameters and shall be securely wrapped with iron wire.

NO	SIZE	LENGTH	MARK
160	$\frac{3}{4}$ "	1'-6"	E
4	$\frac{3}{4}$ "	8'-0"	F
4	"	7'-0"	F
4	"	5'-0"	F
2	"	28'-0"	G
32	$\frac{3}{4}$ "	6'-0"	S
20	"	4'-6"	"
4	"	3'-0"	"



SEC-GG - As Shown  
 SEC-LL - Opposite Hand



SEC-HH  
 SEC-KK

X059 0.82 M.L. #3