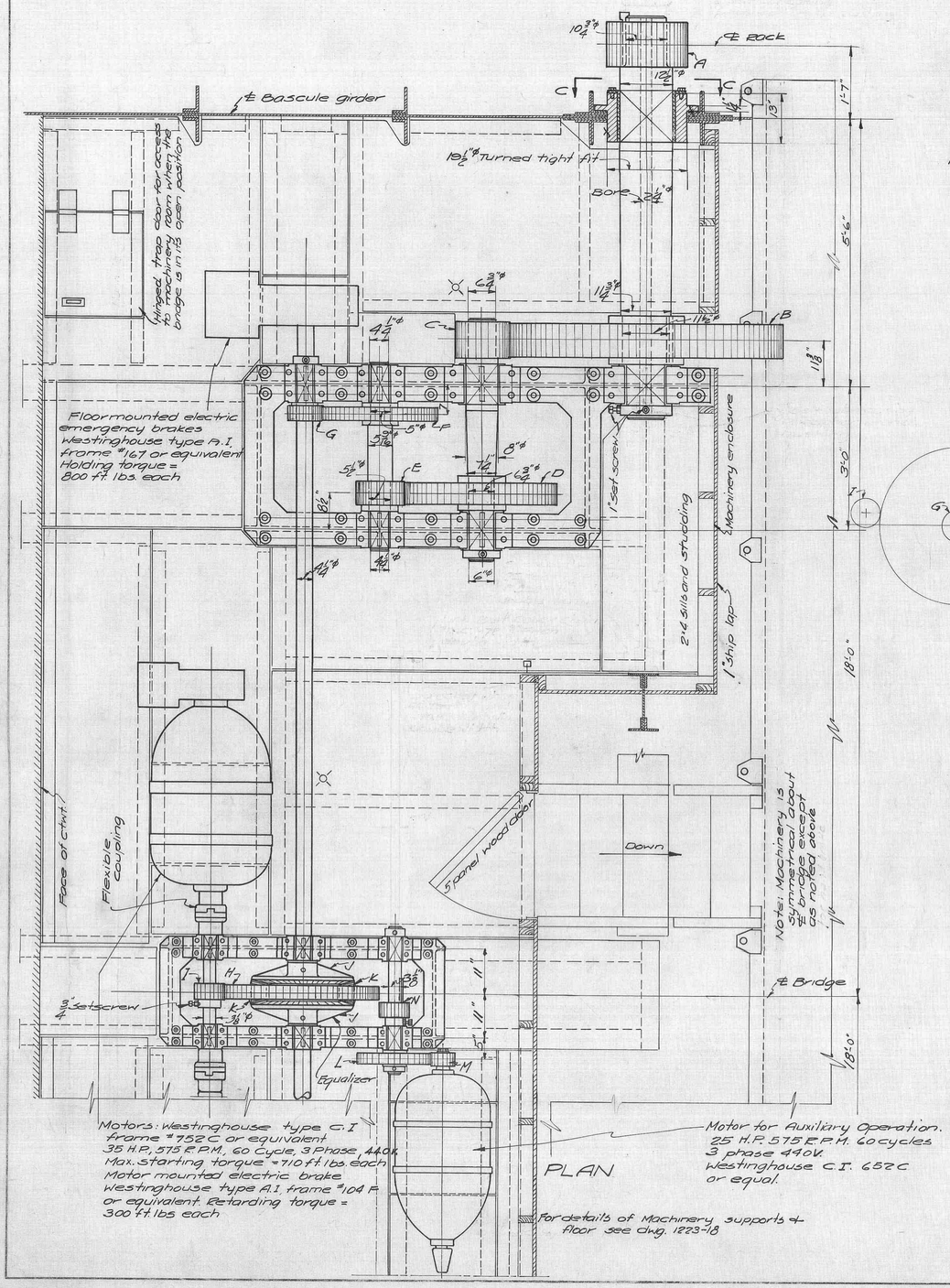
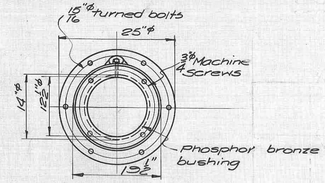




Note: collar bearing to be bolted in place in the shop. Bearing must have a tight fit in web of girder

SECTION "C-C"

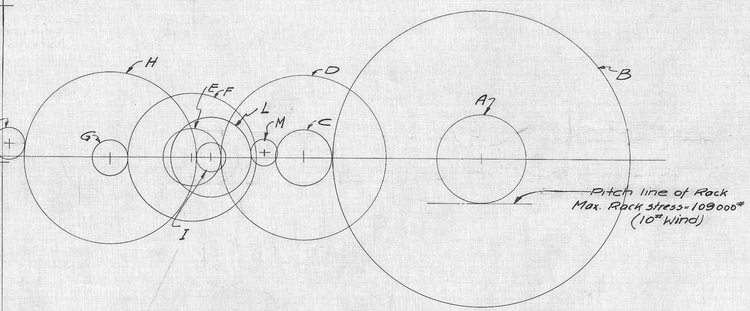


DIAGRAM OF GEARS

TABLE OF GEARS (per leaf)							
Gear	No. Reqd	No of Teeth	Pitch	Pitch Dia.	Face	Teeth	Keys per Gear
Rock	2		4 3/4 C.P.		11 3/8"	20° Special involute, cut	
A	2	14	4 3/4 C.P.	21.17"	11 3/8"	" " " "	2-2 3/4 × 1 3/8"
B	2	70	3 C.P.	66.89"	8 1/2"	20° Involute stub teeth, Nuttal system, cut	2-2 3/4 × 1 5/8"
C	2	14	3 C.P.	13.36"	9"	" " " "	2-1 1/2 × 1
D	2	46	1 1/4 D.P.	36.8"	5"	20° Std. involute cut	2-1 1/2 × 1"
E	2	14	1 1/4 D.P.	11.2"	5 1/8"	" " " "	1-1 1/2 × 3/8"
F	2	50	1 3/8 D.P.	28.57"	3 1/2"	" " " "	2-1 1/4 × 3/4"
G	2	16	1 3/8 D.P.	9.14"	4"	" " " "	1-1 1/16"
H	1	75	2 D.P.	37.5"	4"	" " " "	Loose on shaft Bronze bushed
I	1	15	2 D.P.	7.5"	4 1/2"	" " " "	1-3/4 × 1/2"
J	2	75	3 D.P.	25"	2 1/2"	" " " "	1-1 1/16"
K	3	18	3 D.P.	6"	2 1/2"	" " " "	Loose on shaft Bronze bushed
L	1	54	3 D.P.	18"	2 3/4"	" " " "	1-3/4 × 1/2
M	1	18	3 D.P.	6"	3 1/4"	" " " "	1-1/2 × 1/2
N	1	15	2 D.P.	7.5	4 1/2"	" " " "	1-3/4 × 1/2 Feather

Machinery Notes:-
All castings and forgings shall be made of steel and shall be annealed.
All gears pinions and racks shall have machine cut teeth.
Pitch lines shall be plainly marked on both sides of all gears, pinions and racks.
All shafts over 4 1/2" dia. shall be made of forged steel others may be cold rolled.
Gib head tapered keys shall be used where possible
All collars shall be secured in place with set screws counterbored in the shafts and provided with lock nuts
The shanks of turned bolts shall be 1/16" larger than the dia. of the threaded ends.
All holes in the supports shall be sub-drilled and reamed in the field unless otherwise noted.
Bolts attaching bearings to structural supports shall have a light driving fit in the holes.
All bearings shall be provided with "Alemite" industrial fittings and grooved for lubrication.

KING COUNTY ENGINEER'S OFFICE

THOMAS D. HUNT COUNTY ENGINEER
D. L. EVANS PRINCIPAL ASSISTANT

OPERATING MACHINERY
FOR A
SCHERZER ROLLING LIFT BRIDGE
OVER
DUWAMISH WATERWAY
AT
14TH. AVENUE SOUTH
SEATTLE WASHINGTON

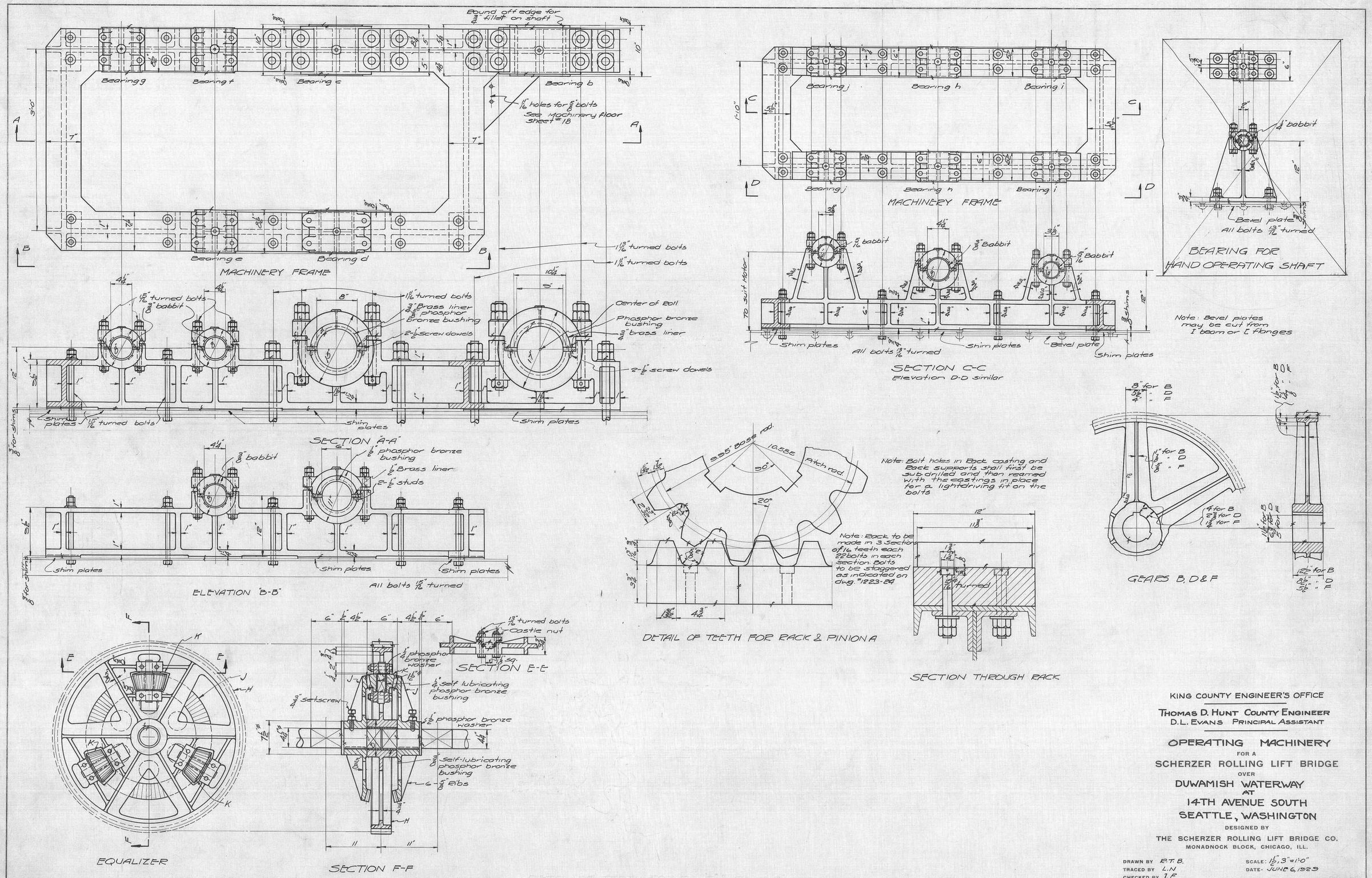
DESIGNED BY
THE SCHERZER ROLLING LIFT BRIDGE CO.
MONADNOCK BLOCK, CHICAGO, ILL.

DRAWN BY R.T.B.
TRACED BY L.N.
CHECKED BY I.E.
REVISED 8-29-29

SCALE: 3/8" & 1 1/2" = 1'-0"
DATE- JUNE 6, 1929

SHEET NO. 1223-30

DEC 29 1998 MICRO.
(9614) 103-11 D-1



KING COUNTY ENGINEER'S OFFICE

THOMAS D. HUNT COUNTY ENGINEER
D.L. EVANS PRINCIPAL ASSISTANT

OPERATING MACHINERY

FOR A

SCHERZER ROLLING LIFT BRIDGE

OVER

DUWAMISH WATERWAY AT 14TH AVENUE SOUTH SEATTLE, WASHINGTON

DESIGNED BY

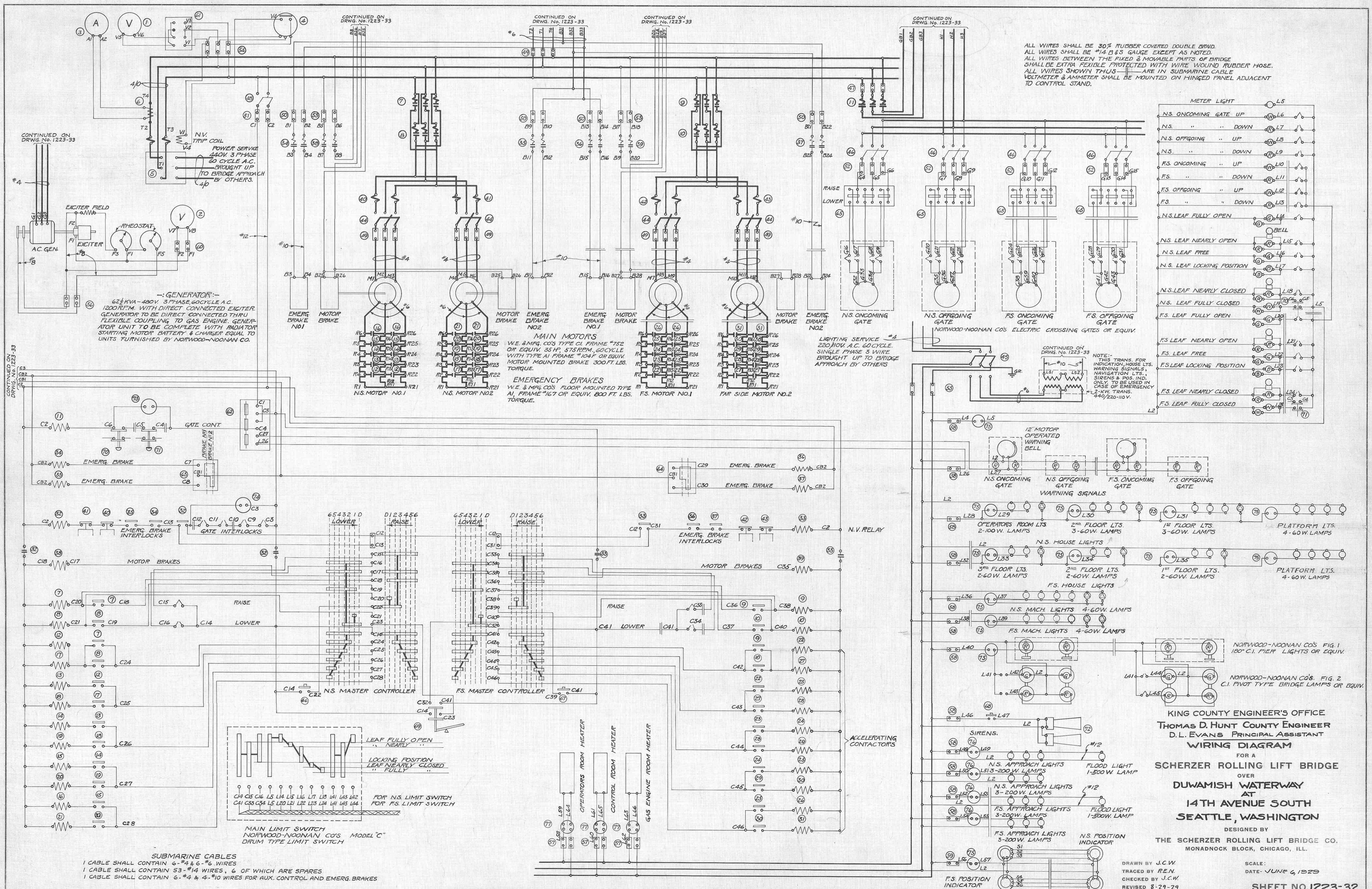
THE SCHERZER ROLLING LIFT BRIDGE CO.
MONADNOCK BLOCK, CHICAGO, ILL.

DRAWN BY R.T.B.
TRACED BY L.N
CHECKED BY I.E.
REVISED 8-29-29

SCALE: 1 1/2", 3" = 1'-0"
DATE- JUNE 6, 1929

SHEET NO. 1223-31

DEC 29 1996 MICRO.
9615 103-11 E-1



DEC 20 1929
9616 103-11 F-1

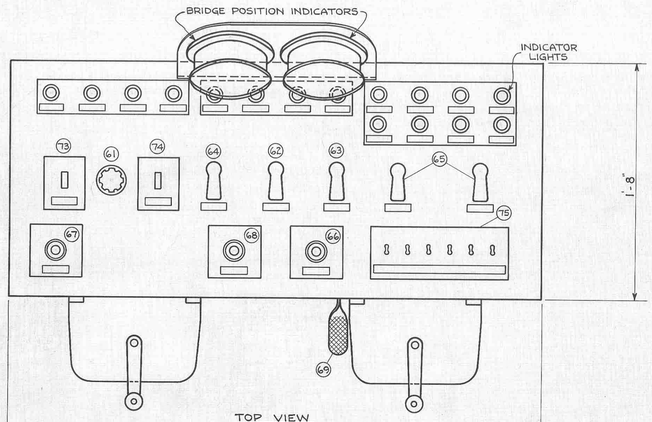
SPECIFICATIONS:-

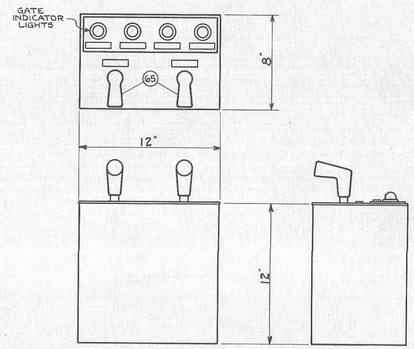
CONTROL DESK TO BE SUBSTANTIALLY CONSTRUCTED OF #16 GA. STEEL PLATE OVER LIGHT ANGLE IRON FRAMEWORK, THE TOP AND DOORS AT EACH END TO BE #10 GA. STEEL PLATE.

PAINTING - OUTSIDE TO HAVE ONE COAT OF UNDERBODY PRIMER AND TWO COATS OF FLAT BLACK AIR DRYING ENAMEL. INSIDE TO HAVE TWO COATS OF FLAT BLACK METAL PAINT.

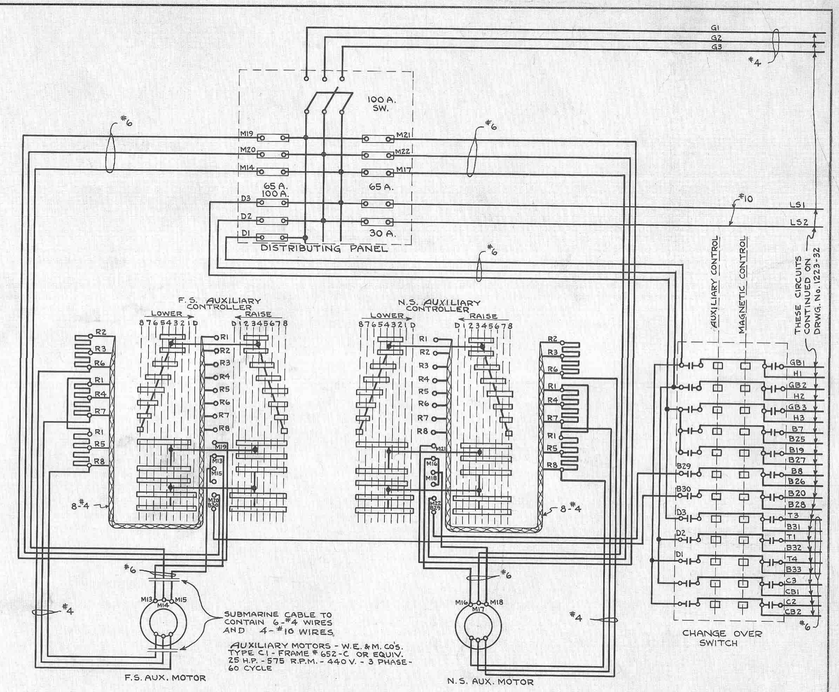
GATE CONTROL BOX TO BE CONSTRUCTED OF #16 GA. STEEL PLATE, THE TOP AND FRONT TO BE #12 GA. - FRONT TO BE REMOVABLE.

AUXILIARY CONTROL STAND SAME AS CONTROL DESK.



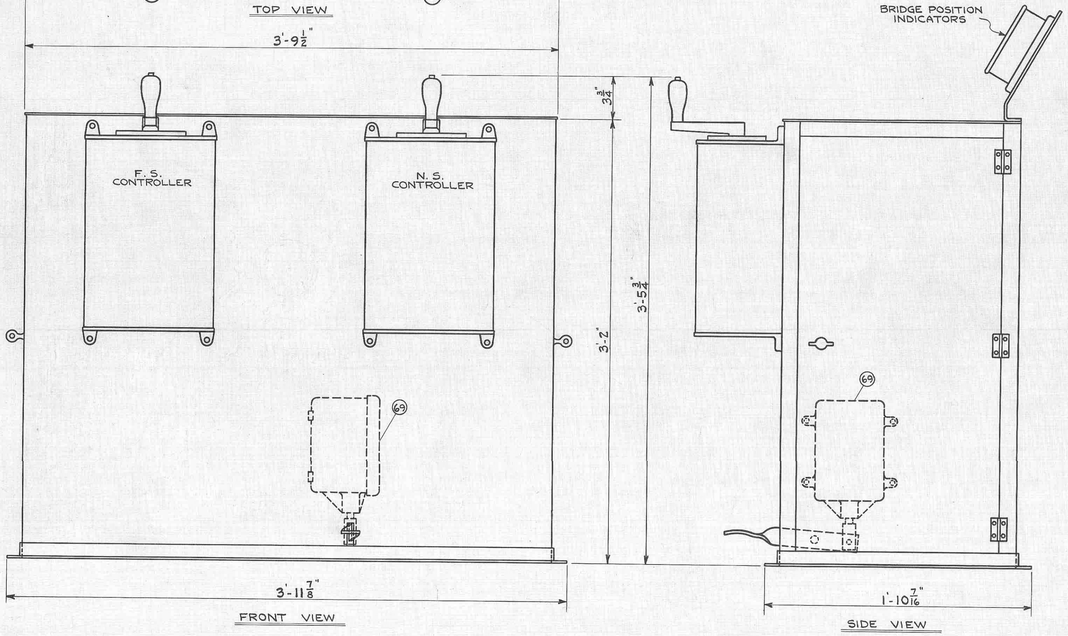


GATE CONTROL BOX FOR NEAR SIDE GATES

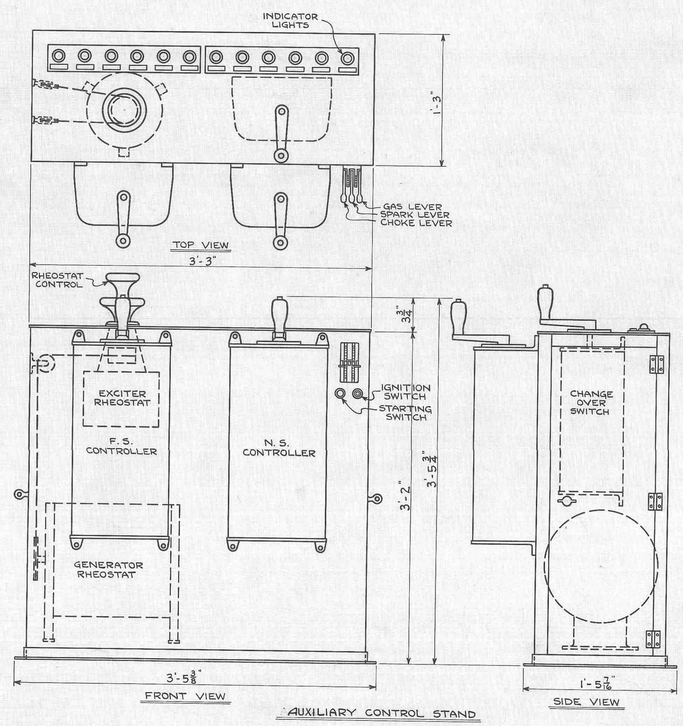


AUXILIARY CONTROL SCHEME

NOTE
FOR GENERAL NOTES SEE DRWG. No. 1223-32



CONTROL DESK



AUXILIARY CONTROL STAND

KING COUNTY ENGINEER'S OFFICE

THOMAS D. HUNT COUNTY ENGINEER
D. L. EVANS PRINCIPAL ASSISTANT

AUXILIARY CONTROL SCHEME,
AUXILIARY CONTROL STAND
& CONTROL DESK
FOR A
SCHERZER ROLLING LIFT BRIDGE
OVER
DUWAMISH WATERWAY
AT
14TH AVENUE SOUTH
SEATTLE, WASHINGTON

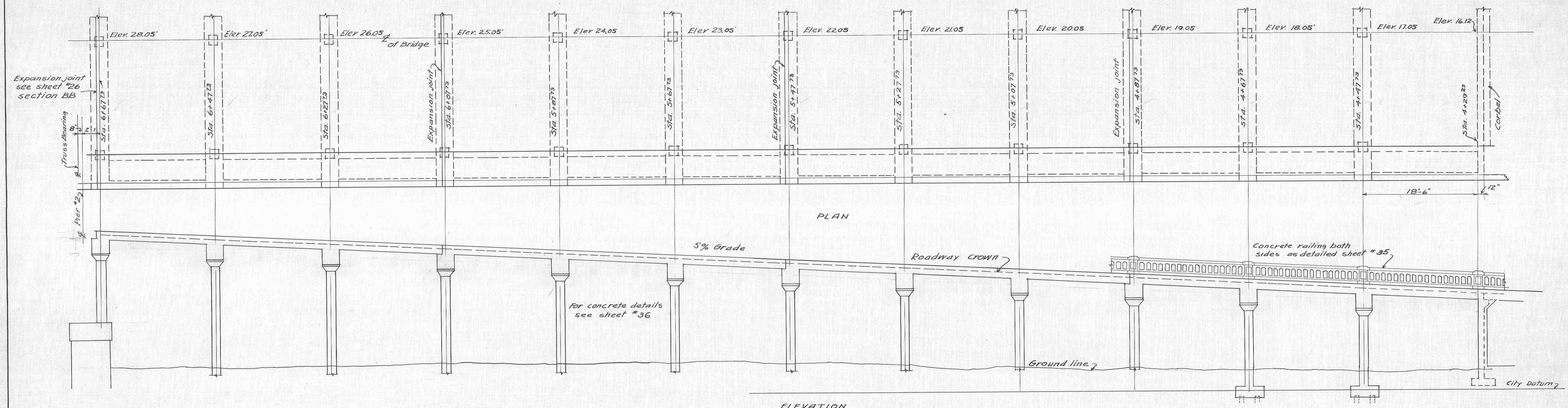
DESIGNED BY
THE SCHERZER ROLLING LIFT BRIDGE CO.
MONADNOCK BLOCK, CHICAGO, ILL.

DRAWN BY C.A.C.
TRACED BY C.A.C.
CHECKED BY J.C.W.
REVISED 8-29-29

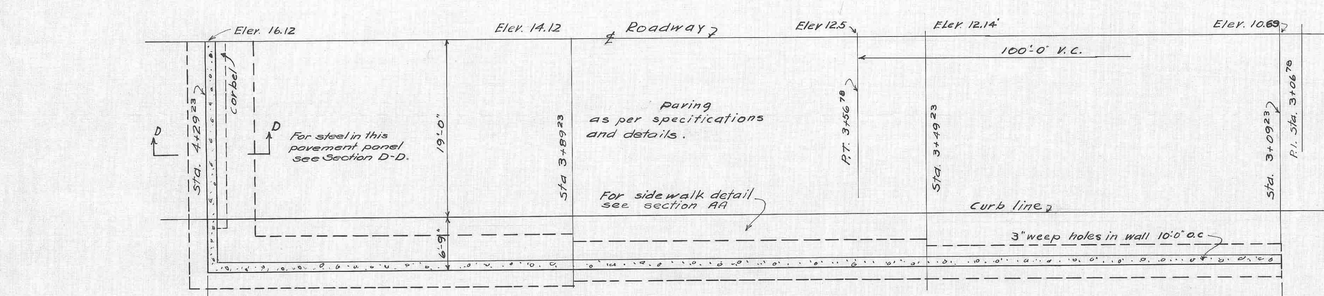
SCALE:
DATE- JUNE 6, 1929

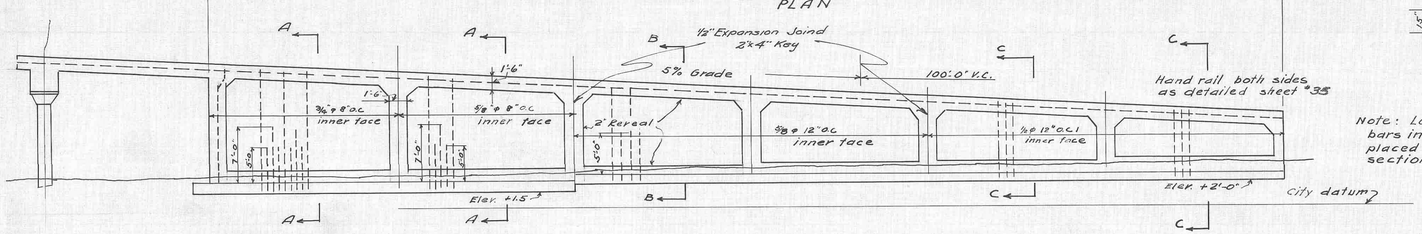
SHEET NO. 1223-33

DEC 29 1938 (9617) 103-11 G-1



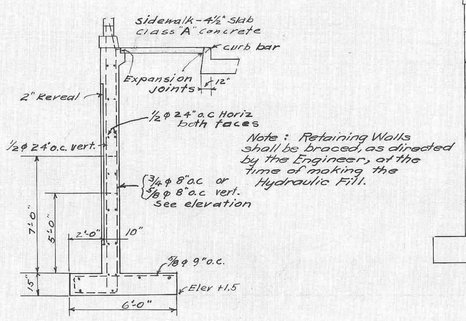
ELEVATION
CONCRETE APPROACH SOUTH END



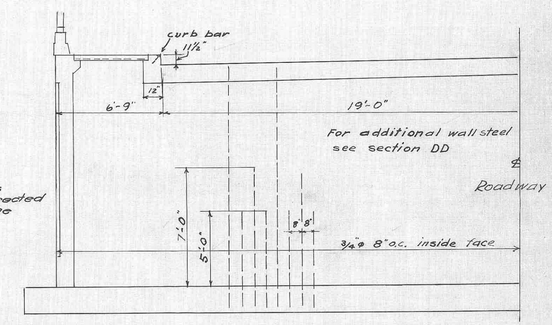


ELEVATION
APPROACH RETAINING WALLS SOUTH END

Retaining walls and footings class A concrete 1½" stone mix 1:2:4

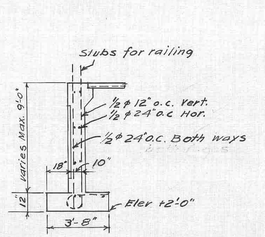


SECTION AA

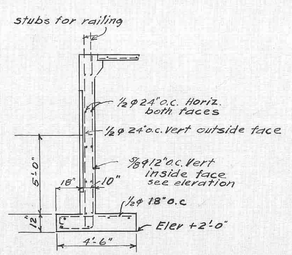


ELEVATION HEAD WALL STA. 4+29.23

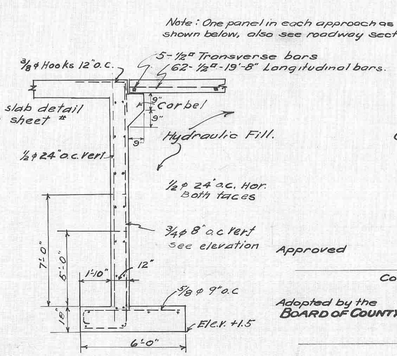
Note: Longitudinal bars in footing ½ φ placed as noted on sections



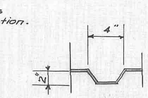
SECTION CC



SECTION BB



SECTION DD
OF HEAD WALL



CONSTRUCTION JOINT BETWEEN
FOOTING AND WALL

Approved

County Engineer.

Adopted by the
BOARD OF COUNTY COMMISSIONERS

Chairman

Deputy Clerk

Date

KING COUNTY ENGINEER'S OFFICE
THOMAS D. HUNT Co. ENG'R.

14TH AVE. S. BRIDGE RELOCATION
SCHERZER ROLLING LIFT BRIDGE
S. APPROACH PLAN AND ELEVATION

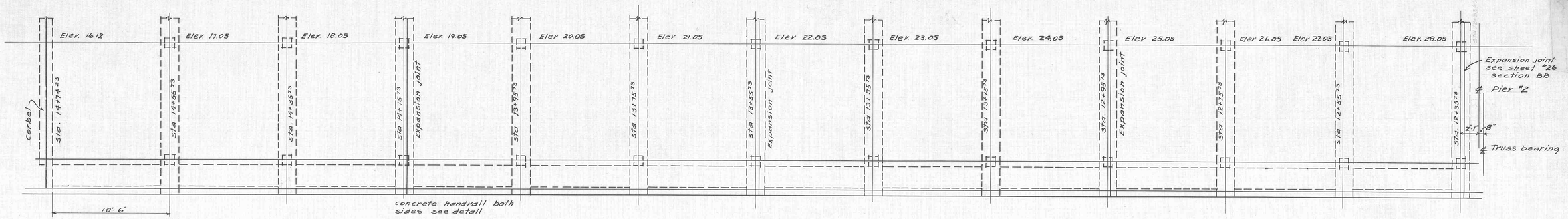
Approved
Principal Assistant

Drawn by H.J.W.	Scale 1/4 & 1/8" = 1'-0"
Traced by	
Checked by V.C.H.	Date Aug. 1929

Sheet 34.

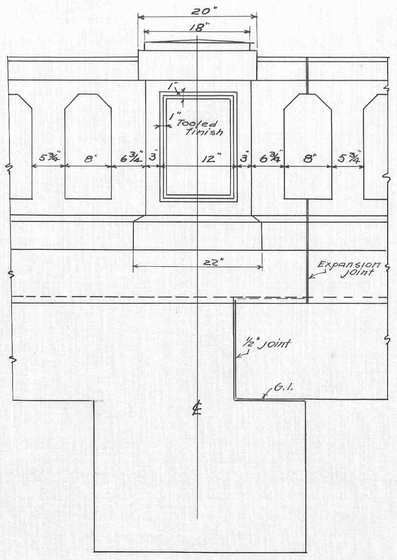
DEC 29 1999 MICRO.

(9618) 103-11 H-1



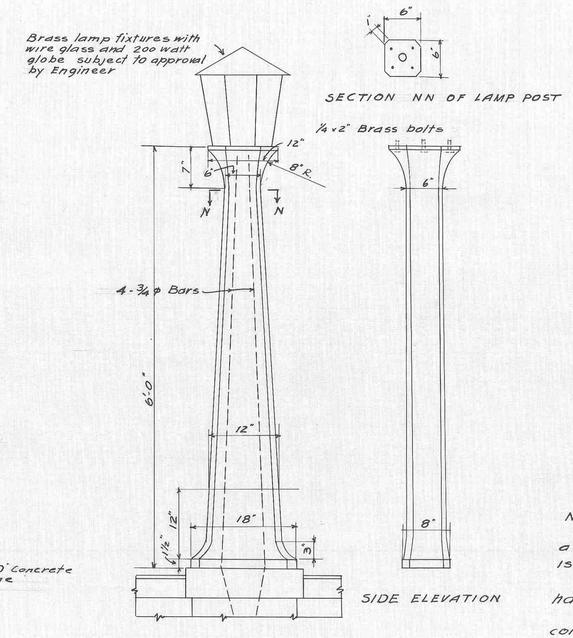
PLAN CONCRETE APPROACH NORTH END

Note: Eleration of approach similar to West end except slope is reversed



ELEVATION OF CONCRETE HANDRAIL

scale 1" - 1'-0"



DETAIL OF LAMP POST

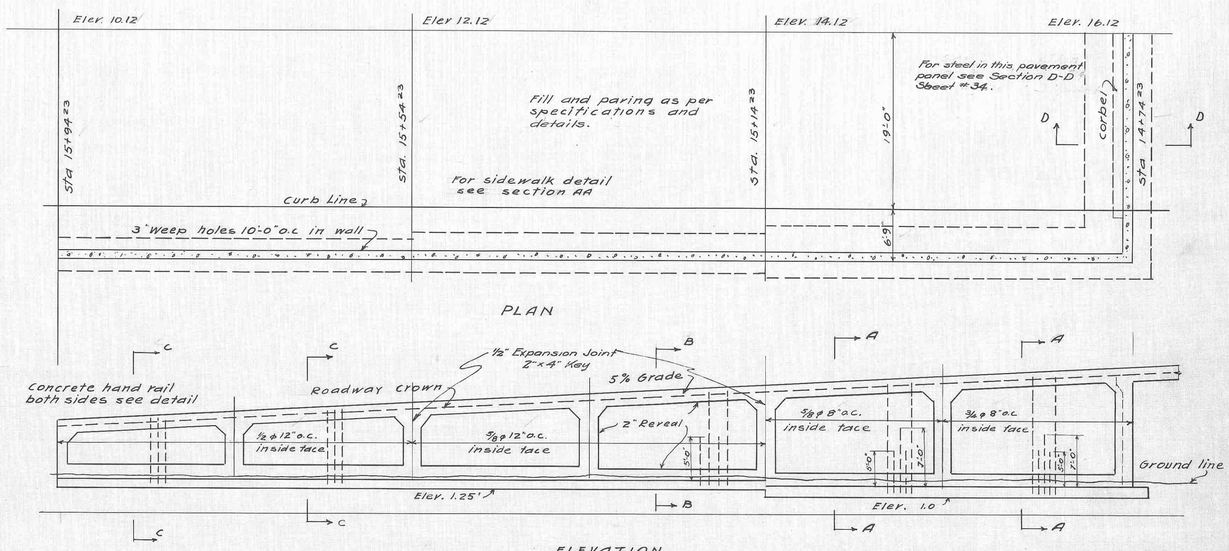
scale 1" - 1'-0"

16 Required

Lamp posts to be placed where directed by Engineer

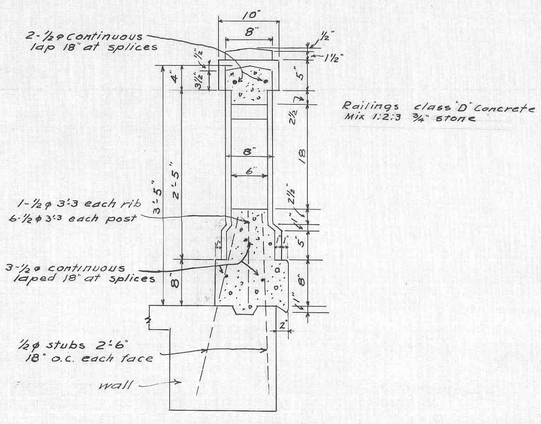
Contractor to furnish suitable pull boxes, conduits, wiring and all necessary accessories to main lighting panels.

– Location –
Sta. 3+49.23.
4+67.73.
5+87.73
7+09.09.
11+94.37
13+15.73
14+35.73
15+54.23.



APPROACH RETAINING WALLS NORTH END

Notes:- For additional wall steel see sections
For wall sections noted see sheet #34



SECTION OF CONCRETE HANDRAIL

scale 1" - 1'-0"

Notes -

All surfaces exposed to view to have a class-B- finish except handrail which is to have a class-A- finish

Railings not to be poured until falsework has been removed

All exposed corners of beams, girders and columns to be chamfered ¾" except where otherwise shown.

Each pouring of concrete shall be made continuous and no construction joints shall be made except at expansion joints and other places approved by Engineer

Roadway surfaces of slabs to be finished in accordance with "One course paving Specifications" King County Engineers office

sidewalks to be divided into 2'-0" squares and finished as directed by Engineer

Approved

County Engineer.

Adopted by the BOARD OF COUNTY COMMISSIONERS

Chairman

Deputy Clerk

Date

KING COUNTY ENGINEER'S OFFICE
THOMAS D. HUNT Co. ENG'R.

14TH AVE. S. BRIDGE RELOCATION
SCHERZER ROLLING LIFT BRIDGE

N. APPROACH, WALLS AND DETAILS

Approved

Principal Assistant.

Drawn by H.J.W.
Traced by
Checked by V.C.H.

Scale 1/4" = 1/8" = 1'-0"

Date Aug-1929.

Sheet 35.

DEC 29 1998 MICRO.

9619 103-11 I-1