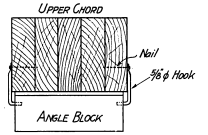
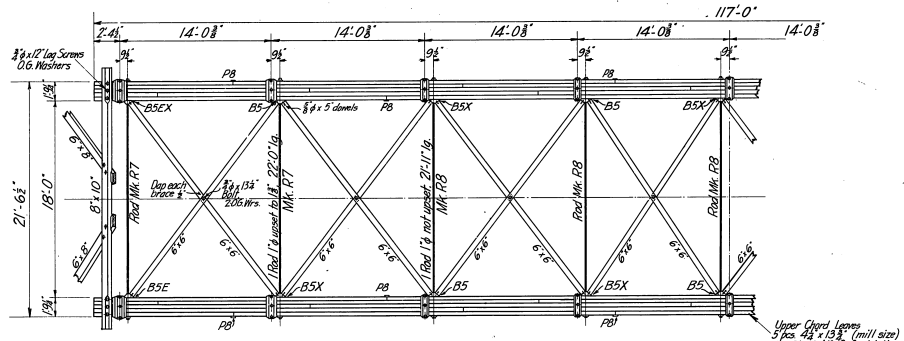
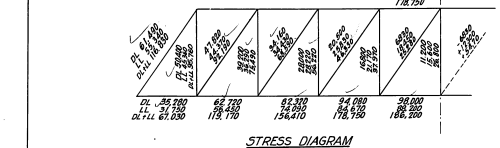


SKETCH SHOWING METHOD OF SUPPORTING ANGLE BLOCKS DURING ERECTION



HALF PLAN OF UPPER CHORD AND LATERAL SYSTEM



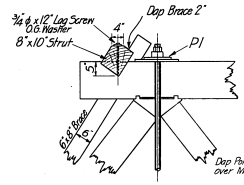
STRESS DIAGRAM

LOADS

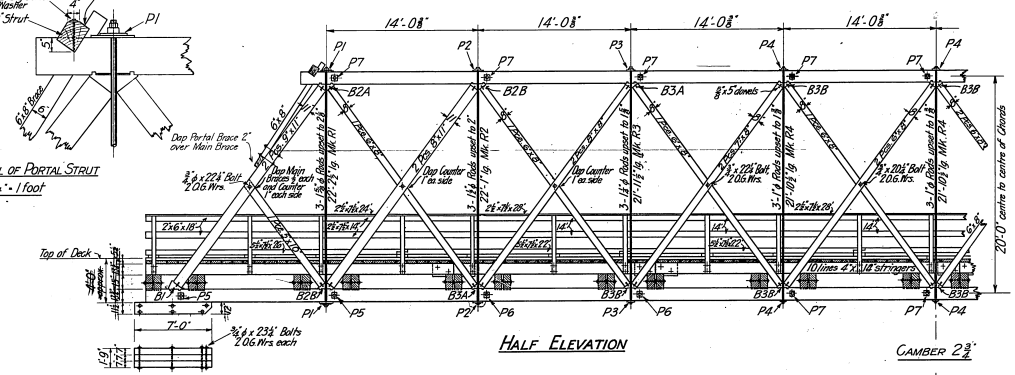
DEAD LOAD:-	Timber	1410" per Lin ft of span
	Iron, etc.	190" " " "
	Total	1600" " " "
LIVE LOAD FOR TRUSS :-		90" per sq ft.
	or	1440" per lin ft of span.
WIND LOAD :-		200" per lin ft on upper chord.
		300" " " " lower chord.
FOR FLOOR SYSTEM :-	Live Load, concentrated - One 15 ton truck, 6 gauge, 14 wheelbase, 3/4 load on rear axle.	
IMPACT :-	30% added to wheel loads for impact.	

WORKING STRESSES

Fir :- Tension, 1000 lbs. per sq. inch
Fibre Stress in Bending, 1600" per sq. in.
Compression endwise, 1200" " "
" sidewise, 300" " "
Formula for Braces,
Safe stress = 1200 $(1-\frac{l}{20d})$
where l = length in inches
d = least side in inches.
STEEL :- Tension Rods, 16,000 " per sq. in.
Lower Chd. Pipe Fastenings, 14,000 " " "

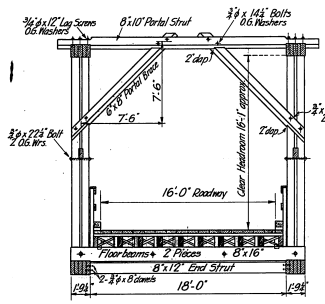


DETAIL OF PORTAL STRUT
3/4" = 1 foot

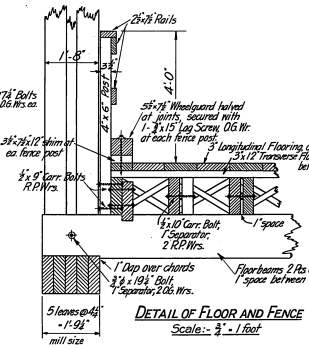


HALF ELEVATION

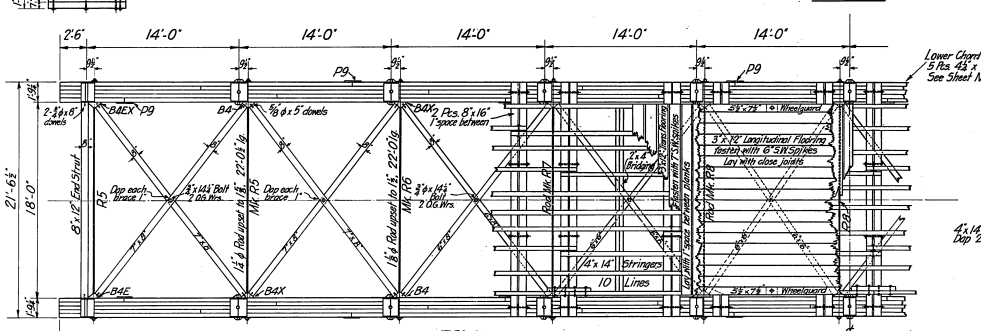
CAMBER 2 3/4"



END ELEVATION

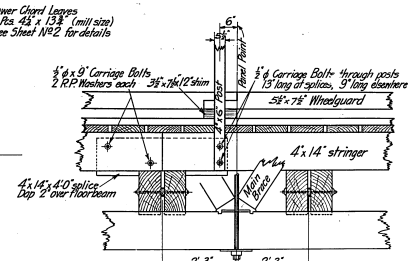


DETAIL OF FLOOR AND FENCE
Scale:- 3" = 1 foot



HALF PLAN OF LOWER CHORD AND LATERAL SYSTEM

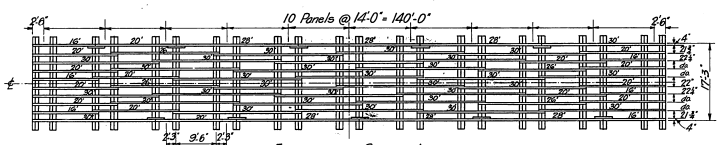
Note:- Insert bolts with the threaded end on the outside



DETAIL OUTER STRINGER BUTT JOINT ETC.
3/4" = 1 ft.

See Dwg. 409-12 for revised Deck

Outer Stringers, to be butt-jointed and fastened with 4"x14"x4'-0" splice piece, clapped 2" over Floorbeams; 4 - 3/4" ϕ 9" Carriage Bolts, 8 R.P. Washers.
Inner Stringers to be lapped with 1" space between and fastened with one 3/4"x10" Carr. Bolt, 1 Sep.t Mk. SI & 2 R.P. Wrs.



FLOORBEAM AND STRINGER LAYOUT
10 ft. = 1"

Note

No allowance has been made for shrinkage of timber in crossing; dimensions of 21'-6 1/2 out to out of chords and of 1'-9 1/2 width of chord are therefore merely nominal.
Work from dimension of 18'-0" between chords.
Cover the upper surface of all chords with a coat of plastic waterproof compound well trowled down; sprinkle coarse sand on top and press well into compound. 700" of compound req'd.
Fill up insides of Lower Chord angle blocks (end angle blocks excepted) and the spaces around tension rods in all lower chord blocks with hot "D" grade asphalt. 550" of asphalt req'd.
~~Lay lower deck with 1" space between planks and apply one coat of hot creosote oil.~~ Lay all planks heart side down.
~~Fill pipes with cement mortar. 5 sacks cement required if used.~~

140 FT. SPAN
THROUGH HOWE TRUSS
WITH LAMINATED CHORDS
16'-0" ROADWAY
GENERAL PLAN

Scale:- 1/2" = 1 ft.; details, 3/4" = 1'

INDEX

General Plan	Sheet № 1
Details of Chords	" " 2
" " Ironwork	" " 3

GOVT. of BRITISH COLUMBIA
DEPT. of PUBLIC WORKS
VICTORIA

MADE BY	C.K. SAUNDERS	Sept/1936
TRACED BY		
CHECKED BY	H.N. Goshen	Oct/1936
APPROVED BY	G.M. Duncan	Feb/1937
APPROVED:	G. P. Lucas, ASSISTANT CHIEF ENGINEER	DRAWING No. 2062-1

Formerly Sta. Bridges 178A-1

51848

CONTRACTOR MAY USE ANY STANDARD STEEL SHAPE HAVING EQUAL OR GREATER SECTIONAL AREA AND RADIUS OF GYRATION AS THOSE SHOWN ON THE PLANS.
ALTERNATE CHORDS