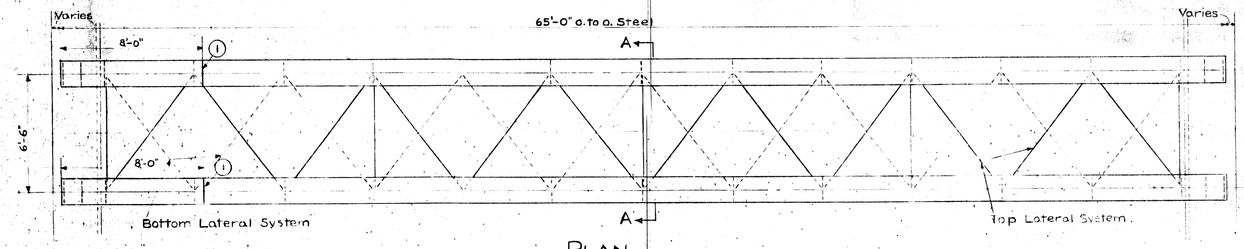
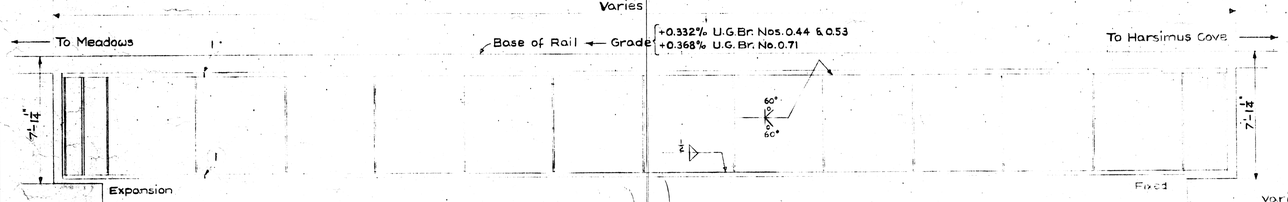
4 flanges are 21.328 cubic ft. x 4 = 85.31 cubic ft.
2 web plates are 18.05 cubic ft. x 2 = 36.1 cubic ft.
See notes below: total estimate weight is
74,500 lbs of steel (37.25 tons)
One beam itself weighs: 29,746 lbs (15 tons)



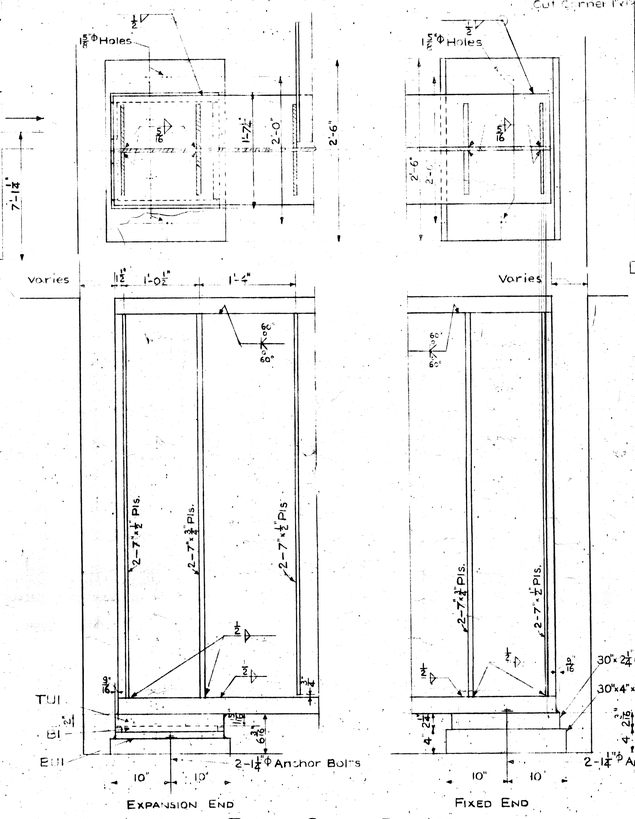
PLAN
Scale 1/4"=1'-0"

◦ GIRDERS ◦ 5'-9 1/4" DEEP ◦ 65'-0" LONG ◦

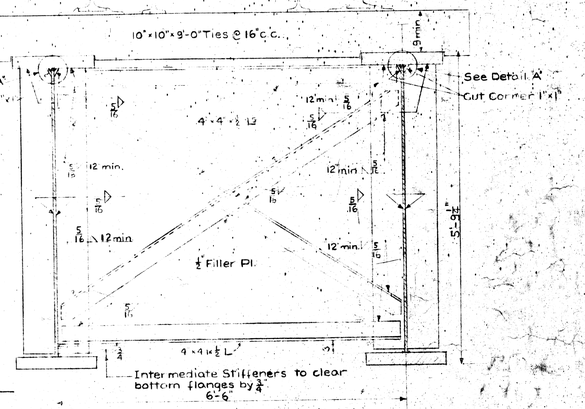
Flange Pl. 18"×2 5/8"×65'-0" both Flanges
Web Pls. 64"×5/8"
End Stiffeners 7"×3/4" and 7"×1/2" Pls.
Intermediate Stiffeners 7"×1/2" Pls.
End Shear = 346,000#
Camber – 1/2"



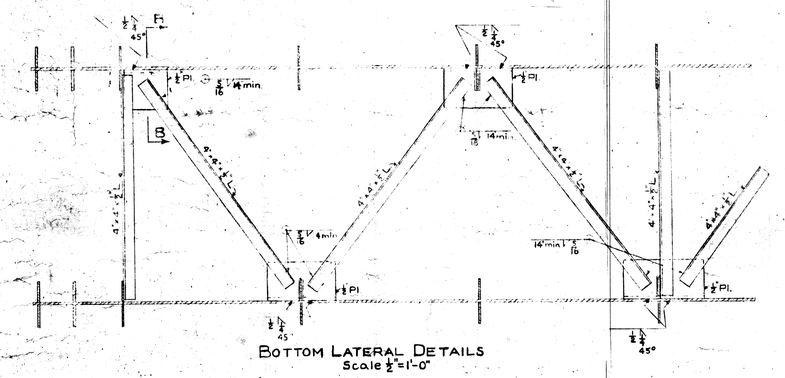
ELEVATION
Scale 1/4"=1'-0"



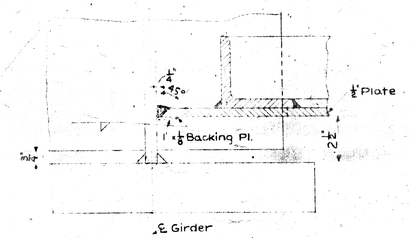
END OF GIRDER DETAILS
Scale 1"=1'-0"



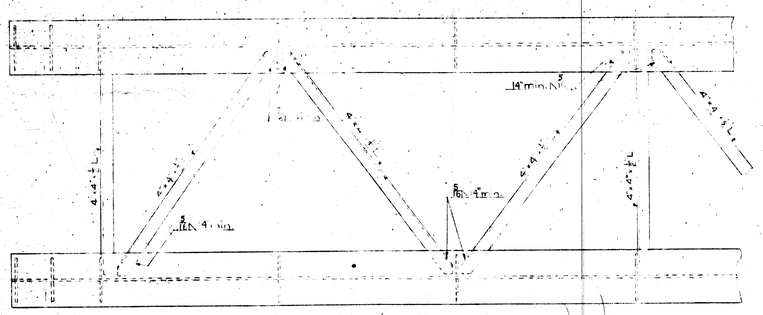
TYPICAL SECTION A-A
Scale 3/4"=1'-0"



BOTTOM LATERAL DETAILS
Scale 1/2"=1'-0"

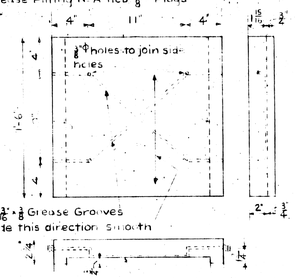


SECTION B-B
Scale 3"=1'-0"

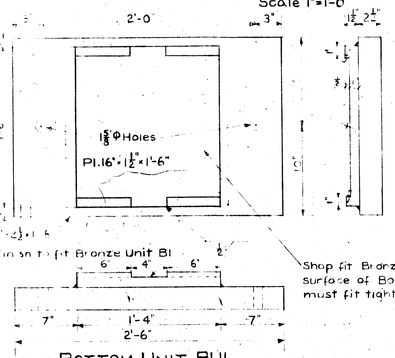


TOP LATERAL DETAILS
Scale 1/2"=1'-0"

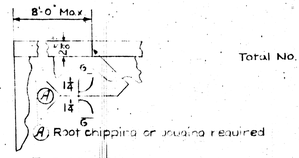
Drill 3/8" Φ holes and tap, both sides for Alemite Grease Fitting No. A-1188 3/8" Φ Plugs for shipment



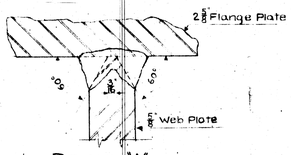
TOP UNIT TUI
Scale 1 1/2"=1'-0"



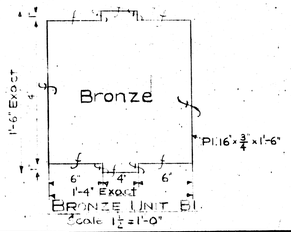
BOTTOM UNIT BUI
Scale 1 1/2"=1'-0"



ELEVATION
FLANGE SPLICE
ALTERNATE FLANGE DETAIL ①
Scale 1"=1'-0"



DETAIL "A"
TYPICAL WELDING DETAIL OF GIRDER
WEB PLATE TO GIRDER FLANGE
TOP FLANGE ONLY
Not to Scale



BRONZE UNIT BI
Scale 1 1/2"=1'-0"

NOTES

1. Structural Steel as per A.S.T.M. A373.
2. General Specifications as per A.R.E.A. Specs. for Steel Railway Bridges.
3. Live Load (Cooper E-72) as per A.R.E.A. Specs.
4. Web Splice — Use full Butt Weld for Web Splice if required.
5. Welding to be in accordance with American Welding Society Specs. for Highway and Railway Bridges D2.3-56. All welds to be continuous unless otherwise shown. All welders to be qualified in accordance with P.R.R. Regulations or other Regulations meeting with the approval of the Engineer.
6. Paint as per P.R.R. Specs. C.E. 31(h). All steel to be thoroughly cleaned and given one shop coat of paint, after erection given two coats of field paint.
7. Expansion Bearings:
   Bronze — A.S.T.M. Specification B-100 (current Alloy No. 1) Rolled Bronze Plates minimum tensile strength 60000 lb.
   Shipment Protection — Apply lacquer or protection grease to the planed surface of Top Unit TUI. Insert Bronze Unit BI into planed surface of Bottom Unit BUI and crate for shipment.
   Erection Note — Lacquer or protection grease to be cleaned off plane of surface in Top Unit TUI (that comes in contact with the Bronze Unit BI), grease grooves and mating surfaces when assembling, using care as noted in Maintenance of Bearings note.
   Holes and Grease Grooves — As noted.
   Maintenance of Bearings — The Expansion Bearings must be lubricated with Dixon Graphite Grease No. XP-271 Alcoa #57 Ref. 364 every year or as often as conditions require.
8. All welds connecting flange plates to web plate must be made by submerged arc welding.

Total No. of Track Spans req'd — 8 { 3 — U.G. Br. 0.44, Track Nos. 1, 2 & 3.
3 — " 0.53, " " 1, 2 & 3
2 — " 0.71, " " 1 & 2

ESTIMATED QUANTITIES (For 1 Span).

Structural Steel	74500 lbs.
Bronze	140 lbs.

NO.	DATE	DESCRIPTION
1	1-23-57	Alternate Fl. Detail

REVISIONS

THE PENNSYLVANIA RAILROAD
NEW YORK REGION — NEW YORK DISTRICT
HARSIMUS BRANCH
U.G. BRIDGE Nos. 0.44, 0.53, 0.71
JERSEY CITY, N.J.
NEW TRACK SPANS (WELDED)

OFFICE OF ASSISTANT CHIEF ENGINEER-STRUCTURES — PHILADELPHIA, PENNA.

APPROVED — ENGR. OF BRIDGES & BUILDINGS
APPROVED — ASST. CHIEF ENGR.-STRUCTURES
DATE Nov. 6, 1956
7573-1

DES	B.S.
DR	B.S.
CH	K.P.F.
TR	