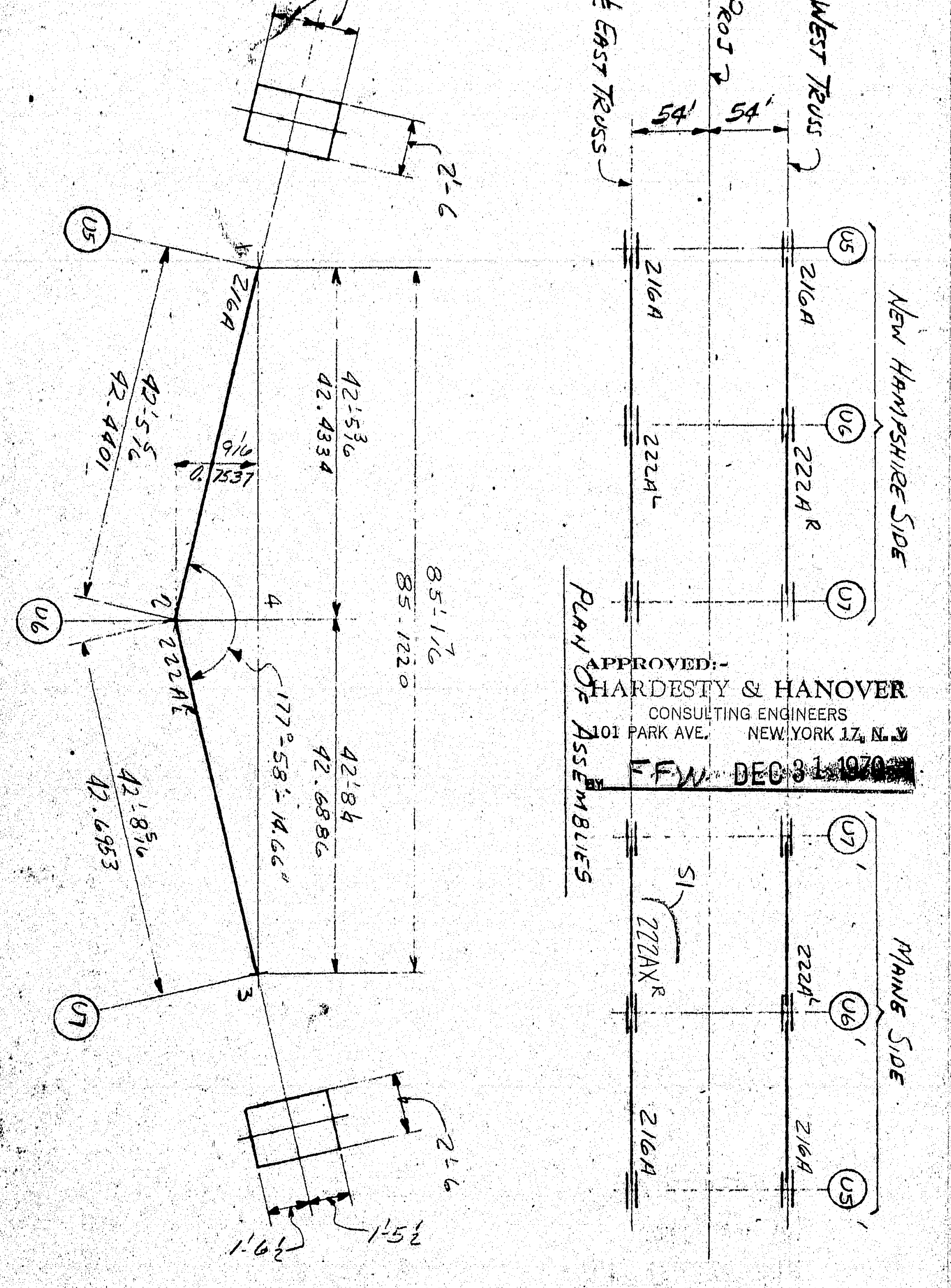
FABRICATED STEEL CONSTRUCTION
QUADRILLE SHEET
3224 (Rev.8 7-57)
DRAFTING ROOM
WORKS

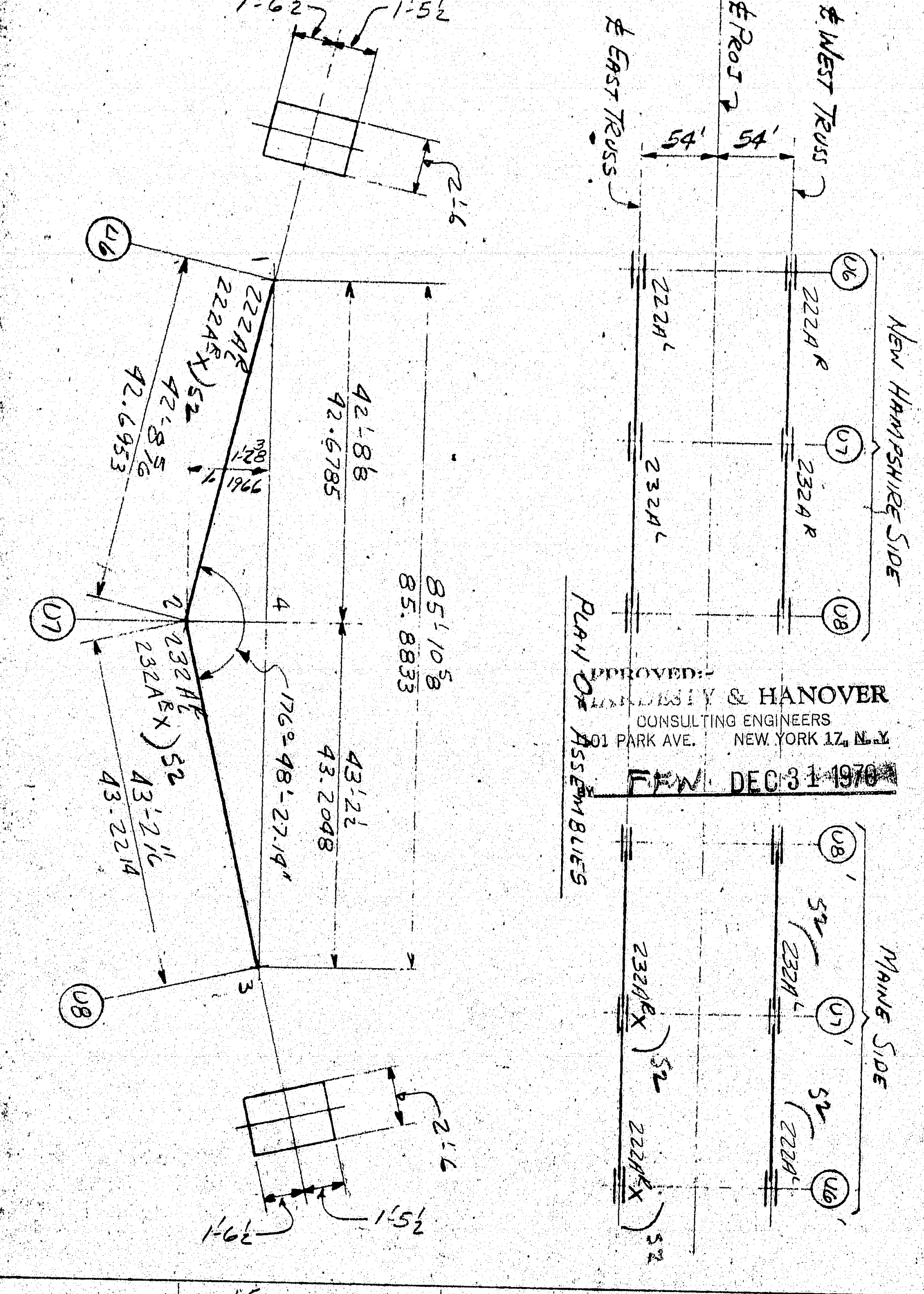


APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY FFW DEC 31 1970

In Charge ..... Made LG Date ..... Revised LG Date 5-12-70 Contract CG 6290-91
Shop No. ..... Checked PS Date 4-23-70 (S1) Revised W.B. Date 12-20-70 Sheet YA 7
Customer ..... Structure .....

137:106

FABRICATED STEEL CONSTRUCTION
QUADRILLE SHEET
3224 (Rev.8 7-57)
DRAFTING ROOM
WORKS

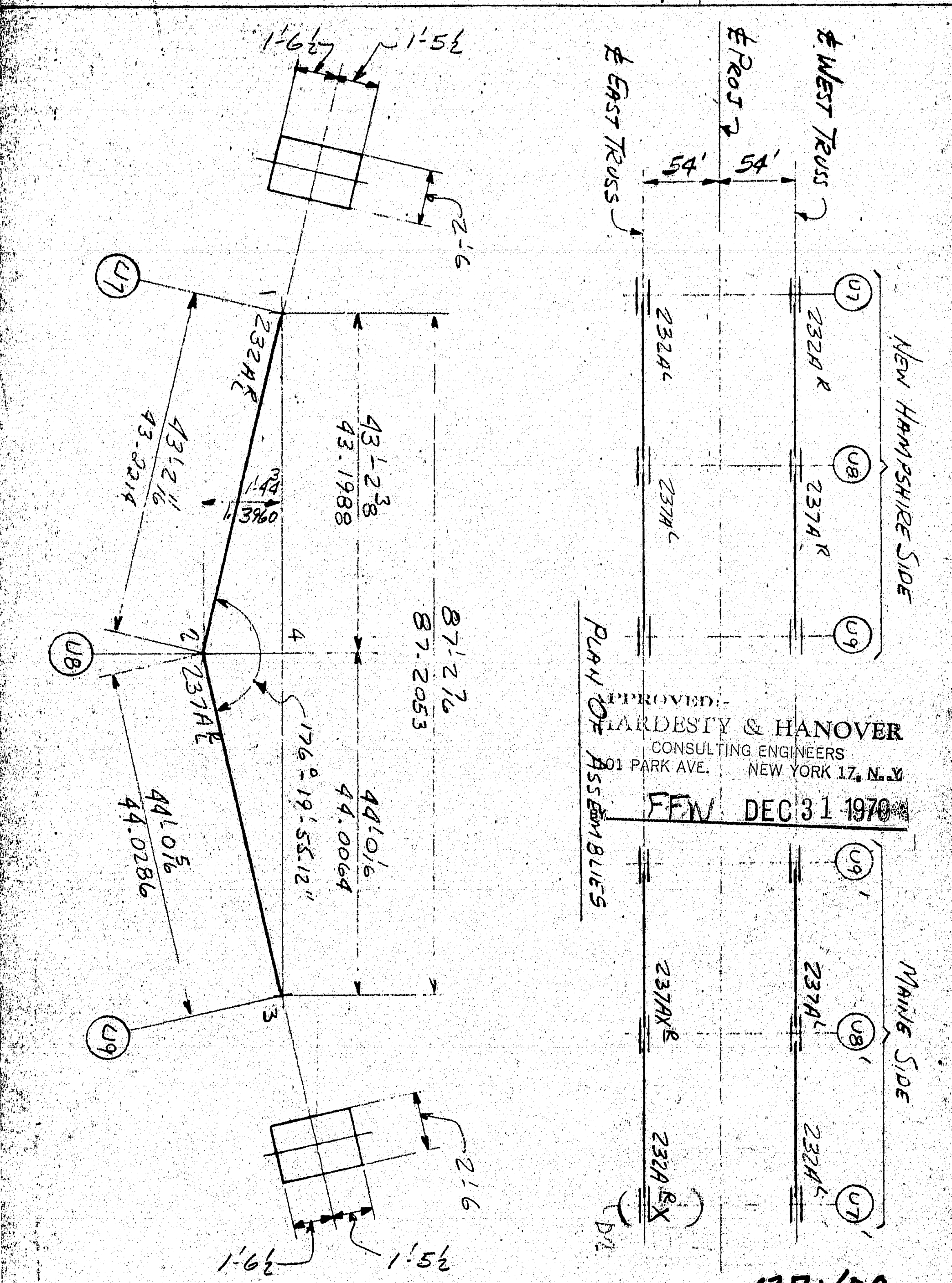


APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY FFW DEC 31 1970

In Charge ..... Made LG Date ..... Revised LG Date 5-12-70 Contract CG 6290-91
Shop No. ..... Checked PS Date 4-23-70 (S2) Revised LG Date 11-11-70 Sheet YA 8
Customer ..... Structure .....

137:107

FABRICATED STEEL CONSTRUCTION
QUADRILLE SHEET
3224 (Rev.8 7-57)
DRAFTING ROOM
WORKS

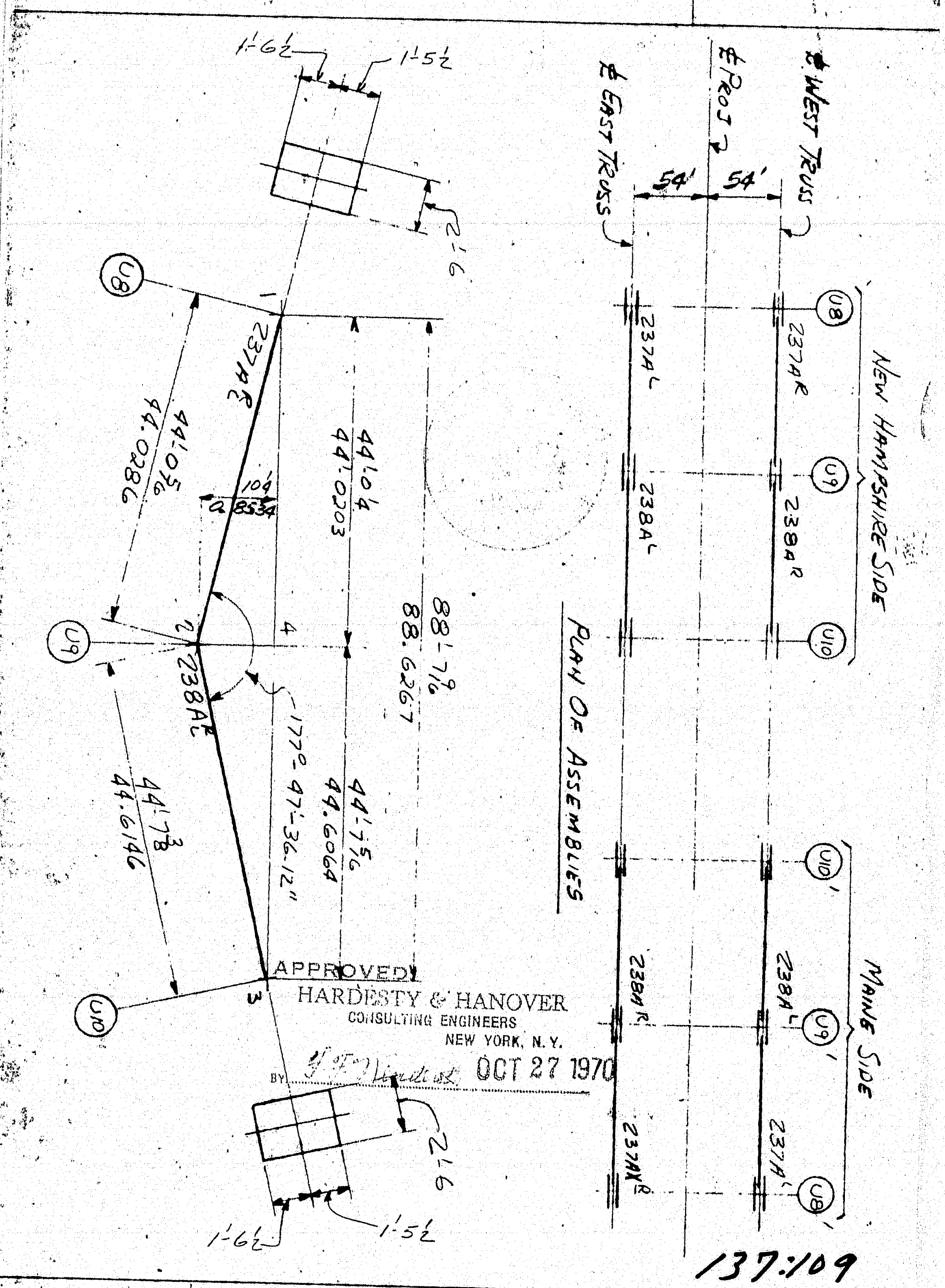


APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY FFW DEC 31 1970

137:108

In Charge ..... Made LG Date ..... Revised LG Date 5-12-70 Contract CG 6290-91
Shop No. ..... Checked PS Date 4-23-70 Revised (S1) 10-15-70 Date LG Sheet YA 9
(D2) 11-13-70 CAD
Customer ..... Structure .....

FABRICATED STEEL CONSTRUCTION
QUADRILLE SHEET
3224 (Rev.8 7-57)
DRAFTING ROOM
WORKS

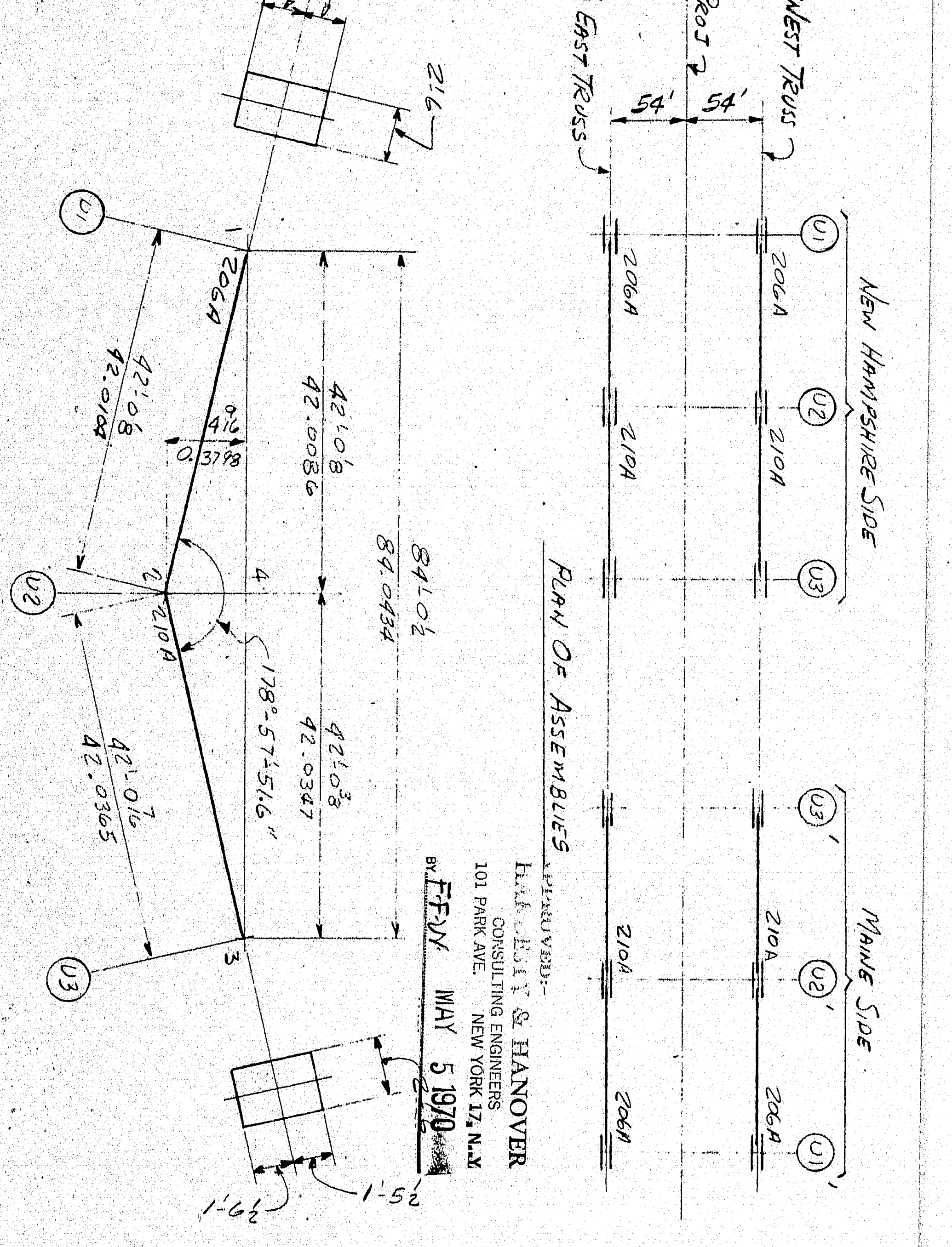


APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
NEW YORK, N.Y.
BY OCT 27 1970

137:109

In Charge ..... Made LG Date ..... Revised LG Date 5-12-70 Contract CG 6290-91
Shop No. ..... Checked PS Date 4-23-70 Revised (S1) 10-15-70 Date LG Sheet YA 10
Customer ..... Structure .....

FABRICATED STEEL CONSTRUCTION
QUADRILLE SHEET
3224 (Rev.8 7-57)
DRAFTING ROOM
WORKS



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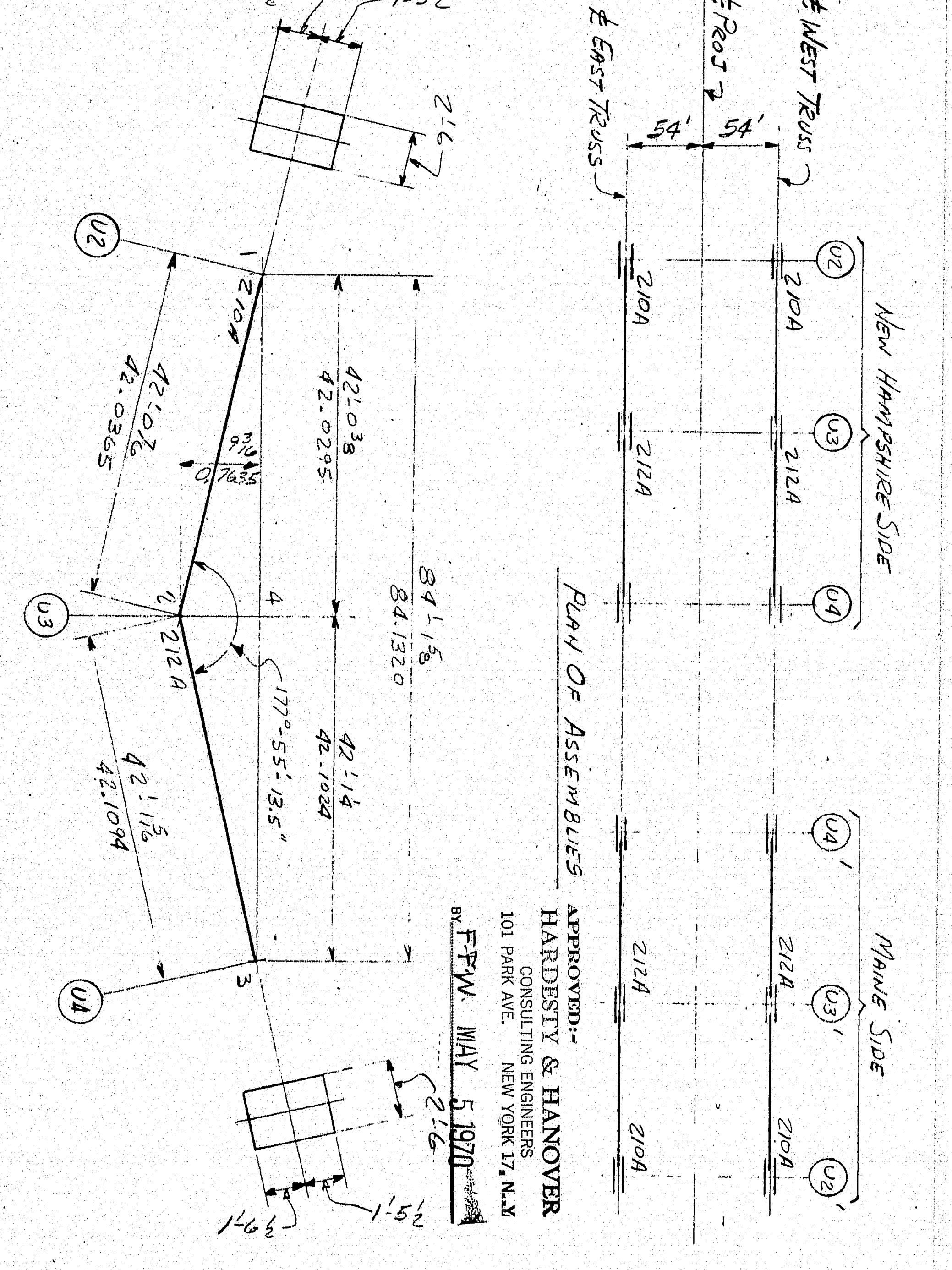
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY FFW MAY 5 1970

In Charge ..... Made LG Date ..... Revised ..... Date ..... Contract CG 6290
Shop No. ..... Checked PS Date 4-23-70 Revised ..... Date ..... Sheet YA 3
Customer ..... Structure .....

137:102

FABRICATED STEEL CONSTRUCTION
QUADRILLE SHEET
3224 (Rev.8 7-57)
WORKS



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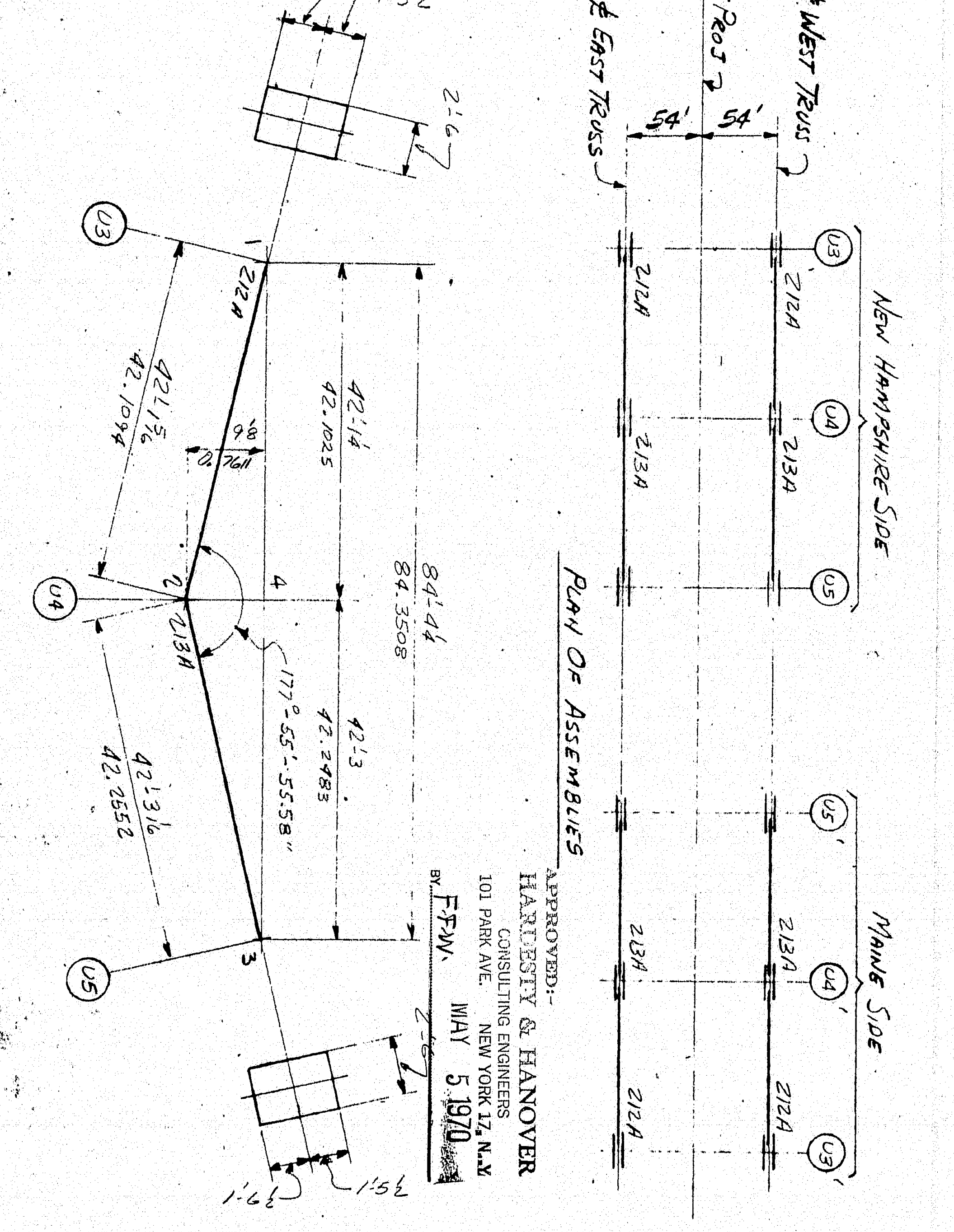
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY FFW MAY 5 1970

In Charge ..... Made LG Date ..... Revised ..... Date ..... Contract CG 6290
Shop No. ..... Checked PS Date 4-23-70 Revised ..... Date ..... Sheet YA 4
Customer ..... Structure .....

137:103

QUADRILLE SHEET
3224 (Rev.8 7-57)
WORKS

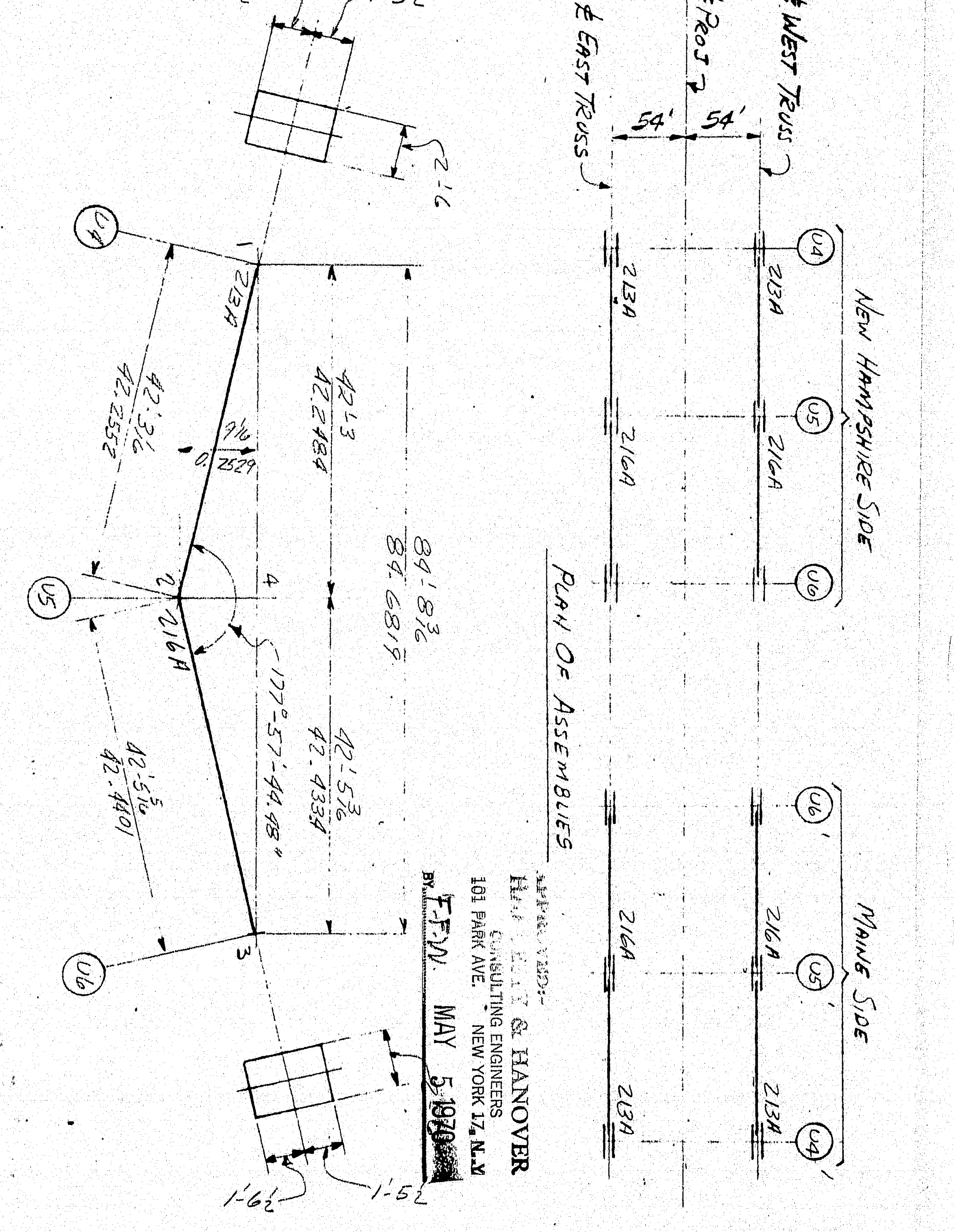


APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY FFW MAY 5 1970

In Charge ..... Made LG Date ..... Revised ..... Date ..... Contract CG 6290
Shop No. ..... Checked PS Date 4-23-70 Revised ..... Date ..... Sheet YA 5
Customer ..... Structure .....

137:104

QUADRILLE SHEET
3224 (Rev.8 7-57)
WORKS



APPROVED:-
HARDESTY & HANOVER
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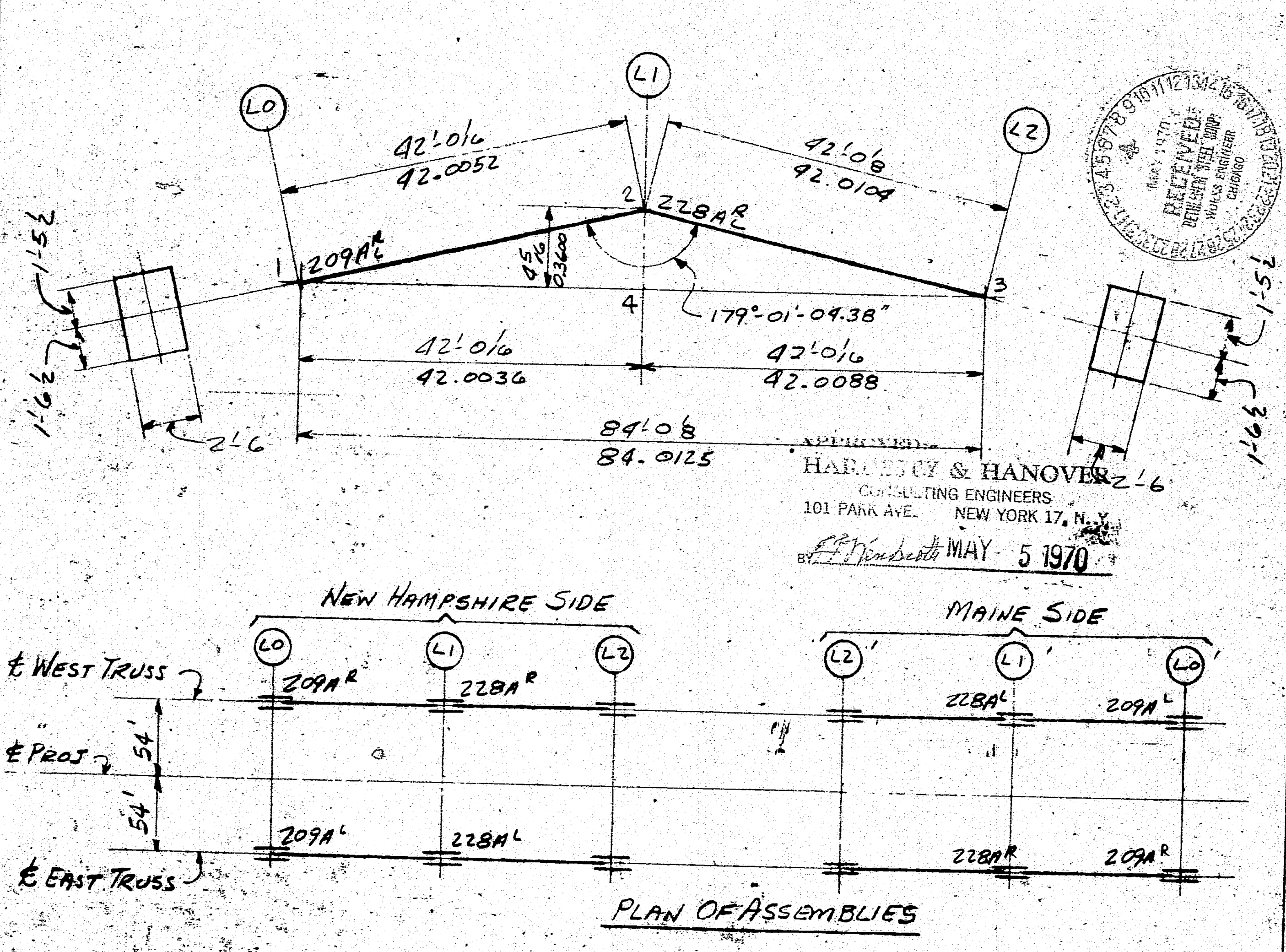
101 PARK AVE. NEW YORK 17, N.Y.
BY FFW MAY 5 1970

In Charge ..... Made LG Date ..... Revised ..... Date ..... Contract CG 6290
Shop No. ..... Checked PS Date 4-23-70 Revised ..... Date ..... Sheet YA 6
Customer ..... Structure .....

137:105

FABRICATED STEEL CONSTRUCTION
QUADRILLE SHEET
3224 (Rev.8 7-57)

DRAFTING ROOM
WORKS



APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY F.F. Windcott MAY 5 1970

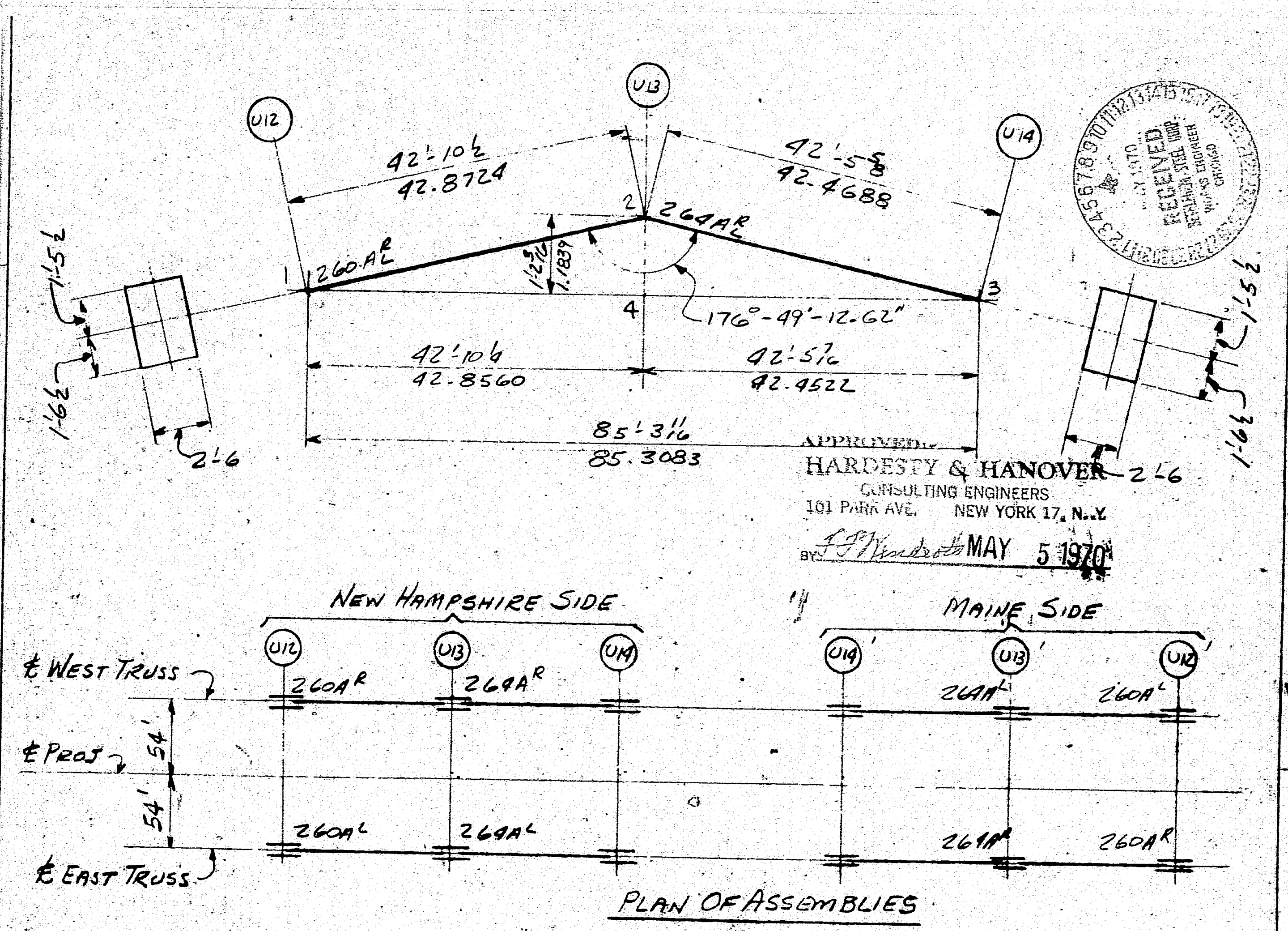
MAY 1970
RECEIVED
BETHLEHEM STEEL CORP.
WORKS ENGINEER
CHICAGO

In Charge
Shop No.
Made LG Date
Checked PS Date 4-23-70
Revised Date
Revised Date
Contract CG6290
Sheet YA 18
Customer
Structure

137:117

FABRICATED STEEL CONSTRUCTION
QUADRILLE SHEET
3224 (Rev.8 7-57)

DRAFTING ROOM
WORKS



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CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY F.F. Windcott MAY 5 1970

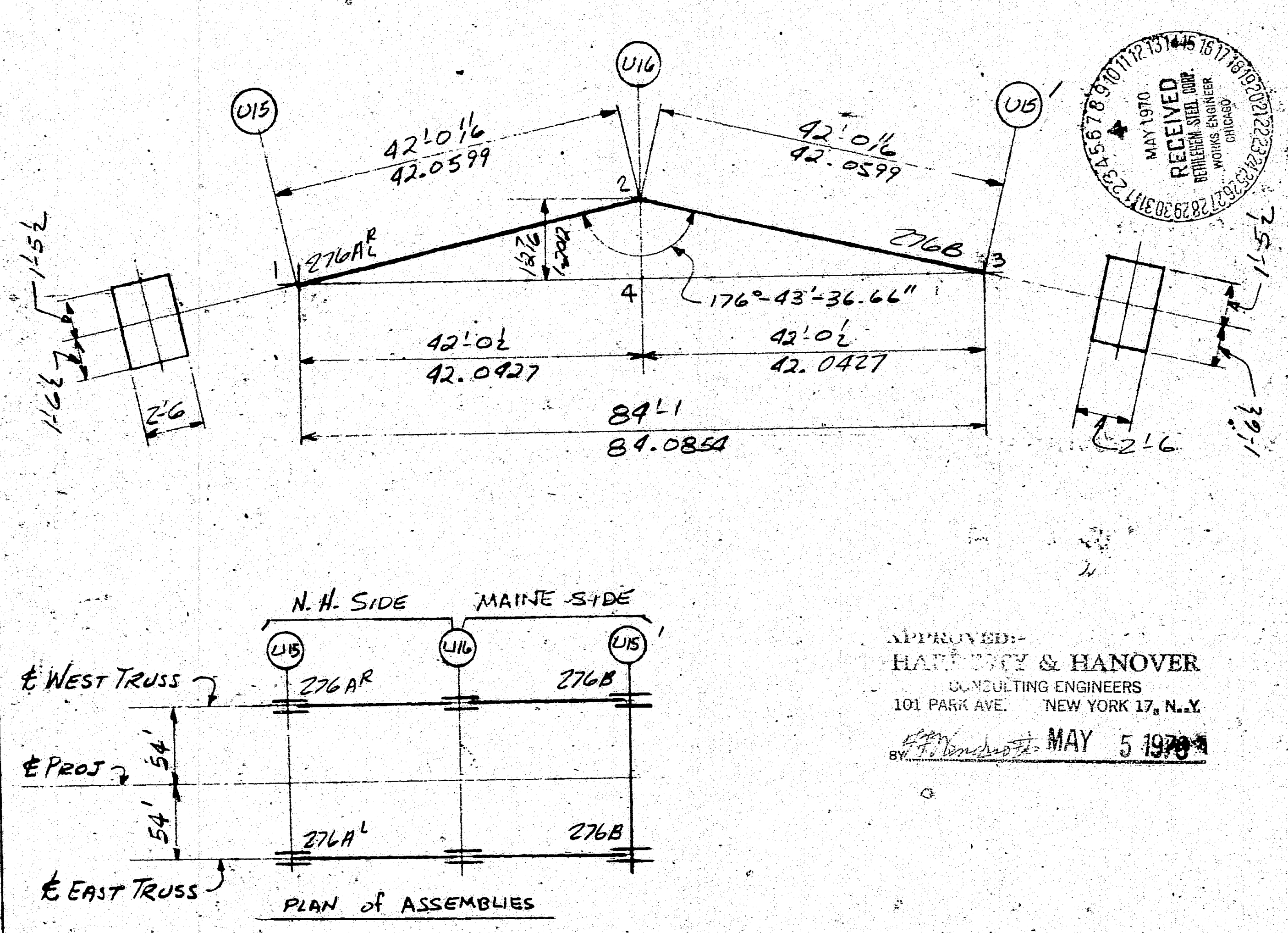
MAY 1970
RECEIVED
BETHLEHEM STEEL CORP.
WORKS ENGINEER
CHICAGO

In Charge
Shop No.
Made LG Date
Checked PS Date 4-23-70
Revised Date
Revised Date
Contract CG6290
Sheet YA 14
Customer
Structure

137:113

FABRICATED STEEL CONSTRUCTION
QUADRILLE SHEET
3224 (Rev.8 7-57)

DRAFTING ROOM
WORKS



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BY F.F. Windcott MAY 5 1970

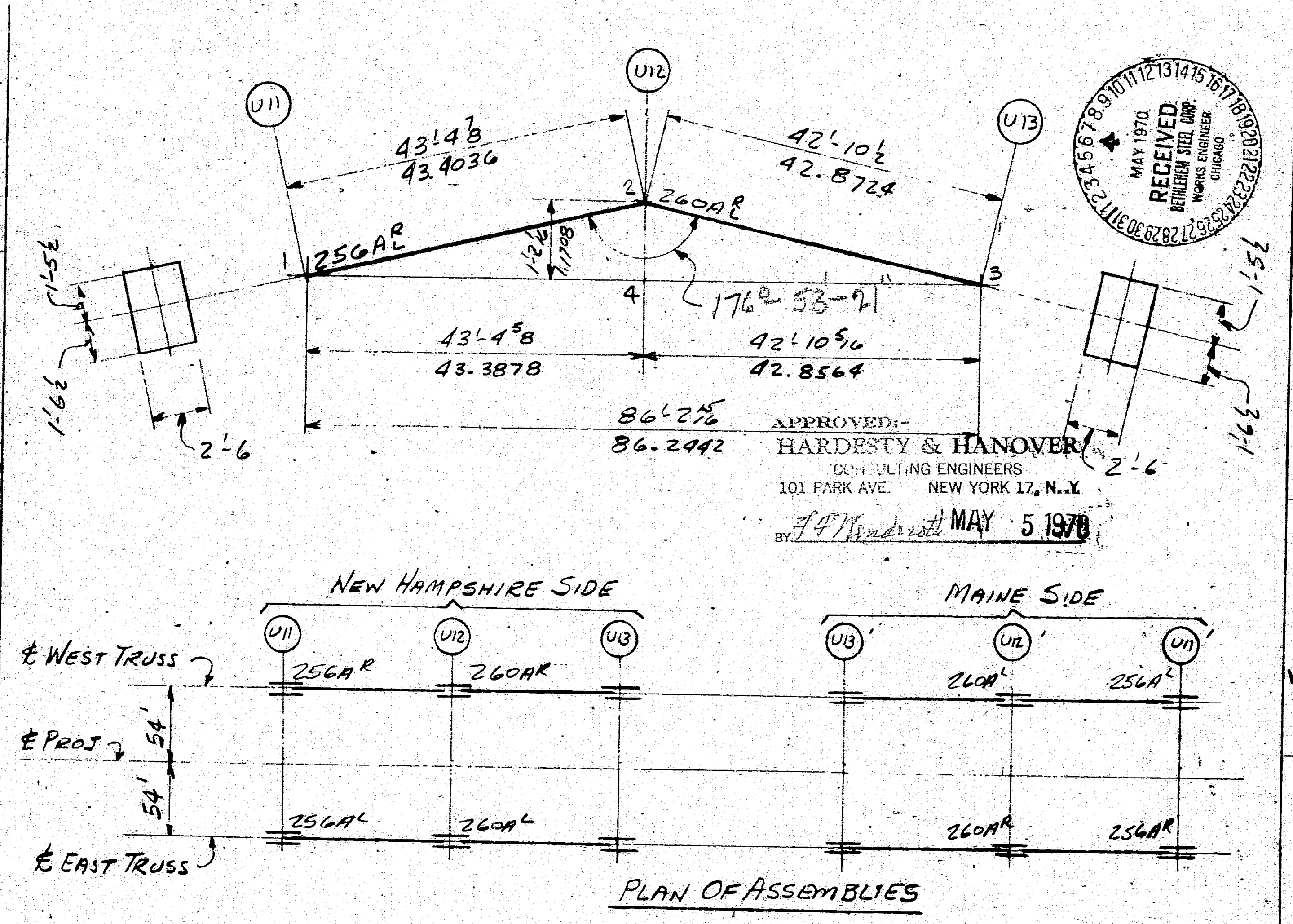
MAY 1970
RECEIVED
BETHLEHEM STEEL CORP.
WORKS ENGINEER
CHICAGO

In Charge
Shop No.
Made LG Date
Checked PS Date 4-23-70
Revised Date
Revised Date
Contract CG6290
Sheet YA 17
Customer
Structure

137:116

FABRICATED STEEL CONSTRUCTION
QUADRILLE SHEET
3224 (Rev.8 7-57)

DRAFTING ROOM
WORKS



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CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY F.F. Windcott MAY 5 1970

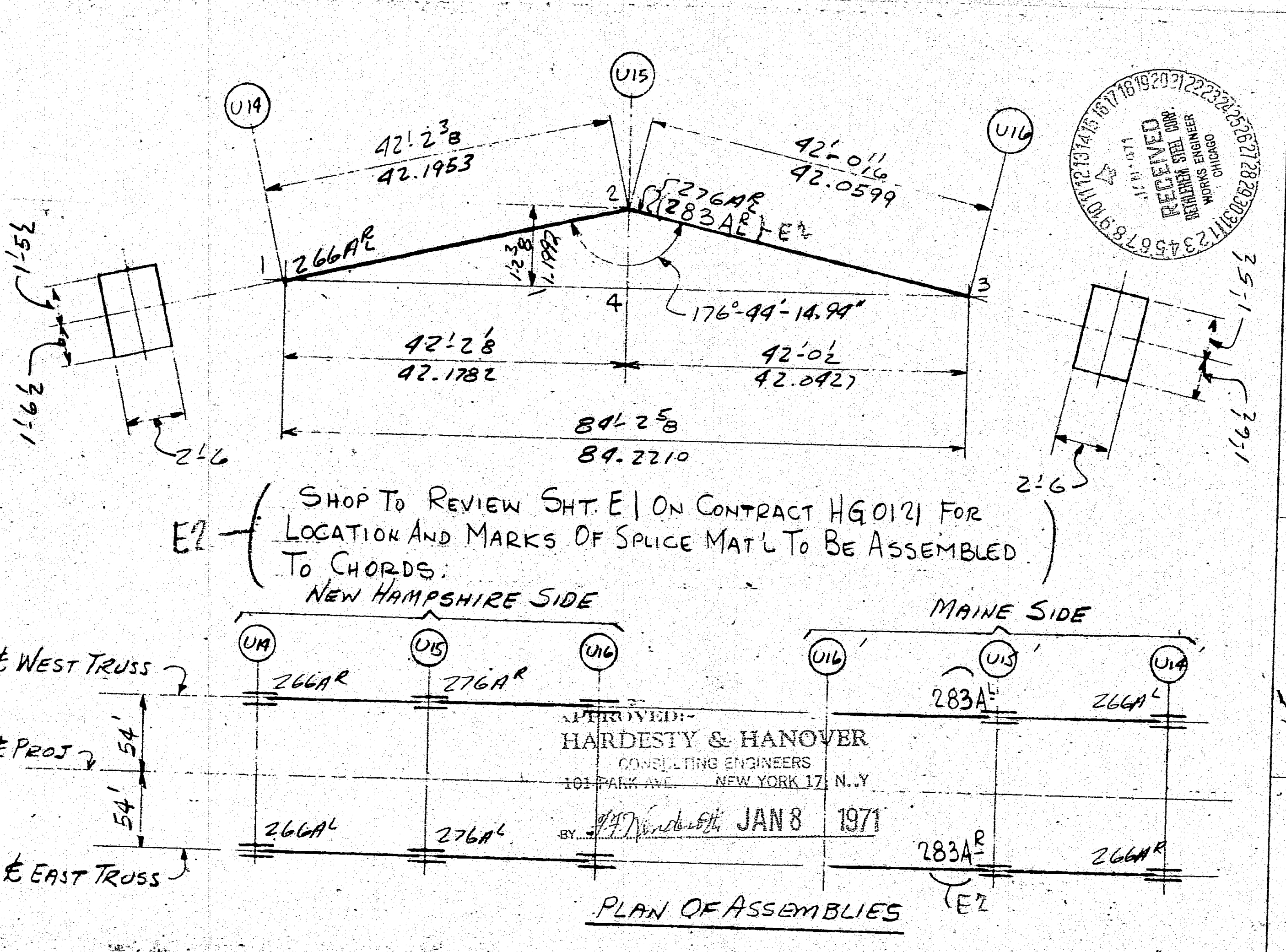
MAY 1970
RECEIVED
BETHLEHEM STEEL CORP.
WORKS ENGINEER
CHICAGO

In Charge
Shop No.
Made LG Date
Checked PS Date 4-23-70
Revised Date
Revised Date
Contract CG6290
Sheet YA 13
Customer
Structure

137:112

FABRICATED STEEL CONSTRUCTION
QUADRILLE SHEET
3224 (Rev.8 7-57)

DRAFTING ROOM
WORKS



E2 (SHOP TO REVIEW SHT. E1 ON CONTRACT HG0121 FOR LOCATION AND MARKS OF SPLICE MAT'L TO BE ASSEMBLED TO CHORDS.)

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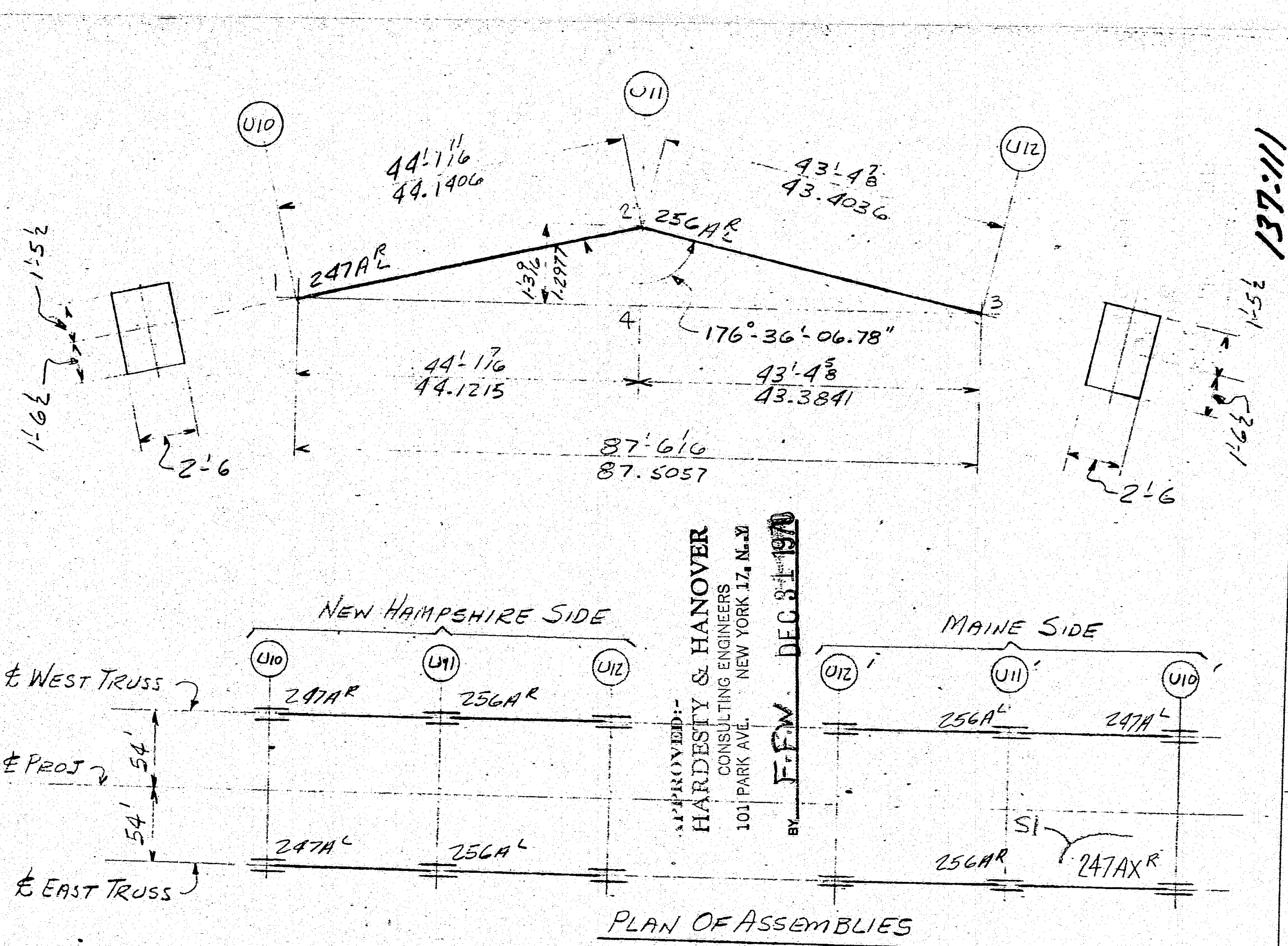
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY F.F. Windcott JAN 8 1971

JAN 1971
RECEIVED
BETHLEHEM STEEL CORP.
WORKS ENGINEER
CHICAGO

In Charge
Shop No.
Made LG Date
Checked PS Date 4-23-70
Revised LG Date 5-12-70
(E2) Revised LM Date 1-4-70
Contract CG6290-91
Sheet YA 16
Customer
Structure

137:115

FABRICATED STEEL CONSTRUCTION
QUADRILLE SHEET
3224 (Rev.8 7-57)



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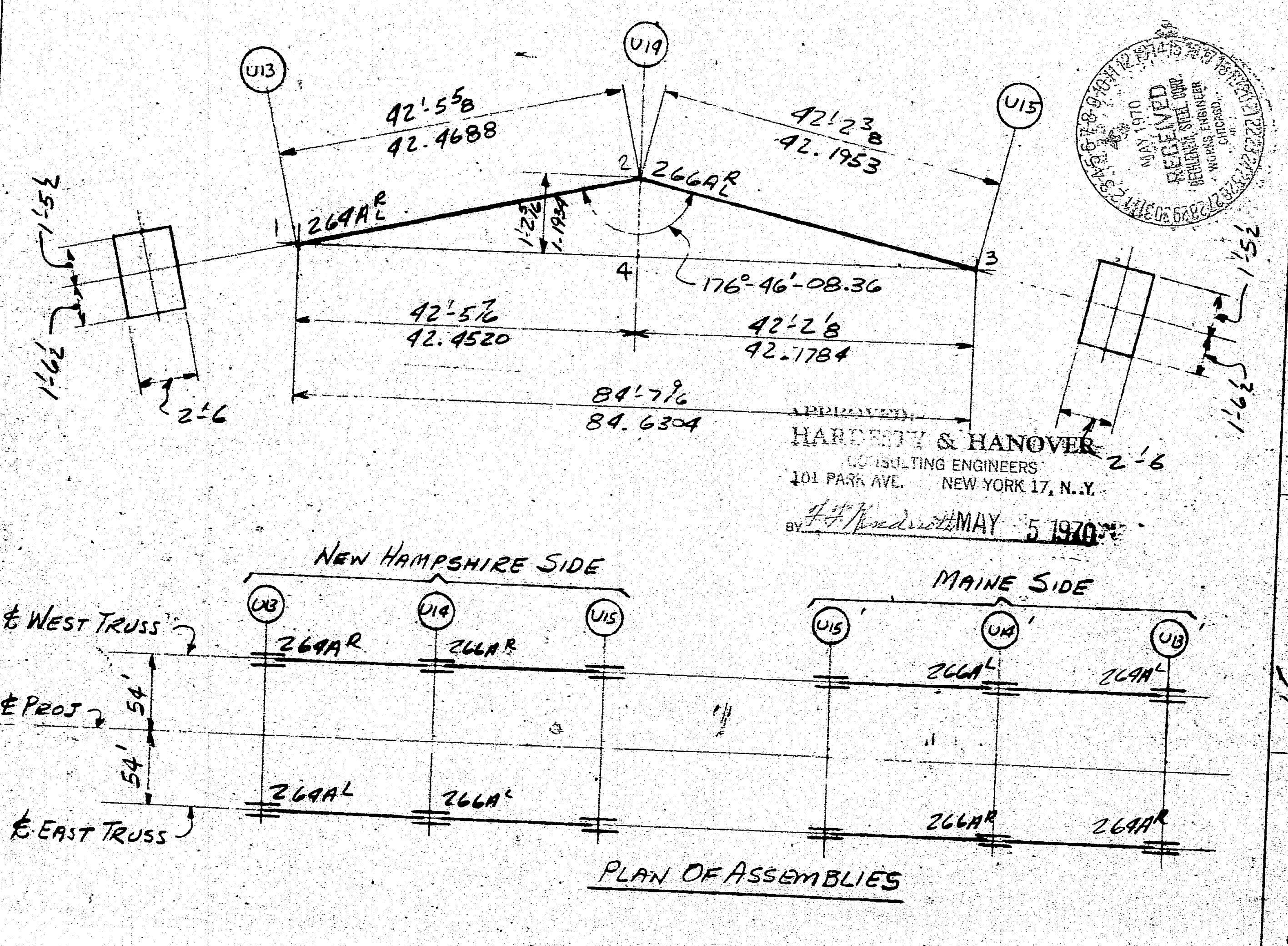
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY F.F.W. DEC 31 1970

In Charge
Shop No.
Made LG Date
Checked PS Date 4-23-70
Revised LG Date 5-12-70
(S1) Revised W.B. Date 12-20-70
Contract CG6290-91
Sheet YA 12
Customer
Structure

137:111

FABRICATED STEEL CONSTRUCTION
QUADRILLE SHEET
3224 (Rev.8 7-57)

DRAFTING ROOM
WORKS



APPROVED:-
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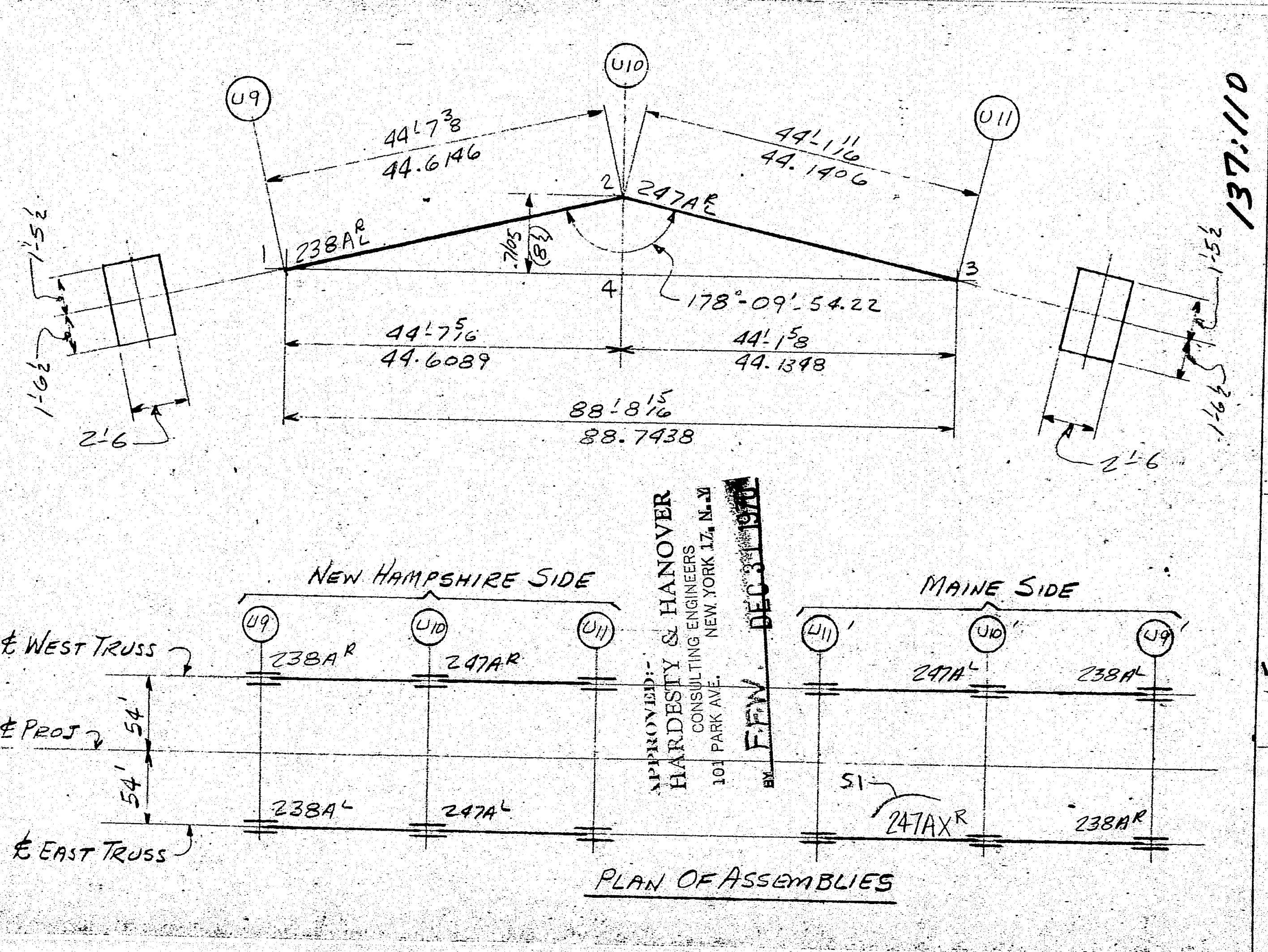
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY F.F. Windcott MAY 5 1970

MAY 1970
RECEIVED
BETHLEHEM STEEL CORP.
WORKS ENGINEER
CHICAGO

In Charge
Shop No.
Made LG Date
Checked PS Date 4-23-70
Revised Date
Revised Date
Contract CG6290
Sheet YA 15
Customer
Structure

137:114



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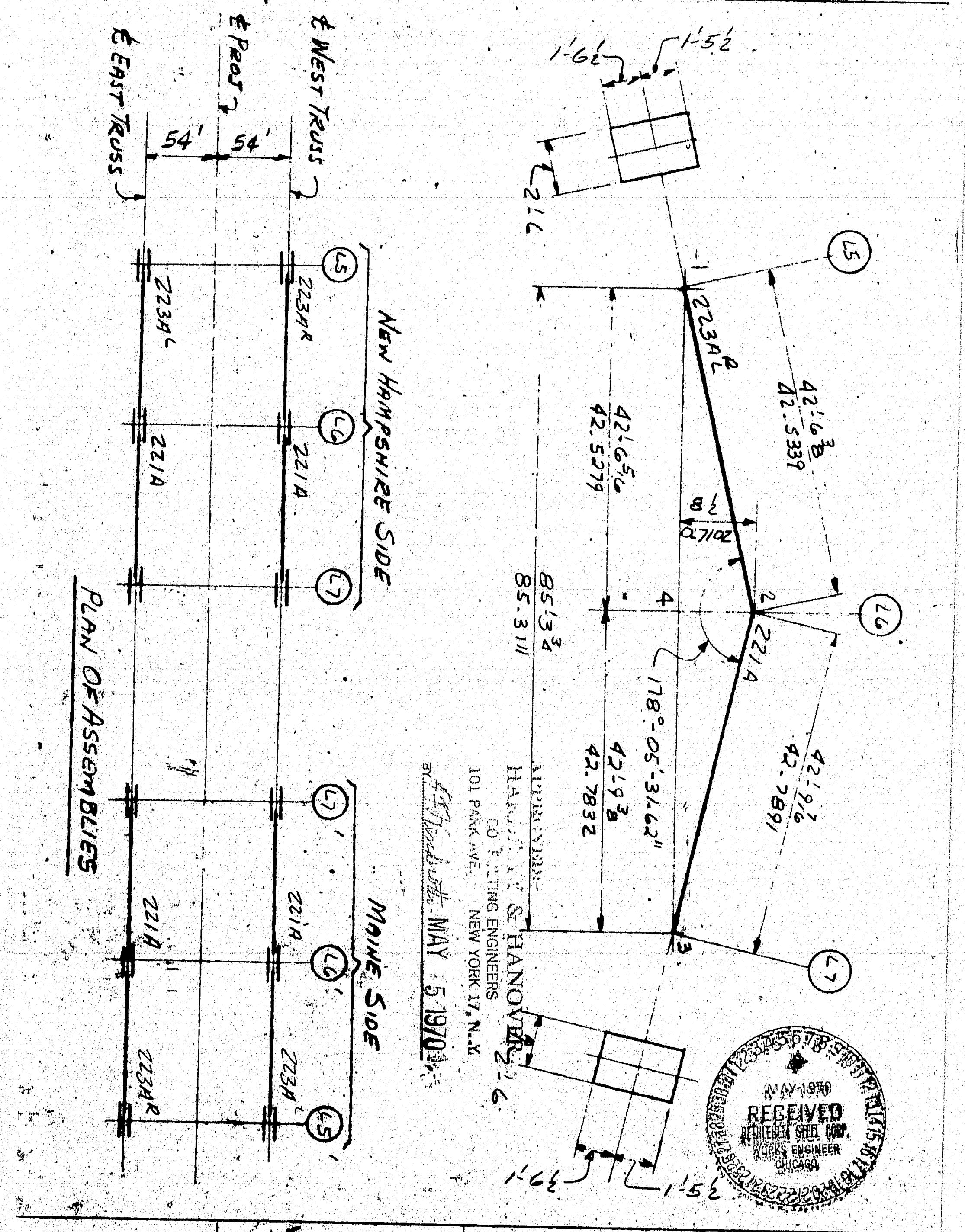
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY F.F.W. DEC 31 1970

In Charge
Shop No.
Made LG Date
Checked PS Date 4-23-70
Revised LG Date 5-12-70
(S1) Revised W.B. Date 12-20-70
Contract CG6290-91
Sheet YA 11
Customer
Structure

137:110

FABRICATED STEEL CONSTRUCTION
QUADRILLE SHEET
3224 (Rev. 8 7-57)
DRAFTING ROOM
WORKS

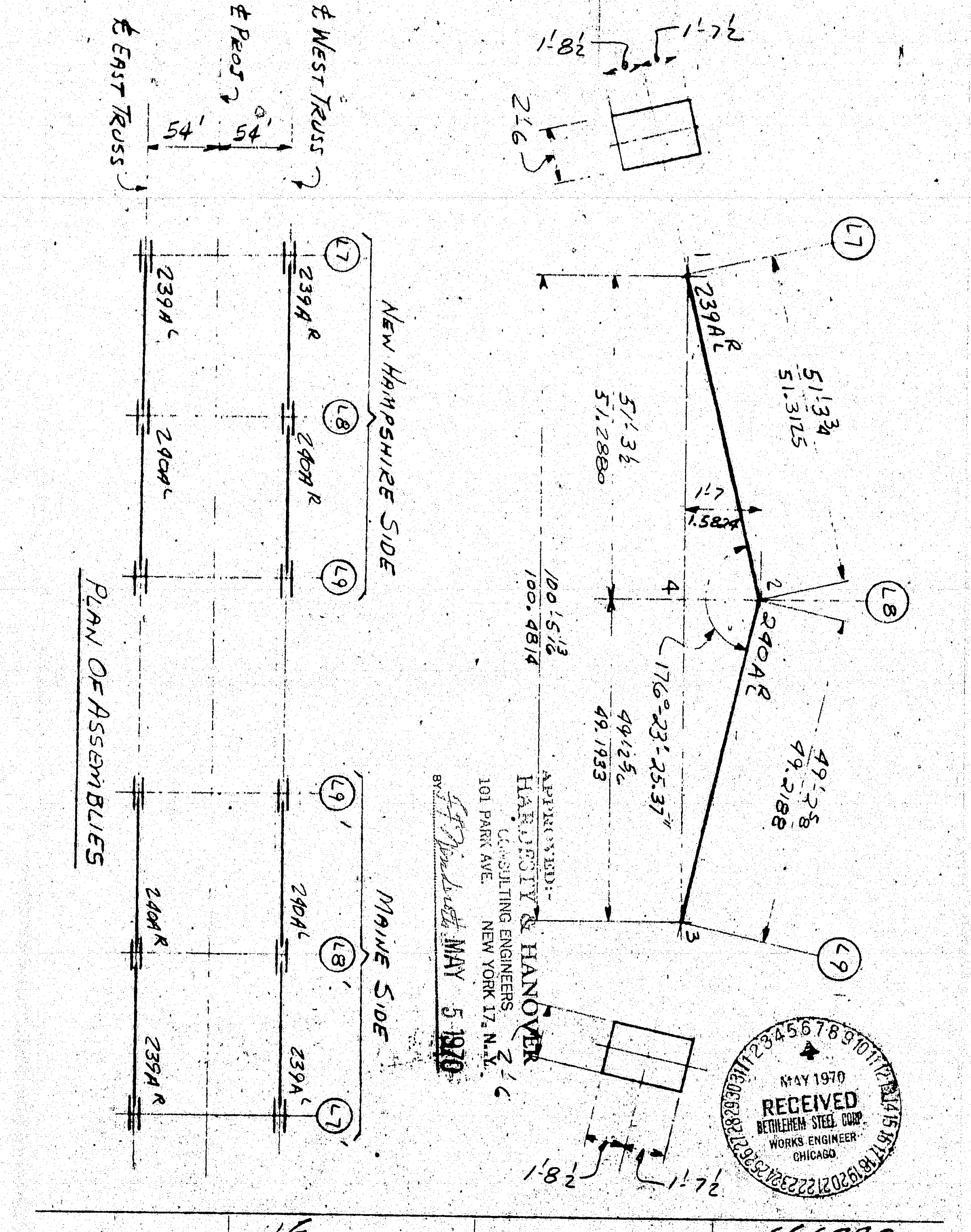


APPROVED:
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY [illegible] MAY 5 1970

MAY 1970
RECEIVED
BETHLEHEM STEEL CORP.
WORKS ENGINEER
CHICAGO

In Charge
Shop No.
Made LG Date
Checked PS Date 4-23-70
Revised Date
Revised Date
Contract CG6290
Sheet YA 23
Customer
Structure
137:122

FABRICATED STEEL CONSTRUCTION
QUADRILLE SHEET
3224 (Rev. 8 7-57)
DRAFTING ROOM
WORKS



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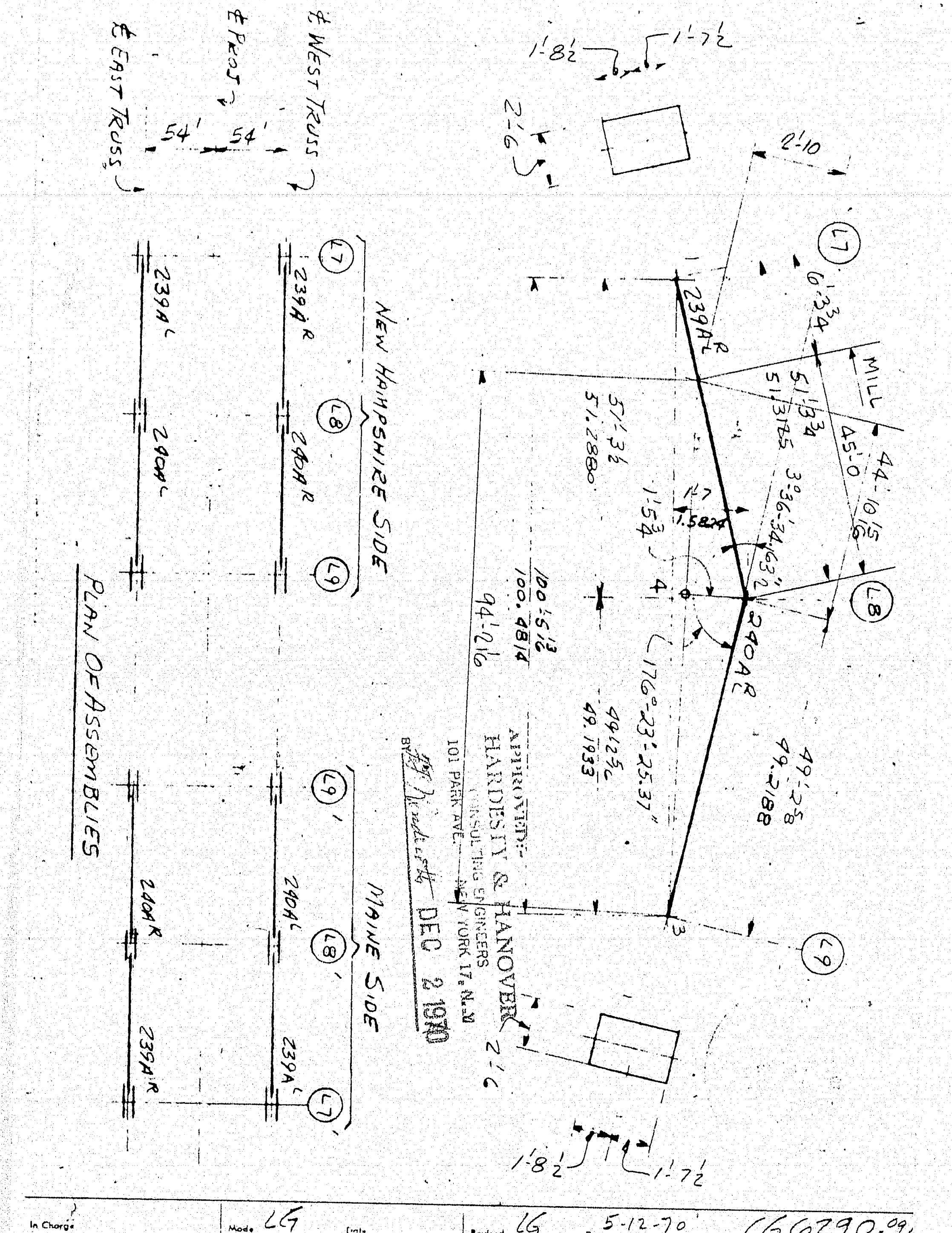
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY [illegible] MAY 5 1970

MAY 1970
RECEIVED
BETHLEHEM STEEL CORP.
WORKS ENGINEER
CHICAGO

In Charge
Shop No.
Made LG Date
Checked PS Date 4-23-70
Revised Date
Revised Date
Contract CG6290
Sheet YA 24
Customer
Structure
137:123

FABRICATED STEEL CONSTRUCTION
QUADRILLE SHEET
3224 (Rev. 8 7-57)
DRAFTING ROOM
WORKS



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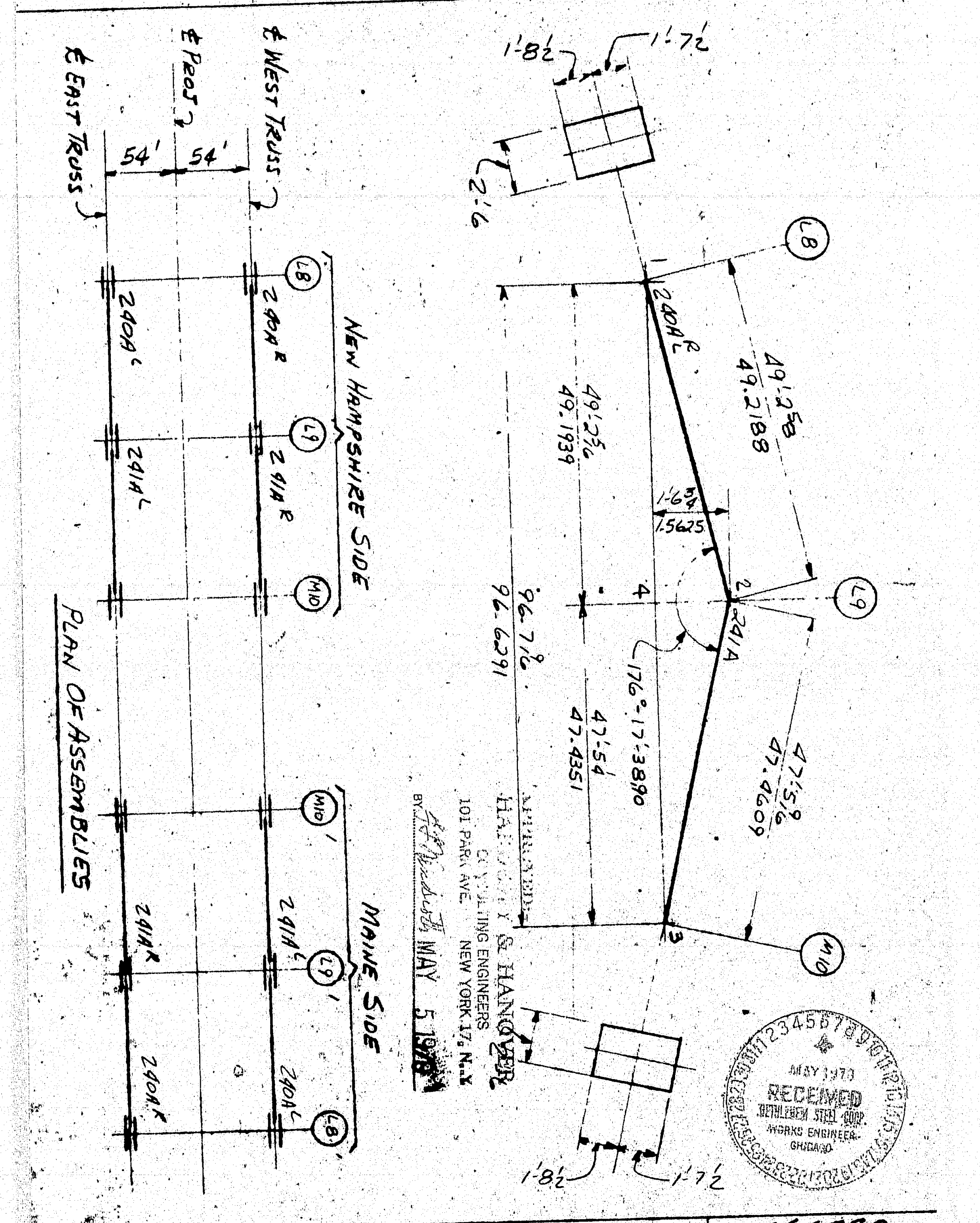
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY [illegible] DEC 2 1970

In Charge
Shop No.
Made LG Date
Checked PS Date 4-23-70
Revised LG Date 5-12-70
Revised Date
Contract CG6290.09
Sheet YA 24X
Customer
Structure
137:124

FABRICATED STEEL CONSTRUCTION
QUADRILLE SHEET
3224 (Rev. 8 7-57)
DRAFTING ROOM
WORKS



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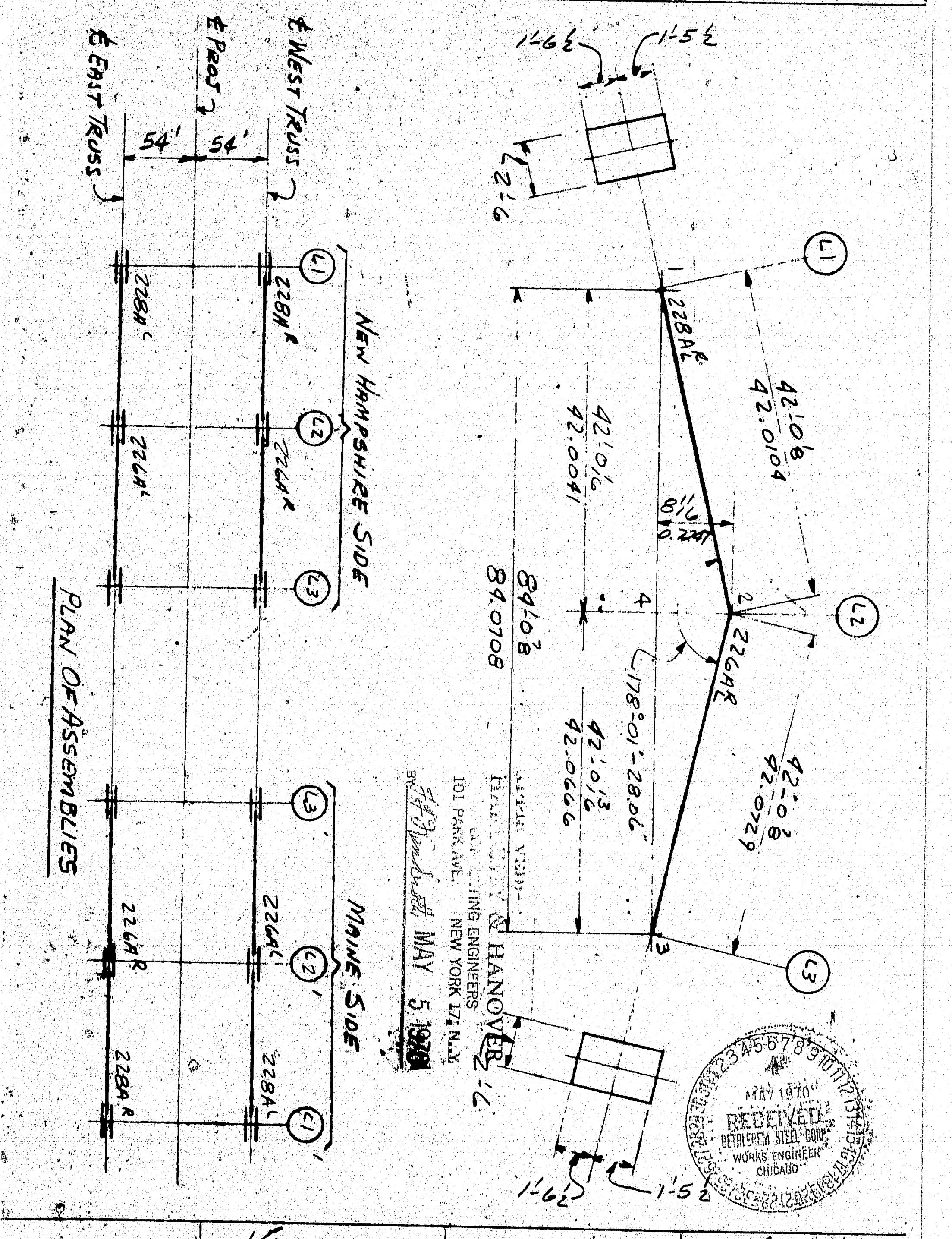
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY [illegible] MAY 5 1970

MAY 1970
RECEIVED
BETHLEHEM STEEL CORP.
WORKS ENGINEER
CHICAGO

In Charge
Shop No.
Made LG Date
Checked PS Date 4-23-70
Revised Date
Revised Date
Contract CG6290
Sheet YA 25
Customer
Structure
137:125



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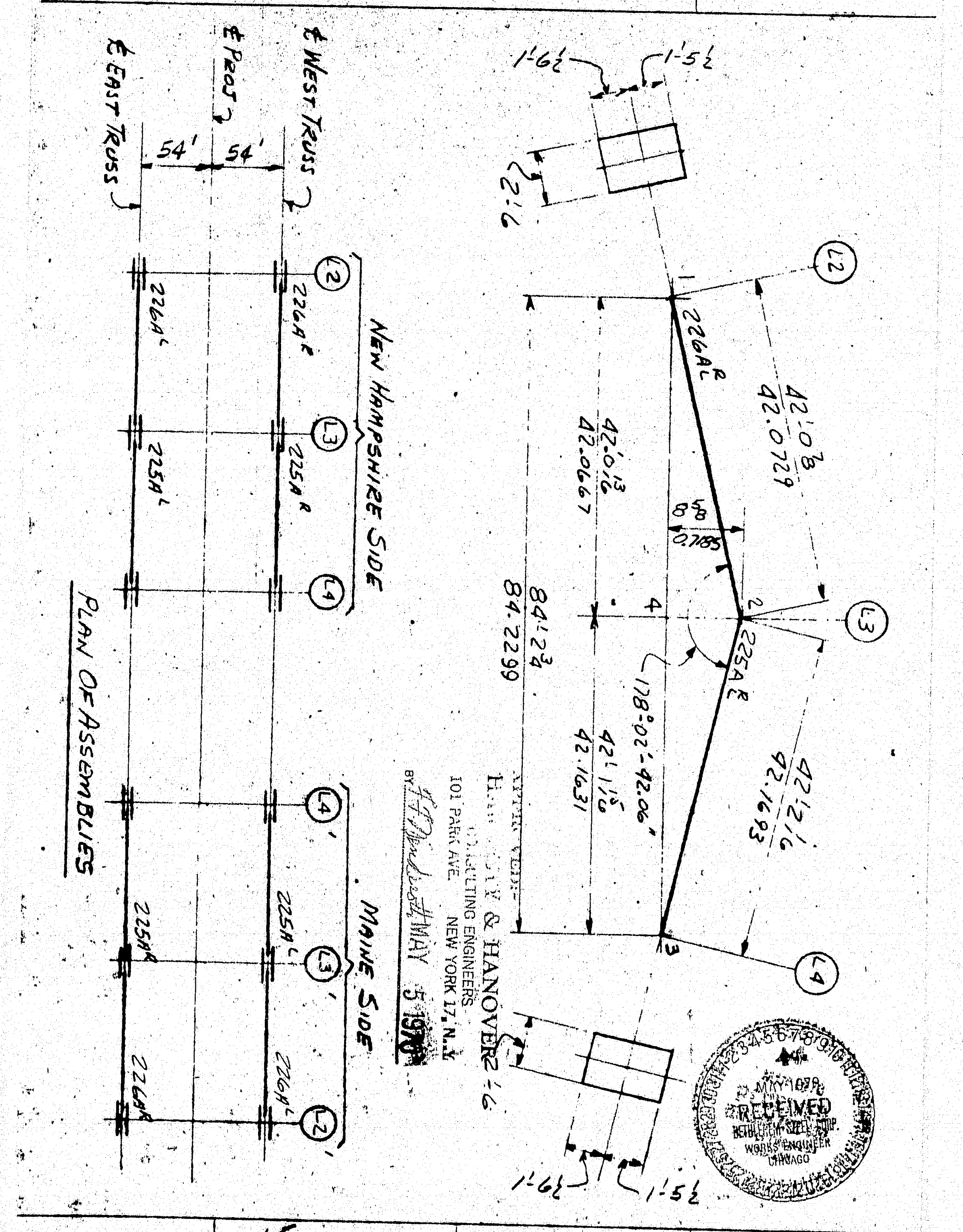
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY [illegible] MAY 5 1970

MAY 1970
RECEIVED
BETHLEHEM STEEL CORP.
WORKS ENGINEER
CHICAGO

In Charge
Shop No.
Made LG Date
Checked PS Date 4-23-70
Revised Date
Revised Date
Contract CG6290
Sheet YA 19
Customer
Structure
137:118



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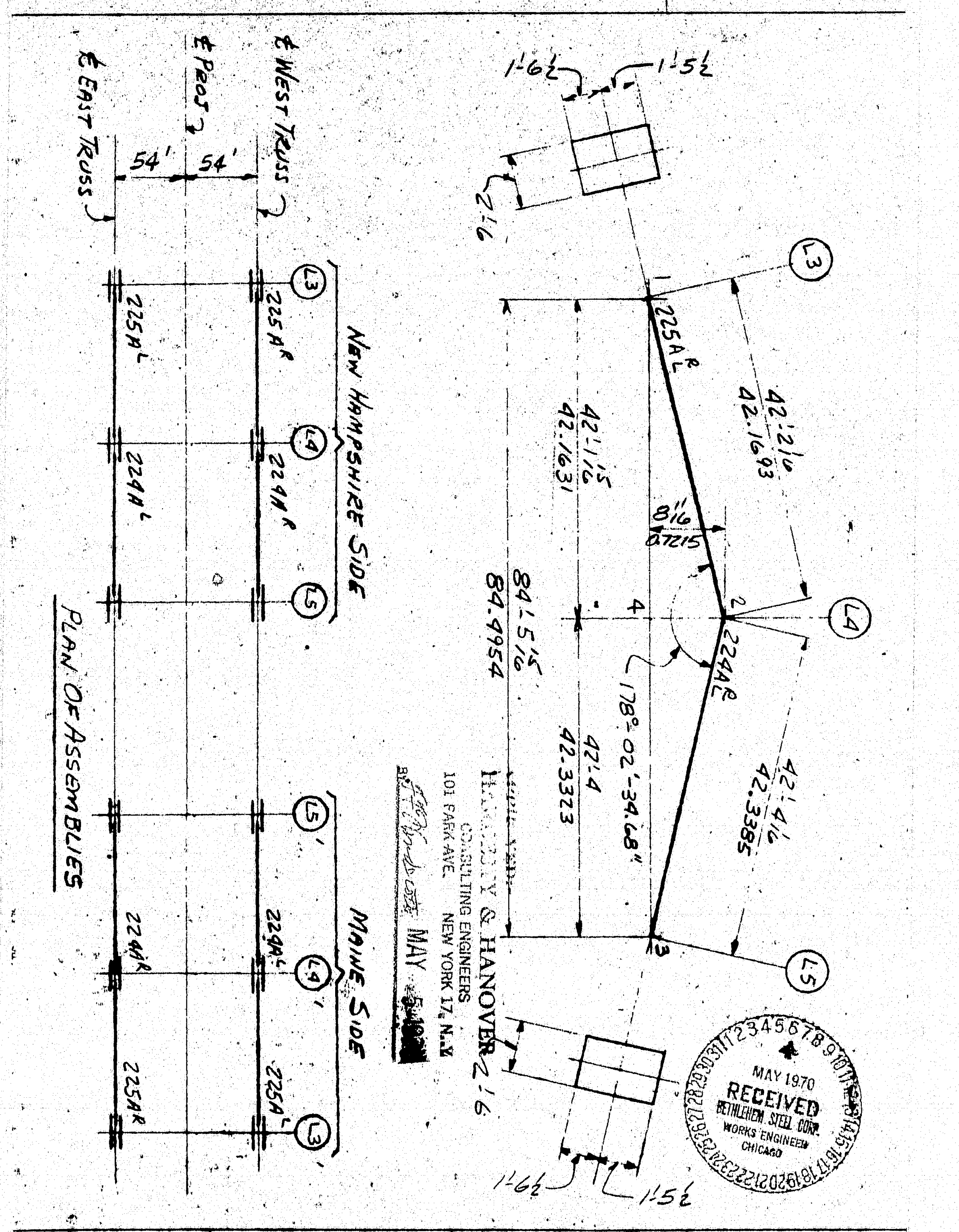
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY [illegible] MAY 5 1970

MAY 1970
RECEIVED
BETHLEHEM STEEL CORP.
WORKS ENGINEER
CHICAGO

In Charge
Shop No.
Made LG Date
Checked PS Date 4-23-70
Revised Date
Revised Date
Contract CG6290
Sheet YA 20
Customer
Structure
137:119

3224 (Rev. 8 7-57)



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101 PARK AVE. NEW YORK 17, N.Y.
BY [illegible] MAY 5 1970

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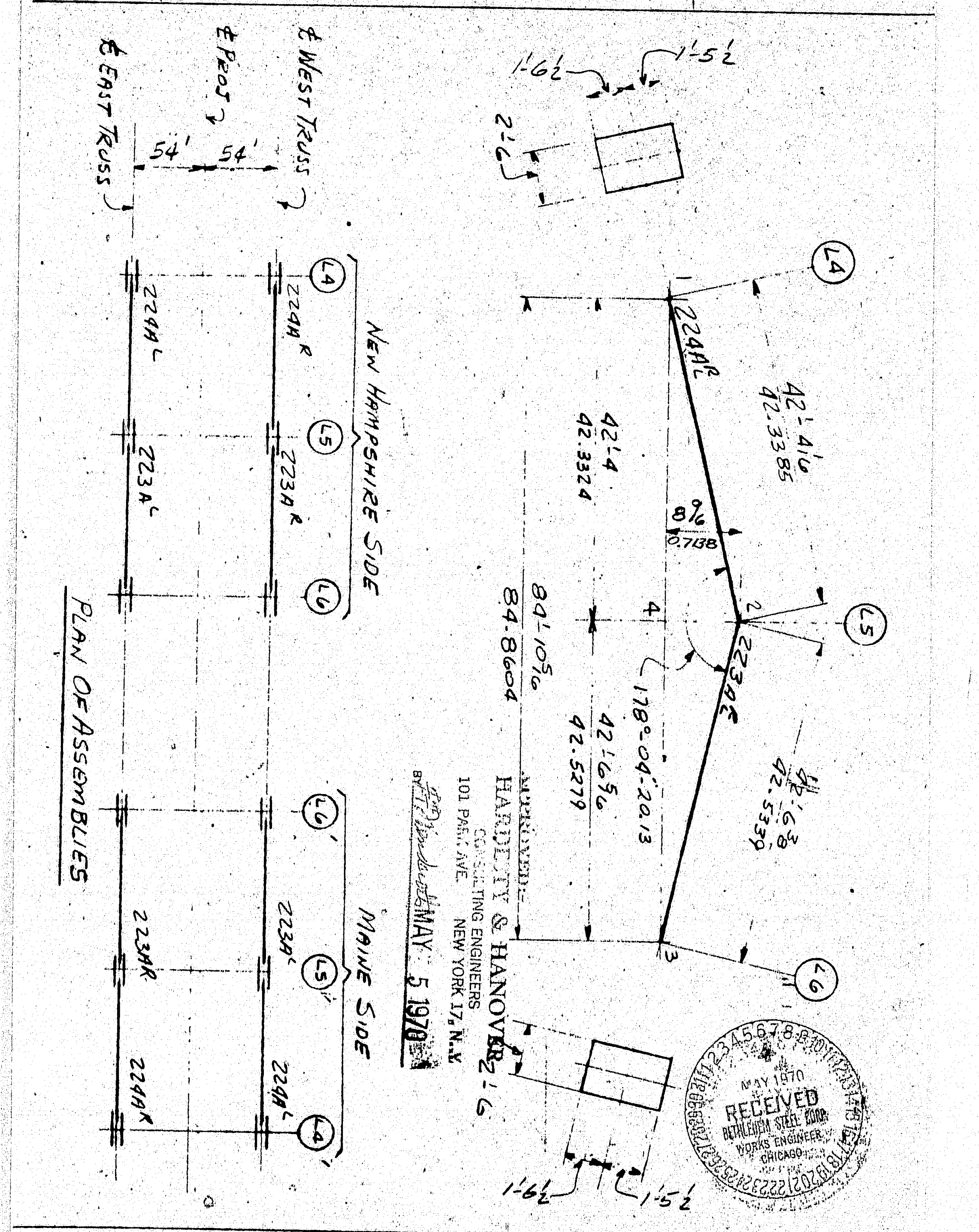
RECEIVED
BETHLEHEM STEEL CORP.
WORKS ENGINEER
CHICAGO

In Charge
Shop No.
Made LG Date
Checked PS Date 4-23-70
Revised Date
Revised Date
Contract CG6290
Sheet YA 21
Customer
Structure
137:120



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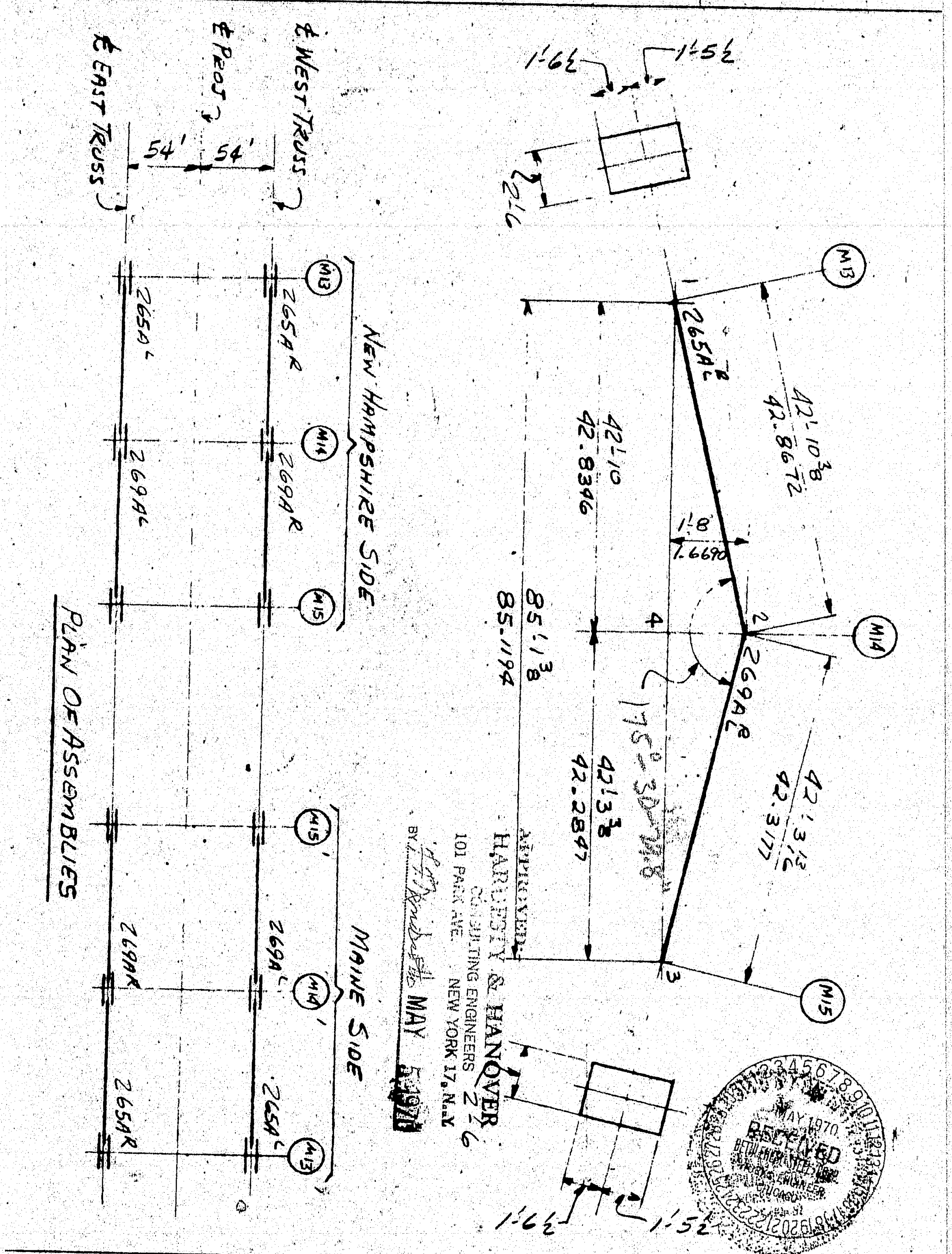
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY [illegible] MAY 5 1970

MAY 1970
RECEIVED
BETHLEHEM STEEL CORP.
WORKS ENGINEER
CHICAGO

In Charge
Shop No.
Made LG Date
Checked PS Date 4-23-70
Revised Date
Revised Date
Contract CG6290
Sheet YA 22
Customer
Structure
137:121

FABRICATED STEEL CONSTRUCTION
QUADRILLE SHEET
3224 (Rev.B 7-57)
DRAFTING ROOM
WORKS



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CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY MAY 5 1970

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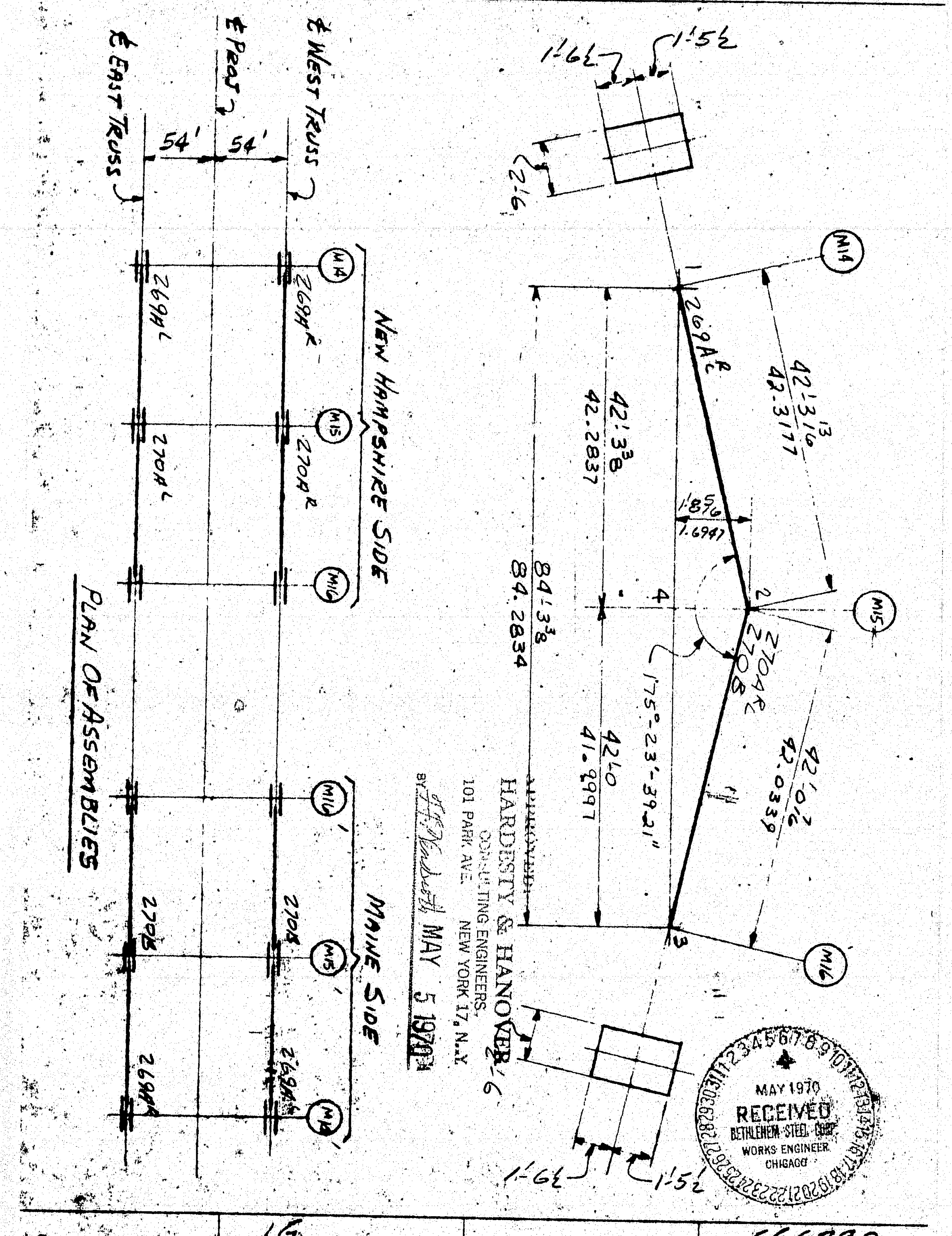
RECEIVED
BETHLEHEM STEEL CORP.
WORKS ENGINEER
CHICAGO

In Charge ..... Made LG Date ..... Revised ..... Date ..... Contract CG6290
Shop No. ..... Checked PS Date 4-23-70 Revised ..... Date ..... Sheet YA 30
Customer ..... Structure 137:130

FABRICATED STEEL CONSTRUCTION
QUADRILLE SHEET
3224 (Rev.B 7-57)
DRAFTING ROOM
WORKS



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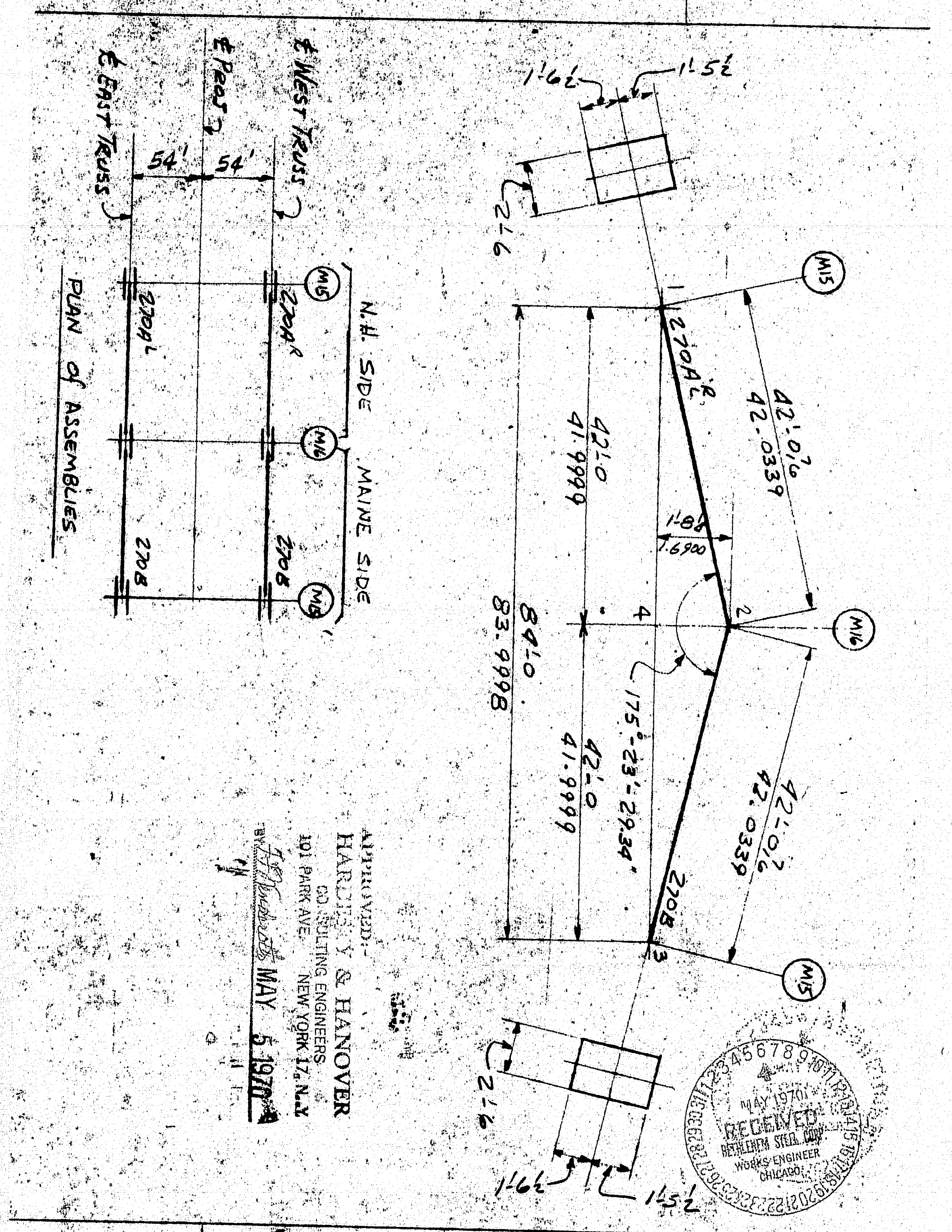
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY MAY 5 1970

MAY 1970
RECEIVED
BETHLEHEM STEEL CORP.
WORKS ENGINEER
CHICAGO

In Charge ..... Made LG Date ..... Revised ..... Date ..... Contract CG6290
Shop No. ..... Checked PS Date 4-23-70 Revised ..... Date ..... Sheet YA 31
Customer ..... Structure 137:131

FABRICATED STEEL CONSTRUCTION
QUADRILLE SHEET
3224 (Rev.B 7-57)
DRAFTING ROOM
WORKS



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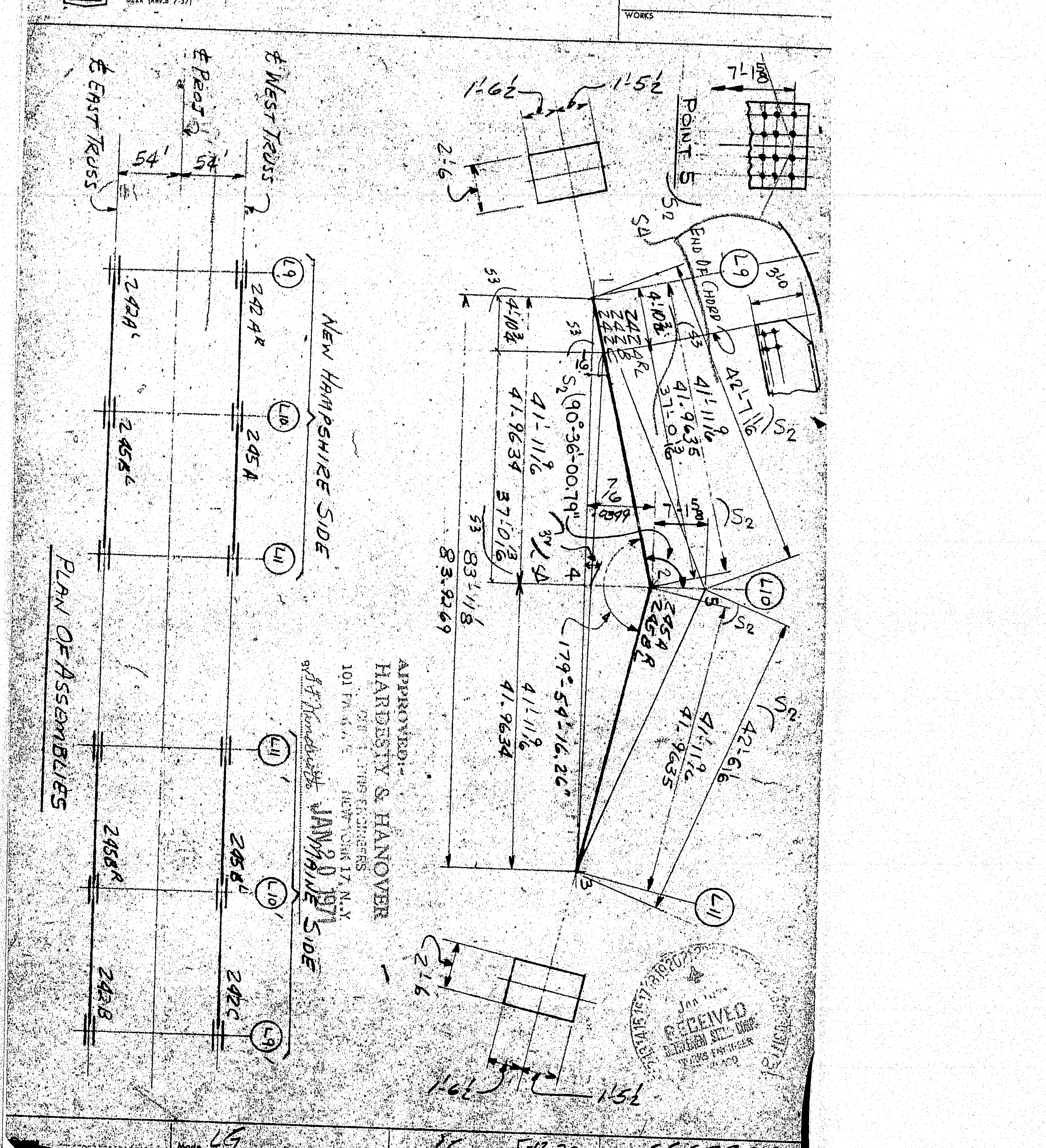
101 PARK AVE. NEW YORK 17, N.Y.
BY MAY 5 1970

MAY 1970
RECEIVED
BETHLEHEM STEEL CORP.
WORKS ENGINEER
CHICAGO

In Charge ..... Made LG Date ..... Revised ..... Date ..... Contract CG6290
Shop No. ..... Checked PS Date 4-23-70 Revised ..... Date ..... Sheet YA 32
Customer ..... Structure 137:132

FABRICATED STEEL CONSTRUCTION
QUADRILLE SHEET
3224 (Rev.B 7-57)
DRAFTING ROOM
WORKS



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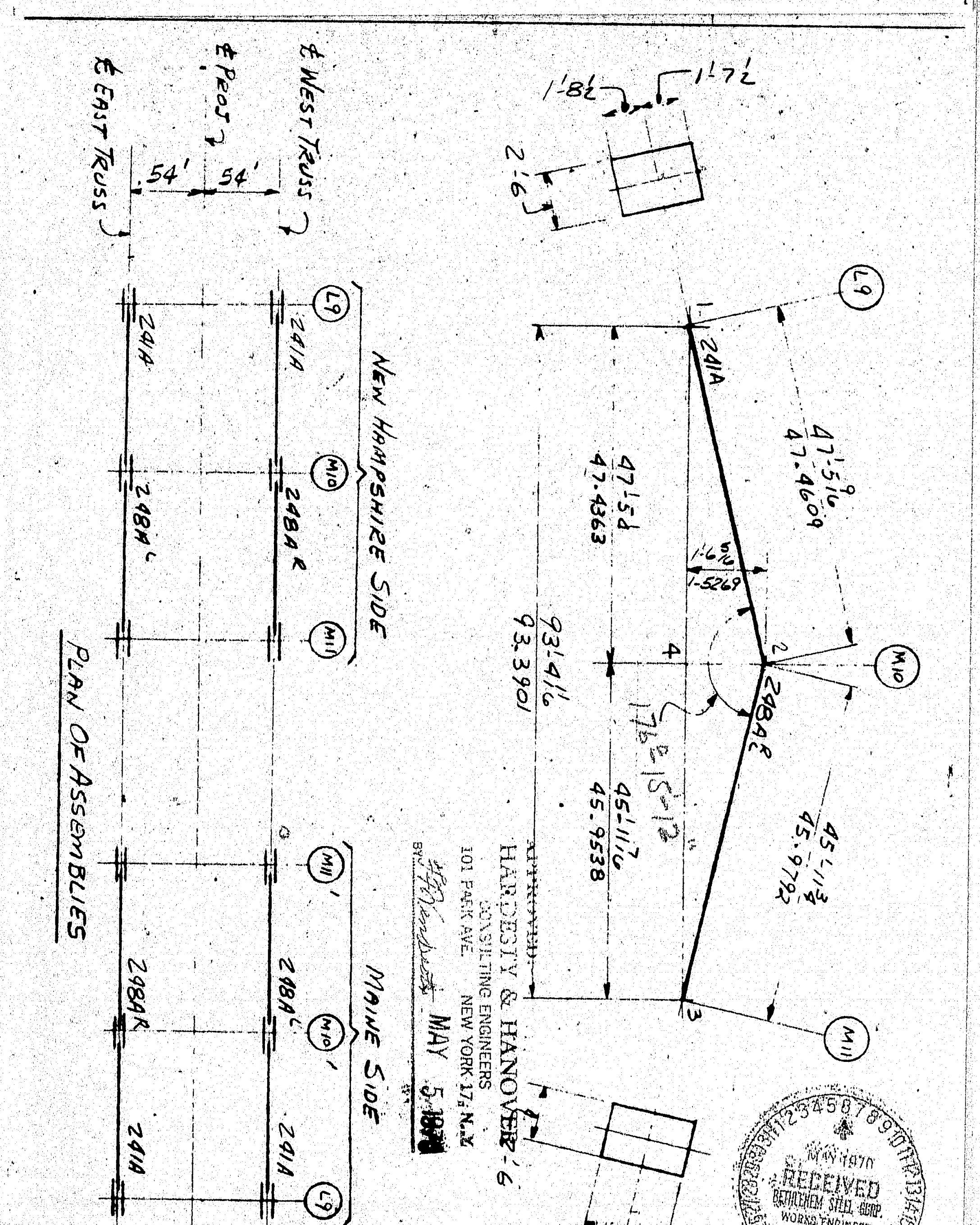
101 PARK AVE. NEW YORK 17, N.Y.
BY JAN

RECEIVED
BETHLEHEM STEEL CORP.
WORKS ENGINEER
CHICAGO

Made LG Date ..... Revised LG Date 5-12-70 Contract CG6290-91
Checked PS Date 4-23-70 Revised S2/LG Date 7-20-70 Sheet YA 33
S3/CAD 12-30-70
Structure S4/CAD 1-5-71 137:133



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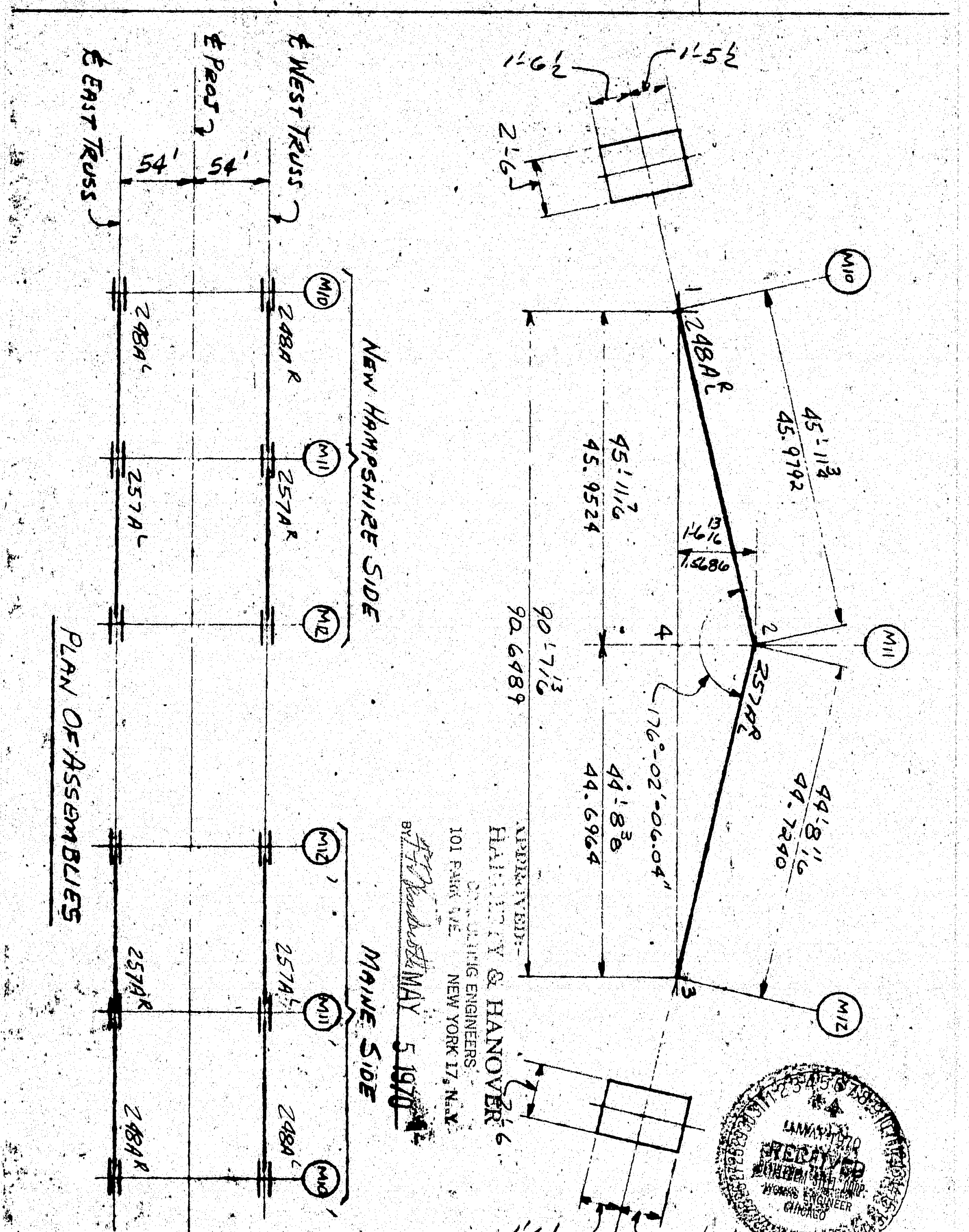
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY MAY 5 1970

MAY 1970
RECEIVED
BETHLEHEM STEEL CORP.
WORKS ENGINEER
CHICAGO

In Charge ..... Made LG Date ..... Revised ..... Date ..... Contract CG6290
Shop No. ..... Checked PS Date 4-23-70 Revised ..... Date ..... Sheet YA 26
Customer ..... Structure 137:126



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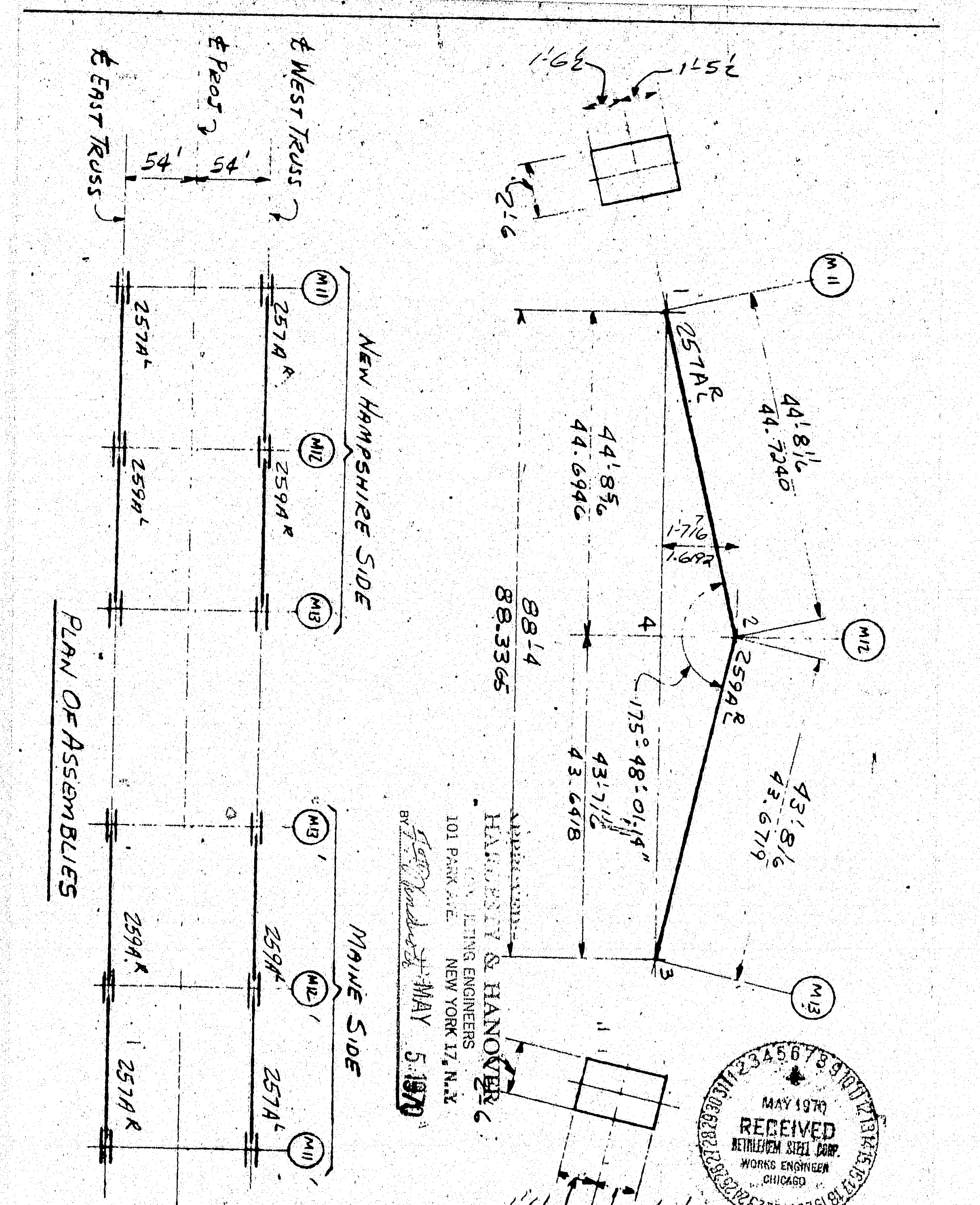
BY MAY 5 1970

MAY 1970
RECEIVED
BETHLEHEM STEEL CORP.
WORKS ENGINEER
CHICAGO

In Charge ..... Made LG Date ..... Revised ..... Date ..... Contract CG6290
Shop No. ..... Checked PS Date 4-23-70 Revised ..... Date ..... Sheet YA 27
Customer ..... Structure 137:127



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BY MAY 5 1970

MAY 1970
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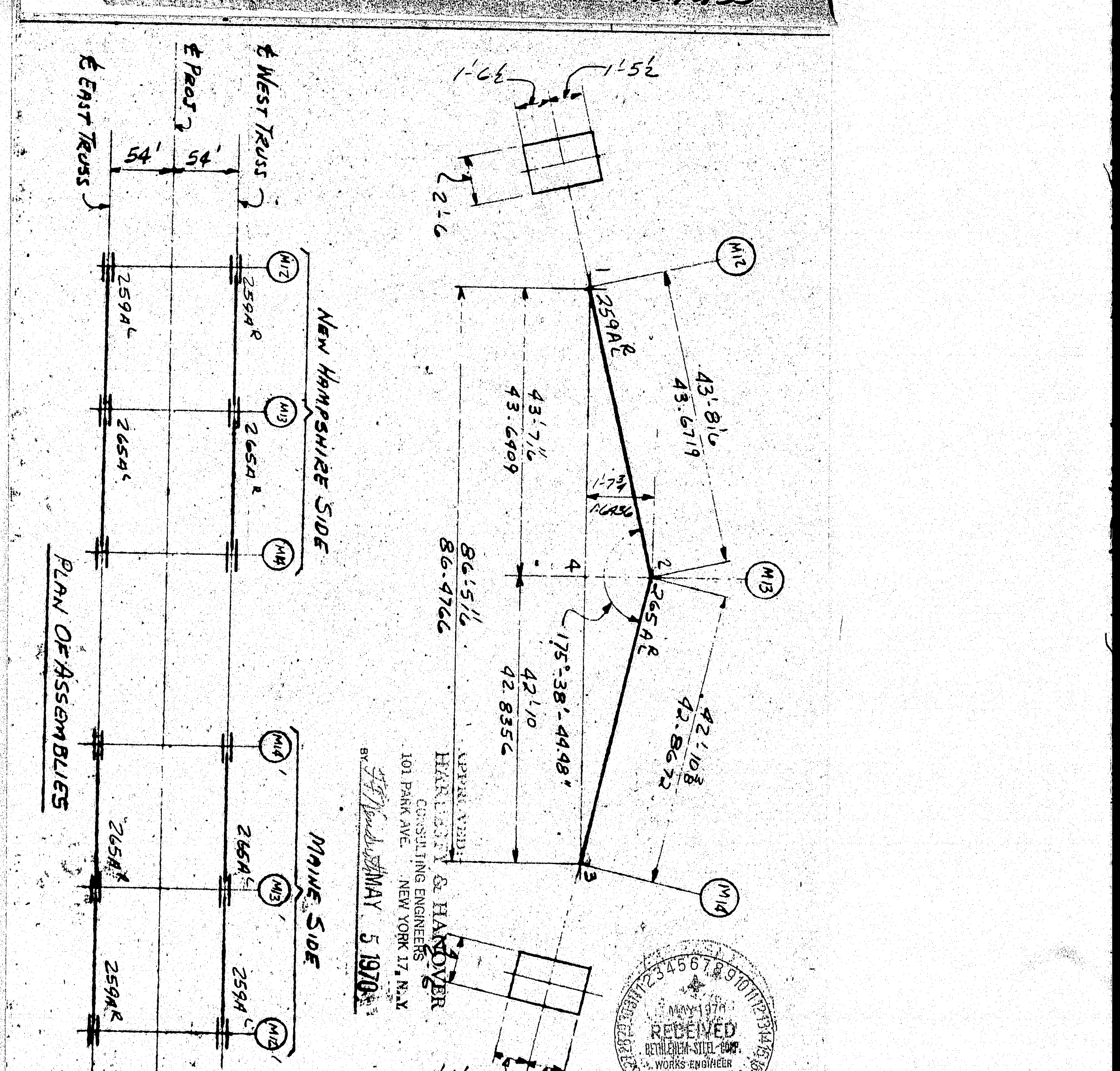
WORKS ENGINEER
CHICAGO

In Charge ..... Made LG Date ..... Revised ..... Date ..... Contract CG6290
Shop No. ..... Checked PS Date 4-23-70 Revised ..... Date ..... Sheet YA 28
Customer ..... Structure 137:128



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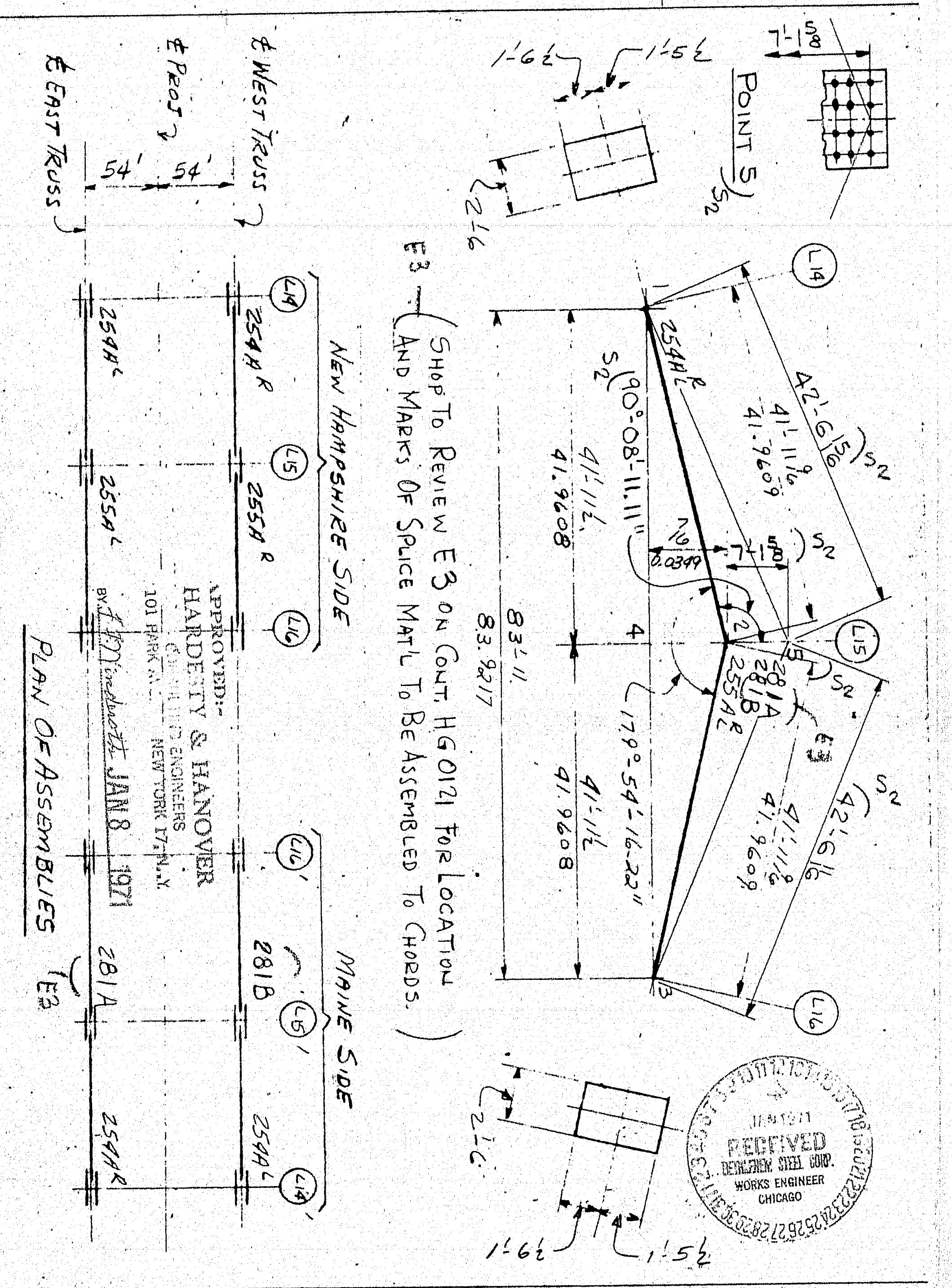
BY MAY 5 1970

MAY 1970
RECEIVED
BETHLEHEM STEEL CORP.
WORKS ENGINEER
CHICAGO

In Charge ..... Made LG Date ..... Revised ..... Date ..... Contract CG6290
Shop No. ..... Checked PS Date 4-23-70 Revised ..... Date ..... Sheet YA 29
Customer ..... Structure 137:129

FABRICATED STEEL CONSTRUCTION
QUADRILLE SHEET
3224 (Rev.B 7-57)

DRAFTING ROOM
WORKS



E3 — (SHOP TO REVIEW E3 ON CONT. HG 0121 FOR LOCATION AND MARKS OF SPLICE MAT'L TO BE ASSEMBLED TO CHORDS.)

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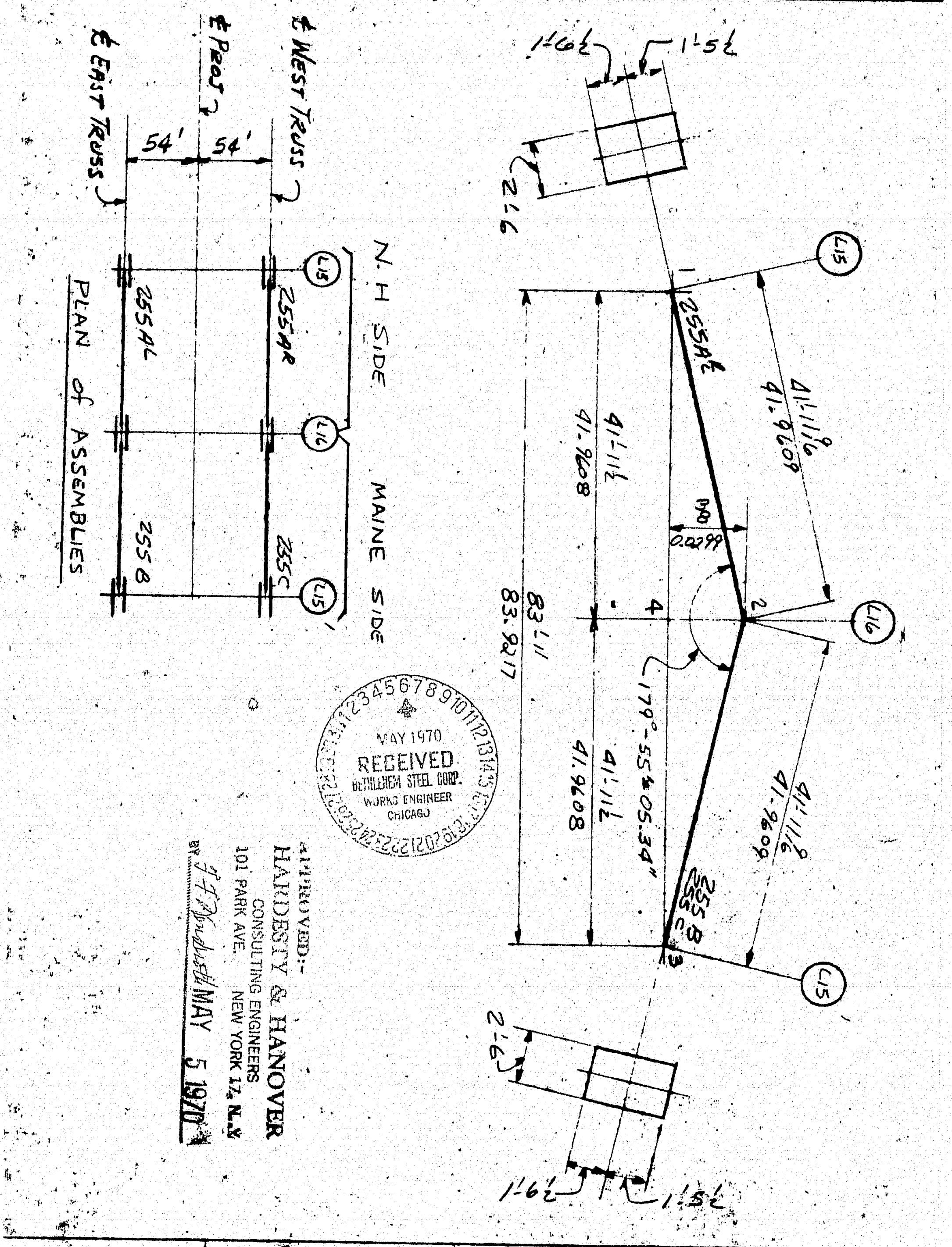
BY F.F. Wendroth JAN 8 1971

JAN 1971
RECEIVED
BETHLEHEM STEEL CORP.
WORKS ENGINEER
CHICAGO

In Charge	Made LG Date	Revised LG Date 5-12-70	Contract CG 6290-91
Shop No.	Checked PS Date 4-23-70	Revised S2/LG Date 7-20-70	Sheet YA 38
		E3/GAD 12-30-70	
Customer		Structure	137:138

FABRICATED STEEL CONSTRUCTION
QUADRILLE SHEET
3224 (Rev.B 7-57)

DRAFTING ROOM
WORKS



MAY 1970
RECEIVED
BETHLEHEM STEEL CORP.
WORKS ENGINEER
CHICAGO

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CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY F.F. Wendroth MAY 5 1970

In Charge	Made LG Date	Revised Date	Contract CG 6290
Shop No.	Checked PS Date 4-23-70	Revised Date	Sheet YA 39
Customer		Structure	137:139

FABRICATED STEEL CONSTRUCTION
QUADRILLE SHEET
3224 (Rev.B 7-57)

DRAFTING ROOM Chicago
WORKS Chicago

MATCHMARKING NOTE

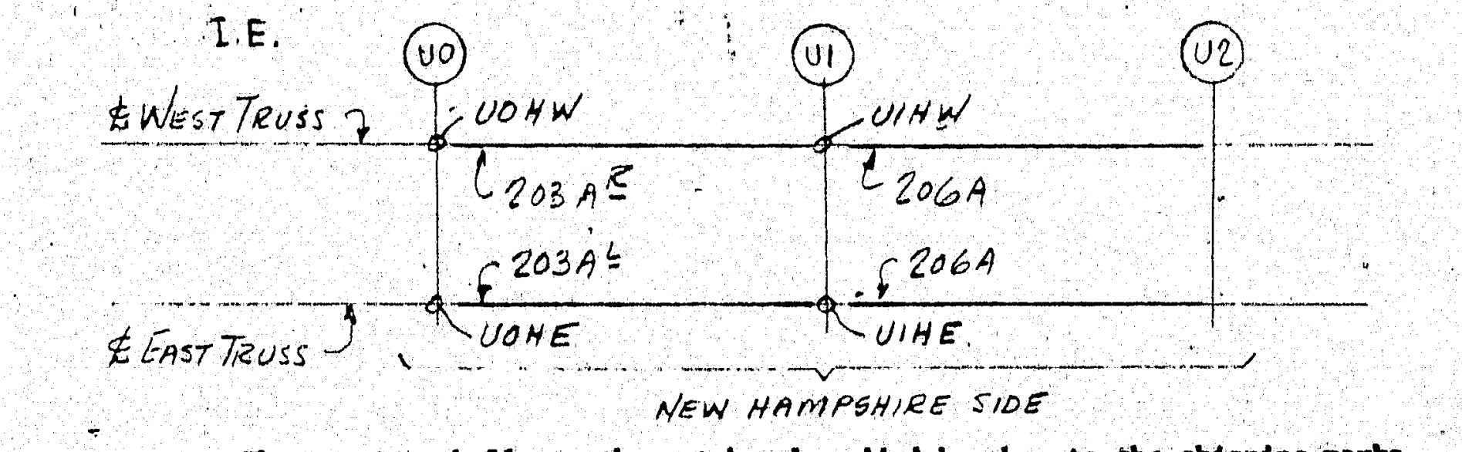
All assemblies to be matchmarked by adding the following to the shipping mark after approval and before disassembly:

(1) Panel point mark

(2) "H" for New Hampshire side or "M" for Maine side

(3) "E" for East truss or "W" for West truss

I.E.



The erector shall use the matchmarks added by shop to the shipping marks to place members in proper location in structure.

A325 bolts fastening gusset plates to outside face of trusses are to be tightened by impact wrench to a snug fit but are not to be tensioned.

A325 bolts fastening gusset plates to outside face of trusses are to be tensioned in the field.

MAY 1970
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BETHLEHEM STEEL CORP.
WORKS ENGINEER
CHICAGO

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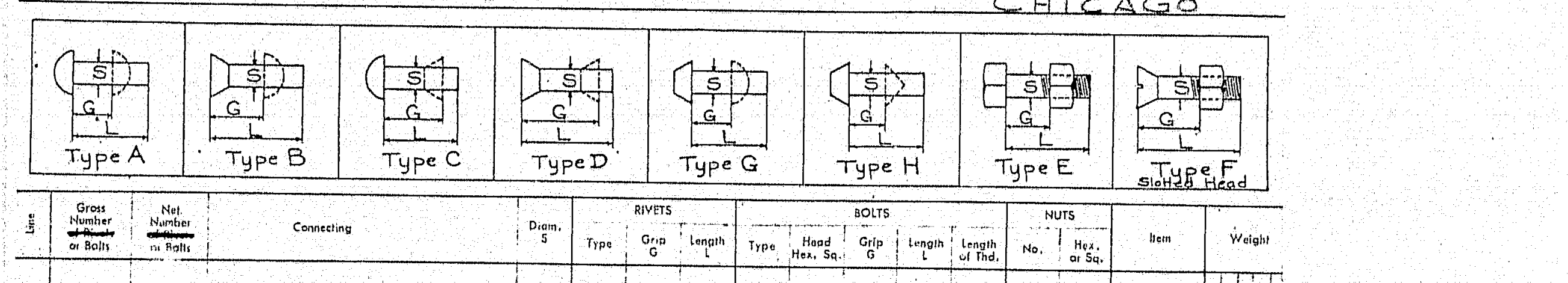
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY F.F. Wendroth MAY 5 1970

In Charge	Made LG Date	Revised Date	Contract CG 6290
Shop No.	Checked PS Date 4-23-70	Revised Date	Sheet YA 40
Customer		Structure	137:140

FABRICATED STEEL CONSTRUCTION
SUMMARY OF FIELD ~~[illegible]~~ BOLTS
A325
3210 (Rev.B 1-57)

DRAFTING ROOM CHICAGO
WORKS CHICAGO



Line	Gross Number ~~of Rivets~~ or Bolts	Net Number ~~of Rivets~~ or Bolts	Connecting	Diam. S	RIVETS Type	RIVETS Grip G	RIVETS Length L	BOLTS Type	BOLTS Head Hex. Sq.	BOLTS Grip G	BOLTS Length L	BOLTS Length of Thd.	NUTS No.	NUTS Hex. or Sq.	Item	Weight
1																
2	45	40		1				A325	HEX		2½		45	HEX		
3	35	32		1				A325	HEX		3¾		35	HEX		
4																
5																
6																
7	80		HARD FLAT WASHERS FOR 1"φ HSB													
8																
9																
10																
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																
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24																
25																
26																
27																
28																
29																
30																

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY F.F.W. DEC 31 1970

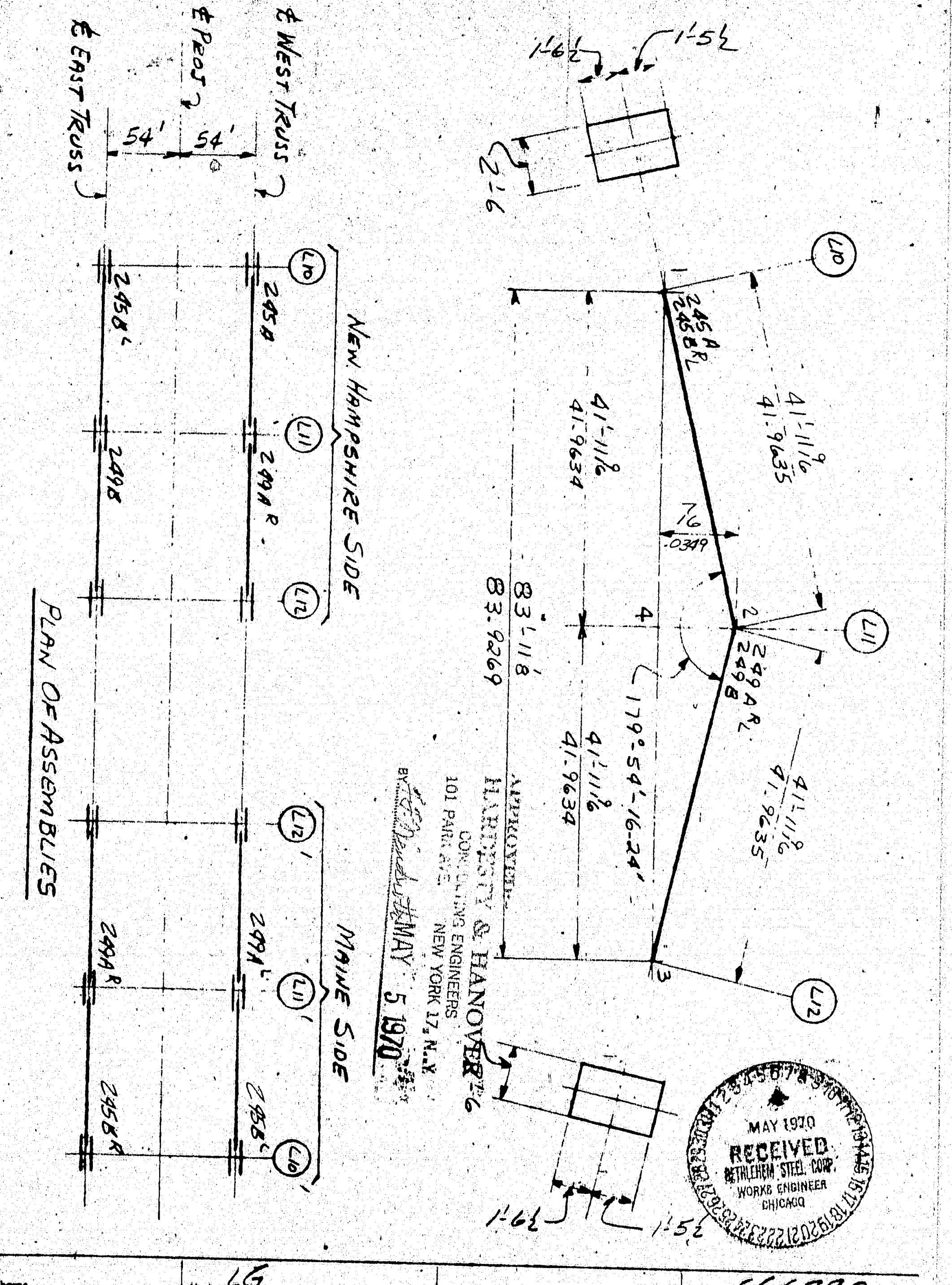
Summary of Sheet Nos. B1 & B2
Total Weight this Page

ALL BOLTS OVER 1¼"φ AND 2'-6" IN LENGTH TO BE BILLED AS RODS ON FORM NO. 3208.
FOR BOLTS OR RIVETS OF SPECIAL DESIGN, DRAW SKETCH ON THIS SHEET.

137:141

Gen'l Supt. ☐ Layout ☐ Temp. Shop ☐ Smith Shop ☐ Loader ☐ Scale ☐ Purch. Dept. ☐ Erection ☐ O. Insp. ☐ ☐ ☐
Shop Supt. ☐ Fitter ☐ Mach. Shop ☐ Rod Shop ☐ Shipper ☐ Bill ☐ Owners ☐ S. Insp. ☐ App'l. ☐ ☐ ☐

IN CHARGE	Made JC Date 12-22-70	Revised Date	Contract HG0121-000
LAG	Checked LM Date 12-22-70	Revised Date	Page No. SB1 USE AS B.F.P.
Customer MAINE STATE HWY. COMM.		Structure PISCATAQUA RIVER BRIDGE	



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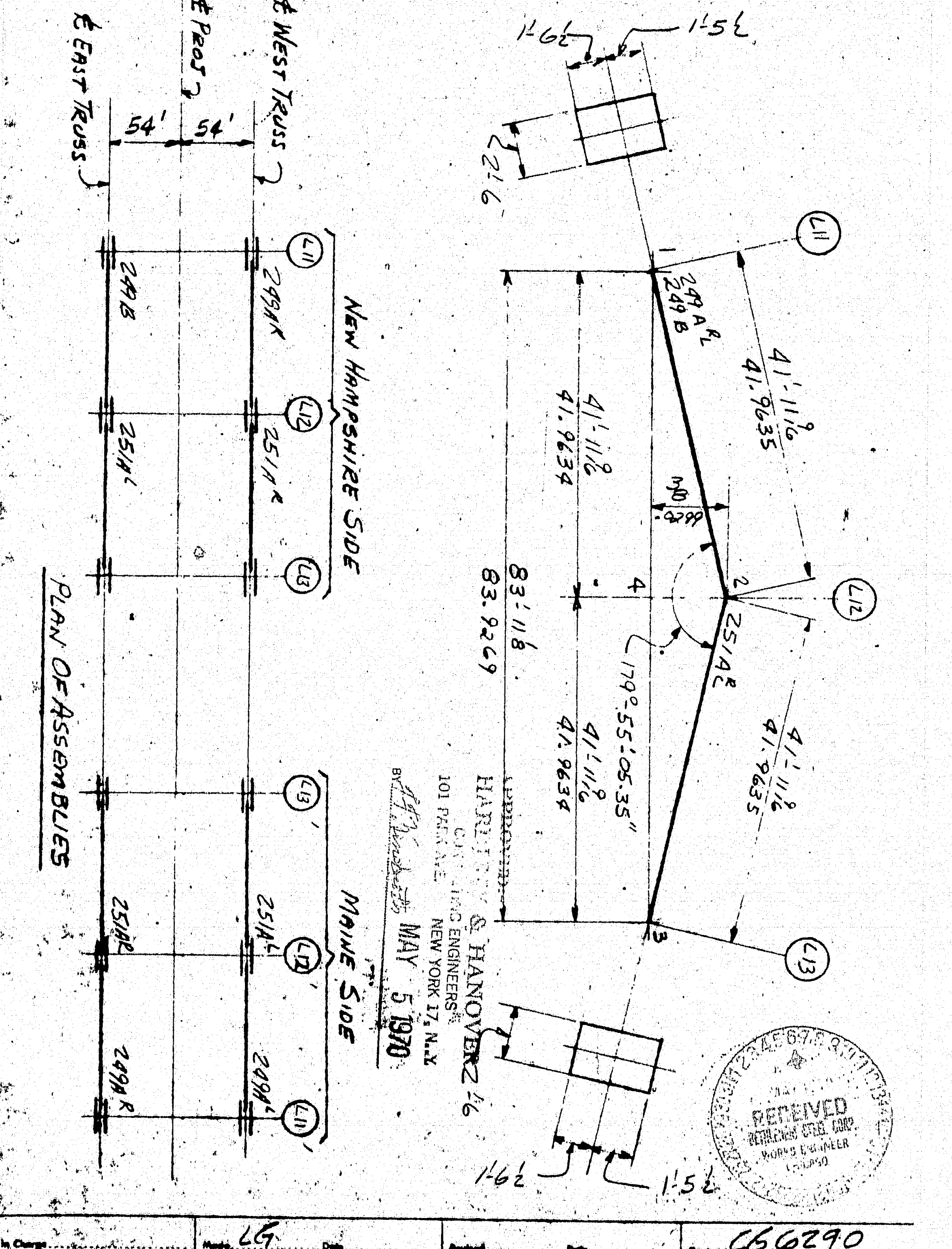
101 PARK AVE. NEW YORK 17, N.Y.
BY F.F. Wendroth MAY 5 1970

MAY 1970
RECEIVED
BETHLEHEM STEEL CORP.
WORKS ENGINEER
CHICAGO

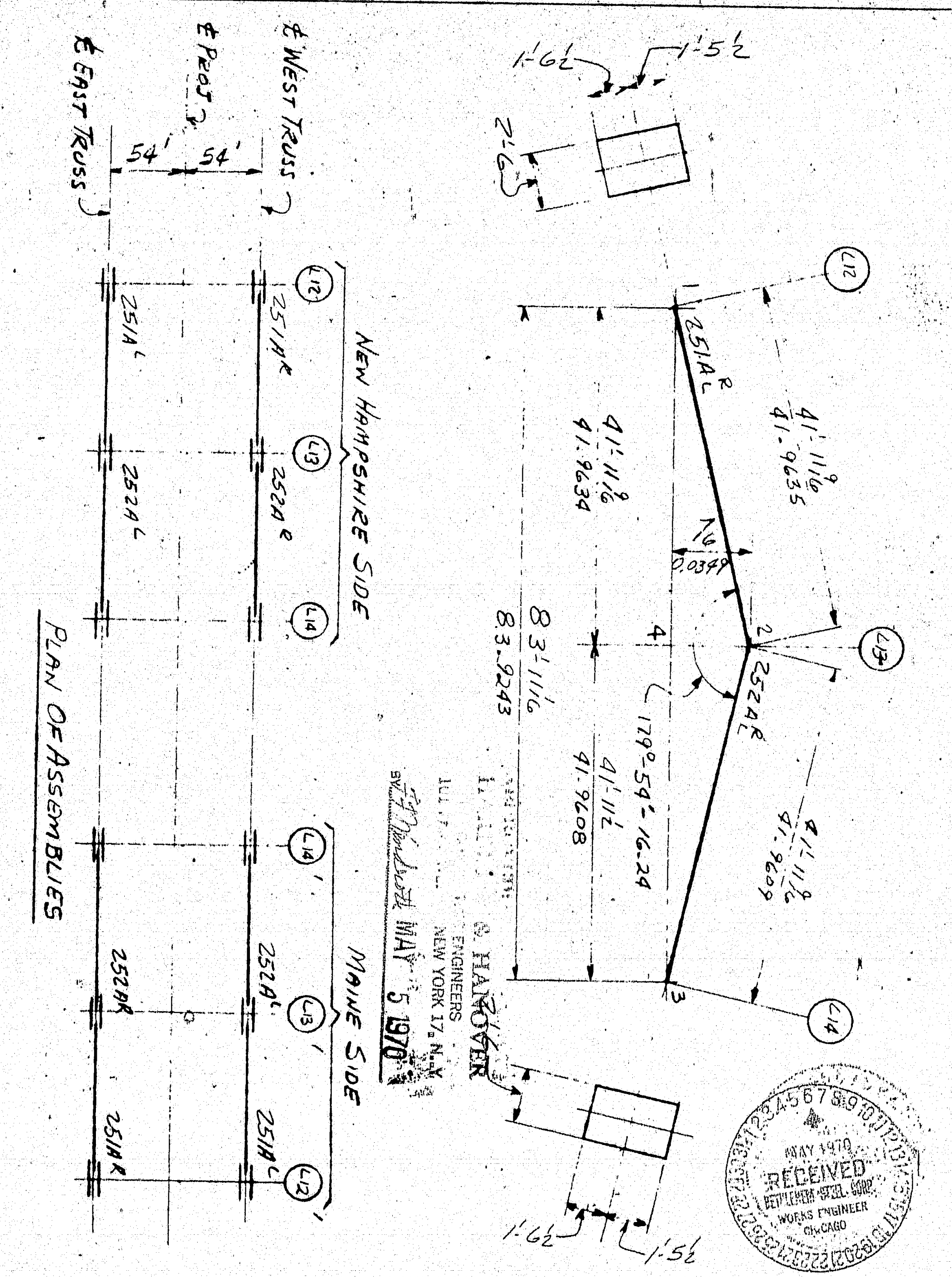
In Charge	Made LG Date	Revised Date	Contract CG 6290
Shop No.	Checked PS Date 4-23-70	Revised Date	Sheet YA 34
Customer		Structure	137:134



APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY F.F. Wendroth MAY 5 1970

MAY 1970
RECEIVED
BETHLEHEM STEEL CORP.
WORKS ENGINEER
CHICAGO

In Charge	Made LG Date	Revised Date	Contract CG 6290
Shop No.	Checked PS Date 4-23-70	Revised Date	Sheet YA 35
Customer		Structure	137:135



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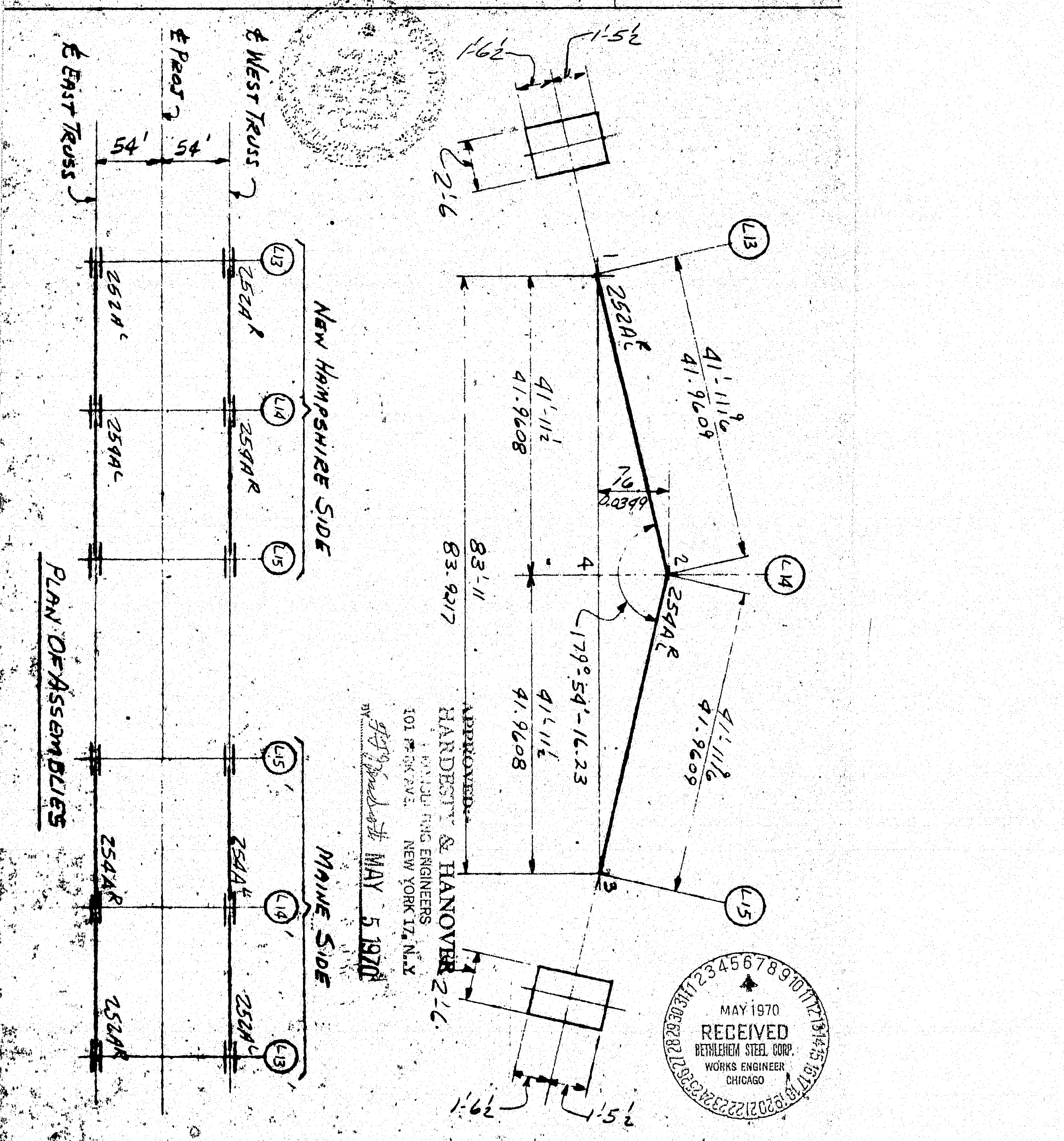
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY F.F. Wendroth MAY 5 1970

MAY 1970
RECEIVED
BETHLEHEM STEEL CORP.
WORKS ENGINEER
CHICAGO

In Charge	Made LG Date	Revised Date	Contract CG 6290
Shop No.	Checked PS Date 4-23-70	Revised Date	Sheet YA 36
Customer		Structure	137:136



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RECEIVED
BETHLEHEM STEEL CORP.
WORKS ENGINEER
CHICAGO

In Charge	Made LG Date	Revised Date	Contract CG 6290
Shop No.	Checked PS Date 4-23-70	Revised Date	Sheet YA 37
Customer		Structure	137:137

BETHLEHEM STEEL

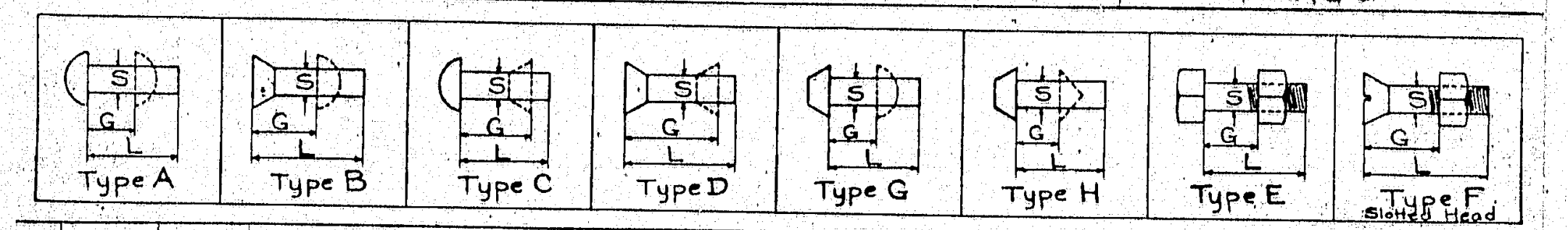
FABRICATED STEEL CONSTRUCTION

SUMMARY OF FIELD RIVETS AND BOLTS

3210 (Rev.B 1-57)

DRAFTING ROOM CHICAGO

WORKS CHICAGO



Line	Gross Number of Rivets or Bolts	Net Number of Rivets or Bolts	Connecting	Diam. S	Rivets Type	Rivets Grip G	Rivets Length L	Bolts Type	Head Hex., Sq.	Bolts Grip G	Bolts Length L	Length of Thd.	Nuts No.	Hex. or Sq.	Item	Weight
1															906-D-158	
2	4	4		3/4				A325	HEX		2 1/4	ST'D	4	HEX		2
3	30	28		3/4				A325	HEX		2 3/4	ST'D	30	HEX		20
4	65	60		3/4				A325	HEX		3 1/4	STD	65	HEX		48
5	12	12		3/4				A325	HEX		4	STD	12	HEX		10
6	16	16		3/4				A325	HEX		4 3/4	STD	16	HEX		15
7																
8	127		HARDENED WASHERS FOR 3/4"ϕ A325 BOLTS (1 15/32"ϕ × 1/8" TH. × 13/16"ϕ HOLE)													5
9																
10																
11	615	600	R1	7/8				A325	HEX		2	STD	615 R1	HEX		530
12	1685	1646		7/8				A325	HEX		2 1/4	STD	1685	HEX		1522
13	1755	1718		7/8				A325	HEX		2 1/2	STD	1755	HEX		1660
14	470	453		7/8				A325	HEX		2 3/4	STD	470	HEX		464
15	20	18		7/8				A325	HEX		3	STD	20	HEX		21
16	1385	1366		7/8				A325	HEX		3 1/4	ST'D	1385	HEX		1482
17	90	80		7/8				A325	HEX		3 1/2	STD	90	HEX		100
18	195	192		7/8				A325	HEX		3 3/4	STD	195	HEX		226
19	32	30		7/8				A325	HEX		4 1/4	STD	32	HEX		40
20	30	28		7/8				A325	HEX		5 1/4	STD	30	HEX		42
21	4	4		7/8				A325	HEX		6	STD	4	HEX		6
22	8	8		7/8				A325	HEX		6 3/4	STD	8	HEX		13
23	16	16		7/8				A325	HEX		7	STD	16	HEX		27
24	4	4		7/8				A325	HEX		7 1/2	STD	4	HEX		7
25	4	4		7/8				A325	HEX		6 1/4	STD	4	HEX		6
26																
27	6313		HARDENED WASHERS FOR 7/8"ϕ A325 BOLTS (1 3/4" × 3/16" TH × 15/16"ϕ HOLE)													429
28	R1															
29			SHIPMENT M1			SHIP DIRECT										
30														N.O.		

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Summary of Sheet Nos.: B11 THRU B14, B21 THRU B23, B25, B27, B30, B31, B35, B46, B106, B108, B109, B110, B112, B204, B209, B225, B226, B228 (R1)

Total Weight this Page: 6675#

ALL BOLTS OVER 1¼"ϕ AND 2'-6" IN LENGTH TO BE BILLED AS RODS ON FORM NO. 3208. FOR BOLTS OR RIVETS OF SPECIAL DESIGN, DRAW SKETCH ON THIS SHEET.

137:146

Gen'l Supt. ☐ Layout ☐ Temp. Shop ☐ Smith Shop ☐ Loader ☐ Scale ☐ Purch. Dept. ☐ Erection ☐ O. Insp. ☐ ☐
Shop Supt. ☐ Filter ☐ Mach. Shop ☐ Rod Shop ☐ Shipper ☐ Bill ☐ Owners ☐ S. Insp. ☐ App'l. ☐ ☐

IN CHARGE: L.G.
Made: C.A.D. Date: 4-30-70
R1 Revised: TC Date: 7-7-70
Checked: RP Date: 5-18-70
Revised: Date:
Contract: CG6290-000
Page No.: SB6
USE AS B.F.P.

Customer: MAINE STATE HWY. COMM.
Structure: PISCATAQUA RIVER BRIDGE

BETHLEHEM STEEL

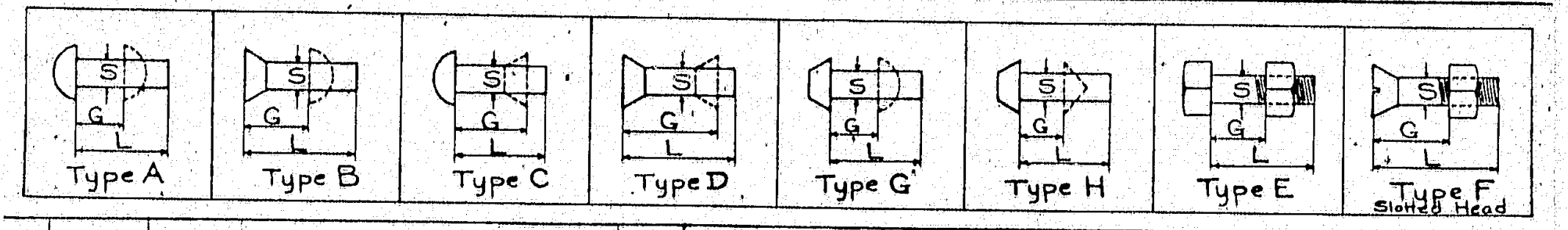
FABRICATED STEEL CONSTRUCTION

SUMMARY OF FIELD RIVETS AND BOLTS

3210 (Rev.B 1-57)

DRAFTING ROOM CHICAGO

WORKS CHICAGO



Line	Gross Number of Rivets or Bolts	Net Number of Rivets or Bolts	Connecting	Diam. S	Rivets Type	Rivets Grip G	Rivets Length L	Bolts Type	Head Hex., Sq.	Bolts Grip G	Bolts Length L	Length of Thd.	Nuts No.	Hex. or Sq.	Item	Weight
1	58	56		1"				A325	HEX		2 1/2	STD	58	HEX	906-D-158	75
2	565	554		1"				A325	HEX		2 3/4	STD	565	HEX		763
3	940	918		1"				A325	HEX		3	STD	940	HEX		1325
4	1345	1316		1"				A325	HEX		3 1/4	STD	1345	HEX		1964
5	1340	1310		1"				A325	HEX		3 1/2	STD	1340	HEX		2023
6	2000	1960		1"				A325	HEX		3 3/4	STD	2000	HEX		3140
7	645	632		1"				A325	HEX		4	STD	645	HEX		1045
8	2520	2468		1"				A325	HEX		4 1/4	STD	2520	HEX		4234
9	290	284		1"				A325	HEX		4 1/2	STD	290	HEX		502
10	430	422		1"				A325	HEX		4 3/4	STD	430	HEX		770
11	145	140		1"				A325	HEX		5	STD	145	HEX		267
12	350	344		1"				A325	HEX		5 1/4	STD	350	HEX		665
13	610	598		1"				A325	HEX		5 1/2	STD	610	HEX		1196
14	42	40		1"				A325	HEX		5 3/4	STD	42	HEX		84
15	445	436		1"				A325	HEX		6	STD	445	HEX		721
16	30	28		1"				A325	HEX		6 1/4	STD	30	HEX		64
17	(27	25		1 1/8"				A325	HEX		3 3/4	STD	27	HEX		
18																
19	11755		HARDENED WASHERS FOR 1"ϕ A325 BOLTS (2"ϕ × 3/16 TH. × 1 1/16"ϕ HOLE)													1058
20	(27		" " "1 1/8"ϕ" " (2 1/4"ϕ × 3/16 TH. × 1 1/4"ϕ HOLE)													
21																
22																
23																
24																
25																
26																
27																
28			SHIPMENT M1			SHIP DIRECT										
29																
30														N.O.		

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BY SN JUL 14 1970

Summary of Sheet Nos.: B203, B204, B206, B207, B209, B210, B212, B214, B215, B225, B226, B228

Total Weight this Page: 20,096*

ALL BOLTS OVER 1¼"ϕ AND 2'-6" IN LENGTH TO BE BILLED AS RODS ON FORM NO. 3208. FOR BOLTS OR RIVETS OF SPECIAL DESIGN, DRAW SKETCH ON THIS SHEET.

137:147

Gen'l Supt. ☐ Layout ☐ Temp. Shop ☐ Smith Shop ☐ Loader ☐ Scale ☐ Purch. Dept. ☐ Erection ☐ O. Insp. ☐ ☐
Shop Supt. ☐ Filter ☐ Mach. Shop ☐ Rod Shop ☐ Shipper ☐ Bill ☐ Owners ☐ S. Insp. ☐ App'l. ☐ ☐

IN CHARGE: L.G.
Made: C.A.D. Date: 4-30-70
Revised: (S1) LG Date: 7-10-70
Checked: RP Date: 5-18
Revised: Date:
Contract: CG6290-000
Page No.: SB7
USE AS B.F.P.

Customer: MAINE STATE HWY COMM.
Structure: PISCATAQUA RIVER BRIDGE

BETHLEHEM STEEL

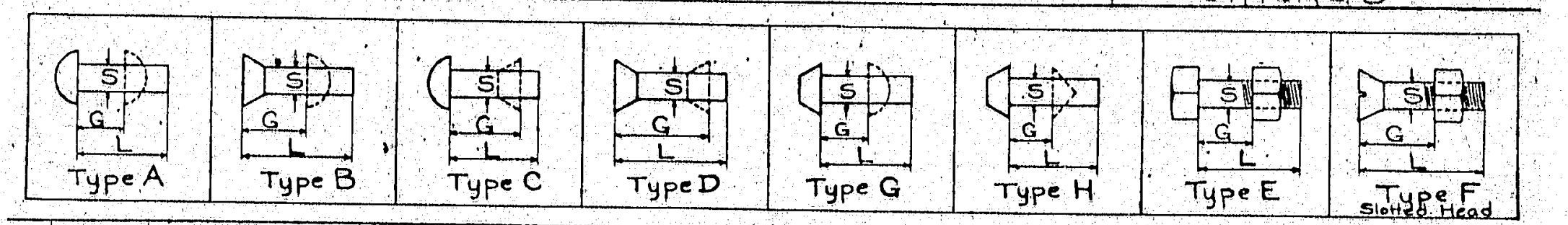
FABRICATED STEEL CONSTRUCTION

SUMMARY OF FIELD RIVETS AND BOLTS

3210 (Rev.B 1-57)

DRAFTING ROOM CHICAGO

WORKS CHICAGO



Line	Gross Number of Rivets or Bolts	Net Number of Rivets or Bolts	Connecting	Diam. S	Rivets Type	Rivets Grip G	Rivets Length L	Bolts Type	Head Hex., Sq.	Bolts Grip G	Bolts Length L	Length of Thd.	Nuts No.	Hex. or Sq.	Item	Weight
1	85	84		7/8				A325 GALV	HEX		2	STD	85	HEX		
2	185	182		7/8				A325 GALV	HEX		2 1/4	STD	185	HEX		
3	350	344		7/8				A325 GALV	HEX		2 1/2	STD	350	HEX		
4	35	32		7/8				A325 GALV	HEX		3	ST'D	35	HEX		
5	18	16		7/8				A325 GALV	HEX		3 1/2	ST'D	18	HEX		
6																
7	673		GALV. HARDENED WASHERS FOR 7/8"ϕ GALV. A325 BOLTS (1 3/4"ϕ × 3/16" TH. × 15/16"ϕ HOLE)													
8																
9	110	108		1"				A325 GALV	HEX		3 1/4	STD	110	HEX		
10	53	52		1"				A325 GALV	HEX		3 3/4	STD	53	HEX		
11	115	112		1"				A325 GALV	HEX		5 1/2	STD	115	HEX		
12																
13																
14	278		GALV. HARDENED WASHERS FOR 1"ϕ GALV. A325 BOLTS (2"ϕ × 3/16 TH. × 1 1/16"ϕ HOLE)													
15																
16																
17																
18	65	64		3/4				A325 GALV	HEX		2	STD	65	HEX		
19																
20																
21	65		GALV. HARDENED WASHERS FOR 3/4"ϕ GALV. A325 BOLTS (1 15/32"ϕ × 1/8 TH. × 13/16"ϕ HOLE)													
22																
23																
24																
25																
26																
27																
28			SHIPMENT M1													
29																
30																

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY SN MAY 26 1970

RECEIVED
MAY 21 1970
HARDESTY & HANOVER

Summary of Sheet Nos.: B18, B35, B106, B130, B204

Total Weight this Page:

ALL BOLTS OVER 1¼"ϕ AND 2'-6" IN LENGTH TO BE BILLED AS RODS ON FORM NO. 3208. FOR BOLTS OR RIVETS OF SPECIAL DESIGN, DRAW SKETCH ON THIS SHEET.

137:148

Gen'l Supt. ☐ Layout ☐ Temp. Shop ☐ Smith Shop ☐ Loader ☐ Scale ☐ Purch. Dept. ☐ Erection ☐ O. Insp. ☐ ☐
Shop Supt. ☐ Filter ☐ Mach. Shop ☐ Rod Shop ☐ Shipper ☐ Bill ☐ Owners ☐ S. Insp. ☐ App'l. ☐ ☐

IN CHARGE: L.G.
Made: C.A.D. Date: 4-30-70
Revised: Date:
Checked: RP Date: 5-18
Revised: Date:
Contract: CG6290-090
Page No.: SB8
USE AS B.F.P.

Customer: MAINE STATE HWY. COMM.
Structure: PISCATAQUA RIVER BRIDGE

BETHLEHEM STEEL

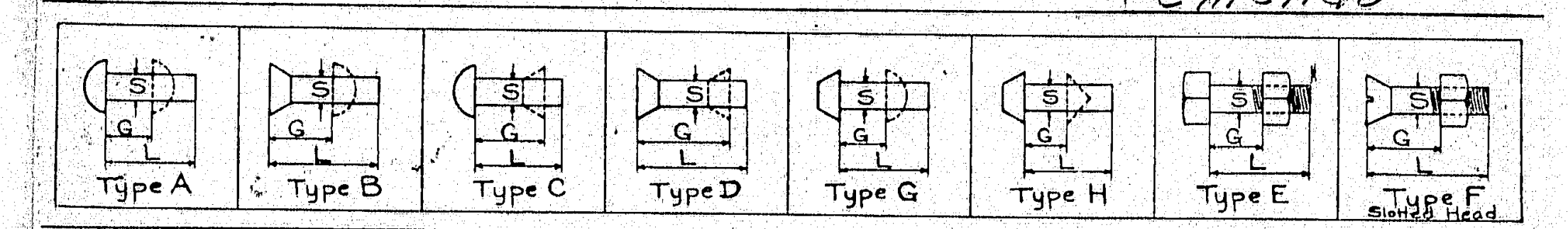
FABRICATED STEEL CONSTRUCTION

SUMMARY OF FIELD RIVETS AND BOLTS

3210 (Rev.B 1-57)

DRAFTING ROOM CHICAGO

WORKS CHICAGO



Line	Gross Number of Rivets or Bolts	Net Number of Rivets or Bolts	EXCESS 2%	Connecting	Diam. S	Rivets Type	Rivets Grip G	Rivets Length L	Bolts Type	Head Hex., Sq.	Bolts Grip G	Bolts Length L	Length of Thd.	Nuts No.	Hex. or Sq.	Item	Weight
1	140	134	6		7/8				325	HEX		2 1/4	STD	140	HEX		
2	1390	1356	29		↓				↓	↓		2 1/2	↓	1390	↓		
3	400	391	9		↓				↓	↓		2 3/4	↓	400	↓		
4	265	258	7		↓				↓	↓		3	↓	265	↓		
5	680	668	12		↓				↓	↓		3 1/4	↓	680	↓		
6	70	64	6		↓				↓	↓		3 1/2	↓	70	↓		
7	215	208	7		↓				↓	↓		3 3/4	↓	215	↓		
8	55	52	3		↓				↓	↓		4	↓	55	↓		
9	60	56	4		↓				↓	↓		4 1/4	↓	60	↓		
10	170	164	6		↓				↓	↓		4 3/4	↓	170	↓		
11																	
12																	
13																	
14	3495			HARD FLAT WASHERS FOR 7/8"ϕ A325 BOLTS													
15				(1 3/4"ϕ × 3/16 TH. × 15/16"ϕ HOLE)													
16																	
17																	
18	10	6	4		3/4				325	HEX		2	STD	10	HEX		
19	15	12	3		↓				↓	↓		2 3/4	↓	15	↓		
20	15	12	3		↓				↓	↓		3 1/4	↓	15	↓		
21	15	12	3		↓				↓	↓		4	↓	15	↓		
22	20	16	4		↓				↓	↓		4 3/4	↓	20	↓		
23																	
24																	
25	75			HARD FLAT WASHERS FOR 3/4"ϕ A325 BOLTS													
26				(1 15/32"ϕ × 1/8" TH. × 13/16"ϕ HOLE)													
27																	
28																	
29																	
30				SHIPMENT H4													

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BY SN JUN 2 1970

Summary of Sheet Nos.: B32, B33, B34, B114, B115, B116, B117, B118, B128, B211, B222, B223, B224, B232 & B239

Total Weight this Page:

ALL BOLTS OVER 1¼"ϕ AND 2'-6" IN LENGTH TO BE BILLED AS RODS ON FORM NO. 3208. FOR BOLTS OR RIVETS OF SPECIAL DESIGN, DRAW SKETCH ON THIS SHEET.

137:149

Gen'l Supt. ☐ Layout ☐ Temp. Shop ☐ Smith Shop ☐ Loader ☐ Scale ☐ Purch. Dept. ☐ Erection ☐ O. Insp. ☐ ☐
Shop Supt. ☐ Filter ☐ Mach. Shop ☐ Rod Shop ☐ Shipper ☐ Bill ☐ Owners ☐ S. Insp. ☐ App'l. ☐ ☐

IN CHARGE: L.A.G.
Made: B.V. Date: 5-25
Revised: Date:
Checked: CAD Date: 5-28
Revised: Date:
Contract: CG6290-090
Page No.: SB9
USE AS B.F.P.

Customer: MAINE STATE HWY COMM.
Structure: PISCATAQUA RIVER BRIDGE (CONT. #5)

BETHLEHEM STEEL

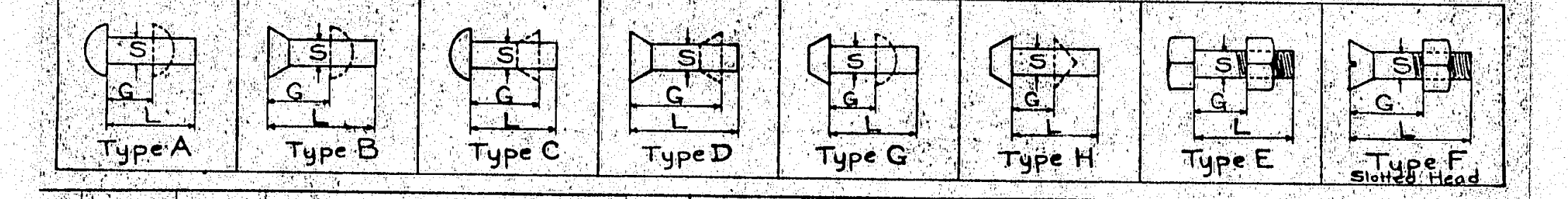
FABRICATED STEEL CONSTRUCTION

SUMMARY OF FIELD RIVETS AND BOLTS

3210 (Rev.B 1-57)

DRAFTING ROOM CHGO

WORKS CHGO



Line	Gross Number of Rivets or Bolts	Net Number of Rivets or Bolts	Connecting	Diam. S	Rivets Type	Rivets Grip G	Rivets Length L	Bolts Type	Head Hex., Sq.	Bolts Grip G	Bolts Length L	Length of Thd.	Nuts No.	Hex. or Sq.	Item	Weight
1	50	48	ANCHOR PIER EXP. SHOES	2"ϕ	} MATL-ASTM-A307								50	HEX		150
2	50	48	FIXED & MAIN PIERS EXP. SHOES	3"ϕ									50	HEX		475
3																
4																
5	50		STD CUT WASHERS FOR 2ϕ BOLT (4 1/2ϕ O.D. - 2 1/8ϕ I.D. - #1 GA. THK)													33
6			MATL-ASTM-A36													
7																
8	50		STD CUT WASHERS FOR 3ϕ BOLT (5 1/2ϕ O.D. - 3 1/8ϕ I.D. - #2 GA THK)													57
9			MATL-ASTM-A36													
10																
11																
12																
13																
14																
15			906-D-158													
16																
17																
18																
19			DIRECT SHIPMENT													
20																
21																
22																
23																
24																
25																
26																
27																
28																
29					ADVANCE SHIP											
30																

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Summary of Sheet Nos.: B1

Total Weight this Page: N.O. 715*

ALL BOLTS OVER 1¼"ϕ AND 2'-6" IN LENGTH TO BE BILLED AS RODS ON FORM NO. 3208. FOR BOLTS OR RIVETS OF SPECIAL DESIGN, DRAW SKETCH ON THIS SHEET.

137:142

Gen'l Supt. ☐ Layout ☐ Temp. Shop ☐ Smith Shop ☐ Loader ☐ Scale ☐ Purch. Dept. ☐ Erection ☐ O. Insp. ☐ ☐
Shop Supt. ☐ Filter ☐ Mach. Shop ☐ Rod Shop ☐ Shipper ☐ Bill ☐ Owners ☐ S. Insp. ☐ App'l. ☐ ☐

IN CHARGE: LAG
Made: JHO Date: 4/21/70
Revised: Date:
Checked: H.K.T. Date: 5/18/70
Revised: Date:
Contract: CG 6290-000
Page No.: SB 2
USE AS B.F.P.

Customer: MAINE STATE HYWAY COMM.
Structure: PISCATAQUA RIVER BR. CONTRACT #5

BETHLEHEM STEEL

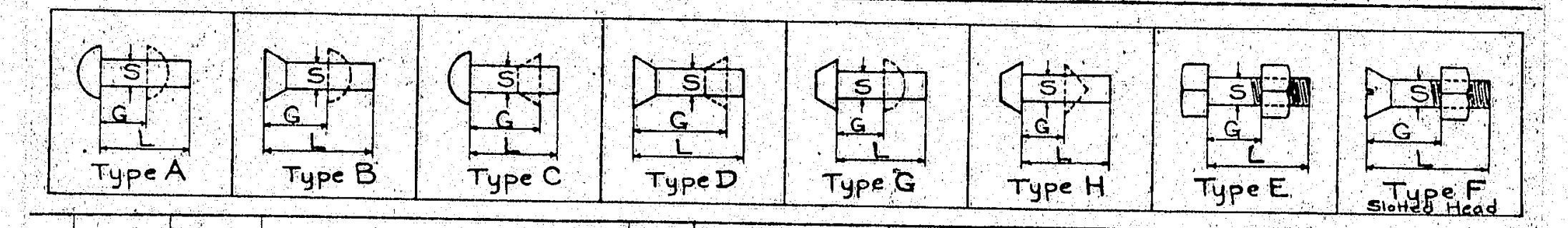
FABRICATED STEEL CONSTRUCTION

SUMMARY OF FIELD RIVETS AND BOLTS

3210 (Rev.B 1-57)

DRAFTING ROOM CHICAGO

WORKS CHICAGO



Line	Gross Number of Rivets or Bolts	Net Number of Rivets or Bolts	Connecting	Diam. S	Rivets Type	Rivets Grip G	Rivets Length L	Bolts Type	Head Hex., Sq.	Bolts Grip G	Bolts Length L	Length of Thd.	Nuts No.	Hex. or Sq.	Item	Weight
1															906-D-157	
2	4	4		3/4				A325	HEX		2 1/4	ST'D	4	HEX		2
3	30	28		3/4				A325	HEX		2 3/4	ST'D	30	HEX		20
4	65	60		3/4				A325	HEX		3 1/4	ST'D	65	HEX		48
5	12	12		3/4				A325	HEX		4	ST'D	12	HEX		10
6	16	16		3/4				A325	HEX		4 3/4	ST'D	16	HEX		15
7																
8	127		HARDENED WASHERS FOR 3/4"ϕ A325 BOLTS (1 15/32"ϕ × 1/8 TH - 13/16"ϕ HOLE)													5
9																
10																
11	615	600	R1	7/8				A325	HEX		2	STD	615 R1	HEX		530
12	1685	1646		7/8				A325	HEX		2 1/4	STD	1685	HEX		1522
13	1755	1718		7/8				A325	HEX		2 1/2	STD	1755	HEX		1660
14	470	453		7/8				A325	HEX		2 3/4	ST'D	470	HEX		464
15	20	18		7/8				A325	HEX		3	STD	20	HEX		21
16	1385	1366		7/8				A325	HEX		3 1/4	STD	1385	HEX		1482
17	90	80		7/8				A325	HEX		3 1/2	STD	90	HEX		100
18	195	192		7/8				A325	HEX		3 3/4	STD	195	HEX		226
19	32	30		7/8				A325	HEX		4 1/4	ST'D	32	HEX		40
20	30	28		7/8				A325	HEX		5 1/4	STD	30	HEX		42
21	4	4		7/8				A325	HEX		6	STD	4	HEX		6
22	8	8		7/8				A325	HEX		6 3/4	STD	8	HEX		13
23	16	16		7/8				A325	HEX		7	STD	16	HEX		27
24	4	4		7/8				A325	HEX		7 1/2	STD	4	HEX		7
25	4	4		7/8				A325	HEX		6 1/4	STD	4	HEX		6
26																
27	6313		HARDENED WASHERS FOR 7/8"ϕ A325 BOLTS (1 3/4"ϕ × 3/16 TH × 15/16"ϕ HOLE)													429
28	R1															
29			SHIPMENT H1 - SHIP DIRECT													
30														NO.		

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Summary of Sheet Nos.: B11 THRU B14, B21 THRU B23, B25, B27, B30, B31, B35, B46, B106, B108, B109, B110, B112, B204, B207, B225, B226, & B228 (R1)

Total Weight this Page: 6675#

ALL BOLTS OVER 1¼"ϕ AND 2'-6" IN LENGTH TO BE BILLED AS RODS ON FORM NO. 3208. FOR BOLTS OR RIVETS OF SPECIAL DESIGN, DRAW SKETCH ON THIS SHEET.

137:143

Gen'l Supt. ☐ Layout ☐ Temp. Shop ☐ Smith Shop ☐ Loader ☐ Scale ☐ Purch. Dept. ☐ Erection ☐ O. Insp. ☐ ☐
Shop Supt. ☐ Filter ☐ Mach. Shop ☐ Rod Shop ☐ Shipper ☐ Bill ☐ Owners ☐ S. Insp. ☐ App'l. ☐ ☐

IN CHARGE: L.G.
Made: C.A.D Date: 4-30-70
R1 Revised: TC Date: 7-7-70
Checked: RP Date: 5-18
Revised: Date:
Contract: CG6290-000
Page No.: SB3
USE AS B.F.P.

Customer: MAINE STATE HWY. COMM.
Structure: PISCATAQUA RIVER BRIDGE

BETHLEHEM STEEL

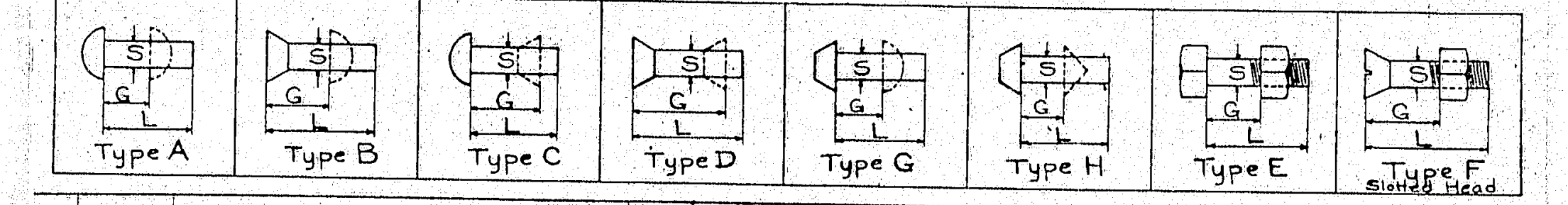
FABRICATED STEEL CONSTRUCTION

SUMMARY OF FIELD RIVETS AND BOLTS

3210 (Rev.B 1-57)

DRAFTING ROOM CHICAGO

WORKS CHICAGO



Line	Gross Number of Rivets or Bolts	Net Number of Rivets or Bolts	Connecting	Diam. S	Rivets Type	Rivets Grip G	Rivets Length L	Bolts Type	Head Hex., Sq.	Bolts Grip G	Bolts Length L	Length of Thd.	Nuts No.	Hex. or Sq.	Item	Weight
1	58	56		1"				A325	HEX		2 1/2	STD	58	HEX		
2	565	554		1"				A325	HEX		2 3/4	STD	565	HEX		
3	940	918		1"				A325	HEX		3	STD	940	HEX		
4	1345	1316		1"				A325	HEX		3 1/4	ST'D	1345	HEX		
5	1340	1310		1"				A325	HEX		3 1/2	STD	1340	HEX		
6	2000	1960		1"				A325	HEX		3 3/4	STD	2000	HEX		
7	645	632		1"				A325	HEX		4	STD	645	HEX		
8	2520	2468		1"				A325	HEX		4 1/4	STD	2520	HEX		
9	290	284		1"				A325	HEX		4 1/2	STD	290	HEX		
10	430	422		1"				A325	HEX		4 3/4	STD	430	HEX		
11	145	140		1"				A325	HEX		5	STD	145	HEX		
12	350	344		1"				A325	HEX		5 1/4	STD	350	HEX		
13	610	598		1"				A325	HEX		5 1/2	STD	610	HEX		
14	42	40		1"				A325	HEX		5 3/4	STD	42	HEX		
15	445	436		1"				A325	HEX		6	STD	445	HEX		
16	30	28		1"				A325	HEX		6 1/4	STD	30	HEX		
17																
18																
19	11755		HARDENED WASHERS FOR 1"ϕ A325 BOLTS (2"ϕ × 3/16 TH × 1 1/16"ϕ HOLE)													
20																
21																
22																
23																
24																
25																
26																
27																
28			SHIPMENT H1													
29																
30																

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Summary of Sheet Nos.: B203, B204, B206, B207, B209, B210, B212, B214, B215, B225, B226, & B228

Total Weight this Page:

ALL BOLTS OVER 1¼"ϕ AND 2'-6" IN LENGTH TO BE BILLED AS RODS ON FORM NO. 3208. FOR BOLTS OR RIVETS OF SPECIAL DESIGN, DRAW SKETCH ON THIS SHEET.

137:144

Gen'l Supt. ☐ Layout ☐ Temp. Shop ☐ Smith Shop ☐ Loader ☐ Scale ☐ Purch. Dept. ☐ Erection ☐ O. Insp. ☐ ☐
Shop Supt. ☐ Filter ☐ Mach. Shop ☐ Rod Shop ☐ Shipper ☐ Bill ☐ Owners ☐ S. Insp. ☐ App'l. ☐ ☐

IN CHARGE: L.G
Made: C.A.D Date: 4-30-70
Revised: Date:
Checked: RP Date: 5-18
Revised: Date:
Contract: CG6290-090
Page No.: SB4
USE AS B.F.P.

Customer: MAINE STATE HWY. COMM.
Structure: PISCATAQUA RIVER BRIDGE

BETHLEHEM STEEL

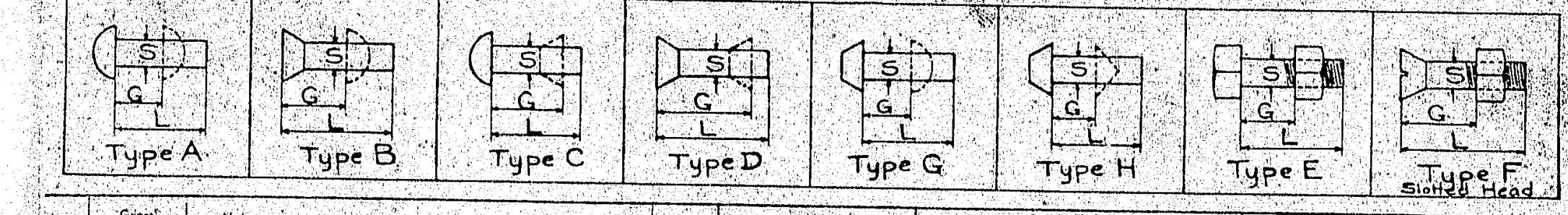
FABRICATED STEEL CONSTRUCTION

SUMMARY OF FIELD RIVETS AND BOLTS

3210 (Rev.B 1-57)

DRAFTING ROOM CHICAGO

WORKS CHICAGO



Line	Gross Number of Rivets or Bolts	Net Number of Rivets or Bolts	Connecting	Diam. S	Rivets Type	Rivets Grip G	Rivets Length L	Bolts Type	Head Hex., Sq.	Bolts Grip G	Bolts Length L	Length of Thd.	Nuts No.	Hex. or Sq.	Item	Weight
1	85	84		7/8				A325 GALV	HEX		2	STD	85	HEX		
2	185	182		7/8				A325 GALV	HEX		2 1/4	ST'D	185	HEX		
3	350	344		7/8				A325 GALV	HEX		2 1/2	STD	350	HEX		
4	35	32		7/8				A325 GALV	HEX		3	ST'D	35	HEX		
5	18	16		7/8				A325 GALV	HEX		3 1/2	ST'D	18	HEX		
6																
7	673		GALV. HARDENED WASHERS FOR 7/8"ϕ GALV. A325 BOLTS (1 3/4"ϕ × 3/16 TH. × 15/16"ϕ HOLE)													
8																
9	110	108		1"				A325 GALV	HEX		3 1/4	STD	110	HEX		
10	53	52		1"				A325 GALV	HEX		3 3/4	STD	53	HEX		
11	115	112		1"				A325 GALV	HEX		5 1/2	STD	115	HEX		
12																
13																
14	278		GALV. HARDENED WASHERS FOR 1"ϕ GALV. A325 BOLTS (2"ϕ × 3/16 TH. × 1 1/16"ϕ HOLE)													
15																
16																
17	65	64		3/4				A325 GALV	HEX		2	STD	65	HEX		
18																
19																
20	65		GALV. HARDENED WASHERS FOR 3/4"ϕ GALV. A325 BOLTS (1 15/32"ϕ × 1/8 TH - 13/16"ϕ HOLE)													
21																
22																
23																
24																
25																
26																
27																
28			SHIPMENT H1													
29																
30																

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Summary of Sheet Nos.: B18, B35, B106, B130, B204

Total Weight this Page:

ALL BOLTS OVER 1¼"ϕ AND 2'-6" IN LENGTH TO BE BILLED AS RODS ON FORM NO. 3208. FOR BOLTS OR RIVETS OF SPECIAL DESIGN, DRAW SKETCH ON THIS SHEET.

137:145

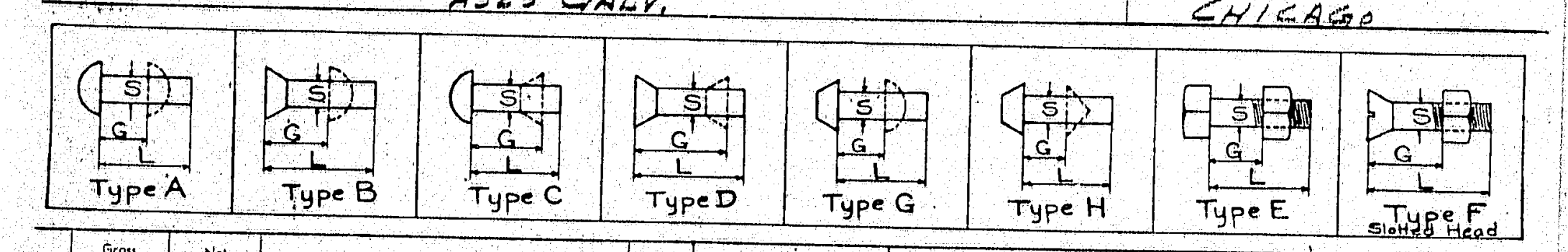
Gen'l Supt. ☐ Layout ☐ Temp. Shop ☐ Smith Shop ☐ Loader ☐ Scale ☐ Purch. Dept. ☐ Erection ☐ O. Insp. ☐ ☐
Shop Supt. ☐ Filter ☐ Mach. Shop ☐ Rod Shop ☐ Shipper ☐ Bill ☐ Owners ☐ S. Insp. ☐ App'l. ☐ ☐

IN CHARGE: L.G.
Made: C.A.D. Date: 4-30-70
Revised: Date:
Checked: RP Date: 5-18
Revised: Date:
Contract: CG6290-090
Page No.: SB5
USE AS B.F.P.

MAINE STATE HWY COMM.
Structure: PISCATAQUA RIVER BRIDGE

BETHLEHEM STEEL
FABRICATED STEEL CONSTRUCTION
SUMMARY OF FIELD ~~RIVETS AND~~ BOLTS
3210 (Rev.B 1-57)
A325 GALV.

DRAFTING ROOM CHICAGO
WORKS CHICAGO



Line	Gross Number of ~~Rivets or~~ Bolts	Net Number of ~~Rivets or~~ Bolts	Connecting	Diam. S	RIVETS			BOLTS					NUTS		Item	Weight
					Type	Grip G	Length L	Type	Head Hex. Sq.	Grip G	Length L	Length of Thd.	No.	Hex. or Sq.		
2	15	14		7/8				GALV. A325	HEX		2 3/4	STD	15	GALV. HEX		
3	220	214		7/8				GALV. A325	HEX		3	STD	220	GALV. HEX		
4	320	312		7/8				GALV. A325	HEX		3 1/2	2 1/2	320	GALV. HEX		
7	555		GALV. HARD FLAT WASHERS FOR 7/8"ϕ H.S.B. (1 3/4"ϕ × 3/16 WITH 15/16"ϕ HOLE)													
20			INSTALLMENT HIX													
28			7/8"ϕ × 3 1/2 BOLTS TO BE AS DETAILED ON SKETCH SHT. SK 37)													

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101 PARK AVE. NEW YORK 17, N.Y
BY FFW SEP 11 1970

Summary of Sheet Nos. B37
Total Weight this Page

ALL BOLTS OVER 1¼"ϕ AND 2'-6" IN LENGTH TO BE BILLED AS RODS ON FORM NO. 3208.
FOR BOLTS OR RIVETS OF SPECIAL DESIGN, DRAW SKETCH ON THIS SHEET.

137:154

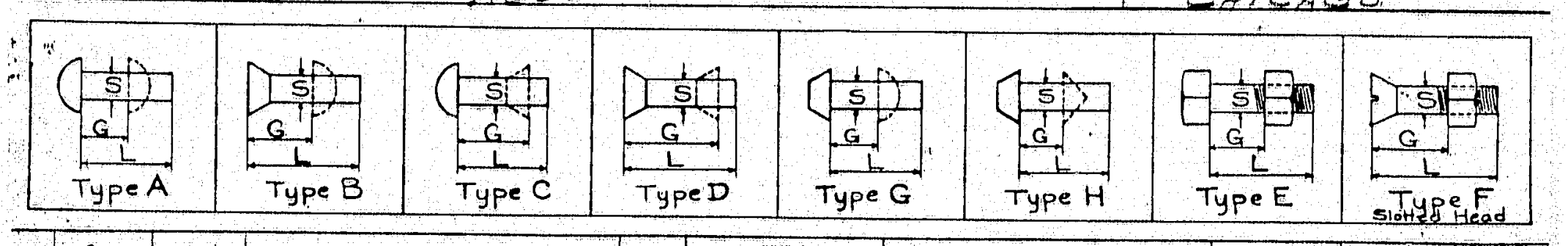
Gen'l Supt. ☐ Layout ☐ Temp. Shop ☐ Smith Shop ☐ Loader ☐ Scale ☐ Purch. Dept. ☐ Erection ☐ O. Insp. ☐ ☐ ☐
Shop Supt. ☐ Fitter ☐ Mach. Shop ☐ Rod Shop ☐ Shipper ☐ Bill ☐ Owners ☐ S. Insp. ☐ App'l. ☐ ☐ ☐

IN CHARGE LG
Made TC Date 8-26-70
Checked C.A.D Date 8-28-70
Revised Date
Revised Date
Contract CG6290:090
Page No. SB14 USE AS B.F.P.

Customer MAINE STATE HWY. COMM. Structure PISCATAQUA RIVER BRIDGE

BETHLEHEM STEEL
FABRICATED STEEL CONSTRUCTION
SUMMARY OF FIELD ~~RIVETS AND~~ BOLTS
3210 (Rev.B 1-57)
A325

DRAFTING ROOM CHICAGO
WORKS CHICAGO



Line	Gross Number of ~~Rivets or~~ Bolts	Net Number of ~~Rivets or~~ Bolts	Connecting	Diam. S	RIVETS			BOLTS					NUTS		Item	Weight
					Type	Grip G	Length L	Type	Head Hex. Sq.	Grip G	Length L	Length of Thd.	No.	Hex. or Sq.		
2	15	14		7/8				A325	HEX		2 3/4	STD	15	HEX		
3	190	184		7/8				A325	HEX		3	STD	190	HEX		
7	205		HARD FLAT WASHERS FOR 7/8"ϕ H.S.B. (1 3/4"ϕ × 3/16 WITH 15/16"ϕ HOLE)													
20			INSTALLMENT MIX													

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101 PARK AVE. NEW YORK 17, N.Y
BY FFW SEP 11 1970

Summary of Sheet Nos. B37
Total Weight this Page

ALL BOLTS OVER 1¼"ϕ AND 2'-6" IN LENGTH TO BE BILLED AS RODS ON FORM NO. 3208.
FOR BOLTS OR RIVETS OF SPECIAL DESIGN, DRAW SKETCH ON THIS SHEET.

137:155

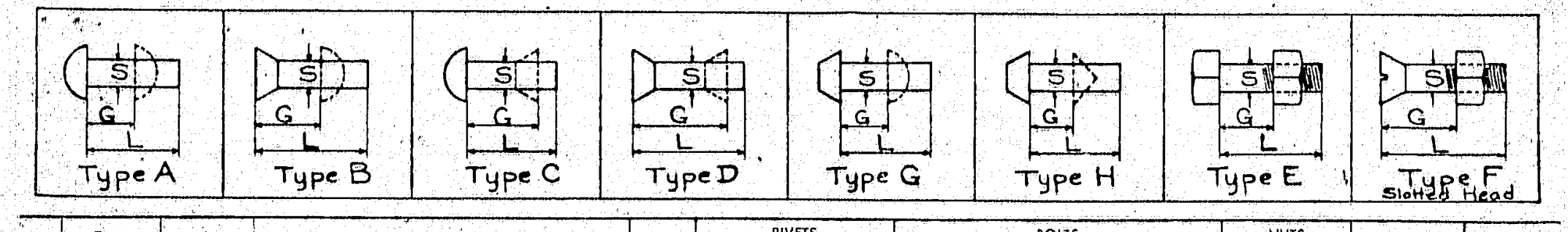
Gen'l Supt. ☐ Layout ☐ Temp. Shop ☐ Smith Shop ☐ Loader ☐ Scale ☐ Purch. Dept. ☐ Erection ☐ O. Insp. ☐ ☐ ☐
Shop Supt. ☐ Fitter ☐ Mach. Shop ☐ Rod Shop ☐ Shipper ☐ Bill ☐ Owners ☐ S. Insp. ☐ App'l. ☐ ☐ ☐

IN CHARGE LG
Made TC Date 8-27-70
Checked C.A.D. Date 8-28-70
Revised Date
Revised Date
Contract CG6290:090
Page No. SB15 USE AS B.F.P.

Customer MAINE STATE HWY. COMM. Structure PISCATAQUA RIVER BRIDGE

BETHLEHEM STEEL
FABRICATED STEEL CONSTRUCTION
SUMMARY OF FIELD ~~RIVETS AND~~ BOLTS
3210 (Rev.B 1-57)
A325 GALV.

DRAFTING ROOM CHICAGO
WORKS CHICAGO



Line	Gross Number of Rivets or Bolts	Net Number of Rivets or Bolts	Connecting	Diam. S	RIVETS			BOLTS					NUTS		Item	Weight
					Type	Grip G	Length L	Type	Head Hex. Sq.	Grip G	Length L	Length of Thd.	No.	Hex. or Sq.		
2	15	14		7/8				GALV. A325	HEX		2 3/4	STD	15	GALV. HEX		
3	220	214		7/8				GALV. A325	HEX		3	STD	220	GALV. HEX		
4	320	312		7/8				GALV. A325	HEX		3 1/2	2 1/2	320	GALV. HEX		
7	555		GALV. HARD FLAT WASHERS FOR 7/8"ϕ H.S.B. (1 3/4"ϕ × 3/16 WITH 15/16"ϕ HOLE)													
20			INSTALLMENT MIX													
28			(7/8"ϕ × 3 1/2 BOLTS TO BE AS DETAILED ON SKETCH SHT. SK37)													

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CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y
BY FFW SEP 11 1970

Summary of Sheet Nos. B37
Total Weight this Page

ALL BOLTS OVER 1¼"ϕ AND 2'-6" IN LENGTH TO BE BILLED AS RODS ON FORM NO. 3208.
FOR BOLTS OR RIVETS OF SPECIAL DESIGN, DRAW SKETCH ON THIS SHEET.

137:156

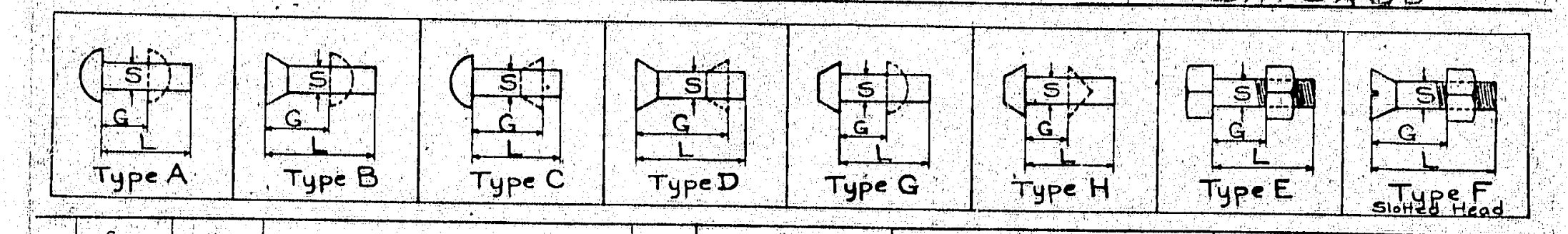
Gen'l Supt. ☐ Layout ☐ Temp. Shop ☐ Smith Shop ☐ Loader ☐ Scale ☐ Purch. Dept. ☐ Erection ☐ O. Insp. ☐ ☐ ☐
Shop Supt. ☐ Fitter ☐ Mach. Shop ☐ Rod Shop ☐ Shipper ☐ Bill ☐ Owners ☐ S. Insp. ☐ App'l. ☐ ☐ ☐

IN CHARGE LG
Made TC Date 8-27-70
Checked Date
Revised Date
Revised Date
Contract CG6290:090
Page No. SB16 USE AS B.F.P.

Customer MAINE STATE HWY. COMM. Structure PISCATAQUA RIVER BRIDGE

BETHLEHEM STEEL
FABRICATED STEEL CONSTRUCTION
SUMMARY OF FIELD ~~RIVETS AND~~ BOLTS
3210 (Rev.B 1-57)
A325

DRAFTING ROOM CHICAGO
WORKS CHICAGO



Line	Gross Number of Rivets or Bolts	Net Number of Rivets or Bolts	Connecting	Diam. S	RIVETS			BOLTS					NUTS		Item	Weight
					Type	Grip G	Length L	Type	Head Hex. Sq.	Grip G	Length L	Length of Thd.	No.	Hex. or Sq.		
1	180	176		1				A325	HEX		2 1/2	STD	180	HEX		
2	125	120		1				A325	HEX		2 3/4		125	HEX		
3	980	960		1				A325	HEX		3		980	HEX		
4	880	864		1				A325	HEX		3 1/4		880	HEX		
5	2150	2108		1				A325	HEX		3 1/2		2150	HEX		
6	3200	3136		1				A325	HEX		3 3/4		3200	HEX		
7	1540	1510		1				A325	HEX		4		1540	HEX		
8	975	956		1				A325	HEX		4 1/4		975	HEX		
9	180	178		1				A325	HEX		4 1/2		180	HEX		
10	265	248		1				A325	HEX		4 3/4		265	HEX		
11	995	974		1				A325	HEX		5		995	HEX		
12	215	212		1				A325	HEX		5 1/4		215	HEX		
13	315	308		1				A325	HEX		5 1/2		315	HEX		
14	1215	1189		1				A325	HEX		5 3/4		1215	HEX		
15	405	396		1				A325	HEX		6		405	HEX		
16	1370	1342		1				A325	HEX		6 1/4		1370	HEX		
17	615	604		1				A325	HEX		6 1/2		615	HEX		
18	700	685		1				A325	HEX		6 3/4		700	HEX		
19	1085	1064		1				A325	HEX		7		1085	HEX		
20	100	96		1				A325	HEX		7 1/4		100	HEX		
21	760	746		1				A325	HEX		7 1/2		760	HEX		
22	200	198		1				A325	HEX		7 3/4		200	HEX		
23	260	252		1				A325	HEX		8		260	HEX		
24	2	2		1				A325	HEX		8 1/4		2	HEX		
25	65	60		1				A325	HEX		8 3/4		65	HEX		
27	18,767		HARD FLAT WASHERS FOR 1"ϕ HSB													
29			INSTALLMENTS M9					(SHIP DIRECT TO SITE)								
30			SHIPMENT M9													

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BY FFW OCT 9 1970

Summary of Sheet Nos. B236, 237, 238, 240, 241, 242, 243, 244, 245, B246, 247, 248, 249, 253, 256, 257
Total Weight this Page

ALL BOLTS OVER 1¼"ϕ AND 2'-6" IN LENGTH TO BE BILLED AS RODS ON FORM NO. 3208.
FOR BOLTS OR RIVETS OF SPECIAL DESIGN, DRAW SKETCH ON THIS SHEET.

137:157

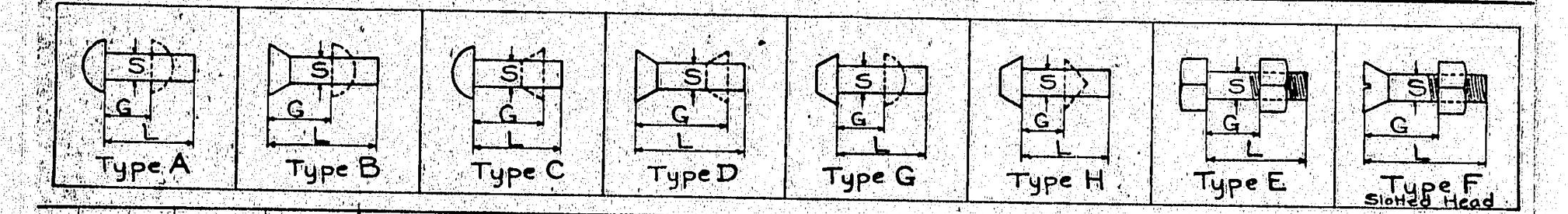
Gen'l Supt. ☐ Layout ☐ Temp. Shop ☐ Smith Shop ☐ Loader ☐ Scale ☐ Purch. Dept. ☐ Erection ☐ O. Insp. ☐ ☐ ☐
Shop Supt. ☐ Fitter ☐ Mach. Shop ☐ Rod Shop ☐ Shipper ☐ Bill ☐ Owners ☐ S. Insp. ☐ App'l. ☐ ☐ ☐

IN CHARGE LG
Made TC Date 8-28-70
Checked LM Date 9-21-70
Revised Date
Revised Date
Contract CG6290-090
Page No. SB17 USE AS B.F.P.

Customer MAINE STATE HWY. COMM. Structure PISCATAQUA RIVER BRIDGE

BETHLEHEM STEEL
FABRICATED STEEL CONSTRUCTION
SUMMARY OF FIELD RIVETS AND BOLTS
3210 (Rev.B 1-57)

DRAFTING ROOM CHICAGO
WORKS CHICAGO



Line	Gross Number of Rivets or Bolts	Net Number of Rivets or Bolts	EXCESS 2%	Connecting	Diam. S	RIVETS			BOLTS					NUTS		Item	Weight
						Type	Grip G	Length L	Type	Head Hex. Sq.	Grip G	Length L	Length of Thd.	No.	Hex. or Sq.		
1	55	52	3		1"ϕ				325	HEX		2 3/4	STD	55	HEX		
2	850	832	18									3		850			
3	960	942	18									3 1/4		960			
4	1150	1126	24									3 1/2		1150			
5	905	884	21									3 3/4		905			
6	530	520	10									4		530			
7	1145	1124	21									4 1/4		1145			
8	1780	1746	34									4 1/2		1780			
9	1180	1155	25									4 3/4		1180			
10	575	564	11									5		575			
11	3415	3346	69									5 1/4		3415			
12	1210	1184	26									5 1/2		1210			
13	360	352	8									5 3/4		360			
14	795	776	19									6		795			
15	1995	1956	39									6 1/4		1995			
16	500	488	12									6 1/2		500			
17	10	8	2									6 3/4		10			
18	35	32	3									7		35			
19	310	304	6									7 1/4		310			
20	495	484	11									8		495			
21	30	28	2									8 3/4		30			
22	150	144	6									9		150			
23	20	16	4									9 3/4		20			
28	18,455			HARD FLAT WASHERS FOR 1"ϕ A325 BOLTS													
29				(2"ϕ × 3/16" TH. × 1 1/16"ϕ HOLE)													
30									SHIPMENT H4								

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BY SN JUN 2 1970

Summary of Sheet Nos. B117, B211, B213, B216, B217, B219, B220, B222, B223, B224, B232, B234 & B239.
Total Weight this Page

ALL BOLTS OVER 1¼"ϕ AND 2'-6" IN LENGTH TO BE BILLED AS RODS ON FORM NO. 3208.
FOR BOLTS OR RIVETS OF SPECIAL DESIGN, DRAW SKETCH ON THIS SHEET.

137:150

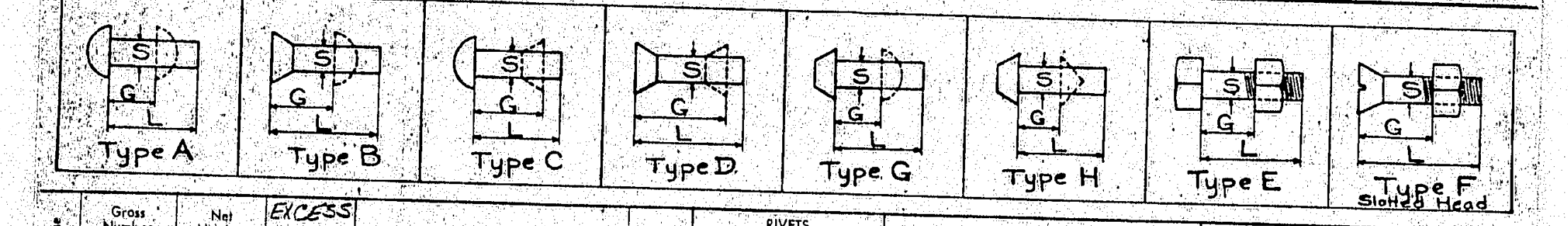
Gen'l Supt. ☐ Layout ☐ Temp. Shop ☐ Smith Shop ☐ Loader ☐ Scale ☐ Purch. Dept. ☐ Erection ☐ O. Insp. ☐ ☐ ☐
Shop Supt. ☐ Fitter ☐ Mach. Shop ☐ Rod Shop ☐ Shipper ☐ Bill ☐ Owners ☐ S. Insp. ☐ App'l. ☐ ☐ ☐

IN CHARGE L.AG.
Made B.V. Date 5-25
Checked Date
Revised Date
Revised Date
Contract CG6290-090
Page No. SB 10 USE AS B.F.P.

Customer MAINE STATE HWY. COMM. Structure PISCATAQUA RIVER BRIDGE (CONT. #5)

BETHLEHEM STEEL
FABRICATED STEEL CONSTRUCTION
SUMMARY OF FIELD RIVETS AND BOLTS
3210 (Rev.B 1-57)

DRAFTING ROOM CHICAGO
WORKS CHICAGO



Line	Gross Number of Rivets or Bolts	Net Number of Rivets or Bolts	EXCESS 2%	Connecting	Diam. S	RIVETS			BOLTS					NUTS		Item	Weight
						Type	Grip G	Length L	Type	Head Hex. Sq.	Grip G	Length L	Length of Thd.	No.	Hex. or Sq.		
1	140	134	6		7/8				325	HEX		2 1/4	STD	140	HEX		
2	1390	1356	29									2 1/2		1390			
3	400	391	9									2 3/4		400			
4	265	258	7									3		265			
5	680	668	12									3 1/4		680			
6	70	64	6									3 1/2		70			
7	215	208	7									3 3/4		215			
8	55	52	3									4		55			
9	60	56	4									4 1/4		60			
10	170	164	6									4 3/4		170			
15	3445			HARD FLAT WASHERS FOR 7/8"ϕ A325 BOLTS													
16				(1 3/4"ϕ × 3/16" TH. × 15/16"ϕ HOLE)													
19	10	6	4		3/4				325	HEX		2	STD	10	HEX		
20	15	12	3									2 3/4		15			
21	15	12	3									3 1/4		15			
22	15	12	3									4		15			
23	20	16	4									4 3/4		20			
28	75			HARD FLAT WASHERS FOR 3/4"ϕ A325 BOLTS													
29				(1 15/32"ϕ × 1/8" TH. × 13/16"ϕ HOLE)													
30									SHIPMENT M4								

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BY SN JUN 2 1970
JUN 2 1970

Summary of Sheet Nos. B32, B33, B34, B114, B115, B116, B117, B118, B128, B211, B222, B223, B224, B232, B239.
Total Weight this Page

ALL BOLTS OVER 1¼"ϕ AND 2'-6" IN LENGTH TO BE BILLED AS RODS ON FORM NO. 3208.
FOR BOLTS OR RIVETS OF SPECIAL DESIGN, DRAW SKETCH ON THIS SHEET.

137:151

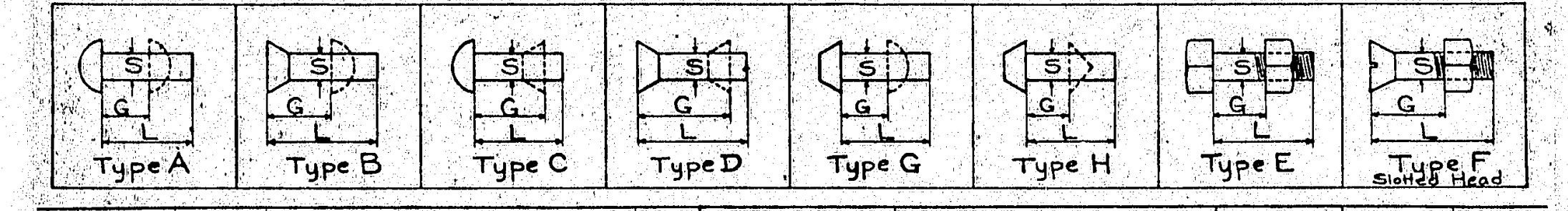
Gen'l Supt. ☐ Layout ☐ Temp. Shop ☐ Smith Shop ☐ Loader ☐ Scale ☐ Purch. Dept. ☐ Erection ☐ O. Insp. ☐ ☐ ☐
Shop Supt. ☐ Fitter ☐ Mach. Shop ☐ Rod Shop ☐ Shipper ☐ Bill ☐ Owners ☐ S. Insp. ☐ App'l. ☐ ☐ ☐

IN CHARGE L.A.G.
Made B.V. Date 5-26
Checked C.A.D. Date 5-28
Revised Date
Revised Date
Contract CG6290-090
Page No. SB 11 USE AS B.F.P.

Customer MAINE STATE HWY. COMM. Structure PISCATAQUA RIVER BRIDGE (CONT. #5)

BETHLEHEM STEEL
FABRICATED STEEL CONSTRUCTION
SUMMARY OF FIELD RIVETS AND BOLTS
3210 (Rev.B 1-57)

DRAFTING ROOM CHICAGO
WORKS CHICAGO



Line	Gross Number of Rivets or Bolts	Net Number of Rivets or Bolts	EXCESS 2%	Connecting	Diam. S	RIVETS			BOLTS					NUTS		Item	Weight
						Type	Grip G	Length L	Type	Head Hex. Sq.	Grip G	Length L	Length of Thd.	No.	Hex. or Sq.		
1	55	52	3		1"ϕ				325	HEX		2 3/4	STD	55	HEX		
2	850	832	18									3		850			
3	960	942	18									3 1/4		960			
4	1150	1126	24									3 1/2		1150			
5	905	884	21									3 3/4		905			
6	530	520	10									4		530			
7	1145	1124	21									4 1/4		1145			
8	1780	1746	34									4 1/2		1780			
9	1180	1155	25									4 3/4		1180			
10	575	564	11									5		575			
11	3415	3346	69									5 1/4		3415			
12	1210	1184	26									5 1/2		1210			
13	360	352	8									5 3/4		360			
14	795	776	19									6		795			
15	1995	1956										6 1/4		1995			
16	500	488	12									6 1/2		500			
17	10	8	2									6 3/4		10			
18	35	32	3									7		35			
19	310	304	6									7 1/4		310			
20	495	484	11									8		495			
21	30	28	2									8 3/4		30			
22	150	144	6									9		150			
23	20	16	4									9 3/4		20			
28	18,455			HARD FLAT WASHERS FOR 1"ϕ A325 BOLTS													
29				(2"ϕ × 3/16" TH. × 1 1/16"ϕ HOLE)													
30									SHIPMENT M4								

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BY SN JUN 2 1970

Summary of Sheet Nos. B117, B211, B213, B216, B217, B219, B220, B222, B223, B224, B232, B234 & B239
Total Weight this Page

ALL BOLTS OVER 1¼"ϕ AND 2'-6" IN LENGTH TO BE BILLED AS RODS ON FORM NO. 3208.
FOR BOLTS OR RIVETS OF SPECIAL DESIGN, DRAW SKETCH ON THIS SHEET.

137:152

Gen'l Supt. ☐ Layout ☐ Temp. Shop ☐ Smith Shop ☐ Loader ☐ Scale ☐ Purch. Dept. ☐ Erection ☐ O. Insp. ☐ ☐ ☐
Shop Supt. ☐ Fitter ☐ Mach. Shop ☐ Rod Shop ☐ Shipper ☐ Bill ☐ Owners ☐ S. Insp. ☐ App'l. ☐ ☐ ☐

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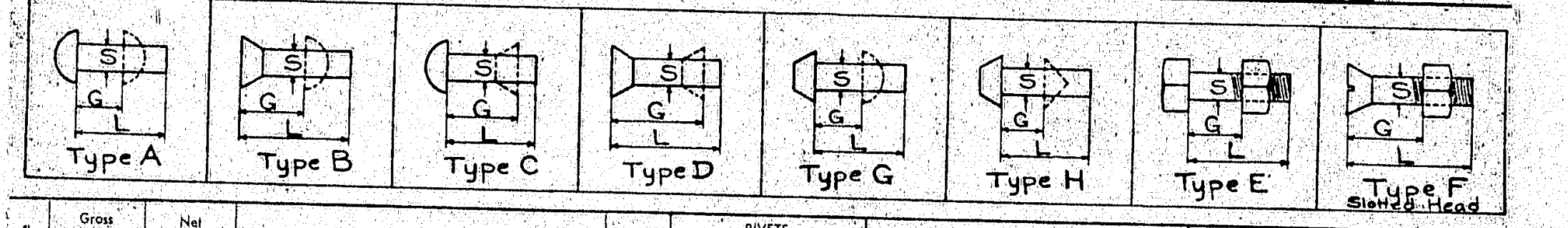
Made B.V. Date 5-26
Checked Date
Revised Date
Revised Date
Contract CG6290-090
Page No. SB 12 USE AS B.F.P.

Customer MAINE STATE HWY. COMM. Structure PISCATAQUA RIVER BRIDGE (CONT. #5)

BETHLEHEM STEEL
FABRICATED STEEL CONSTRUCTION
SUMMARY OF FIELD ~~RIVETS AND~~ BOLTS
3210 (Rev.B 1-57)
A325

DRAFTING ROOM CHICAGO
WORKS CHICAGO



Line	Gross Number of ~~Rivets or~~ Bolts	Net Number of ~~Rivets or~~ Bolts	Connecting	Diam. S	RIVETS			BOLTS					NUTS		Item	Weight
					Type	Grip G	Length L	Type	Head Hex. Sq.	Grip G	Length L	Length of Thd.	No.	Hex. or Sq.		
2	15	14		7/8				A325	HEX		2 3/4	STD	15	HEX		
3	190	184		7/8				A325	HEX		3	STD	190	HEX		
7	205		HARD FLAT WASHERS FOR 7/8"ϕ H.S.B. (1 3/4"ϕ × 3/16 WITH 15/16"ϕ HOLE)													
20			INSTALLMENT HIX													

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BY FFW SEP 11 1970

Summary of Sheet Nos. B37
Total Weight this Page

ALL BOLTS OVER 1¼"ϕ AND 2'-6" IN LENGTH TO BE BILLED AS RODS ON FORM NO. 3208.
FOR BOLTS OR RIVETS OF SPECIAL DESIGN, DRAW SKETCH ON THIS SHEET.

137:153

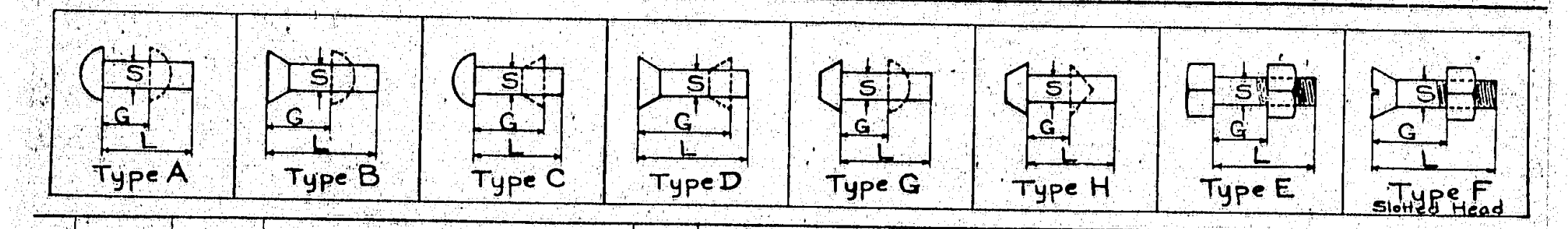
Gen'l Supt. ☐ Layout ☐ Temp. Shop ☐ Smith Shop ☐ Loader ☐ Scale ☐ Purch. Dept. ☐ Erection ☐ O. Insp. ☐ ☐ ☐
Shop Supt. ☐ Fitter ☐ Mach. Shop ☐ Rod Shop ☐ Shipper ☐ Bill ☐ Owners ☐ S. Insp. ☐ App'l. ☐ ☐ ☐

IN CHARGE LG
Made TC Date 8-26-70
Checked C.A.D Date 8-28-70
Revised Date
Revised Date
Contract CG6290:090
Page No. SB13 USE AS B.F.P.

Customer MAINE STATE HWY. COMM. Structure PISCATAQUA RIVER BRIDGE

BETHLEHEM STEEL
FABRICATED STEEL CONSTRUCTION
SUMMARY OF FIELD RIVETS AND BOLTS
3210 (Rev.B 1-57)

DRAFTING ROOM CHICAGO
WORKS CHICAGO



Line	Gross Number of Rivets or Bolts	Net Number of Rivets or Bolts	Connecting	Diam. S	Rivets Type	Rivets Grip G	Rivets Length L	Bolts Type	Bolts Head Hex., Sq.	Bolts Grip G	Bolts Length L	Bolts Length of Thd.	Nuts No.	Nuts Hex. or Sq.	Item	Weight
1			SHIPMENT H15													
2	288	274		3/4"φ				E	HEX		2		288	HEX.	A325	
3	227	216									2 1/4		227			
4	11	8									2 3/4		11			
5																
6	526		FLAT-ROUND HARDENED WASHERS FOR 3/4"φ H.S. BOLTS													
7																
8			SHIPMENT M1													
9	13	10		3/4"φ				E	HEX		1 3/4		13	HEX	A325	
10	408	388									2		408			
11	246	232									2 1/4		246			
12	50	44									2 1/2		50			
13	100	96		7/8"φ				E	HEX		2		100	HEX		
14	704		FLAT-ROUND HARDENED WASHERS FOR 3/4"φ H.S. BOLTS													
15	30		ROUND BEVELED HARD. (2:12) BEV. WASHERS FOR 3/4"φ H.S. BOLTS													
16																
17	100		FLAT-ROUND HARDENED WASHERS FOR 7/8"φ H.S. BOLT (1 3/4"φ X 3/16 THK 15/16"φ HL.)													
18			SHIPMENT M4													
19	19	15		3/4"φ				E	HEX		1 3/4			HEX	A325	
20	382	364									2					
21	252	240									2 1/4					
22	30	24									2 1/2					
23	11	8									2 3/4					
24																
25	235	224		5/8"φ	CINCH ANCHORS						3 1/4		235		2-UNIT (PLAIN)	
26															NATIONAL LEAD OR EQUAL	
27	680		FLAT-ROUND HARDENED WASHERS FOR 3/4"φ H.S. BOLTS												A325	
28	34		ROUND BEVELED HARD. (2:12) BEV. WASHERS FOR 3/4"φ H.S. BOLTS												do	
29																
30			TO BE FURNISHED BY SUBLET FABRICATOR - SHIP DIRECT													

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HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY F.F.W. SEP 1 1970

Summary of Sheet Nos. R 501 THRU 541 & B40
Total Weight this Page

ALL BOLTS OVER 1¼"φ AND 2'-6" IN LENGTH TO BE BILLED AS RODS ON FORM NO. 3208. FOR BOLTS OR RIVETS OF SPECIAL DESIGN, DRAW SKETCH ON THIS SHEET.

137:162

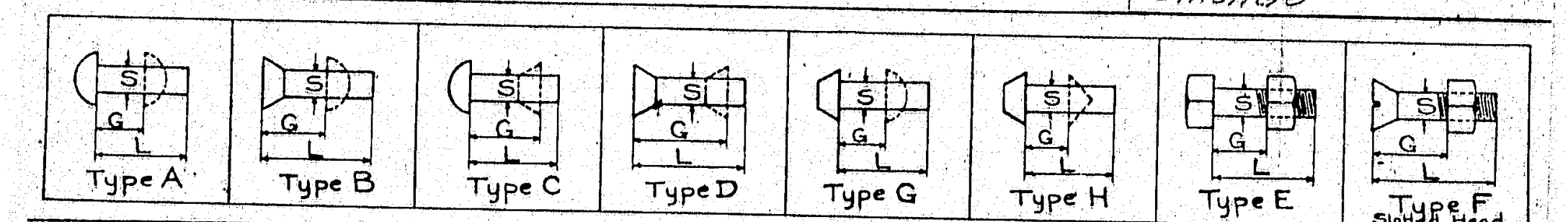
Gen'l Supt. ☐ Layout ☐ Temp. Shop ☐ Smith Shop ☐ Loader ☐ Scale ☐ Purch. Dept. ☐ Erection ☐ O. Insp. ☐ ☐
Shop Supt. ☐ Fitter ☐ Mach. Shop ☐ Rod Shop ☐ Shipper ☐ Bill ☐ Owners ☐ S. Insp. ☐ App'l. ☐ ☐

IN CHARGE L.A.G.
Made R.B.B. Date 6-19-70
Checked K Date
Revised Date
Revised Date
Contract CG 6290-000
Page No. SB 502
USE AS B.F.P.

Customer
Structure BRIDGE OVER PISCATAQUA RIVER

BETHLEHEM STEEL
FABRICATED STEEL CONSTRUCTION
SUMMARY OF FIELD RIVETS AND BOLTS
3210 (Rev.B 1-57)

DRAFTING ROOM CHICAGO
WORKS CHICAGO



Line	Gross Number of ~~Rivets~~ or Bolts	Net Number of ~~Rivets~~ or Bolts	Connecting	Diam. S	Rivets Type	Rivets Grip G	Rivets Length L	Bolts Type	Bolts Head Hex., Sq.	Bolts Grip G	Bolts Length L	Bolts Length of Thd.	Nuts No.	Nuts Hex. or Sq.	Item	Weight
1			SHIPMENT M9													
2	280	268		3/4"φ				E	HEX		2		280	HEX	A325	
3	256	244		3/4"φ				E	HEX		2 1/4		256	HEX	A325	
4																
5	536		FLAT-ROUND HARDENED WASHERS FOR 3/4"φ H.S. BOLTS												A325	
6																
7			SHIPMENT M15													
8	36	30		3/4"φ				E	HEX		1 3/4		36	HEX	A325	
9	354	366	?								2		354			
10	506	482									2 1/4		506			
11	38	32									2 1/2		38			
12	34	28									2 3/4		34			
13																
14	54	48		3/8"φ							1 1/4		54			
15																
16	80	72		7/8"φ							2 1/4		80			
17	?															
18	868		FLAT-ROUND HARDENED WASHERS FOR 3/4"φ H.S. BOLTS													
19	54		do FOR 3/8"φ H.S. BOLTS													
20	80		do FOR 7/8"φ H.S. BOLTS													
21																
22																
23																
24																
25																
26																
27																
28																
29			TO BE FURNISHED BY SUBLET FABRICATOR - SHIP DIRECT													
30																

To Be Revised and Resubmitted
For Approval
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY F.F.W. SEP 1 1970

Summary of Sheet Nos. R 501 THRU 541
Total Weight this Page

ALL BOLTS OVER 1¼"φ AND 2'-6" IN LENGTH TO BE BILLED AS RODS ON FORM NO. 3208. FOR BOLTS OR RIVETS OF SPECIAL DESIGN, DRAW SKETCH ON THIS SHEET.

137:163

Gen'l Supt. ☐ Layout ☐ Temp. Shop ☐ Smith Shop ☐ Loader ☐ Scale ☐ Purch. Dept. ☐ Erection ☐ O. Insp. ☐ ☐
Shop Supt. ☐ Filter ☐ Mach. Shop ☐ Rod Shop ☐ Shipper ☐ Bill ☐ Owners ☐ S. Insp. ☐ App'l. ☐ ☐

IN CHARGE L.A.G.
Made R.B.B. Date 6-19-70
Checked K Date
Revised Date
Revised Date
Contract CG 6290-000
Page No. SB 503
USE AS B.F.P.

Customer
Structure BRIDGE OVER PISCATAQUA RIVER

5

BETHLEHEM STEEL
FABRICATED STEEL CONSTRUCTION
LIST OF A-~~325~~ 307 ~~BOLTS~~ NUTS
18602 (Rev.A 1-57)

DRAFTING ROOM
WORKS

Line	No.	Connecting	Washer W	~~Bolt~~ Nuts Dia. S	Grip G	Length L	Line	No.	Connecting	Washer W	Bolt Dia. S	Grip G	Length L
1	48	ANCHOR PIER EXP. SHOES		2"φ			33						
2	24	MAIN PIER FIXED SHOES		3"φ			34						
3	24	MAIN PIER EXP. SHOES		3"φ			35						
4		REG. HEX. NUTS					36						
5							37						
6							38						
7							39						
8							40						
9							41						
10							42						
11							43						
12							44						
13							45						
14							46						
15							47						
16							48						
17							49						
18							50						
19							51						
20							52						
21							53						
22							54						
23							55						
24							56						
25							57						
26							58						
27							59						
28													
29													
30													
31													
32													

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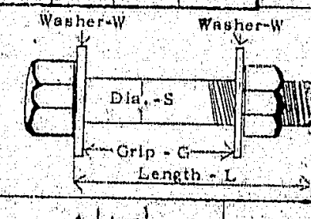
101 PARK AVE. NEW YORK 17, N.Y.
BY F.F.W. SEP 1 1970

WASHER SUMMARY A-36

Type \ Diam.	2"φ	3"φ	Type \ Diam.			
–	48	48	⊟			
a			☐a			
b			☐b			

A-325 ~~Bolts~~ NUTS for ANCHOR BOLTS

Summarized on Page SB 2



WASHER TYPE
- — A-325 flat
- a A-325 beveled-Beth: 5/8 in 12 (or 5% bev.)
- b A-325 beveled-Standard: 2 in 12 (or 16-2/3% bev.)
- ☐ indicates clipped

137:164

IN CHARGE LAG
Made JAO Date 4/15/70
Checked HKT Date 5-19-70
Revised Date
Revised Date
Contract CG 6290
Page No. B 1 of 1

Customer MAINE STATE HYWAY COMM.
Structure PISCATAQUA RIVER BRIDGE - CONTRACT #5 PROJ. #I-95-1(22)16 - KITTERY, MAINE

BETHLEHEM STEEL
FABRICATED STEEL CONSTRUCTION
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	Bolt Dia.	Bolt Grip	Bolt Length	Unit No. Bolts	Unit No. Pcs.	Connecting
1	1	1	20	325	1-HW	1"	1 9/16	2 1/2	10	2	LATERAL PLATE 1A TO 163A RL
2	1	2	32	325	1-HW	1"	2 7/16	3 3/4	16	2	" " 1A TO CHORD 276A L
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
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27											
28											
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30											
31											
32											

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101 PARK AVE. NEW YORK 17, N.Y.
BY F.F.W. DEC 31 1970

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

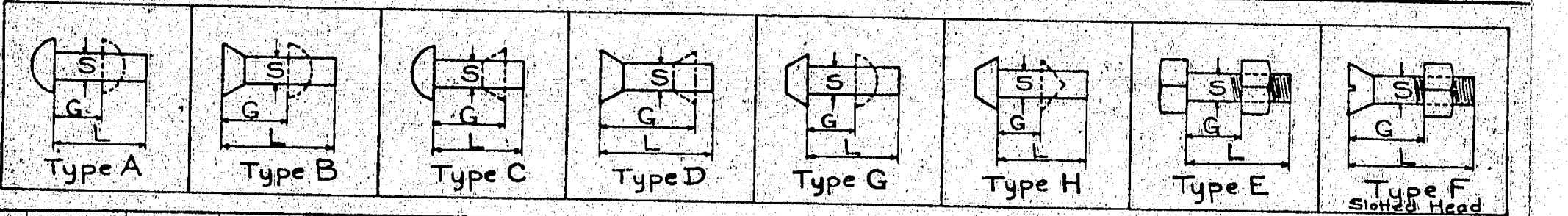
325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ?)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW =Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	12-4	LM		
Checked	12-22	TC		
Revisions				

Bolts for Dwgs. 1
137:165
Summarized on page SB1
DRAFTING CHICAGO
WORKS CHICAGO
ERECTION
Customer MAINE STATE HWY COMM.
Structure PISCATAQUA RIVER BRIDGE
CONTRACT HG0121-000 DWG. B 1

BETHLEHEM STEEL
FABRICATED STEEL CONSTRUCTION
SUMMARY OF FIELD ~~RIVETS AND~~ BOLTS
A325
3210 (Rev.B 1-57)

DRAFTING ROOM CHICAGO
WORKS CHICAGO



Line	Gross Number of ~~Rivets or~~ Bolts	Net Number of ~~Rivets or~~ Bolts	Connecting	Diam. S	Rivets Type	Rivets Grip G	Rivets Length L	Bolts Type	Bolts Head Hex., Sq.	Bolts Grip G	Bolts Length L	Bolts Length of Thd.	Nuts No.	Nuts Hex. or Sq.	Item	Weight
1	180	176		1				A325	HEX		2 1/2	STD.	180	HEX		
2	125	120		1				A325	HEX		2 3/4		125	HEX		
3	980	960		1				A325	HEX		3		980	HEX		
4	880	864		1				A325	HEX		3 1/4		880	HEX		
5	2150	2108		1				A325	HEX		3 1/2		2150	HEX		
6	3200	3136		1				A325	HEX		3 3/4		3200	HEX		
7	1540	1510		1				A325	HEX		4		1540	HEX		
8	975	956		1				A325	HEX		4 1/4		975	HEX		
9	180	178		1				A325	HEX		4 1/2		180	HEX		
10	255	248		1				A325	HEX		4 3/4		255	HEX		
11	995	974		1				A325	HEX		5		995	HEX		
12	215	212		1				A325	HEX		5 1/4		215	HEX		
13	315	308		1				A325	HEX		5 1/2		315	HEX		
14	1215	1189		1				A325	HEX		5 3/4		1215	HEX		
15	405	396		1				A325	HEX		6		405	HEX		
16	1370	1342		1				A325	HEX		6 1/4		1370	HEX		
17	615	604		1				A325	HEX		6 1/2		615	HEX		
18	700	685		1				A325	HEX		6 3/4		700	HEX		
19	1085	1064		1				A325	HEX		7		1085	HEX		
20	100	96		1				A325	HEX		7 1/4		100	HEX		
21	760	746		1				A325	HEX		7 1/2		760	HEX		
22	200	198		1				A325	HEX		7 3/4		200	HEX		
23	260	252		1				A325	HEX		8		260	HEX		
24	2	2		1				A325	HEX		8 1/4		2	HEX		
25	65	60		1				A325	HEX		8 3/4		65	HEX		
26																
27	18,767		HARD FLAT WASHERS FOR 1"φ H S B													
28																
29			INSTALLMENTS H9					(SHIP DIRECT TO SITE)								
30				SHIPMENT H9												

APPROVED:-
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CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY FFW OCT 9 1970

Summary of Sheet Nos. B236, 237, 238, 240, 241, 242, 243, 244, 245, B246, 247, 248, 249, 253, 256, 257
Total Weight this Page 137:158

ALL BOLTS OVER 1¼"φ AND 2'-6" IN LENGTH TO BE BILLED AS RODS ON FORM NO. 3208. FOR BOLTS OR RIVETS OF SPECIAL DESIGN, DRAW SKETCH ON THIS SHEET.

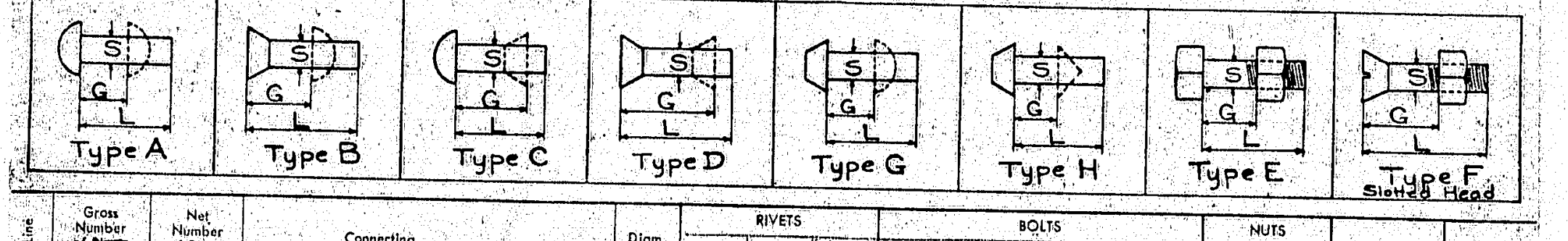
Gen'l Supt. ☐ Layout ☐ Temp. Shop ☐ Smith Shop ☐ Loader ☐ Scale ☐ Purch. Dept. ☐ Erection ☐ O. Insp. ☐ ☐
Shop Supt. ☐ Fitter ☐ Mach. Shop ☐ Rod Shop ☐ Shipper ☐ Bill ☐ Owners ☐ S. Insp. ☐ App'l. ☐ ☐

IN CHARGE LG
Made T.C. Date 8-28-70
Checked LM Date 9-21-70
Revised Date
Revised Date
Contract CG 6290-090
Page No. SB 18
USE AS B.F.P.

Customer MAINE STATE HWY. COMM.
Structure PISCATAQUA RIVER BRIDGE

BETHLEHEM STEEL
FABRICATED STEEL CONSTRUCTION
SUMMARY OF FIELD ~~RIVETS AND~~ BOLTS
A325
3210 (Rev.B 1-57)

DRAFTING ROOM CHICAGO
WORKS CHICAGO



Line	Gross Number of ~~Rivets or~~ Bolts	Net Number of ~~Rivets or~~ Bolts	Connecting	Diam. S	Rivets Type	Rivets Grip G	Rivets Length L	Bolts Type	Bolts Head Hex., Sq.	Bolts Grip G	Bolts Length L	Bolts Length of Thd.	Nuts No.	Nuts Hex. or Sq.	Item	Weight
1																
2	30	29		3/4				A325	HEX		2	STD.	30	HEX		
3	30	28		3/4				A325	HEX		2 1/4		30	HEX		
4	30	28		3/4				A325	HEX		2 3/4		30	HEX		
5	215	212		3/4				A325	HEX		3 1/4		215	HEX		
6	85	84		3/4				A325	HEX		4		85	HEX		
7	115	112		3/4				A325	HEX		5		115	HEX		
8																
9																
10																
11																
12	505		HARD FLAT WASHERS FOR 3/4"φ H.S.B													
13																
14	2485	2437		7/8				A325	HEX		2 1/4	STD.	2485	HEX		
15	3800	3724		7/8				A325	HEX		2 1/2		3800	HEX		
16	795	778		7/8				A325	HEX		2 3/4		795	HEX		
17	440	432		7/8				A325	HEX		3		440	HEX		
18	600	588		7/8				A325	HEX		3 1/4		600	HEX		
19	180	178		7/8				A325	HEX		5		180	HEX		
20	30	28		7/8				A325	HEX		5 1/4		30	HEX		
21	105	104		7/8				A325	HEX		5 1/2		105	HEX		
22																
23																
24																
25																
26	8,435		HARD FLAT WASHERS FOR 7/8"φ HSB													
27																
28			INSTALLMENTS M9					(SHIP DIRECT TO SITE)								
29																
30				SHIPMENT M9												

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101 PARK AVE. NEW YORK 17, N.Y.
BY FFW. OCT 9 1970

Summary of Sheet Nos. B29, 41, 42, 49, 131, 132, 135, 136, 138, 141, 142, 144, 146, B159, 164, 167, 168, 237, 238, 242, 245, 247, 248, 249, 256, 257
Total Weight this Page 137:159

ALL BOLTS OVER 1¼"φ AND 2'-6" IN LENGTH TO BE BILLED AS RODS ON FORM NO. 3208. FOR BOLTS OR RIVETS OF SPECIAL DESIGN, DRAW SKETCH ON THIS SHEET.

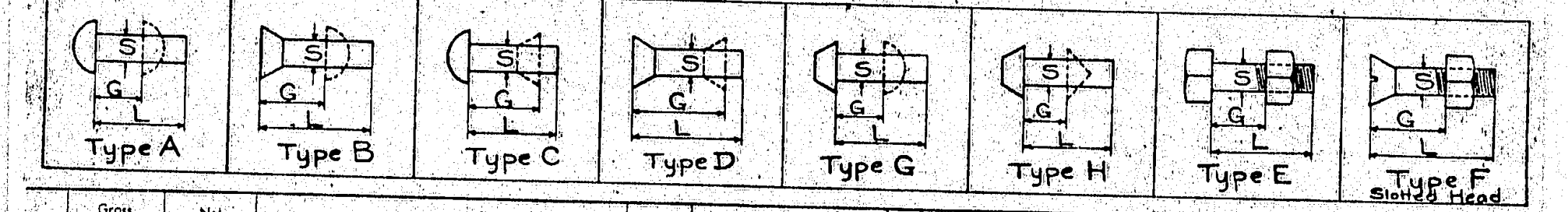
Gen'l Supt. ☐ Layout ☐ Temp. Shop ☐ Smith Shop ☐ Loader ☐ Scale ☐ Purch. Dept. ☐ Erection ☐ O. Insp. ☐ ☐
Shop Supt. ☐ Fitter ☐ Mach. Shop ☐ Rod Shop ☐ Shipper ☐ Bill ☐ Owners ☐ S. Insp. ☐ App'l. ☐ ☐

IN CHARGE LG
Made T.C. Date 8-28-70
Checked LM Date 9-21-70
Revised Date
Revised Date
Contract CG 6290-090
Page No. SB 19
USE AS B.F.P.

Customer MAINE STATE HWY. COMM.
Structure PISCATAQUA RIVER BRIDGE

BETHLEHEM STEEL
FABRICATED STEEL CONSTRUCTION
SUMMARY OF FIELD ~~RIVETS AND~~ BOLTS
A325
3210 (Rev.B 1-57)

DRAFTING ROOM CHICAGO
WORKS CHICAGO



Line	Gross Number of ~~Rivets or~~ Bolts	Net Number of ~~Rivets or~~ Bolts	Connecting	Diam. S	Rivets Type	Rivets Grip G	Rivets Length L	Bolts Type	Bolts Head Hex., Sq.	Bolts Grip G	Bolts Length L	Bolts Length of Thd.	Nuts No.	Nuts Hex. or Sq.	Item	Weight
1																
2	30	29		3/4				A325	HEX		2	STD.	30	HEX		
3	30	28		3/4				A325	HEX		2 1/4		30	HEX		
4	30	28		3/4				A325	HEX		2 3/4		30	HEX		
5	215	212		3/4				A325	HEX		3 1/4		215	HEX		
6	85	84		3/4				A325	HEX		4		85	HEX		
7	115	112		3/4				A325	HEX		5		115	HEX		
8																
9																
10																
11																
12	505		HARD FLAT WASHERS FOR 3/4"φ HSB													
13																
14	2485	2437		7/8				A325	HEX		2 1/4	STD.	2485	HEX		
15	3800	3724		7/8				A325	HEX		2 1/2		3800	HEX		
16	795	778		7/8				A325	HEX		2 3/4		795	HEX		
17	440	432		7/8				A325	HEX		3		440	HEX		
18	600	588		7/8				A325	HEX		3 1/4		600	HEX		
19	180	178		7/8				A325	HEX		5		180	HEX		
20	30	28		7/8				A325	HEX		5 1/4		30	HEX		
21	105	104		7/8				A325	HEX		5 1/2		105	HEX		
22																
23																
24																
25																
26	8,435		HARD FLAT WASHERS FOR 7/8"φ HSB													
27																
28			INSTALLMENTS H9					(SHIP DIRECT TO SITE)								
29																
30				SHIPMENT H9												

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CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY FFW. OCT 9 1970

Summary of Sheet Nos. B29, 41, 42, 49, 131, 132, 135, 136, 138, 141, 142, 144, 146, B159, 164, 167, 168, 237, 238, 242, 245, 247, 248, 249, 256, 257
Total Weight this Page 137:160

ALL BOLTS OVER 1¼"φ AND 2'-6" IN LENGTH TO BE BILLED AS RODS ON FORM NO. 3208. FOR BOLTS OR RIVETS OF SPECIAL DESIGN, DRAW SKETCH ON THIS SHEET.

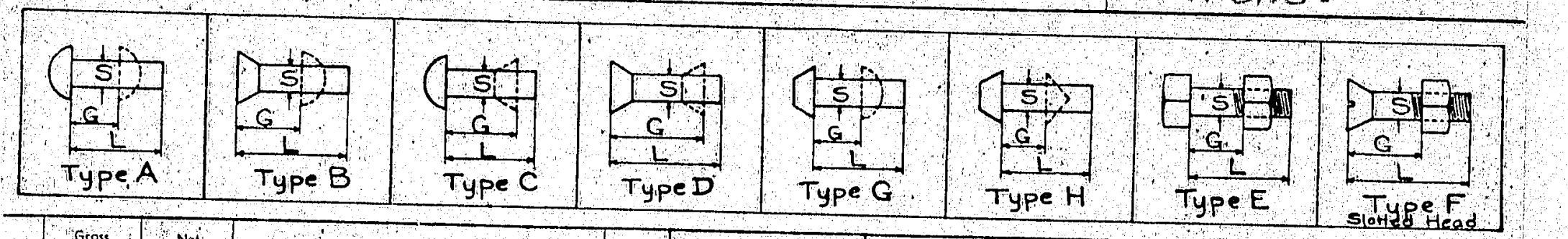
Gen'l Supt. ☐ Layout ☐ Temp. Shop ☐ Smith Shop ☐ Loader ☐ Scale ☐ Purch. Dept. ☐ Erection ☐ O. Insp. ☐ ☐
Shop Supt. ☐ Filter ☐ Mach. Shop ☐ Rod Shop ☐ Shipper ☐ Bill ☐ Owners ☐ S. Insp. ☐ App'l. ☐ ☐

IN CHARGE LG
Made T.C. Date 8-28-70
Checked LM Date 9-21-70
Revised Date
Revised Date
Contract CG 6290-090
Page No. SB 20
USE AS B.F.P.

Customer MAINE STATE HWY. COMM.
Structure PISCATAQUA RIVER BRIDGE

BETHLEHEM STEEL
FABRICATED STEEL CONSTRUCTION
SUMMARY OF FIELD RIVETS AND BOLTS
3210 (Rev.B 1-57)

DRAFTING ROOM CHICAGO
WORKS CHICAGO



Line	Gross Number of ~~Rivets~~ or Bolts	Net Number of ~~Rivets~~ or Bolts	Connecting	Diam. S	Rivets Type	Rivets Grip G	Rivets Length L	Bolts Type	Bolts Head Hex., Sq.	Bolts Grip G	Bolts Length L	Bolts Length of Thd.	Nuts No.	Nuts Hex. or Sq.	Item	Weight
1	13	10	SHIPMENT H1	3/4"φ				E	HEX		1 3/4		13	HEX	A325	
2	412	392									2		412			
3	240	228									2 1/4		240			
4	50	44									2 1/2		50			
5	100	96		7/8"φ				E	HEX		2		100	HEX		
6	715		FLAT-ROUND HARDENED WASHERS FOR 3/4"φ H.S. BOLTS													
7	30		ROUND BEVELED HARD. (2:12) BEV. WASHERS FOR 3/4"φ H.S. BOLTS													
8																
9	100		FLAT-ROUND HARDENED WASHERS FOR 7/8"φ H.S. BOLTS (1 3/4"φ × 3/16" TH. 15/16"φ HL.)													
10			SHIPMENT H4													
11	19	15		3/4"φ				E	HEX		1 3/4		19	HEX	A325	
12	382	364									2		382			
13	252	240									2 1/4		252			
14	30	24									2 1/2		30			
15	11	8									2 3/4		11			
16																
17	235	224		5/8"φ	CINCH ANCHORS						3 1/4		235		2-UNIT (PLAIN)	
18															NATION LEAD (OR EQUAL)	
19	680		FLAT-ROUND HARDENED WASHERS FOR 3/4"φ H.S. BOLTS												A325	
20	34		ROUND BEVELED HARD. (2:12) BEV. WASHERS FOR 3/4"φ H.S. BOLTS												do	
21																
22																
23			SHIPMENT H9													
24	280	268		3/4"φ				E	HEX		2		280	HEX	A325	
25	256	244		3/4"φ				E	HEX		2 1/4		256	HEX	A325	
26																
27	536		FLAT-ROUND HARDENED WASHERS FOR 3/4"φ H.S. BOLTS												A325	
28																
29			TO BE FURNISHED BY SUBLET FABRICATOR - SHIP DIRECT													
30																

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY FFW SEP 1 1970

Summary of Sheet Nos. R 501 THRU 541 & B40
Total Weight this Page

ALL BOLTS OVER 1¼"φ AND 2'-6" IN LENGTH TO BE BILLED AS RODS ON FORM NO. 3208. FOR BOLTS OR RIVETS OF SPECIAL DESIGN, DRAW SKETCH ON THIS SHEET.

137:161

Gen'l Supt. ☐ Layout ☐ Temp. Shop ☐ Smith Shop ☐ Loader ☐ Scale ☐ Purch. Dept. ☐ Erection ☐ O. Insp. ☐ ☐
Shop Supt. ☐ Filter ☐ Mach. Shop ☐ Rod Shop ☐ Shipper ☐ Bill ☐ Owners ☐ S. Insp. ☐ App'l. ☐ ☐

IN CHARGE L.A.G.
Made R.B.B. Date 6-19-70
Checked K Date
Revised Date
Revised Date
Contract CG 6290-000
Page No. SB 501
USE AS B.F.P.

Customer
Structure BRIDGE OVER PISCATAQUA RIVER

BETHLEHEM STEEL
FABRICATED STEEL CONSTRUCTION
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.	Connecting
						Dia.	Grip	Length	Bolts / Pcs.	
1	14	1	480	A325	1-HW	7/8	1 1/4	2 1/4	10/48	18 [42.7 TO 14A THRU 14T
2		2	8			7/8	4 1/16	5 1/4	2/4	8 ST 32 TO 14A
3		2	8			7/8	4 1/8	5 1/4	2/4	TO 14B
4		2	24			7/8	4 3/16	5 1/4	2/12	TO 14C & 14D
5		3	16			7/8	5 3/4	6 3/4	2/8	TO 14H & 14K
6		3	8			7/8	5 1/16	6 1/4	2/4	TO 14M
7		3	16			7/8	5 15/16	7	2/8	TO 14N & P
8		4	16			7/8	1 1/4	2 1/4	4/4	ST 4 WF 15.5 TO 14P
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31				INSTALLMENTS						
32	H2	H4	H5	H7	H10	M2	M4	M5	M7	M10

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y
BY SN
MAY 26 1970

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MAY 21 1970
HARDESTY & HANOVER

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ϕ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	11/11	WB		
Checked	11/14	ET		
Revisions				

Bolts for Dwgs. 14
Summarized on page SB3-H2-H4-H5-H7 & H10
SB6-M2-M4-M5-M7 & M10
DRAFTING CHICAGO
WORKS CHICAGO
ERECTION
Customer MAINE STATE HWY COMM.
Structure PISCATAQUA RIVER BRIDGE CONTRACT #5
CONTRACT CG6290-090 DWG-B 14

137:170

BETHLEHEM STEEL
FABRICATED STEEL CONSTRUCTION
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.	Connecting
						Dia.	Grip	Length	Bolts / Pcs.	
1	386 THRU 397	-	112	STB	1-STW	1"	2 1/16	3 1/4	4/28	18 D To APPROACH STRINGERS
2										
3										
4										
5										
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25										
26										
27										
28										
29										
30										
31				INSTALLMENTS H1 & M1						
32										

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CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y
BY SN
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* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt 325 GALV.
W =Std. Flat Washer for A-307 (2-1/8 ϕ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer HW GALV.
(FOR A325 BOLTS)

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	4-1	CD		
Checked		✓		
Revisions				

Bolts for Dwgs. 386 THRU 397 FOR CJ6249
Summarized on page SB5-H1
SB8-M1
DRAFTING CHICAGO
WORKS CHICAGO
ERECTION
Customer MAINE STATE HWY. COMM.
Structure PISCATAQUA RIVER BR. CONT #5
CONTRACT CG6290-090 DWG-B 18

137:171

BETHLEHEM STEEL
FABRICATED STEEL CONSTRUCTION
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.	Connecting
						Dia.	Grip	Length	Bolts / Pcs.	
1	21	1	40	A325	1-HW	7/8	1 1/4	2 1/4	5/8	18 [42.7 TO 21A & 21B
2		1	240			7/8	1 1/4	2 1/4	10/24	TO 21C, 21D & 21F
3		2	40			7/8	1 1/4	2 1/4	5/8	TO 21A & 21B
4		2	240			7/8	1 1/4	2 1/4	10/24	TO 21C, 21D & 21F
5		3	96			7/8	1 1/2	2 1/2	12/8	BRCG TO 21A & 21B
6		4	16			3/4	2 1/4	3 1/4	2/8	DECK JOINT TO 21A & 21B
7		5	48			3/4	2 1/4	3 1/4	2/24	TO 21C, 21D & 21F
8										
9										
10										
11										
12										
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30										
31	INSTALLMENTS									
32	H3	H7	M3	M7						

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* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ϕ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	11/12	WB		
Checked	11-14	ET		
Revisions				

Bolts for Dwgs. 21
Summarized on page SB3-H3-H7
SB6-M3-M7
DRAFTING CHICAGO
WORKS CHICAGO
ERECTION
Customer MAINE STATE HWY COMM.
Structure PISCATAQUA RIVER BRIDGE CONTRACT #5
CONTRACT CG6290-090 DWG-B 21

137:172

BETHLEHEM STEEL
FABRICATED STEEL CONSTRUCTION
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.	Connecting
						Dia.	Grip	Length	Bolts / Pcs.	
1	22	1	160	A325	1-HW	7/8	1 1/4	2 1/4	10/16	18 [42.7 TO 22A THRU 22D
2		2	160			7/8	1 1/4	2 1/4	10/16	
3		3	16			7/8	4 3/16	5 1/4	2/8	8 ST 32 TO 22A & 22B
4		3	16			7/8	5 15/16	7	2/8	TO 22C & 22D
5		4	16			3/4	2 1/4	3 1/4	2/8	DECK JOINT TO 22A & 22B
6		5	16			3/4	2 1/4	3 1/4	2/8	TO 22C & 22D
7										
8										
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30										
31				INSTALLMENTS						
32				H3	H7	M3	M7			

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MAY 21 1970
HARDESTY & HANOVER

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ϕ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	11/13	WB		
Checked	11/14	ET		
Revisions				

Bolts for Dwgs. 22
Summarized on page SB3-H3-H7
SB6-M3-M7
DRAFTING CHICAGO
WORKS CHICAGO
ERECTION
Customer MAINE STATE HWY COMM.
Structure PISCATAQUA RIVER BRIDGE CONTRACT #5
CONTRACT CG6290-090 DWG-B 22

137:173

STEEL
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.	Connecting
						Dia.	Grip	Length	Bolts / Pcs.	
1	2	1	20	325	1-HW	1"	1 3/16	2 1/2	10/2	DIAPH. Ls TO DIAPH 2M
2										
3										
4										
5										
6										
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101 PARK AVE. NEW YORK 17, N.Y
BY F.F.W. DEC 31 1970

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ϕ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	12-9	LM		
Checked	12-22	TC		
Revisions				

Bolts for Dwgs. 2 137:166
Summarized on page SB1
DRAFTING CHICAGO
WORKS CHICAGO
ERECTION
Customer MAINE STATE HWY COMM.
Structure PISCATAQUA RIVER BRIDGE
CONTRACT HG0121-000 DWG-B 2

BETHLEHEM STEEL
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.	Connecting
						Dia.	Grip	Length	Bolts / Pcs.	
1	11	1	96	A325	1-HW	7/8	1 5/8	2 3/4	4/24	∠ TO 11A THRU 11G
2		2	200			7/8	1 1/4	2 1/4	10/20	18 [42.7 TO 11B THRU 11G
3		3	8			7/8	4 7/8	6	2/4	8 ST 32 TO 11F
4		3	8			7/8	6 1/4	7 1/2	2/4	8 ST 32 TO 11G
5		2	20			7/8	1 1/4	2 1/4	5/4	18 [42.7 TO 11A
6										
7										
8										
9										
10										
11										
12										
13										
14										
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22										
23										
24										
25										
26										
27										
28										
29										
30				INSTALLMENTS						
31				H1 & M1						
32										

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* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ϕ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	11/7	WB		
Checked	11/7	ET		
Revisions				

Bolts for Dwgs. 11
Summarized on page SB3 For H1 & SB6 For M1
DRAFTING CHICAGO
WORKS CHICAGO
ERECTION
Customer MAINE STATE HWY COMM
Structure PISCATAQUA RIVER BRIDGE
CONTRACT CG6290-090 DWG-B 11

137:167

STEEL
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.	Connecting
						Dia.	Grip	Length	Bolts / Pcs.	
1	12	1	16	A325	1-HW	7/8	1 5/8	2 3/4	4/4	6 ∠ TO 12A
2		2	280			7/8	1 1/4	2 1/4	10/28	18 [42.7 TO 12A THRU 12G
3		3	48			7/8	1 5/16	2	3/16	10 [20 TO 12A
4		4	96			7/8	2 3/8	3 1/2	4/24	8 ST 32 TO 12A THRU 12F
5		5	288			7/8	1 5/16	2	3/96	10 [20 TO 12B THRU 12G
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
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19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31				INSTALLMENTS						
32	H1	H2	H4	H5	H7	H10	M1	M2	M4	M5 M7 M10

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BY SN
MAY 26 1970

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HARDESTY & HANOVER

137:168

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ϕ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	11/10	WB		
Checked	11/12	ET		
Revisions				

Bolts for Dwgs. 12
Summarized on page SB3-H1-H2-H4-H5-H7 & H10
SB7-M1-M2-M4-M5-M7 & M10
DRAFTING CHICAGO
WORKS CHICAGO
ERECTION
Customer MAINE STATE HWY COMM.
Structure PISCATAQUA RIVER BRIDGE CONTRACT #5
CONTRACT CG6290-090 DWG-B 12

BETHLEHEM STEEL
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.	Connecting
						Dia.	Grip	Length	Bolts / Pcs.	
1	13	1	120	A325	1-HW	7/8	1 1/4	2 1/4	5/24	18 [42.7 TO 13A THRU 13G
2		2	32			7/8	2 3/8	3 1/2	4/8	8 ST 32 TO 13A & 13B
3		3	120			7/8	1 3/4	2 3/4	10/12	BRCG TO 13C & 13D
4		4	720			7/8	1 1/4	2 1/4	10/72	18 [42.7 TO 13H, 13K & 13M
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
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19										
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21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31				INSTALLMENTS						
32	H2	H4	H5	H7	H10	M2	M4	M5	M7	M10

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101 PARK AVE. NEW YORK 17, N.Y
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137:169

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ϕ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	11/10	WB		
Checked	11/12	ET		
Revisions				

Bolts for Dwgs. 13
Summarized on page SB3-H2-H4-H5-H7-H10
SB6-M2-M4-M5-M7 & M10
DRAFTING CHICAGO
WORKS CHICAGO
ERECTION
Customer MAINE STATE HWY COMM.
Structure PISCATAQUA RIVER BRIDGE CONTRACT #5
CONTRACT CG6290-090 DWG-B 13

BETHLEHEM STEEL

FABRICATED STEEL CONSTRUCTION

LIST OF FIELD BOLTS

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer*	BOLT Dia.	BOLT Grip	BOLT Length	UNIT NO. Bolts / Pcs.	Connecting
1	30AB	1	24	A325	1-HW	3/4	3	4	2/12	EXP. JOINT TO 30A
2	↓	2	32	↓	↓	3/4	3 7/8	4 3/4	2/16	'do'
3	↓	3	168	↓	↓	7/8	1 9/16	2 3/4	6/28	STRINGER CONN. L TO 30A
4	↓	4	96	↓	↓	7/8	2 11/16	3 3/4	24/4	SWAYFRAME TO 30A
5	↓	5	8	↓	↓	3/4	1 11/16	2 3/4	2/4	PLATFORM TO 30A
6	30BB	6	168	↓	↓	7/8	2 3/16	3 1/4	6/28	STRINGER TO 30A
7										
8	↓	8	48	↓	↓	7/8	1 1/2	2 1/2	12/4	BRAC. TO 30A @ CTR.
9	30BB	9	8	A325	1-HW	3/4	1 11/16	2 3/4	1/8	HR. TO 30A @ CTR.
32	INSTALLMENTS									H2 & M2

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BY SN MAY 26 1970

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* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ⌀)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG.		
Made	10-12	B.V.		
Checked	12-8	LM		
Revisions				

Bolts for Dwgs. 30AB & 30BB
Summarized on page SB3-H2, SB6-M2
DRAFTING CHICAGO | WORKS CHICAGO | ERECTION
Customer MAINE STATE HWY. COMM.
Structure PISCATAQUA RIVER BRIDGE-CONT. #5
CONTRACT CG6290-090 DWG.-B 30

137:178

BETHLEHEM STEEL

FABRICATED STEEL CONSTRUCTION

LIST OF FIELD BOLTS

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer*	BOLT Dia.	BOLT Grip	BOLT Length	UNIT NO. Bolts / Pcs.	Connecting
1	31AB	1	168	A325	1-HW	7/8	2 3/16	3 1/4	6/28	STRINGER CONN. L TO 31A
2	↓	2	8	↓	↓	3/4	1 11/16	2 3/4	1/8	H.R. TO 31A
3	↓	3	96	↓	↓	7/8	2 11/16	3 3/4	24/4	SWAYFRAME TO 31A
4	31BB	4	336	↓	↓	↓	2 3/16	3 1/4	6/56	STRINGER TO 31A
5	↓	5	36	↓	↓	↓	1 7/16	2 1/2	9/4	BRAC. TO 31A
6	↓	6	48	↓	↓	↓	1 1/2	2 1/2	12/4	BRAC. TO 31A @ CTR.
7	31BB	7	8	A325	1-HW	3/4	1 11/16	2 3/4	2/4	PLATFORM TO 31A
32	INSTALLMENTS									H3 & M3

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* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ⌀)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made		BV		
Checked	12-8	LM		
Revisions				

Bolts for Dwgs. 31AB & 31BB
Summarized on page SB3-H3, SB6-M3
DRAFTING CHICAGO | WORKS CHICAGO | ERECTION
Customer MAINE STATE HWY. COMM.
Structure PISCATAQUA RIVER BRIDGE-CONT. #5
CONTRACT CG6290-090 DWG.-B 31

137:179

BETHLEHEM STEEL

FABRICATED STEEL CONSTRUCTION

LIST OF FIELD BOLTS

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer*	BOLT Dia.	BOLT Grip	BOLT Length	UNIT NO. Bolts / Pcs.	Connecting
1	32AB	1	168	A325	1-HW	7/8	2 3/16	3 1/4	6/28	STRINGER CONN. L TO 32A
2	↓	2	8 ✓	↓	↓	3/4	1 11/16	2 3/4	1/8	H.R. TO 32A
3	↓	3	8 ✓	↓	↓	3/4	2 3/16	3 1/4	2/4	PLAT. TO 32A
4	↓	4	96 ✓	↓	↓	7/8	2 11/16	3 3/4	24/4	SWAYFRAME TO 32A
5	32BB	5	336 ✓	↓	↓	7/8	2 3/16	3 1/4	6/56	STRINGER TO 32A
6	↓	6	48 ✓	↓	↓	7/8	1 1/2	2 1/2	12/4	BRAC. TO 32A @ CTR.
7	↓	7	36 ✓	↓	↓	7/8	1 7/16	2 1/2	9/4	BRAC. TO 32A @ END
31	INSTALLMENTS									H 4 & M 4

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BY SN JUN 2 1970

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ⌀)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		L.G.		
Made		B.V.		
Checked		ET		
Revisions				

Bolts for Dwgs. 32AB & 32BB
Summarized on page SB9, SB11
DRAFTING CHICAGO | WORKS CHICAGO | ERECTION
Customer MAINE STATE HWY. COMM.
Structure PISCATAQUA RIVER BRIDGE. CONT. #5
CONTRACT CG6290-090 DWG.-B 32

137:180

BETHLEHEM STEEL

FABRICATED STEEL CONSTRUCTION

LIST OF FIELD BOLTS

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer*	BOLT Dia.	BOLT Grip	BOLT Length	UNIT NO. Bolts / Pcs.	Connecting
1	33AB	1	24 ✓	A325	1-HW	3/4	3	4	2/12	EXP. JOINT TO 33A
2	↓	2	32 ✓	↓	↓	3/4	3 7/8	4 3/4	2/16	'do'
3	↓	3	8 ✓	↓	↓	3/4	1 11/16	2 3/4	1/8	H.R. TO 33A
4	↓	4	8 ✓	↓	↓	3/4	2 3/16	3 1/4	2/4	PLATFORM TO 33A
5	↓	5	168 ✓	↓	↓	7/8	1 9/16	2 3/4	6/28	STR. CONN. Ls TO 33A
6	↓	6	96 ✓	↓	↓	7/8	2 11/16	3 3/4	24/4	SWAYFRAME TO 33A
7	33BB									
8	↓	8	168 ✓	↓	↓	7/8	2 3/16	3 1/4	6/28	STRINGER TO 33A
9	↓	9	48 ✓	↓	↓	7/8	1 1/2	2 1/2	12/4	BRAC. TO 33A @ CTR.
32	INSTALLMENTS									H5 & M5

APPROVED:-
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CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y
BY SN JUN 2 1970

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ⌀)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		L.G.		
Made		B.V.		
Checked	1-2	ET		
Revisions				

Bolts for Dwgs. 33AB & 33BB
Summarized on page SB9 & SB11
DRAFTING CHICAGO | WORKS CHICAGO | ERECTION
Customer MAINE STATE HWY. COMM.
Structure PISCATAQUA RIVER BRIDGE. CONT. #5
CONTRACT CG6290-090 DWG.-B 33

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41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer*	BOLT Dia.	BOLT Grip	BOLT Length	UNIT NO. Bolts / Pcs.	Connecting
1	23	1	80	A325	1-HW	7/8	1 1/4	2 1/4	10/8	18E 42.7 TO 23A & 23B
2	↓	2	40	↓	↓	7/8	1 1/4	2 1/4	5/8	↓ TO ↓
3	↓	3	32	↓	↓	7/8	2 3/8	3 1/2	4/8	8 ST 32 TO ↓
4	↓	4	96	↓	↓	7/8	15/16	2	3/32	10E 20 TO ↓
5	↓	5	16	↓	↓	3/4	2 1/4	3 1/4	2/8	DECK JOINT TO ↓
31	INSTALLMENTS									
32	H3	H7	M3	M7						

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY SN MAY 26 1970

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* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ⌀)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	11/13	WB		
Checked	11/14	ET		
Revisions				

Bolts for Dwgs. 23
Summarized on page SB3-H3-H7, SB6-M3-M7
DRAFTING CHICAGO | WORKS CHICAGO | ERECTION
Customer MAINE STATE HWY COMM
Structure PISCATAQUA RIVER BRIDGE CONTRACT #5
CONTRACT CG6290-090 DWG.-B 23

137:174

BETHLEHEM STEEL

FABRICATED STEEL CONSTRUCTION

LIST OF FIELD BOLTS

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer*	BOLT Dia.	BOLT Grip	BOLT Length	UNIT NO. Bolts / Pcs.	Connecting
1	25AB	1	40	A325	1-HW	7/8	1 1/16	2 1/4	10/4	BRC. TO 25A
2	↓	2	168	↓	↓	7/8	2 3/16	3 1/4	6/28	STRINGER CONN. L TO 25A
3	↓	3	8	↓	↓	3/4	1 11/16	2 3/4	1/8	H.R. TO 25A
4	↓	4	8	↓	↓	3/4	1 11/16	2 3/4	2/4	PLAT. TO 25A
5	↓	5	96	↓	↓	7/8	2 11/16	3 3/4	24/4	SWAYFRAME TO 25A
6	25BB	6	336	↓	↓	7/8	2 3/16	3 1/4	6/56	STRINGER TO 25A
7	25BB	7	48	↓	↓	7/8	1 3/8	2 1/2	12/4	BRAC. TO 25A @ CTR.
31	INSTALLMENTS									H1 & M1

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101 PARK AVE. NEW YORK 17, N.Y.
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* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ⌀)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	11-16	BV		
Checked	11-16	LM		
Revisions				

Bolts for Dwgs. 25AB & 25BB
Summarized on page SB3-H1, SB6-M1
DRAFTING CHICAGO | WORKS CHICAGO | ERECTION
Customer MAINE STATE HWY. COMM.
Structure PISCATAQUA RIVER BRIDGE: CONT. #5
CONTRACT CG6290-090 DWG.-B 25

137:175

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer*	BOLT Dia.	BOLT Grip	BOLT Length	UNIT NO. Bolts / Pcs.	Connecting
1	27AB	1	168	A325	1-HW	7/8	2 3/16	3 1/4	6/28	STRINGER CONN. TO 27A
2	↓	2	8	↓	↓	3/4	1 11/16	2 3/4	1/8	H.R. TO 27A
3	↓	3	8	↓	↓	3/4	2 3/16	3 1/4	2/4	PLAT. TO 27A
4	↓	4	96	↓	↓	7/8	2 11/16	3 3/4	24/4	SWAYFRAME TO 27A
5	27BB	5	336	↓	↓	7/8	2 3/16	3 1/4	6/56	STRINGER TO 27A
6	27BB	6	48	↓	↓	7/8	1 1/2	2 1/2	12/4	BRAC. TO 27A @ CTR.
32	INSTALLMENTS									H2 & M2

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101 PARK AVE. NEW YORK 17, N.Y.
BY SN MAY 26 1970

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* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ⌀)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	11-16	BV		
Checked	12-25	ET		
Revisions				

Bolts for Dwgs. 27AB & 27BB
Summarized on page SB3-H2, SB6-M2
DRAFTING CHICAGO | WORKS CHICAGO | ERECTION
Customer MAINE STATE HWY. COMM.
Structure PISCATAQUA RIVER BRIDGE: CONT. #5
CONTRACT CG6290-090 DWG.-B 27

137:176

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer*	BOLT Dia.	BOLT Grip	BOLT Length	UNIT NO. Bolts / Pcs.	Connecting
1	29	1	280	A325	1-HW	7/8	1 1/4	2 1/4	10/28	18 E 42.7 TO 29A THRU 29D
2	↓	2	140	↓	↓	7/8	1 1/4	2 1/4	5/28	↓ TO ↓
3	↓	3	40	↓	↓	3/4	2 1/4	3 1/4	2/20	DECK JOINT TO 29A
4	↓	4	16	↓	↓	3/4	2 1/4	3 1/4	2/8	↓ TO 29C & 29D
31	INSTALLMENTS									
32	H10	H13	H16	H19	M10	M13	M16	M19		

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101 PARK AVE. NEW YORK 17, N.Y.
BY FFW OCT 9 1970

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ⌀)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	11/14	WB		
Checked	11-14	ET		
Revisions				

Bolts for Dwgs. 29
Summarized on page SB19, 20 (INST. H10, H13, M10, M13)
DRAFTING CHICAGO | WORKS CHICAGO | ERECTION
Customer MAINE STATE HWY COMM.
Structure PISCATAQUA RIVER BRIDGE CONTRACT #5
CONTRACT CG6290-090 DWG.-B 29

137:177

FABRICATED STEEL CONSTRUCTION

LIST OF FIELD BOLTS

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT Dia.	BOLT Grip	BOLT Length	UNIT NO. Bolts	UNIT NO. Pcs.	Connecting
1	41	1	24	325	1-HW	3/4	3	4	2	12	DECK EXP. Jt. TO 41A
2	↓	2	32	↓	↓	3/4	3 15/16	5	2	16	(do)
3	↓	3	168	↓	↓	7/8	1 9/16	2 3/4	6	28	STRINGER CONN. ∠s TO 41A
4	↓	4	8	↓	↓	3/4	1 11/16	2 3/4	1	8	HANDRAILING TO 41A
5	↓	5	8	↓	↓	3/4	1 5/16	2 1/4	4	2	STAIR TO 41A
6	↓	6	8	↓	↓	3/4	2 3/16	3 1/4	2	4	PLATFORM TO 41A
7	↓	7	4	↓	↓	3/4	15/16	2	2	2	STAIR TO 41A
8	↓	8	136	↓	↓	7/8	3 13/16	5	68	2	BRAC. TO 41A @ CTR.
9	↓	9	40	↓	↓	7/8	1 9/16	2 3/4	10	4	
10	↓	10	208	↓	↓	7/8	1 5/16	2 1/2	26	8	BRAC. TO 41A
11	↓	11	168	↓	↓	7/8	2 3/16	3 1/4	6	28	STRINGER TO 41A
12	↓	12	168	↓	↓	7/8	1 5/16	2 1/2	42	4	BRAC. TO 41A @ CTR.
13	↓	13	16	↓	↓	7/8	1 9/16	2 3/4	4	4	BRK'T. TO 41A
14	↓	14	108	↓	↓	7/8	1 7/16	2 1/2	27	4	41B TO ℄ BM.
15	↓	15	84	↓	↓	7/8	3 13/16	5	21	4	41C TO ℄ BM.

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101 PARK AVE. NEW YORK 17, N.Y.
BY FFW OCT 9 1970

H10 & M10

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ϕ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	Distribution No.
In-Charge		L.G.		
Made	3-5-70	B.V.		
Checked	6-1	RP		
Revisions				

Bolts for Dwgs. 41
Summarized on page SB19, 20
DRAFTING CHICAGO WORKS CHICAGO ERECTION
Customer MAINE STATE HWY. COMM.
Structure PISCATAQUA RIVER BRIDGE
CONTRACT CG6290-000 DWG.-B 41

137:186

FABRICATED STEEL CONSTRUCTION

LIST OF FIELD BOLTS

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT Dia.	BOLT Grip	BOLT Length	UNIT NO. Bolts	UNIT NO. Pcs.	Connecting
1	42	1	144	A325	1-HW	3/4	3	4	2	72	DECK EXP. Jt. TO ℄ BM. 42A,
2											B, C, D, F & G
3	42	2	192	A325	1-HW	3/4	3 15/16	5	2	96	(do)
4											
5	42	3	1008	325	1-HW	7/8	1 9/16	2 3/4	6	168	STRINGER CONN. ∠ TO ℄ BM.
6											42A, B, C, D, F & G
7	42	4	48	325	1-HW	3/4	2 3/16	3 1/4	2	24	PLATFORM TO ℄ BM. 42A,
8											B, C, D, F & G
9	42	5	48	325	1-HW	3/4	1 5/16	2 1/4	2	24	STAIRS TO ℄ BM. 42A,
10											B, C, D, F & G.
11	42	6	48	325	1-HW	3/4	1 11/16	2 3/4	4	12	HANDRAILING TO ℄ BM. 42A,
12											B, C, D, F & G.
13	42	7	1008	325	1-HW	7/8	2 3/16	3 1/4	6	168	STRINGERS TO ℄ BM.
14											42A, B, C, D, F & G
15	42	8	672	325	1-HW	7/8	1 5/16	2 1/2	28	24	BRAC. TO ℄ BM. 42A,
16											B, C, D, F & G
17	42	9	624	325	1-HW	7/8	1 5/16	2 1/2	26	24	BRAC. TO ℄ BM. 42A, B, C,
18											D, F & G (@ CTR.)
19	42	10	624	325	1-HW	7/8	1 5/16	2 1/2	26	24	(do)
20											
21	42	11	624	325	1-HW	7/8	1 7/16	2 1/2	26	24	42H, 42K & 42M TO ℄ BM.

H10, H13, H16 & H19

M10, M13, M16 & M19

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HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY FFW OCT 9 1970

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ϕ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	Distribution No.
In Charge		LG.		
Made	3-5-70	B.V.		
Checked	6-1	RP		
Revisions				

Bolts for Dwgs. 42
Summarized on page SB19·20 (INST. H10, H13, M10, M13)
DRAFTING CHICAGO WORKS CHICAGO ERECTION
Customer MAINE STATE HWY. COMM.
Structure PISCATAQUA RIVER BRIDGE (CONT. #5)
CONTRACT CG6290-000 DWG.-B 42

137:187

FABRICATED STEEL CONSTRUCTION

LIST OF FIELD BOLTS

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT Dia.	BOLT Grip	BOLT Length	UNIT NO. Bolts	UNIT NO. Pcs.	Connecting
1	46	1	768	A325	1-HW	7/8	15/16	2	3	256	CATWALK TO 46A (HNGR.)

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CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY SN MAY 26 1970

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INSTALLMENTS
H1 H2 H3 H4 H5 H7 H10 H13 H16 H19
M1 M2 M3 M4 M5 M7 M10 M13 M16 M19

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ϕ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	Distribution No.
In Charge		LG		
Made	4/13	WB		
Checked	4/14	RP		
Revisions				

Bolts for Dwgs. 46
Summarized on page SB3-H1 THRU H19 / SB6-M1 THRU M19
DRAFTING CHICAGO WORKS CHICAGO ERECTION
Customer MAINE STATE HWY COMM.
Structure PISCATAQUA RIVER BRIDGE CONTRACT #5
CONTRACT CG6290-090 DWG.-B 46

137:188

FABRICATED STEEL CONSTRUCTION

LIST OF FIELD BOLTS

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT Dia.	BOLT Grip	BOLT Length	UNIT NO. Bolts	UNIT NO. Pcs.	Connecting
1	49	1	130	A325	1-HW	7/8	1 1/4	2 1/4	5	26	18⊏42.7 TO 49A
2	↓	1	1,300	↓	↓	7/8	1 1/4	2 1/4	10	130	↓ TO 49B THRU 49G
3	↓	2	130	↓	↓	7/8	1 1/4	2 1/4	5	26	↓ TO 49A
4	↓	2	1,300	↓	↓	7/8	1 1/4	2 1/4	10	130	↓ TO 49B THRU 49G
5	↓	3	312	↓	↓	3/4	2 1/4	3 1/4	2	156	DECK JOINT TO 49A THRU 49G

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CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY FFW OCT 9 1970

INSTALLMENTS
H10 H13 H16 H19 M10 M13 M16 M19

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ϕ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	Distribution No.
In Charge		LG		
Made	11/14	WB		
Checked	11/15	ET		
Revisions				

Bolts for Dwgs. 49
Summarized on page SB19·20 (INST. H10, H13, M10, M13)
DRAFTING CHICAGO WORKS CHICAGO ERECTION
Customer MAINE STATE HWY COMM.
Structure PISCATAQUA RIVER BRIDGE CONTRACT #5
CONTRACT CG6290-090 DWG.-B 49

137:189

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT Dia.	BOLT Grip	BOLT Length	UNIT NO. Bolts	UNIT NO. Pcs.	Connecting
1	34AB	1	8 ✓	A325	1-HW	3/4	1 11/16	2 3/4	1	8	HR TO 34A
2	↓	2	8 ✓	↓	↓	3/4	2 3/16	3 1/4	2	4	PLAT. TO 34A
3	↓	3	168 ✓	↓	↓	7/8	2 3/16	3 1/4	6	28	STR. CONN. ∠s TO 34A
4	↓	4	192 ✓	↓	↓	7/8	2 1/16	3 3/4	48	4	SWAY FRAME TO 34A
5	34BB	5	336 ✓	↓	↓	7/8	2 3/16	3 1/4	6	56	STR. TO 34A
6	↓	6	48 ✓	↓	↓	7/8	1 1/2	2 1/2	12	4	BRAC. TO 34A @ CTR.
7	↓	7	36 ✓	↓	↓	7/8	1 7/16	2 1/2	9	4	BRAC. TO 34A

APPROVED:-
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CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY SN
JUN 2 1970

INSTALLMENTS H7 & M7

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ϕ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	Distribution No.
In Charge		L.G.		
Made		B.V.		
Checked	1-2	ET		
Revisions				

Bolts for Dwgs. 34AB & 34BB
Summarized on page SB9 & SB11
DRAFTING CHICAGO WORKS CHICAGO ERECTION
Customer MAINE STATE HWY. COMM.
Structure PISCATAQUA RIVER BRIDGE CONT. #5
CONTRACT CG6290-090 DWG.-B 34

137:182

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT Dia.	BOLT Grip	BOLT Length	UNIT NO. Bolts	UNIT NO. Pcs.	Connecting
1	35	1	48	A325	1-HW	7/8	1 7/16	2 1/2	12	4	BRAC. TO 35A & 35B
2											
3	35	2	8	A325	1-HW	3/4	1 3/16	2 1/4	2	4	PLATFORM TO 35A & 35B
4											
5	35	3	132	A325	1-HW	7/8	2 1/16	3 1/4	33	4	BRK'T. & STRINGER TO 35A & 35B
6											
7	35	4	136	A325	1-HW	7/8	1 7/16	2 1/2	34	4	CONN. ∠ TO 35A & 35B
8											
9	35	5	792	A325	1-HW	7/8	2 1/16	3 1/4	33	24	BRK'T. & STRINGER TO 35A & 35B
10											
11	35	6	792	A325	1-HW	7/8	1 7/16	2 1/2	33	24	CONN. ∠ TO 35A & 35B
12											
13	35	7	336	STB	STW	7/8	1 1/8	2 1/4	12	28	PLAT. TO BRK'T. ON 35A & 35B
14											
15	35	8	168	STB	STW	7/8	1	2	6	28	PLAT. TO BRK'T. ON 35A & 35B
16											
17	35	9	60	A325	1-HW	7/8	3 1/16	4 1/4	30	2	SWAY FRAME TO ℄ BM.
18											
19	35	10	128	A325	1-HW	7/8"ϕ	1 9/16	2 3/4	16	8	DIAG. 101A TO FLR. BM.
20											
21	35	11	224	STB	STW	1"ϕ	4 3/16	5 1/2	4	56	PILLOW BLOCKS 20F & 20H To ℄ Bm.

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY SN MAY 26 1970

RECEIVED
MAY 21 1970
HARDESTY & HANOVER

INSTALLMENTS H1 & M1

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt A325 GALV.
W =Std. Flat Washer for A-307 (2-1/8 ϕ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer H.W. GALV.

	Date	Initial	Distribution To	Distribution No.
In Charge		L.G.		
Made	12-16	B.V.		
Checked	4-28	RP		
Revisions				

Bolts for Dwgs. 35
Summarized on page SB3, SB5 } H1 SB6, SB8 } M1
DRAFTING CHICAGO WORKS CHICAGO ERECTION
Customer MAINE STATE HWY. COMM.
Structure PISCATAQUA RIVER BRIDGE - CONT. #5
CONTRACT CG6290-090 DWG.-B 35

137:183

LIST OF FIELD BOLTS

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT Dia.	BOLT Grip	BOLT Length	UNIT NO. Bolts	UNIT NO. Pcs.	Connecting
1	37	1	368	325	HW	7/8	1 15/16	3	92	4	EXP. DEV. TO END FL. BM. (SEC. A)
2	37	2	428	STB	STW	7/8	1 15/16	3	107	4	" " " " " " (SEC. B)
3	37	3	312	STB	STW	7/8	2 7/16	3 1/2	78	4	" " " ⊏s (SEC. C)
4	37	4	312	STB	STW	7/8	2 7/16	3 1/2	78	4	" " " ⊏s (SEC. D)
5	37	5	16	STB	STW	7/8	1 9/16	2 3/4	4	4	" " " CURB ⅊s (SEC. C)
6	37	6	12	STB	STW	7/8	1 9/16	2 3/4	3	4	" " " " " "
7	37	7	16	325	HW	7/8	1 9/16	2 3/4	4	4	" " " " " (SEC. D)
8	37	8	12	325	HW	7/8	1 9/16	2 3/4	3	4	" " " " " "

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BY FFW SEP 11 1970

INSTALLMENTS H1X & M1X

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt A325 GALV.
W =Std. Flat Washer for A-307 (2-1/8 ϕ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer A325 GALV.

	Date	Initial	Distribution To	Distribution No.
In Charge		LG		
Made	8-19	TC		
Checked	8-28	CAD		
Revisions				

Bolts for Dwgs. 37
Summarized on page SB13·14·15·16
DRAFTING CHICAGO WORKS CHICAGO ERECTION
Customer MAINE STATE HWY. COMM.
Structure PISCATAQUA RIVER BRIDGE
CONTRACT CG6290-090 DWG.-B 37

137:184

LIST OF FIELD BOLTS

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT Dia.	BOLT Grip	BOLT Length	UNIT NO. Bolts	UNIT NO. Pcs.	Connecting
1	40	1	192	A325	1-HW	7/8 ϕ	1	2	6	32	CATWALK TO 40B

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INSTALLMENTS
H1 H2 H3 H4 H5 H7 H10 H13 H16 H19
M1 M2 M3 M4 M5 M7 M10 M13 M16 M19

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ϕ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	Distribution No.
In Charge				
Made	2/3	WB		
Checked	2-9	ET		
Revisions				
R1	7-7	TC		

Bolts for Dwgs. 40 R1
Summarized on page SB501 H1 THRU H19 / SB502 M1 THRU M19
DRAFTING CHICAGO WORKS CHICAGO ERECTION
Customer MAINE STATE HWY. COMM.
Structure PISCATAQUA RIVER BRIDGE CONTRACT #5
CONTRACT CG6290-090 DWG.-B 40

137:185

FABRICATED STEEL CONSTRUCTION
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.	Connecting
						Dia.	Grip	Length	Bolts / Pcs.	
1	112	1	108	325	HW	7/8	1 5/16	2 1/2	27/4	Bott Lat. Bracing Point 2 to 3
2		2	108				1 5/16	2 1/2	27/4	" " " " " "
3		3	104				1 1/8	2 1/4	13/8	Sway Frame Dia. Point 3
4		4	40				1 1/16	2 1/4	20/2	Lat to Strut Gusset PL

INSTALLMENTS H3 & M3

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101 PARK AVE. NEW YORK 17, N.Y
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MAY 26 1970

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* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.
325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ⌀)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LAG		
Made	10-7-69	CPM		
Checked	1-6	CAD		
Revisions				

Bolts for Dwgs. 112
Summarized on page SB3-H3 SB6-M3
DRAFTING CHICAGO | WORKS CHICAGO | ERECTION
Customer MAINE STATE HIGHWAY
Structure PISCATAQUA BRIDGE
CONTRACT CG6290-090 DWG. B 112

137:194

FABRICATED STEEL CONSTRUCTION
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.	Connecting
						Dia.	Grip	Length	Bolts / Pcs.	
1	114	1	104	A325	1-HW	7/8⌀	1 1/8	2 1/4	13/8	
2		2	216				1 5/16	2 1/2	27/8	STRUT TO SWAYFRAME DIAG
3		3	216				1 5/16	2 1/2	27/8	STRUT TO LAT. BRAC'G
4										do

INSTALLMENTS
H4 M4

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* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.
325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ⌀)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LAG		
Made	11-4-69	[illegible]		
Checked	12-16	CAD		
Revisions				

Bolts for Dwgs. 114
Summarized on page SB9 & SB11
DRAFTING CHICAGO | WORKS CHICAGO | ERECTION
Customer MAINE STATE HIGHWAY
Structure PISCATAQUA RIVER BRIDGE
CONTRACT CG6290-090 DWG. B114

137:195

FABRICATED STEEL CONSTRUCTION
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.	Connecting
						Dia.	Grip	Length	Bolts / Pcs.	
1	115	1	108	325	1-HW	7/8	1 5/16	2 1/2	54/2	LATERIAL TO 115A
3		2	104				1 1/8	2 1/4	52/2	SWAY FRAME TO 115A
5		3	108				1 5/16	2 1/2	54/2	LATERIAL TO 115A

INSTALLMENT — H5 & M5

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JUN 2 1970

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.
325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ⌀)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	12/18	JF		
Checked	12-19	CAD		
Revisions				

Bolts for Dwgs. 115
Summarized on page SB9 & SB11
DRAFTING CHICAGO | WORKS CHICAGO | ERECTION
Customer MAINE STATE HWY COMM
Structure PISCATAQUA RIVER BR CONT #5
CONTRACT CG6290-090 DWG. B 115

137:196

FABRICATED STEEL CONSTRUCTION
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.	Connecting
						Dia.	Grip	Length	Bolts / Pcs.	
1	116	1	12	A325	1-HW	3/4	1 1/8	2	6/2	116B TO PLATFORM
2		2	60			7/8	1 1/8	2 1/4	5/12	do TO STAIRS
3		3	10			7/8	1 9/16	2 3/4	5/2	116A TO PLATFORM

INSTALLMENTS H6 & M6

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* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.
325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ⌀)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LAG		
Made	2-18	[illegible]		
Checked	2-18	LM		
Revisions				

Bolts for Dwgs. 116
Summarized on page SB9 & SB11
DRAFTING CHICAGO | WORKS CHICAGO | ERECTION
Customer MAINE STATE HWY COMM.
Structure PISCATAQUA RIVER BRIDGE
CONTRACT CG6290.000 DWG. B116

137:197

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.	Connecting
						Dia.	Grip	Length	Bolts / Pcs.	
1	106	1	16	STB	1-STW	7/8	2 7/16	3 1/2	8/2	LADDER 518B TO 106A & 106B
2		2	4			3/4	15/16	2	2/2	HANDRAIL TO
3		3	80			7/8	1 7/16	2 1/2	40/2	DIAGONAL TO
4		4	16			7/8	1 5/16	2 1/2	8/2	SUPPORT 533B TO
5		5	80			7/8	1 7/16	2 1/2	40/2	DIAGONAL TO
6		6	4			3/4	15/16	2	2/2	HANDRAIL TO
7		7	52			7/8	1 7/16	2 1/2	26/2	LAT. BRC'G TO
8		8	52			7/8	1 7/16	2 1/2	26/2	LAT. BRC'G TO
9		9	4			3/4	15/16	2	2/2	HAND RAIL
10		10	28			7/8	1 3/16	2 1/4	14/2	VERTICAL TO
11		11	52			7/8	1 7/16	2 1/2	26/2	LAT BRC'G TO
12		12	52			7/8	1 7/16	2 1/2	26/2	LAT BRC'G TO
13		13	80			7/8	1 7/16	2 1/2	40/2	DIAGONAL TO
14		14	80			7/8	1 7/16	2 1/2	40/2	DIAGONAL TO
15		15	16			7/8	2 7/16	3 1/2	8/2	LADDER 518B TO
16		16	4			3/4	15/16	2	2/2	HAND RAIL TO
17		17	4			3/4	15/16	2	2/2	HAND RAIL TO
18		18	56			3/4	15/16	2	56/1	HANDRAIL TO 106A
19		18	52			3/4	15/16	2	52/1	HANDRAIL TO 106B
20		19	64			7/8	1 15/16	3	32/2	WALKWAYS TO 106A & 106B

INSTALLMENTS M1 & H1

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* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.
325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt 325 GALV
W =Std. Flat Washer for A-307 (2-1/8 ⌀)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer HW GALV
FOR A325 BOLTS

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	2-10-70	JF		
Checked	2-11-70	CAD		
Revisions				

Bolts for Dwgs. 106
Summarized on page SB3-H1 SB6-M1
DRAFTING CHICAGO | WORKS CHICAGO | ERECTION
Customer MAINE STATE HWY COMM
Structure PISCATAQUA RIVER BR. CONT #5
CONTRACT CG6290-090 DWG. B106

137:190

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.	Connecting
						Dia.	Grip	Length	Bolts / Pcs.	
1	108	1	108	A325	W	7/8	1 5/16	2 1/2	27/4	BRAC. TO 108A
2	108	2	104	A325	W	7/8	1 1/8	2 1/4	26/4	104A TO 108A
3	108	3	108	A325	W	7/8	1 5/16	2 1/2	27/4	BRAC. TO 108A

INSTALLMENTS H2 & M2

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* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.
325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ⌀)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made		BV		
Checked	12-16	CAD		
Revisions				

Bolts for Dwgs. 108
Summarized on page SB3-H2 SB6-M2
DRAFTING CHICAGO | WORKS CHICAGO | ERECTION
Customer MAINE STATE HWY. COMM.
Structure PISCATAQUA RIVER BRIDGE
CONTRACT CG6290-090 DWG. B 108

137:191

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.	Connecting
						Dia.	Grip	Length	Bolts / Pcs.	
1	109	1	216	A325	1-HW	7/8⌀	1 5/16	2 1/2	54/4	LAT. BRACING TO STRUT
2		2	104				1 1/8	2 1/4	26/4	SWAY FRAME TO do

INSTALLMENTS
H1 & M1

APPROVED:-
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CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y
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MAY 21 1970
HARDESTY & HANOVER

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.
325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ⌀)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LAG		
Made	11-8-69	[illegible]		
Checked	11-8-69	CAD		
Revisions				

Bolts for Dwgs. 109
Summarized on page SB3-H1 SB6-M1
DRAFTING CHICAGO | WORKS CHICAGO | ERECTION
Customer MAINE STATE HWY COMM.
Structure PISCATAQUA RIVER BRIDGE
CONTRACT CG6290-090 DWG. B 109

137:192

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.	Connecting
						Dia.	Grip	Length	Bolts / Pcs.	
1	110	1	108	A325	1-HW	7/8	1 5/16	2 1/2	54/2	LATERIAL BRCG TO 110A
3		2	104				1 1/8	2 1/4	52/2	SWAY FRAME TO 110A
5		3	108				1 5/16	2 1/2	54/2	LATERIAL BRCG TO 110A

INSTALLMENTS — M3 & H3

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CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y
BY SN
MAY 26 1970

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MAY 21 1970
HARDESTY & HANOVER

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.
325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ⌀)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	12/15	JF		
Checked	12-16	CAD		
Revisions				

Bolts for Dwgs. 110
Summarized on page SB3-H3 SB6-M3
DRAFTING CHICAGO | WORKS CHICAGO | ERECTION
Customer MAINE STATE HWY COMM.
Structure PISCATAQUA RIVER BR CONT #5
CONTRACT CG6290-090 DWG. B 110

137:123

FABRICATED STEEL CONSTRUCTION
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT Dia.	Grip*	Length	UNIT NO. Bolts	Pcs.	Connecting
1	131	1	56	A325	1-HW	7/8	1 5/16	2 1/2	28	2	STRUT TO VERT.
2	〃	2	112	〃	〃	7/8	1 3/16	2 1/4	28	4	do TO DIAGONAL

INSTALLMENTS H9 & M9

APPROVED:-
HARDESTY & HANOVER
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101 PARK AVE. NEW YORK 17, N.Y.
BY FFW OCT 9 1970

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.
325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ⌀)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW =Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LAG		
Made	2-16-70	Rg		
Checked	4-8	CD		
Revisions				

Bolts for Dwgs. 131
Summarized on page SB19, 20

DRAFTING	WORKS	ERECTION
CHICAGO	CHICAGO	

Customer MAINE STATE HWY. COMM.
Structure PISCATAQUA RIVER BRIDGE
CONTRACT CG 6290-090 DWG-B 131

138:2

FABRICATED STEEL CONSTRUCTION
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT Dia.	Grip*	Length	UNIT NO. Bolts	Pcs.	Connecting
1	132	1	224	A325	1-HW	7/8	1 5/16	2 1/2	28	8	STRUT TO LAT BRAC.
2	〃	2	112	〃	〃	〃	1 1/16	2 1/4	14	8	〃 〃 SWAY DIAG
3	〃	2	112	〃	〃	〃	1 5/16	2 1/2	14	8	〃 〃 〃
4	〃	3	56	〃	〃	〃	1 3/16	2 1/4	14	4	〃 〃 VERT
5	〃	3	56	〃	〃	〃	1 5/16	2 1/2	14	4	〃 〃 〃

INSTALLMENTS
M9 H9

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY FFW OCT 9 1970

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.
325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ⌀)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LAG		
Made	3-4-70	Rg		
Checked	4-15	CD		
Revisions				

Bolts for Dwgs. 132
Summarized on page SB19, 20

DRAFTING	WORKS	ERECTION
CHICAGO	CHICAGO	

Customer MAINE STATE HWY COMM
Structure PISCATAQUA RIVER BRIDG
CONTRACT CG6290-090 DWG-B 132

138:3

FABRICATED STEEL CONSTRUCTION
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT Dia.	Grip*	Length	UNIT NO. Bolts	Pcs.	Connecting
1	135	1	56	A325	1-HW	7/8	1 5/16	2 1/2	28	2	134A TO 135A
2	135	2	120	〃	〃	〃	1 3/16	2 1/4	30	4	133A TO 135A

INSTALLMENTS
H11 & M11

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY FFW OCT 9 1970

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.
325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ⌀)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	2/20	WB		
Checked	3-6	ET		
Revisions				

Bolts for Dwgs. 135
Summarized on page SB19, 20

DRAFTING	WORKS	ERECTION
CHICAGO	CHICAGO	

Customer MAINE STATE HWY COMM.
CONTRACT #5
Structure PISCATAQUA RIVER BRIDGE
CONTRACT CG6290-090 DWG-B 135

138:4

FABRICATED STEEL CONSTRUCTION
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT Dia.	Grip*	Length	UNIT NO. Bolts	Pcs.	Connecting
1	136	1	104	A325	1-HW	7/8	1 5/16	2 1/2	26	4	LATERAL TO 136A
2	〃	2	104	〃	〃	7/8	1 5/16	2 1/2	26	4	〃 TO 〃
3	〃	3	56	〃	〃	7/8	1 1/16	2 1/4	14	4	133A TO 〃
4	〃	4	28	〃	〃	7/8	1 3/16	2 1/4	14	2	134A TO 〃
5	〃	5	56	〃	〃	7/8	1 1/16	2 1/4	14	4	133A TO 〃
6	〃	6	28	〃	〃	7/8	1 3/16	2 1/2	14	2	134A TO 〃

INSTSTALLMENT
H11 & M11

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY FFW OCT 9 1970

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.
325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ⌀)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	2/25	WB		
Checked	3-6	ET		
Revisions				

Bolts for Dwgs. 136
Summarized on page SB19, 20

DRAFTING	WORKS	ERECTION
CHICAGO	CHICAGO	

Customer MAINE STATE HWY COMM.
CONTRACT #5
Structure PISCATAQUA RIVER BRIDGE
CONTRACT CG6290-090 DWG-B 136

138:5

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT Dia.	Grip*	Length	UNIT NO. Bolts	Pcs.	Connecting
1	117	1	80 ✓	A325	1-HW	1"⌀	1 1/16	3	20	4	GUSS. PL TO 117A
2		2	160 ✓	〃	〃	〃	1 11/16	3	40	4	do
3		3	72 ✓	〃	〃	〃	2 3/16	3 1/2	18	4	do
4		4	72 ✓	〃	〃	〃	1 11/16	3	18	4	ANGLE TO 117A
5		5	72 ✓	〃	〃	〃	1 13/16	3	18	4	GUSS PL TO 117A
6		6	160 ✓	〃	〃	〃	2 3/16	3 1/2	40	4	do
7		7	72 ✓	〃	〃	〃	1 11/16	3	18	4	do
8		8	240 ✓	〃	〃	7/8"⌀	1 5/16	2 1/2	30	8	BRACE TO 117A
9		9	160 ✓	〃	〃	1⌀	1 11/16	3	40	4	ANGLE TO 117A

INSTALLMENTS M6 & H6

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY SN JUN 2 1970

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.
325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ⌀)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW =Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LAG		
Made	12-22-69	Rg		
Checked	1-5-70	RP		
Revisions				

Bolts for Dwgs. 117
Summarized on page SB9, SB10, SB11, SB12

DRAFTING	WORKS	ERECTION
CHICAGO	CHICAGO	

Customer MAINE STATE HWY. COMM
Structure PISCATAQUA RIVER BRIDGE
CONTRACT CG6290-090 DWG-B 117

137:198

FABRICATED STEEL CONSTRUCTION
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT Dia.	Grip*	Length	UNIT NO. Bolts	Pcs.	Connecting
1	118	1	304 ✓	A325	1-HW	7/8⌀	1 5/16	2 1/2	152	2	STRUT TO LAT BRACING

INSTALLMENTS
H6 M6

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY SN JUN 2 1970

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.
325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ⌀)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LAG		
Made	11-14-69	Rg		
Checked	12-18	LM		
Revisions				

Bolts for Dwgs. 118
Summarized on page SB9 & SB11

DRAFTING	WORKS	ERECTION
CHICAGO	CHICAGO	

Customer MAINE STATE HWY. DIV.
Structure PISCATAQUA RIVER BRIDGE
CONTRACT CG6290-090 DWG-B 118

137:199

LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT Dia.	Grip*	Length	UNIT NO. Bolts	Pcs.	Connecting
1	128	1	104 ✓	A325	1-HW	7/8	1 7/16	2 1/2	26	4	128A TO LAT. BRACING
2	〃	2	104 ✓	〃	〃	〃	1 7/16	2 1/2	26	4	128B 〃 〃 〃
3	〃	3	216 ✓	〃	〃	〃	1 11/16	2 3/4	54	4	128C 〃 〃 〃
4	〃	4	216 ✓	〃	〃	〃	1 11/16	2 3/4	54	4	128D 〃 〃 〃

INSTALMENTS
H6 M6

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY SN JUN 2 1970

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.
325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ⌀)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW =Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LAG		
Made	12-22-69	Rg		
Checked	4-10	PS		
Revisions				

Bolts for Dwgs. 128
Summarized on page SB9 & SB11

DRAFTING	WORKS	ERECTION
CHICAGO	CHICAGO	

Customer MAINE STATE HWY COMM
Structure PISCATAQUA RIVER BRIDGE
CONTRACT CG6290-090 DWG-B 128

137:200

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT Dia.	Grip*	Length	UNIT NO. Bolts	Pcs.	Connecting
1	130	1	144	STB	STW	7/8	1 7/16	2 1/2	72	2	SWAY FRAME DIAG. TO VERT

INSTALLMENTS — H1

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CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY SN MAY 26 1970

21 1970
HARDESTY & HANOVER

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.
325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt A325 GALV
W =Std. Flat Washer for A-307 (2-1/8 ⌀)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer HW FOR 325 (GALV).

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	1-26-70	JF		
Checked	2-3	CAD		
Revisions				

Bolts for Dwgs. 130
Summarized on page SB3-H1 SB6-M9

DRAFTING	WORKS	ERECTION
CHICAGO	CHICAGO	

Customer MAINE STATE HWY COMM
Structure PISCATAQUA RIVER BR CONT #5
CONTRACT CG6290-090 DWG-B 130

138:1

BETHLEHEM STEEL
FABRICATED STEEL CONSTRUCTION
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip	Length	Bolts	Pcs.	
1	146	1	136	A325	1-HW	7/8	1 1/16	2 1/4	34	4	DIAGONAL TO 146A
2											
3		2	112			7/8	1 5/16	2 1/2	56	2	LATERAL TO 146A
4											
5		3	112			7/8	1 5/16	2 1/2	56	2	LATERAL TO 146A
6											
7											
8		4	112			7/8	1 1/16	2 1/4	28	4	DIAGONAL TO 146A
9											
10		5	58			7/8	1 3/16	2 1/4	28	2	VERTICAL TO 146A
11											
12											
13											
14											
15											
16											
17											
18											
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24											
25											
26											
27											
28		INSTALLMENTS									M9&H9
29											
30											
31											
32											

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY FFW OCT 9 1970

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ⌀)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	3-13-70	JF		
Checked	5-11-70	PS		
Revisions				

Bolts for Dwgs. 146
Summarized on page SB19,20
DRAFTING CHICAGO | WORKS CHICAGO | ERECTION
Customer MAINE STATE HWY COMM
Structure PISCATAQUA RIVER BR CONT #5
CONTRACT CG6290-090 DWG.-B 146

138:10

BETHLEHEM STEEL
FABRICATED STEEL CONSTRUCTION
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip	Length	Bolts	Pcs.	
1	159	1	208	A325	1-HW	7/8	1 5/16	2 1/2	52	4	STRUT TO LAT BRACE
2		2	112				1 1/16	2 1/4	28	4	do TO DIAG.
3		3	56				1 3/16	2 1/4	28	2	do TO VERT.
4											
5											
6											
7											
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9											
10											
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26											
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28											
29											
30			INSTALLMENTS M14 & H14								
31											
32											

APPROVED:-
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CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY FFW OCT 9 1970

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ⌀)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LAG		
Made	3-20-70	RG		
Checked	4-24	CD		
Revisions				

Bolts for Dwgs. 159
Summarized on page SB19,20
DRAFTING CHICAGO | WORKS CHICAGO | ERECTION
Customer MAINE STATE HWY COMM
Structure PISCATAQUA RIVER BRIDGE
CONTRACT CG6290-090 DWG.-B 159

138:11

BETHLEHEM STEEL
FABRICATED STEEL CONSTRUCTION
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip	Length	Bolts	Pcs.	
1	164	1	112	A325	1-HW	7/8	1 3/16	2 1/4	14	8	DIAG. TO 164A
2		2	112			7/8	1 3/16	2 1/4	14	8	" " "
3		3	56			7/8	1 5/16	2 1/2	14	4	VERT. " "
4											
5											
6											
7											
8											
9											
10											
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20											
21											
22											
23											
24											
25	INSTALLMENT H9 & M9										
26											
27											
28											
29											
30											
31											
32											

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY FFW OCT 9 1970

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ⌀)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	5-11-70	FS		
Checked	5-11-70	SM		
Revisions				

Bolts for Dwgs. 246
Summarized on page SB19,20
DRAFTING CHGO | WORKS CHGO | ERECTION
Customer MAINE STATE HWY COMM
Structure PISCATAQUA RIVER BRIDGE
CONTRACT CG6290-000 DWG.-B 164

138:12

BETHLEHEM STEEL
FABRICATED STEEL CONSTRUCTION
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip	Length	Bolts	Pcs.	
1	167	1	104	A325	1-HW	7/8	1 1/4	2 1/4	13	8	STRUT TO DIAG.
2		2	56				1 3/16	2 1/4	14	4	Ls
3		3	384				1 13/16	3	48	8	LAT BRAC.
4											
5											
6											
7											
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24											
25											
26											
27		INSTALLMENT M9 & H9									
28											
29											
30											
31											
32											

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY FFW OCT 9 1970

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ⌀)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LAG		
Made	3-31-70	B		
Checked	5-11-70	PS		
Revisions				

Bolts for Dwgs. 167
Summarized on page SB19,20
DRAFTING CHICAGO | WORKS CHICAGO | ERECTION
Customer MAINE STATE HWY COMM
Structure PISCATAQUA RIVER BRIDGE
CONTRACT CG6290-000 DWG.-B 167

138:13

BETHLEHEM STEEL
FABRICATED STEEL CONSTRUCTION
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip	Length	Bolts	Pcs.	
1	138	1	208	A325	1-HW	7/8	1 5/16	2 1/2	52	4	LATERAL TO 138A
2											
3											
4											
5											
6											
7											
8											
9											
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24											
25											
26											
27											
28											
29											
30		INSTALLMENTS H12 & M12									
31											
32											

APPROVED:-
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CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY FFW OCT 9 1970

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ⌀)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	2/26	WB		
Checked	4-21	CD		
Revisions				

Bolts for Dwgs. 138
Summarized on page SB19,20
DRAFTING CHICAGO | WORKS CHICAGO | ERECTION
Customer MAINE STATE HWY COMM.
Structure PISCATAQUA RIVER BRIDGE CONTRACT #5
CONTRACT CG6290-090 DWG.-B 138

138:6

BETHLEHEM STEEL
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip	Length	Bolts	Pcs.	
1	141	1	32	A325	1-HW	7/8	1 5/16	3	8	4	DIAGONAL TO 141A & 141B
2		2	104			7/8	1 5/16	2 1/2	26	4	LATERAL TO
3		3	104			7/8	1 5/16	2 1/2	26	4	TO
4		4	24			3/4	1 1/16	2	6	4	12 ⊏ 25 TO 141A
5		4	30			3/4	1 1/16	2	6	5	TO 141B
6		5	28			7/8	1 5/16	2 1/2	14	2	VERTICAL TO 141A & 141B
7		6	28			7/8	1 3/16	2 1/4	14	2	TO
8											
9											
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29											
30											
31				INSTALLMENTS							
32				H12 & M12							

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY FFW OCT 9 1970

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ⌀)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	3/4	WB		
Checked	4-1	CD		
Revisions				

Bolts for Dwgs. 141
Summarized on page SB19,20
DRAFTING CHICAGO | WORKS CHICAGO | ERECTION
Customer MAINE STATE HWY COMM.
Structure PISCATAQUA RIVER BRIDGE
CONTRACT CG6290-090 DWG.-B 141

138:7

BETHLEHEM STEEL
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip	Length	Bolts	Pcs.	
1	142	1	208	A325	1-HW	7/8	1 5/16	2 1/2	52	4	STRUT TO LAT. BRAC.
2		2	28			7/8	1 7/16	2 1/2	14	2	do TO VERT.
3		3	28			7/8	1 3/4	2 3/4	14	2	do do
4		4	32			7/8	1 5/16	3	8	4	DIAG TO STRUT
5											
6											
7											
8											
9											
10											
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27											
28											
29											
30											
31		INSTALLMENTS M14 & H14									
32											

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY FFW OCT 9 1970

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ⌀)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LAG		
Made	3-17-70	RG		
Checked	4-22	CD		
Revisions				

Bolts for Dwgs. 142
Summarized on page SB19,20
DRAFTING CHICAGO | WORKS CHICAGO | ERECTION
Customer MAINE STATE HWY COMM
Structure PISCATAQUA RIVER BRIDGE
CONTRACT CG6290-090 DWG.-B 142

138:8

BETHLEHEM STEEL
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip	Length	Bolts	Pcs.	
1	144	1	104	A325	1-HW	7/8	1 5/16	2 1/2	52	2	LATERAL TO 144A
2		2	104			7/8	1 5/16	2 1/2	52	2	TO
3		3	56			7/8	1 1/16	2 1/4	28	2	DIAGONAL TO
4		4	28			7/8	1 3/16	2 1/4	14	2	VERTICAL TO
5		5	56			7/8	1 1/16	2 1/4	28	2	DIAGONAL TO
6		6	28			7/8	1 3/16	2 1/4	14	2	VERTICAL TO
7											
8											
9											
10											
11											
12											
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27											
28											
29											
30											
31				INSTALLMENTS							
32				H12 & M12							

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY FFW OCT 9 1970

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ⌀)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	3/6	WB		
Checked	4-21	CD		
Revisions				

Bolts for Dwgs. 144
Summarized on page SB19,20
DRAFTING CHICAGO | WORKS CHICAGO | ERECTION
Customer MAINE STATE HWY COMM.
Structure PISCATAQUA RIVER BRIDGE CONTRACT #5
CONTRACT CG6290-090 DWG.-B 144

138:9

BETHLEHEM STEEL

FABRICATED STEEL CONSTRUCTION

LIST OF FIELD BOLTS

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT Dia.	Grip	Length	UNIT NO. Bolts	Pcs.	Connecting
1	207	1	32	A325	1-HW	1	1 9/16	2 3/4	8	4	SWAY BRC'G TO 207A
2		2	168	A325	1-HW	1	2 11/16	4	42	4	FL. BEAM TO 207A
3		3	8	A325	1-HW	1	1 15/16	3 1/4	2	4	

INSTALLMENTS M1 - H1

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y
BY SN MAY 26 1970

RECEIVED
MAY 21 1970
HARDESTY & HANOVER

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ɸ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	11-1969	MP		
Checked	12-1	LM		
Revisions				

Bolts for Dwgs. 207
Summarized on page SB4-H1 SB7-M1
DRAFTING CHGO
WORKS CHGO
ERECTION
Customer MAINE STATE HWY COMMISSION
Structure PISCATAQUA RIVER BRIDGE PROJ # 1-95-1(22)16, KITTERY, MAINE
CONTRACT CG6290-000 DWG.-B 207

138:18

BETHLEHEM STEEL

FABRICATED STEEL CONSTRUCTION

LIST OF FIELD BOLTS

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT Dia.	Grip	Length	UNIT NO. Bolts	Pcs.	Connecting
1	209	1	140	A325	1-HW	1"ø	2 1/16	3 1/4	35	4	BOTT CHORD TO BOTT CHORD
2		2	176			7/8	1 7/16	2 1/2	44	4	do TO STRUT
3		3	208				1 7/16	2 1/2	52	4	do TO BRACE
4		4	152			1"ø	1 13/16	3	38	4	do TO VERT MEMBER
5		5	448				2 3/16	3 1/2	112	4	do TO BOTT CHORD
6		6	136				2 1/16	3 1/4	34	4	do TO do
7		7	112				2 15/16	4 1/4	28	4	do TO do
8		8	24				2 3/16	3 1/2	6	4	do "
9		6	25			1 1/8	2 1/16	3 3/4	25	1	do TO do
10	S1										

INST H1 & M1

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y
BY SN JUL 14 1970

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ɸ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LAG		
Made	1-1969	RG		
Checked	4/30	RP		
Revisions				
S1	7-10	CM		

Bolts for Dwgs. 209
Summarized on page SB3 SB4 } H1 SB6 SB7 } M1
DRAFTING CHICAGO
WORKS CHICAGO
ERECTION
Customer MAINE STATE HWY COMM.
Structure PISCATAQUA RIVER BRIDGE
CONTRACT CG6290-000 DWG.-B 209

138:19

BETHLEHEM STEEL

FABRICATED STEEL CONSTRUCTION

LIST OF FIELD BOLTS

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT Dia.	Grip	Length	UNIT NO. Bolts	Pcs.	Connecting
1	210	1	56	325	1-HW	1"ø	1 9/16	2 3/4	14	4	SPLICE MAT'L AT TOP TO CHORD @ U3
2		1	152				2 3/16	3 1/2	38	4	
3		1	16				1 7/16	2 3/4	4	4	SPLICE MAT'L AT TOP TO CHORD 210A
4		2	720				3 1/16	4 1/4	180	4	GUSSET PL @ U3 TO CHORDS.
5		2	560				4 1/16	5 1/4	140	4	SPLICE PLS @ U3 TO CHORDS
6		3	784				3 7/16	4 3/4	196	4	DIAGONAL TO 210A
7		4	192				2 15/16	4 1/4	48	4	FL BM & VERT TO 210A
8		4	192				2 3/16	3 1/2	48	4	VERT TO 210A
9		5	720				2 15/16	4 1/4	180	4	DIAGONAL TO 210A
10		6	112				4 1/16	5 1/4	28	4	GUSSET & SPLICE PL TO CHORD U2-U3
11		6	32				2 1/4	3 1/2	8	4	210A
12		7	100				2 1/16	3 1/4	25	4	210A TO U3 BOTT. FIELD SPLICE
13		7	52				1 9/16	2 3/4	13	4	
14		7	16				1 7/16	2 3/4	4	4	
15		8	104				2 3/16	3 1/2	26	4	LOOSE ANGLES TO CHORD 210A
16		9	72				2 3/16	3 1/2	18	4	

INSTALLMENTS H2 & M2

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y
BY SN MAY 26 1970

RECEIVED
MAY 21 1970
HARDESTY & HANOVER

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ɸ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	12-1	JF		
Checked	12-3	CAD		
Revisions				

Bolts for Dwgs. 210
Summarized on page SB4-H2 SB7-M2
DRAFTING CHICAGO
WORKS CHICAGO
ERECTION
Customer MAINE STATE HWY COMM
Structure PISCATAQUA RIVER BR CONT #5
CONTRACT CG6290-090 DWG.-B 210

138:20

BETHLEHEM STEEL

FABRICATED STEEL CONSTRUCTION

LIST OF FIELD BOLTS

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT Dia.	Grip	Length	UNIT NO. Bolts	Pcs.	Connecting
1	211	1	112	A325	1-HW	7/8	3 1/16	4 1/4	4	28	LADDER TO 211A
2		2	40 ✓			7/8	3	4	10	4	8 [13.75 TO
3		3	80 ✓			7/8	2	3	10	8	⊥ TO
4		4	160 ✓			7/8	2 1/16	3 1/4	4	40	LADDER TO
5		5	144 ✓			1"	3 5/16	4 1/2	36	4	BRCG TO
6		6	288 ✓			1"	3 7/16	4 3/4	72	4	F.B. TO
7		6	16 ✓			1"	3 13/16	5	4	4	⊥ TO

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y
BY SN JUN 2 1970

INSTALLMENTS H6 & M6

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ɸ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	11/26	WB		
Checked	12-11	RP		
Revisions				

Bolts for Dwgs. 211
Summarized on page SB9, SB10, SB11, SB12
DRAFTING CHICAGO
WORKS CHICAGO
ERECTION
Customer MAINE STATE HWY COMM.
Structure PISCATAQUA RIVER BRIDGE CONTRACT #5
CONTRACT CG6290-090 DWG.-B 211

138:21

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT Dia.	Grip	Length	UNIT NO. Bolts	Pcs.	Connecting
1	168	1	136	325	1-HW	7/8	3 13/16	5	68	2	168A TO FL. BM.
2	168	2	168	325	1-HW	7/8	1 11/16	3	42	4	168A TO LATERAL

D1

INST. H9 & M9

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y
BY F.F.W. OCT 20 1970

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ɸ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LAG		
Made	5-27	BV		
Checked	5-27	RP		
Revisions				
10/12				

Bolts for Dwgs. 168
Summarized on page SB19, 20
DRAFTING CHICAGO
WORKS CHICAGO
ERECTION
Customer MAINE STATE HWY. COMM.
Structure PISCATAQUA RIVER BRIDGE
CONTRACT CG6290-000 DWG.-B 168

138:14

41016 (7-68)

H1 &

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT Dia.	Grip	Length	UNIT NO. Bolts	Pcs.	Connecting
1	203	1	40	325	1-HW	1	2 5/16	3 1/2	10	4	FL BM TO 203A
2		1	8				1 9/16	2 3/4	2	4	STITCH BOLTS
9		3	784				2 3/8	3 1/2	196	4	DIAGONAL TO 203A
11		4	208				2 1/16	4	52	4	FL BM TO 203A ✓
12		4	16				2 3/4	4	4	4	FL BM TO 206A ✓
13		4	192				1 15/16	3 1/4	48	4	203A TO 206A ✓
14		4	72				1 15/16	3 1/4	18	4	GUSSET TO 203A ✓
18		5	28				1 13/16	3	7	4	LATERIAL BRACE TO 203A
20		6	792				2 1/16	4	198	4	DIAGONAL TO 203A
22		7	1184				2	3 1/4	296	4	203A TO 206A
24		8	84				1 7/16	2 3/4	21	4	BOT. SPLICE 203A TO 206A
25		8	56				1 3/16	2 1/2	14	4	
27		9	84				1 7/16	2 3/4	21	4	TOP SPLICE 203A TO 206A
28		9	56				1 3/16	2 1/2	14	4	
30		10	192				1 1/16	3	48	4	STIFF L TO PL tab & tn
32		11	12				1 15/16	3 1/4	3	4	DIAP. TO TRUSS TO TIE DOWN

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HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y
BY SN MAY 26 1970

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ɸ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	11/12	JF		
Checked	4-2-70	RP		
Revisions				

RECEIVED
MAY 21 1970

Bolts for Dwgs. 203
Summarized on page SB4-H1 SB7-M1
DRAFTING CHICAGO
WORKS CHICAGO
ERECTION
Customer MAINE STATE HIGHWAY COMM
Structure BRIDGE OVER PISCATAQUA RIVER
CONTRACT CG6290-000 DWG.-B 203

138:15

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT Dia.	Grip	Length	UNIT NO. Bolts	Pcs.	Connecting
1	204	1	224	325	HW	1	1 13/16	3	56 ✓	4	203A TO 204A, 204B, 204C $^{R}_{L}$
2		2	296			1	2 9/16	3 3/4	74	4	FLOOR BM. TO 204A & 203A
3		2	16			1	3 1/16	4 1/4	4	4	FLOOR BM. TO 204A B&C + ITS DIAPH Ls
4		3	5			7/8	1 9/16	2 3/4	5	1	ELECTRIC PANEL ROOF TO 204B
5		4	16			7/8	1 11/16	2 3/4	4	4	LADDER TO 204A, B & C
6		5	16								
7		6	16								
8		7	16								
9		8	16								
10		9	16								
11		10	88			1	1 15/16	3 1/4	22	4	101A TO 204A, B & C
12		11	792			1	2 5/8	3 3/4	198	4	DIAG TO 204A, B & C
13		12	688			1	2 9/16	3 3/4	172	4	STRUT TO 204A
14		13	64			1	3 3/16	4 1/2	16	4	CONN. Ls TO 204A
15		14	104	STB	STW	1	2 7/16	3 3/4	26	4	STRUT TO 204A
16		14	104	STB	STW	1	1 15/16	3 1/4	26	4	STRUT TO 204A
17		15	16	325	HW	1	4 1/16	5 1/4	4	4	LADDER TO 204A
18		16	12	325	1-HW	1	2 3/16	3 1/2	3	4	TIE DOWN STRUT TO VERTICAL
19		17	192	325	1-HW	1	3 3/16	4 1/2	48	4	TIE DOWN BASE TO VERTICAL

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MAY 21 1970
HARDESTY & HANOVER

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y
BY SN MAY 26 1970

INSTALLMENTS H1 & M1

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt A325 GALV.
W =Std. Flat Washer for A-307 (2-1/8 ɸ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer HW. GALV.

	Date	Initial	Distribution To	No.
In Charge		LAG		
Made	12-5-69	CPM		
Checked	3-20	LM		
Revisions				

Bolts for Dwgs. 204
Summarized on page SB3 SB4 SB5 } H1 SB6 SB7 SB8 } M1
DRAFTING CHICAGO
WORKS CHICAGO
ERECTION
Customer STATE OF MAINE
Structure PISCATAQUA RIVER BRIDGE
CONTRACT CG6290-090 DWG.-B 204

138:16

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT Dia.	Grip	Length	UNIT NO. Bolts	Pcs.	Connecting
1	206	1	16	A325	1-HW	1"ø	1 7/16	2 3/4	4	4	SPLICE PLS TO 206A
2		1	40				2 1/16	3 1/4	10	4	
3		1	56				1 7/16	2 3/4	14	4	206A TO TOP CHORD
4		1	112				2 1/16	3 1/4	28	4	
5		3	504				2 1/2	3 3/4	126	4	206A TO TOP CHORD
6		3	144				1 3/4	3	36	4	206A TO TOP CHORD
7		2	128				1 3/4	3	32	4	206A TO GUSSET PL
8		2	16				2 1/2	3 3/4	4	4	FL BM TO 206A & GUSSET
9		3	16				2 1/2	3 3/4	4	4	FL BM TO 206A
11		4	128				2 7/16	3 3/4	32	4	FL BM TO 206A
12		4	128				1 1/16	3	32	4	VERT TO 206A
13		5	16				1 7/16	2 3/4	4	4	SPLICE PLS TO 206A
14		5	40				1 15/16	3 1/4	10	4	
15		5	52				1 7/16	2 3/4	13	4	206A TO TOP CHORD
16		5	60				1 15/16	3 1/4	15	4	

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y
BY SN MAY 26 1970

RECEIVED
MAY 21 1970
HARDESTY & HANOVER

INSTALLMENTS M2 & H2

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ɸ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	11/14	JF		
Checked	11-28	CAD		
Revisions				

Bolts for Dwgs. 206
Summarized on page SB4-H2 SB7-M2
DRAFTING CHICAGO
WORKS CHICAGO
ERECTION
Customer MAINE STATE HWY COMM.
Structure PISCATAQUA RIVER BR.- CONT #5
CONTRACT CG6290-090 DWG.-B 206

138:17

FABRICATED STEEL CONSTRUCTION

LIST OF FIELD BOLTS

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip*	Length	Bolts	Pcs.	
1	216	1	200	A325	1-HW	1"φ	2 13/16	4	50	4	TOP SPLICE 216A To U6-U7
2		1	80				1 15/16	3 1/4	20	4	
3											
4		2	952				5 3/16	6 1/2	238	4	SIDE SPLICE
5		2	312				3 11/16	5	78	4	
6											
7		3	280				2 9/16	3 3/4	70	4	VERT To 216A
8											
9		4	280				1 15/16	3 1/4	70	4	BOTT SPLICE 216A To U6-U7

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y
BY SN JUN 2 1970

INSTALLMENTS = H5 & M5

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 φ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	11/26	JF		
Checked	12-10	RP		
Revisions				

Bolts for Dwgs. 216
Summarized on page SB10 & SB12
DRAFTING CHICAGO WORKS CHICAGO ERECTION
Customer MAINE STATE HWY COMM
Structure PISCATAQUA RIVER BR CONT #5
CONTRACT CG6290-090 DWG.-B 216

FABRICATED STEEL CONSTRUCTION

LIST OF FIELD BOLTS

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip*	Length	Bolts	Pcs.	
1	217	1	360	A325	1-HW	1	3 15/16	5 1/4	90	4	L6-L7 CHORD To 217A
2		1	56			1	3 15/16	5 1/4	14	4	" " "
3		1	56			1	4 11/16	6	14	4	DIAG. To 217A
4		1	560			1	4 13/16	6	140	4	L6-L7 CHORD To 217A
5		1	48			1	4 13/16	6	12	4	DIAG. To 217A
6		1	8			1	4 1/16	5 1/4	2	4	OPEN HLS 217A
7		2	80			1	2 5/16	3 1/2	20	4	" " 217A 3/4L & 1 3/8 PL
8		2	968			1	6 11/16	8	242	4	VERTICAL To 217A
9		2	288			1	7 11/16	9	72	4	OPEN HLS 217A
10		2	72			1	4 11/16	5 1/4	18	4	" " "
11		2	560			1	4 13/16	6	140	4	STRUT To 217A
12		2	24			1	5 5/16	6 1/2	6	4	OPEN HLS 217A
13		2	16			1	6 11/16	7 1/4	4	4	" " "
14		2	32			1	8 7/16	9 3/4	8	4	STRUT To 217A
15		3	92			1	2 3/16	3 1/2	23	4	DIAG To 217A
16		3	984			1	4 1/16	5 1/4	246	4	L7-L8 CHORD To 217A
17		3	208			1	4 11/16	6	52	4	DIAG & " " " "
18		4	320			1	3 7/16	4 3/4	80	4	OPEN HLS 217A - VERTICAL To 217A
19		2	16			1	5 5/16	6 3/4	4	4	OPEN HLS 217A
20		2	56			1	7 7/16	8 3/4	14	4	STRUT To 217A
21		3	384			1	4 13/16	6 1/4	96	4	L7-L8 To 217A

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y
BY SN JUN 2 1970

INSTALLMENTS
H6 M6

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 φ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	12-1	ET		
Checked	12-12	CAD		
Revisions				

Bolts for Dwgs. 217
Summarized on page SB10 & SB12
DRAFTING WORKS ERECTION
Customer MAINE STATE HWY COMM.
Structure PISCATAQUA RIVER BRIDGE CONTRACT #5
CONTRACT CG6290-090 DWG.-B 217

FABRICATED STEEL CONSTRUCTION

LIST OF FIELD BOLTS

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip*	Length	Bolts	Pcs.	
1	219	1	72	A325	1-HW	1"φ	1 11/16	3	18	4	219A TO FL. BM.
2		2	16				2 3/16	3 1/2	4	4	
3		3	216				1 11/16	3	54	4	
4		4	48				1 9/16	2 3/4	12	4	SWAY FRAME To 219A

APPROVED:-
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CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y
BY SN JUN 2 1970

INSTALLMENTS M4 & H4

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 φ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LAG		
Made	12-5	G		
Checked	1-2	LM		
Revisions				

Bolts for Dwgs. 219
Summarized on page SB10 & SB12
DRAFTING CHICAGO WORKS CHICAGO ERECTION
Customer MAINE STATE HWY. COMM.
Structure PISCATAQUA RIVER BRIDGE
CONTRACT CG6290-00 DWG.-B 219

FABRICATED STEEL CONSTRUCTION

LIST OF FIELD BOLTS

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip*	Length	Bolts	Pcs.	
1	220	1	56	A325	1-HW	1	1 9/16	2 3/4	14	4	SWAY FRAME To 220A
2											
3		2	288				1 11/16	3	72	4	FLOOR BEAM To 220A
4		2	16				2 3/16	3 1/2	4	4	

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CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y
BY SN JUN 2 1970

INSTALLMENTS M5 & H5

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 φ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	12-9	JF		
Checked	5/27	RP		
Revisions				

Bolts for Dwgs. 220
Summarized on page SB10 & SB12
DRAFTING CHICAGO WORKS CHICAGO ERECTION
Customer MAINE STATE HWY COMM
Structure PISCATAQUA RIVER BR CONT #5
CONTRACT CG6290-090 DWG.-B 220

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip*	Length	Bolts	Pcs.	
1	212	1	140	325	1HW	1	2 5/16	3 1/2	35	4	SR. PLS @ U4 To TOP CHORDS
2		1	156				1 11/16	3	39	4	do
3		2	760				4 11/16	6	190	4	do
4		2	248				3 5/16	4 1/2	62	4	do
5		3	112				4 11/16	6	28	4	do
6		3	32				3 5/16	4 1/2	8	4	do
7		4	264				2 7/16	3 3/4	66	4	212A To VERTICAL L4-U4
8		4	16				3 3/16	4 1/2	4	4	FL. BM & VERT. To 212A @ U4
9		5	212				1 9/16	2 3/4	53	4	SR. PLS @ U4 To TOP CHORDS
10		6	72				2 7/16	3 3/4	18	4	STIFF TO GUSSET PL

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101 PARK AVE. NEW YORK 17, N.Y
BY SN MAY 26 1970

INSTALLMENTS H3 & M3

RECEIVED
MAY 21 1970
HARDESTY & HANOVER

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 φ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	12-2	JF		
Checked	12-3	CAD		
Revisions				

Bolts for Dwgs. 212
Summarized on page SB4-H3 SB7-M3
DRAFTING CHICAGO WORKS CHICAGO ERECTION
Customer MAINE STATE HWY COMM
Structure PISCATAQUA RIVER BR CONT #5
CONTRACT CG6290-090 DWG.-B 212

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip*	Length	Bolts	Pcs.	
1	213	1	56	325	1-HW	1	2 3/16	3 1/2	14	4	TOP FLANGE FIELD SPLICE
2		1	336				2 5/16	3 1/2	84	4	
3											
4		2	952				5 1/16	6 1/4	238	4	WEB FIELD SPLICE
5		2	352				3 9/16	4 3/4	88	4	
6		2	32				3 5/16	4 1/2	8	4	
7											
8		3	784				3 11/16	5	196	4	DIAGONAL To 213A
9											
10		4	352				2 7/16	3 3/4	88	4	VERT To 213A
11											
12		5	800				3 5/16	4 1/2	200	4	DIAGONAL To 213A
13											
14		6	224				2 1/16	3 1/4	56	4	BOTTOM FLANGE FIELD SPLICE
15		6	56				1 15/16	3 1/4	14	4	

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101 PARK AVE. NEW YORK 17, N.Y
BY SN JUN 2 1970

INSTALLMENTS M4 & H4

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 φ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	11/21	JF		
Checked	11/26	RP		
Revisions				

Bolts for Dwgs. 213
Summarized on page SB10 & SB12
DRAFTING CHICAGO WORKS CHICAGO ERECTION
Customer MAIN STATE HWY COMM
Structure PISCATAQUA RIVER BR CONT #5
CONTRACT CG6290-000 DWG.-B 213

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip*	Length	Bolts	Pcs.	
1	214	1	336	A325	1-HW	1"φ	2 7/16	3 3/4	84	4	FL. BEAM TO 214A R & 214A L
2		1	16			1"φ	2 13/16	4	4	4	" " " " " @ HORIZ. DIAPHRAGM
3		2	48			1"φ	1 7/16	2 3/4	12	4	DECK BRACING TO 214A R & 214A L
4		3	32			1"φ	1 9/16	2 3/4	8	4	SWAY " " " " "
5		4	128			1"φ	1 11/16	3	32	4	TOP CHORD TO 214A R

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INSTALLMENTS H2 & M2

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 φ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	12-1-69	NB		
Checked	12-12	LM		
Revisions				

Bolts for Dwgs. 214
Summarized on page SB4-H2 SB7-M2
DRAFTING CHGO WORKS CHGO ERECTION
Customer MAINE STATE HWY COMM
Structure PISCATAQUE RIVER BRIDGE CONTRACT #5 PART #1-95-(22)16
CONTRACT CG6290-000 DWG.-B 214

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip*	Length	Bolts	Pcs.	
1	215	1	96	A325	1-HW	1"	2 15/16	4 1/4	24	4	215A TO FLOOR BEAM
2		2	16				3 5/16	4 1/2	4	4	do
3		3	8				2 3/16	3 1/2	2	4	FILL TO 215A
4		4	40				1 9/16	2 3/4	10	4	215A TO SWAY FRAME

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INSTALLMENTS
H3 M3

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 φ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LAG		
Made	1-5	G		
Checked	1-7	LM		
Revisions				

Bolts for Dwgs. 215
Summarized on page SB4-H3 SB7-M3
DRAFTING CHICAGO WORKS CHICAGO ERECTION
Customer MAINE STATE HWY COMM
Structure PISCATAQUA RIVER BRIDGE
CONTRACT CG6290-090 DWG.-B 215

FABRICATED STEEL CONSTRUCTION
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip	Length	Bolts	Pcs.	
1	226	1	104	A325	1-HW	7/8	1 11/16	2 3/4	26	4	LAT. BRACING TO GUSSET PL OF 223A$^{R}_{L}$ @ BOTT.
2		1	52			7/8	1 11/16	2 3/4	13	4	
3		1	16			7/8	1 13/16	3	4	4	
4		1	20			7/8	1 15/16	3	5	4	
5		2	128			1	2 3/16	3 1/2	32	4	CHORD (L3-L4) TO 226$^{R}_{L}$ @ FIELD SPLICE
6		3	164			1	3 13/16	5	41	4	" GUSSET PL OF 226A$^{R}_{L}$
7		3	392			1	4 5/16	5 1/2	98	4	" " " "
8		4	24			1	3 11/16	5	6	4	GUSSET PL TO BOX SEC. @ SIDE PL
9		5	28			1	4 7/16	5 3/4	7	4	LAT. BRACING CONN. ANGLE TO 226A$^{R}_{L}$ & CHORD (L3-L4)
10		6	140			1	2 3/16	3 1/2	35	4	CHORD (L3-L4) TO 226$^{R}_{L}$ @ TOP SPLICE PL
11		7	52			1	4 5/16	5 1/2	13	4	LAT. BRACING CONN ANGLE TO 226A$^{R}_{L}$
12		8	104			7/8	1 5/16	2 1/2	26	4	" " TO GUSSET PL OF 226A$^{R}_{L}$ @ TOP
13		8	88			7/8	1 5/16	2 1/2	22	4	" " " " "
14		9	168			1	1 13/16	3	42	4	TRUSS VERT TO 226A$^{R}_{L}$ @ GUSSET PL
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
25											
26											
27											
28											
29											
30											
31											
32											

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INSTALLMENTS- H2 & M2

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ⌀)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	12-29-69	MB		
Checked	1-2	ET		
Revisions				

Bolts for Dwgs. 226
Summarized on page SB3 SB4 } H2 SB6 SB7 } M2
DRAFTING CHGO WORKS CHGO ERECTION
Customer MAINE STATE HWY COMM.
Structure PISCATAQUA RIVER BRIDGE CONTRACT #5
CONTRACT CG6290-090 DWG. B226

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FABRICATED STEEL CONSTRUCTION
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip	Length	Bolts	Pcs.	
1	228	1	792	A325	1-HW	1"	3 1/16	4 1/4	99	8	DIAGONAL TO 228A
2		2	344			1"	2 5/16	3 1/2	43	8	VERTICAL TO 228A
3		3	704			1"	3 1/16	4 1/4	88	8	DIAGONAL TO 228A
4		4	64			1"	2 11/16	4	16	4	SPLICE @ L2
5		4	60			1"	3 7/16	4 3/4	15	4	
6		4	752			1"	4 3/16	5 1/2	188	4	
7		4	56			1"	4 15/16	6 1/4	14	4	
8		5	56			1"	1 11/16	3	14	4	
9		5	84			1"	1 15/16	3 1/4	21	4	
10		6	88			7/8	1 7/16	2 1/2	22	4	SWAY FRAME TO 228A
11		7	104			7/8	1 7/16	2 1/2	26	4	LAT. BRCG TO 228A
12		8	28			1"	1 11/16	3	7	4	SPLICE @ L2
13		8	96			1"	1 15/16	3 1/4	24	4	
14		9	52			7/8	1 7/16	2 1/2	13	4	SWAY FRAME TO 228A
15		9	16			7/8	1 9/16	2 3/4	4	4	
16		9	20			7/8	1 11/16	2 3/4	5	4	
17		10	104			7/8	1 7/16	2 1/2	26	4	LAT. BRCG TO 228A
18											
19											
20											
21											
22											
23											
24											
25											
26											
27											
28											
29											
30											
31											
32											

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101 PARK AVE. NEW YORK 17, N.Y
BY SN MAY 26 1970

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INSTALLMENTS
H2 & M2

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ⌀)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	12/12	WB		
Checked	4/30	RP		
Revisions				

Bolts for Dwgs. 228
Summarized on page SB3 SB4 } H2 SB6 SB7 } M2
DRAFTING CHICAGO WORKS CHICAGO ERECTION
Customer MAINE STATE HWY COMM.
Structure PISCATAQUA RIVER BRIDGE
CONTRACT CG6290-090 DWG. B 228

138:135

FABRICATED STEEL CONSTRUCTION
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip	Length	Bolts	Pcs.	
1	232	1	112 ✓	A325	1-HW	1"⌀	4 15/16	6 1/4	28	4	GUSSET TO 232A ✓
2		1	24 ✓				3 7/16	4 3/4	6	4	✓
3											
4		2	816 ✓				4 15/16	6 1/4	204	4	232A TO TOP CHORD (WEB) ✓
5		2	360 ✓				3 7/16	4 3/4	90	4	✓
6		3	92 ✓				4 5/16	5 1/2	23	4	ANGLE TO GUSSET & TOP CHORD ✓
7		4	1488 ✓				4 11/16	5 1/4	372	4	VERT TO 232A ✓
8		4	112 ✓				4 11/16	6	28	4	SWAY FRAME TO 232A ✓
9		5	1888 ✓				4 3/16	5 1/2	472	4	DIAG. TO 232A ✓
10		6	104 ✓				2 11/16	3 1/4	26	4	STIFF TO 232A ✓
11		7	72 ✓				2 11/16	3 1/4	18	4	✓
12		8	72 ✓				2 11/16	3 1/4	18	4	✓
13		9	336 ✓				2 5/16	3 1/2	84	4	TOP LAT. PL TO 232A ✓
14		10	336 ✓				2 5/16	3 1/2	84	4	232A TO TOP CHORD @ TOP ✓
15		11	104 ✓			7/8"⌀	1 13/16	3	26	4	LAT. TO 232A @ TOP ✓
16		12	68 ✓				1 13/16	3	17	4	STRUT TO 232A @ TOP ✓
17		12	20 ✓				2	3	5	4	✓
18		13	56 ✓			1"⌀	1 15/16	3 1/4	14	4	SPLICE PL TO 232A @ BOTT. ✓
19		14	196 ✓				1 15/16	3 1/4	49	4	232A TO TOP CHORD @ BOTT. ✓
20		15	104 ✓			7/8"⌀	1 5/16	2 1/2	26	4	LAT. TO 232A @ BOTT. ✓
21		16	88 ✓				1 5/16	2 1/2	22	4	STRUT TO 232A @ BOTT ✓
22											
23											
24											
25											
26											
27											
28											
29											
30											
31											
32											

INSTALLMENTS M8 & H8

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y
BY SN JUN 2 1970

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ⌀)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	1-30-70	JF		
Checked	2-9-70	[illegible]		
Revisions				

Bolts for Dwgs. 232
Summarized on page SB9, SB10, SB11, SB12
DRAFTING CHICAGO WORKS CHICAGO ERECTION
Customer MAINE STATE HWY COMM.
Structure PISCATAQUA RIVER BR CONT #5
CONTRACT CG6290-090 DWG. B 232

138:136

FABRICATED STEEL CONSTRUCTION
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip	Length	Bolts	Pcs.	
1	234	1	40 ✓	A325	1-HW	1"⌀	3 5/16	4 1/2	10	4	VERT. TO DIAG. ✓
2		2	288 ✓				3 7/16	4 3/4	72	4	do TO FLOOR BEAM ✓
3		3	112 ✓				3 5/16	4 1/2	28	4	do TO STRUT ✓
4		4	16 ✓				3 13/16	5	4	4	do TO FLOOR BEAM & DIAPH ✓
5		5	8 ✓				3 1/16	4 1/4	2	4	do TO DIAPHRAGM ✓
6											
7											
8											
9											
10											
11											
12											
13											
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28											
29											
30											
31											
32											

INSTALLMENTS H8 & M8

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y
BY SN JUN 2 1970

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ⌀)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LHG		
Made	1-30-70	[illegible]		
Checked	3-24	CD		
Revisions				

Bolts for Dwgs. 234
Summarized on page SB10 & SB12
DRAFTING CHICAGO WORKS CHICAGO ERECTION
Customer MAINE STATE HWY COMM
Structure PISCATAQUA RIVER BRIDGE
CONTRACT CG6290-090 DWG. B 234

138:137

LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip	Length	Bolts	Pcs.	
1	222	1	816 ✓	A325	1-HW	1"⌀	4 15/16	6 1/4	204	4	222A TO TOP CHORD @ U7 ✓
2		1	292 ✓				3 7/16	4 3/4	73	4	✓
3		1	68 ✓				4 7/16	5 3/4	17	4	✓
4		2	24 ✓				3 7/16	4 3/4	6	4	GUSSET PL TO 222A ✓
5		2	112 ✓				4 15/16	6 1/4	28	4	✓
6		3	48 ✓				4 7/16	5 3/4	12	4	✓
7		4	1552 ✓				3 3/16	4 1/2	388	4	DIAGONAL TO 222A ✓
8		5	152 ✓				2 5/16	3 1/2	38	4	STIFF L TO 222A ✓
9		6	2016 ✓				4 1/16	5 1/4	504	4	VERT TO 222A ✓
10		7	728 ✓				3 1/16	4 1/4	182	4	DIAGONAL TO 222A ✓
11		8	112 ✓				2 5/16	3 1/2	28	4	STIFF L TO 222A ✓
12		9	364 ✓				2 9/16	3 3/4	91	4	TOP FIELD SPLICE ✓
13		10	364 ✓			1"⌀	2 9/16	3 3/4	91	4	✓
14		11	128 ✓			7/8"⌀	2 7/16	3 1/2	32	4	STRUT TO 222A AT TOP ✓
15		11	32 ✓				2 5/8	3 3/4	8	4	✓
16		11	32 ✓				3	4	8	4	✓
17		11	32 ✓				2 13/16	4	8	4	✓
18		12	56 ✓			1"⌀	1 15/16	3 1/4	14	4	FIELD SPLICE (BOTT) ✓
19		13	224 ✓			1"⌀	1 15/16	3 1/4	56	4	✓
20		14	224 ✓			7/8"⌀	1 13/16	3	56	4	STRUT TO 222A AT BOTT
21											
22											
23											
24											
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32											

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y
BY SN
JUN 2 1970

INSTALLMENTS — H6 & M6

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ⌀)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	12-31	JF		
Checked	1-6	CAD		
Revisions				

Bolts for Dwgs. 222
Summarized on page SB9, SB10, SB11, SB12
DRAFTING CHICAGO WORKS CHICAGO ERECTION
Customer MAINE STATE HWY COMM.
Structure PISCATAQUA RIVER BR CONT #5
CONTRACT CG6290-090 DWG. B 222

138:30

FABRICATED STEEL CONSTRUCTION
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip	Length	Bolts	Pcs.	
1	223	1	104 ✓	A325	1-HW	7/8	1 5/16	2 1/2	26	4	LAT. BRACING TO GUSSET PL OF 223A$^{R}_{L}$ @ BOTT.
2		1	68 ✓			7/8	1 5/16	2 1/2	17	4	
3		1	20 ✓			7/8	1 7/16	2 1/2	5	4	
4		2	168 ✓			1	1 13/16	3	42	4	CORD (L6-L7) TO 223A$^{R}_{L}$ @ FIELD SPLICE
5		3	244 ✓			1	3 9/16	4 3/4	61	4	GUSSET PL OF 223A$^{R}_{L}$ ✓
6		3	560 ✓			1	4 9/16	5 3/4	140	4	" " " " ✓
7		4	24 ✓			1	3 7/16	4 3/4	6	4	GUSSET PL TO BOX SEC. @ SIDE PL ✓
8		5	52 ✓			1	4 5/16	5 1/2	13	4	LAT. BRACING TO 223A$^{R}_{L}$ @ GUSSET PL (TOP)
9		6	800 ✓			1	3 3/16	4 1/2	100	8	TRUSS DIAG. " " @ GUSSET PL
10		7	240 ✓			1	1 15/16	3 1/4	30	8	" VERTICAL " " " " ✓
11		8	728 ✓			1	2 11/16	4	91	8	" DIAG " " " " "
12		9	240 ✓			1	1 13/16	3	60	4	CORD (L6-L7) TO 223A$^{R}_{L}$ @ TOP SPLICE PL ✓
13		10	28 ✓			1	4 7/16	5 3/4	7	4	LAT. BRACING CONN ANGLE TO 223A$^{R}_{L}$ & CORD (L6-L7) ✓
14	223	11	88 ✓	A325	1-HW	7/8	1 5/16	2 1/2	22	4	LAT. BRACING TO GUSSET PL OF 223A$^{R}_{L}$ @ TOP ✓
15											
16		11	104 ✓			7/8	1 5/16	2 1/2	26	4	✓
17											
18											
19											
20											
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INSTALLMENTS - H5 & M5

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y
BY SN JUN 2 1970

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ⌀)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	12-4-69	[illegible]		
Checked	12-12	CAD		
Revisions				

Bolts for Dwgs. 223
Summarized on page SB9, SB10, SB11, SB12
DRAFTING CHGO WORKS CHGO ERECTION
Customer MAINE STATE HWY COMM.
Structure PISCATAQUA RIVER BRIDGE CONTRACT #5
CONTRACT CG6290-090 DWG. B223

138:31

LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip	Length	Bolts	Pcs.	
1	224	1	168 ✓	A365	1-HW	1	2 3/16	3 1/2	42	4	BOTT CHORD SPLICE @ L5 ✓
2		2	104 ✓			7/8	1 5/16	2 1/2	26	4	LAT. BRCG TO 224A ✓
3		3	88 ✓			7/8	1 5/16	2 1/2	22	4	SWAY FRAME TO 224A ✓
4											
5											
6		5	224 ✓			1	1 15/16	3 1/4	56	4	VERTICAL TO 224A ✓
7		6	308 ✓			1	4 3/16	5 1/2	77	4	BOTT CHORD SPLICE @ L5 ✓
8			52 ✓			1	4 1/16	5 1/4	13	4	✓
9			12 ✓			1	3 3/16	4 1/2	6	2	✓
10		7	128 ✓			1	2 3/16	3 1/2	32	4	✓
11		8	104 ✓			7/8	1 11/16	2 3/4	26	4	LAT. BRCG TO 224A ✓
12		9	68 ✓			7/8	1 11/16	2 3/4	17	4	SWAY FRAME TO 224A ✓
13		9	20 ✓			7/8	1 13/16	3	5	4	✓
14		10	64 ✓			1"⌀	1 11/16	3	16	4	LOOSE L tp TO CHORD ✓
15		6	28 ✓			1"⌀	4 5/16	5 1/2	7	4	LOOSE L tk$^{R}_{L}$ " ✓
16		6	94 ✓			1"⌀	3 7/16	4 3/4	47	2	BOTT. CHD SPLICE @ L5
17											
18											
19											
20											
21											
22											
23											
24											
25											
26											
27											
28											
29											
30											
31											
32											

INSTALLMENTS H4 & M4

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y
BY SN JUN 2 1970

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ⌀)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	12/8	WB		
Checked	1-16	CD		
Revisions				

Bolts for Dwgs. 224
Summarized on page SB9, SB10, SB11, SB12
DRAFTING CHICAGO WORKS CHICAGO ERECTION
Customer MAINE STATE HWY COMM.
Structure PISCATAQUA RIVER BRIDGE CONTRACT #5
CONTRACT CG6290-090 DWG. B 224

138:32

LIST OF FIELD BOLTS

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip	Length	Bolts	Pcs.	
1	225AB	1	800	A325	1-HW	1	2 15/16	4 1/4	200	4	224A$^{R}_{L}$ TO 225A$^{R}_{L}$
2		2	52			1	4 9/16	5 3/4	20	4	L TO 225A$^{R}_{L}$
3		3	784			1	2 15/16	4 1/4	196	4	208A TO 225A$^{R}_{L}$
4		4	304			1	1 11/16	3	76	4	218A " "
5		5	808			1	2 9/16	3 3/4	202	4	205A " "
6		6	288			1	1 7/16	2 3/4	72	4	L TO 225A$^{R}_{L}$
7	225BB	7	140			1	1 15/16	3 1/4	35	4	224A$^{R}_{L}$ TO 225A$^{R}_{L}$
8		8	104			7/8	1 5/16	2 1/2	26	4	122A$^{R}_{L}$ TO 225A$^{R}_{L}$
9		9	88			7/8	1 5/16	2 1/2	22	4	STRUT " "
10		10	128			1	1 15/16	3 1/4	32	4	224A$^{R}_{L}$ TO 225A$^{R}_{L}$
11		11	104			7/8	1 7/16	2 1/2	26	4	122A$^{R}_{L}$ TO 225A$^{R}_{L}$
12		12	52			7/8	1 7/16	2 1/2	13	4	STRUT TO 225A$^{R}_{L}$
13		12	16			7/8	1 9/16	2 3/4	4	4	" " "
14		12	20			7/8	1 11/16	2 3/4	5	4	" " "
15											
16											
17	225AB	13	64	A325	1HW	1	3 11/16	5	16	4	tg & tf TO ka & kb
18	225AB	14	28	A325	1HW	1	3 13/16	5	14	4	L TO GUSSET & 224A
19											
20											
21											
22											
23											
24											
25											
26											
27											
28											
29											
30											
31											
32											

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y
BY SN MAY 26 1970

RECEIVED
MAY 21 1970
HARDESTY & HANOVER

INSTALLMENTS
M3 - H3

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ⌀)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	1-5	ET		
Checked	1-16	PS		
Revisions				

Bolts for Dwgs. 225AB & 225BB
Summarized on page SB3 SB4 } H3 SB6 SB7 } M3
DRAFTING CHICAGO WORKS CHICAGO ERECTION
Customer MAINE STATE HWY COMM.
Structure PISCATAQUA RIVER BRIDGE CONTRACT #5
CONTRACT CG6290-090 DWG. B 225

138:133

BETHLEHEM STEEL FABRICATED STEEL CONSTRUCTION
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip	Length	Bolts	Pcs.	
1	240	1	1976	325	HW	1	4 9/16	5 3/4	247	8	DIAGONAL TO GUSS PL
2		2	316				3 1/16	4 1/4	79	4	VERT TO
3		2a	240				3 13/16	5	60	4	
4		2a	72				3 1/16	4 1/4	18	4	
5		2a	12				2 11/16	4	3	4	
6		3	104				2 11/16	4	13	8	L
7		4	96				7 7/16	8 3/4	24	4	BOTT CHRD TO
8			152				6 11/16	8	37	4	
9			12				6 7/16	7 3/4	3	4	D1
10			860				5 11/16	7	215	4	
11		4a	624				5 11/16	7	156	4	
12			352				6 11/16	8	88	4	
13		5	1152 D1				5 7/16	6 3/4	144	8	
14		5	288				3 15/16	5 1/4	36	8	
15		6	60				2 11/16	4	15	4	L TO
16		7	288				2 11/16	4	72	4	D1 " "
17		4	24				7 7/16	8 3/4	6	4	
18		4	16				5 7/16	6 3/4	4	4	
19		4a	16				5 7/16	6 3/4	4	4	
20		5	192 D1				2 11/16	4	24	8	
21		7a	160				2 11/16	4	42	4	

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY F.F.W. OCT 20 1970

INSTAL. H9 & M9

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 φ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	2/13	SK		
Checked	3/5	RP		
Revisions	10-12			

Bolts for Dwgs. 240
Summarized on page SB 17, 18
DRAFTING CHICAGO WORKS CHICAGO ERECTION
Customer MAINE STATE HWY. COMM.
Structure PISCATAQUA RIVER BRIDGE
CONTRACT CG 6290-090 DWG.-B 240

138:142

BETHLEHEM STEEL FABRICATED STEEL CONSTRUCTION
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip	Length	Bolts	Pcs.	
1	241	1	552	325	1-HW	1"φ	2 5/16	3 1/2	69	8	DIAG. TO CHORD
2			672				2 7/16	3 3/4	84	8	VERT. TO CHORD
3			168				2 7/16	3 3/4	42	4	TOP & BOTT. S PL
4			48				2 7/16	3 3/4	12	4	" "
5			168				4 7/16	5 3/4	42	4	" "
6			120				4 7/16	5 3/4	30	4	" "
7			32				4 15/16	6 1/4	4	8	CHORD TO GUSS.
8			128				6 3/16	7 1/2	16	8	" "
9			728				6 3/16	7 1/2	91	8	" "
10			416 D1				5 3/16	6 1/2	52	8	" "

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY F.F.W. OCT 20 1970

INSTALLMENTS H11 & M11

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 φ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge				
Made	2-9-70	KMG		
Checked	5/18	RP		
Revisions	10/12			

Bolts for Dwgs. 241
Summarized on page SB 17, 18
DRAFTING CHICAGO WORKS CHICAGO ERECTION
Customer MAINE STATE HWY. COMMISSION
Structure PISCATAQUA RIVER BRIDGE
CONTRACT CG6290-061 DWG.-B 241

138:143

BETHLEHEM STEEL FABRICATED STEEL CONSTRUCTION
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip	Length	Bolts	Pcs.	
1	242	1	884	A325	1-HW	1	4 15/16	6 1/4	221	4	CHORD L10-L11 TO L10
2		1	64			1	5 13/16	7 1/4	16	4	
3		2	232			1	5 11/16	7	58	4	VERTICAL GUSSET TO L10
4		2	128			1	6 7/16	7 3/4	32	4	FB & VERTICAL GUSSET TO L10
5		2	320			1	3 11/16	5	80	4	FB TO L10
6		2	8			1	4	5 1/4	4	2	H.R. TO L10 & FB
7		2	96			1	2 15/16	4 1/4	24	4	VERTICAL TO GUSSET
8		2	4			1	3 1/4	4 1/2	2	2	H.R. TO VERTICAL & GUSSET
9		3	12			1	2 9/16	3 3/4	6	2	H.R TO CHORD
10		4	672			1	2 7/16	3 3/4	168	4	SPLICE
11		5	336			1	2 3/16	3 1/2	84	4	SPLICE
12		6	96			7/8	1 11/16	2 3/4	24	4	BRCG
13		7	60			7/8	4 3/8	5 1/2	15	4	STRUT
14		7	28			7/8	4 1/4	5 1/2	7	4	
15		8	12			1	5 5/16	6 3/4	6	2	H.R. TO CHORD
16		9	144			1	5 7/16	6 3/4	36	4	OPEN HOLES @ L9
17		10	192			1	2 13/16	4	48	4	CHORD L8-L9 TO L9-L10
18		11	192			1	2 1/16	3 1/4	48	4	LOOSE L @ L9 TO CHORD

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY F.F.W. OCT 9 1970

INSTALLMENTS H11 & M11

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 φ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	2/9	WB		
Checked	3-6	CAD		
Revisions				

Bolts for Dwgs. 242
Summarized on page SB 17, 18, 19, 20
DRAFTING CHICAGO WORKS CHICAGO ERECTION
Customer MAINE STATE HWY COMM.
Structure PISCATAQUA RIVER BRIDGE CONTRACT #5
CONTRACT CG6290-090 DWG.-B 242

138:144

BETHLEHEM STEEL FABRICATED STEEL CONSTRUCTION
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip	Length	Bolts	Pcs.	
4	243	2	200	A325	1-HW	1	2 11/16	4	25	8	BOX SECTIONS @ TOP OF 243A
5		3	144			1	1 13/16	2 1/2	18	8	" " " "
6		4	16			1	1 13/16	2 1/2	4	4	LADDER TO 243 FOR "B"

INSTALLMENT H12 & M12

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY F.F.W. OCT 9 1970

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 φ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG.		
Made	2/16/70	JR		
Checked	3-11-70	PS		
Revisions				

Bolts for Dwgs. 243
Summarized on page SB 17, 18
DRAFTING CHGO WORKS CHGO ERECTION
Customer MAINE STATE HWY COMM.
Structure PISCATAQUA RIVER BRIDGE CONTRACT #5
CONTRACT CG6290-000 DWG.-B 243

138:145

BETHLEHEM STEEL
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip	Length	Bolts	Pcs.	
1	236	1	256	325	1-HW	1"φ	1 15/16	3 1/4	64	4	SWAY FRAME TO TRUSS VERT.

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY F.F.W. OCT 9 1970

INSTALLMENTS H9 & M9

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 φ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge				
Made	2-2-70	KMG		
Checked	2-6-70	ECD		
Revisions				

Bolts for Dwgs. 236
Summarized on page SB 17, 18
DRAFTING CHICAGO WORKS CHICAGO ERECTION
Customer MAINE STATE HIGHWAY COMM.
Structure PISCATAQUA RIVER BRIDGE
CONTRACT CG6290-090 DWG.-B 236

138:138

BETHLEHEM STEEL
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip	Length	Bolts	Pcs.	
1	237	1	784	325	1-HW	1"φ	5 1/16	6 1/2	196	4	237A TO TOP CHORD @ U9
2		1	176				3 3/16	4 1/2	44	4	
3		1	48				4 1/16	5 1/4	12	4	
4		2	112				5 1/16	6 1/2	28	4	GUSSET PL TO 237A
5		2	24				3 9/16	4 3/4	6	4	
6		3	44				4 7/16	5 3/4	11	4	
7		4	592				2 13/16	4	148	4	VERTICAL TO 237A
8		5	656				2 15/16	4 1/4	164	4	DIAGONAL TO 237A
9		6	72				1 13/16	3	18	4	TOP LAT. GUSS. PL TO 237A
10		6	140				2 9/16	3 3/4	35	4	
11		7	72				1 13/16	3	18	4	237A TO TOP CHORD @ U9 TOP FLG.
12		7	140			1"φ	2 9/16	3 3/4	35	4	
13		8	104			7/8"φ	1 5/16	2 1/2	26	4	D1 DIAG. TO TOP LAT. GUSS. PL.
14		9	88			7/8"φ	1 5/16	2 1/2	22	4	HORIZ. TO TOP LAT. GUSS. PL.
15		10	40			1"φ	2 7/16	3 3/4	10	4	BOTT SA PLS. TO 237A
16		10	16			1"φ	1 13/16	3	4	4	
17		11	120			1"φ	2 7/16	3 3/4	30	4	237A TO TOP CHORD @ U9 BOTT. FLG.
18		11	48			1"φ	1 13/16	3	12	4	
19		12	104			7/8"φ	1 5/16	2 1/2	26	4	DIAG. TO BOTT. LAT. GUSS PL.
20		13	88			7/8"φ	1 5/16	2 1/2	22	4	HORIZ. TO BOTT. LAT. GUSS PL.
21									D1		

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY F.F.W. OCT 20 1970

INSTALLMENTS M9 & H9

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 φ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge				
Made	2-4-70	JKM		
Checked	2-24-70	EJ		
Revisions	10/12			

Bolts for Dwgs. 237
Summarized on page SB 17, 18, 19, 20
DRAFTING CHICAGO WORKS CHICAGO ERECTION
Customer MAINE ST. HIGHWAY COMMISSION
Structure PISCATAQUA RIVER BRIDGE CONT. 5
CONTRACT CG 6290 DWG.-B 237

138:139

BETHLEHEM STEEL
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip	Length	Bolts	Pcs.	
1	238	1	112	325	1-HW	1"φ	4 13/16	6	28	4	SPL. @ U10
2		1	24				2 15/16	4 1/4	6	4	SPL. @ U10
3		2	168				3 9/16	4 3/4	42	4	SPL. @ U10
4		2	680				4 13/16	6	170	4	SPL. @ U10
5		3	544				2 9/16	3 3/4	136	4	VERTICAL TO 238A
6		4	656				2 11/16	4	164	4	DIAGONAL TO 238A
7		5	48				3 13/16	5	12	4	6x4x3/4 L TO 238A
8		5	44				4 7/16	5 3/4	11	4	" " " " "
9		6	64				1 13/16	3	16	4	SPL. @ U10
10		6	48				1 15/16	3 1/4	12	4	
11		6	132				2 7/16	3 3/4	33	4	
12		6	92				2 9/16	3 3/4	23	4	
13		9	68				1 11/16	3	17	4	
14		9	100				2 3/16	3 1/2	25	4	
15		7	208			7/8	1 5/16	2 1/2	26	8	LAT. BRCG TO 238A
16		8	176				1 5/16	2 1/2	22	8	SWAY FRAME TO 238A

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY FFW OCT 9 1970

INSTALLMENTS M11 & H11

138:140

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 φ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LAG		
Made		GCY		
Checked	2-25-70	EJ		
Revisions				

Bolts for Dwgs. 238
Summarized on page SB 17, 18, 19, 20
DRAFTING CHICAGO WORKS CHICAGO ERECTION
Customer MAINE STATE HWY. COMM.
Structure PISCATAQUA RIVER BRIDGE
CONTRACT CG6290-061 DWG.-B 238

BETHLEHEM STEEL
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip	Length	Bolts	Pcs.	
1	239DD	1	328 ✓	325	1-HW	7/8"φ	3 11/16	4 3/4	82	4	STRUT & DIAG. TO GUSS. PL ✓
2		2	264 ✓			1"φ	2 9/16	3 3/4	66	4	BOTT. CHORD TO GUSS PL ✓
3		3	56 ✓			1"φ	2 13/16	4	14	4	do ✓
4		4	328 ✓			7/8"φ	1 7/16	2 1/2	82	4	STRUT & DIAG. TO GUSS. PL ✓
5		5	144 ✓			1"φ	2 7/16	3 3/4	36	4	BOTT. CHORD TO SPLICE PL. ✓
6		6	56				2 11/16	4	14	4	BOTT. CHORD TO SPLICE PL. ✓
7	239BD	7	328 ✓				4 15/16	6 1/4	82	4	BOTT. CHORD TO GUSSET PL ✓
8		16	392 ✓				4 15/16	6 1/4	98	4	do ✓
9		8	64 ✓				5 11/16	7	16	4	CONN. L TO GUSS. PL ✓
10		9	72 ✓				2 5/16	3 1/2	18	4	do ✓
11		10	8 ✓				4 11/16	6	2	4	do ✓
12		17	24 ✓				3 15/16	5 1/4	6	4	GUSS. PL TO BOTT. CHORD ✓
13		11	592 ✓				5 13/16	7 1/4	148	4	SPL. PL TO BOTT. CHORD ✓
14		12	1512 ✓				3 1/16	4 1/4	378	4	DIAGONAL TO GUSS. PL ✓
15		13	1632 ✓				3 15/16	5 1/4	408	4	VERT. TO GUSS. PL ✓
16		14	48 ✓				2 3/16	3 1/2	12	4	STIFF. L TO GUSS. PL ✓
17		15	72 ✓				2 3/16	3 1/2	18	4	do ✓

INSTALLMENT - H8 & M8

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY SN JUN 2 1970

138:141

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 φ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG.		
Made	2/13/70	JAL		
Checked	3-4-70	CD		
Revisions				

Bolts for Dwgs. 239
Summarized on page SB9, SB10, SB11, SB12
DRAFTING CHICAGO WORKS ERECTION
Customer MAINE STATE HWY COMMISSION
Structure PISCATAQUA RIVER BRIDGE
CONTRACT CG6290-090 DWG.-B 239

BETHLEHEM STEEL

FABRICATED STEEL CONSTRUCTION
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip*	Length	Bolts	Pcs.	
1	248	1	664	325	1-HW	1"ϕ	2 7/16	3 3/4	83	8	DIAG. TO GUSS ⅊
2		2	416				2 3/16	3 1/2	104	4	VERT. TO GUSS ⅊
3		3	160				2 15/16	4 1/4	40	4	MID. CHORD TO GUSS ⅊
5		3	88				5 3/16	6 1/2	11	8	MID CHORD TO FILL ⅊ & GUSS ⅊
6		3	16				5 13/16	6 1/2	4	4	MID CHORD TO GUSS ⅊
7		3	72				6 1/16	7 1/2	18	4	MID CHORD TO GUSS ⅊ & STRUT CONN. Ls
8		3	560				6 3/16	7 1/2	70	8	MID CHORD TO SPLICE ⅊s & GUSS. ⅊
9		3	104				3 13/16	5	26	4	MID CHORD TO GUSS. ⅊ & STRUT CONN. Ls
10		2	64				2 13/16	4	16	4	VERT. TO GUSS. ⅊ & STRUT Ls
11		4	184			7/8ϕ	1 13/16	3	23	8	STRUT TO MID CHORD
12		5	168			1"ϕ	2 7/16	3 3/4	42	4	MID CHORD TO LEFT OF SPLICE ⅊
13		5	168			1ϕ	1 15/16	3 1/4	42	4	MID CHORD TO RIGHT OF SPLICE ⅊
14		6	104			7/8ϕ	1 5/16	2 1/2	26	4	LATERAL TO GUSS ⅊
15		6	64			7/8ϕ	1 15/16	3	16	4	STRUT TO GUSS. ⅊ & CONN. Ls
16		6	36			7/8ϕ	1 5/16	2 1/2	9	4	STRUT TO GUSS. ⅊
17		7	112			1ϕ	1 15/16	3 1/4	28	4	MID CHORD TO SPLICE ⅊
18		8	204			7/8ϕ	1 5/16	2 1/2	51	4	LATERAL & STRUT TO GUSS. ⅊

INSTALLMENTS — M12-H12

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY F.F.W. OCT 9 1970

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ϕ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge				
Made	2-12-70	KMG		
Checked	3-18	LM		
Revisions				

Bolts for Dwgs. 248
Summarized on page SB 17, 18, 19, 20
DRAFTING CHICAGO
WORKS CHICAGO
ERECTION
Customer MAINE STATE HWY. COMMISSION
Structure PISCATAQUA RIVER BRIDGE
CONTRACT CG 6290-061 DWG. B 248

BETHLEHEM STEEL

FABRICATED STEEL CONSTRUCTION
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip*	Length	Bolts	Pcs.	
1	249	1	884	A325	1-HW	1 1/4	4 15/16	6 1/4	221	4	TIE SPLICE @ L12
2		1	64				5 13/16	7 1/4	16	4	
3		1	232				5 11/16	7	58	4	
4		1	128				6 7/16	7 3/4	32	4	
5		2	320				3 11/16	5	80	4	VERTICAL SPLICE @ L12
6			4		A1		4 5/16	5 3/4	4	1	HR TO VERT.
7			96				2 15/16	4	24	4	
8			2		A1		3 9/16	5	2	1	HR TO VERT.
9		3	6				4 9/16	5 3/4	3	2	" " TIE
10		3	6				5 5/16	6 3/4	3	2	" "
11		3	3				6 13/16	8 1/4	3	1	H.R. TO TIE
12		3	3				6 1/16	7 1/2	3	1	" "
13		5	672				2 7/16	3 3/4	168	4	SPLICE
14		6	336				2 3/16	3 1/2	84	4	
15		7	60			7/8	4 3/8	5 1/2	15	4	STRUT
16		7	28				4 1/4	5 1/4	7	4	
17		8	96				1 11/16	2 3/4	24	4	LATERAL

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY F.F.W. OCT 9 1970

INSTALLMENTS
H14 & M14

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ϕ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	2/11	WB		
Checked	3-13	CD		
Revisions				
A1	5/11	WB		

Bolts for Dwgs. 249
Summarized on page SB 17, 18, 19, 20
DRAFTING CHICAGO
WORKS CHICAGO
ERECTION
Customer MAINE STATE HWY COMM.
Structure PISCATAQUA RIVER BRIDGE CONTRACT #5
CONTRACT CG6290-090 DWG. B 249

BETHLEHEM STEEL

FABRICATED STEEL CONSTRUCTION
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip*	Length	Bolts	Pcs.	
1	253										
2		1	16			1	4 1/16	5 1/4	4	4	FL BEAM TO 253A @ DIAPH.
3		2	304			1	1 11/16	3	38	8	CHORD MEMBER TO 253A @ GUSSET ⅊
5		3	2			1	3 1/4	4 1/2	2	1	253B TO HANDRAIL & MID CHORD
8		1	4			1	4	5 1/4	4	1	" " TO HANDRAIL & 253B
9		4	2			1	3 1/4	4 1/2	2	1	HANDRAIL TO 253B
10		5	16			1	1 3/16	2 1/2	4	4	LADDER TO 253B

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY F.F.W. OCT 9 1970

INSTALLMENTS M14 & H14

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ϕ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	2-18-70	TP		
Checked	3-18	LM		
Revisions				

Bolts for Dwgs. 253
Summarized on page SB 17, 18
DRAFTING CHGO
WORKS CHGO
ERECTION
Customer MAINE STATE HWY COMM.
Structure PISCATAQUA RIVER BRIDGE CONTRACT #5
CONTRACT CG6290-000 DWG. B 253

BETHLEHEM STEEL

FABRICATED STEEL CONSTRUCTION
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip*	Length	Bolts	Pcs.	
1	256	1	24	325	1-HW	1"ϕ	2 9/16	3 3/4	6	4	SPL @ U12
2		1	112				3 11/16	5	28	4	SPL @ U12
3		2	492				2 15/16	4 1/4	123	4	SPL @ U12
4		2	392				3 11/16	5	98	4	SPL @ U12
5		3	664				2 3/16	3 1/2	166	4	DIAGONAL TO 256A
6		4	384				1 3/4	3	96	4	VERTICAL TO 256A
7		5	44				3 7/16	4 1/2	11	4	6x4x7/8 L @ U12
8		5	40				3 13/16	5	10	4	6x4x7/8 L @ U12
11		6	32				1 7/16	2 3/4	8	4	STIFF. L @ U12
12		7	48				1 7/16	2 3/4	12	4	STIFF. L @ U12
13		8	196				1 15/16	3 1/4	49	4	SPL. @ U12
14		9	196				2 5/16	3 1/2	49	4	SPL. @ U12
15		10	156				1 15/16	3 1/4	39	4	SPL. @ U12
16		11	88			7/8"ϕ	1 7/16	2 1/2	22	4	SWAY FRAME TO 256A
17		12	104				1 7/16	2 1/2	26	4	LAT. BRCG. TO 256A
18		13	88				1 5/16	2 1/2	22	4	SWAY FRAME TO 256A
19		14	104				1 5/16	2 1/2	26	4	LAT. BRCG. TO 256A

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY F.F.W. OCT 9 1970

INSTALLMENTS
M14 & H14

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ϕ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LAG		
Made		GCY		
Checked	3-3-70	B		
Revisions				

Bolts for Dwgs. 256
Summarized on page SB 17, 18, 19, 20
DRAFTING CHICAGO
WORKS CHICAGO
ERECTION
Customer MAINE STATE HWY. COMM.
Structure PISCATAQUA RIVER BRIDGE
CONTRACT CG6290-061 DWG. B 256

VERTICAL M10 TO U10

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip*	Length	Bolts	Pcs.	
1	244	1	240	325	HW	1"	1 15/16	3 1/4	60	4	SWAY FRAME TO VERT

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY F.F.W. OCT 9 1970

INSTALLMENT H11 & M11

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ϕ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LAG		
Made		CM		
Checked	3-6-70	B		
Revisions				

Bolts for Dwgs. 244
Summarized on page SB 17, 18
DRAFTING
WORKS
ERECTION
Customer MAINE STATE HIGHWAY COMMISSION
Structure PISCATAQUA RIVER BRIDGE
CONTRACT CG6290-000 DWG. B 244

BETHLEHEM STEEL
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip*	Length	Bolts	Pcs.	
1	245	1	884	A325	1-HW	1	4 15/16	6 1/4	221	4	TIE SPLICE @ L11
2		1	64				5 13/16	7 1/4	16	4	
3		1	180				5 11/16	7	45	4	
4		1	128				6 7/16	7 3/4	32	4	
5		2	320				3 11/16	5	80	4	VERTICAL SPLICE @ L11
6			4		A1		4 5/16	5 3/4	4	1	HR TO FB & VERTICAL
7			96				2 15/16	4 1/4	24	4	
8			2		A1		3 9/16	5	2	1	HR TO VERT. @ L11
11		3	12				4 1/2	5 3/4	3	4	HR TO TIE
12		4									NAVIGATION LIGHT
13		5	672				2 7/16	3 3/4	168	4	SPLICE
14		6	336				2 3/16	3 1/2	84	4	
15		7	60			7/8	4 3/8	5 1/2	15	4	STRUT
16		7	28				4 1/4	5 1/4	7	4	
17		8	104				1 11/16	2 3/4	26	4	LATERAL
18		9	4			1	5 5/16	6 3/4	2	2	HR POST TO CHORD

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY F.F.W. OCT 9 1970

INSTALLMENTS
H12 & M12

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ϕ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	2/10	WB		
Checked	3-10	CAD		
Revisions				
A1	5/11	WB		

Bolts for Dwgs. 245
Summarized on page SB 17, 18, 19, 20
DRAFTING CHICAGO
WORKS CHICAGO
ERECTION
Customer MAINE STATE HWY COMM.
Structure PISCATAQUA RIVER BRIDGE CONTRACT #5
CONTRACT CG6290-090 DWG. B 245

BETHLEHEM STEEL
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip*	Length	Bolts	Pcs.	
3	246	2	200	A325	1-HW	1	2 11/16	4	25	8	BOX SECTIONS @ TOP OF 246A
4		3	144			1	1 3/16	2 1/2	18	8	" " " " " "
5		4	32			1	1 3/16	2 1/2	16	2	LADDER TO 246

INSTALLMENT H14 & M14

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY F.F.W. OCT 9 1970

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ϕ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made	2-11-70	TB		
Checked	5-11-70	PS		
Revisions				

Bolts for Dwgs. 246
Summarized on page SB 17, 18
DRAFTING CHGO
WORKS CHGO
ERECTION
Customer MAINE STATE HWY COMM.
Structure PISCATAQUA RIVER BRIDGE CONTRACT #5
CONTRACT CG6290-000 DWG. B 246

BETHLEHEM STEEL

FABRICATED STEEL CONSTRUCTION
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip*	Length	Bolts	Pcs.	
1	247	1	504	A325	1-HW	1 1/4	4 3/16	5 1/2	126	4	247A TO TOP CHORD @ U11
2		1	228				2 13/16	4	57	4	
3		1	48				3 11/16	5	12	4	
4		2	112				4 3/16	5 1/2	28	4	GUSSET ⅊ TO 247A
5		2	24				3 5/16	4 1/2	6	4	A1
6		3	60 A1				4 3/16	5 1/4	15	4	
7		4	480				2 3/16	3 1/2	120	4	VERTICAL TO 247A
8		5	728				2 7/16	3 3/4	182	4	DIAGONAL TO 247A
9		6	132				2 9/16	3 3/4	33	4	TOP LAT. GUSS. ⅊ TO 247A
10		6	72 A1				1 15/16	3 1/4	18	4	A1
11		7	56				2 1/16	3 1/2	14	4	247A TO TOP CHORD @ U9 @ TOP
12		7	112				2 13/16	4	28	4	
13		7	20				2 1/16	4	5	4	
14		7	8				2 1/16	3 1/4	2	4	
15		8	104			7/8	1 7/16	2 1/2	26	4	DIAGONAL TO TOP LAT. GUS. ⅊
16		9	88			7/8ϕ	1 7/16	2 1/2	22	4	HORIZ. TO TOP LAT. GUS. ⅊
17		10	16			1"ϕ	1 15/16	3 1/4	4	4	BOTT SH ⅊ TO 247A
18		10	40				2 7/16	3 3/4	10	4	
19		11	52				1 15/16	3 1/4	13	4	247A TO TOP CHORD @ U11 @ BOTT
20		11	60				2 7/16	3 3/4	15	4	
21		12	104			7/8"ϕ	1 5/16	2 1/2	26	4	DIAG. TO BOTT LAT GUSS ⅊
22		13	88			7/8"ϕ	1 5/16	2 1/2	22	4	HORIZ. TO BOTT LAT GUSS ⅊

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CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY F.F.W. OCT 9 1970

INSTALLMENTS — H12 & M12

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ϕ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge		LG		
Made		JM		
Checked	3-2-70	B		
Revisions				
A1	5/26	WB		

Bolts for Dwgs. 247
Summarized on page SB 17, 18, 19, 20
DRAFTING CHICAGO
WORKS CHICAGO
ERECTION
Customer MAINE ST. HIGHWAY COM.
Structure PISCATAQUA RIVER BRIDGE CONT. 5
CONTRACT CG6290 DWG. B 247

FABRICATED STEEL CONSTRUCTION

LIST OF FIELD BOLTS

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT Dia.	BOLT Grip*	BOLT Length	UNIT NO. Bolts	UNIT NO. Pcs.	Connecting
1	504	1	312	325	1-HW	3/4"φ	1 3/16	2 1/4	24	13	H.R. POSTS TO PLATF.S 504A
2		2	52				1 1/16	2 1/4	4	13	STAIR STRGS. 514C & 514F TO PLATF. 504A
3		3	52				1 1/16	2 1/4	4	13	do.
4		4	52				1 1/16	2'	4	13	STAIR STRGS. 514A TO PLAF. 504A
7	504	7	288	325	1-HW	3/4"φ	1 3/16	2 1/4	24	12	H.R. 516A^R_L & 516B^R_L TO PLATF. 504B

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101 PARK AVE. NEW YORK 17, N.Y
BY F.F.W. SEP 1 1970

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 φ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	Distribution No.
In Charge				
Made	11/22/69	JAO		
Checked				
Revisions				

Bolts for Dwgs. 504
Summarized on page SBI

DRAFTING	WORKS	ERECTION

Customer
Structure BRIDGE OVER PISCATAQUA RIVER
CONTRACT CG6290-090 DWG-B 504

138:158

FABRICATED STEEL CONSTRUCTION

LIST OF FIELD BOLTS

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT Dia.	BOLT Grip*	BOLT Length	UNIT NO. Bolts	UNIT NO. Pcs.	Connecting
1	505	1	16	325	1-HW	3/4	1 5/8	2 3/4	4	4	H.R. POSTS 505C^R_L TO FRMS 505 A^R_L
2	505	2	40	325	1-HW	3/4	7/8	2	10	4	H.R. POSTS 505B^R_L & 505C^R_L TO FRMS 505A^R_L
3	505	3	8	325	1-HW	3/4	7/8	2	2	4	H.R. 505B^R_L TO H.R. 505C^R_L

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BY F.F.W. SEP 1 1970

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 φ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	Distribution No.
In Charge				
Made	11-22-69	RO		
Checked				
Revisions				

Bolts for Dwgs. 505
Summarized on page SBI

DRAFTING	WORKS	ERECTION
CHICAGO	CHICAGO	

Customer
Structure NEW HAMPSHIRE & MAINE BRIDGE ON I-95 - PISCATAQUA RIVER
CONTRACT CG6290-090 DWG-B 505

138:159

FABRICATED STEEL CONSTRUCTION

LIST OF FIELD BOLTS

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT Dia.	BOLT Grip*	BOLT Length	UNIT NO. Bolts	UNIT NO. Pcs.	Connecting
1	506	1	40	325	1-HW	3/4"φ	1 3/16	2 1/4	20	2	H.R. POSTS TO PLATF. 506A
2		2	8				1 1/16	2 1/4	4	2	STAIR STRGS. 514F TO PLTF. 506A
3		3	8				1 1/16	2 1/4	4	2	do
5		5	322				15/16	2	1	322	HANGERS 506B^R_L, D^R_L & F 506BA^R_L, BB^R_L, DA^R_L & DB^R_L TO DIAPH. 506C
6		6	2				1 3/16	2 1/4	2	1	HNGR. 506F TO PLTF. 513A
7		7	966				1 3/16	2 1/4	3	322	HNGR.S 506B, D & F TO PLATFORMS
8		8	644				7/8	2	2	322	H. RAILINGS. TO HNGRS. 506B, D & F 506BA, BB, DA & DB
9	506	9	774	325	1-HW	3/4"φ	1 5/16	2	6	129	HNGRS. TO 506C

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101 PARK AVE. NEW YORK 17, N.Y
BY F.F.W. SEP 1 1970

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 φ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	Distribution No.
In Charge				
Made	11/22/69	JAO		
Checked				
Revisions				

Bolts for Dwgs. 506
Summarized on page SBI

DRAFTING	WORKS	ERECTION

Customer
Structure PISCATAQUA RIVER BRIDGE
CONTRACT CG-6290-090 DWG-B 506

138:60

FABRICATED STEEL CONSTRUCTION

LIST OF FIELD BOLTS

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT Dia.	BOLT Grip*	BOLT Length	UNIT NO. Bolts	UNIT NO. Pcs.	Connecting
1	507	1	20	325	1-HW	3/4"φ	1 3/16	2 1/4	20	1	H.R. POSTS TO PLTF. 507A
3		3	8				1 1/16	2 1/4	8	1	STAIR STRGS. 514A TO PLTF. 507A
4		4	8				1 7/16	2 1/2	8	1	PLTF. 512A TO PLTF. 507A
5	507	5	4	325	1-HW	3/4"φ	1 1/16	2 1/4	4	1	STAIR STRG. 514C TO PLTF. 507A

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101 PARK AVE. NEW YORK 17, N.Y
BY F.F.W. SEP 1 1970

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 φ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	Distribution No.
In Charge				
Made	11/22/69	JAO		
Checked				
Revisions				

Bolts for Dwgs. 507
Summarized on page SBI

DRAFTING	WORKS	ERECTION

Customer
Structure BRIDGE OVER PISCATAQUA RIVER
CONTRACT CG 6290-090 DWG-B 507

138:61

FABRICATED STEEL CONSTRUCTION

LIST OF FIELD BOLTS

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT Dia.	BOLT Grip*	BOLT Length	UNIT NO. Bolts	UNIT NO. Pcs.	Connecting
1	257	1	156	325	1-HW	1"φ	1 15/16	3 1/4	39	4	SPL ℞ TO CHORD
2			156			1"φ	1 13/16	3	39	4	Do
3			112			7/8"φ	1 5/16	2 1/2	28	4	LAT. BRACING TO GUSS ℞
4			100			7/8"φ	1 5/16	2 1/2	25	4	Do
5		2	56			1"φ	1 15/16	3 1/4	14	4	SPL ℞ TO CHORD
6			112			1"φ	1 13/16	3	28	4	Do.
7			112			7/8"φ	1 5/16	2 1/2	28	4	LAT. BRACING TO GUSS ℞
8			100			7/8"φ	1 5/16	2 1/2	25	4	Do
9		3	192			1"φ	1 3/4	3	48	4	VERT. TO GUSS.
10			128				1 3/4	3	32	4	
11			64				2 3/8	3 1/2	16	4	
12		4	680				2 3/16	3 1/2	85	8	DIAG. TO GUSS
13		5	304				1 11/16	3	38	8	VERT. " "
14		6	80				3 9/16	4 3/4	20	4	CHORD TO CHORD
15			16				2 11/16	4	4	4	
16			104				3 5/16	4 1/2	26	4	
17			224				3 7/16	4 3/4	28	8	
18			220				2 7/16	3 3/4	55	4	
19			112				2 7/16	3 3/4	28	4	
20		7	80				1 1/16	2 3/4	5	16	L TO GUSS
21			32				1 1/16	2 3/4	4	8	
22			48				1 1/16	2 3/4	6	8	

INST. M14 & H14

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BY FFW OCT 9 1970

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 φ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	Distribution No.
In Charge				
Made	2-17-70	KMG		
Checked	5-20	RLP		
Revisions				

Bolts for Dwgs. 257
Summarized on page SB17, 18, 19, 20

DRAFTING	WORKS	ERECTION
CHICAGO	CHICAGO	

Customer MAINE STATE HWY COMM.
Structure PISCATAQUA RIVER BRIDGE
CONTRACT CG 6290-061 DWG-B 257

138:164

LIST OF FIELD BOLTS

41016 (7-68)

WITH

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT Dia.	BOLT Grip*	BOLT Length	UNIT NO. Bolts	UNIT NO. Pcs.	Connecting
1	501	1	4	325	1-HW	3/4	1 5/8	2 3/4	4	1	H.R. POSTS 501F TO FRMS 501C
2	501	2	12	325	1-HW	3/4	7/8	2	12	1	H.R. POSTS 501D & 501F TO FRMS 501C
3	501	3	2	325	1-HW	3/4	7/8	2	2	1	H.R. POST TO TOP & MID RAIL 501C & 501D
H4 M4 8	501	4	448	STB CINCH. ANCH.	1-HW	5/8	13/16	2 1/4	12 16	16 16	H.R. 501A H.R. 501B } TO CONC. PIERS 2-UNITS (PLAIN)

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CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y
BY F.F.W SEP 1 1970

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 φ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	Distribution No.
In Charge				
Made	11-22-69	R.O.		
Checked				
Revisions				

Bolts for Dwgs. 501
Summarized on page SBI

DRAFTING	WORKS	ERECTION
CHICAGO	CHICAGO	

Customer
Structure NEW HAMPSHIRE & MAINE BRIDGE ON I-95 PISCATAQUA RV.
CONTRACT CG6290-090 DWG-B 501

138:155

LIST OF FIELD BOLTS

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT Dia.	BOLT Grip*	BOLT Length	UNIT NO. Bolts	UNIT NO. Pcs.	Connecting
1	502	1	40	325	1-HW	3/4"φ	13/16	2	10	4	H.R. POSTS 502B^R_L TO FRMS. 502A^R_L
H1 M1 2	502	2	8	325	1-HW	3/4"φ	7/8	2	2	4	H.R. 503B & 503C TO H.R. POST 502B^R_L
3	502	3	8	325	1-HW	3/4"φ	3/4	1 3/4	2	4	FRMS. 503A & 503D TO FRM. 502A^R_L

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101 PARK AVE. NEW YORK 17, N.Y
BY F.F.W. SEP 1 1970

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 φ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	Distribution No.
In Charge				
Made	11/22/69	JAO		
Checked				
Revisions				

Bolts for Dwgs. 502
Summarized on page SBI

DRAFTING	WORKS	ERECTION

Customer
Structure BRIDGE OVER PISCATAQUA RIVER
CONTRACT CG6290-090 DWG-B 502

138:156

LIST OF FIELD BOLTS

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT Dia.	BOLT Grip*	BOLT Length	UNIT NO. Bolts	UNIT NO. Pcs.	Connecting
1	503	1	24	325	1-HW	3/4"φ	13/16	2	6	4	H.R. POSTS 503B & 503C TO FRMS. 503A & D
H1 M1 2	503	2	4	325	1-HW	3/4"φ	1 1/16	2 1/4	2	2	H.R. POSTS 503B TO FRM. 503A
3	503	3	4	325	1-HW	3/4"φ	3/4	1 3/4	2	2	FRM. 503D TO FRM. 503A
4	503	4	4	325	1-HW	3/4"φ	7/8	2	2	2	H.R. 503C TO H.R. POSTS 503B

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101 PARK AVE. NEW YORK 17, N.Y
BY F.F.W. SEP 1 1970

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 φ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	Distribution No.
In Charge				
Made	11/22/69	JAO		
Checked				
Revisions				

Bolts for Dwgs. 503
Summarized on page SBI

DRAFTING	WORKS	ERECTION

Customer
Structure BRIDGE OVER PISCATAQUA RIVER
CONTRACT CG 6290-090 DWG-B 503

138:157

BETHLEHEM STEEL

FABRICATED STEEL CONSTRUCTION

LIST OF FIELD BOLTS

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.	Connecting
						Dia.	Grip*	Length	Bolts / Pcs.	
1	512	1	12	325	1-HW	3/4"ϕ	1 3/16	2 1/4	12 / 1	H.R. POSTS TO PLTF. 512A
2	512	2	4	325	1-HW	3/4"ϕ	1 1/16	2 1/4	4 / 1	STAIR STRG. TO PLTF. 512A
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APPROVED:-
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CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N..Y
BY F.F.W. SEP 1 1970

138:66

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ϕ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge				
Made	11/22/69	JAO		
Checked				
Revisions				

Bolts for Dwgs. 512
Summarized on page SBI

DRAFTING	WORKS	ERECTION

Customer
Structure BRIDGE OVER PISCATAQUA RIVER
CONTRACT CG 6290-090 DWG.-B 512

BETHLEHEM STEEL

FABRICATED STEEL CONSTRUCTION

LIST OF FIELD BOLTS

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.	Connecting
						Dia.	Grip*	Length	Bolts / Pcs.	
1	513	1	20	325	1-HW	3/4"ϕ	1 3/16	2 1/4	20 / 1	H.R. POSTS TO PLTF. 513A
2	513	2	4	325	1-HW	3/4"ϕ	1 1/16	2 1/4	4 / 1	STAIR STRGS. TO PLTF. 513A
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APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N..Y
BY F.F.W. SEP 1 1970

138:67

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ϕ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge				
Made	11/22/69	JAO		
Checked				
Revisions				

Bolts for Dwgs. 513
Summarized on page SBI

DRAFTING	WORKS	ERECTION

Customer
Structure BRIDGE OVER PISCATAQUA RIVER
CONTRACT CG 6290-090 DWG.-B 513

BETHLEHEM STEEL

FABRICATED STEEL CONSTRUCTION

LIST OF FIELD BOLTS

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.	Connecting
						Dia.	Grip*	Length	Bolts / Pcs.	
1	514	3	54	325	1-HW	3/4"ϕ	13/16	2	2 / 27	TYP. H.R^S. TO POSTS ON 514B$^{R}_{L}$
2	514	5	64	325	1-HW	3/4"ϕ	13/16	2	2 / 32	TYP. H.R^S. TO POSTS ON 514D$^{R}_{L}$
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APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N..Y
BY F.F.W. SEP 1 1970

138:68

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ϕ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge				
Made	11/22/69	JAO		
Checked				
Revisions				

Bolts for Dwgs. 514
Summarized on page SBI

DRAFTING	WORKS	ERECTION

Customer
Structure BRIDGE OVER PISCATAQUA RIVER
CONTRACT CG 6290-090 DWG.-B 514

BETHLEHEM STEEL

FABRICATED STEEL CONSTRUCTION

LIST OF FIELD BOLTS

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.	Connecting
						Dia.	Grip*	Length	Bolts / Pcs.	
1	516	2	64	325	1-HW	3/4"ϕ	7/8	2	2 / 32	H.R. 516B$^{R}_{L}$ TO 516A$^{R}_{L}$
2	516	3	4	325	1-HW	3/4"ϕ	7/8	2	2 / 2	H.R. 516B$^{R}_{L}$ TO 516C
3	516	4	4	325	1-HW	3/4"ϕ	7/8	2	2 / 2	H.R. 516B$^{R}_{L}$ TO 516D
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APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N..Y
BY F.F.W. SEP 1 1970

138:69

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ϕ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge				
Made	2/10/70	JAO		
Checked				
Revisions				

Bolts for Dwgs. 516
Summarized on page SBI

DRAFTING	WORKS	ERECTION
CHICAGO	CHICAGO	

Customer
Structure BRIDGE OVER PISCATAQUA RIVER
CONTRACT CG6290-090 DWG.-B 516

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.	Connecting
						Dia.	Grip*	Length	Bolts / Pcs.	
1	508	1	4	325	1-HW	3/4	1 5/8	2 3/4	4 / 1	H.R. POSTS 508B TO FRMS 508A
2	508	2	8	325	1-HW	3/4	7/8	2	2 / 4	HAND RAILS 508K TO H.R. 508C, 508D 508E, 508H
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BY F.F.W. SEP 1 1970

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ϕ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge				
Made	11-22-69	RO		
Checked				
Revisions				

Bolts for Dwgs. 508
Summarized on page SBI

DRAFTING	WORKS	ERECTION
CHICAGO	CHICAGO	

Customer
Structure NEW HAMPSHIRE & MAINE BRIDGE ON I95 - PISCATAQUA RIVER
CONTRACT CG 6290-090 DWG.-B 508

138:62

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.	Connecting
						Dia.	Grip*	Length	Bolts / Pcs.	
1	509	1	20	325	1-HW	3/4"ϕ	1 3/16	2 1/4	20 / 1	H.R. POSTS TO PLTF. 509A
2	509	2	8	325	1-HW	3/4"ϕ	1 1/16	2 1/4	8 / 1	STAIR STRGS. TO PLTF. 509A
3										
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BY F.F.W. SEP 1 1970

138:63

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ϕ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge				
Made	11/22/69	JAO		
Checked				
Revisions				

Bolts for Dwgs. 509
Summarized on page SBI

DRAFTING	WORKS	ERECTION

Customer
Structure BRIDGE OVER PISCATAQUA RIVER
CONTRACT CG 6290-090 DWG.-B 509

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.	Connecting
						Dia.	Grip*	Length	Bolts / Pcs.	
1										
2	510	2	56	325	1-HW	3/4"ϕ	1 3/16	2 1/4	28 / 2	H.R. POSTS TO PLTF. 510A
3	510	3	16	325	1-HW	3/4"ϕ	1 1/4	2 1/4	8 / 2	STAIR STRGS. TO PLTF. 510A
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BY F.F.W. SEP 1 1970

138:64

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ϕ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge				
Made	11/22/69	JAO		
Checked				
Revisions				

Bolts for Dwgs. 510
Summarized on page SBI

DRAFTING	WORKS	ERECTION

Customer
Structure BRIDGE OVER PISCATAQUA RIVER
CONTRACT CG 6290-090 DWG.-B 510

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.	Connecting
						Dia.	Grip*	Length	Bolts / Pcs.	
1										
2	511	2	52	325	1-HW	3/4"ϕ	1 3/16	2 1/4	26 / 2	H.R. POSTS TO PLTF. 511A
3	511	3	16	325	1-HW	3/4"ϕ	1 1/4	2 1/4	8 / 2	STAIR STRGS. TO PLTF. 511A
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138:65

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ϕ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge				
Made	11/22/69	JAO		
Checked				
Revisions				

Bolts for Dwgs. 511
Summarized on page SBI

DRAFTING	WORKS	ERECTION

Customer
Structure BRIDGE OVER PISCATAQUA RIVER
CONTRACT CG 6290-090 DWG.-B 511

FABRICATED STEEL CONSTRUCTION
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	*Grip	Length	Bolts	Pcs.	
1	521	2	24	325	1-HW	3/4"ϕ	1 1/16	2 1/4	1	24	HNGRS. 521B^R_L, C^R_L, D^R_L, F^R_L & H^R_L TO PLATF. FRMS.
2		3	48			3/4"ϕ	1 3/16	2 1/4	2	24	do
3		4.	48			3/4"ϕ	7/8	2	2	24	H.R. TO HNGRS. ABOVE ↑
4		5	72			7/8"ϕ	15/16	2 1/4	3	24	HNGRS. ABOVE L^S TO BRKT.
5		6	2			3/4"ϕ	13/16	1 3/4	1	2	H.R. 520F TO 521K
6	521	7	2	325	1-HW	3/4"ϕ	13/16	1 3/4	2	1	H.R. 521A TO 521M.
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138:74

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ϕ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	Distribution No.
In Charge				
Made	2/10/70	JRO		
Checked		KT		
Revisions				

Bolts for Dwgs. 521
Summarized on page SB1

DRAFTING	WORKS	ERECTION
CHICAGO	CHICAGO	

Customer
Structure BRIDGE OVER PISCATAQUA RIVER
CONTRACT CG 6290-090 DWG-B 521

FABRICATED STEEL CONSTRUCTION
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	*Grip	Length	Bolts	Pcs.	
1	522	1	64	325	1-HW	3/4"ϕ	1 1/16	2	16	4	LADDERS 522A CAGE TO BKTS.
2	↓	2	64	↓	↓	3/4"ϕ	1 9/16	2 1/2	16	4	do
3		3	8			3/4"ϕ	1 1/16	2	2	4	do
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BY F.F.W. SEP 1 1970

138:75

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ϕ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	Distribution No.
In Charge				
Made	2/10/70	JRO		
Checked		KT		
Revisions				

Bolts for Dwgs. 522
Summarized on page SB1

DRAFTING	WORKS	ERECTION
CHICAGO	CHICAGO	

Customer
Structure BRIDGE OVER PISCATAQUA RIVER
CONTRACT CG 6290-090 DWG-B 522

FABRICATED STEEL CONSTRUCTION
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	*Grip	Length	Bolts	Pcs.	
1	523	1	2	325	1-HW	3/4"ϕ	7/8	2	2	1	H.R. 526A TO 523B
2											
3											
4											
5											
6	523	4	24	MB	1-W	3/8"ϕ	11/16	1 1/4	6	4	TRDS. 523D & 523F & 523H TO STRG. 523C^R_L
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138:76

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ϕ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	Distribution No.
In Charge				
Made	2/10/70	JRO		
Checked		KT		
Revisions				

Bolts for Dwgs. 523
Summarized on page SB1

DRAFTING	WORKS	ERECTION
CHICAGO	CHICAGO	

Customer
Structure BRIDGE OVER PISCATAQUA RIVER
CONTRACT CG 6290-090 DWG-B 523

FABRICATED STEEL CONSTRUCTION
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	*Grip	Length	Bolts	Pcs.	
1	524	1	4	325	1-HW	3/4"ϕ	13/16	1 3/4	2	2	HR. 524B & C TO 524A^R_L
2											
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101 PARK AVE. NEW YORK 17, N.Y
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138:77

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ϕ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	Distribution No.
In Charge				
Made	2/10/70	JRO		
Checked		KT		
Revisions				

Bolts for Dwgs. 524
Summarized on page SB1

DRAFTING	WORKS	ERECTION
CHICAGO	CHICAGO	

Customer
Structure BRIDGE OVER PISCATAQUA RIVER
CONTRACT CG 6290-090 DWG-B 524

LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	*Grip	Length	Bolts	Pcs.	
1	517	1	12	325	1-HW	3/4"ϕ	7/8	2	2	6	H.R 517A, 517B, 517C, 517D, 517F, 517H TO H.R 508K
2	"	2	2	"	"	3/4"ϕ	7/8	2	2	1	H.R 517K TO H.R 524A^L
3	"	3	2	"	"	3/4"ϕ	7/8	2	2	1	H.R. 517M TO H.R 524A^R
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138:70

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ϕ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	Distribution No.
In Charge				
Made	12-6-69	ESO		
Checked		KT		
Revisions				

Bolts for Dwgs. 517
Summarized on page SB1

DRAFTING	WORKS	ERECTION

Customer
Structure BRIDGE OVER PISCATAQUA RIVER
CONTRACT CG 6290-090 DWG-B 517

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	*Grip	Length	Bolts	Pcs.	
1	518	1	8	325	1-HW	3/4"ϕ	1 1/4	2 1/4	2	4	H.R. 535B & 536B TO LADDER 518B
2	518	2	8	325	1-HW	3/4"ϕ	1	2	2	4	H.R. 533C & CA TO do
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BY F.F.W. SEP 1 1970

138:71

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ϕ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	Distribution No.
In Charge				
Made	2/10/70	JRO		
Checked		KT		
Revisions				

Bolts for Dwgs. 518
Summarized on page SB1

DRAFTING	WORKS	ERECTION
CHICAGO	CHICAGO	

Customer
Structure BRIDGE OVER PISCATAQUA RIVER
CONTRACT CG 6290-090 DWG-B 518

LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	*Grip	Length	Bolts	Pcs.	
1	519	1	24	325	1-HW	3/4"ϕ	1 1/16	2	12	2	LADDER 519B TO BKT. ^R_L
2	519	2	24	325	1-HW	3/4"ϕ	1 9/16	2 1/2	12	2	LADDER 519C TO BKT. ^R_L
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101 PARK AVE. NEW YORK 17, N.Y
BY F.F.W. SEP 1 1970

138:72

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ϕ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	Distribution No.
In Charge				
Made	2/10/70	JRO		
Checked		KT		
Revisions				

Bolts for Dwgs. 519
Summarized on page SB1

DRAFTING	WORKS	ERECTION
CHICAGO	CHICAGO	

Customer
Structure BRIDGE OVER PISCATAQUA RIVER
CONTRACT CG 6290-090 DWG-B 519

LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	*Grip	Length	Bolts	Pcs.	
1	520	1	8	325	1-HW	3/4"ϕ	13/16	1 3/4	2	4	H.R.^{S} TO H.R. 520B^R_L
2	do	2	8	do	do	3/4"ϕ	13/16	1 3/4	2	4	H.R. 520D^R_L TO H.R. 520B^R_L
3	do	4	4	do	do	3/4"ϕ	7/8	2	1	4	H.R. TOP RAIL TO 520D^R_L
4	do	5	4	do	do	3/4"ϕ	7/8	2	1	4	H.R. MID RAIL TO 520D^R_L
5	do	7	2	do	do	3/4"ϕ	3/4	1 3/4	2	1	H.R. TO 520F
6											
7											
8											
9	520	3	12	MB	1-W	3/8"ϕ	11/16	1 1/4	2	6	STAIR TRDS. 520H TO STRGS. 520A^R_L
10	520	6	12	MB	1-W	3/8"ϕ	11/16	1 1/4	2	6	do 520K TO STRGS. 520C^R_L
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138:73

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 ϕ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	Distribution No.
In Charge				
Made	2/10/70	JRO		
Checked		KT		
Revisions				

Bolts for Dwgs. 520
Summarized on page SB1

DRAFTING	WORKS	ERECTION
CHICAGO	CHICAGO	

Customer
Structure BRIDGE OVER PISCATAQUA RIVER
CONTRACT CG 6290-090 DWG-B 520

FABRICATED STEEL CONSTRUCTION

LIST OF FIELD BOLTS

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip*	Length	Bolts	Pcs.	
1	530	1	48	325	1-HW	3/4"φ	7/8	2	24	2	H.R. 530B, C & D TO STRGS. 530A.
2											
3											
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138:82

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 φ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge				
Made	2/11/70	JAO		
Checked		K		
Revisions				

Bolts for Dwgs. 530
Summarized on page SBI

DRAFTING	WORKS	ERECTION
CHICAGO	CHICAGO	

Customer
Structure BRIDGE OVER PISCATAQUA RIVER
CONTRACT CG6290-090 DWG.-B 530

FABRICATED STEEL CONSTRUCTION

LIST OF FIELD BOLTS

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip*	Length	Bolts	Pcs.	
1	533	1	24	325	2-BW	3/4"φ	1 3/8	2 1/2	2	12	STRGS. 527B TO BRKTS. 533A & B R/L
2	do.	2	8	do.	1-HW	3/4"φ	7/8	2	2	4	H.R. TO 533C & 533CA
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138:83

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 φ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge				
Made	2/11/70	JAO		
Checked		K		
Revisions				

Bolts for Dwgs. 533
Summarized on page SBI

DRAFTING	WORKS	ERECTION
CHICAGO	CHICAGO	

Customer
Structure BRIDGE OVER PISCATAQUA RIVER
CONTRACT CG6290-090 DWG.-B 533

FABRICATED STEEL CONSTRUCTION

LIST OF FIELD BOLTS

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip*	Length	Bolts	Pcs.	
1	534	1	20	325	1-HW	3/4"φ	7/8	2	10	2	
2											
3											
4											
5											
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138:84

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 φ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge				
Made	2/11/70	JAO		
Checked		K		
Revisions				

Bolts for Dwgs. 534
Summarized on page SBI

DRAFTING	WORKS	ERECTION
CHICAGO	CHICAGO	

Customer
Structure BRIDGE OVER PISCATAQUA RIVER
CONTRACT CG6290-090 DWG.-B 534

FABRICATED STEEL CONSTRUCTION

LIST OF FIELD BOLTS

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip*	Length	Bolts	Pcs.	
1	535	1	2	325	1-HW	3/4"φ	15/16	2	2	1	ROOF 535A TO SUPP. 535B
2	↓	2	2	↓	↓	3/4"φ	7/8	2	2	1	H.R. TO 535B
3	↓	3	8	↓	↓	3/4"φ	7/8	2	4	2	H.R. TO 535C
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* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 φ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge				
Made	2/11/70	JAO		
Checked		K		
Revisions				

Bolts for Dwgs. 535
Summarized on page SBI

DRAFTING	WORKS	ERECTION
CHICAGO	CHICAGO	

Customer
Structure BRIDGE OVER PISCATAQUA RIVER
CONTRACT CG6290-090 DWG.-B 535

138:85

LIST OF FIELD BOLTS

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip*	Length	Bolts	Pcs.	
1	525	1	28	325	1HW	3/4	1 1/16	2 1/4	14	2	LADDER BAR TO CONN. ℄
2	"	2	28	325	1HW	3/4	1 9/16	2 3/4	14	2	LADDER BAR TO CONN. ℄ TO CAGE BAR
3	"	3	2	325	1HW	3/4	1 1/16	2 1/4	2	1	CAGE BAR TO LADDER BAR
4	"	4	4	325	1HW	3/4	1 3/16	2 1/4	4	1	540K & 540M TO 525A
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138:78

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 φ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge				
Made	12/10/69	RO		
Checked		K		
Revisions				

Bolts for Dwgs. 525
Summarized on page SBI

DRAFTING	WORKS	ERECTION

Customer
Structure BRIDGE OVER PISCATAQUA RIVER
CONTRACT CG6290-090 DWG.-B 525

LIST OF FIELD BOLTS

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip*	Length	Bolts	Pcs.	
1	526	1	4	325	1-HW	3/4"φ	13/16	1 3/4	2	2	H.R. 526C & D TO 526A & B
2											
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138:79

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 φ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge				
Made	2/11/70	JAO		
Checked		K		
Revisions				

Bolts for Dwgs. 526
Summarized on page SBI

DRAFTING	WORKS	ERECTION
CHICAGO	CHICAGO	

Customer
Structure BRIDGE OVER PISCATAQUA RIVER
CONTRACT CG6290-090. DWG.-B 526

FABRICATED STEEL CONSTRUCTION

LIST OF FIELD BOLTS

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip*	Length	Bolts	Pcs.	
1	527	1	64	325	1-HW	3/4"φ	7/8	2	32	2	H.R. 527C & D TO STRGS. 527B
2	do	2	4	do	do	3/4"φ	7/8	2	2	2	H.R. 516D TO 527C
3	do	3	4	do	1-BW	3/4"φ	1	2	2	2	H.R. 530D TO STRG. 527B
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138:80

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 φ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge				
Made	2/11/70	JAO		
Checked		K		
Revisions				

Bolts for Dwgs. 527
Summarized on page SBI

DRAFTING	WORKS	ERECTION
CHICAGO	CHICAGO	

Customer
Structure BRIDGE OVER PISCATAQUA RIVER
CONTRACT CG6290-090 DWG.-B 527

41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip*	Length	Bolts	Pcs.	
1	528	1	8	325	1-HW	3/4"φ	1 3/16	2 1/4	8	1	H.R. POSTS TO PLTF. 528A.
2	do	3	8	do	do	3/4"φ	1 1/16	2 1/4	8	1	STRGS. 523C R/L & 520C R/L TO 528A
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138:81

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 φ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	No.
In Charge				
Made	2/11/70	JAO		
Checked		K		
Revisions				

Bolts for Dwgs. 528
Summarized on page SBI

DRAFTING	WORKS	ERECTION
CHICAGO	CHICAGO	

Customer
Structure BRIDGE OVER PISCATAQUA RIVER
CONTRACT CG6290-090 DWG.-B 528

FABRICATED STEEL CONSTRUCTION
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip*	Length	Bolts	Pcs.	
1	540	1	16	325	1HW	3/4"φ	15/16	2	4	4	HANGERS TO STAIR STRINGERS
2	540	2	20	325	2BW	3/4"φ	1 3/8	2 1/2	2	10	539A TO 540C
3	540	3	4	325	2BW	3/4"φ	1 3/8	2 1/2	2	2	539A TO 540D
4	540	4	20	325	1HW	3/4	1 1/8	2 1/4	10	2	537A & 539A TO 540D
5	540	5	4	325	1HW	3/4	1 3/16	2 1/4	2	2	540K & 540M TO 540FA $^{R}_{L}$
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* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 φ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	Distribution No.
In Charge				
Made	1-20-70	RSO		
Checked		K		
Revisions				

Bolts for Dwgs. 540
Summarized on page SB1

DRAFTING	WORKS	ERECTION
CHICAGO	CHICAGO	

Customer
Structure BRIDGE OVER PISCATAQUA RIVER
CONTRACT CG 6290-090 DWG-B 540

138:90

FABRICATED STEEL CONSTRUCTION
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip*	Length	Bolts	Pcs.	
1	541	1	2	325	1-HW	3/4"φ	7/8	2	2	1	H.R. TO 541A
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* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 φ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	Distribution No.
In Charge				
Made	2/11/70	JAO		
Checked		K		
Revisions				

Bolts for Dwgs. 541
Summarized on page SB1

DRAFTING	WORKS	ERECTION
CHICAGO	CHICAGO	

Customer
Structure BRIDGE OVER PISCATAQUA RIVER
CONTRACT CG 6290-090 DWG-B 541

138:91

FABRICATED STEEL CONSTRUCTION
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip*	Length	Bolts	Pcs.	
1	536	1	16	325	1-HW	3/4"φ	13/16	1 3/4	2	8	H.R. TO 536A & 536D $^{R}_{L}$
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* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 φ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	Distribution No.
In Charge				
Made	2/11/70	JAO		
Checked		K		
Revisions				

Bolts for Dwgs. 536
Summarized on page SB1

DRAFTING	WORKS	ERECTION
CHICAGO	CHICAGO	

Customer
Structure BRIDGE OVER PISCATAQUA RIVER
CONTRACT CG 6290-090 DWG-B 536

138:86

FABRICATED STEEL CONSTRUCTION
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip*	Length	Bolts	Pcs.	
1	537	1	8	325	1-HW	3/4"φ	7/8	2	4	2	H.R. TO 537B
2	do.	2	64	do	do	3/4"φ	7/8	2	32	2	H.R. POSTS TO 537A
3	do	3	4	do	1-BW	3/4"φ	1	2	2	2	H.R. TO STRG. FLG. 537A
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* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 φ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	Distribution No.
In Charge				
Made	2/11/70	JAO		
Checked		K		
Revisions				

Bolts for Dwgs. 537
Summarized on page SB1

DRAFTING	WORKS	ERECTION
CHICAGO	CHICAGO	

Customer
Structure BRIDGE OVER PISCATAQUA RIVER
CONTRACT CG 6290-090 DWG-B 537

138:87

FABRICATED STEEL CONSTRUCTION
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip*	Length	Bolts	Pcs.	
1	538	1	12	325	1-HW	3/4"φ	7/8	2	6	2	H.R. TO 538C&D
2	↓	2	24	↓	↓	3/4"φ	1 1/2	2 1/2	12	2	H.R. POSTS TO STRG. PLTF. 538A
3	↓	3	44	↓	↓	3/4"φ	7/8	2	22	2	do
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23											
24											
25											
26											
27											
28											
29											
30											
31											
32											

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y.
BY F.F.W. SEP 1 1970

* NOTE: Grip includes 3/16" for each flat washer, 5/16" for bevelled washer.

325 =A-325 High Strength Bolt
490 =A-490 High Strength Bolt
MB =A-307 Bolt
STB=Special Type Bolt
W =Std. Flat Washer for A-307 (2-1/8 φ)
HW =Hard Flat Washer for A-325, A-490
HCW=Hard Clipped Washer
BW =Bevelled Washer, Slope 2 in 12
STW=Special Type Washer

	Date	Initial	Distribution To	Distribution No.
In Charge				
Made	2/11/70	JAO		
Checked		K		
Revisions				

Bolts for Dwgs. 538
Summarized on page SB1

DRAFTING	WORKS	ERECTION
CHICAGO	CHICAGO	

Customer
Structure BRIDGE OVER PISCATAQUA RIVER
CONTRACT CG 6290-090 DWG-B 538

138:88

FABRICATED STEEL CONSTRUCTION
LIST OF FIELD BOLTS
41016 (7-68)

Line	Drawing	Point	Total No. of Bolts	Type of Bolt	Washer	BOLT			UNIT NO.		Connecting
						Dia.	Grip*	Length	Bolts	Pcs.	
1	539	1	68	325	1-HW	3/4"φ	7/8	2	34	2	H.R. 539B&C TO STAIRS 539A
2	↓	2	8	↓	↓	3/4"φ	13/16	1 3/4	4	2	STAIR STRG. 537A TO 539A
3	↓	3	14	↓	↓	3/4"φ	13/16	1 3/4	7	2	do do
4	↓	4	4	↓	1-BW	3/4"φ	1 5/16	2 1/4	2	2	do do
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
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32											

APPROVED:-
HARDESTY & HANOVER
CONSULTING ENGINEERS
101 PARK AVE. NEW YORK 17, N.Y
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325 =A-325 High Strength Bolt
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	Date	Initial	Distribution To	Distribution No.
In Charge				
Made	2/11/70	JAO		
Checked		K		
Revisions				

Bolts for Dwgs. 539
Summarized on page SB1

DRAFTING	WORKS	ERECTION
CHICAGO	CHICAGO	

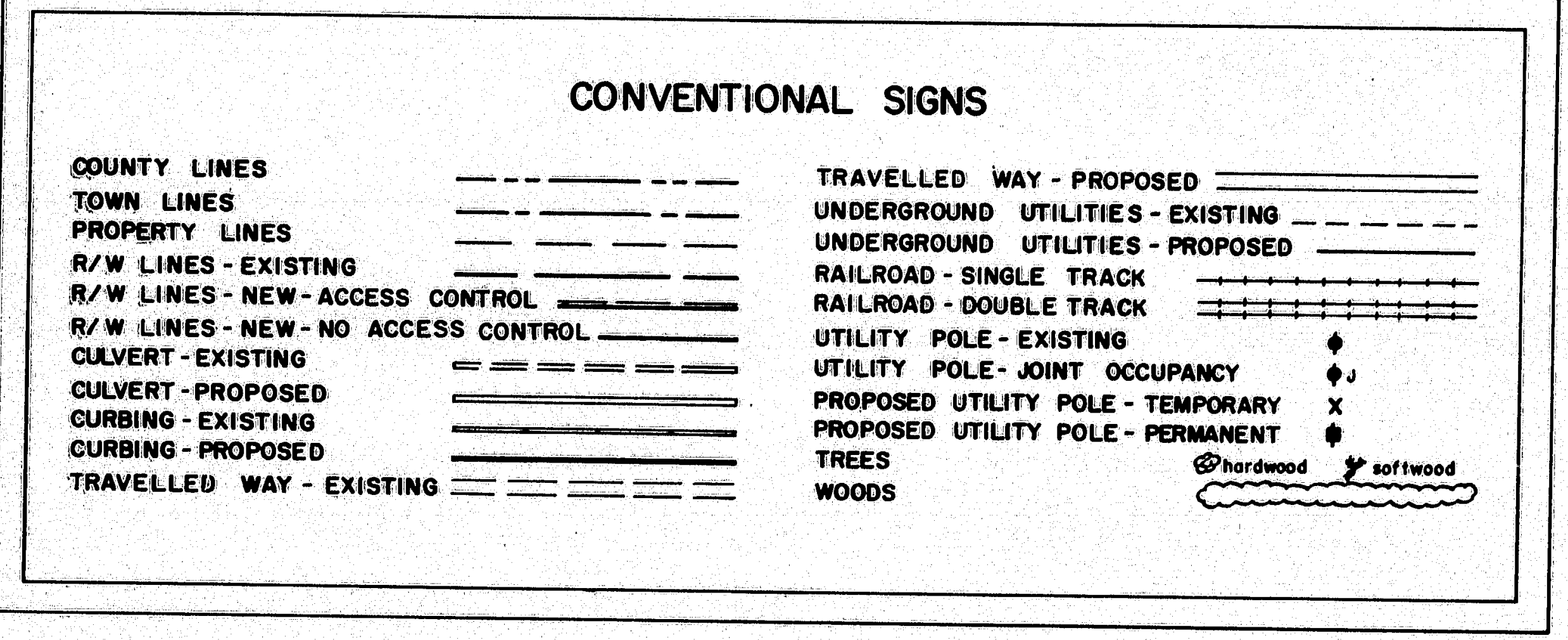
Customer
Structure BRIDGE OVER PISCATAQUA RIVER
CONTRACT CG 6290-090 DWG-B 539

138:89

CC31

F. H. W. A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	F-06-1(5)/F-06-1(6)	1	51

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

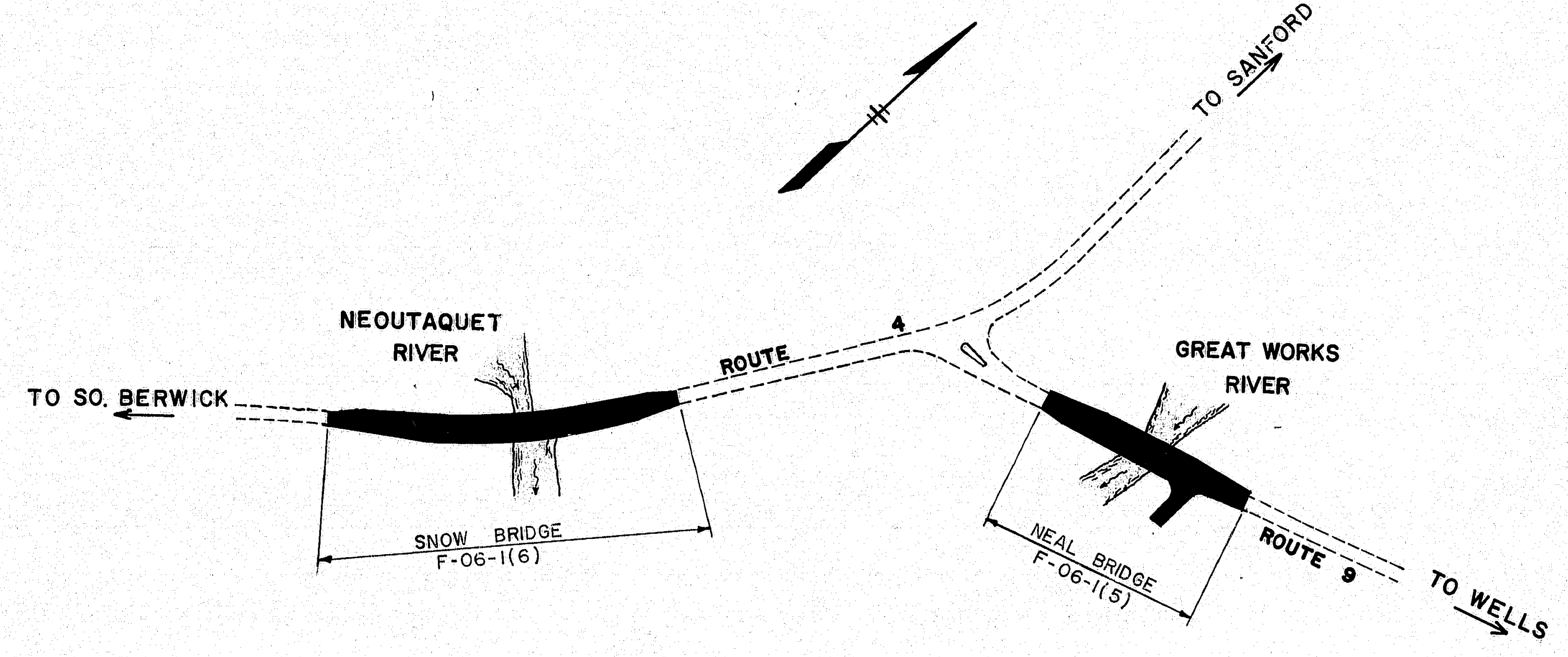


BUREAU OF HIGHWAYS
PLANS
NORTH BERWICK
YORK COUNTY

FEDERAL AID PRIMARY
PROJECT NO. F-06-1(6)
TOTAL LENGTH .056 MILES
AND
FEDERAL AID PRIMARY
PROJECT NO. F-06-1(5)
TOTAL LENGTH .028 MILES
PROJECTS COMPLETED 1974

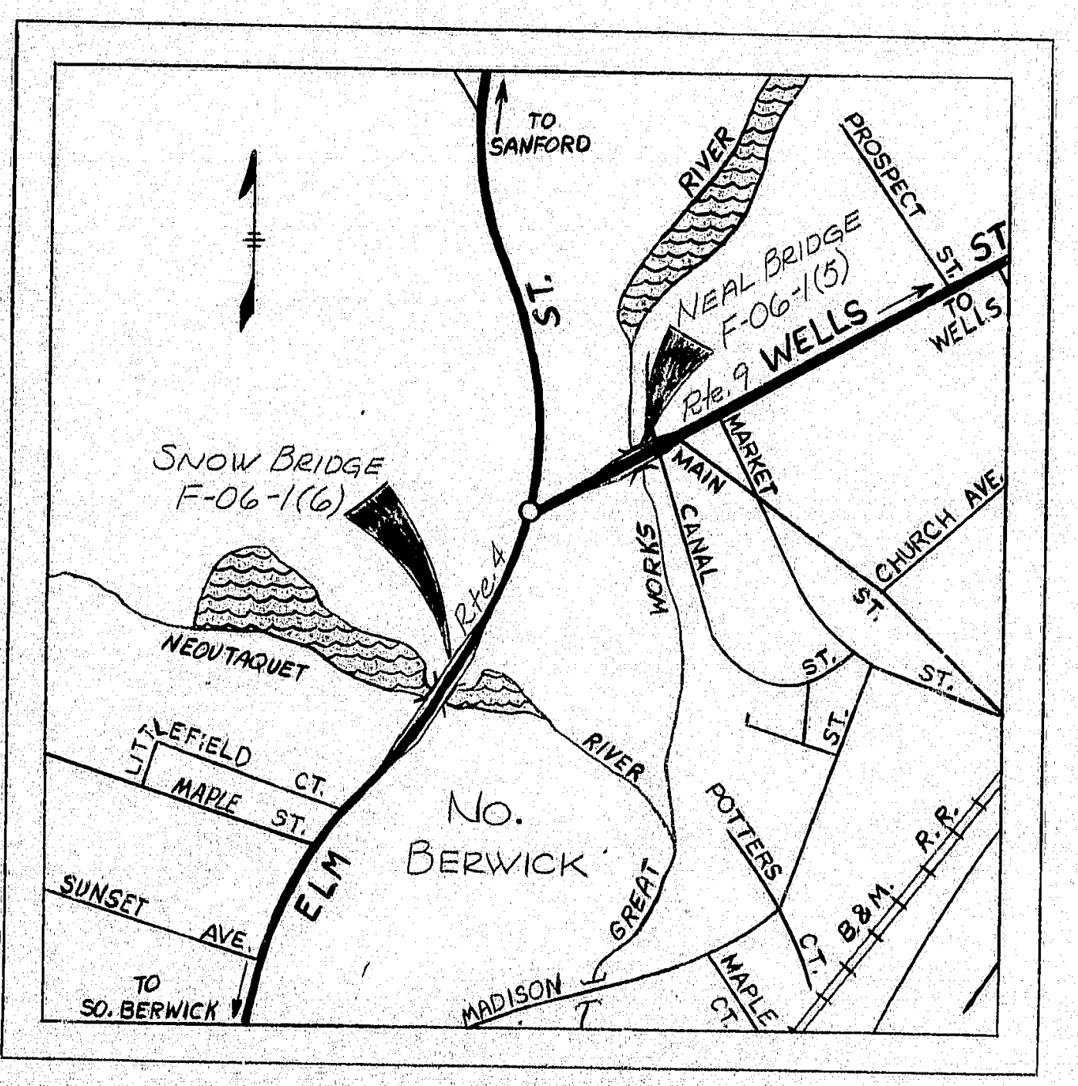
INDEX OF SHEETS

SHEET		CONTENTS
1.		TITLE SHEET 1A. HEAVY RIPRAP
2.		COMBINED ESTIMATED QUANTITIES - F-06-1(6) & F-06-1(5)
3.		TYPICAL SECTIONS
4. THRU 18.		PLANS OF F-06-1(5) (NEAL BRIDGE)
	4.	GENERAL PLAN
	5.	ESTIMATED QUANTITIES
	6.	SURVEY
	7.	RIGHT OF WAY
	8.	SPECIAL DETOUR
	9.-15.	STRUCTURAL PLANS
	16.	PLAN
	17.-18.	CROSS SECTIONS
19. THRU 42.		PLANS OF F-06-1(6) (SNOW BRIDGE)
	19.-20.	GENERAL PLAN
	21.	ESTIMATED QUANTITIES
	22.	SURVEY
	23.	RIGHT OF WAY
	24.	SPECIAL DETOUR
	25.	SOILS
	26.-33.	STRUCTURAL PLANS
	34.	PLAN
	35.-42.	CROSS SECTIONS
43. THRU 51.		STANDARD DETAILS FOR F-06-1(6) & F-06-1(5)
	43.	AUGUST, 1969 ①
	44.	AUGUST, 1969 ②
	45.	AUGUST, 1969 ③
	46.	AUGUST, 1969 ⑪
	47.	AUGUST, 1969 ⑫
	48.	BD-104-71 DECEMBER, 1971
	49.	BD-101-70 JANUARY, 1970
	50.	BD-106-69 JANUARY, 1969
	51.	BD-112-70 SEPTEMBER, 1970



LAYOUT PLAN

-100 0 100 200 300
FEET



A PORTION OF YORK COUNTY

MILES 0.1 0 0.1 0.2

NOTE:

All Work Contemplated Under This Contract To Be Governed By And In Conformity With The Specifications Adopted June 1968 Except As Modified On These Plans And In The Special Provisions And In Any Other Supplemental Specifications.

SNOW BRIDGE
TRAFFIC DATA

A.D.T.	1972	5100
A.D.T.	1992	7650
D.H.V.		765
T. (%)		8%
D. (%)		60%
V.		30 MPH
P.S.D. (%)		
18 KIPS		123

NEAL BRIDGE
TRAFFIC DATA

A.D.T.	1972	4680
A.D.T.	1992	6550
D.H.V.		655
T. (%)		8%
D. (%)		60%
V.		30 MPH
P.S.D. (%)		
18 KIPS		109

SYLVESTER L. POOR
187

APPROVED:

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

	DATE
David H. Stevens COMMISSIONER	OCT. 26, 1972
Richard A. Luettich BUREAU DIRECTOR	OCT. 26, 1972
Sylvester L. Poor CHIEF ENGINEER	OCT. 26, 1972

UNITED STATES
DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
REGION 1

APPROVED:

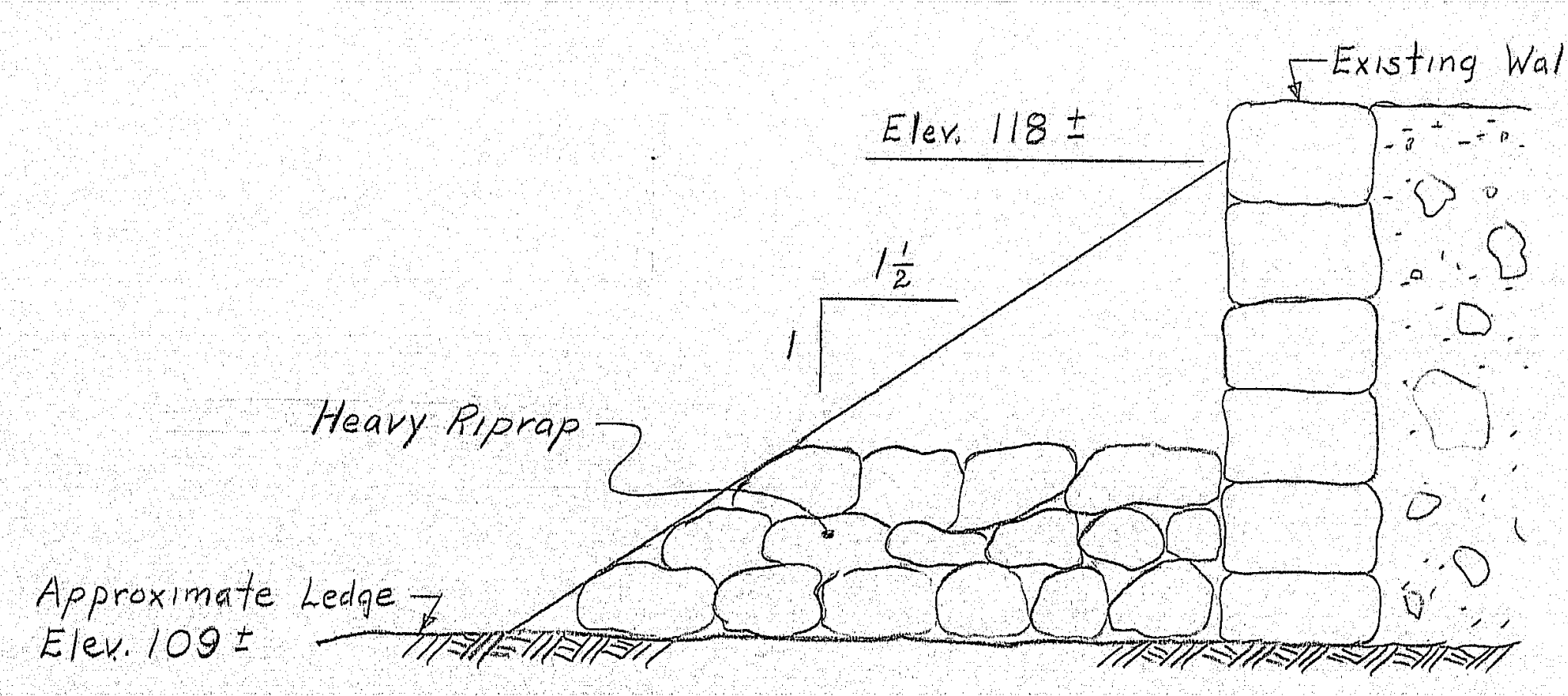
DIVISION ENGINEER   DATE

JANUARY 1968

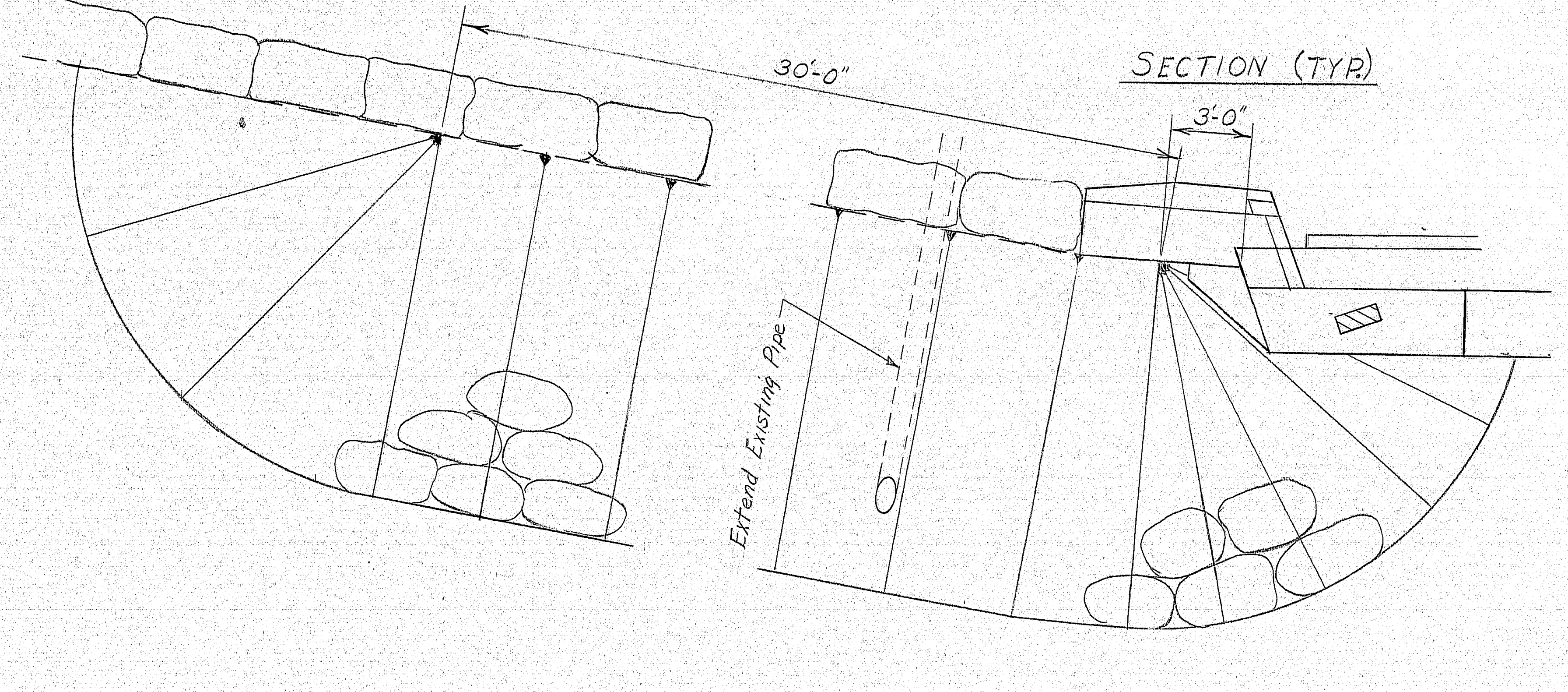
138:92

203-1 2080

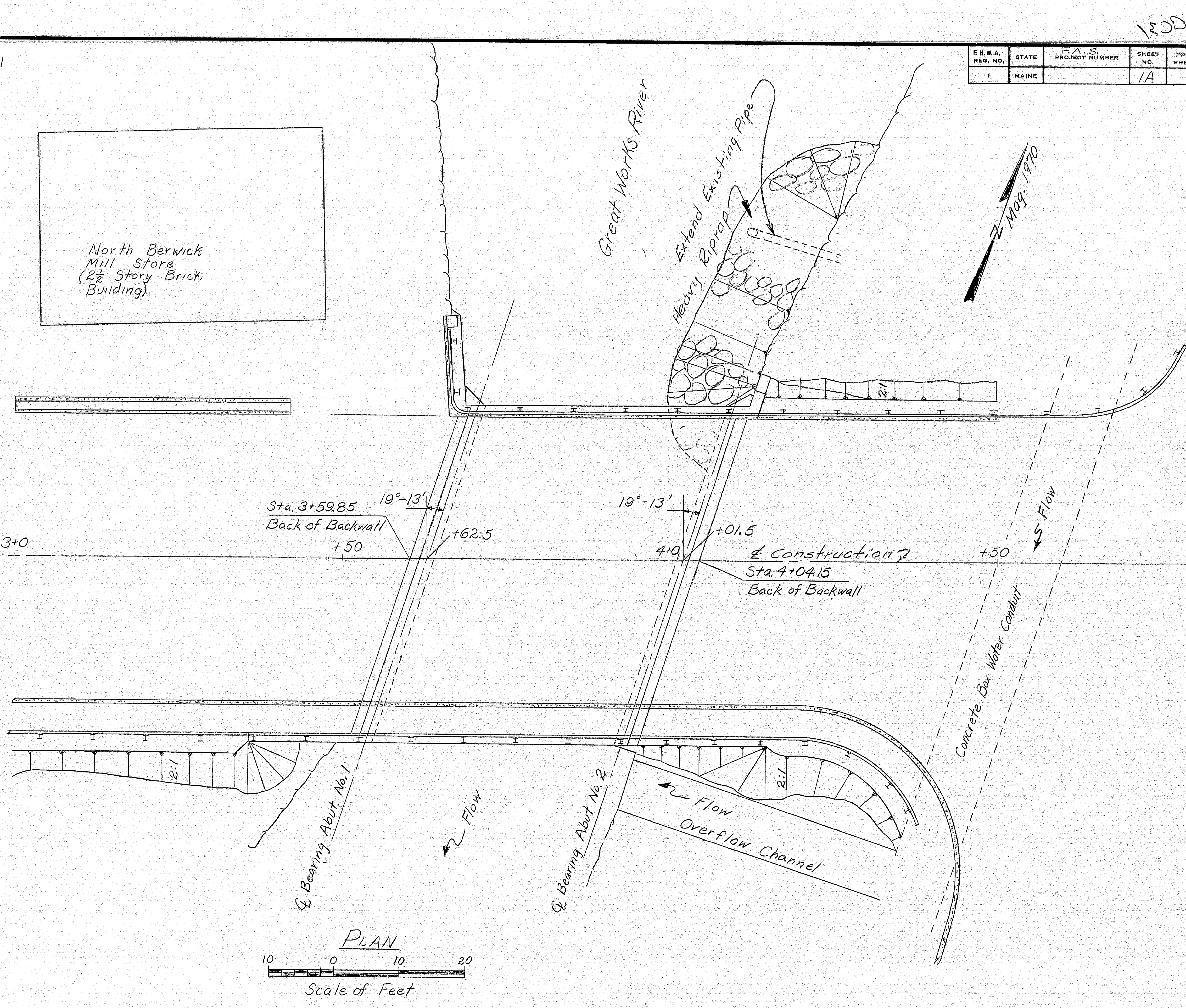
F.H.W.A. REG. NO.	STATE	F.A.S. PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE		1A	



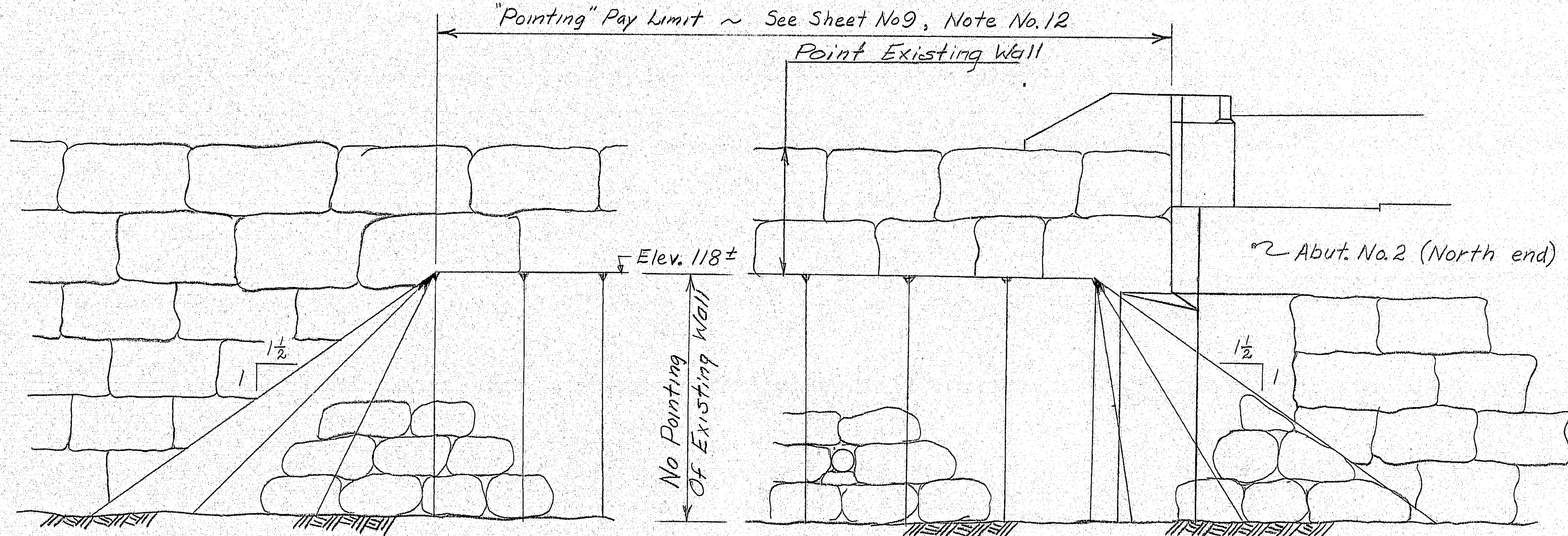
SECTION (TYP.)



PLAN
(Heavy Riprap)

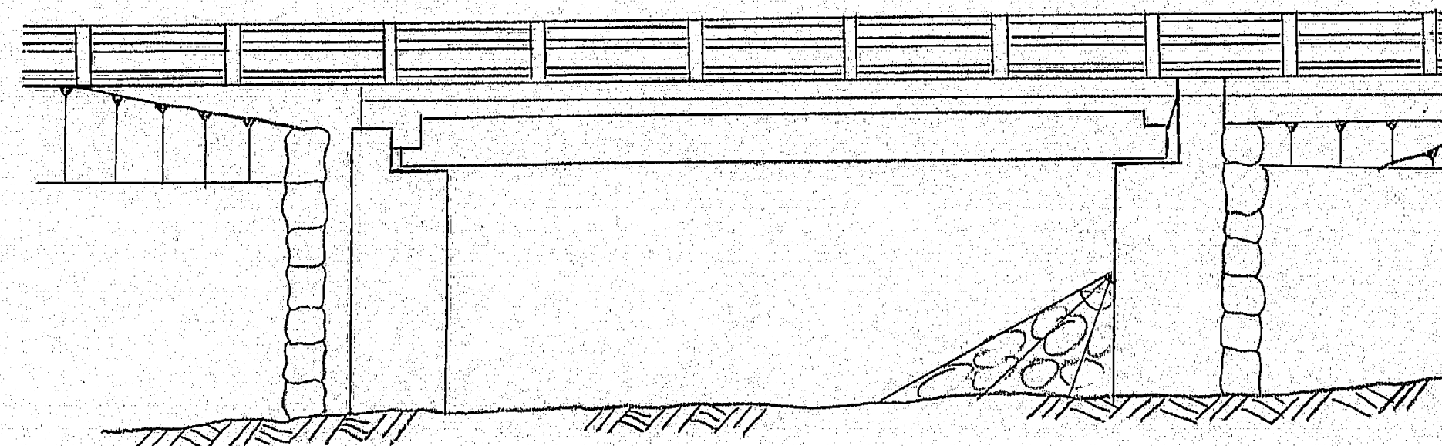


PLAN



"Pointing" Pay Limit ~ See Sheet No. 9, Note No. 12
Point Existing Wall
Elev. 118 ±
1½
1
No Pointing Of Existing Wall
Abut. No. 2 (North end)
1½
1

ELEVATION



ELEVATION

Pipe Note:
Extend Existing Pipe with CMP of same diameter. Payment shall be incidental to Pay Item 610.16 - Heavy Riprap

Heavy Riprap:
Heavy Riprap shall be paid for under Pay Item 610.16 - Heavy Riprap Cubic Yard

Estimated Quantity Heavy Riprap = 100 Cubic Yards

PLANS		BY		DATE
	DESIGN - DETAILED	ALL	CB	8-73
	CHECKED	RD		8/73
	REVISIONS			
	FIELD CHANGES			

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
NEAL BRIDGE
OVER
GREAT WORKS RIVER
IN THE TOWN OF
NORTH BERWICK
YORK COUNTY
HEAVY RIPRAP
SHEET OF AUGUSTA, MAINE

JANUARY 1968

203-1 2080

138-93

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	F-06-1(5)/F-06-1(6)	2	51

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
201.13	Removing Single Trees, 9" to 24", Tops Only	1	Each
201.14	Removing Single Trees, over 24" to 48", Tops Only	1	Each
201.19	Removing Stumps, 9" to 24"	3	Each
201.20	Removing Stumps, over 24" to 48"	6	Each
202.1001	Removal of Existing Superstructure (Property of Contractor) Neal Bridge	1	L.S.
202.1002	Removal of Existing Superstructure (Property of Contractor) Snow Bridge	1	L.S.
202.12	Removal of Existing Structural Concrete	26	C.Y.
203.20	Common Excavation	3417	C.Y.
203.25	Granular Borrow	68	C.Y.
206.06	Str. Earth Excav. - Drainage & Minor Strs.	222	C.Y.
206.08	Str. Earth Excav. - Abuts. & Ret. Walls	915	C.Y.
206.09	Str. Rock Excav. - Abuts. & Ret. Walls	140	C.Y.
301.09	Plant Mix Bituminous Base Course, Grading B	228	Ton
304.10	Aggregate Subbase Course - Gravel	2973	C.Y.
403.07	Hot Bit. Pavement, Grading B	362	Ton
403.08	Hot Bit. Pavement, Grading C	303	Ton
403.101	Hot Bit. Pavement, Grading D (Sidewalks, Drives, Etc.)	69	Ton
403.121	Hot Bituminous Pavement, Grading E (Shimming)	8.6	Ton
410.15	Emulsified Asphalt, Applied	360	Gal.
410.161	Cover Coat Material, Sand (leveling)	40	C.Y.
411.09	Untreated Aggregate Surface Course	7	C.Y.
501.212	Steel H-Beam Piles 42 lbs./ft.	375	L.F.
502.21	Structural Concrete, Abuts. & Retaining Walls	401	C.Y.
502.22	Structural Concrete, Abuts. & Retaining Walls (Placed Under Water)	100	C.Y.
502.2601	Structural Concrete, Roadway & Sidewalk Slabs on Steel Bridges (Neal Bridge)	1	L.S.
502.2602	Structural Concrete, Roadway & Sidewalk Slabs on Steel Bridges (Snow Bridge)	1	L.S.
502.3101	Structural Concrete, Approach Slabs (Neal Bridge)	1	L.S.
502.3102	Structural Concrete, Approach Slabs (Snow Bridge)	1	L.S.
503.12	Reinforcing Steel, Fab. & Delivered	62,570	lb.
503.13	Reinforcing Steel, Placing	62,570	lb.
504.7001	Structural Steel, Fab. & Delivered (Neal Bridge)	1	L.S.
504.7002	Structural Steel, Fab. & Delivered (Snow Bridge)	1	L.S.
504.7101	Structural Steel, Erection (Neal Bridge)	1	L.S.
504.7102	Structural Steel, Erection (Snow Bridge)	1	L.S.
505.0801	Shear Connectors (Neal Bridge)	1	L.S.
505.0802	Shear Connectors (Snow Bridge)	1	L.S.
506.1401	Field Painting, Structural Steel (Neal Bridge)	1	L.S.
506.1402	Field Painting, Structural Steel (Snow Bridge)	1	L.S.
507.08	Bridge Railing	609	L.F.
508.10	Membrane Waterproofing	415	S.Y.
510.1201	Special Detour, 24 Foot Roadway Width Vehicular & Pedestrian Traffic Separated (Neal Bridge)	1	L.S.
510.1202	Special Detour, 24 Foot Roadway Width Vehicular & Pedestrian Traffic Separated (Snow Bridge)	1	L.S.
511.0701	Cofferdams Abutment No. 1 (Neal Bridge)	1	L.S.
511.0702	Cofferdams Abutment No. 2 (Neal Bridge)	1	L.S.
511.0703	Cofferdams U.S. Abut. No. 2 (Snow Bridge)	1	L.S.
511.0704	Cofferdams D.S. Abut. No. 2 (Snow Bridge)	1	L.S.
512.06	French Drains	30	C.Y.
512.07	French Drains (Stones Only)	21	C.Y.
514.06	Curing Box for Concrete Cylinders	1	Each
515.20	Protective Coating For Concrete Surfaces	106	S.Y.
603.159	12 Inch Culvert Pipe, Option III	116	L.F.
603.165	15 Inch Reinforced Conc. Pipe Class III	132	L.F.
603.169	15 Inch Culvert Pipe, Option III	36	L.F.
604.07	Catch Basins Type A1	6	Each
604.09	Catch Basins Type B1	1	Each

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
605.12	15 Inch Underdrain Type "C"	138	L.F.
609.11	Vertical Curb - Type 1	548	L.F.
609.12	Vertical Curb - Circular - Type 1	47	L.F.
609.13	Vertical Bridge Curb - Type 1	210	L.F.
609.23	Terminal Curb, Type 1	25	Each
610.08	Plain Riprap	410	C.Y.
615.07	Loam	31	C.Y.
616.08	Sodding	20	S.Y.
618.13	Seeding, Method Number 1	6	Unit
618.15	Temporary Seeding	40	lb.
619.09	Hay Mulch	6	Unit
624.06	Project Markers	4	Each
629.05	Labor, Straight Time	180	M.Hr.
630.06	Traffic Officers	54	M.Hr.
631.10	Air Compressor (inc. operator)	20	Hour
631.11	Air Tool (inc. op.)	20	Hour
631.12	All Purpose Excavator (including op.)	36	Hour
631.13	Bulldozer (inc. op.)	20	Hour
631.14	Grader (inc. op.)	20	Hour
631.171	Truck - Small (inc. op.)	10	Hour
631.18	Chain Saw Rental (inc. op.)	20	Hour
631.22	Front End Loader (inc. op.)	20	Hour
632.08	Warning Lights	4	Grp.
633.10	Portable Barricade with Flashing Lights	4	Each
637.07	Sprinkling	19	M.G.
637.08	Calcium Chloride	5	Ton
639.08	Field Office, Type A	1	Each
639.11	Testing Facilities, Soils	1	L.S.
639.12	Testing Facilities, Bit. Mixes	1	L.S.
657.201	Seed and Application, Method A	8	Unit
658.20	Acrylic Latex Color Finish, Green	27	S.Y.
660.21	On-the-Job Training (Bid)	1000	M.Hr.

ESTIMATED QUANTITY OF LUMP SUM ITEMS

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
502.2601	Structural Concrete, Roadway & Sidewalk Slabs on Steel Bridges (Neal Bridge)	85	C.Y.
502.2602	Structural Concrete, Roadway & Sidewalk Slabs on Steel Bridges (Snow Bridge)	67	C.Y.
502.3101	Structural Concrete, Approach Slabs (Neal Bridge)	32	C.Y.
502.3102	Structural Concrete, Approach Slabs (Snow Bridge)	35	C.Y.
504.7001	Structural Steel, Fab. & Delivered (Neal Bridge)	35,500	lb.
504.7002	Structural Steel, Fab. & Delivered (Snow Bridge)	36,900	lb.
504.7101	Structural Steel, Erection (Neal Bridge)	35,500	lb.
504.7102	Structural Steel, Erection (Snow Bridge)	36,900	lb.
505.0801	Shear Connectors (Neal Bridge)	754	ea.
505.0802	Shear Connectors (Snow Bridge)	814	ea.
506.1401	Field Painting, Structural Steel (Neal Bridge)	35,500	lb.
506.1402	Field Painting, Structural Steel (Snow Bridge)	36,900	lb.

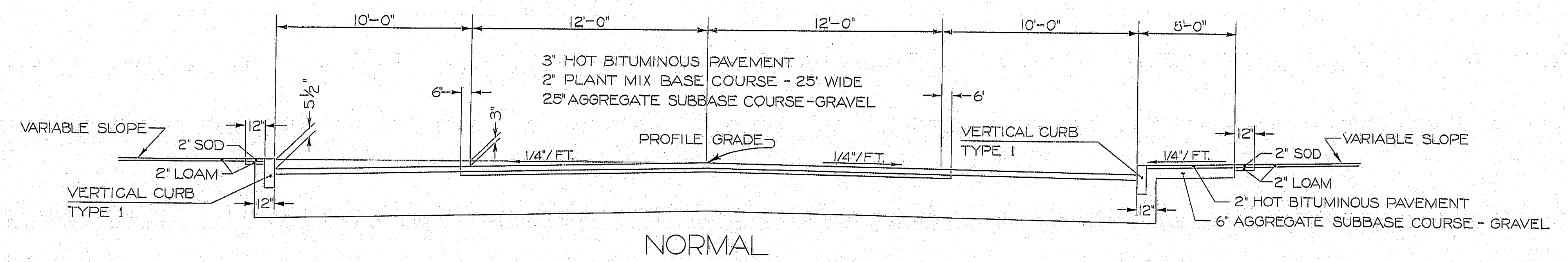
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
SNOW & NEAL BRIDGES
OVER THE
NEOUTAQUET &
GREAT WORKS RIVERS
IN THE TOWN OF
NORTH BERWICK
YORK COUNTY
COMBINED ESTIMATED QUANTITIES
SHEET 2 OF 51 AUGUSTA, MAINE MARCH, 1972

203-1 2080

TRUFLEX ☆ SILKY ☆ TRIPLE WHITE ☆ KYPLEX

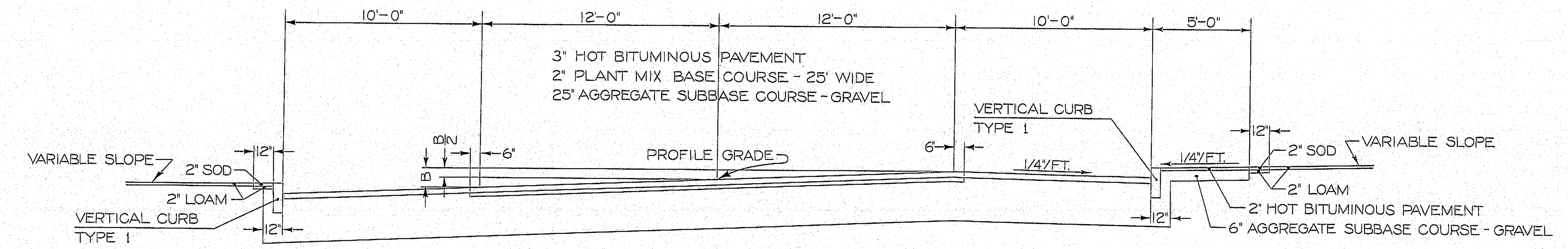
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	F-06-1(5)/F-06-1(6)	3	51

3" HOT BITUMINOUS PAVEMENT



NORMAL

AGGREGATE SUBBASE COURSE - GRAVEL = 374.47 C.Y./100 L.F.



SUPERELEVATED

AGGREGATE SUBBASE COURSE - GRAVEL = 374.47 C.Y./100 L.F.

Desc. of Course	Grad. Desig	Item No.	Brt. Cont. % of Mix	Total Thick	No. of Layers	Comp. Notes
			Travelled Way			
Wearing	C	403.08	5.5 - 7.0	1 1/4	1	1
Binder	B	403.07	5.0 - 6.5	1 3/4	1	1
Base	B	301.09	5.0 - 6.5	2	1	1
			Paved Shoulders			
Wearing	C	403.08	5.5 - 7.0	1 1/4	1	1
Binder	B	403.07	5.0 - 6.5	1 3/4	1	1
			Bridge Decks			
Wearing & Binder	C	403.08	5.5 - 7.0	2	2	1, 3
			Shim Course			
Levelling	E	403.121	6.5 - 8.0	Var.	1 or more	1, 3
	Paved Sidewalks, Drives & Islands & Incidentals					
Wearing & Binder	D	403.101	6.0 - 7.5	2	2	1, 2, 3

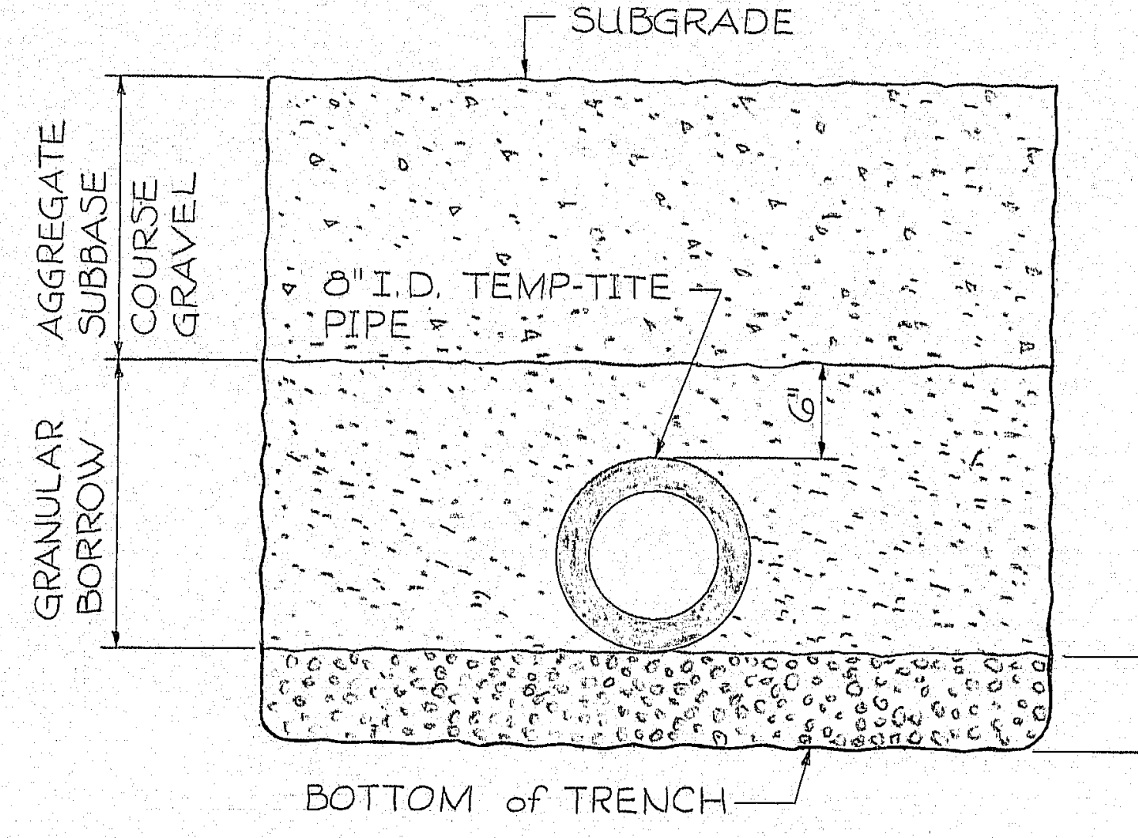
Complementary Notes

1. The bituminous binder material for the mixtures shall be viscosity grade AC-20 asphalt cement
2. A mixture meeting the aggregate gradation of B or C above may be used for the bottom layer with payment to be made under Item 403.101.
3. The density requirements are waived.

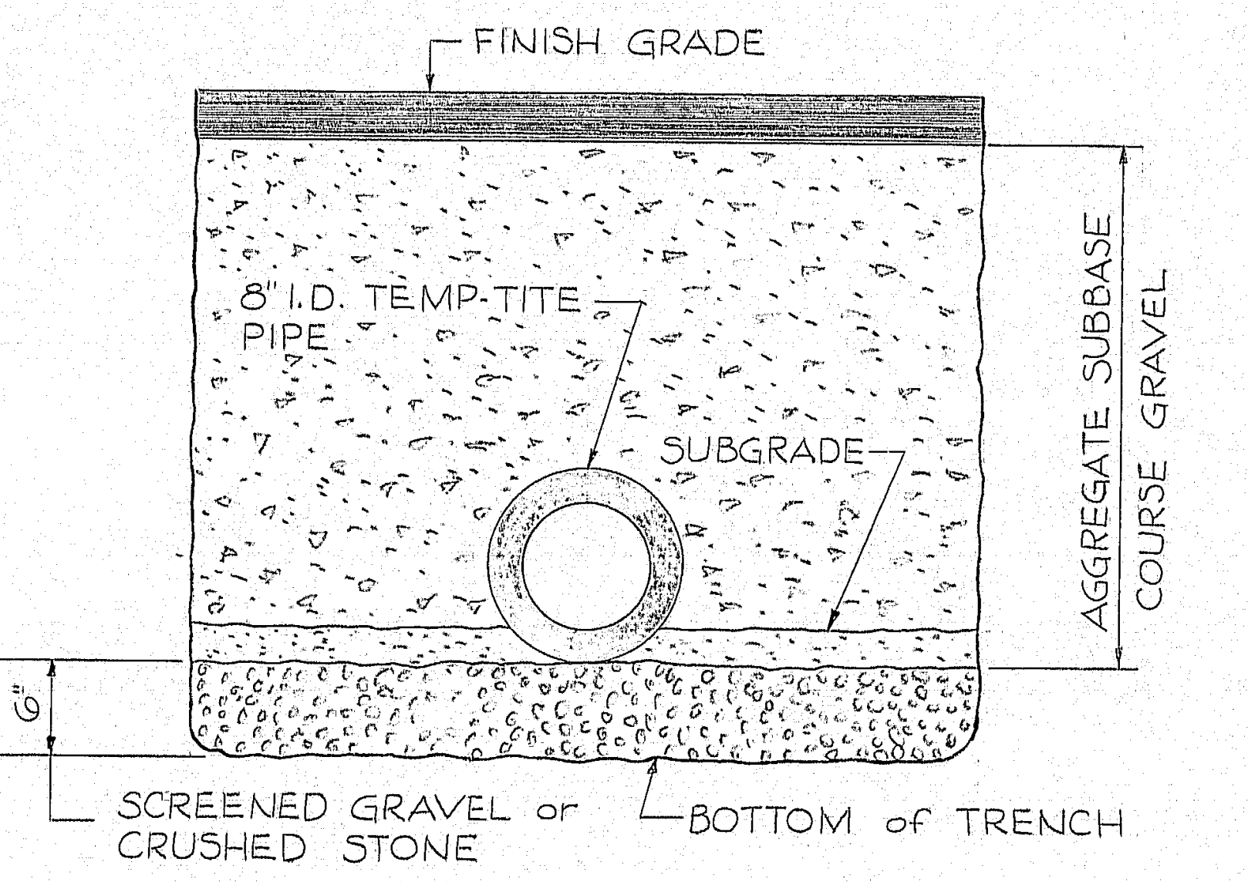
Other Bituminous Items

Tack Coat

A tack coat of Emulsified Asphalt, Type AE-90, Item 410.15 shall be applied to any existing course prior to placing a new course if so directed by the Engineer



WATER & SEWER LINES
NEAL & SNOW BRIDGES


FINISH GRADE
8" I.D. TEMP-TITE PIPE
SUBGRADE
AGGREGATE SUBBASE COURSE GRAVEL
6"
SCREENED GRAVEL or CRUSHED STONE
BOTTOM of TRENCH

WATER & SEWER LINES
SNOW BRIDGE

NOTES:

1. Aggregate Subbase Course Gravel shall be compacted to meet the specifications of "Moisture and Density Control" of State of Maine State Highway Commission Standard Specifications Highways and Bridges Revision of June 1968.

2. Trenching and backfilling for water and sewer pipes shall be subject to inspection and approval by the Engineer.

PLANS		BY	DATE
	DESIGN - DETAILED		
	CHECKED		
	REVISIONS		
	FIELD CHANGES		

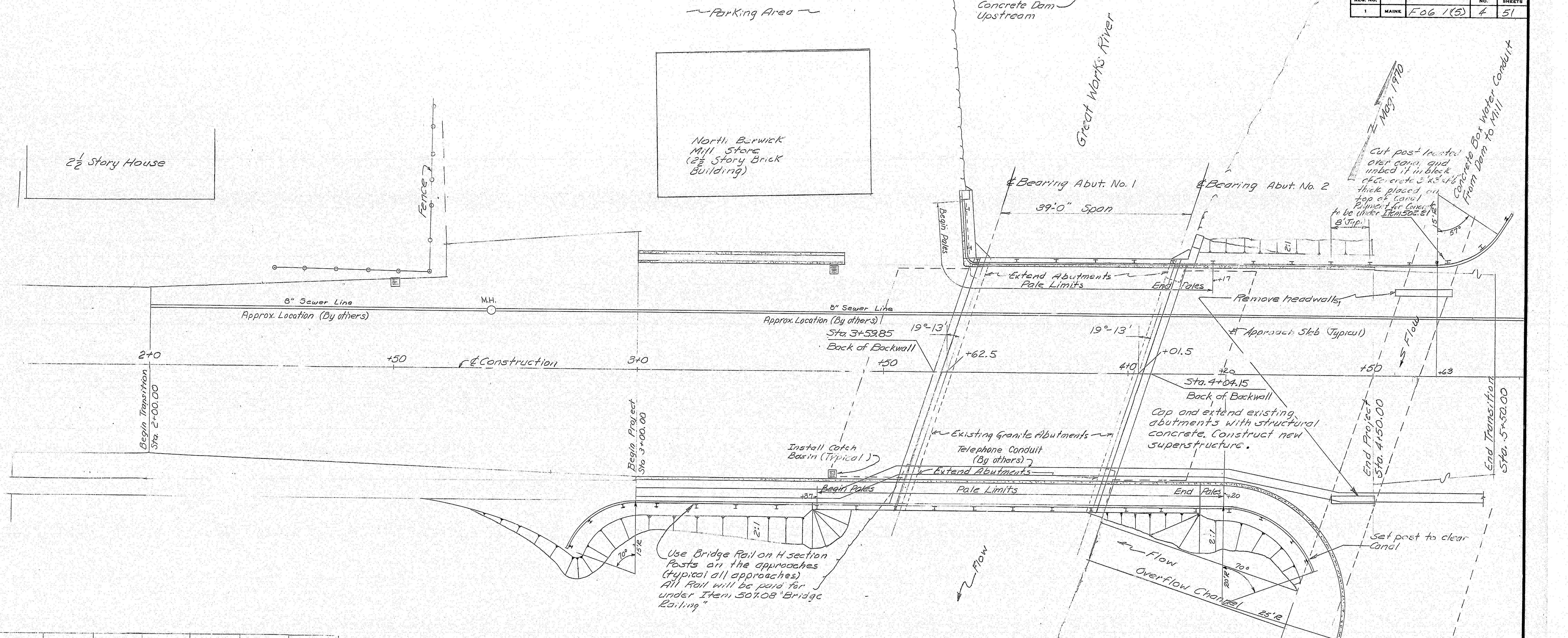
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
NO. BERWICK
F-06-1(5) & F-06-1(6)
TYPICAL SECTIONS
SHEET 3 OF 51 AUGUSTA, MAINE MARC

JANUARY 1968

138:95

203-1 2080

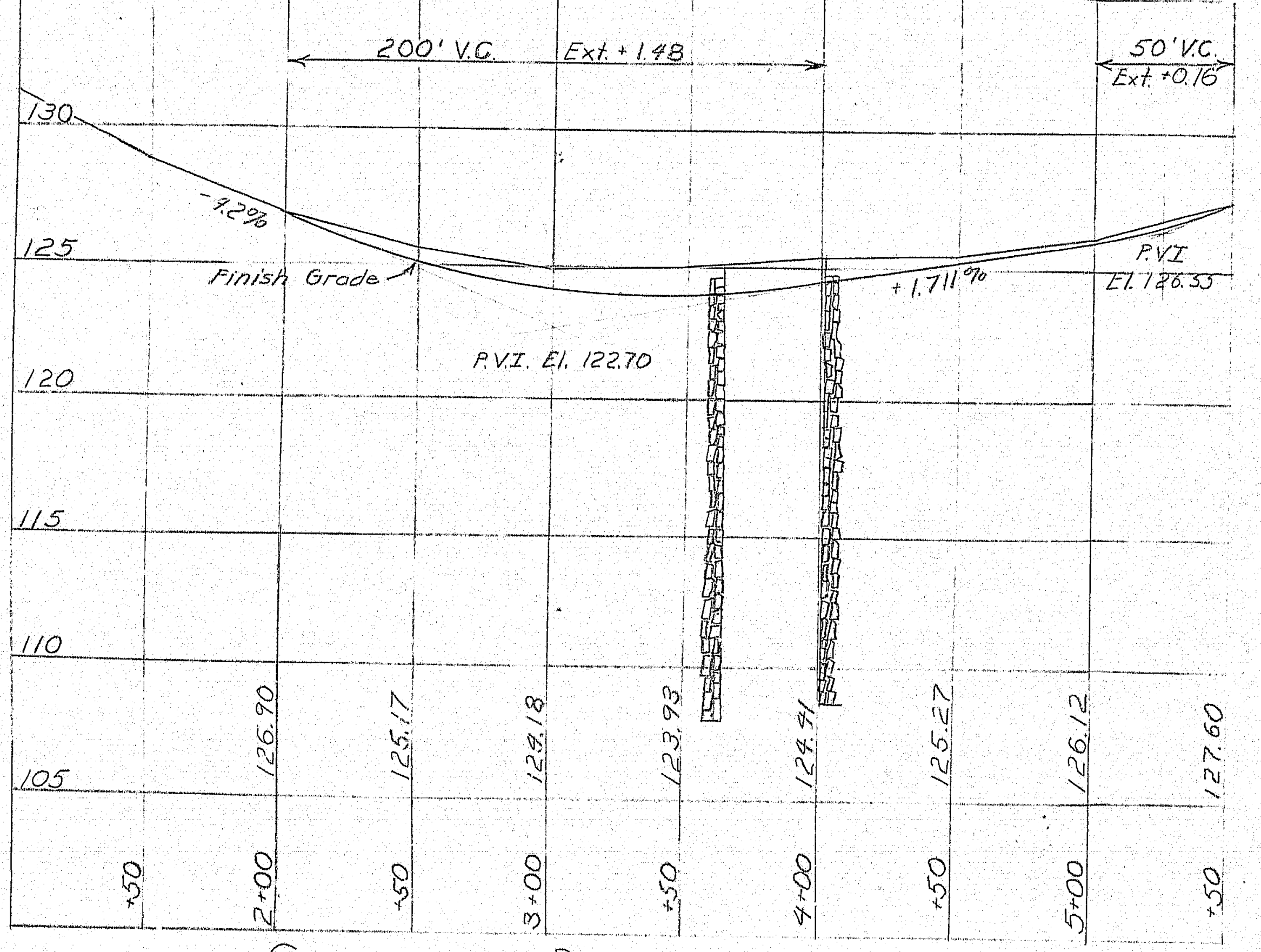
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	F06 1(5)	4	51



Parking Area
2½ Story House
North Berwick Mill Store (2½ Story Brick Building)
Fence
8" Sewer Line
Approx. Location (By others)
M.H.
2+0
+50
℄ Construction
3+0
Begin Transition Sta. 2+00.00
Begin Project Sta. 3+00.00
Concrete Dam Upstream
Great Works River
Mag. 1970
Concrete Box Water Conduit From Dam to Mill
Cut post located over canal and imbed it in block of concrete 3'x3'x1' thick placed on top of canal. Payment for Concrete to be under Item 502.21
8' Typ.
15'R
57°
℄ Bearing Abut. No. 1
℄ Bearing Abut. No. 2
39'-0" Span
Begin Pales
Extend Abutments
Pale Limits
End Pales
+17
Remove headwalls
℄ Approach Slab (Typical)
Flow
19°-13'
Sta. 3+59.85
Back of Backwall
+62.5
+50
19°-13'
+01.5
4+0
+20
Sta. 4+04.15
Back of Backwall
+50
+63
Cap and extend existing abutments with structural concrete. Construct new superstructure.
Existing Granite Abutments
Telephone Conduit (By others)
Install Catch Basin (Typical)
Extend Abutments
Begin Pales
+37
Pale Limits
End Pales
+20
End Project Sta. 4+50.00
End Transition Sta. 5+50.00
2:1
2:1
70°
15'R
Use Bridge Rail on H section Posts on the approaches (typical all approaches) All Rail will be paid for under Item 507.08 "Bridge Railing"
Flow
Flow
Overflow Channel
70°
20'R
25'R
Set post to clear Canal

PLAN

10 0 10 20
Scale of Feet



CENTERLINE PROFILE

SPECIFICATIONS

DESIGN: A.A.S.H.O. Standard Specifications for Highway Bridges 1969 and Interim Specifications 1970-71

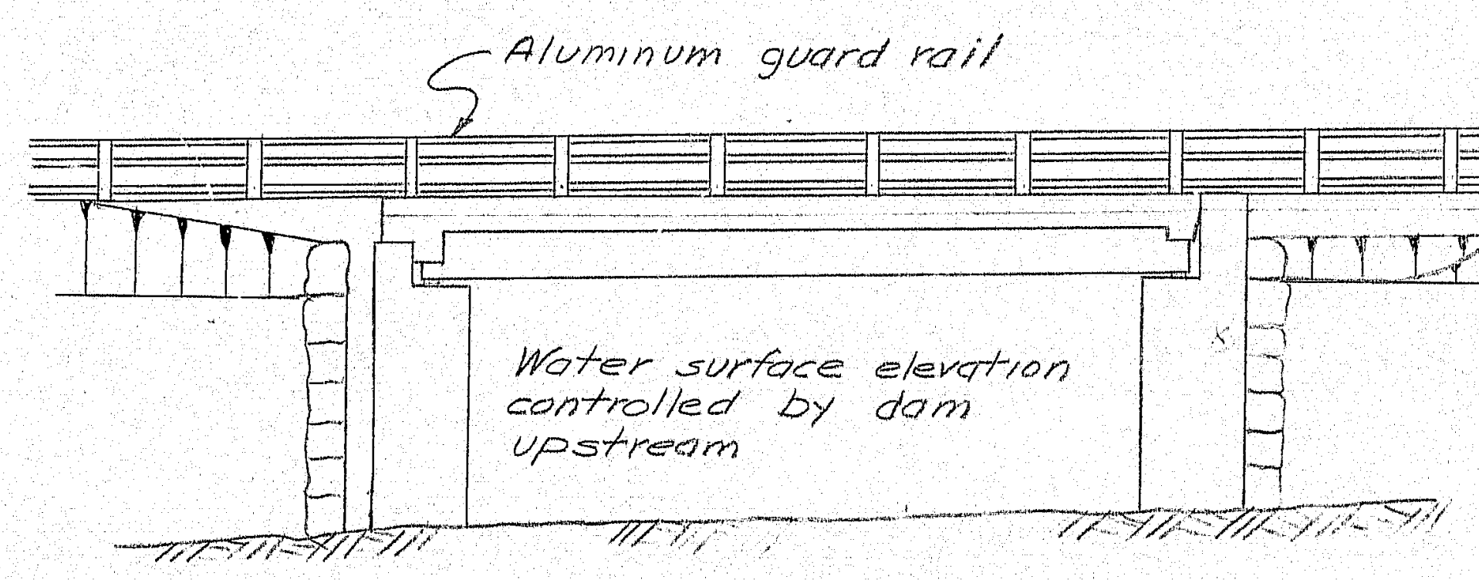
CONSTRUCTION: State of Maine, State Highway Commission, Standard Specifications, Highways & Bridges, Revision of 1968

LIVE LOADING: HS 20-44

STRUCTURAL STEEL ASTM 572 (50): f_s = 27000 PSI
ASTM A36: f_s = 20000 PSI

CONCRETE Class "A": f_c = 1200 PSI, n = 10

REINFORCING STEEL ASTM 615 Grade 60: f_s = 24,000 PSI



No Coast Guard Permit Required

Hydrologic Data:
Drainage Area = 36.62 Sq. Mi.
Q_{50} = 1350 C.F.S.
V for Q_{50} = 6± Ft./Sec.

ELEVATION
(Looking Upstream)

10 0 10 20
Scale of Feet

TRAFFIC DATA
1972 AADT = 4630
1992 AADT = 6550
DHV % of AADT = 10 %
DHV = 655
Trucks = 8 %
Directional Dist. = 60 %

PLANS		BY	DATE
	Project Design Engineer: A. Lyons		
	DESIGN - DETAILED	A.L.L. / A.L.L.	8-71
	CHECKED	PJM	11-13-72
	REVISIONS		
	FIELD CHANGES		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
NEAL BRIDGE
OVER
GREAT WORKS RIVER
IN THE TOWN OF
NORTH BERWICK
YORK COUNTY
GENERAL PLAN
SHEET 4 OF 51 AUGUSTA, MAINE MARCH 1972

JANUARY 1968

203-1 2080

138-96

touraine paints TRUFLEX ☆ SILKY ☆ TRIPLE WHITE ☆ RYPLEX

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	F061(5)	5	51

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
201.20	Removing Stumps, over 24" to 48"	1	Each
202.1001	Removal of Existing Superstructure (Property of Contractor) (Neal Bridge)	1	L.S.
202.12	Removal of Existing Structural Concrete	26	C.Y.
203.20	Common Excavation	1,605	C.Y
206.06	Structural Earth Excav. - Drainage & Minor Strs.	80	C.Y.
206.08	Structural Earth Excav. - Abuts. & Ret. Walls	185	C.Y.
206.09	Structural Rock Excav. - Abuts. & Ret. Walls	40	C.Y
301.09	Plant Mix Bituminous Base Course, Grading B	80	Ton
304.10	Aggregate Subbase Course - Gravel	1,155	C.Y
403.07	Hot Bit. Pavement, Grading B	143	Ton
403.08	Hot Bit. Pavement, Grading C	124	Ton
403.101	Hot Bit. Pavement, Grading D (Sidewalks Drives, Etc)	28	Ton
403.121	Hot Bit Pavement, Grading E (Shimming) Drives, Etc.)	33	Ton
410.15	Emulsified Asphalt, Applied	130	Gal.
410.161	Cover Coat Material, Sand (Leveling)	16	C.Y.
502.21	Structural Concrete, Abuts. & Retaining Walls	185	C.Y.
502.2601	Structural Concrete, Roadway & Sidewalk slabs on steel Bridges (Neal Bridge)	1	L.S.
502.3101	Structural Concrete, Approach Slabs (Neal Bridge)	1	L.S.
503.12	Reinforcing Steel, Fab. & Delivered	28,078	Lb.
503.13	Reinforcing Steel, Placing	28,078	Lb.
504.7001	Structural Steel, Fab. & Delivered (Neal Bridge)	1	L.S.
504.7101	Structural Steel, Erection (Neal Bridge)	1	L.S.
505.0801	Shear Connectors. (Neal Bridge)	1	L.S.
506.1401	Field Painting, Structural Steel (Neal Bridge)	1	L.S.
507.08	Bridge Railing	290	L.F.
508.10	Membrane Waterproofing	212	S.Y.
510.1201	Special Detour, 24 Foot Roadway Width Vehicular & Pedestrian Traffic Separated (Neal Bridge)	1	L.S.
511.0701	Cofferdams. (Abutment No. 1.) (Neal Bridge)	1	L.S.
511.0702	Cofferdams. (Abutment No. 2.) (Neal Bridge)	1	L.S.
512.07	French Drains (Stones Only)	14	C.Y.
514.06	Curing Box for Concrete Cylinders	1	Each
515.20	Protective Coating for Concrete Surfaces	52	S.Y.
603.159	12 Inch Culvert Pipe, Option III	38	L.F.
603.165	15 Inch Reinforced Conc. Pipe Class III	132	L.F.
604.07	Catch Basins Type A1	2	Each
604.09	Catch Basins Type B1	1	Each
609.11	Vertical Curb - Type 1	192	L.F.
609.12	Vertical Curb-Circular - Type 1	47	L.F.
609.13	Vertical Bridge Curb - Type 1	125	L.F.
609.23	Terminal Curb, Type 1	7	Each
615.07	Loam	10	C.Y.
616.08	Sodding	2	S.Y.
618.13	Seeding, Method Number 1	2	Unit
618.15	Temporary Seeding	20	Lb.
619.09	Hay Mulch	2	Unit
624.06	Project Markers	2	Each
629.05	Labor, Straight Time	90	M. Hr.
630.06	Traffic Officers	22	M. Hr.
631.10	Air Compressor (inc. operator)	10	Hr.
631.11	Air Tool (inc. operator)	10	Hr.
631.12	All Purpose Excavator (inc. operator)	18	Hr.

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
631.13	Bulldozer (inc. operator)	10	Hr.
631.14	Grader (inc. operator)	10	Hr.
631.171	Truck - small (inc. operator)	5	Hr.
631.18	Chain Saw Rental (inc. operator	10	Hr.
631.22	Front End Loader (inc. operator	10	Hr.
632.08	Warning Lights	2	Group
633.10	Portable Barricade with Flashing Lights	2	Each
637.07	Sprinkling	17	M.G.
637.08	Calcium Chloride	2	Ton
639.08	Field Office, Type A	41 %	Each
639.11	Testing Facilities, Soils	41 %	L.S.
639.12	Testing Facilities, Bit. Mixes	41 %	L.S
657.201	Seed and Application, Method A	3	Unit
658.20	Acrylic Latex Color Finish, Green	.15	S.Y.
660.21	On the Job Training (Bid)	500	M. Hr.

ESTIMATED QUANTITY OF LUMP SUM ITEMS

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
502.2601	Structural Concrete, Roadway & Sidewalk slabs on Steel Bridges	85	C.Y.
502.3101	Structural Concrete, Approach Slabs	32	C.Y.
504.7001	Structural Steel, Fab. & Delivered	35,500	Lb.
504.7101	Structural Steel, Erection	35,500	Lb.
505.0801	Shear Connectors	754	ea.
506.1401	Field Painting, Structural Steel	35,500	Lb.

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ESTIMATED QUANTITIES
SHEET 5 OF 51 AUGUSTA, MAINE MARCH, 1972

138:97 203-1 2080