



STRUCTAL

Building Better Bridges

TRANSMITTAL

No. 00002

a division of Canam Group.
1445, rue du Grand-Tronc, Québec, Canada, G1N 4G1
T: 418-683-2561/1-877-304-2561 F: 418-688-8512
www.structalbridges.ws

PROJECT: Brg No 19 over White River_VT

TO: WM Schultz Inc.
PO Box 2620
Ballstone Spa, NY 12020

DATE: 2014-02-27

REF: 2nd For Approval

ATTN: Kevin Ture

WE ARE SENDING:	SUBMITTED FOR:	ACTION TAKEN:
<input type="checkbox"/> Shop Drawings	<input type="checkbox"/> Approval	<input type="checkbox"/> Approved as Submitted
<input type="checkbox"/> Letter	<input type="checkbox"/> Your Use	<input type="checkbox"/> Approved as Noted
<input type="checkbox"/> Prints	<input type="checkbox"/> As Requested	<input type="checkbox"/> Returned After Loan
<input type="checkbox"/> Change Order	<input type="checkbox"/> Review and Comment	<input type="checkbox"/> Resubmit
<input type="checkbox"/> Plans	<input type="checkbox"/> Due Date:	<input type="checkbox"/> Submit
<input type="checkbox"/> Samples	SENT VIA:	<input type="checkbox"/> Returned
<input type="checkbox"/> Specifications	<input type="checkbox"/> Attached	<input type="checkbox"/> Returned for Corrections
<input type="checkbox"/> Other:	<input type="checkbox"/> Separate Cover Via:	

ITEM	COPIES	NUMBER	DESCRIPTION	DATE
001	1	101-00	Shop drawing	2014-02-05
002	1	101-01	Shop drawing	2014-02-05
003	1	101-02	Shop drawing	2014-02-05
004	1	101-03	Shop drawing	2014-02-05
005	1	102-00	Shop drawing	2014-02-05
006	1	102-01	Shop drawing	2014-02-05
007	1	102-02	Shop drawing	2014-02-05
008	1	102-03	Shop drawing	2014-02-05
009	1	103-00	Shop drawing	2014-02-05
010	1	103-01	Shop drawing	2014-02-05
011	1	103-02	Shop drawing	2014-02-05
012	1	103-03	Shop drawing	2014-02-05
013	1	104-00	Shop drawing	2014-02-05
014	1	104-01	Shop drawing	2014-02-05
015	1	104-02	Shop drawing	2014-02-05
016	1	104-03	Shop drawing	2014-02-05
017	1	105-00	Shop drawing	2014-02-05
018	1	105-01	Shop drawing	2014-02-05
019	1	105-02	Shop drawing	2014-02-05
020	1	105-03	Shop drawing	2014-02-05
021	1	106	Shop drawing	2014-02-05
022	1	107	Shop drawing	2014-02-05

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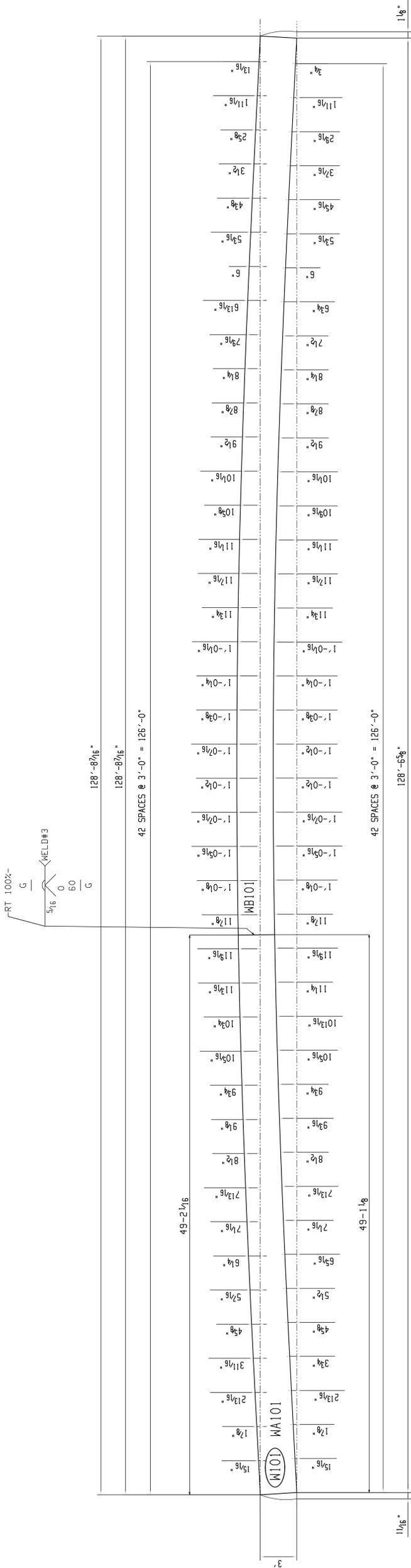
WE ARE SENDING:	SUBMITTED FOR:	ACTION TAKEN:
<input type="checkbox"/> Shop Drawings	<input type="checkbox"/> Approval	<input type="checkbox"/> Approved as Submitted
<input type="checkbox"/> Letter	<input type="checkbox"/> Your Use	<input type="checkbox"/> Approved as Noted
<input type="checkbox"/> Prints	<input type="checkbox"/> As Requested	<input type="checkbox"/> Returned After Loan
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<input type="checkbox"/> Plans	<input type="checkbox"/> Due Date:	<input type="checkbox"/> Submit
<input type="checkbox"/> Samples	SENT VIA:	<input type="checkbox"/> Returned
<input type="checkbox"/> Specifications	<input type="checkbox"/> Attached	<input type="checkbox"/> Returned for Corrections
<input type="checkbox"/> Other:	<input type="checkbox"/> Separate Cover Via:	

ITEM	COPIES	NUMBER	DESCRIPTION	DATE
023	1	E101	Erection drawing	2014-02-05
024	1	E102	Erection drawing	2014-02-05
025	1	GN101	General notes	2014-02-05
026	1	S101	Weld sheet	2014-02-05
027	1	X108	Shop drawing	2014-02-05

Remarks:

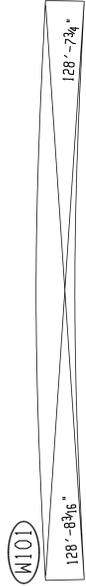
Signed:

Marco Gilbert



ONE WEB PLATE W101

W101 = PL^{3/16}"
 WB101 = PL^{9/16}"



No	DESCRIPTION	DATE	BY	CHK
B	FOR 2nd APPROVAL	FEB 25 2014	LN	CG
A	FOR APPROVAL	FEB 5 2014	LN	CG

NOTE: BOLT 1 WASHER: 1 WASHER UNDER NUT U.N.
 BOLT 2 WASHERS: 1 WASHER UNDER HEAD U.N.
 1 WASHER UNDER NUT U.N.

STRUCTURAL
 Building Better Bridges
 388 River Road, Claremont, NH
 T.603.542.5206 F.603.542.5317

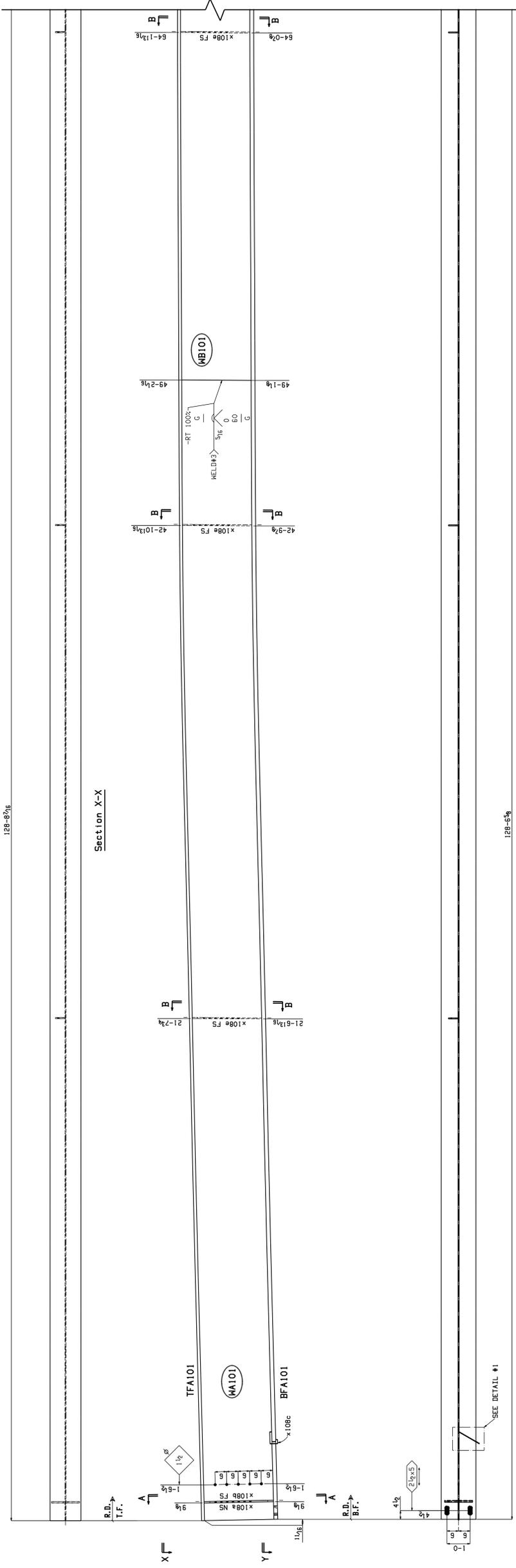
PROJECT: VERMONT RTE 73
 BRIDGE NO 19
 TOWN OF ROCHESTER

TITLE: WEB GIRDER G101

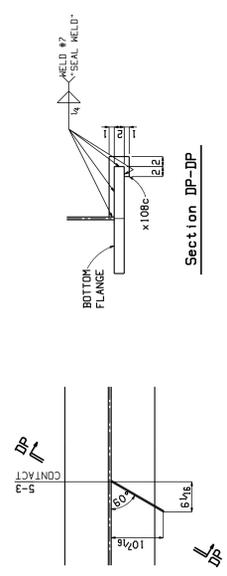
REFERENCE: PROJECT NUMBER: ER-BRF-0162 (18)

DATE	BY	CHK
JANUARY 2014	LN	CG
JANUARY 2014	LN	CG

000540
 101-01



Section Y-Y
ONE GIRDER G101

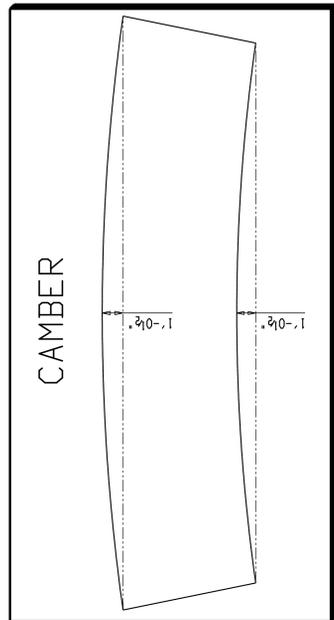
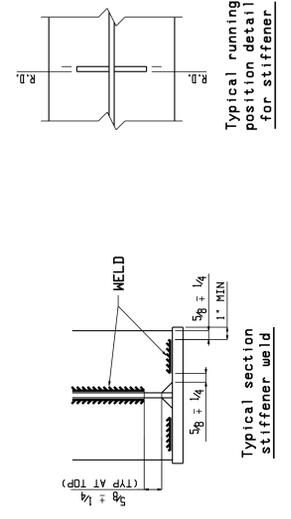


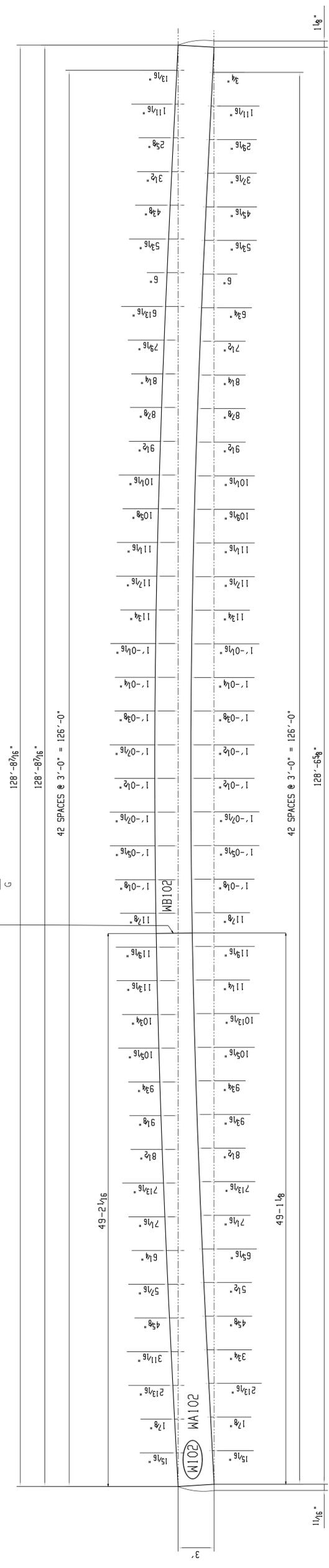
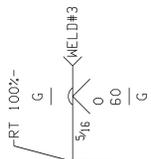
DETAIL #1

GENERAL NOTE: SEE GN101
HOLES: 15/16" (U.N.O.)
WELD PROCEDURE: SEE WELDING PROCEDURE ON S101

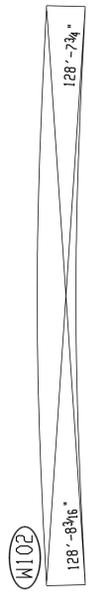
No	DESCRIPTION	DATE	BY	CHK
B	FOR 2nd APPROVAL	Feb 25 2014	LN	CG
A	FOR APPROVAL	Feb 5 2014	LN	CG

NOTE: BOLT 1 WASHER: 1 WASHER UNDER NUT U.N. BOLT 2 WASHERS: 1 WASHER UNDER HEAD U.N. 1 WASHER UNDER NUT U.N.	
STRUCTURAL Building Better Bridges	
PROJECT: VERMONT RTE 73 BRIDGE NO 19 TOWN OF ROCHESTER	
TITLE: MAIN GIRDER G101	
REFERENCE: PROJECT NUMBER: ER-BRF-0162 (18)	
Drawn By: SAG	DATE: JANUARY 2014
Checked By: CG	DATE: JANUARY 2014
Scale: 000540	Sheet: 101-02





ONE WEB PLATE W102
W102 = PL 3/16"
WB102 = PL 3/16"



NO	DESCRIPTION	DATE	BY	CHK
B	FOR 2nd APPROVAL	FEB 25 2014	LN	CG
A	FOR APPROVAL	FEB 5 2014	LN	CG

NOTE: BOLT 1 WASHER: 1 WASHER UNDER NUT U.N. BOLT 2 WASHERS: 1 WASHER UNDER HEAD U.N. 1 WASHER UNDER NUT U.N.	
PROJECT: VERMONT RTE 73 BRIDGE NO 19 TOWN OF ROCHESTER	
TITLE: WEB GIRDER G102	
REFERENCE: PROJECT NUMBER: ER-BRF-0162 (18)	
DATE: JANUARY 2014	BY: LN
DATE: JANUARY 2014	BY: CG
PROJECT NO: 000540	SCALE: 102-01



128-87/8

Section X-X



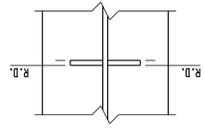
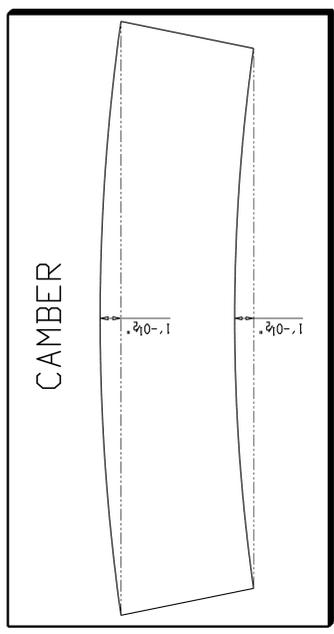
Section Y-Y

ONE GIRDER G102

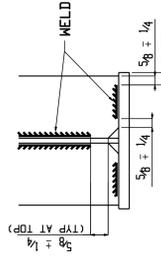
GENERAL NOTE: SEE GN101
 HOLES: 15/16" (U.N.O.)
 WELD PROCEDURE: SEE WELDING PROCEDURE ON S101

No	DESCRIPTION	DATE	BY	CHK
B	FOR 2nd APPROVAL	Feb 25 2014	LN	CG
A	FOR APPROVAL	Feb 5 2014	LN	CG

NOTE: BOLT 1 WASHER: 1 WASHER UNDER NUT U.N. BOLT 2 WASHERS: 1 WASHER UNDER HEAD U.N. 1 WASHER UNDER NUT U.N.	
STRUCTURAL Building Better Bridges 388 River Road, Claremont, NH T. 603.542.5200 F. 603.542.5317	
PROJECT: VERMONT RTE 73 BRIDGE NO 19 TOWN OF ROCHESTER	
TITLE: MAIN GIRDER G102	
REFERENCE: PROJECT NUMBER: ER-BRF-0162 (18)	
Drawn By: SAG	DATE: JANUARY 2014
Checked By: CG	DATE: JANUARY 2014
Project No: 000540	Sheet No: 102-02



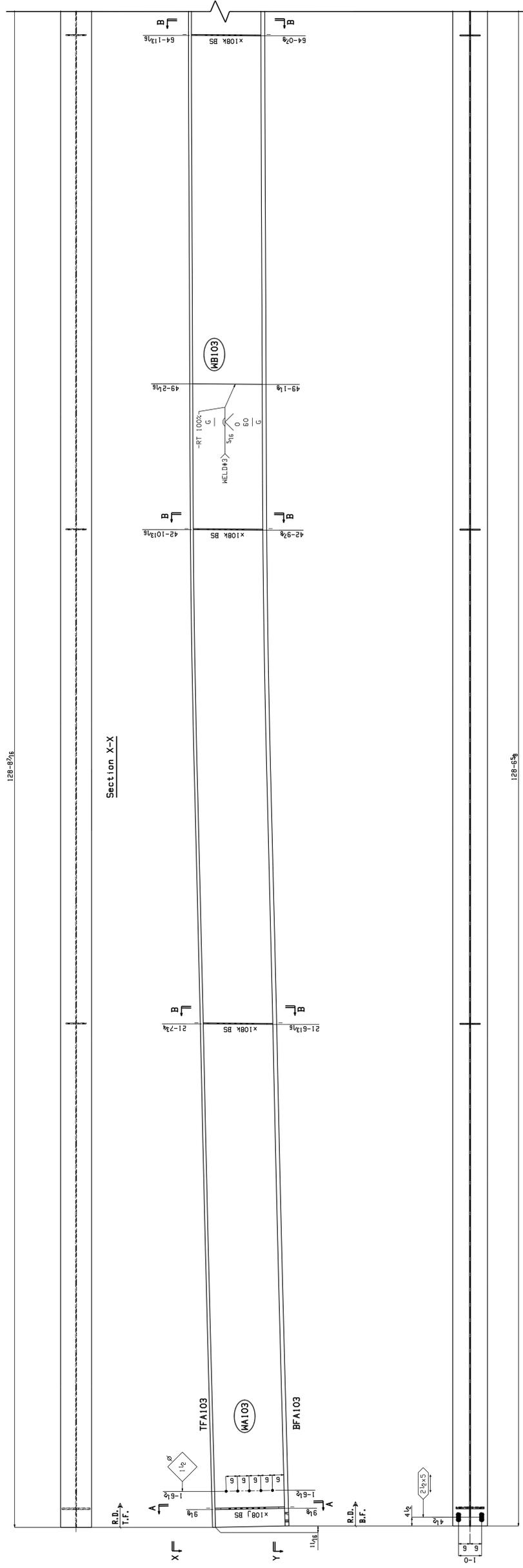
Typical running position detail for stiffener



Typical section stiffener weld

128-8 7/16

Section X-X



Section Y-Y

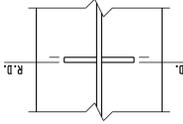
ONE GIRDER G103

GENERAL NOTE: SEE GN101

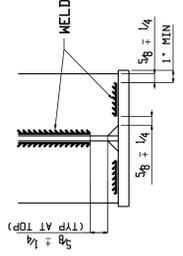
HOLES: 15/16" (U.N.O.)

WELD PROCEDURE: SEE WELDING PROCEDURE ON S101

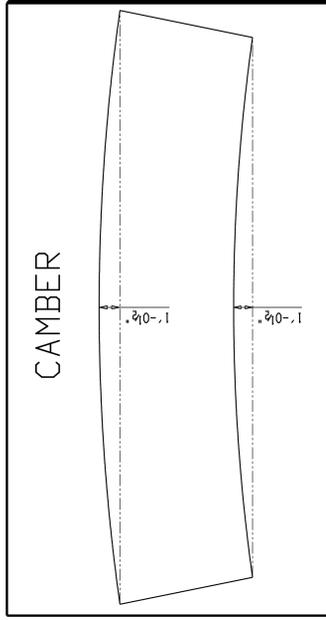
No	DESCRIPTION	DATE	BY	CHK
A	FOR APPROVAL	FEB 5 2014	LN	CG
B	FOR 2nd APPROVAL	FEB 25 2014	LN	CG



Typical running position detail for stiffener.



Typical section stiffener weld



NOTE: BOLT 1 WASHER: 1 WASHER UNDER NUT U.N.
BOLT 2 WASHERS: 1 WASHER UNDER HEAD U.N., 1 WASHER UNDER NUT U.N.

STRUCTURAL
Building Better Bridges
388 River Road, Claremont, NH
T. 603.542.5206 F. 603.546.3317

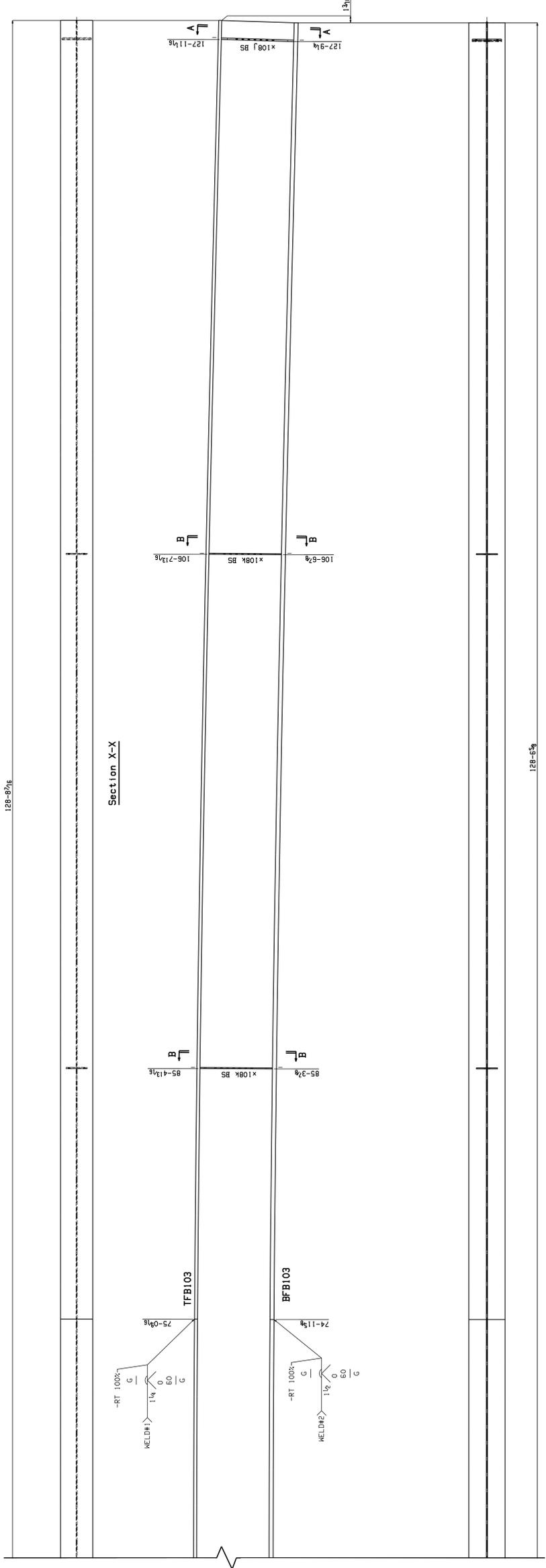
PROJECT:
VERMONT RTE 73
BRIDGE NO 19
TOWN OF ROCHESTER

TITLE:
MAIN GIRDER G103

REFERENCE:
PROJECT NUMBER: ER-BRF-0162 (18)

DATE	BY	CHK
JANUARY 2014	SAC	
JANUARY 2014	CG	

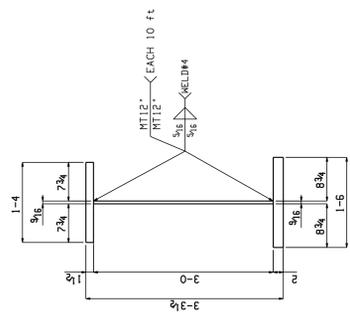
000540
103-02



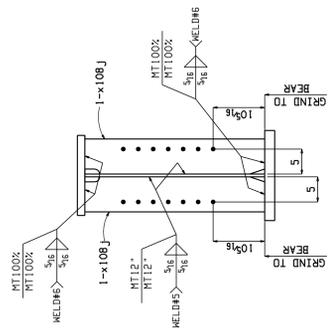
Section X-X

Section Y-Y

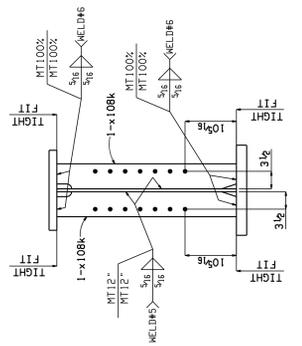
ONE GIRDER G103



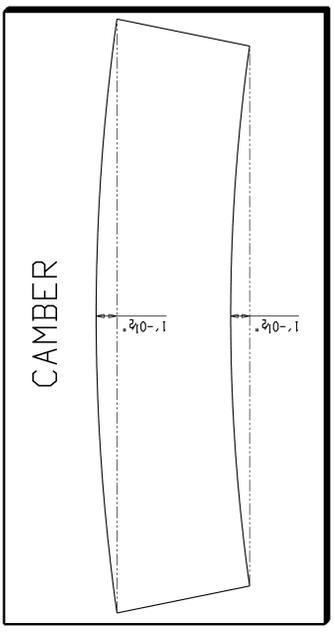
Typical Section



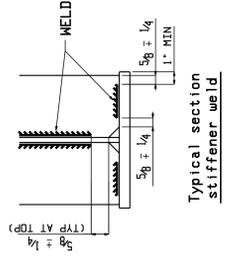
Section A-A



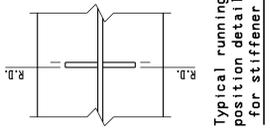
Section B-B



CAMBER



Typical section stiffener weld

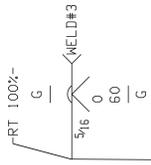


Typical running position detail for stiffener

GENERAL NOTE: SEE GN101
 HOLES: 15/16" (U.N.O.)
 WELD PROCEDURE: SEE WELDING PROCEDURE ON S101

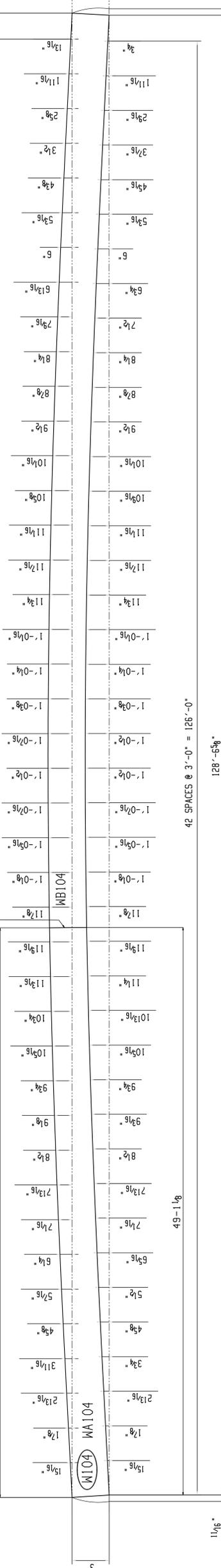
No	DESCRIPTION	DATE	BY	CHK
B	FOR 2nd APPROVAL	FEB 25 2014	LN	CG
A	FOR APPROVAL	FEB 5 2014	LN	CG

NOTE: BOLT 1 WASHER: 1 WASHER UNDER NUT U.N. BOLT 2 WASHERS: 1 WASHER UNDER HEAD U.N. 1 WASHER UNDER NUT U.N.	
STRUCTURAL Building Better Bridges	
PROJECT: VERMONT RTE 73 BRIDGE NO 19 TOWN OF ROCHESTER	
TITLE: MAIN GIRDER G103	
REFERENCE: PROJECT NUMBER: ER-BRF-0162 (18)	
DATE: JANUARY 2014	BY: SAG
DATE: JANUARY 2014	BY: CG
PROJECT NO: 000540	SCALE: 103-03



128' - 8 7/16"
 128' - 8 7/16"
 42 SPACES @ 3'-0" = 126'-0"

49 - 2 1/16"



ONE WEB PLATE W104
 WA104 = PL 5/16"
 WB104 = PL 3/16"



No	DESCRIPTION	DATE	BY	CHK
B	FOR 2nd APPROVAL	FEB 25 2014	LN	CG
A	FOR APPROVAL	FEB 5 2014	LN	CG

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 BOLT 2 WASHERS: 1 WASHER UNDER HEAD U.N.
 1 WASHER UNDER NUT U.N.

STRUCTURAL
 Building Better Bridges
 388 River Road, Claremont, NH
 T: 603.542.5200 F: 603.542.5317

PROJECT:
 VERMONT RTE 73
 BRIDGE NO 19
 TOWN OF ROCHESTER

TITLE:
 WEB GIRDER G104

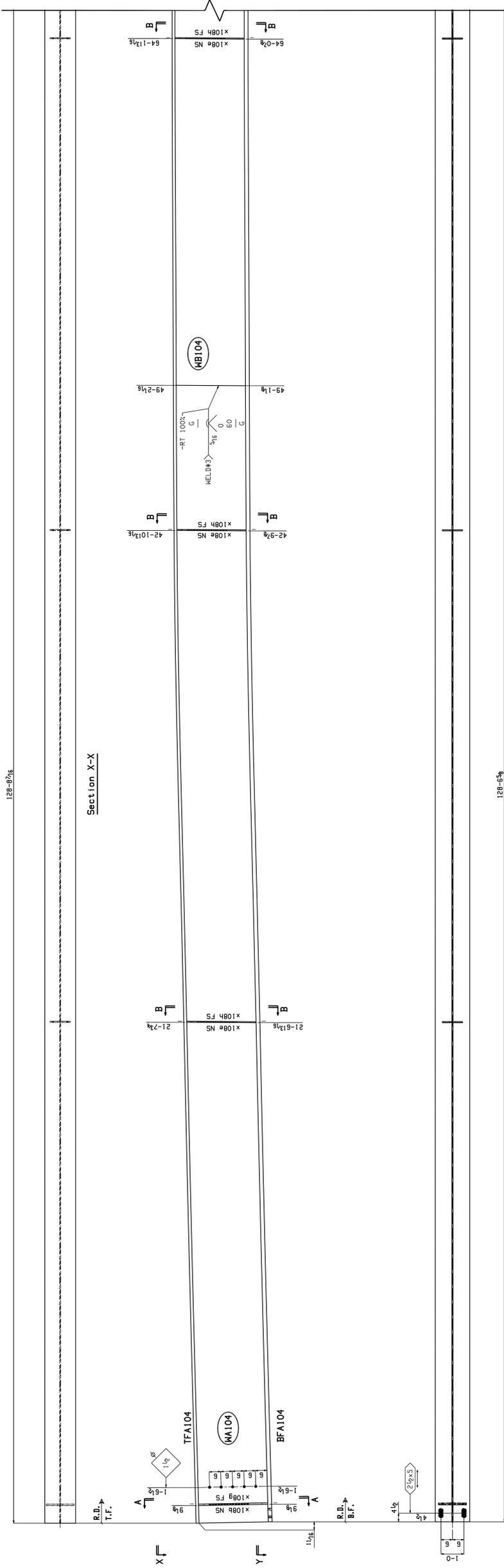
REFERENCE:
 PROJECT NUMBER: ER-BRF-0162 (18)

DATE	BY	CHK
JANUARY 2014	LN	CG
JANUARY 2014	LN	CG

000540
 104-01

12B-57/6

Section X-X



Section Y-Y

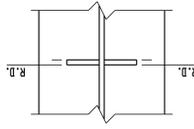
ONE GIRDER G104

GENERAL NOTE: SEE GN101

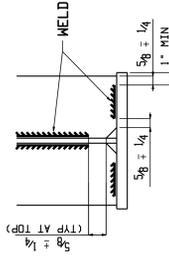
HOLES: 15/16" (U.N.O.)

WELD PROCEDURE: SEE WELDING PROCEDURE ON S101

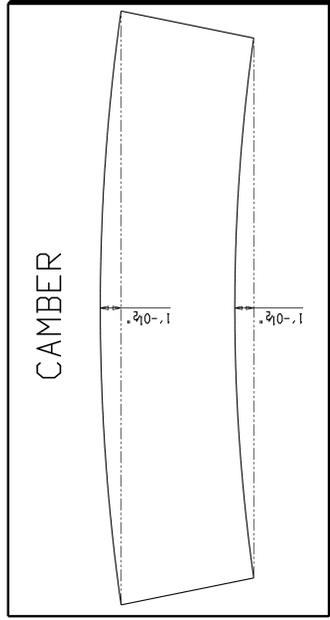
No	DESCRIPTION	DATE	BY	CHK
B	FOR 2nd APPROVAL	Feb 25 2014	LN	CG
A	FOR APPROVAL	Feb 5 2014	LN	CG



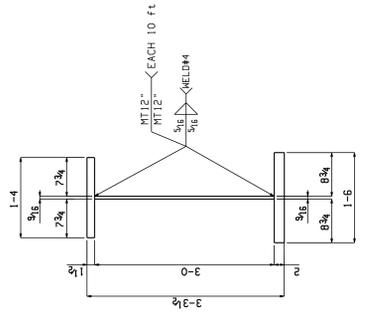
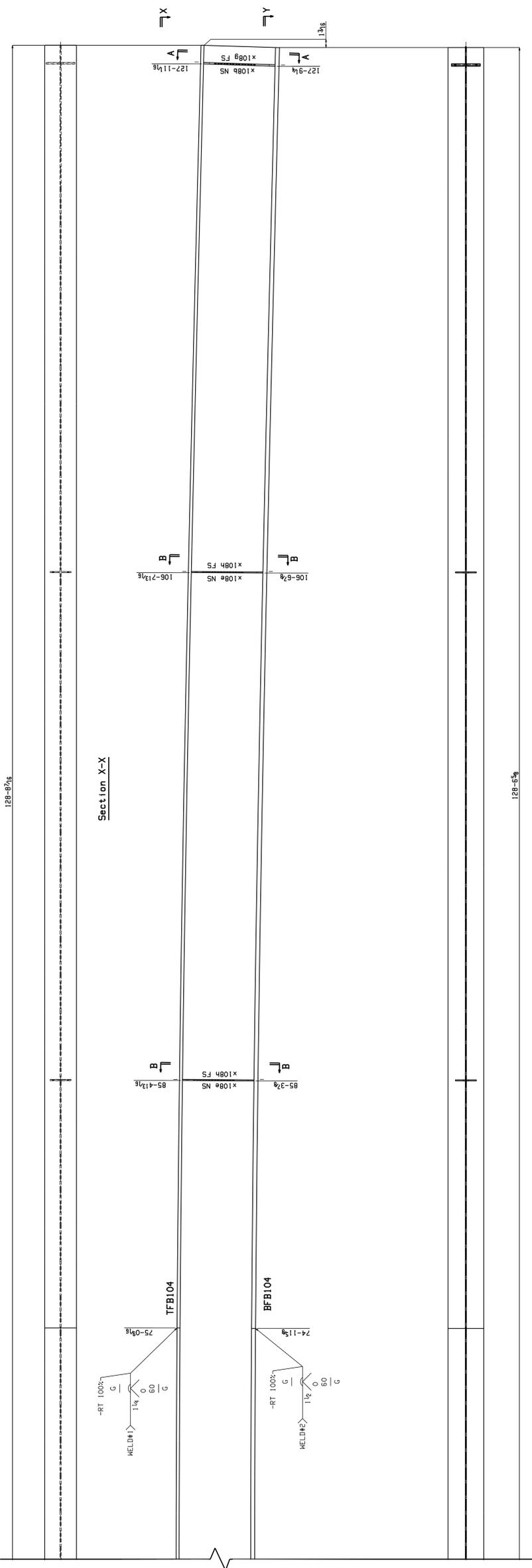
Typical running position detail for stiffener



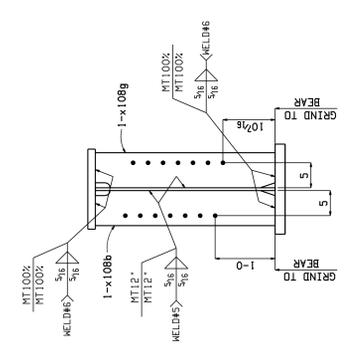
Typical section stiffener weld



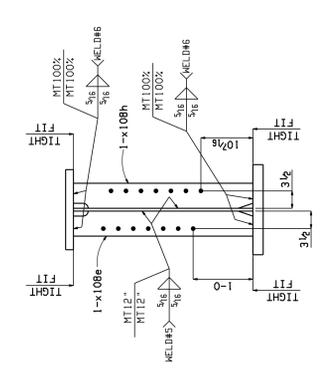
NOTE: BOLT 1 WASHER: 1 WASHER UNDER NUT U.N. BOLT 2 WASHERS: 1 WASHER UNDER HEAD U.N. 1 WASHER UNDER NUT U.N.	
STRUCTURAL Building Better Bridges	
PROJECT: VERMONT RTE 73 BRIDGE NO 19 TOWN OF ROCHESTER	
TITLE: MAIN GIRDER G104	
REFERENCE: PROJECT NUMBER: ER-BRF-0162 (18)	
DESIGNED BY: SAG	CHECKED BY: CG
DATE: JANUARY 2014	DATE: JANUARY 2014
PROJECT NO: 000540	SCALE: 104-02



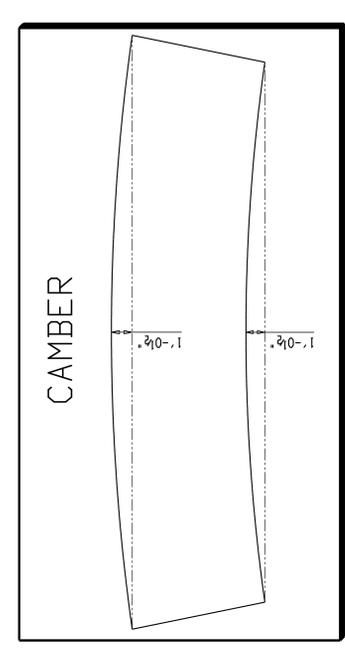
Typical Section



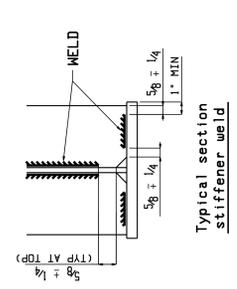
Section A-A



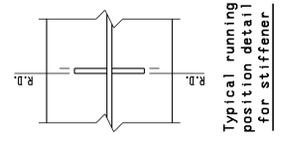
Section B-B



CAMBER



Typical section stiffener weld



Typical running position detail for stiffener

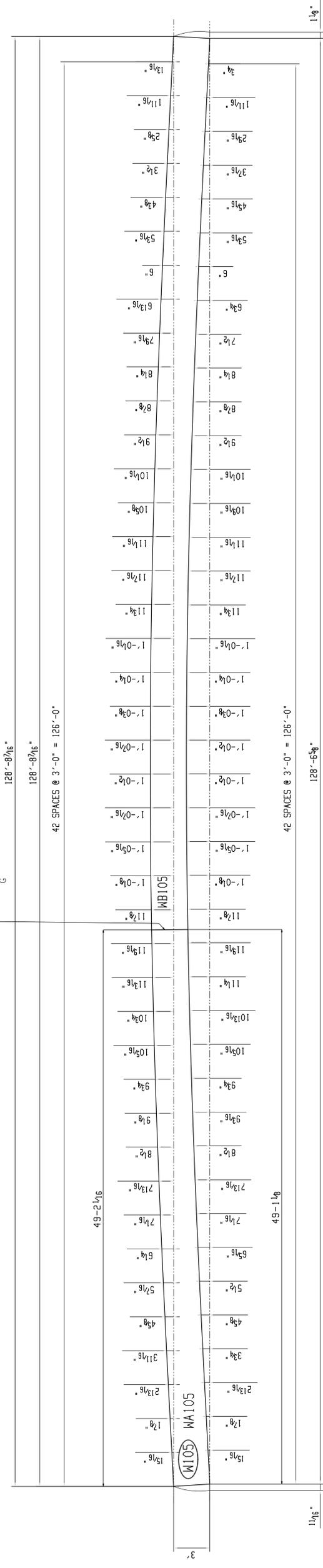
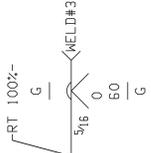
GENERAL NOTE: SEE GN101
 HOLES: 15/16" (U.N.O.)
 WELD PROCEDURE: SEE WELDING PROCEDURE ON S101

No	DESCRIPTION	DATE	BY	CHK
A	FOR APPROVAL	FEB 5 2014	LN	CG
B	FOR 2nd APPROVAL	FEB 25 2014	LN	CG

NOTE: BOLT 1 WASHER: 1 WASHER UNDER NUT U.N. BOLT 2 WASHERS: 1 WASHER UNDER HEAD U.N., 1 WASHER UNDER NUT U.N.	
PROJECT: VERMONT RTE 73 BRIDGE NO 19 TOWN OF ROCHESTER	
TITLE: MAIN GIRDER G104	
REFERENCE: PROJECT NUMBER: ER-BRF-0162 (18)	
DATE: JANUARY 2014	BY: SAG
DATE: JANUARY 2014	BY: CG
PROJECT NO: 000540	SCALE: 104-03

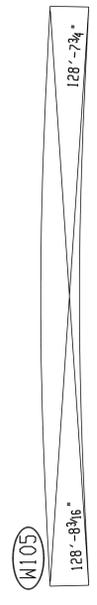


VERMONT RTE 73
 BRIDGE NO 19
 TOWN OF ROCHESTER
 MAIN GIRDER G104
 PROJECT NUMBER: ER-BRF-0162 (18)
 DATE: JANUARY 2014
 BY: SAG
 DATE: JANUARY 2014
 BY: CG
 PROJECT NO: 000540
 SCALE: 104-03



ONE WEB PLATE W105

W105 = PL 3/16"
M105 = PL 3/16"



No	DESCRIPTION	DATE	BY	CHK
B	FOR 2nd APPROVAL	FEB 25 2014	LN	CG
A	FOR APPROVAL	FEB 5 2014	LN	CG

NOTE: BOLT 1 WASHER: 1 WASHER UNDER NUT U.N.
BOLT 2 WASHERS: 1 WASHER UNDER HEAD U.N.
1 WASHER UNDER NUT U.N.

STRUCTURAL
Building Better Bridges
388 River Road, Claremont, NH
1.800.542.5206 F.603.546.5317

PROJECT:
VERMONT RTE 73
BRIDGE NO 19
TOWN OF ROCHESTER

TITLE:
WEB GIRDER G105

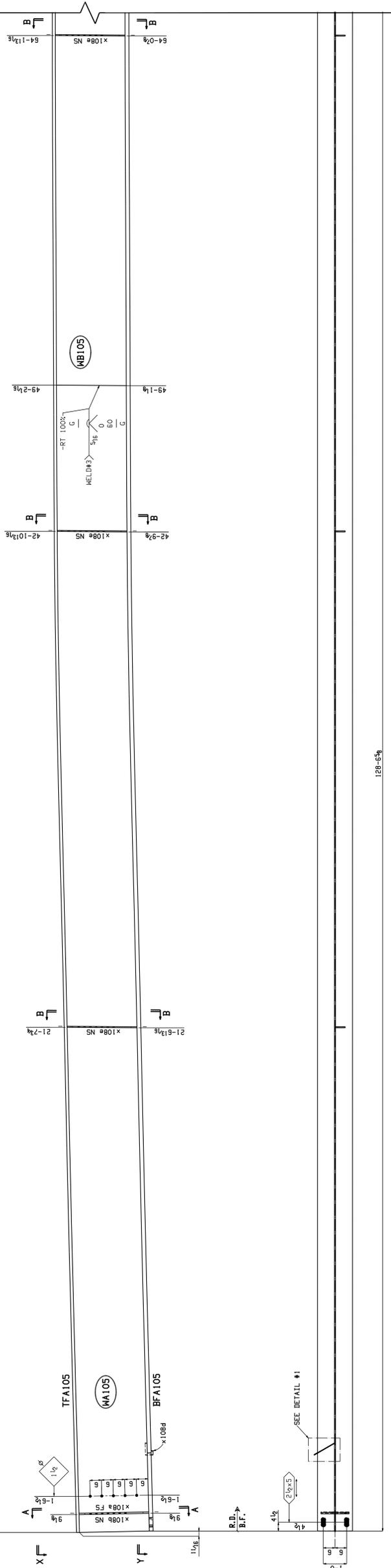
REFERENCE:
PROJECT NUMBER: ER-BRF-0162 (18)

DATE	BY	CHK
JANUARY 2014	LN	CG
JANUARY 2014	LN	CG

000540
105-01

12B-87/6

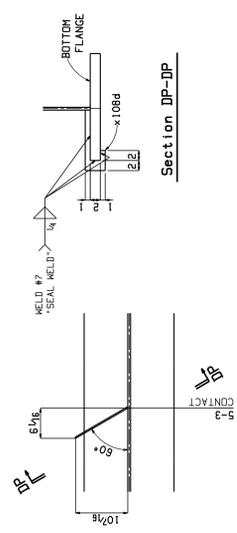
Section X-X



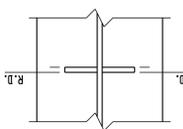
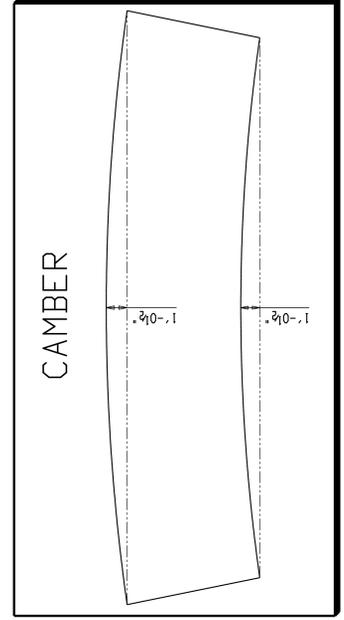
12B-87/6

Section Y-Y

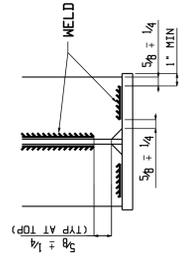
ONE GIRDER G105



DETAIL #1



Typical running position detail for stiffener



Typical section stiffener weld

GENERAL NOTE: SEE GN101
 HOLES: 15/16" (U.N.O.)
 WELD PROCEDURE: SEE WELDING PROCEDURE ON S101

No	DESCRIPTION	DATE	BY	CHK
B	FOR 2nd APPROVAL	FEB 25 2014	LN	CG
A	FOR APPROVAL	FEB 5 2014	LN	CG

NOTE: BOLT 1 WASHER: 1 WASHER UNDER NUT U.N.
 BOLT 2 WASHERS: 1 WASHER UNDER HEAD U.N.
 1 WASHER UNDER NUT U.N.

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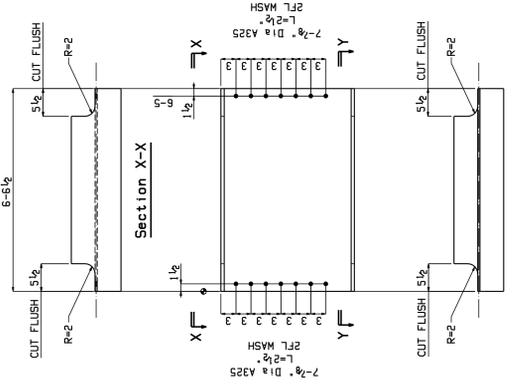
PROJECT: VERMONT RTE 73
 BRIDGE NO 19
 TOWN OF ROCHESTER

TITLE: MAIN GIRDER G105

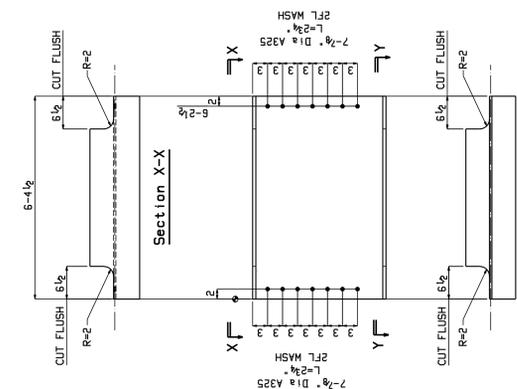
REFERENCE: PROJECT NUMBER: ER-BRF-0162 (18)

DATE: JANUARY 2014
 DRAWN BY: SAG
 CHECKED BY: CG

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 105-02



20 DIAPHRAGMS D106B



8 DIAPHRAGMS D106A

GENERAL NOTE: SEE GN101

HOLES: 15/16"

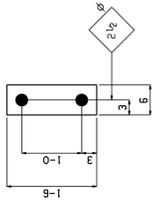
No	DESCRIPTION	DATE	BY	CHK
B	FOR 2nd APPROVAL	Feb 25 2014	LN	CG
A	FOR APPROVAL	Feb 5 2014	LN	CG

NOTE: BOLT 1 WASHER: 1 WASHER UNDER NUT U.N. BOLT 2 WASHERS: 1 WASHER UNDER HEAD U.N. 1 WASHER UNDER NUT U.N.	
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PROJECT: VERMONT RTE 73 BRIDGE NO 19 TOWN OF ROCHESTER	
TITLE: ABUTMENT & INTERMEDIATE DIAPHRAGMS	
REFERENCE: PROJECT NUMBER: ER-BRF-0162 (18)	
DATE	BY
JANUARY 2014	SAG
JANUARY 2014	CG
000540	
106	

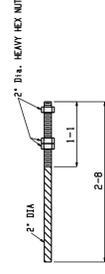
Total weight (lbs): 19554

BILL OF MATERIAL									
Mark	Qty.	Description	Stl Grd	Length	Remark	ABH	Total Weight	Seq	Qty

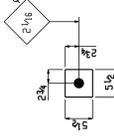
BILL OF MATERIAL									
Mark	Qty.	Description	Stl Grd	Length	Remark	ABH	Total Weight	Seq	Qty
D106A	8	DIAPHRAGM					4461.1	1	8
D106B	8	DIAPHRAGM	A709 50M	6'-4 1/2"		102-1	4284.0		
FB	112	1/8 Dia A325 TYP3		2 3/4"	2FL WASH		177.1		
D106B	20	DIAPHRAGM					11382.5	1	20
D106B	20	DIAPHRAGM	A709 50M	6'-5 1/2"		103-1	10930.0		
FB	280	1/8 Dia A325 TYP3		2 1/2"	2FL WASH		402.5		



5 LEVELING PLATES M107A



10 ANCHOR STUDS M107AB



20 PLATE WASHERS M107C

GENERAL NOTE: SEE GN101
 HOLES: 15/16" (U.N.O.)

No	DESCRIPTION	DATE	BY	CHK
B	FOR 2nd APPROVAL	Feb 25 2014	LN	CG
A	FOR APPROVAL	Feb 5 2014	LN	CG

Total weight (lbs): 740

BILL OF MATERIAL									
Mark	Qty.	Description	Stl Grd	Length	Remark	ABM	Total Weight	Seq	Qty

BILL OF MATERIAL									
Mark	Qty.	Description	Stl Grd	Length	Remark	ABM	Total Weight	Seq	Qty
M107A	5	LEVELING PLATE					153.1	1	5
M107A	5	PL1x6	A709 50K	1-6		104-1	153.1		
M107AB	10	ANCHOR STUD					544.4	1	10
M107AB	10	BOLT 2" Dia.	A449	2-8 TYPE 1			544.4		
M107AB	20	2" Dia. HEAVY HEX NUT							
M107C	20	PLATE WASHER					42.9	1	20
M107C	20	PL1x5 1/2	A709 50K	5 1/2			42.9		

NOTE: BOLT 1 WASHER UNDER NUT U.N.
 BOLT 2 WASHERS: 1 WASHER UNDER HEAD U.N.
 1 WASHER UNDER NUT U.N.

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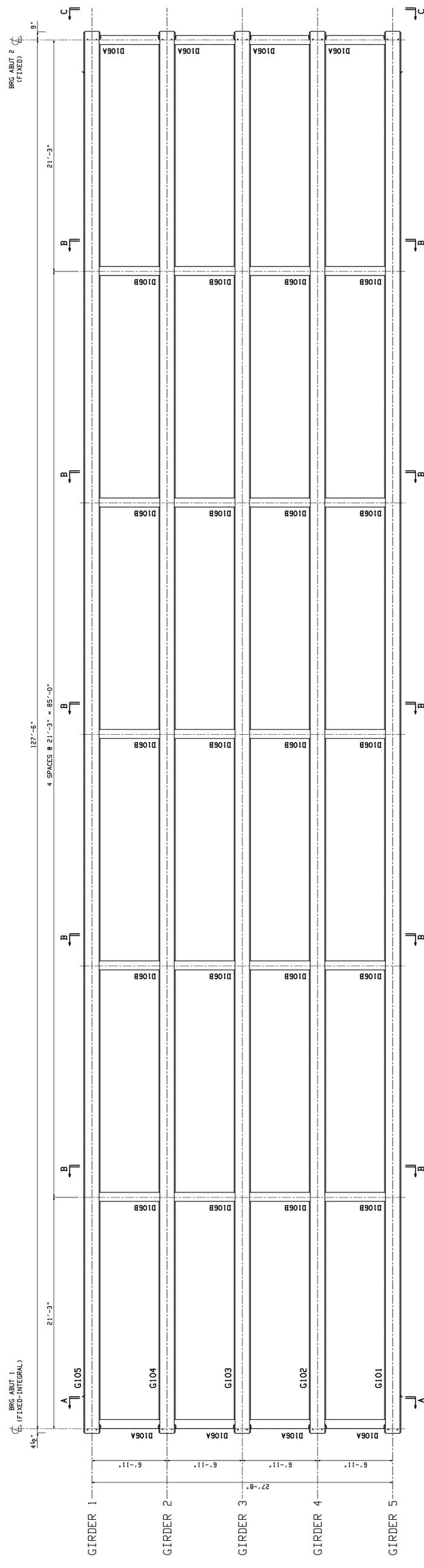
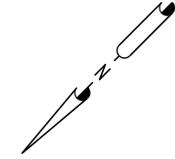
PROJECT:
 VERMONT RTE 73
 BRIDGE NO 19
 TOWN OF ROCHESTER

TITLE:
 LEVELING PLATE, ANCHOR STUD & PLATE WASHER ABUTMENT 1

REFERENCE:
 PROJECT NUMBER: ER-BRF-0162 (18)

DATE BY	DATE BY
LN LN	JANUARY 2014
CG CG	JANUARY 2014

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PLAN VIEW

WORK THIS DRAWING
IN CONJUNCTION WITH E102

*** THIS DRAWING IS TO BE USED FOR MARKS AND BOLTS ONLY
AND MUST BE READ IN CONJUNCTION WITH THE CONTRACT DRAWINGS
SPECIFICATIONS AND SPECIAL PROVISIONS.
THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION
SEQUENCING OR AS AN ERECTION PROCEDURE.

P.S. THE NUTS TO BE INSTALLED
ON THE LESS SEEN SIDE OF
THE STRUCTURE

HEADS OF BOLTS MUST BE
LOCATED ON THE EXTERIOR
SIDE OF THE SPAN

No	DESCRIPTION	DATE	BY	CHK
B	FOR 2nd APPROVAL	Feb 25 2014	LN	CG
A	FOR APPROVAL	Feb 5 2014	LN	CG

NOTE: BOLT 1 WASHER: 1 WASHER UNDER NUT U.N.
BOLT 2 WASHERS: 1 WASHER UNDER HEAD U.N.
1 WASHER UNDER NUT U.N.

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PROJECT: VERMONT RTE 73
BRIDGE NO 19
TOWN OF ROCHESTER

TITLE: ERECTION PLAN

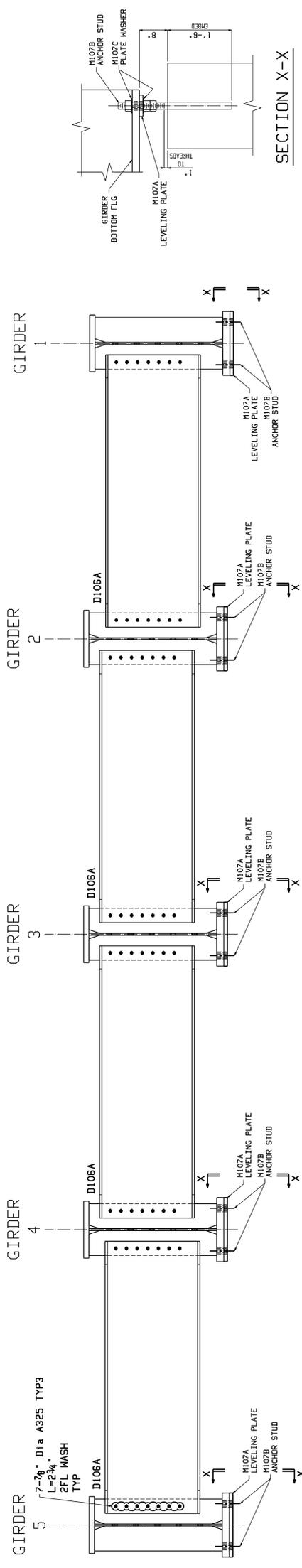
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DATE: JANUARY 2014

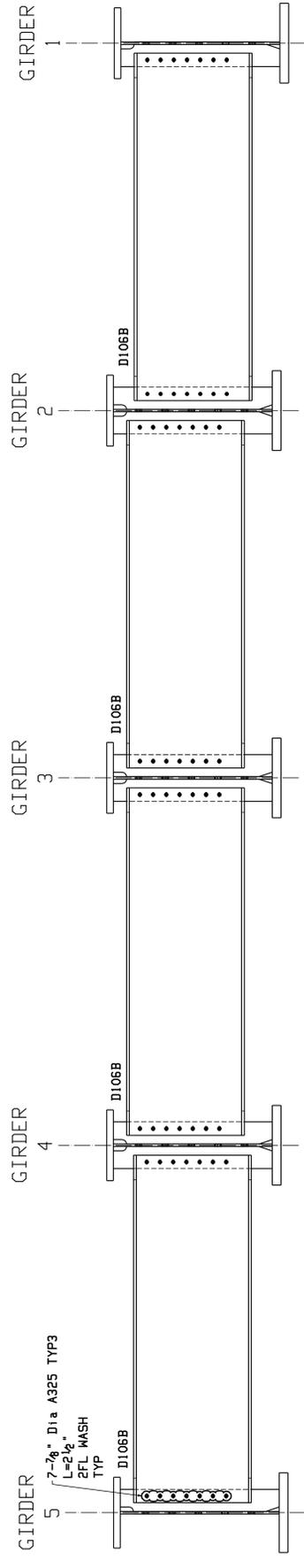
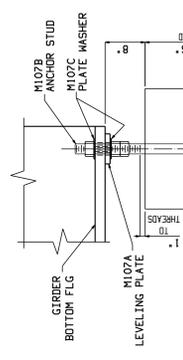
BY: CRC

CHK: CG

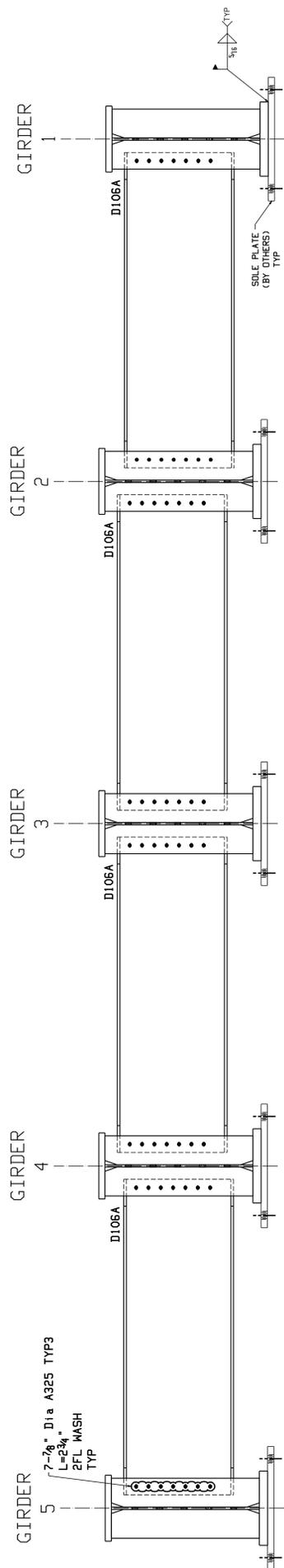
NO	DATE	BY	CHK
000540	JANUARY 2014		
E101	JANUARY 2014		



SECTION X-X



SECTION B-B



SECTION C-C

WORK THIS DRAWING
IN CONJUNCTION WITH E101

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SPECIFICATIONS AND SPECIAL PROVISIONS.
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SEQUENCING OR AS AN ERECTION PROCEDURE.

HEADS OF BOLTS MUST BE
LOCATED ON THE EXTERIOR
SIDE OF THE SPAN

P.S. THE NUTS TO BE INSTALLED
ON THE LESS SEEN SIDE OF
THE STRUCTURE

No	DESCRIPTION	DATE	BY	CHK
B	FOR 2nd APPROVAL	FEB 25 2014	LN	CG
A	FOR APPROVAL	FEB 5 2014	LN	CG

NOTE: BOLT 1 WASHER: 1 WASHER UNDER NUT U.N.
BOLT 2 WASHERS: 1 WASHER UNDER HEAD U.N.
1 WASHER UNDER NUT U.N.

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PROJECT:
VERMONT RTE 73
BRIDGE NO 19
TOWN OF ROCHESTER

TITLE:
ERECTION SECTIONS

REFERENCE:
PROJECT NUMBER: ER-BRF-0162 (18)

DATE: JANUARY 2014
DATE: JANUARY 2014

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E102

GENERAL NOTES

1. CONSTRUCTION SPECIFICATIONS:

ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO STATE OF VERMONT, AGENCY OF TRANSPORTATION 2011 STANDARD SPECIFICATIONS FOR CONSTRUCTION, AND THE 2012 AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, AND THEIR LATEST REVISION.

2. MATERIAL SPECIFICATIONS:

UNLESS NOTED, ALL NEW STRUCTURAL STEEL CONFORM TO AASHTO M270 GRADE 50W (ASTM A709-50W).

MATERIAL NOTED "CVN" ON "SHOP" DRAWING IN (REMARK) SHALL BE CHIPPY V NOTCH TESTED IN ACCORDANCE WITH VERMONT STD SPEC'S. AS INDICATED IN SUBSECTION 714.01

HIGHT STRENGTH BOLTS: AASHTO M164 (ASTM A325) $\frac{7}{8}$ " DIA. IN $\frac{1}{16}$ " DIAMETER HOLES (U/N).

TYPE 3 SHALL BE USED FOR UNPAINTED CONNECTIONS.

3. FABRICATION:

BOLT HOLES SHALL BE FABRICATED TO THE REQUIREMENTS OF THE AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS, SECTION 11.4.8, EXCEPT THAT HOLES SHALL NOT BE PUNCHED FULL SIZE.

STUDS ARE SUPPLIED AND INSTALLED BY OTHERS.

TIGHT FIT (WELDED ENDS ONLY). 50% OF THE PROJECTED AREA SHALL BE IN CONTACT WITHIN (0.02") WITH A PERMISSIBLE VARIATION OF ($\frac{1}{16}$ ") FOR THE REMAINING 50% OF THE PROJECTION AREA.

GRIND TO BEAR. 75% OF THE PROJECTED AREA SHALL BE IN CONTACT WITHIN (0.01") WITH A PERMISSIBLE VARIATION OF ($\frac{1}{32}$ ") FOR THE PROJECTED AREA.

4. WELDING:

THE CONFIGURATION OF THE WELD JOINTS AND ALL WELDING PROCEDURES SHALL BE IN ACCORDANCE WITH AASHTO/AWS D.1.5 BRIDGE WELDING CODE AND WITH THE SPECIFICATIONS SHOWN BESIDE. ALL WELDING WILL BE DETAILED TO PRE-QUALIFIED JOINTS, UNLESS PROHIBITED BY THE DESIGNER.

WELDING OF MAIN LOAD CARRYING MEMBERS AND ATTACHMENTS SHALL BE PERFORMED USING THE AUTOMATIC SUBMERGED ARC & SHIELDED METAL ARC PROCESS. ALL WELDS ARE CONTINUOUS U.N.

NON DESTRUCTIVE TESTING OF WELDS SHALL BE IN ACCORDANCE WITH THE REFERENCED SPECIFICATION.

5. CLEANING:

ALL STEEL THAT WILL REMAIN UNPAINTED SHALL BE BLAST CLEANED AS PER SSPC SP-10 PER SPEC. 506.14(a).

6. FIELD CONNECTIONS:

ALL FIELD CONNECTIONS SHALL BE MADE WITH $\frac{7}{8}$ " DIAMETER HIGH STRENGTH BOLTS AASHTO M164 (ASTM A325) TYPE 3. IN $\frac{1}{16}$ " DIAMETER HOLES UNLESS OTHERWISE NOTED. INSTALLED PER 506.19(c) AND SPECIAL PROVISIONS.

BOLTS SHALL HAVE

-HEAVY HEX. NUT, AASHTO M291 (ASTM A563) DH3 HEAVY HEX NUT

-HEX. HEAD

-ONE FLAT WASHER (U.N.O.), AASHTO M293 (ASTM F436)

EASCH (WASHER TO BE PLACED UNDER TURNED ELEMENT).

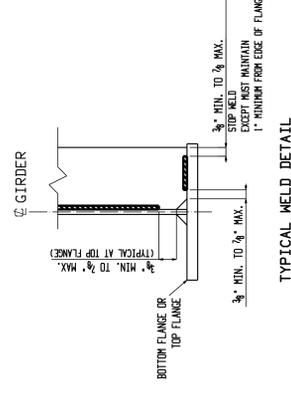
PIECE MARKS WILL BE LOCATED AS SHOWN ON ERECTION DRAWING.

BOLTS INSTALLED WITH THE STEM VERTICAL SHALL HAVE THE HEADS UP.

BOLTS INSTALLED WITH THE STEM HORIZONTAL SHALL HAVE THE HEADS TOWARDS THE WEATHER UNLESS CLEARANCE RESTRICTIONS DICTATE OTHERWISE.

7. EASE EDGE:

ALL SHARP CORNERS AND EDGES THAT ARE MARRED, CUT, OR ROUGHENED IN HANDLING SHALL BE ROUNDED TO A $\frac{1}{16}$ " RADIUS BY GRINDING. 506.12(d)



No	DESCRIPTION	DATE	BY	CHK
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BOLT 2 WASHERS: 1 WASHER UNDER HEAD U.N.
1 WASHER UNDER NUT U.N.



PROJECT: VERMONT RTE 73
BRIDGE NO 19
TOWN OF ROCHESTER

TITLE: GENERAL NOTES

REFERENCE: PROJECT NUMBER: ER-BRF-0162 (18)

DATE: JANUARY 2014

ISSUE NO: 000540

DATE: JANUARY 2014

BY: GNI01

000540

SYMBOL	TAIL TEXT	SUBCONTRACTOR 1 (XXX)	SUBCONTRACTOR 2 (XXX)	SUBCONTRACTOR 3 (XXX)
	S50W-1G-3			
	S50W-1G-3			
	S50W-1G-3			
	S50W-2F-GM			
	S50W-2F-DART			
	F50W-F1 F50W-F-2 F50W-F			
	F50W-F1 F50W-F-2 F50W-F			

B	FOR 2nd APPROVAL	Feb 25 2014	LN	CG
A	FOR APPROVAL	Feb 5 2014	LN	CG
No	DESCRIPTION	DATE	BY	CHK

NOTE: BOLT 1 WASHER: 1 WASHER UNDER NUT U.N.
BOLT 2 WASHERS: 1 WASHER UNDER HEAD U.N.
1 WASHER UNDER NUT U.N.



PROJECT:
VERMONT RTE 73
BRIDGE NO 19
TOWN OF ROCHESTER

TITLE:
WELDING PROCEDURES

REFERENCE:
PROJECT NUMBER: ER-BRF-0162 (18)

DATE	BY	CHK
JANUARY 2014	LN	CG
JANUARY 2014	LN	CG

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