



## QUAILE ENGINEERING LTD.

38 Parkside Drive  
UNIT 7  
Newmarket, ON  
L3Y 8J9

Tel: (905) 853-8547  
Toll Free: 1-877-364-5209  
Email: [quaile.eng@rogers.com](mailto:quaile.eng@rogers.com)

May 9, 2016

Mr. Maurizio Bertato  
Liv Building Products Inc.  
6050 Owen Rd  
Uxbridge, Ontario  
L9P 1R1

**Re: Proof Testing of Invisirail Glass Panels**

Dear Maurizio:

This is to confirm that proof loading has been carried out on the Invisirail glass guard system over the past number of years. The glass has been tested by loading a fully erected guard panel with posts spaced at 6' o/c. The loads that have been applied are as follows:

1. Proof loads of up to 538 lb have been applied horizontally to the top edge of the glass at mid-span without failure.
2. A proof load of 813 lb has been applied horizontally at the centre of the glass panel at mid-span without failure.

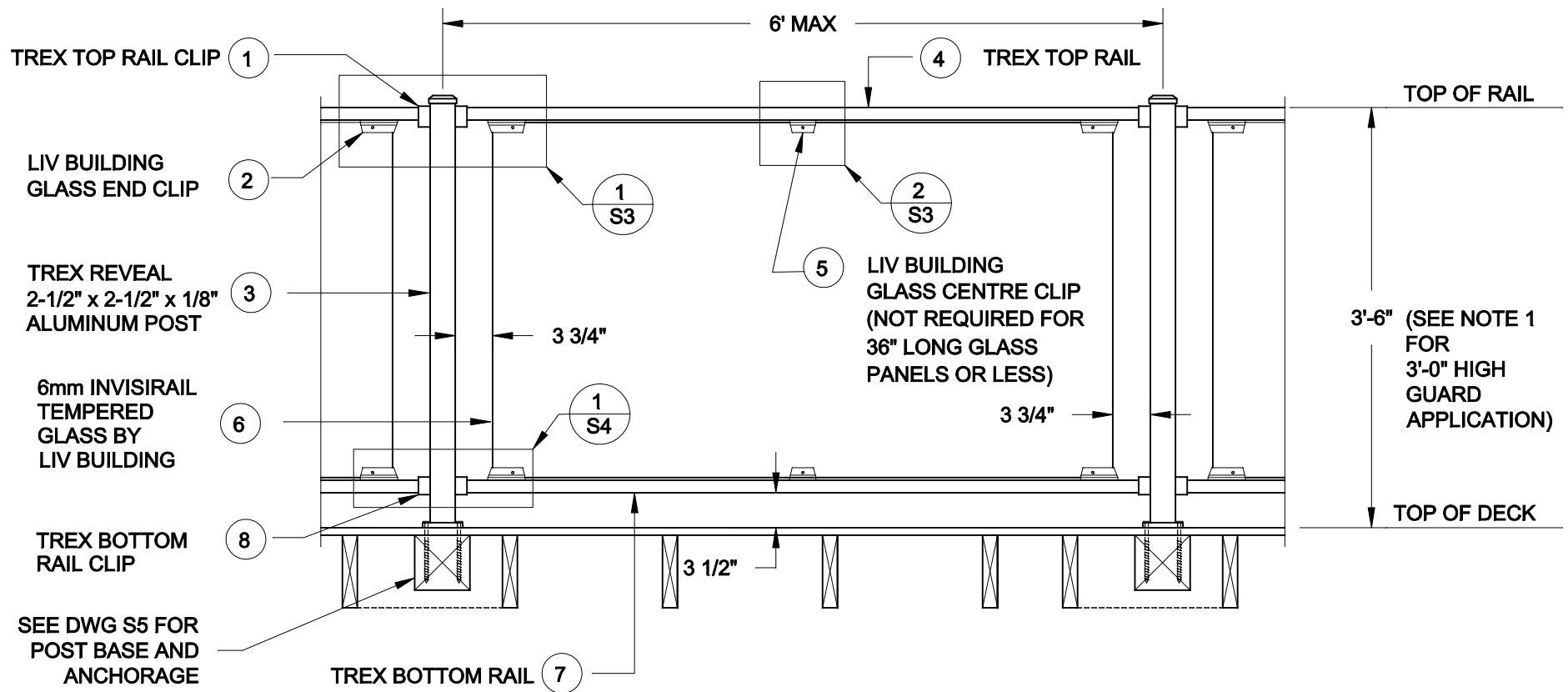
Additional tests have been carried out on the various connections and posts with a proof load of no less than 2 times the design live load as indicated on the sealed drawings.

I trust this is the information you require.

Yours truly,



Stephen Boyd, P.Eng.



**1**  
**S2** **GLASS GUARD w/  
TREC ALUMINUM RAILS AND POSTS**

**GUARD HEIGHT NOTE:**

1. A 3'0" HIGH GUARD MAY BE USED FOR DECKS SERVING ONE DWELLING UNIT WHERE THE TOP OF THE DECK IS NOT MORE THAN 5'-11" ABOVE GROUND LEVEL.

FOR PRODUCT INQUIRIES  
CONTACT LIV BUILDING  
PRODUCTS AT  
905-852-3733

SEE NOTES ON DRAWING S1

SCALE:  
3/4" = 1'-0"

DATE:  
JAN, 2015

DRAWN	CHECKED
SJB	SJB

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ENGINEER'S SEAL

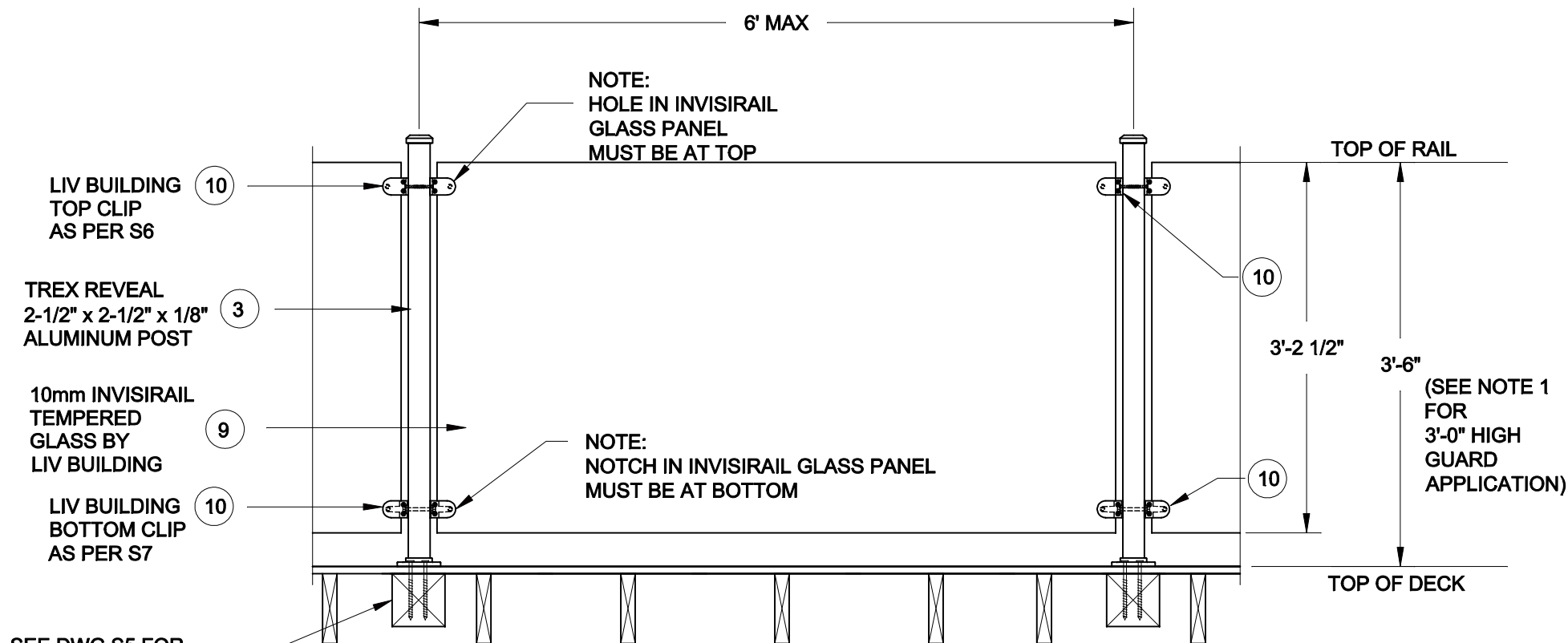
PROJECT:

LIV BUILDING PRODUCTS  
TREC REVEAL RESIDENTIAL GUARD

GLASS GUARD DETAIL  
WITH TREC RAIL AND POST

PROJECT No.:  
14-075B

DRAWING No.:  
S2



**1**  
**S2A** GLASS GUARD w/  
TREX ALUMINUM POSTS

**GUARD HEIGHT NOTE:**

1. A 3'-0" HIGH GUARD MAY BE USED FOR DECKS SERVING ONE DWELLING UNIT WHERE THE TOP OF THE DECK IS NOT MORE THAN 5'-11" ABOVE GROUND LEVEL.

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SEE NOTES ON DRAWING S1

SCALE:  
3/4" = 1'-0"

DATE:  
JAN, 2015

DRAWN	CHECKED
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ENGINEER'S SEAL

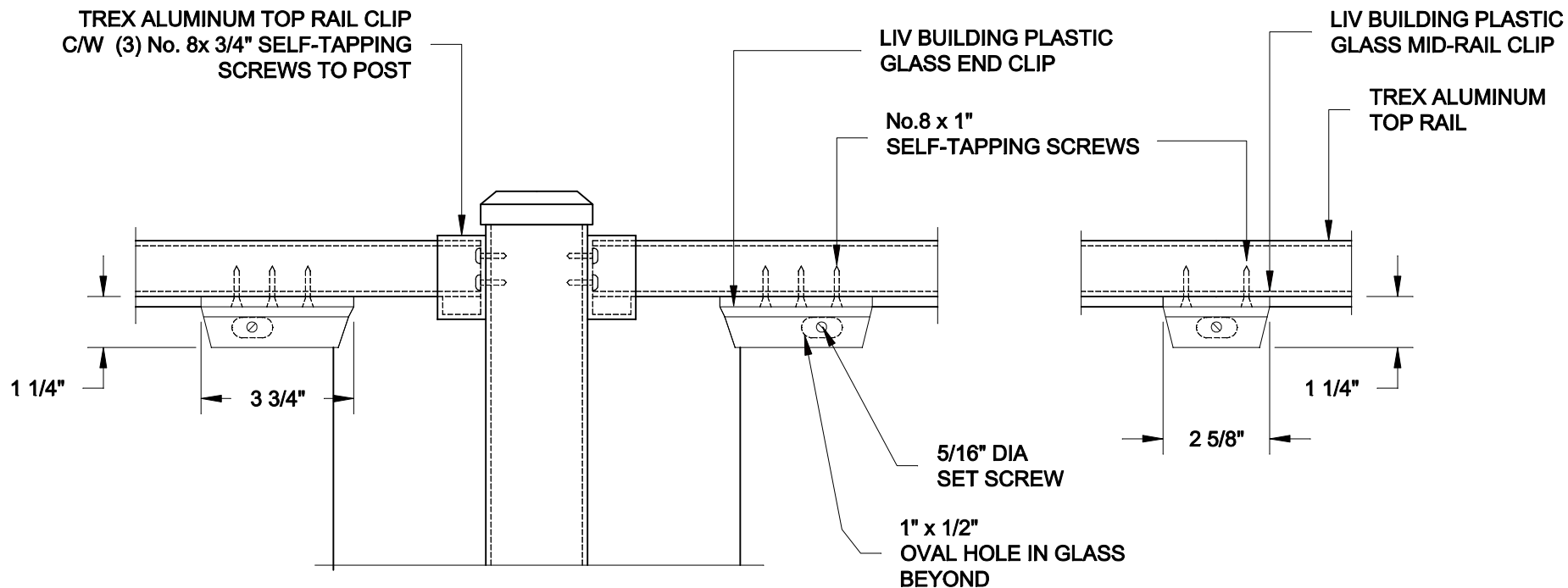
PROJECT:

LIV BUILDING PRODUCTS  
TREX REVEAL RESIDENTIAL GUARD

GLASS GUARD DETAIL  
WITH TREX POST

PROJECT No.:  
14-075B

DRAWING No.:  
S2A



**1**  
**S3** TOP CONNECTION DETAIL  
AT POST

**2**  
**S3** MID RAIL GLASS  
CONNECTION DETAIL

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905-852-3733

SEE NOTES ON DRAWING S1

SCALE:  
3" = 1'-0"

DATE:  
JAN, 2015

DRAWN	CHECKED
SJB	SJB

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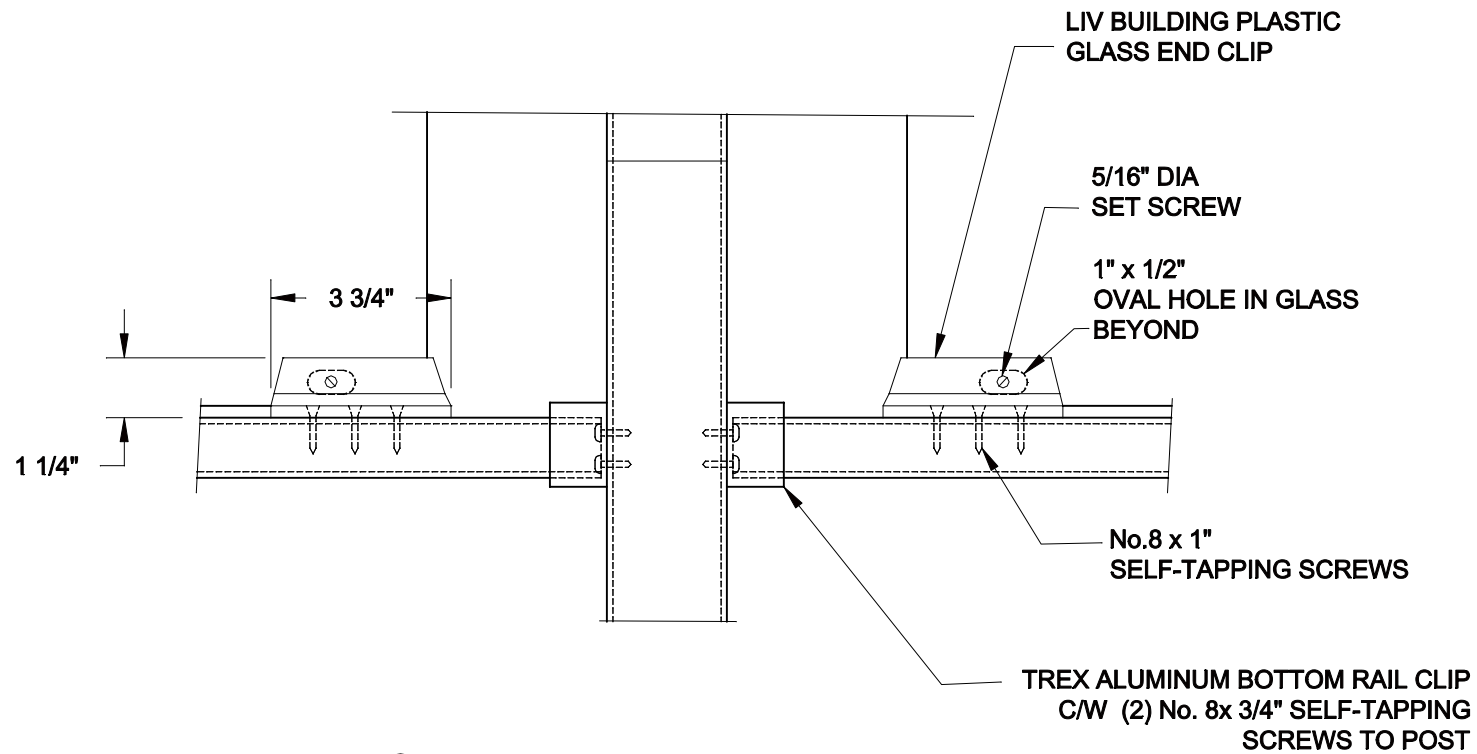
ENGINEER'S SEAL

PROJECT:  
LIV BUILDING PRODUCTS  
TREX REVEAL RESIDENTIAL GUARD

TOP CONNECTION  
DETAILS

PROJECT No.:  
14-075B

DRAWING No.:  
S3



**1**  
**S4** **BOTTOM CONNECTION DETAIL**  
**AT POST**

FOR PRODUCT INQUIRIES  
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SEE NOTES ON DRAWING S1

SCALE:  
3" = 1'-0"

DATE:  
JAN, 2015

DRAWN SJB	CHECKED SJB
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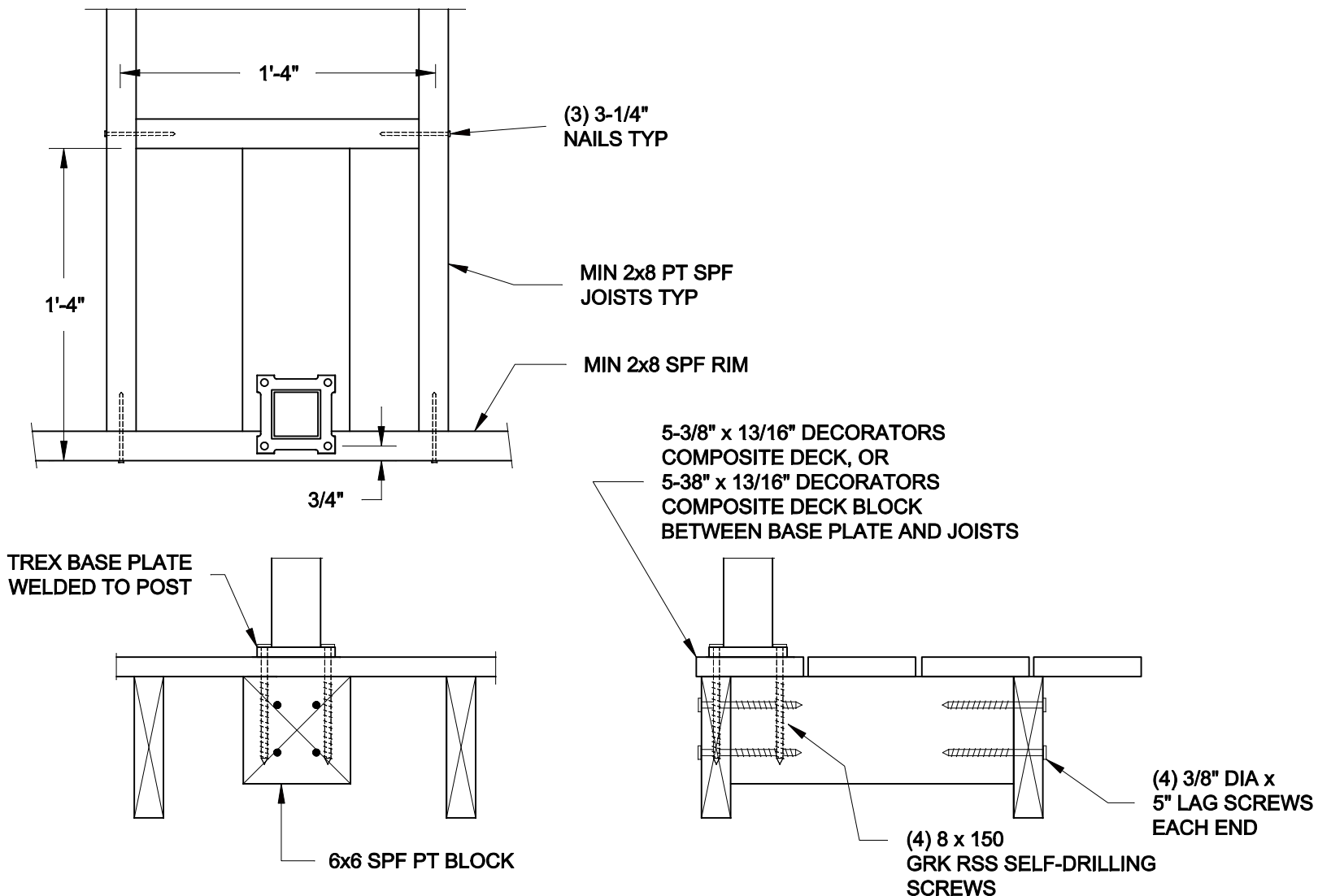
PROJECT:

LIV BUILDING PRODUCTS  
TREX REVEAL RESIDENTIAL GUARD

BOTTOM CONNECTION  
DETAILS

PROJECT No.:  
14-075B

DRAWING No.:  
S4



1  
S5

## TREX POST ANCHORAGE

1-1/2" = 1'-0"

NOTE: BASEPLATE MUST BEAR DIRECTLY ON COMPOSITE DECK BOARD ,  
BEARING ON PRESSURE TREATED SPF OR CEDAR IS NOT  
PERMITTED.

FOR PRODUCT INQUIRIES  
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SEE NOTES ON DRAWING S1

SCALE:  
AS NOTED

DATE:  
JAN, 2015

DRAWN  
SJB

CHECKED  
SJB

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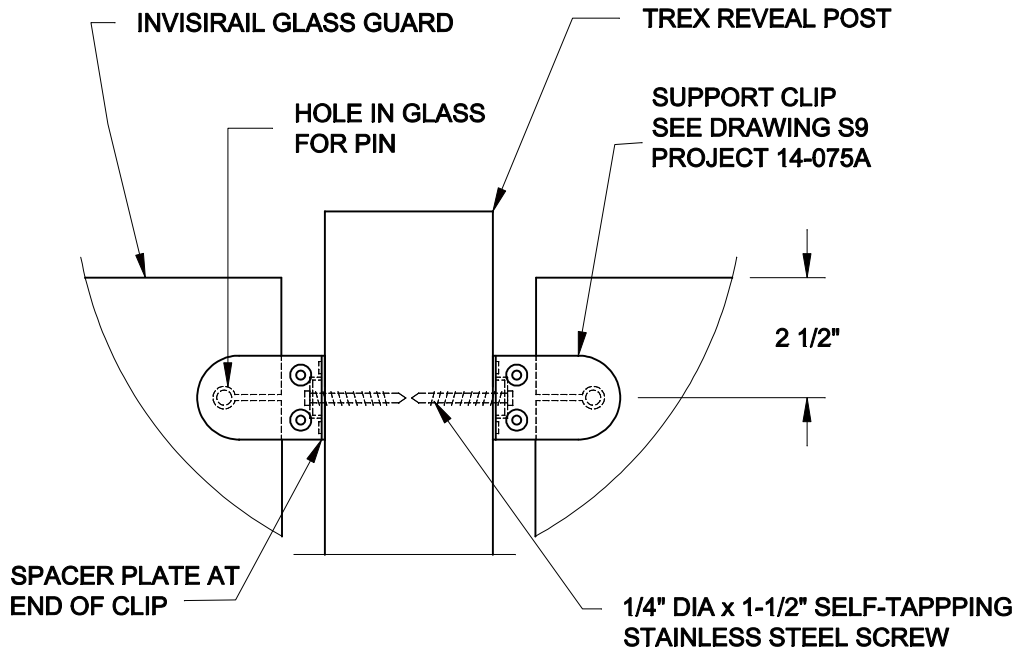
PROJECT:

LIV BUILDING PRODUCTS  
TREX REVEAL RESIDENTIAL GUARD

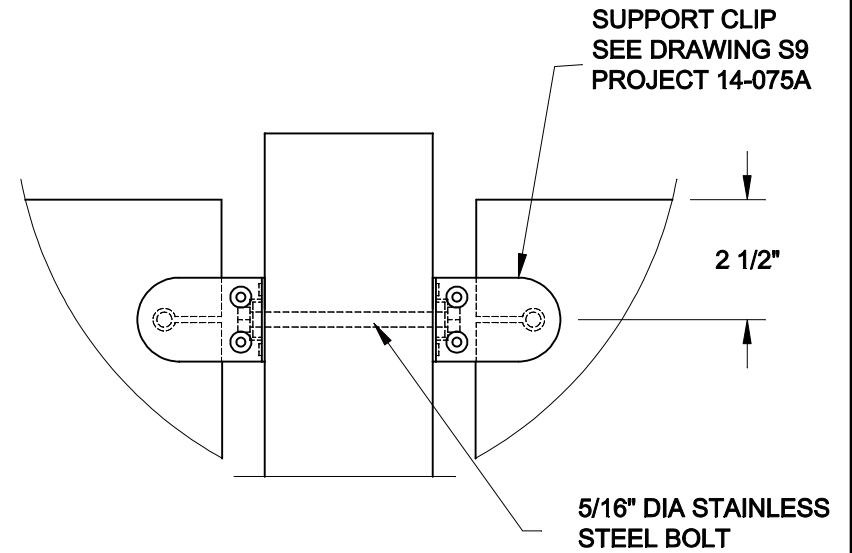
POST ANCHORAGE  
DETAILS

PROJECT No.:  
14-075B

DRAWING No.:  
S5



**1**  
**S6** TOP CLIP



**2**  
**S6** ALTERNATE CONNECTION

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905-852-3733

SEE NOTES ON DRAWING S1

SCALE:

NTS

DATE:

JAN, 2015

DRAWN

SJB

CHECKED

SJB

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ENGINEER'S SEAL

PROJECT:

LIV BUILDING PRODUCTS  
TREX REVEAL RESIDENTIAL GUARD

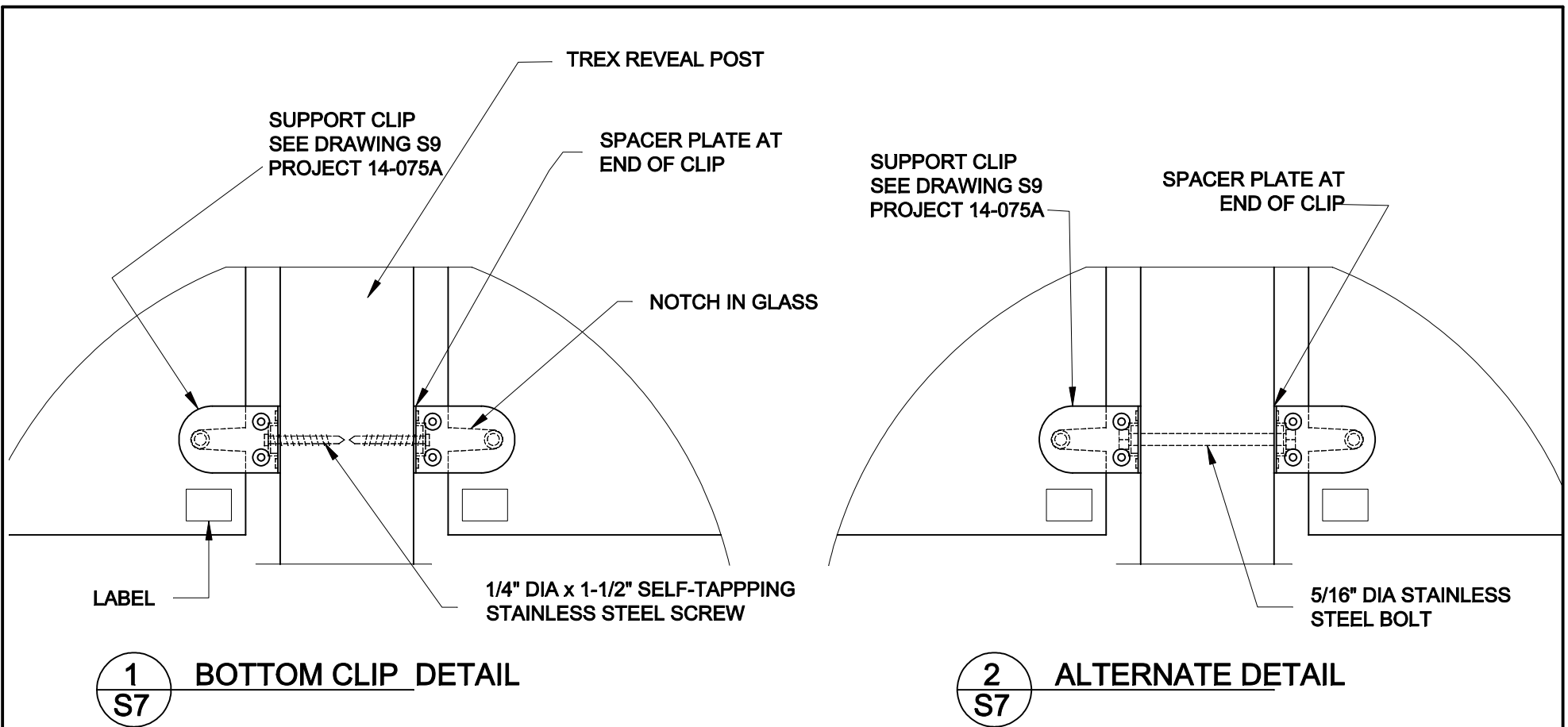
TOP CLIP DETAIL  
INVISIRAIL GLASS GUARD

PROJECT No.:

14-075B

DRAWING No.:

S6



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SEE NOTES ON DRAWING S1

SCALE: NTS	
DATE: JAN, 2015	
DRAWN SJB	CHECKED SJB

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ENGINEER'S SEAL		PROJECT: LIV BUILDING PRODUCTS TREX REVEAL RESIDENTIAL GUARD	
		BOTTOM CLIP DETAIL INVISIRAIL GLASS GUARD	
		PROJECT No.: 14-075B	DRAWING No.: S7