

Vehicular Rolling Load Testing

Model Tested: 1 1/8" GridLine G6

Test Date: January 23, 2026

Type of Test: Rolling Load

Project#: CSCT-25-003

Test Location: Milton, PA

Test Standard: None

Test Report#: 25-003-02

This testing was conducted to evaluate the effects of a vehicle driving across Model **1 1/8" GridLine G6** at low speed. As there is no known or established national test standard for this application, this testing was conducted under the procedures described within. For this evaluation, a 1,750 lb. wheel load was applied. (The 1,750 lb. tire load represents the weight of a 7,000 lb. vehicle with the load divided over (4) wheels.) Under these procedures, **1 1/8" GridLine G6** demonstrated the ability to withstand the vehicular rolling load stresses without sustaining any significant damage or deformation that results in failure of the product.

Test Procedure

A 24"(61cm) wide x 30"(76.2cm) long/traffic direction sample of **1 1/8" GridLine G6** was provided by CS EFS. The sample was of standard design and contained no modifications. Standard "hold down plates" were also included at each corner and were utilized for installation.

A wood platform was constructed for installation of the sample and included a 1 1/8" recess to receive the sample. (See drawings.) The sample was placed into the recess in the wood platform and was anchored with screws at each hold down plate.

The wood platform/sample assembly was placed into position adjacent to the CS Cycling Machine with wood blocking installed to prevent the platform from moving during testing.

The C/S Rolling Load Cart was attached to the Cycling Machine and positioned over the test sample. A concrete filled barrel was placed onto the cart to apply a 1,750 lb. load at the tire. The cart is fitted with a light-duty truck wheel/tire. (Prior to the positioning of the wood platform/assembly in position, the Cart was attached to the Cycling Machine. The tire of the cart was positioned on a shipping scale to confirm load weight. The weight barrel was placed on the cart, and the position of the barrel was adjusted until a tire load of 1,750 lbs. was achieved.)

The Cycling Machine was programmed to drive the Load Cart back-and-forth over the **1 1/8" GridLine G6** sample along the traffic direction centerline. A total of 1,000 passes were conducted. Testing was stopped periodically to observe and/or inspect the sample for performance. These observations are noted and included in this report.

At the conclusion of the 1,000 passes the sample was removed and inspected for any damage and/or permanent deformation that would negatively affect its performance. All details pertaining to the test and the results are included in the following photos and attachments. The testing was also recorded with video which is available upon request.

Vehicular Rolling Load Testing

Testing was conducted and witnessed by CS EJC Engineering, Roger Barr and Daniel Wright. Report prepared by Roger Barr, 1/27/26.

A copy of this report will be retained by Construction Specialties, Inc. Results obtained are tested values and were secured by using the designated test methods. This report is exclusive property of Construction Specialties, Inc. and relates only to the specimens tested and listed in this report. This report may not be reproduced, except in full, without the written approval of Construction Specialties, Inc.

For CONSTRUCTION SPECIALTIES, INC.

Roger W. Barr
EJC Testing Manager

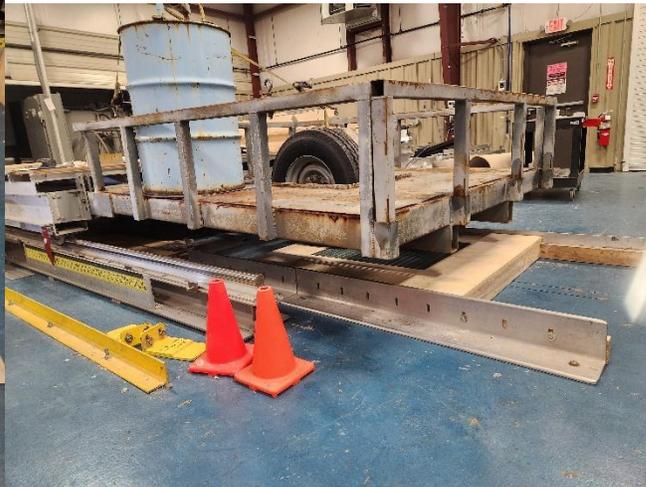
Tim Fisher
EJC Engineering Manager

Vehicular Rolling Load Testing

Photos:



Load Verification



General Test Setup (3/4" Peditred G4 shown for reference)

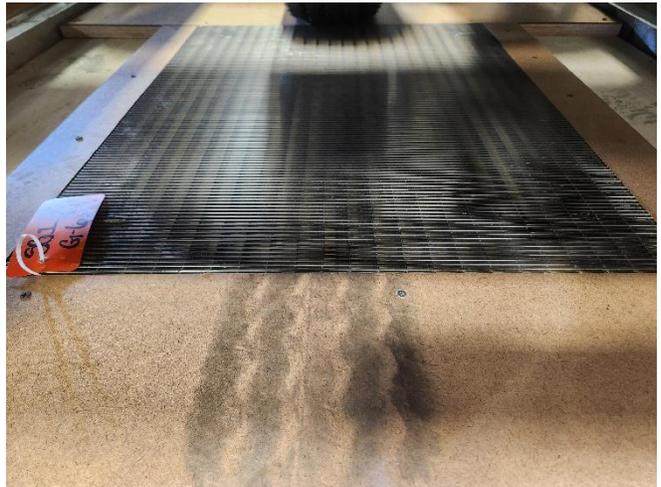
Vehicular Rolling Load Testing



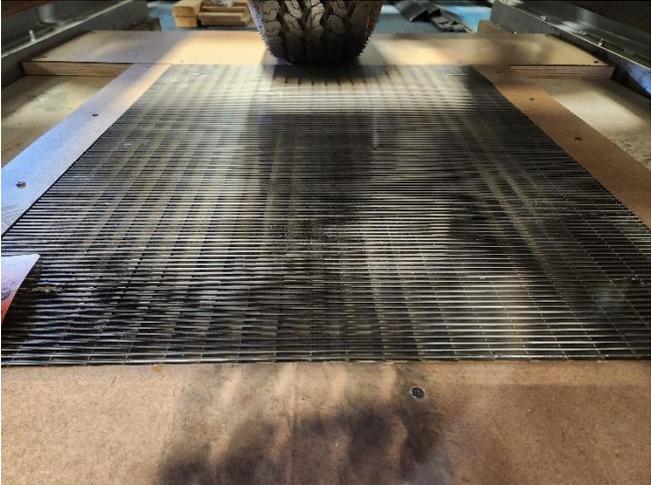
General Test Setup (3/4" Peditred G4 shown for reference)



After (20) Passes



Vehicular Rolling Load Testing



After (100) Passes



After (500) Passes

Vehicular Rolling Load Testing



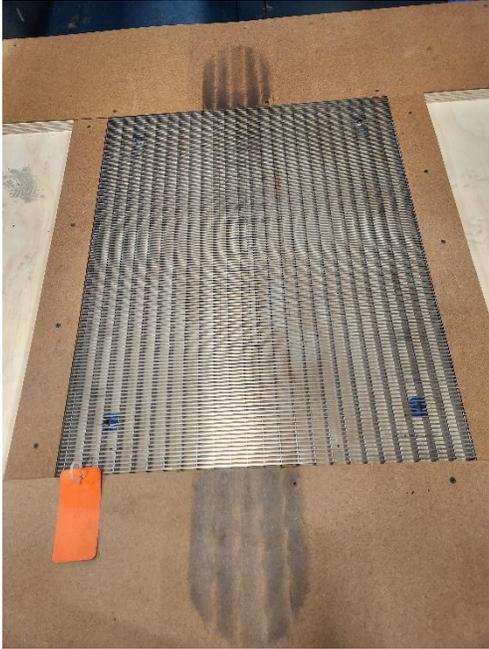
After (500) Passes



After (1000) Passes



Vehicular Rolling Load Testing



After (1000) Passes

C/S EJC ROLLING LOAD TEST			
Rolling Load Test Observation Sheet			
Project #:	CSCT-25-003	Test ID/#:	25-003-02
Test Start Date:	1/23/2026	Test End Date:	1/23/2026
EFS Model:	Gridline G6-98		
Note Modifications from Standard Model:			
Wheel Load Applied:	1,750 Lbs.	Verified Weight:	1,750 Lbs.
Travel Distance (+/-in.):	40"	Travel Speed (in./sec.):	12
Program Dim. (Black Scale):	Retract: 22.000	Extend: 62.000	
Installation Notes: (Cure Time, Mounting Block Type, Deflection Pad...)	A 30" L (traffic dir.) x 24" W sample of EFS model G6-98 Gridline is installed into a 1 1/8" deep recess in a wood construction platform. The sample is anchored at each corner with standard hold down plates. Top surface of wood platform is flush with sample surface.		
Number of Passes Completed (Cycles)	Observations		
20(10)	20 - No visible change. No deflection visible during movement.		
100(40)	100 - Light tire tread pattern on the surface. No visible deflection or other notations during movement.		
500(200)	500 - The tire tread pattern is more pronounced. Checked the top surface flatness with a straight edge. No deflection was seen. Note: 10 cycles = 1min 12.93sec. (7.293 sec/cyc.)		
1,000(250)	1000 - Passes were completed without any issues or concerns.		
Additional Notes:			
Post Test Notes:	At the completion of the 1,000 passes, the sample was removed for inspection. There was no tire tread pattern visible. It is believed that what was seen was shadow or reflection from the tire. A straight edge was again placed along the the bottom of a rail, no deflection was noted. The product remains serviceable.		
Technician Initials:	R. Barr		
Date:	1/23/2026		

TEST 25-003-02 PLAN
 - ROLLING LOAD TEST WITH
 PASSINGER LIGHT TRUCK
 WHEEL/TIRE MOUNTED ON ROLLING
 LOAD CART.
 - THE WHEEL LOAD ON THE
 SURFACE OF THE SAMPLE TO BE
 APPROX. 1750 LBS.
 - CART TO BE MOVE BACK AND
 FORTH OVER THE TEST SAMPLE
 500 TIME EQUALING 1,000 TOTAL
 PASSES.
 - PASSES TO BE CONDUCTED IN 250
 PASS INCREMENTS. AT THE
 COMPLETION OF EACH INCREMENT
 OBSERVATIONS WILL BE
 RECORDED AND PHOTOGRAPHS
 TAKEN.
 - AT THE CONCLUSION OF THE 1,000
 PASSES THE COVER WILL BE
 DISASSEMBLED AND OBSERVATION
 RECORDED.
 - A FINAL REPORT WILL THEN BE
 COMPILED.
 - PORTIONS OF THE TESTING WILL
 ALSO BE VIDEO RECORDED.

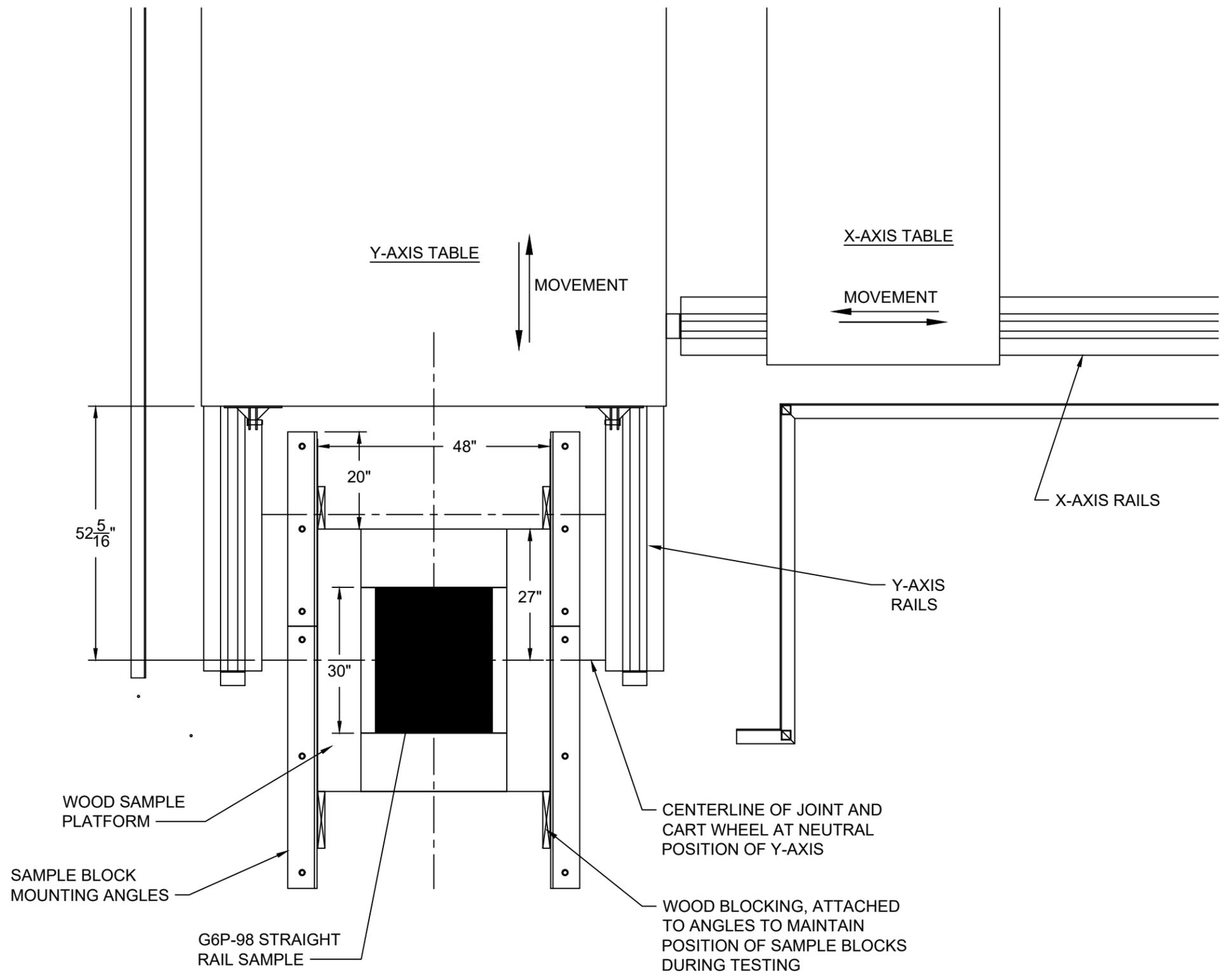
CART NOT SHOWN FOR CLARITY.
 SEE PAGE 2.

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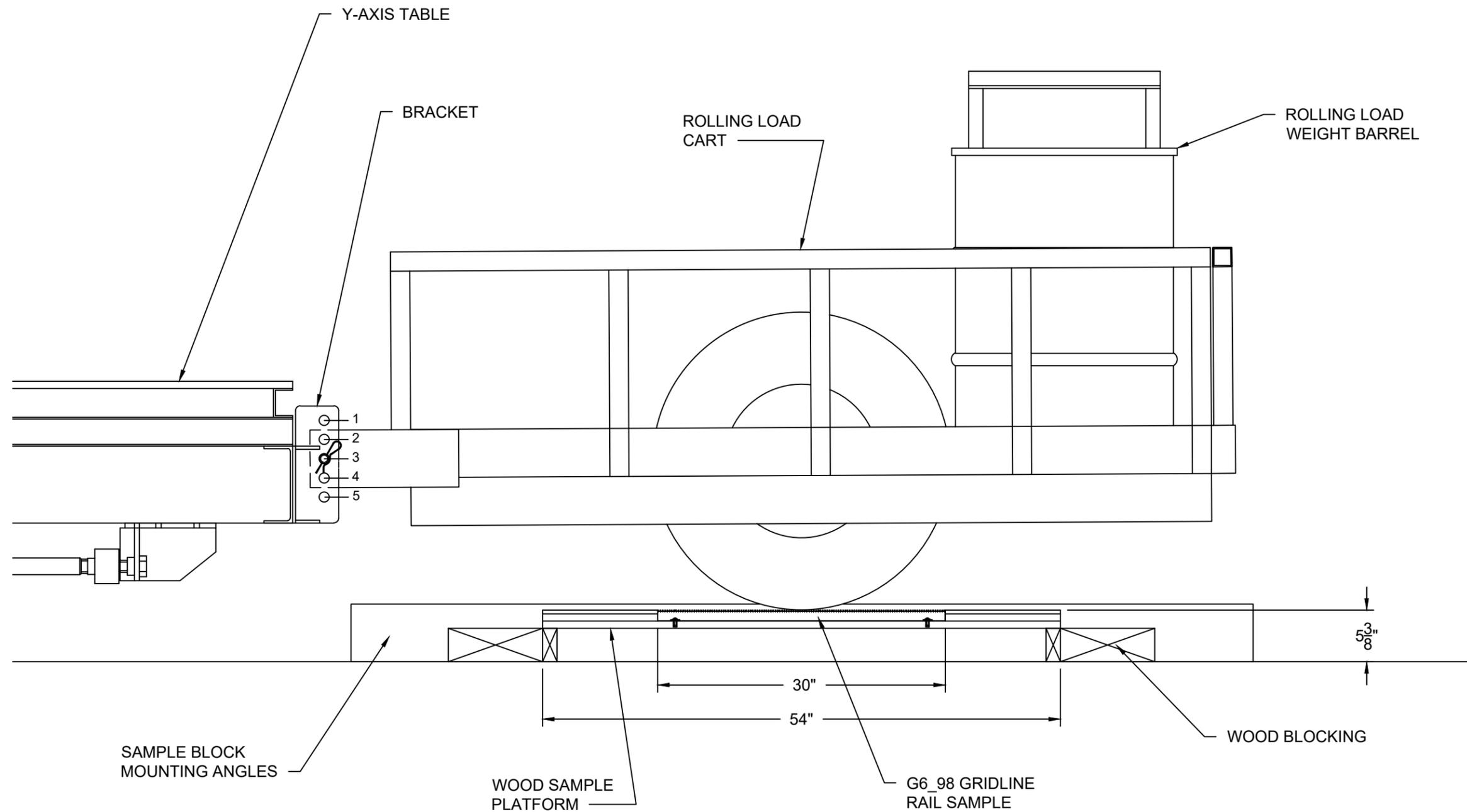
DESCRIPTION:
 ROLLING LOAD TESTING LAYOUT
 MODEL: G6_98 GRIDLINE
 PASSINGER LIGHT TRUCK TIRE
 PROJECT NO.: CSCT-25-003

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**MODEL G6_98 GRIDLINE STRAIGHT RAIL
 ROLLING LOAD TESTING
 SAMPLE INSTALLATION LAYOUT
 SCALE: 1/2" = 1'**

A	REVISED		RB	10/1/25	APPD BY:
					DWG BY: RB
					DATE: 10/1/25
REV	DESCRIPTION	SHT	BY	DATE	DRAWING NO.:
REVISION HISTORY					25-003-02
PART NUMBER:					SHT. 1 OF 5



**MODEL G6_98 GRIDLINE
ROLLING LOAD TESTING
SAMPLE INSTALLATION LAYOUT
SCALE: 1:12**

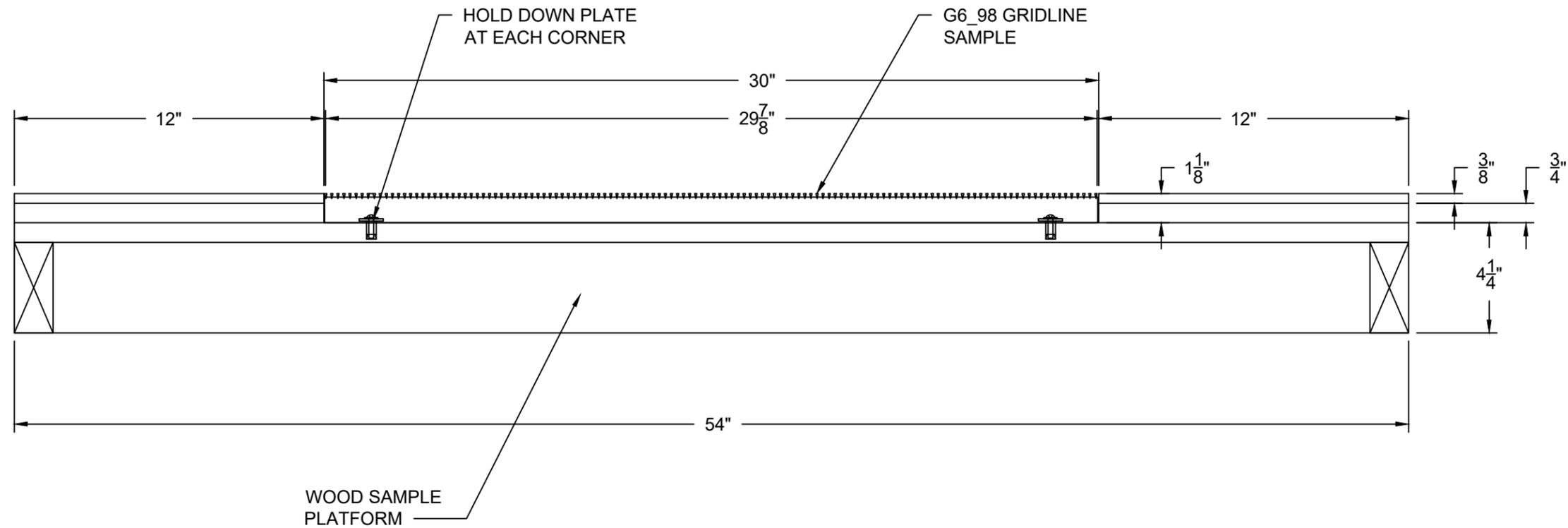
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DESCRIPTION:
ROLLING LOAD TESTING LAYOUT
MODEL: G6_98 GRIDLINE
PASSANGER LIGHT TRUCK TIRE
PROJECT NO.: CSCT-25-003

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					DWG BY: RB
					DATE: 10/1/25
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REVISION HISTORY					25-003-02
PART NUMBER:					SHT. 2 OF 5



MODEL G6_98 GRIDLINE
 ROLLING LOAD TESTING
 MOUNTING DETAIL
 SCALE: 1:5

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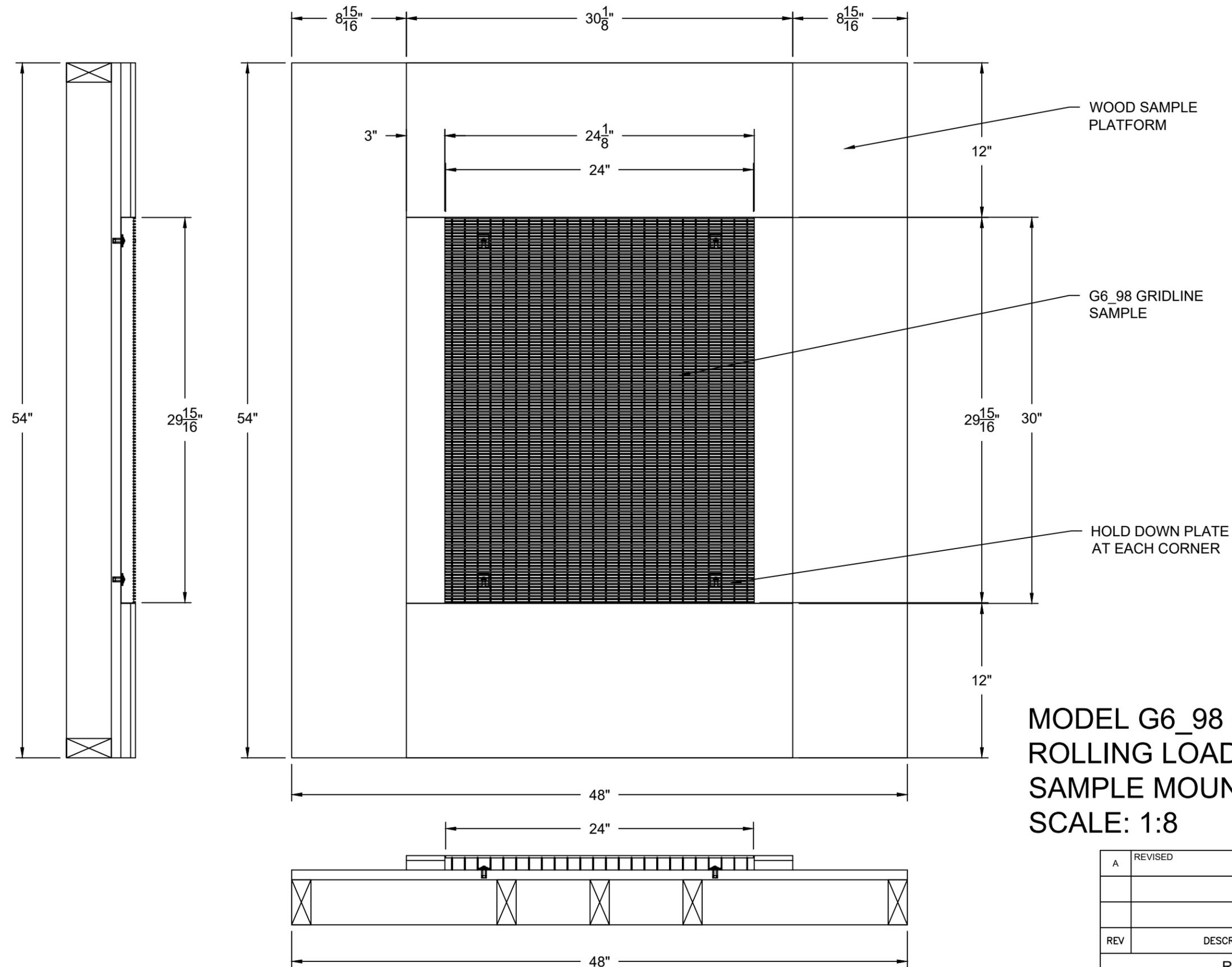


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DESCRIPTION:
 ROLLING LOAD TESTING LAYOUT
 MODEL: G6_98 GRIDLINE
 PASSANGER LIGHT TRUCK TIRE

PROJECT NO.: CSCT-25-003

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**MODEL G6_98 GRIDLINE
ROLLING LOAD TESTING
SAMPLE MOUNTING PLAN
SCALE: 1:8**

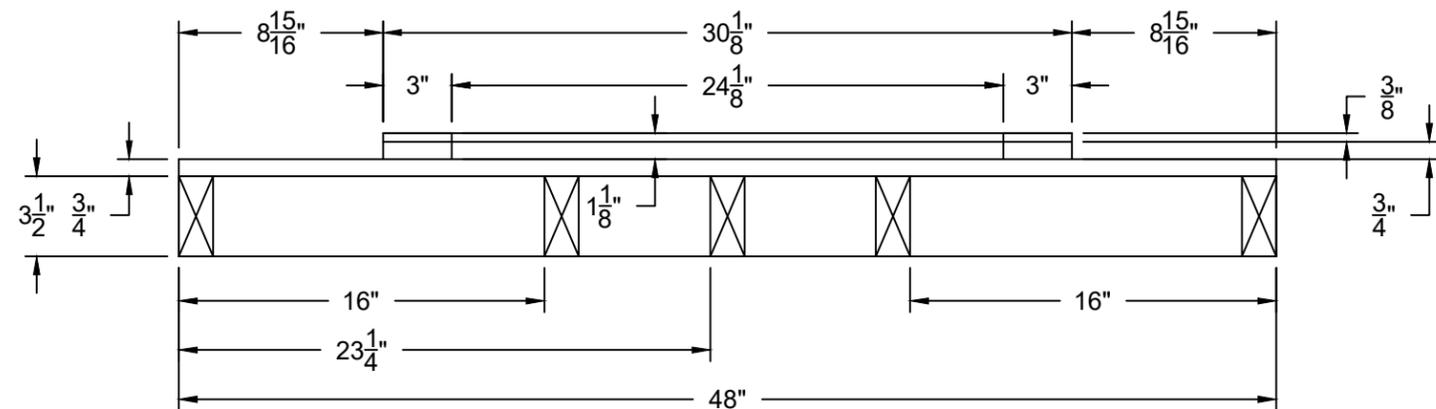
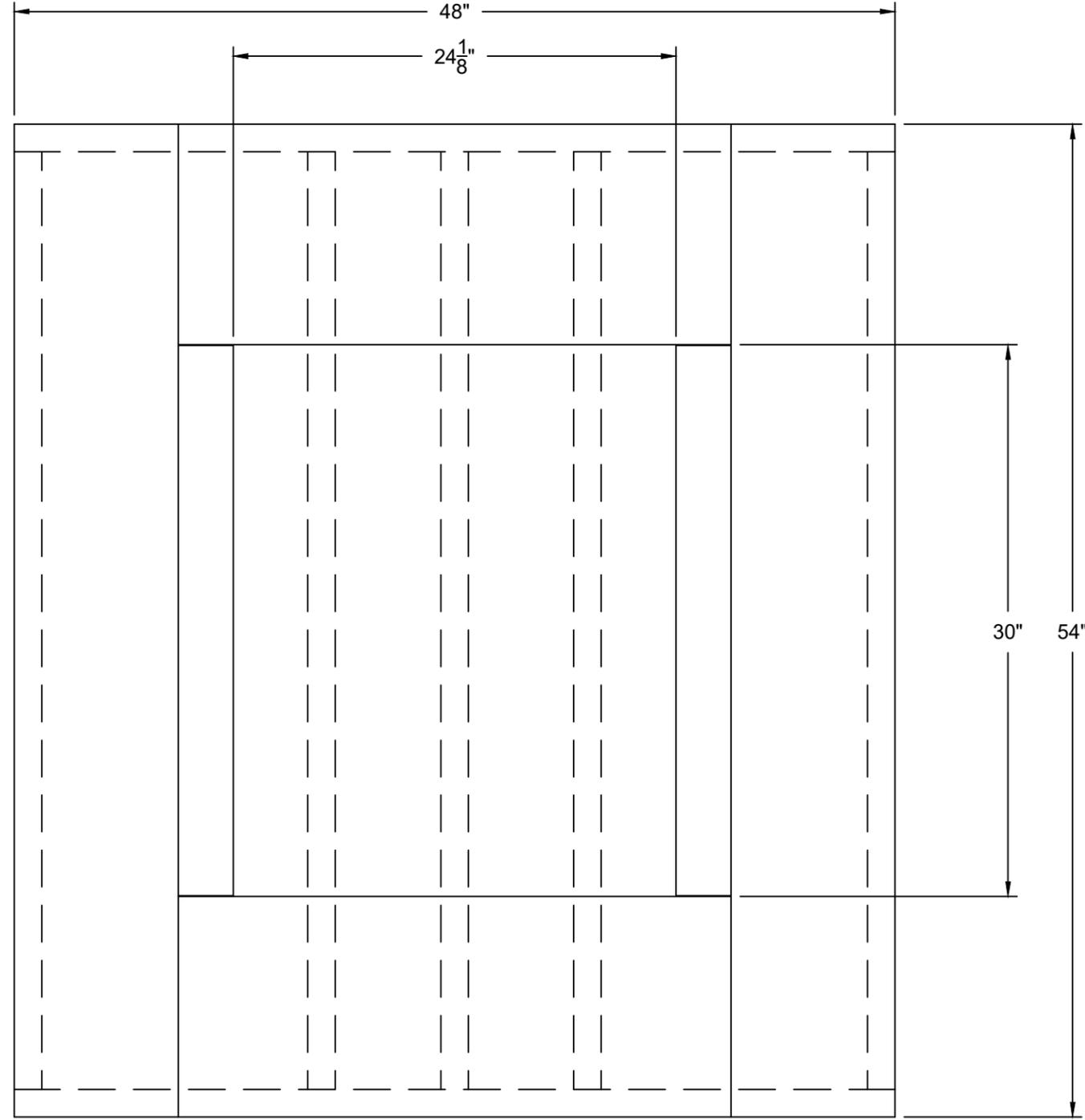
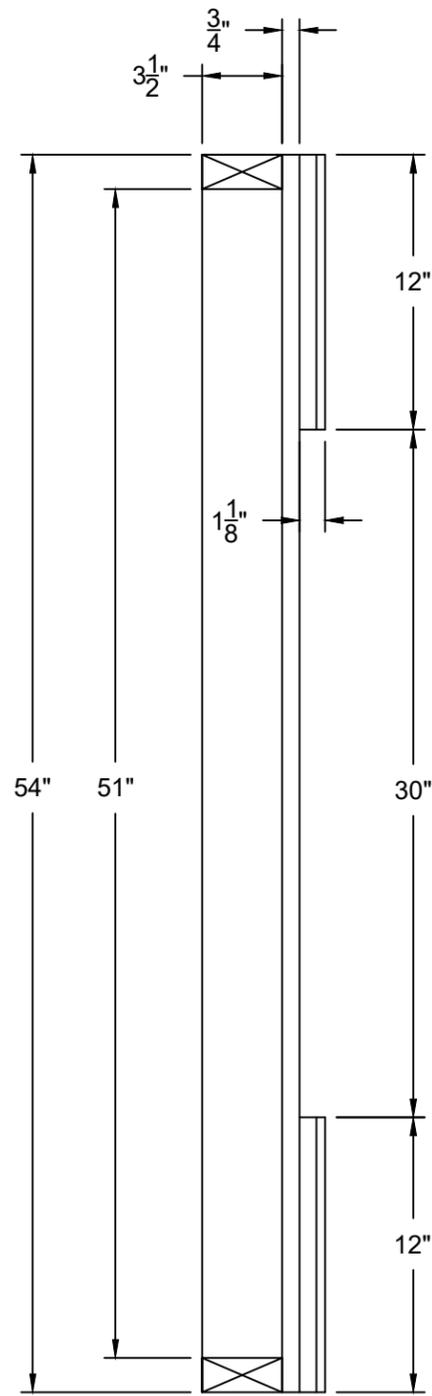
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DESCRIPTION:
ROLLING LOAD TESTING LAYOUT
MODEL: G6_98 GRIDLINE
PASSINGER LIGHT TRUCK TIRE
PROJECT NO.: CSCT-25-003

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PART NUMBER:					SHT. 4 OF 5



**MODEL G6_98 GRIDLINE
ROLLING LOAD TESTING
WOOD PLATFORM LAYOUT
SCALE: 1:8**

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DESCRIPTION:
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MODEL: G6_98 GRIDLINE
PASSANGER LIGHT TRUCK TIRE
PROJECT NO.: CSCT-25-003

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