TIMBERLAB

NHERI 10 STORY SHAKE TABLE

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SENIOR PROJECT ENGINEER

Disclaimer: This presentation was developed by a third party and is not funded by WoodWorks or the Softwood Lumber Board.

1

NHERI 10 STORY SHAKE TABLE

Full scale 112' mass timber building constructed on a 3D shake table.

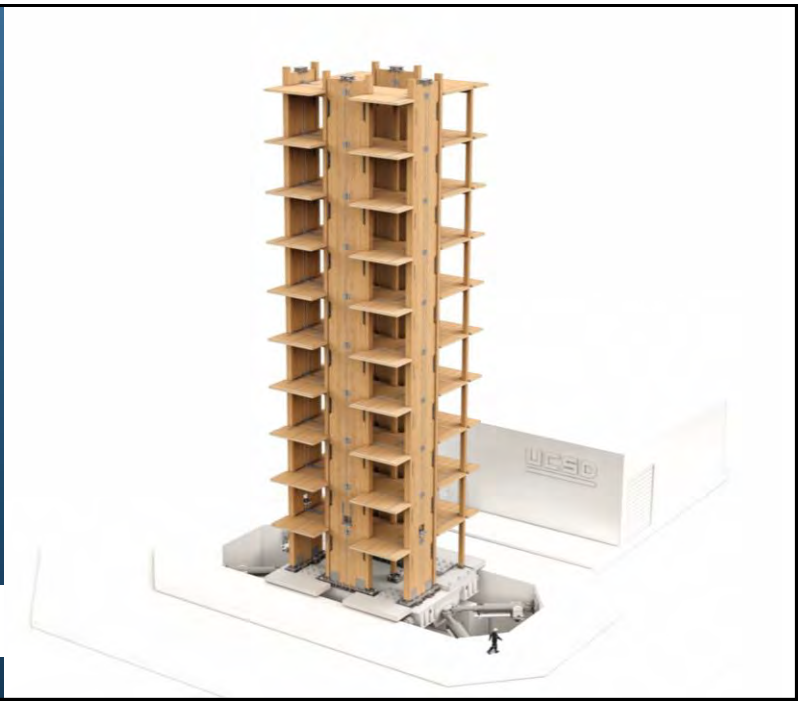
STRUCTURE

Structural framing w/ 4 Mass Timber Rocking Walls
CLT, GLT, NLT, DLT, MTP Floor Panels
LVL Columns & Beams
Post Tensioned Rods

HIGHLIGHTS

The World's Tallest Mass Timber Building ever tested.

NHERI 10 STORY IS BUILT AND TESTED ON THE WORLD'S LARGEST OUTDOOR SHAKE TABLE!



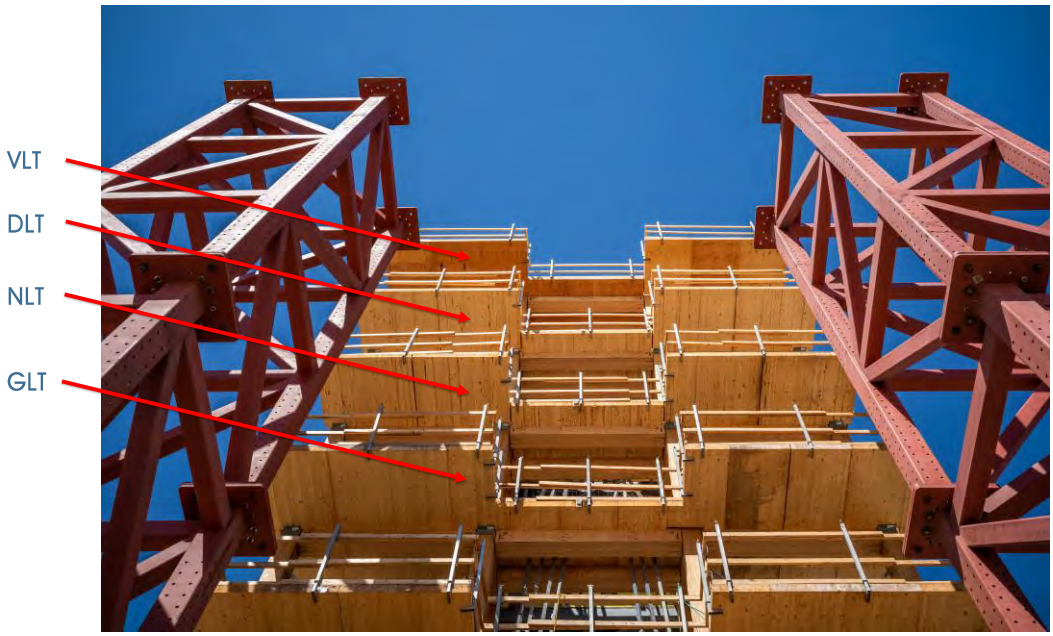
2

NHERI 10 STORY
Shake Table

3

NHERI 10 STORY – Shake Table

4



5

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Mass Timber Rocking Walls

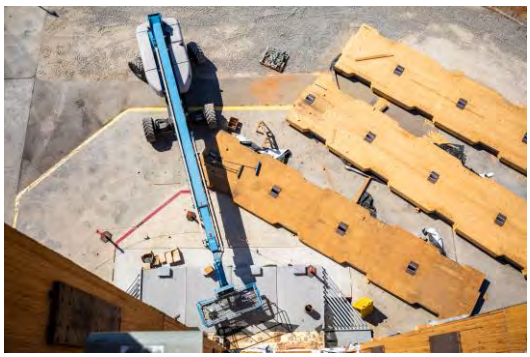

Image credit to Lever Architecture

6

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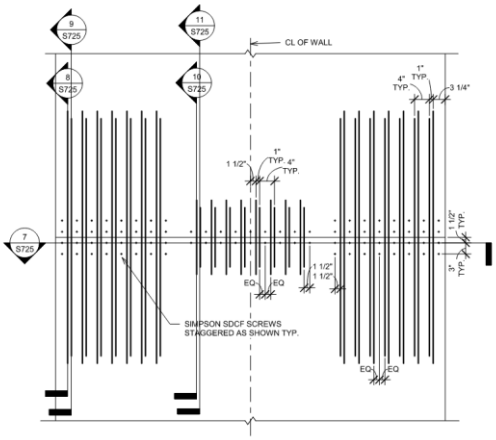
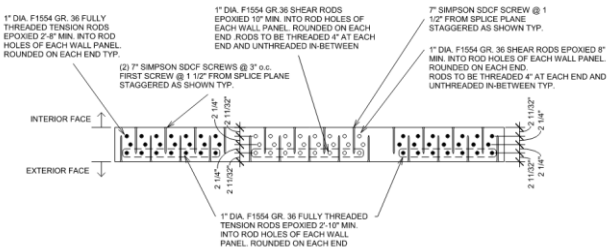
Rocking Wall Installation

7

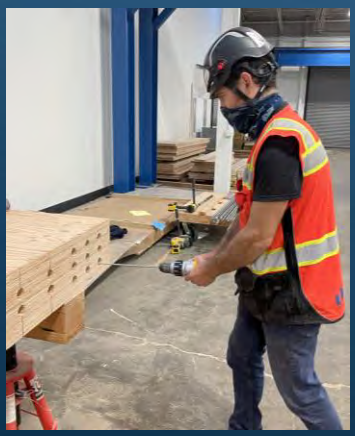
NHERI 10 STORY – Rocking Wall Splice Design



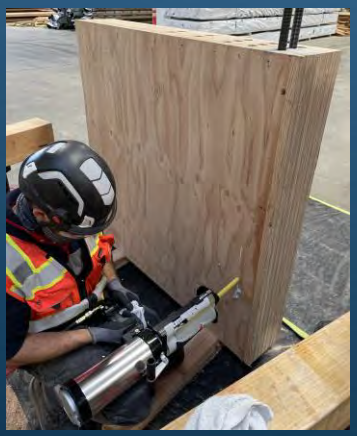


8

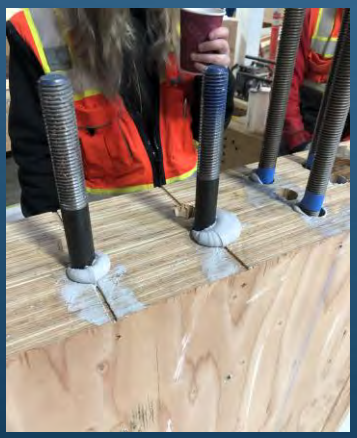
NHERI 10 STORY – Rocking Wall Splice Mockup



1 ¼" TENSION ROD HOLES WERE MACHINE FABRICATED TO CREATE A PILOT HOLE AND THEN HAND FABRICATED TO THEIR FULL 33" DEPTH.



THE EPOXY IS A TWO-PART SYSTEM THAT UTILIZIES THE SAME CI-GV EPOXY. THE FIRST PART IS APPLYING A THIN GEL COAT AROUND THE ENTIRE PERIMETER OF THE HOLE THAT REQUIRES 24 HOURS OF CURE TIME.



THE SECOND STEP IS INSERTING THE 1" RODS AND FILLING THE ENTIRITY OF THE HOLE WITH THE SAME CI-GV EPOXY (SHOWN ABOVE).

9

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Wall Splice Field Installation

Image credit to Shiling Pei

10

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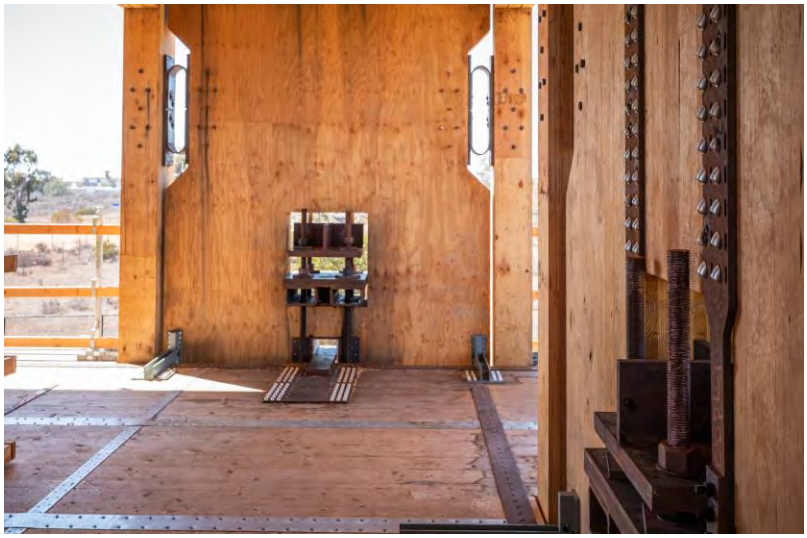
UFP Connection



11

NHERI 10 STORY – UFP Connection @ Bounding Column

12

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Temporary Engineering

13

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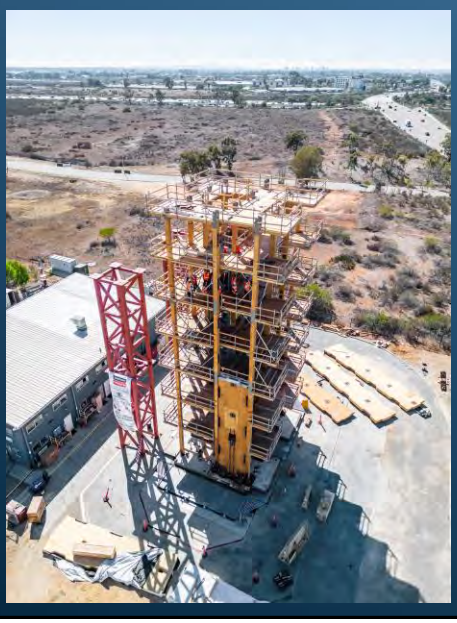
Temporary Engineering



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14


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THANK YOU!
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15