NOmod

a sustainable classroom for a mobile new orleans design high school

learning

NOmod's spatial arrangement is designed to offer increased flexibility for user-defined function and increase academic performance

01_ Polygal walls fill the classroom space with daylight without distractions from outside the classroom

02_ NOmod features adaptable spaces for breakout sessions, computer work, and pin-up work for the Priestley design students

03_ Built-in furniture is designed for maximum function, serving as storage space, chalkboard, computer stations, and a teacher's desk

04_ NOmod's entry steps also serve as an outdoor classroom space

performance

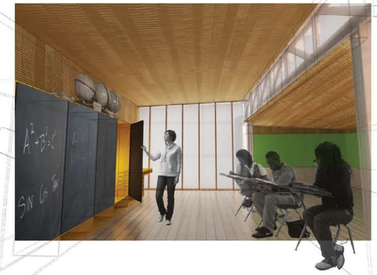
NOmod's robust materials and ample daylighting are designed to decrease energy demand in the hot and humid Louisiana climate

05_ Ductless AC is a 'quiet' energy efficient system

06_ Advanced framing techniques (2x6's at 24" O.C.) reduce labor costs while increasing the wall cavity for insulation, and increasing sound isolation

07_ The classroom's North-South orientation and window placement supports passive heating and cooling. Glazing supports maximum daylight entry while retaining a highly insulated envelope

08_ Windows and Polygal are rated to withstand hurricane winds



materials

NOmod's materials are locally sourced and support healthy indoor air quality, sustainability, durability, and a low project budget

09_ Salvaged hardwood flooring from flooded Katrina homes finds new life in the NOmod.

10_ Galvalume roofing and siding made at the Morgan factory reflects heat, and provides a recyclable building skin

11_ Lumber used for studs and sheathing is borate treated southern yellow pine taken from a lumber yard within five miles of the Morgan Modular Building factory

12_ Spray in foam icynene in the roof and under the floor and cellulose made of recycled newspaper in the walls

13_ Wall surfaces include locally produced baggase pin up boards made from sugar cane byproducts

14_ The prefabricated storage wall is made of a high density fiberboard

15_ Corrugated Cardboard surfacing covers the ceiling and the upper part of the wall to absorb sound

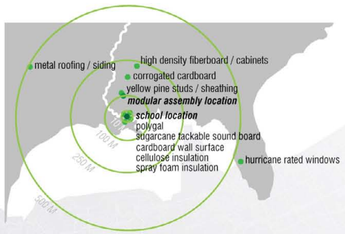
16_ Healthy indoor air quality from highly efficient ventilation systems, no-voc paints, adhesives and sealants, and non-toxic materials.

collaboration

In the wake of Hurricane Katrina, schools in New Orleans suffered from damaged buildings, shifting student and teacher populations, and the complete collapse of critical civic infrastructure. The Priestley School of Architecture and Construction was founded as a response to this broken context, with a new charter high school program dedicated to architectural inquiry and improvement of the built environment.

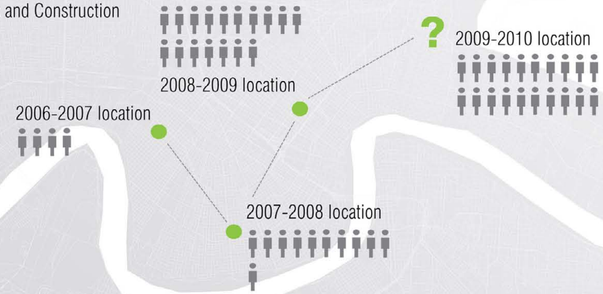
Together, Priestley students along with a team of local university architecture students and Morgan Buildings, a modular manufacturer, designed NOmod (New Orleans Modular). Although NOmod draws its inspiration from the challenges of a post-disaster landscape and the temperature extremes of the hot and humid South, this structure addresses many of the universal issues that face global communities today, including shifting demographics and landscapes, flexibility and the need for adaptable learning spaces, community development and regional connections, and the exigencies of social, economic and environmental sustainability.

Material Sourcing Map



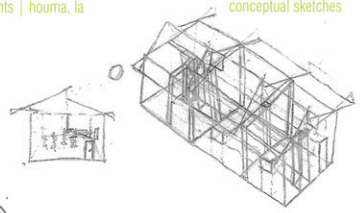
= 20 students

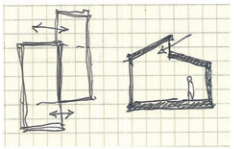
Map of post-Katrina locations for
Priestley High School of Architecture and Construction

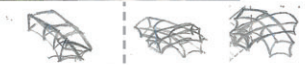


visit to modular classroom precedents | houma, la

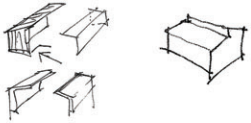
high school students' conceptual sketches







presentation by public health official on indoor air quality and material selection

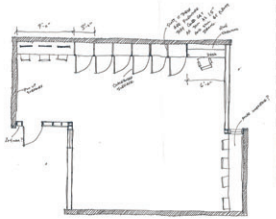


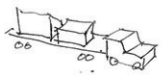
design meeting between high school and college designers

january 2009

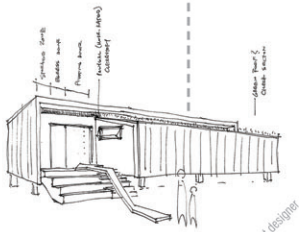
may 2009

visit to modular manufacturing facility | mccomb, ms



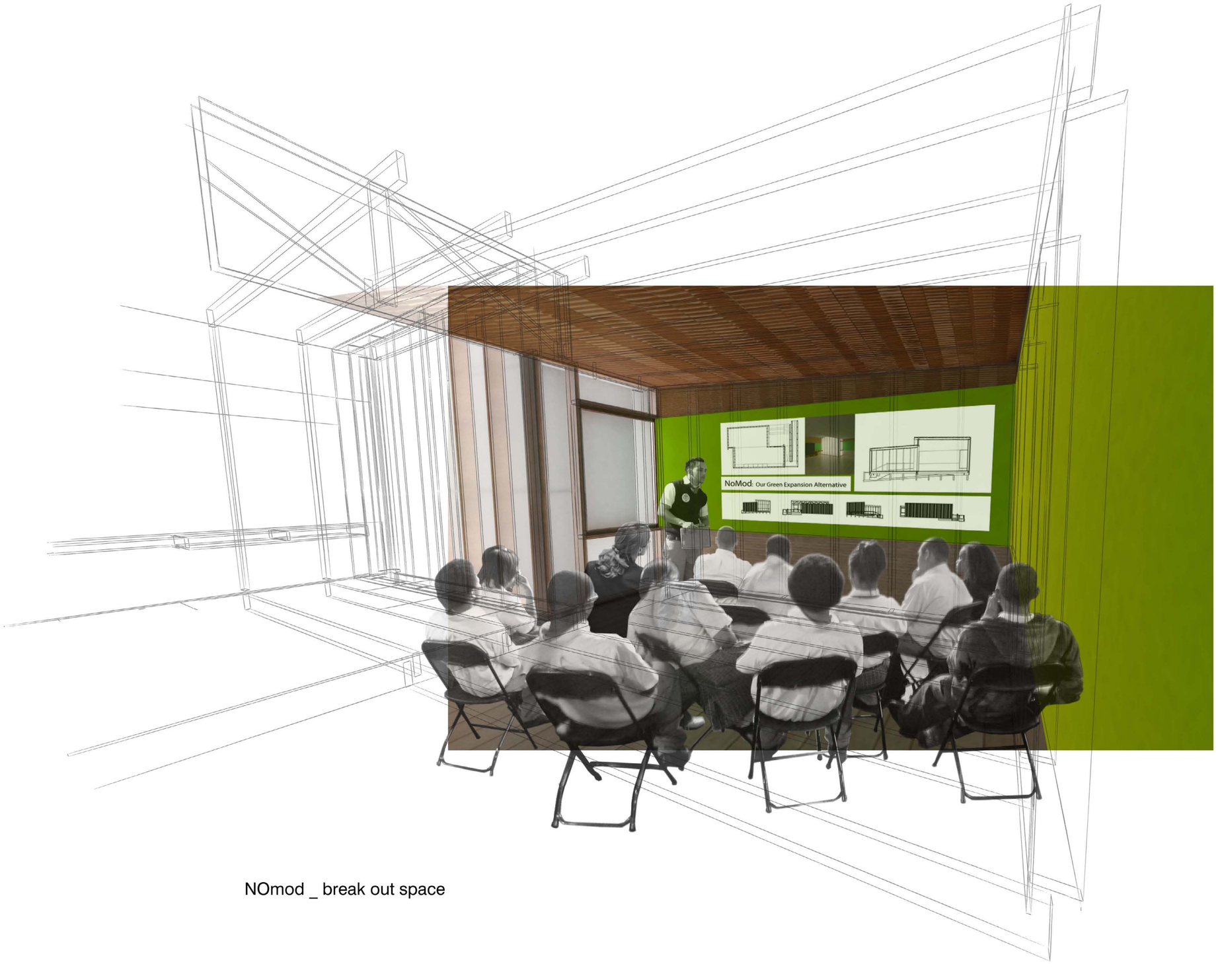


meeting between design team and modular manufacturing engineer

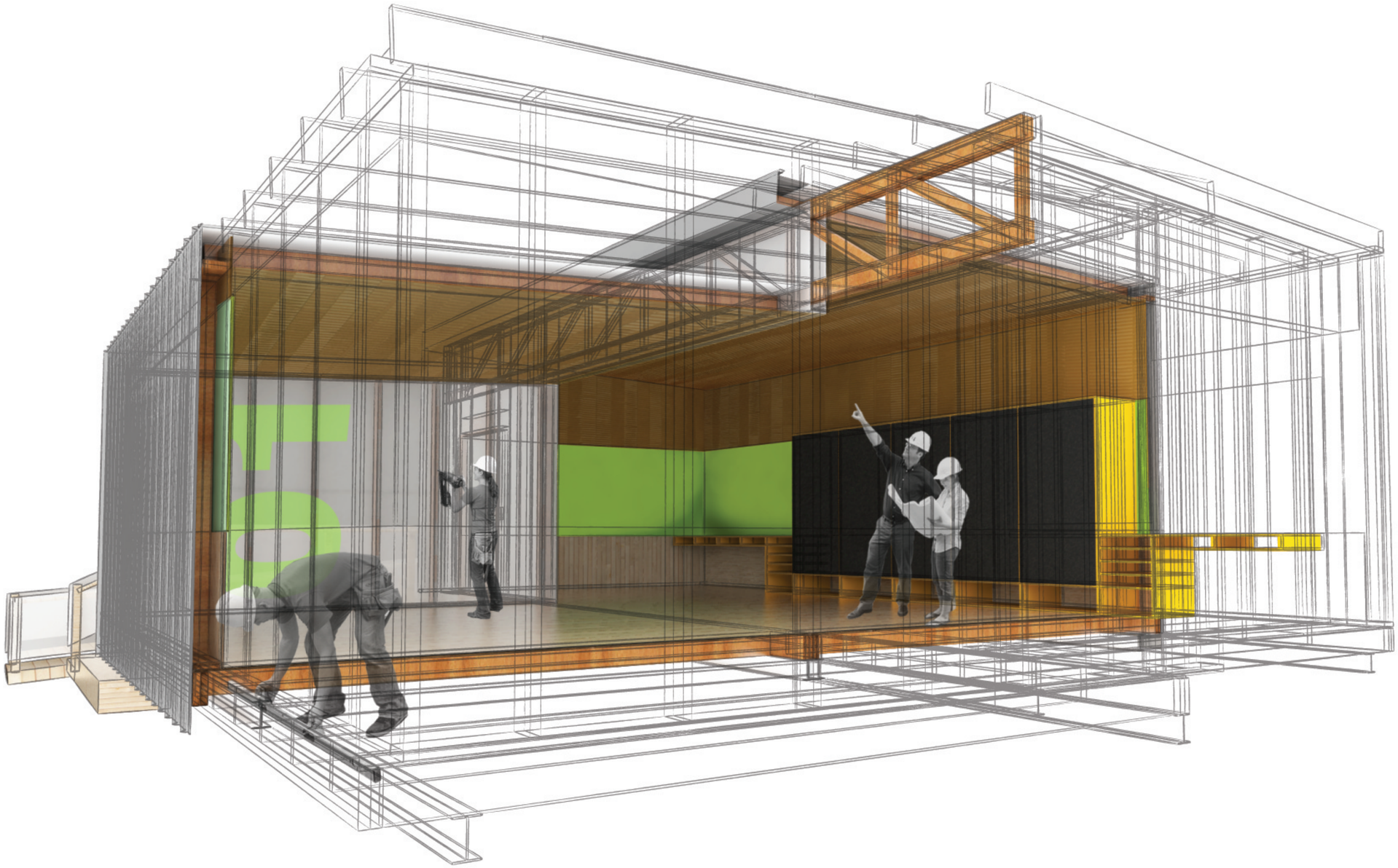


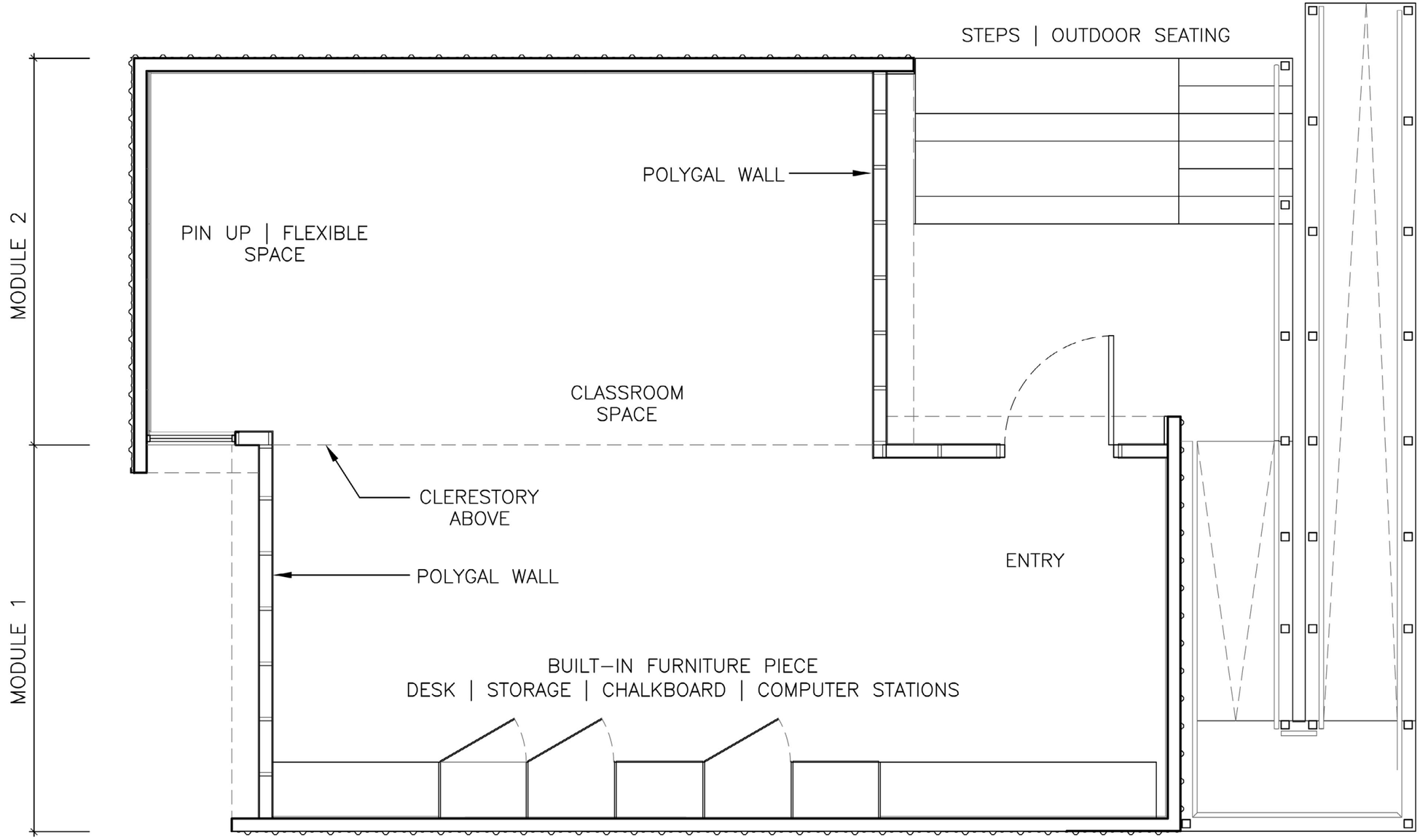
initial meeting of collaboration team

NOmod | collaborative process



NOmod _ break out space





1 / 2.1 NOMOD CLASSROOM PLAN

1/4"=1'–0"

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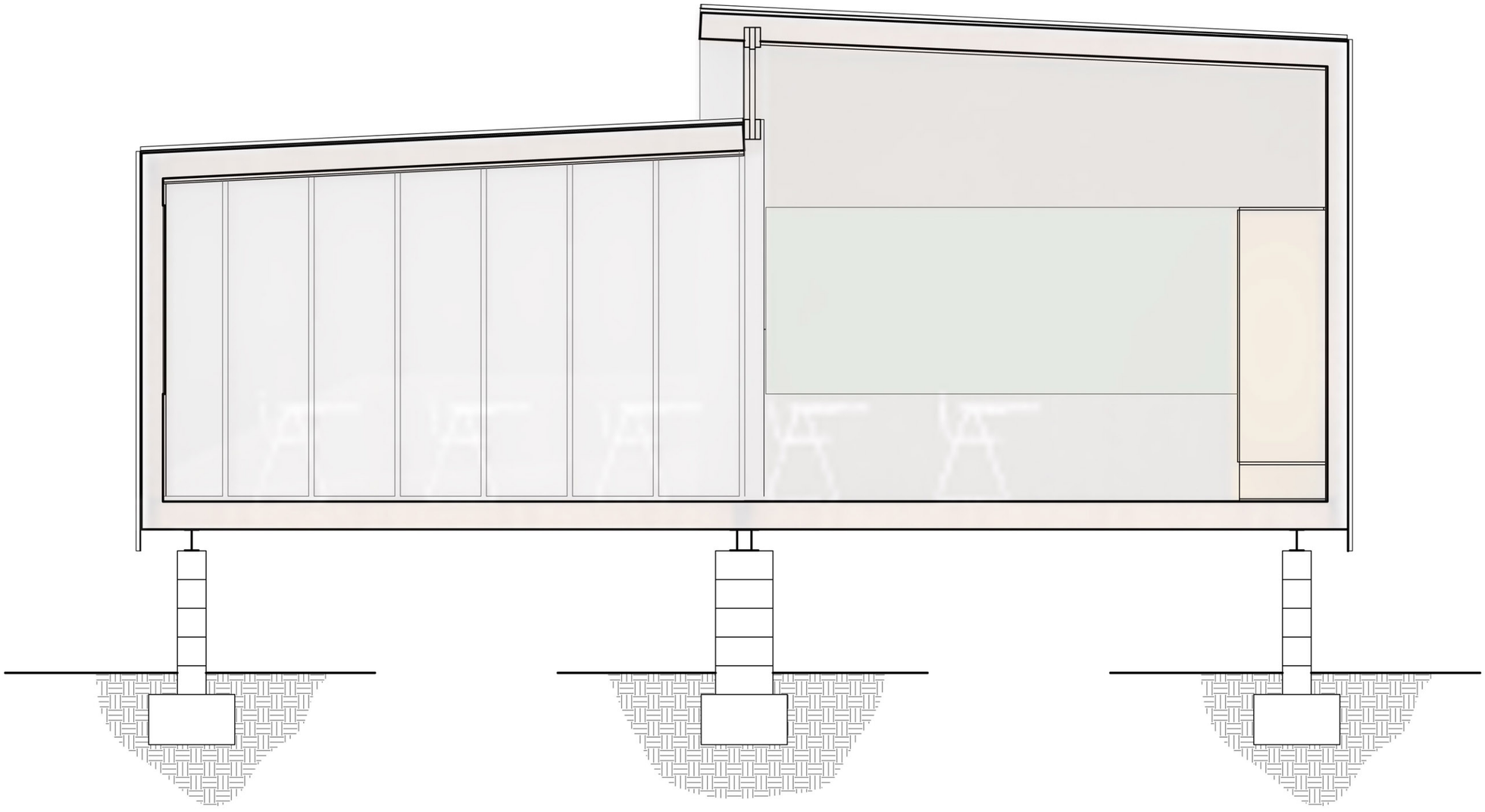
NOT FOR CONSTRUCTION



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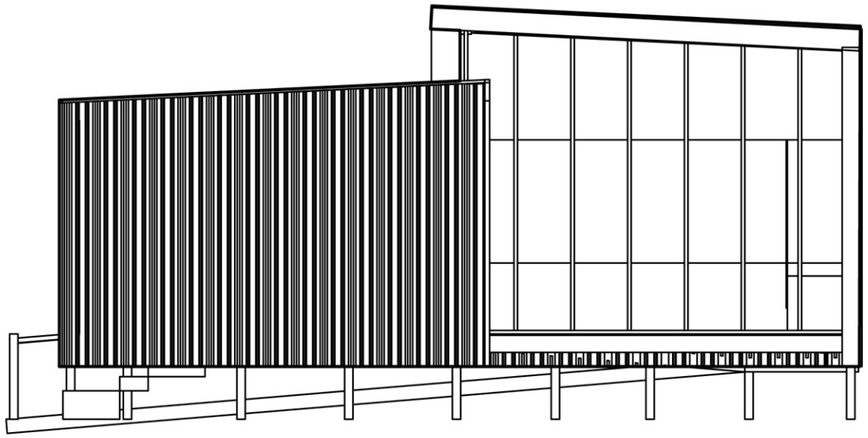
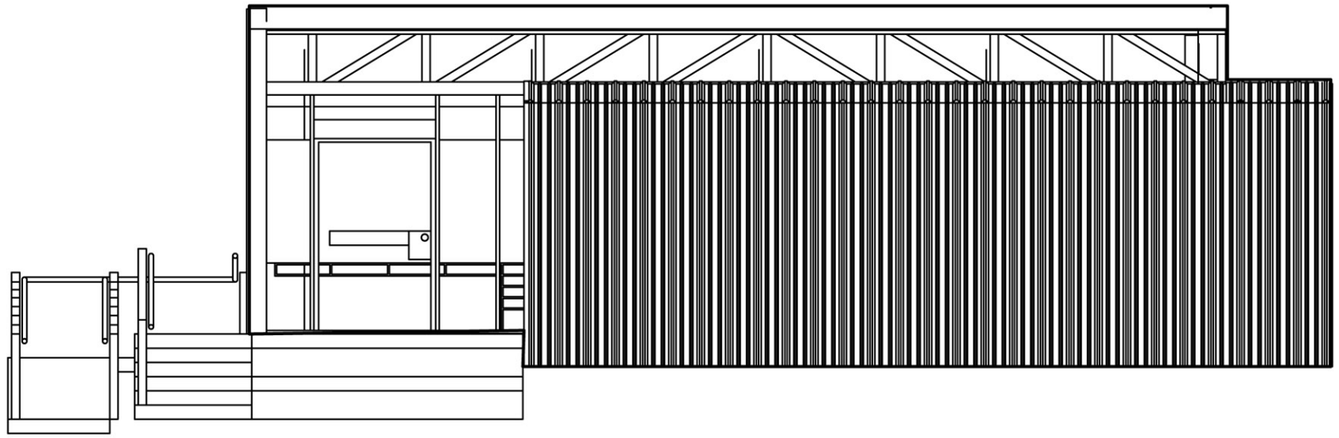
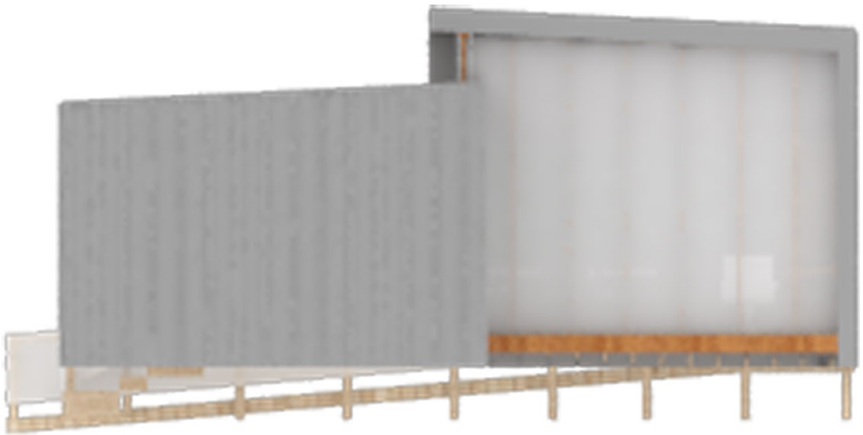
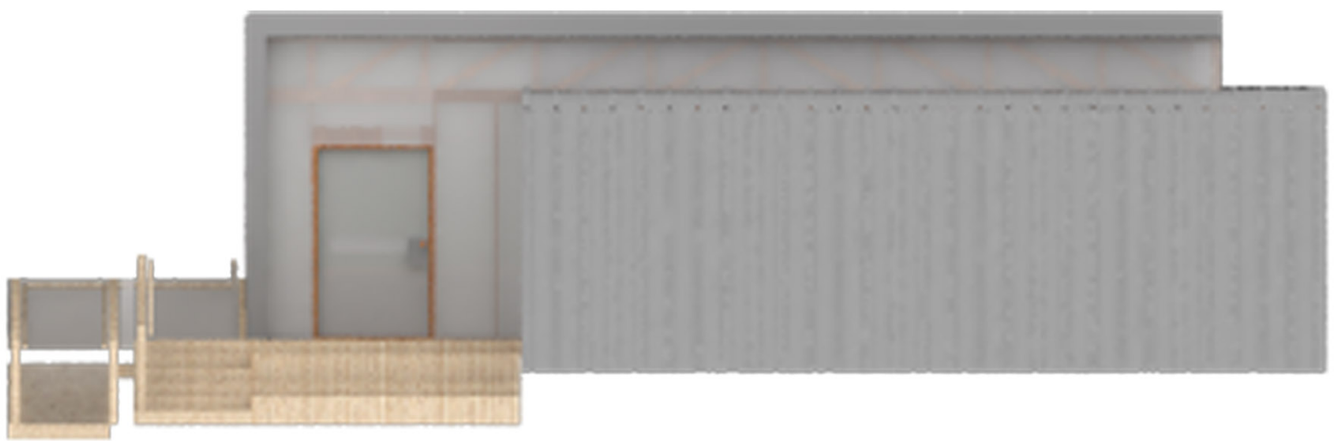
2.2 NOMOD CLASSROOM SECTION

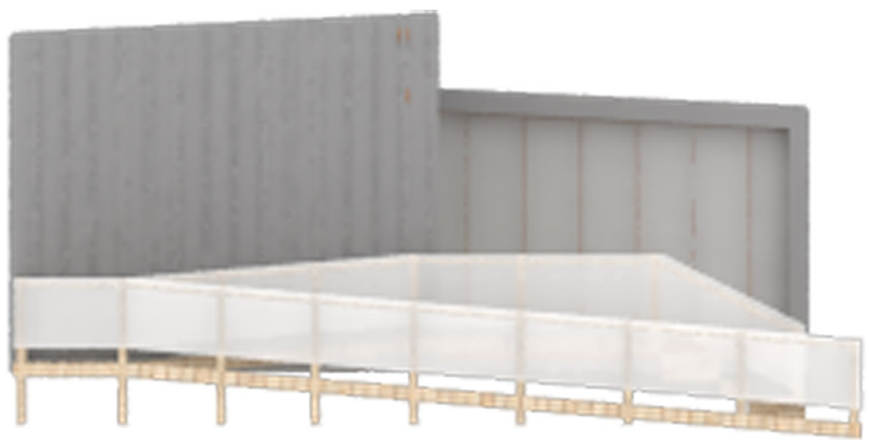
NOT FOR CONSTRUCTION











1 / 2.3 NOMOD CLASSROOM ELEVATION

3/16"=1'-0"

NOT FOR CONSTRUCTION

preistley school of archtiecture and construction

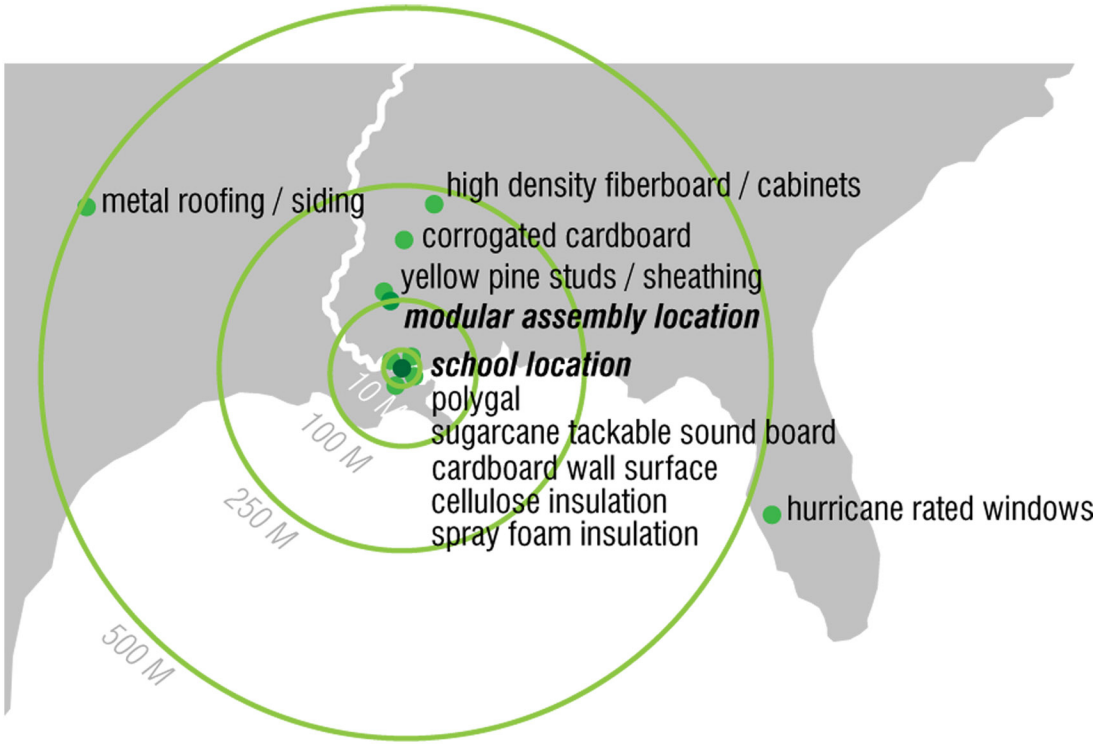
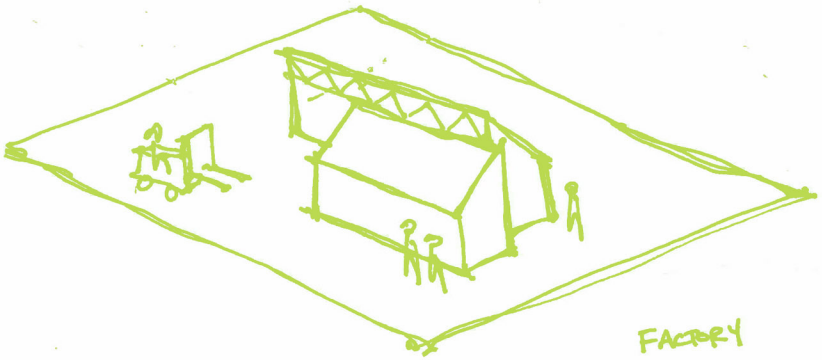
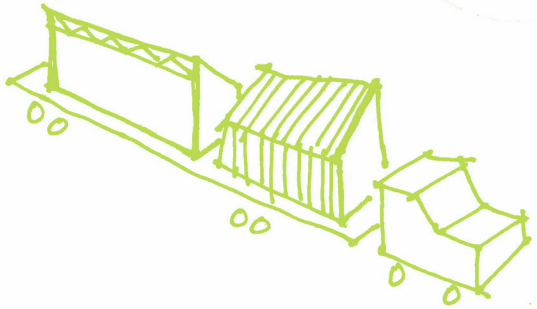
NOmod _ site plan

New Orleans, Louisiana

$A^2+B^2=C^2$
SIN COS TAN

New Orleans
DON'T FORGET
YOUR HOMEWORK !

04



materials source map