

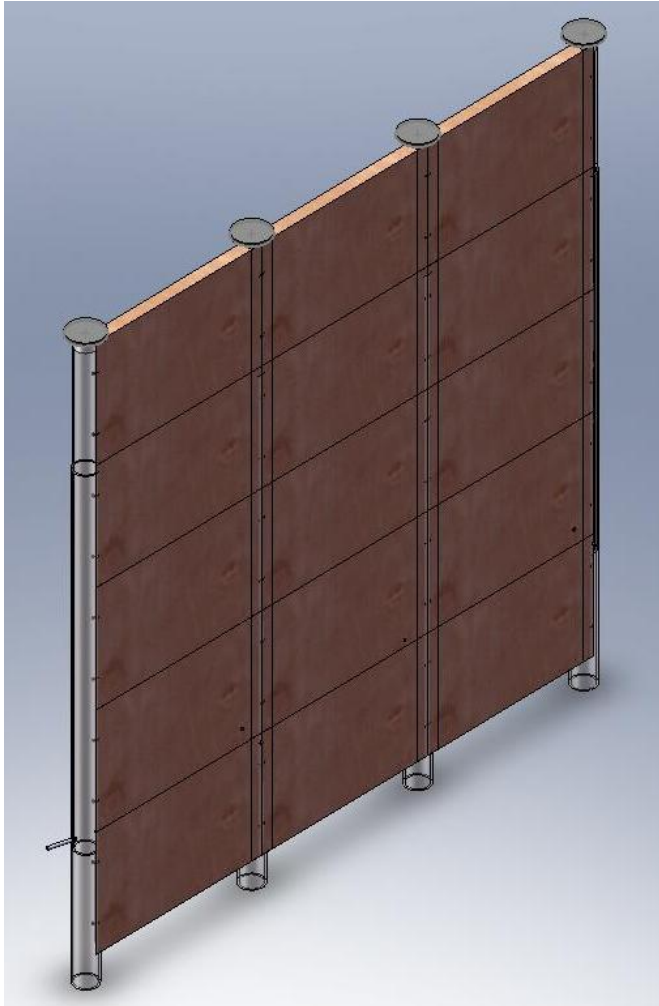
Yellow Team Project Mockups

Living and Working in Constrained Space

Yellow A

Movable Walls

Concept



- Modular room dividers
- Can split apartments, create temporary guest rooms, add extra closet space
- Do-it-yourself

Yellow A

Market

- Target customer: studio apartments in large cities like NYC, where sharing is common.
- Top six NYC companies control 95% of the market. No competition in other cities.

Source: B&D Marketing



Benchmarking

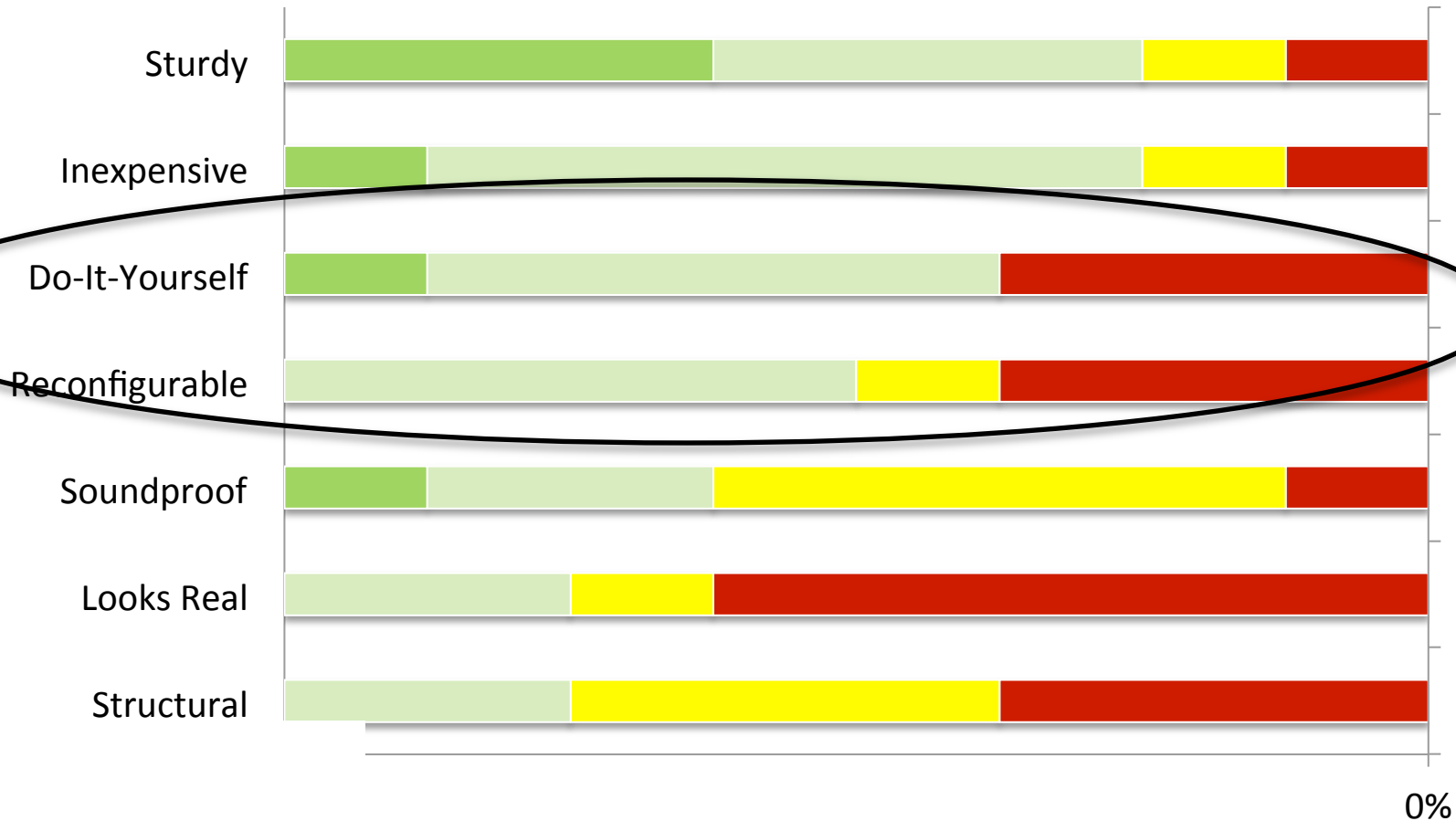
- **Pressurized Temporary Walls**
 - Built on-site out of sheet rock and metal 2x4's.
- **Main advantages**
 - Look and feel very much like "real" walls
 - Very little damage to walls other than screw holes
- **Main disadvantages**
 - Expensive—\$1000
 - Require professional installation
 - Take 5 hours to install

Customer

- Market survey: 8 apartment dwellers in Boston and New York City
- Average of **3.75** people living in apartments designed for **2.25** people
- Need for privacy was mentioned often

Customer

More Important ← → Less Important



Yellow B

Preliminary Contract

Privacy

Stability/Safety

Ease of Use

Access

Aesthetic

Cost

Preliminary Contract

Customer Need	Privacy	Stability/Safety	Ease of Use
Product Attribute	Physical Partition	Strength	Modularity, Weight, Intuitive Setup
Engineering Specs	<ul style="list-style-type: none">- Fits range of ceilings 8' to 10'- Panels combine to fit any length room	<ul style="list-style-type: none">- Support a person's leaning weight, 80 lbs of horizontal force	<ul style="list-style-type: none">- Parts must fit through door (32" x 82")- All pieces under 20 lbs- As few parts as possible

Risks Resolved

Privacy

Physical Partition

- Fits range of ceilings 8' to 10'
- Panels combine to fit any length room

- Modular design enables wall to fit a wide range of sizes
- Vertical fit
- Horizontal fit

Risks Resolved

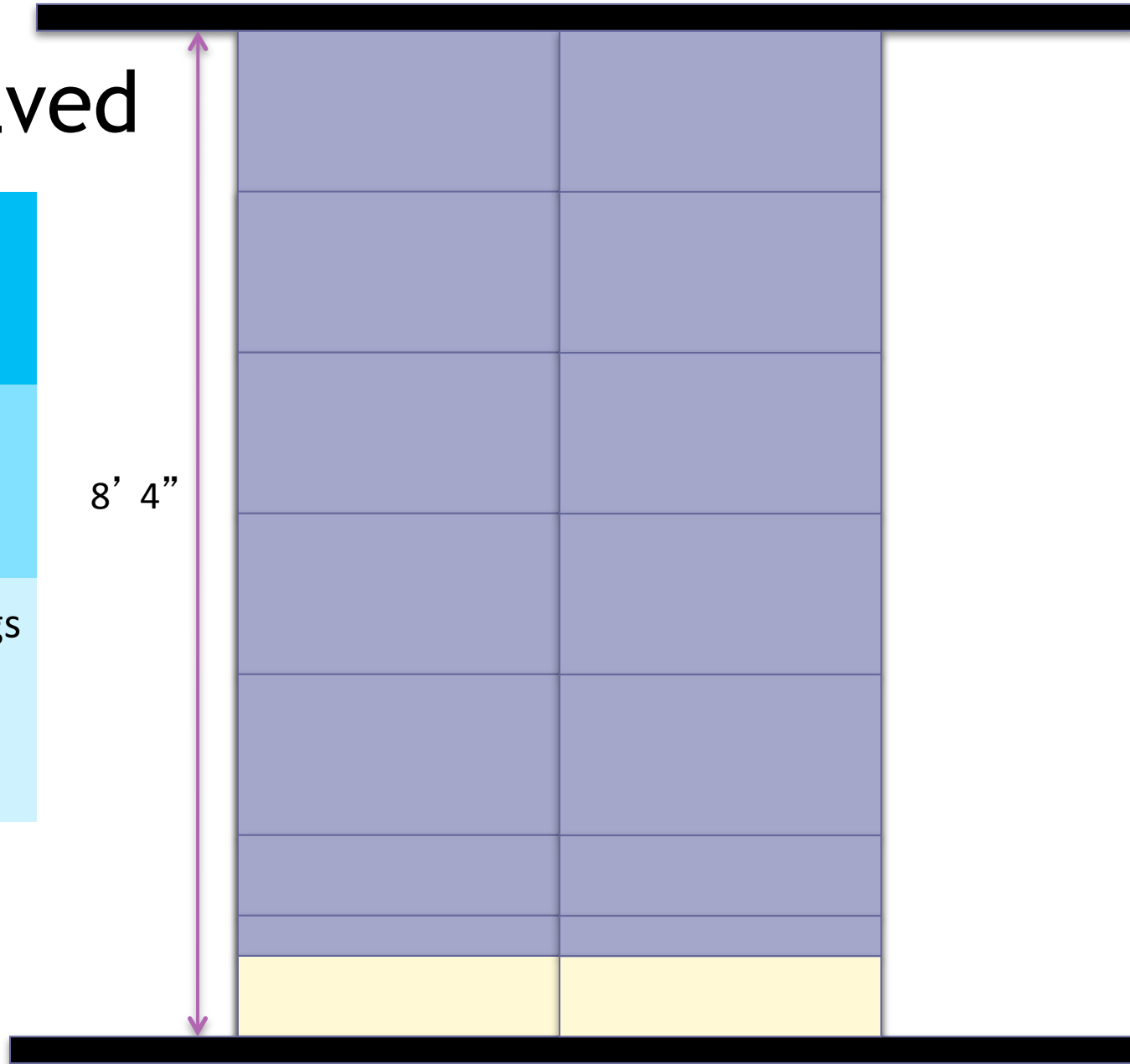
Privacy

Physical Partition

- Fits range of ceilings 8' to 10'
- Panels combine to fit any length room

8' 4"

Yellow A



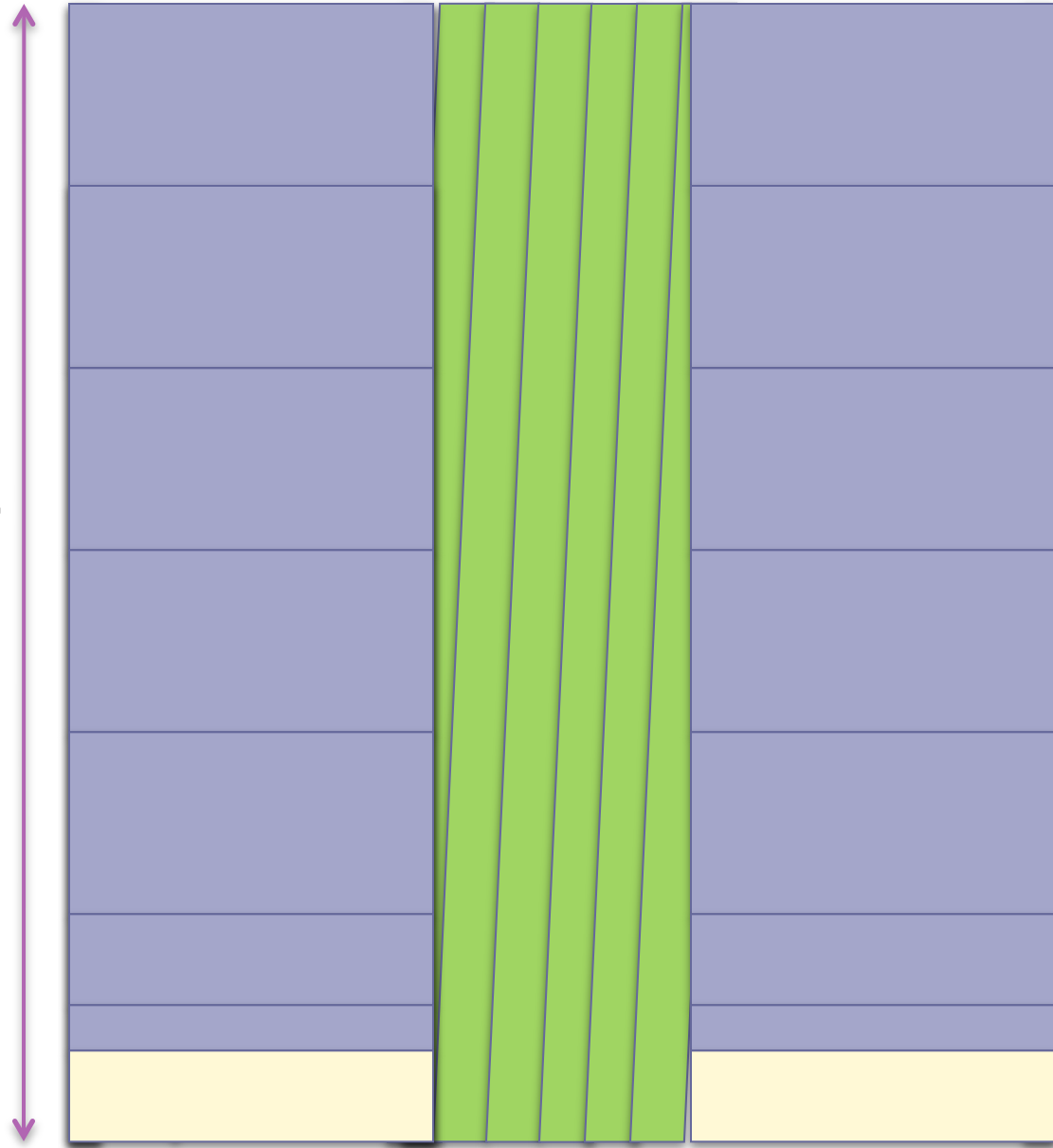
Risks Resolved

Privacy

Physical Partition

- Fits range of ceilings 8' to 10'
- Panels combine to fit any length room

8' 4"



Yellow A

Risks Resolved

Stability/Safety

Strength

- Support a person's leaning weight, 80 lbs of horizontal force

- Posts are pressure fit between ceiling and floor
- Post must hold load but not damage ceiling
- From analysis, our target range to support load is 4-8 psi

Risks Resolved

Ease of Use

Modularity, Weight, Intuitive Setup

- Parts must fit through door (32" x 82")
- All pieces under 20 lbs
- As few parts as possible

- Modular design enables team of two people to set up 10 ft of wall in 2 hours
- Floor guides and plumb line to ensure straightness

Future Steps

Access

Aesthetic

Cost

- Careful selection of materials for aesthetic, weight, stability, and cost