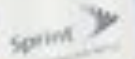


BAC/Tufts
2009 Solar Decathlon

SOLAR

DECATHLON

A DESIGN COMPETITION FOR HOMES
POWERED BY THE SUN





Construction

Oct 1-8

Open to Public

Oct 9-18



Judging

Open to Public



De-construction

Oct 19-23

THE 10 CONTESTS

- ARCHITECTURE - 100 pts
- MARKET VIABILITY - 100 pts
- ENGINEERING - 100 pts
- LIGHTING DESIGN - 75 pts
- COMMUNICATIONS - 75 pts
- COMFORT ZONE - 100 pts
- HOT WATER - 100 pts
- APPLIANCES - 100 pts
- HOME ENTERTAINMENT - 100 pts
- NET METERING - 150 pts



















































FIRE SAFETY EXIT PLAN































Warmboard Sub-Floor



SIP Walls



Recycled Plastic Decking



Prototype Light Wall



Solar Thermal Collector



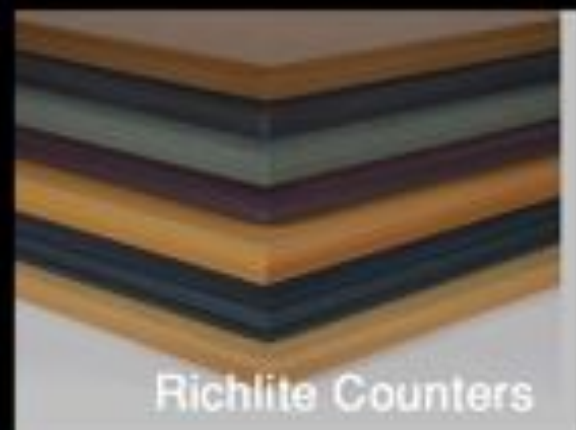
PV Panels



Bamboo Floor/Ceiling



Kirei Cabinets



Richlite Counters



Solar houses,
Now in session.

The Solar Decathlon - October 12-20 The MIT Museum



INITIAL GOALS OF THE TEAM - THE 3 E's

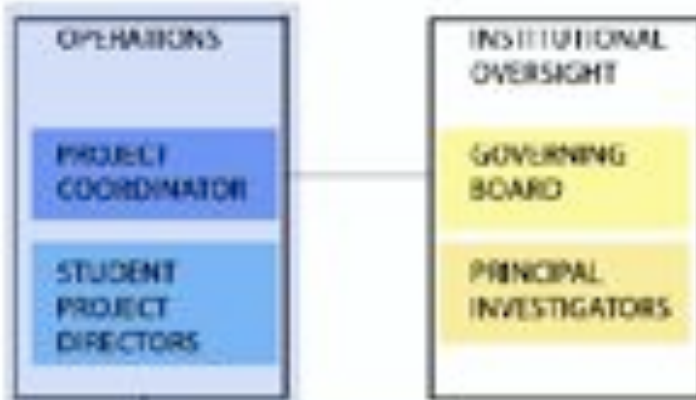
- INTEGRATED DESIGN PROCESS
- INTEGRATED PROJECT DELIVERY/BIM
- PREFABRICATION
- UNIVERSAL DESIGN
- BIOMIMICRY
- COMMUNITY SYSTEMS
- ECONOMIC AND SOCIAL ACCESSIBILITY
- BIPV



PARTNERING WITH TUFTS UNIVERSITY

- TUFTS INSTITUTE OF THE ENVIRONMENT
- TUFTS CLIMATE INITIATIVE
- THE FLETCHER SCHOOL OF LAW AND DIPLOMACY
- TUFTS SCHOOL OF ENGINEERING

ORGANIZATIONAL STRUCTURE



PROJECT DIRECTORS-

COLIN BOOTH, KEVIN HORNE, SARAH HOWARD-MCHUGH, STEPHEN MESSINGER, MICHELLE STADELMAN, BEN STEINBERG, MATT THOMS.

PROJECT COORDINATOR-

COLIN BOOTH

GOVERNING BOARD-

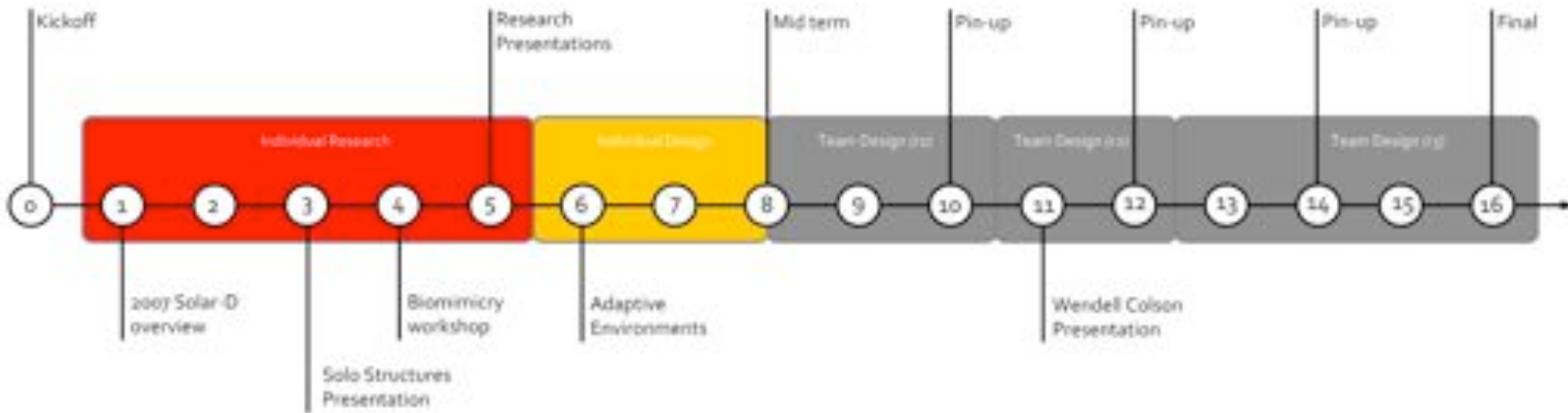
VIN MANNO, ANTJE DANIELSON, JEFF STEIN, RICH GRISWOLD,

PRINCIPAL INVESTIGATORS-

BILL MOOMAW, GREG DEMCHAK

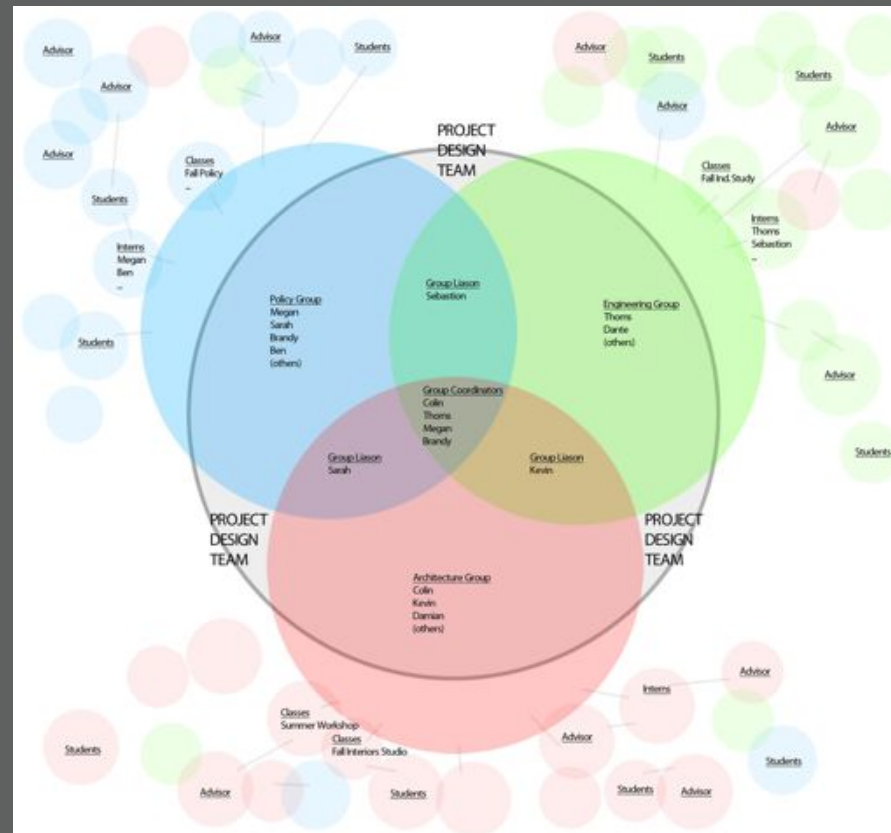
SPRING 2008

SOLAR DECATHLON STUDIO



SUMMER 2008

- BAC DESIGN WORKSHOP
- TUFTS ENGINEERING AND POLICY INTERNS
- DESIGN TEAM STRUCTURE



FALL 2008

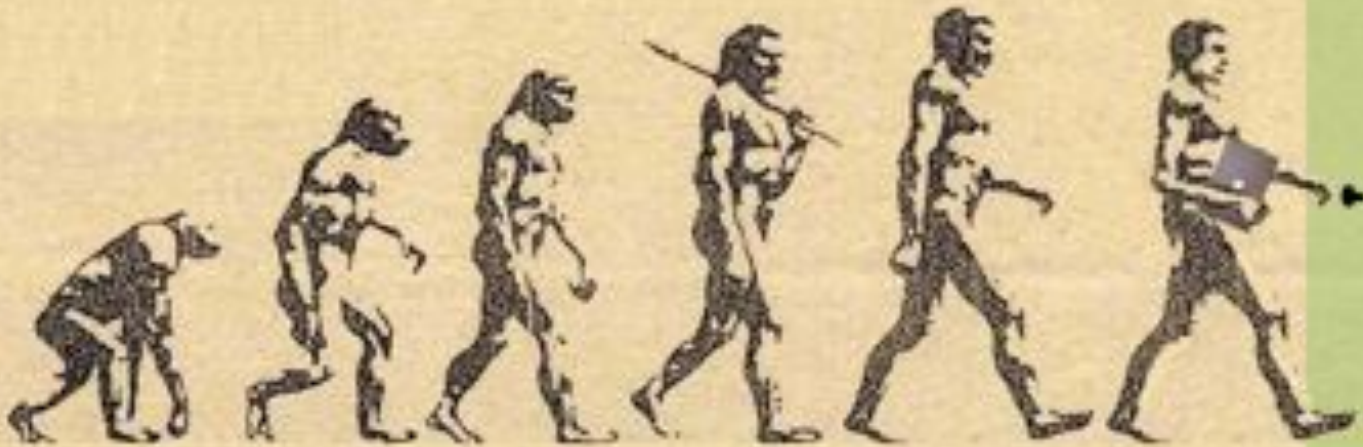
- BAC DESIGN/PRODUCTION WORKSHOP
- BAC INTERIOR DESIGN RESIDENTIAL STUDIO
- TUFTS ENGINEERING AND POLICY WORKSHOP



DESIGN CONCEPT - EVOLUTION OF SHELTER

- EVOLUTION
 - BIOMIMICRY
 - DEPLOYABLE
 - SCALABLE
 - FLEXIBLE
- (URBAN VS RURAL)

-HOW DO WE EVOLVE THE WAY PEOPLE INTERACT WITH THEIR HOME , SO THAT THEY UNDERSTAND IT IN A WAY THAT HELPS THEM LIVE SUSTAINABLY?



DESIGN CONCEPT - EVOLUTION OF SHELTER



DESIGN CONCEPT - EVOLUTION OF SHELTER



DESIGN CONCEPT - EVOLUTION OF SHELTER



■ EGO, CONSCIOUS,
VOLUNTARY, CHOICE

■ BRAIN,
SUBCONSCIOUS,
INVOLUNTARY

■ ORGANS

■ NERVOUS SYSTEM

■ SKIN, BONES



■ EGO, CONSCIOUS
VOLUNTARY, CHOICE

■ DATA PROCESSOR

■ MECHANICAL,
ACTIVE SYSTEMS

■ SENSORS,
ELECTRONIC
WIRING

■ ENVELOP, SHELL,
SKIN

DESIGN CONCEPT - EVOLUTION OF SHELTER



WI-MILWAUKEE

101

MISSOURI S & T

103

RICE

105

TEAM ONTARIO / BC

107

PENN STATE

109

102

LA-LAFAYETTE

103

ARIZONA

105

TEAM ALBERTA

107

IOWA STATE

109

MADRID TECH

Natural History Museum

10th Street

12th Street

Exhibits

Info

KENTUCKY

111

BOSTON ARCHITECTURAL COLLEGE / TUFTS UNIVERSITY

113

VIRGINIA TECH

115

PUERTO RICO

117

SANTA CLARA

119

Smithsonian Metro Station

111

M

OHIO STATE

112

DARMSTADT TECH

114

CORNELL

116

MINNESOTA

118

ILLINOIS

120

Madison Drive

Jefferson Drive

American History Museum

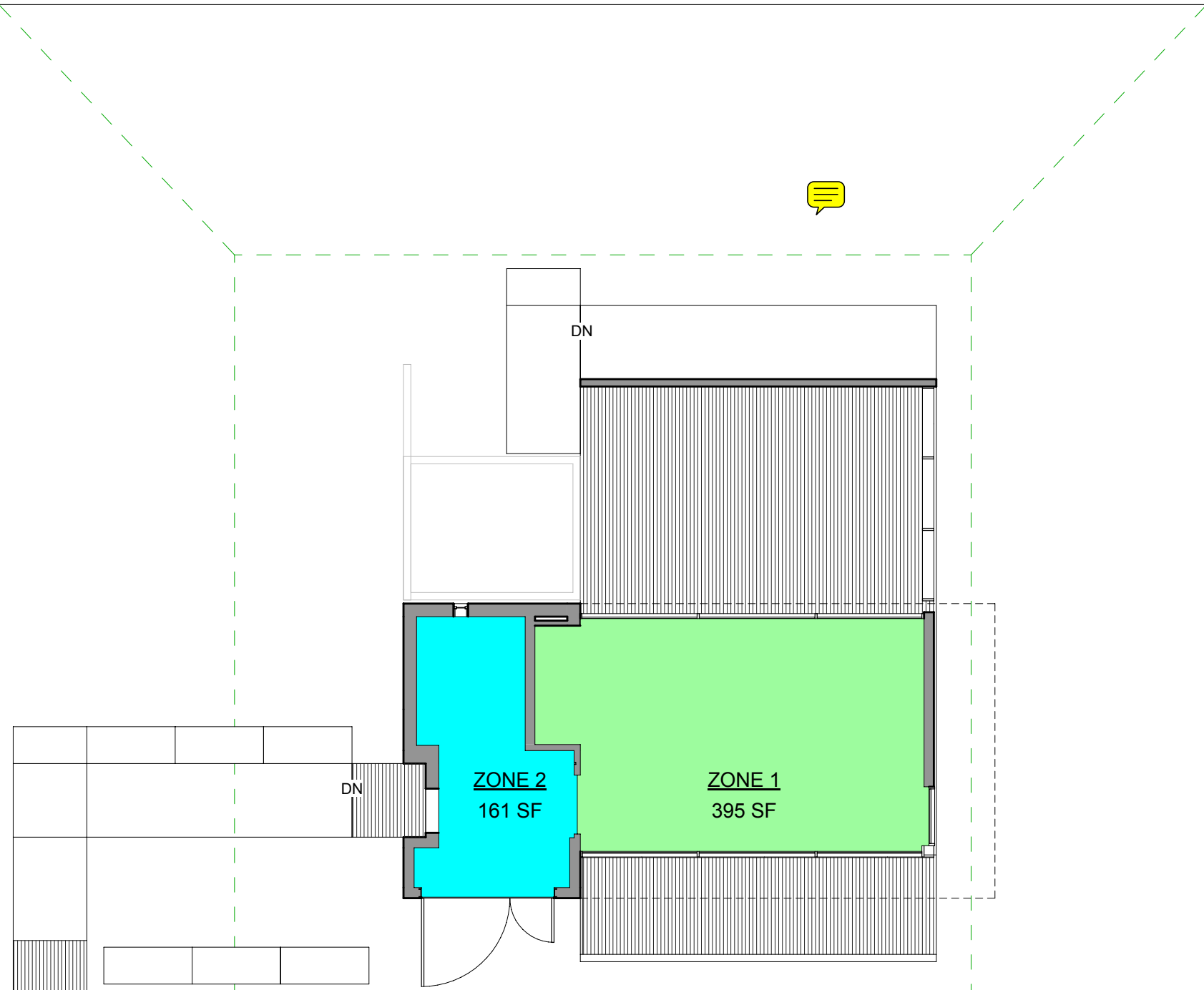
Department of Agriculture

Info

Info

14th Street





DN

DN

ZONE 2
161 SF

ZONE 1
395 SF

1
A 1.8
@ ENLARGED
BATHROOM PLAN

1
A 1.9
@ ENLARGED
KITCHEN PLAN

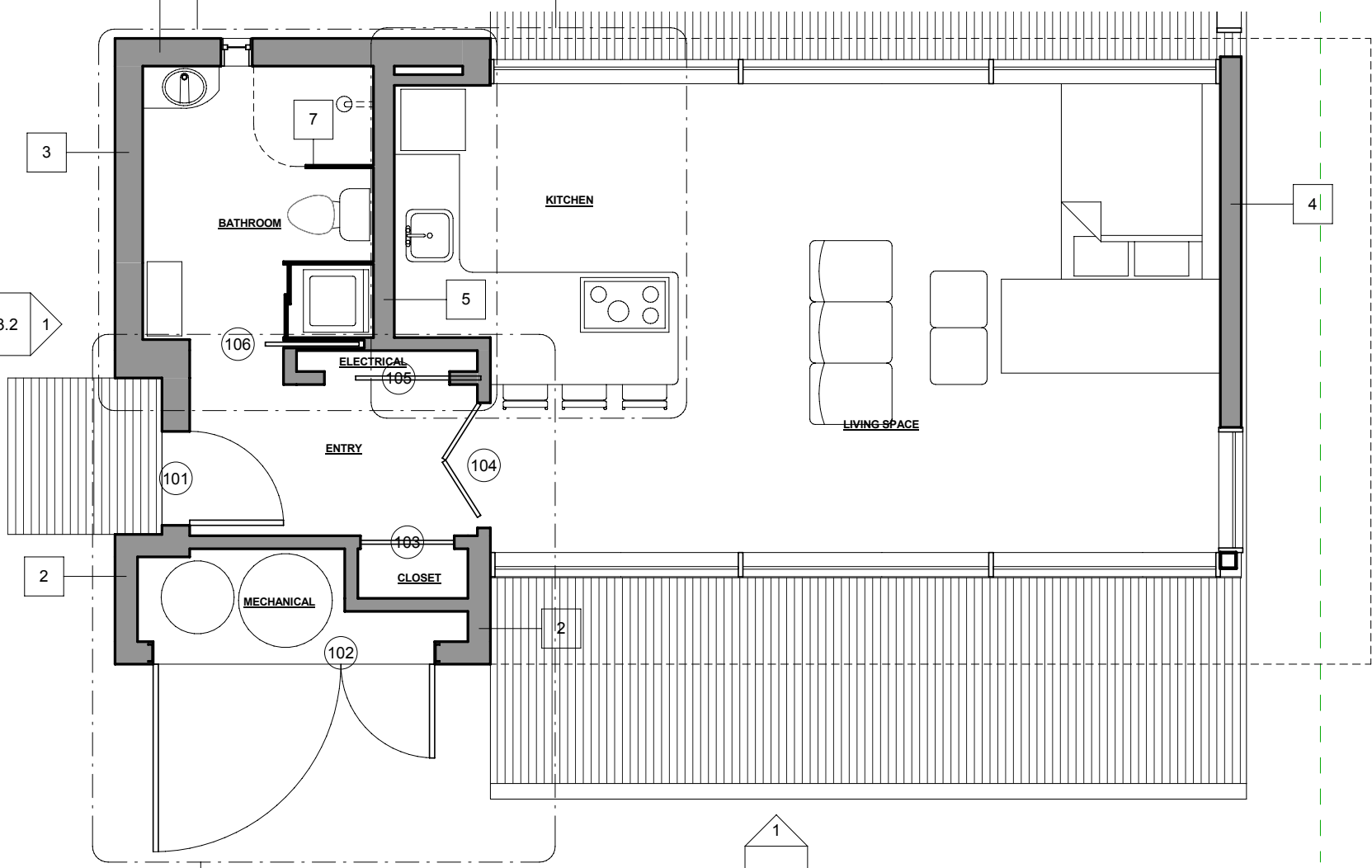
A 3.1
1

1
A 1.7
@ ENLARGED
MECHANICAL PLAN

A 3.2
1

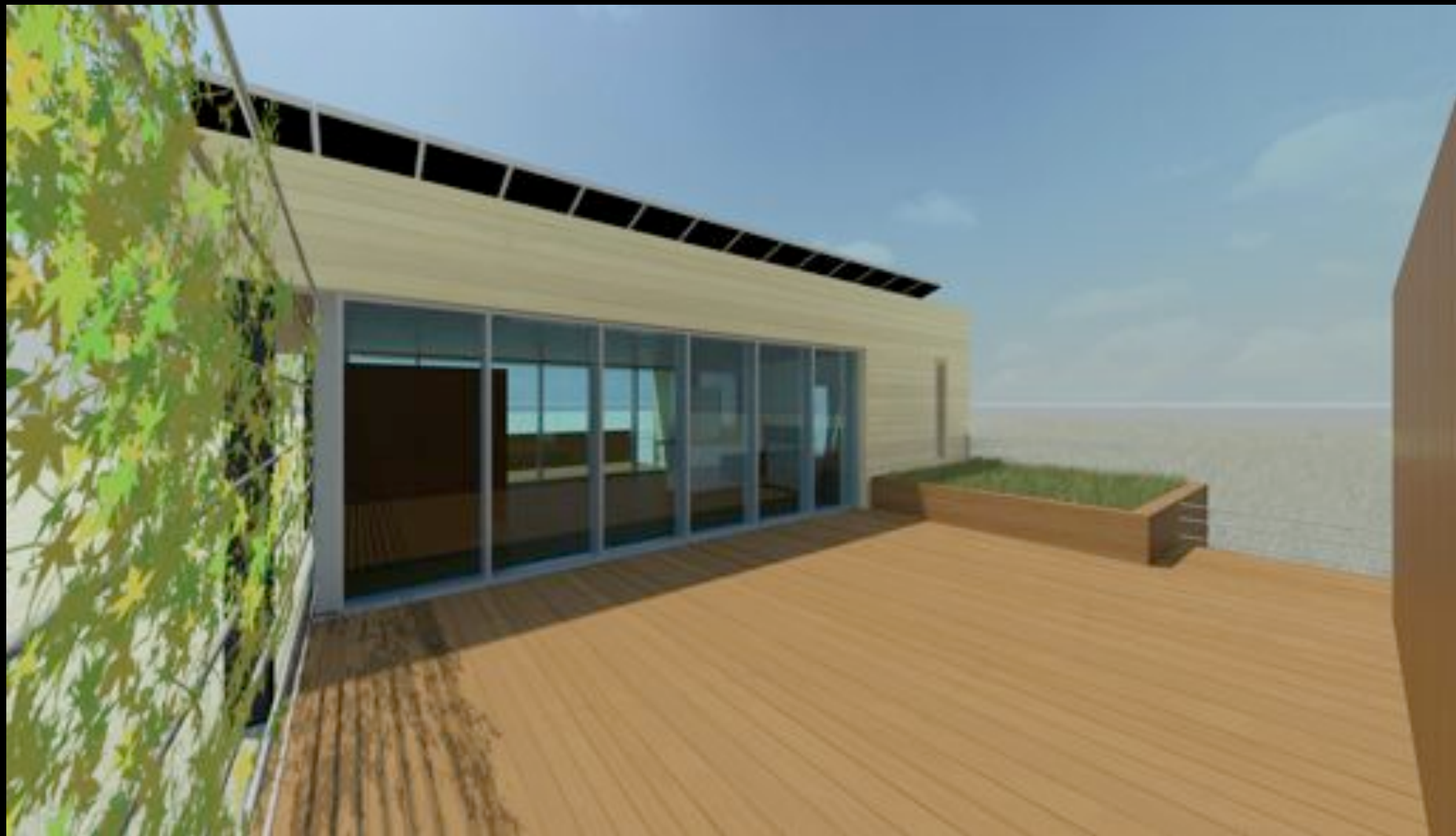
1
A 3.5

1
A 3.3

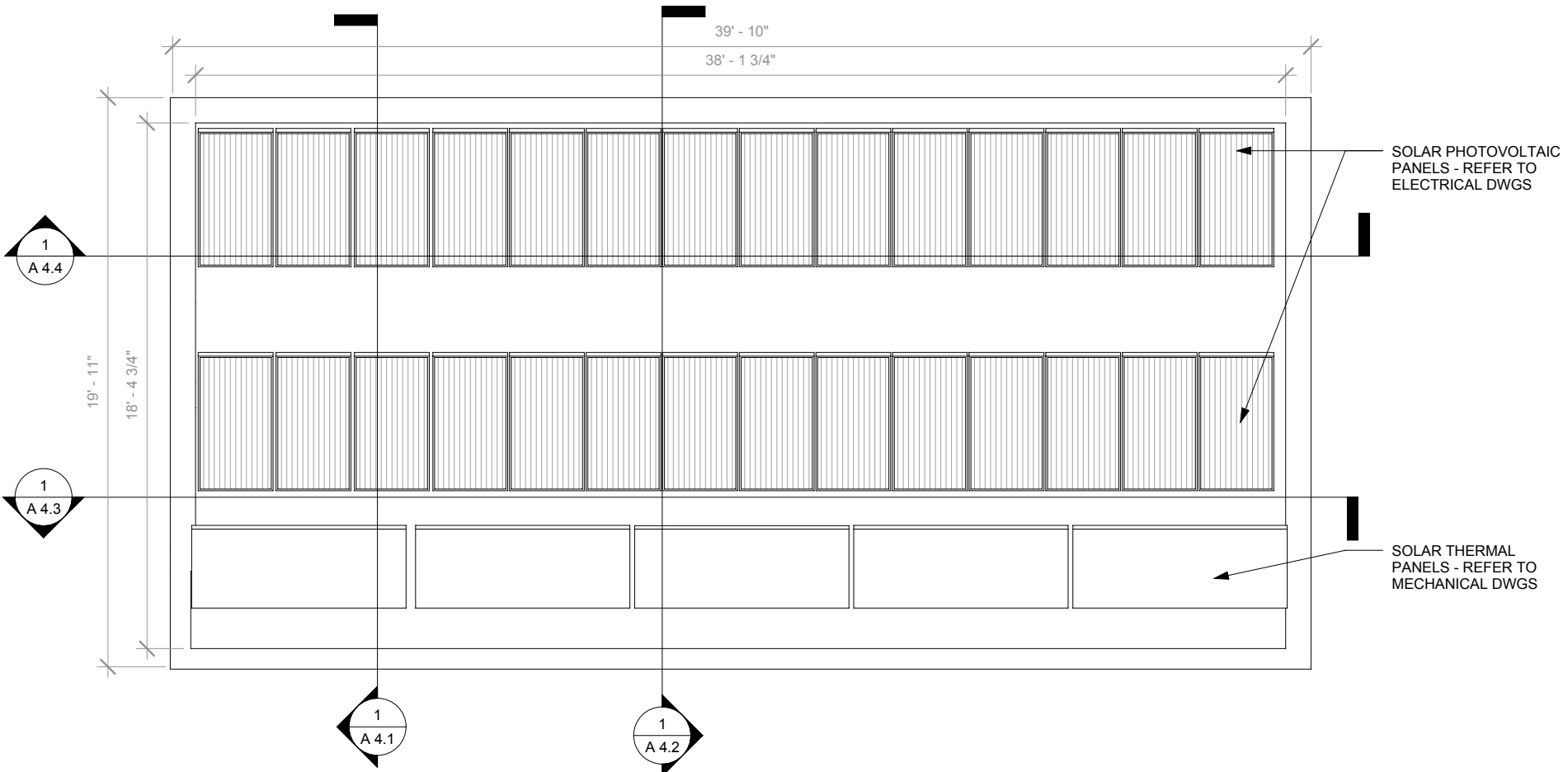












FUTURE PLANS

- WORKING WITH LCA TEAM AT TUFTS
- PLANNING PUBLIC EDUCATION EVENTS/SYMPOSIA
- BRANDING/WEBSITE
- NESEA
- BUILDING THE HOUSE!!!