

A 3D architectural rendering of a modern, two-story house with a light brown, textured facade. The house features a large window on the left side and a smaller window on the right side. A solar panel array is mounted on the roof, consisting of several rows of rectangular panels. The panels are arranged in a grid pattern, with some panels tilted at an angle. The house is set against a plain, light gray background.

Solar Decathlon Project

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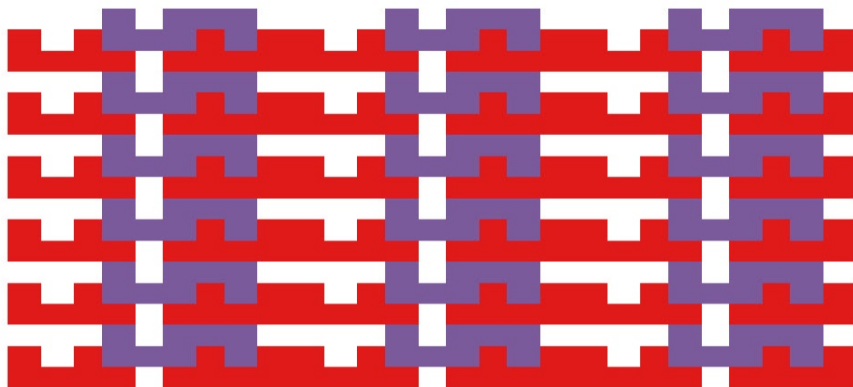
STACKING UNITS



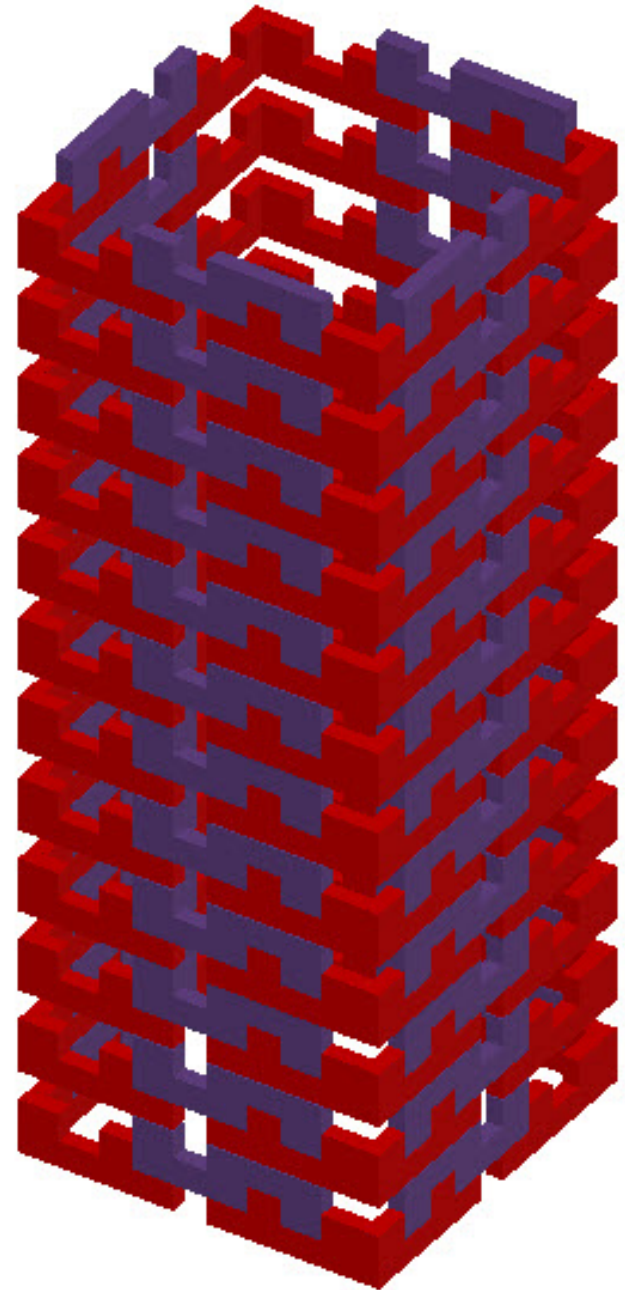
4 UNITS



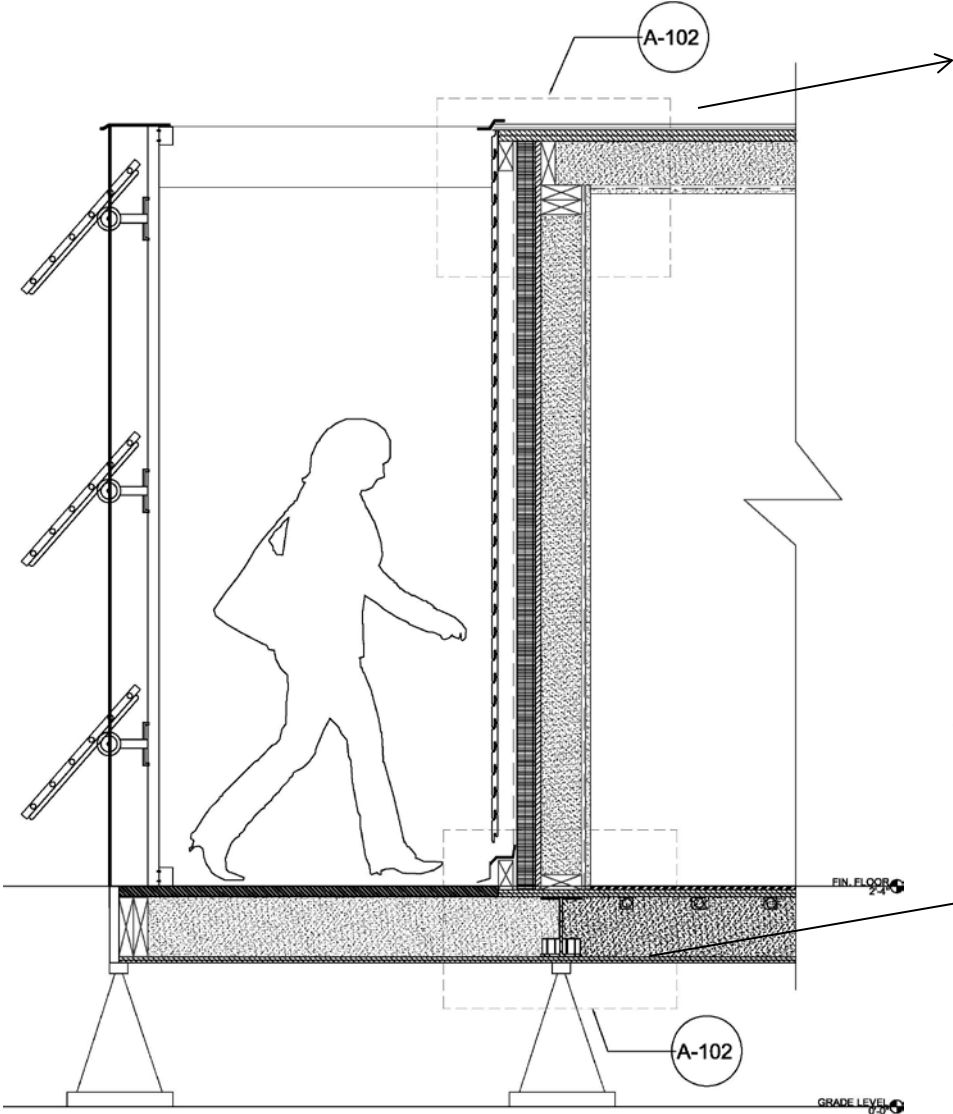
8 UNITS



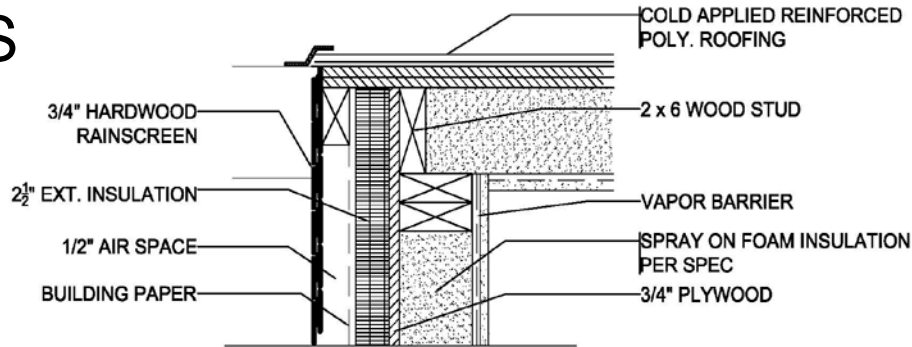
96 UNITS



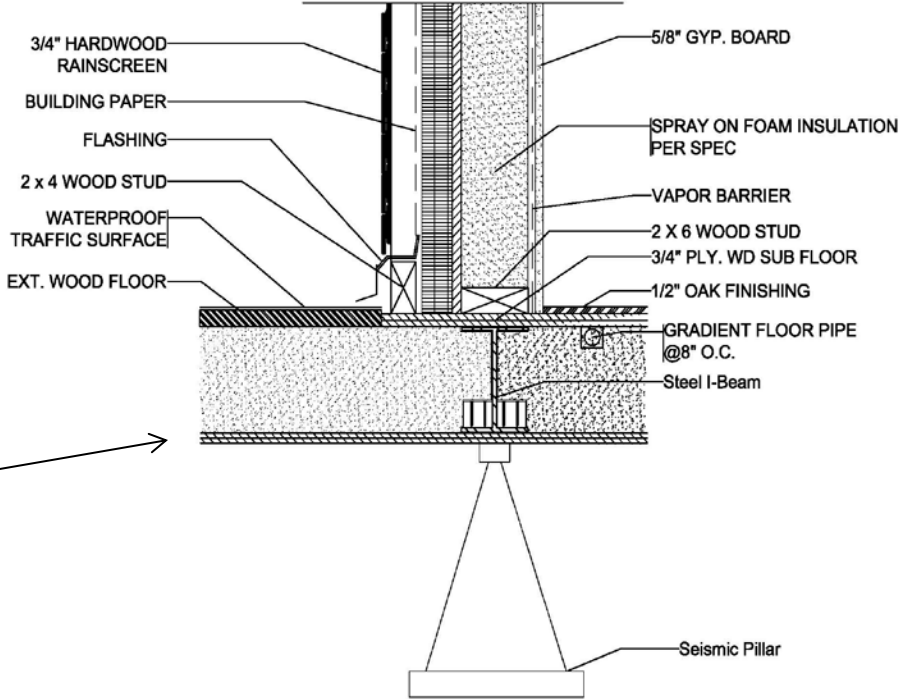
WALL DETAILS AND CALLOUTS



A TYP. WALL SECTION w/ PV PANELS
SCALE: 1/4" = 1'-0"

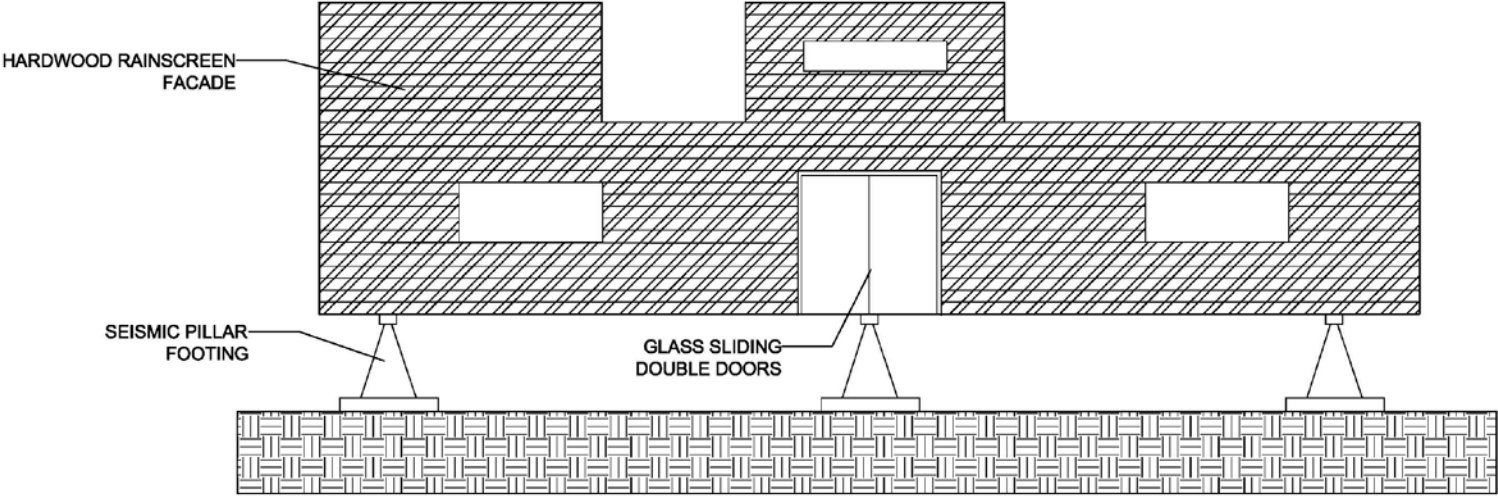


2 WALL TO ROOF CONNECTION
SCALE: 1/4" = 1'-0"

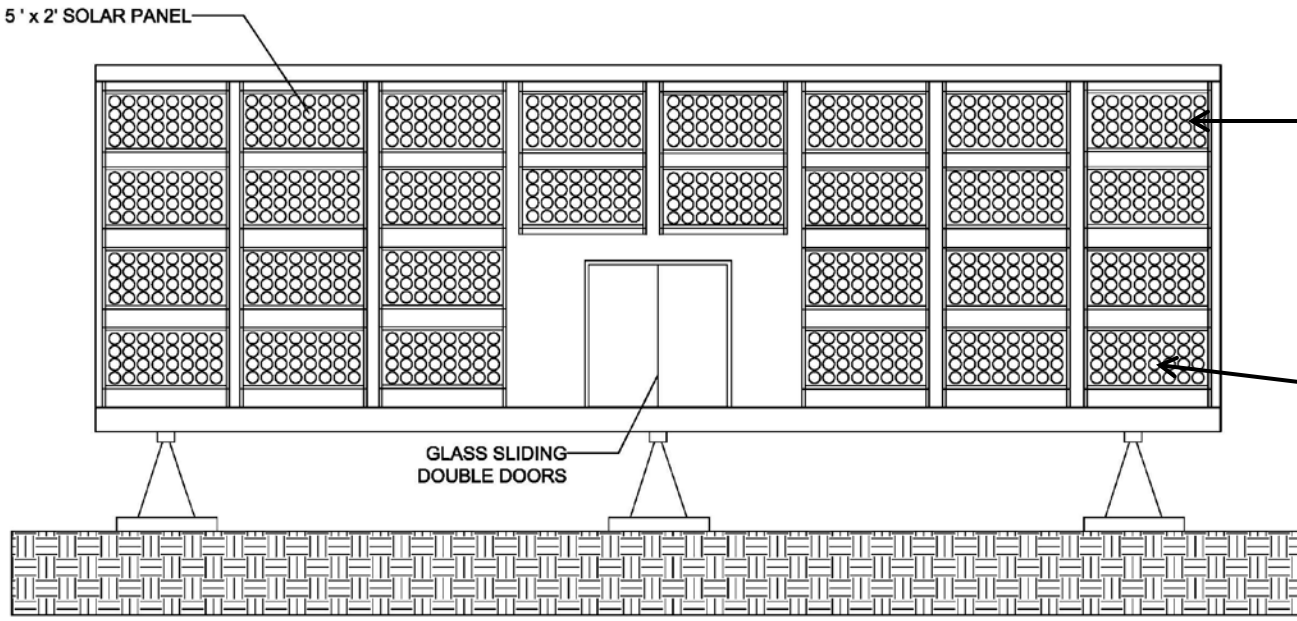


1 WALL TO FLOOR CONNECTION
SCALE: 1/4" = 1'-0"

South Elevation



SOUTH FACADE ELEVATION-UNIT 1
SCALE: 1/4" = 1'-0"



SOUTH FACADE ELEVATION w/ SOLAR PANELS
SCALE: 1/4" = 1'-0"

SUNPOWER

BENEFITS

Highest Efficiency
SunPower™ Solar Panels are the most efficient photovoltaic panels on the market today.

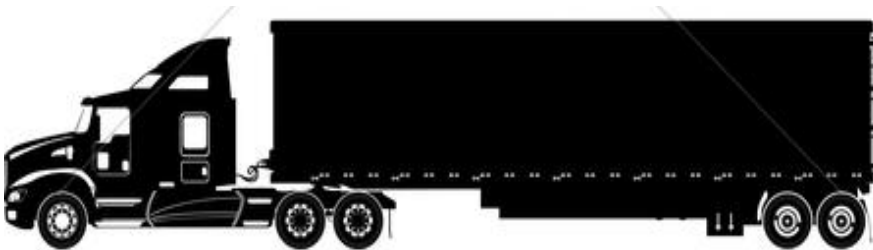
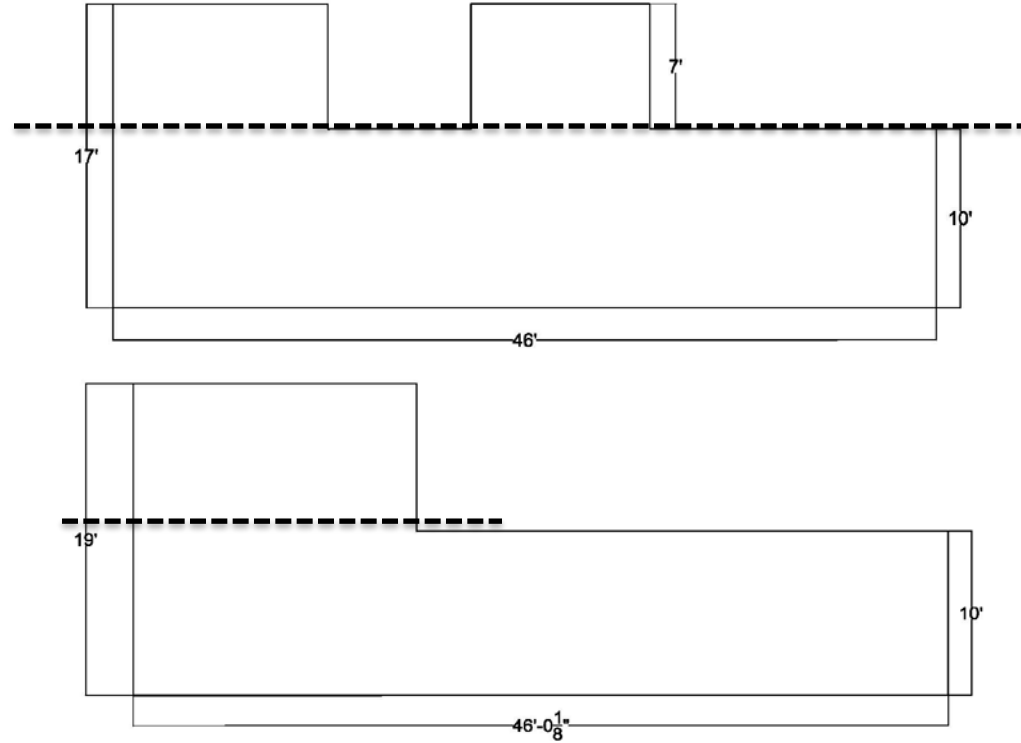
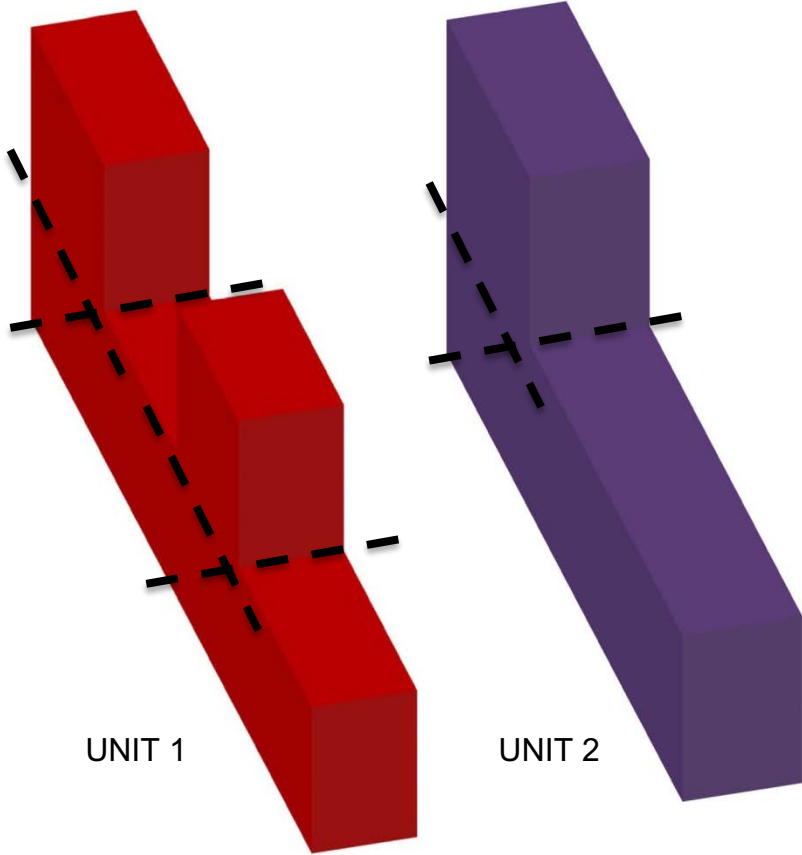
Attractive Design
Unique design combines high efficiency and a sleek, black appearance to blend elegantly with the roof.

More Power
Our panels produce more power in the same amount of space—up to 50% more than conventional designs and 100% more than thin film solar panels.

Reliable and Robust Design
Proven materials, tempered front glass, and a sturdy anodized frame allow panel to operate reliably in multiple mounting configurations.

PREFAB DESIGN-TRANSPORTATION

--- FOLDING CONNECTION OCCUR

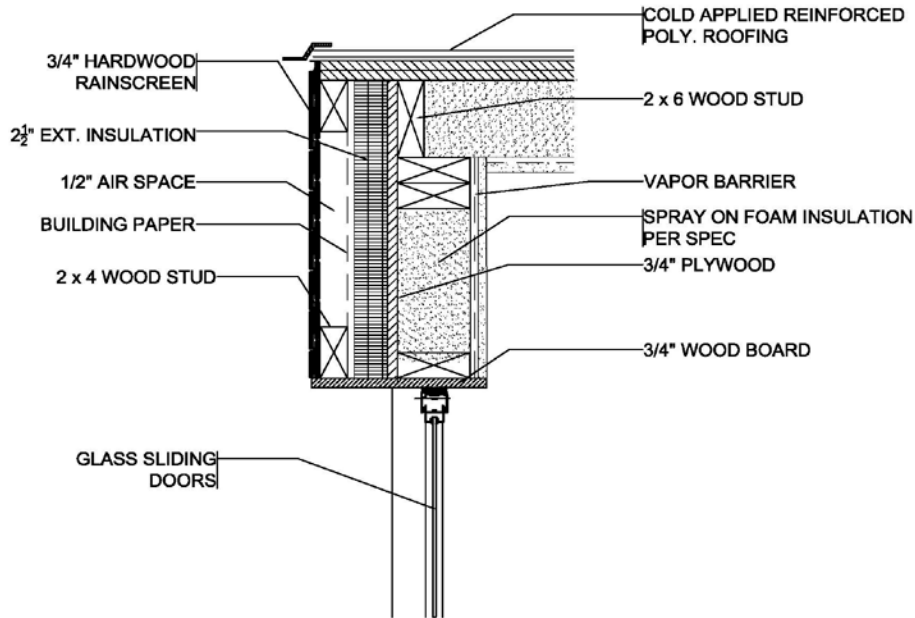


5 Trucks

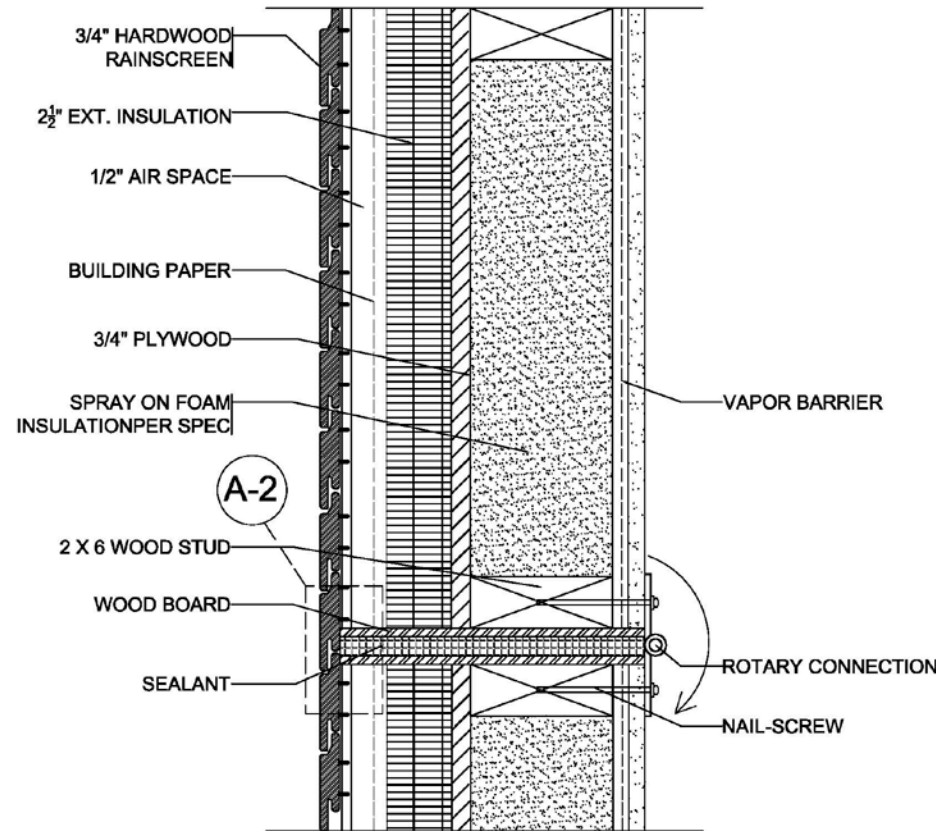
1 Truck for every 4 units (4 Trucks)
1 Truck for Tools and Additional Materials

- The dotted line represent where within one unit there is a folding connection.
- The folding connection helps to keep within the height requirement of the truck to transport every unit to its final destination.
- The folding connection will take place within the upper portion of every unit and fold at a 90 degree fold behind the unit base.

FOLDING CONNECTION DETAIL AND DOOR



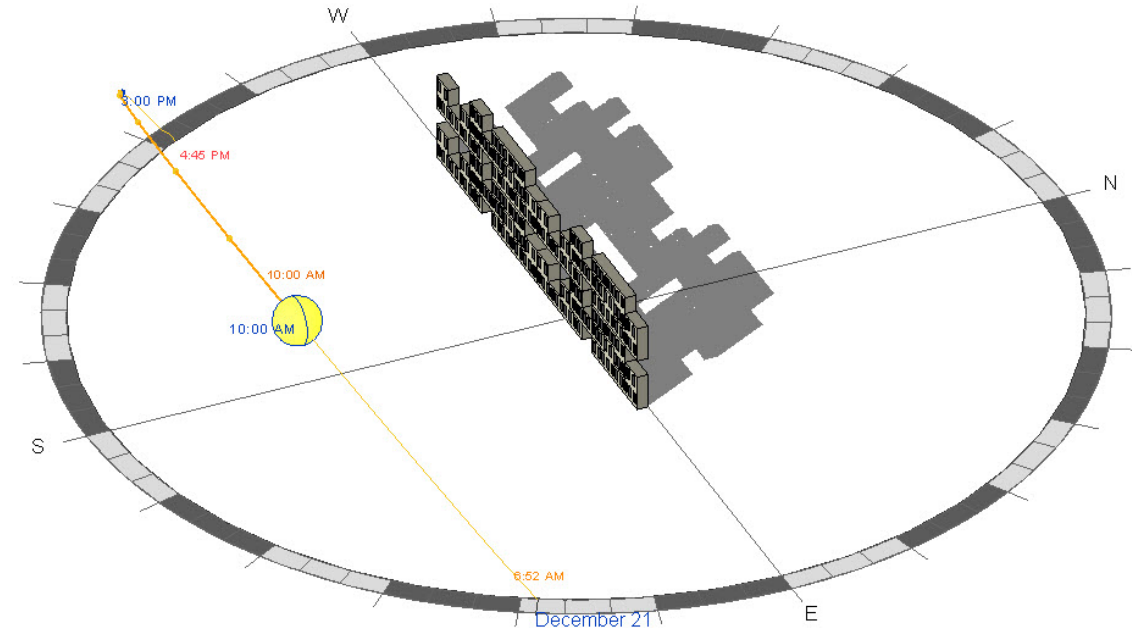
3 DOOR CONNECTION
SCALE: 1/4" = 1'-0"



4 FOLDING CONNECTION
SCALE: 1/4" = 1'-0"

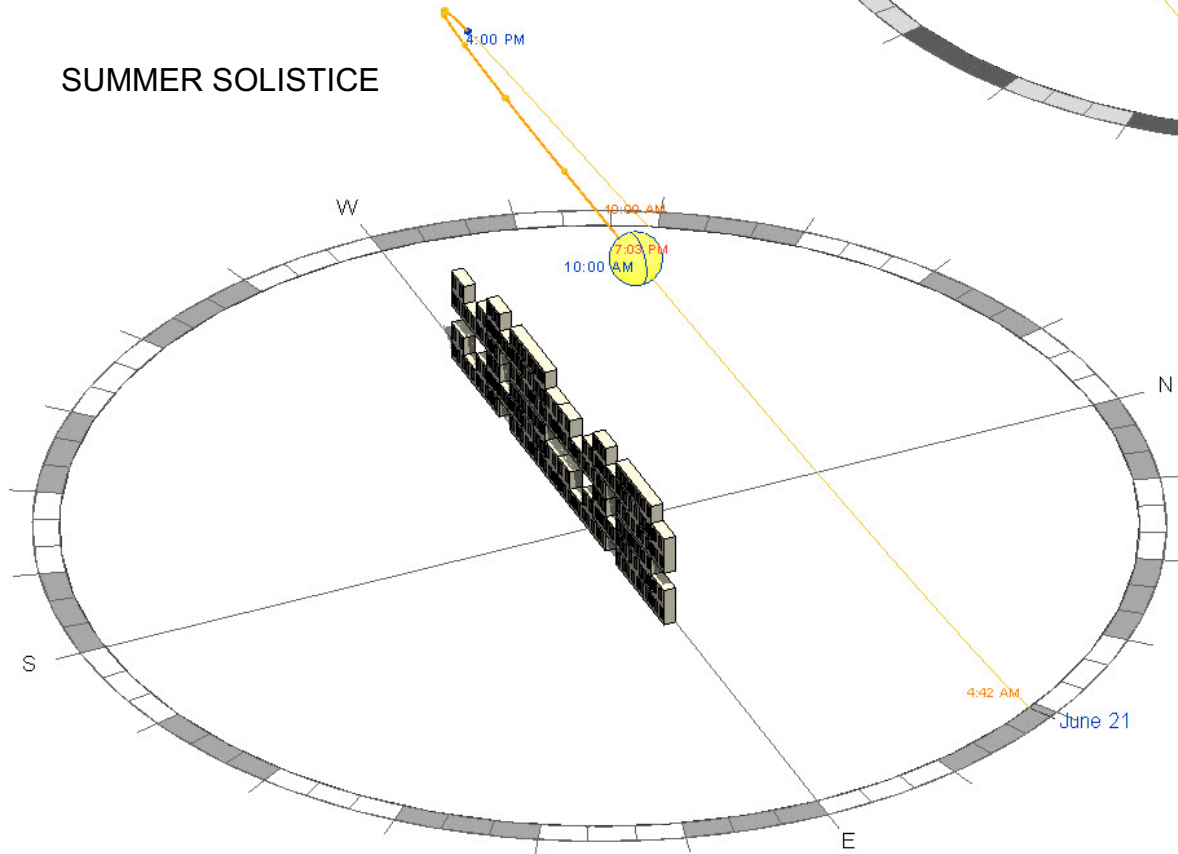
- The folding connection takes place within each modular unit.
- The rotary connections helps the top portion of the unit to fold behind the lower portion at a 90 degree angle.
- Unfolding the top portion of the unit, the rain screen façade will latch together (hook) and the gap will be secure with two wooden boards and sealant.

SUN DIAGRAMS

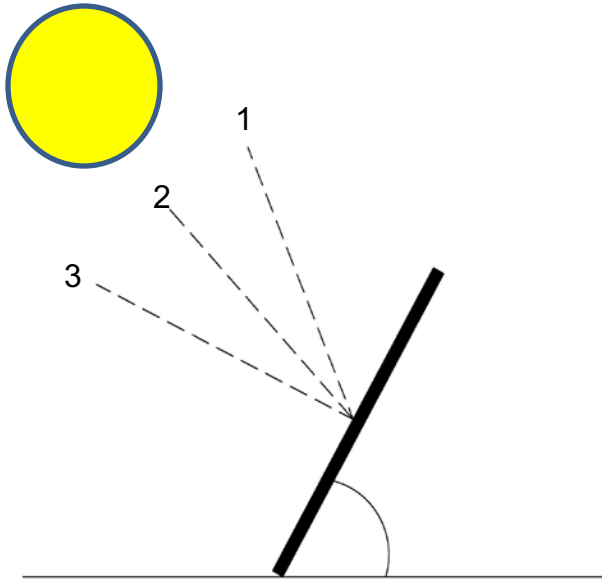


WINTER SOLISTICE

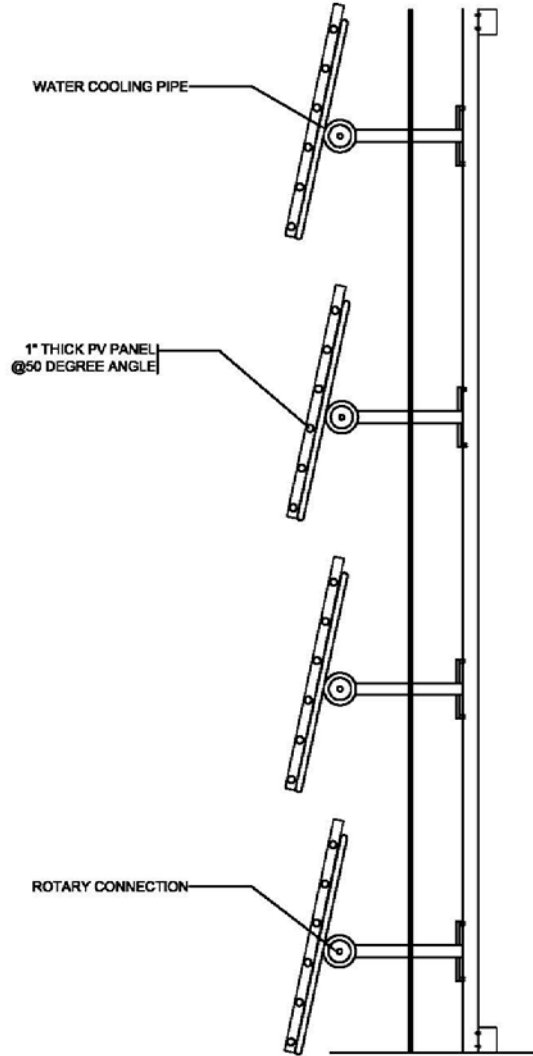
SUMMER SOLISTICE



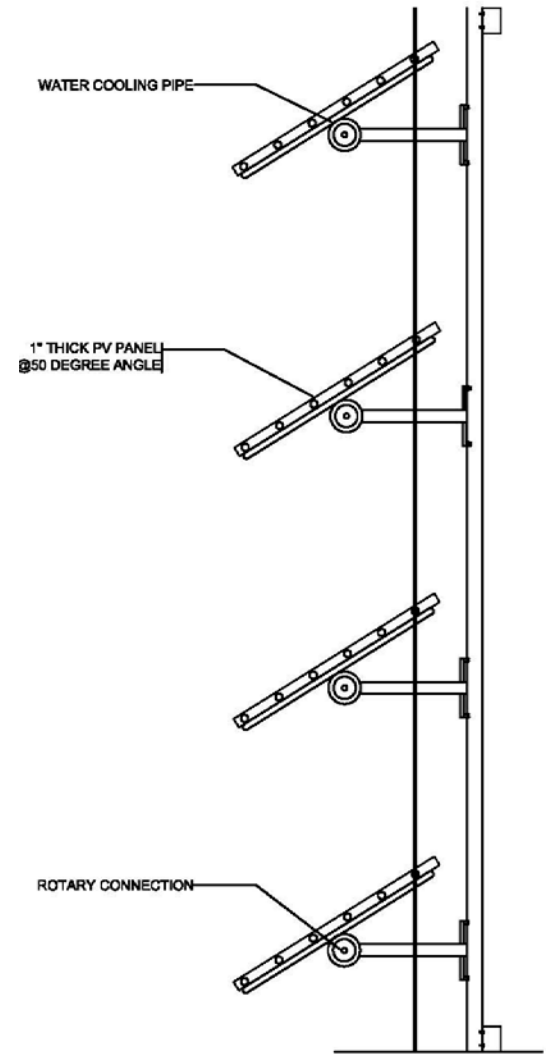
SUN DIAGRAMS-SOLAR PANEL



1. Summer Solstice at 78 degrees
2. Equinox at 57 degrees
3. Winter Solstice at 32 degrees

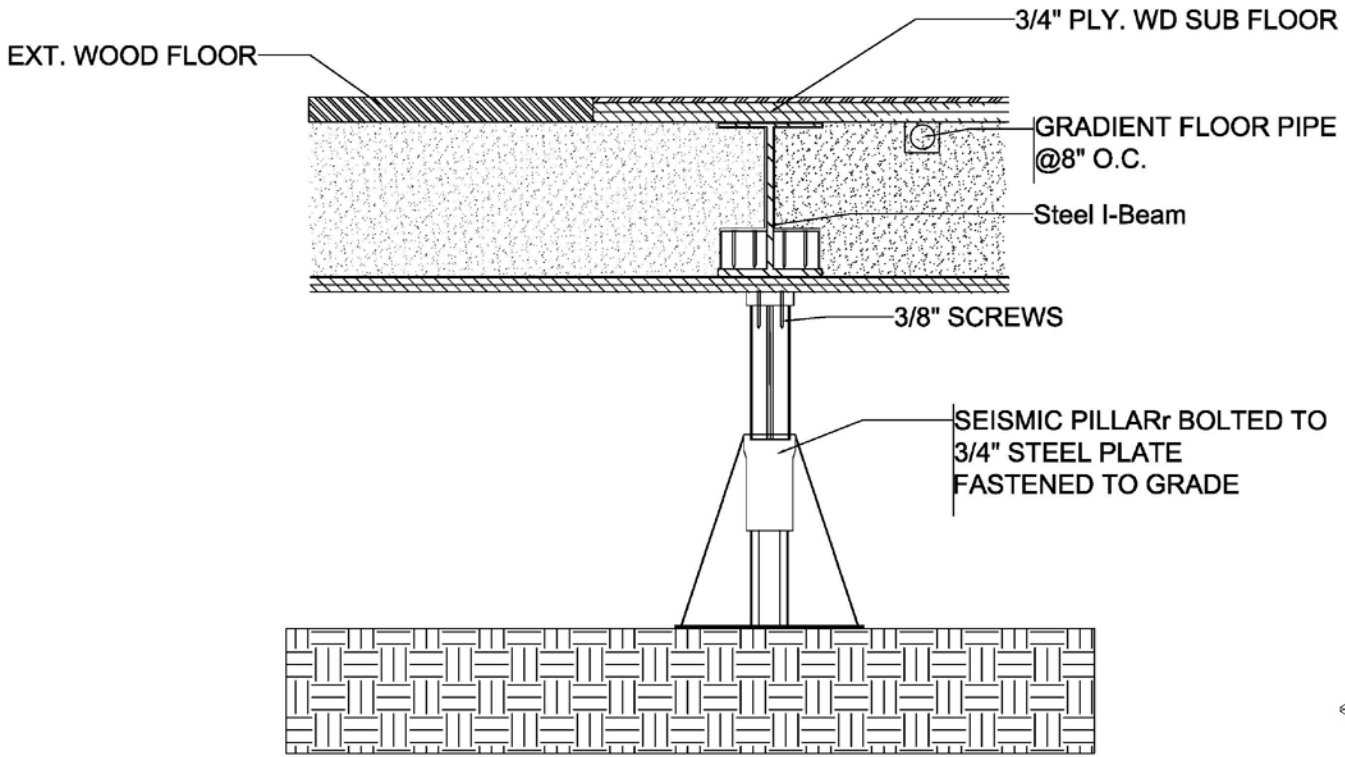



S SUMMER SOLSTICE
SCALE: 1/4" = 1'-0"



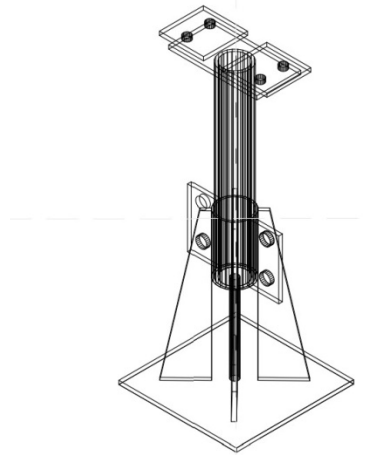
W WINTER SOLSTICE
SCALE: 1/4" = 1'-0"

FOOTING DETAIL



 FLOOR TO FOOTING CONNECTION
SCALE: 1/4" = 1'-0"

- Influenced by Team Ontario 2013



D1 SEISMIC PIER ISOMETRIC

FLOOR PLAN

