

# SOMO

## SOLAR MODULAR ARCHITECTURE

### STUDIO 4710

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Description of Project: A modular home from recycled structural steel and BIO-SIP's with a land-sky-airscape design that contributes to an oasis of nature both inside and out.



Buildings can learn from the frog's ability to gain distance over space. The frog's flexible skeletal frame, which can expand and compress, suggests an architecture that extends gracefully and expansively over a site. The frog's skin suggests a building that blends quietly into its environment.

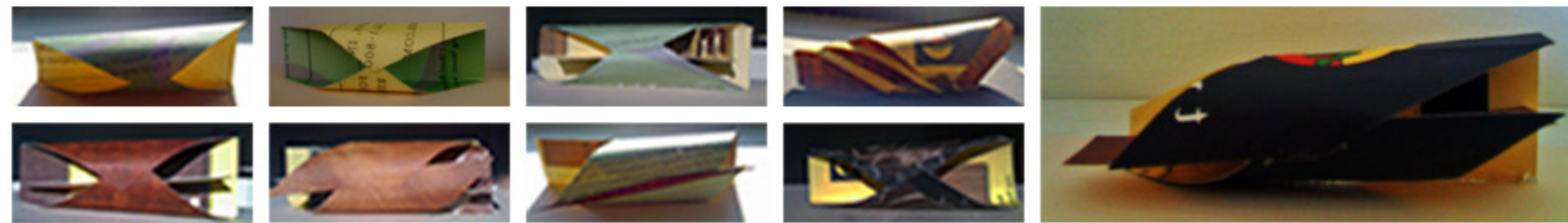
Certain frog's have the ability to **leap** in excess of fifty times their body length. They have camouflage skins that help keep them safe from predators' eyes.

## CONCEPTUAL SKETCH



## LOOSE WRAPPING

A loosely wrapped skin acts as a naturally ventilated screen for a building. Strategically cutting away from this skin provides shade while still allowing light to penetrate throughout the interior. These openings break up the mass into private, public, indoor, and outdoor spaces.



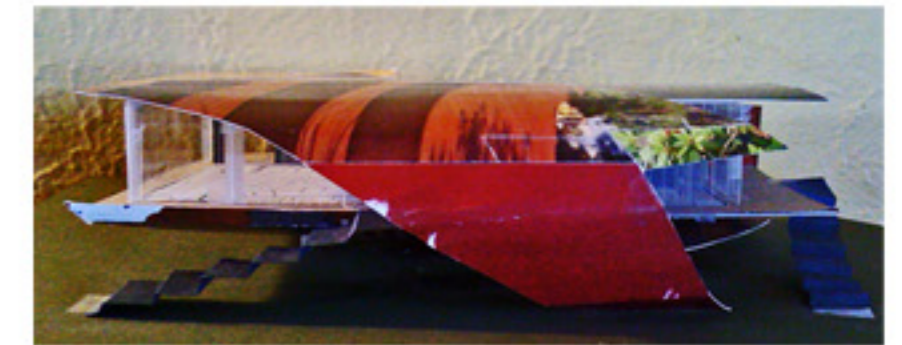
## GLASS BOX



The new design for 755 Union Avenue was created by simply extruding the site's maximum allowable footprint of 30' x 50'. Applying glass to the surfaces of this extrusion allows for optimum views, transparency and openness.

## MOVEMENT

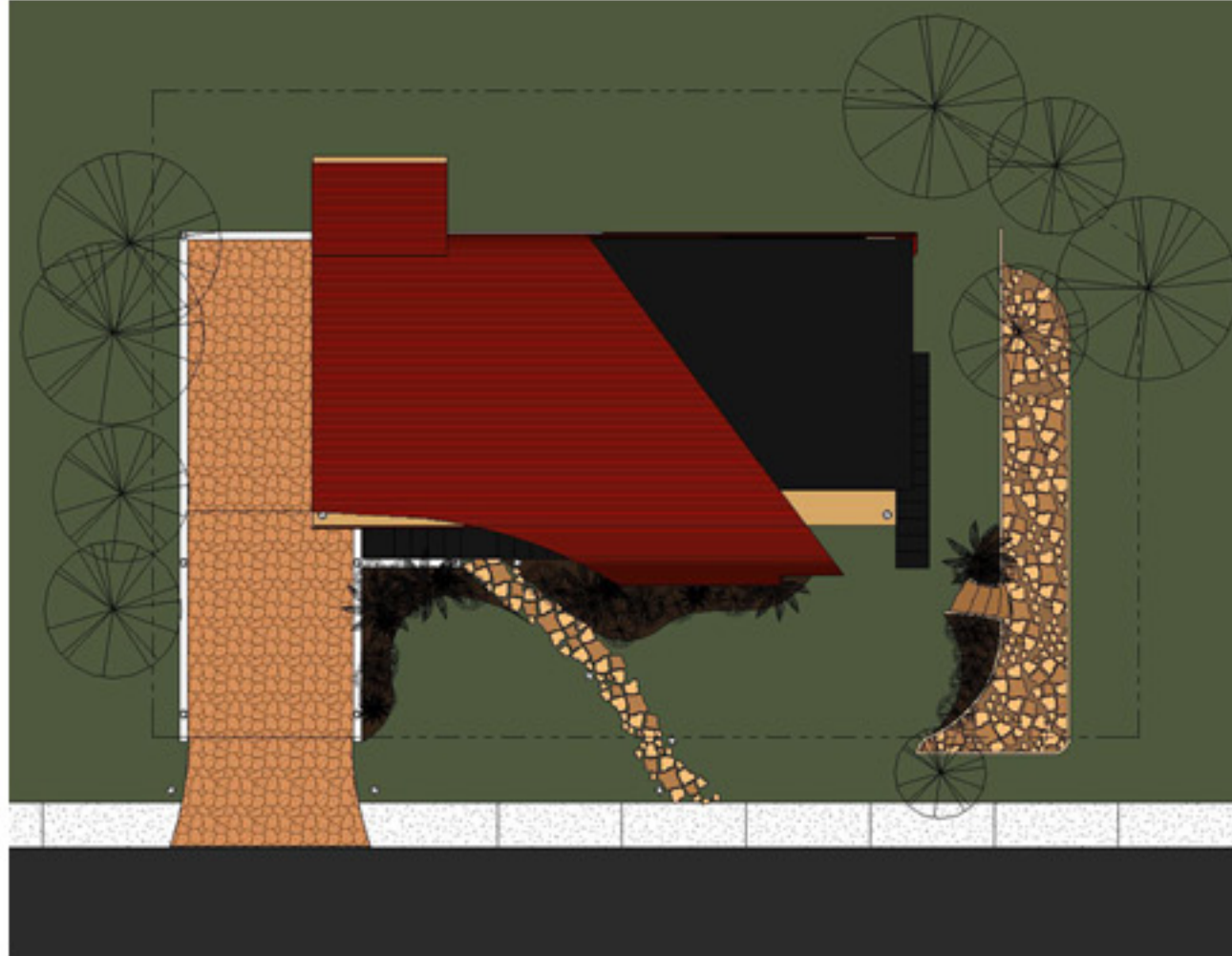
Wrapping this glass box in a smooth skin enlivens its connection to the landscape and gives its facade the impression of movement.



# SITE PROPOSAL

scale: 1/8" - 1'

- The slope of the roof is oriented to direct water into planting beds and a french drain that follows the natural slope of the site.
- These beds are shaped to complement plants that are native to Colorado.
- A "grass pave" driveway leads to a partially sunken garage.
- Radiant heating coils will be installed to melt ice during the winter months. A built-in drainage system will return this water to the earth.
- Solar powered lighting allows for safe evening circulation without wasting energy.
- Circulation through the site is achieved via a "grass pave" walkway, a westerly staircase, leading from the garage to the main entrance, and an eastern staircase that creates a private entrance to the home and leads to an existing flagstone patio. The staircases themselves serve as outdoor lounging spaces, because of their exaggerated size.



# FLOOR PLAN

scale: 1/4" - 1'

3 BEDROOM x 2 BATHROOM RESIDENCE

Living Space- 1, 172 sqft.  
Outdoor Living Space- 799 sqft.  
Garage- 578 sqft.

- The living, kitchen, and dining spaces are seamlessly integrated into a single space. This gives the public sector of this home a larger, more open effect.
- The exhibition style kitchen allows one to interact with guest while entertaining.
- An elongated hallway serves as a corridor, segregating the public and private sectors of this home.
- A porch that wraps the facade creates an abundance of both private and semi-private outdoor living spaces.
- An extrusion of this porch on the north facade creates a large outdoor dining area.

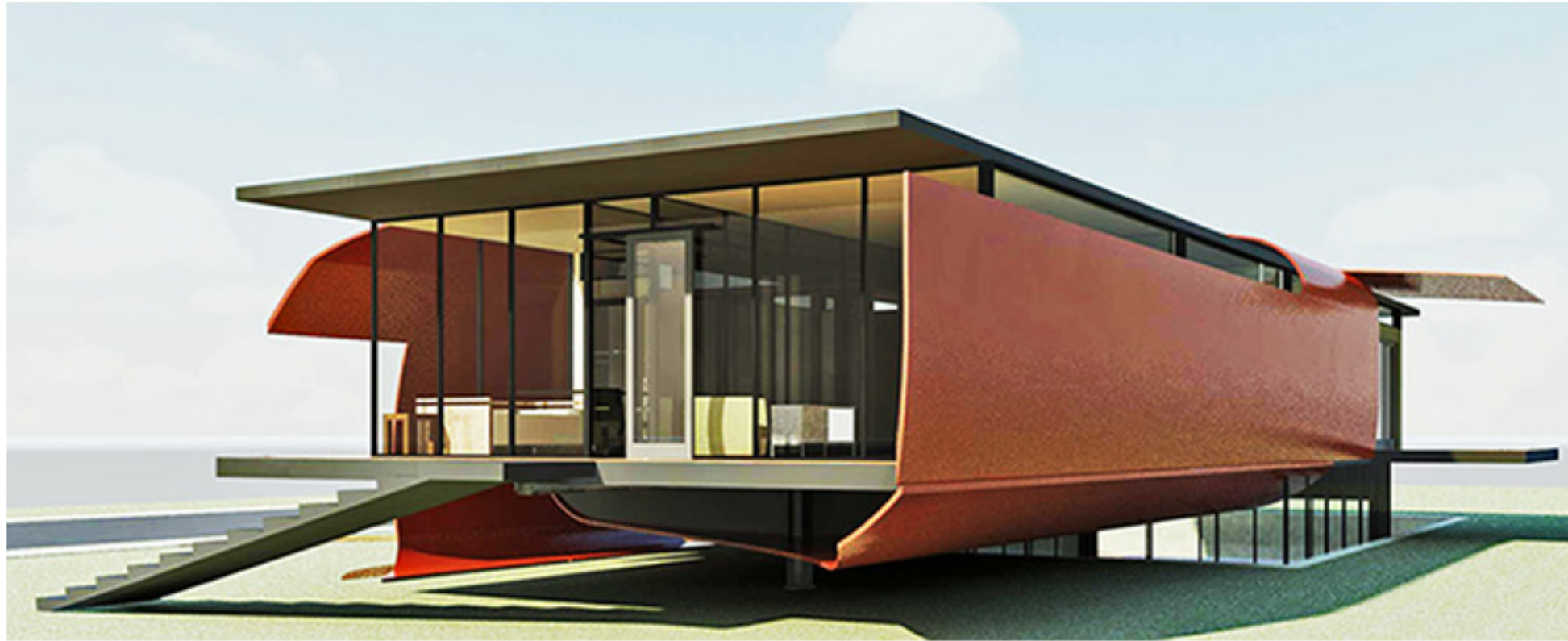


## ***ELEVATED LIVING***

Elevating the building on posts above the earth lessens its impact on the environment, gives its residents lofting views to the surroundings and creates a new context of solids and voids for the street.



## ***ELEVATIONS***



## *SET THE STAGE*



Exterior curtain walls break the barrier to the outdoors and give the home a stage-like quality. Solar powered integral blinds within these walls provide privacy, shade, and additional insulation.



# TRANSPARENCY

Translucent walls and operable transom windows allow for a naturally lit and ventilated interior.

