

CONCESSIONS			
Hot Dog	4.25	French Fries	2.50
Burgers	6.50	Onion Rings	3.99
Coke	4.00	Baked Potato	4.00
Hot Fries	4.00	Hot Wings	3.99
Pizza	4.00	Ice Cream	3.00
Hotels	3.50	Candy	3.50
Pepperoni	3.50	French Fries	3.00
Meat Lovers	3.50	French Fries	4.00
Cheddar	3.50	Spam	1.50
		Hot Wings	3.00

**re:VOLT**  
**Electric Vehicle Charging Station Prototype**  
Abby Bristow, Master's Project, Illinois Institute of Technology, Spring 2011



94% of energy delivered  
to the U.S. transportation  
system is petroleum-based.

\*Electrification Coalition





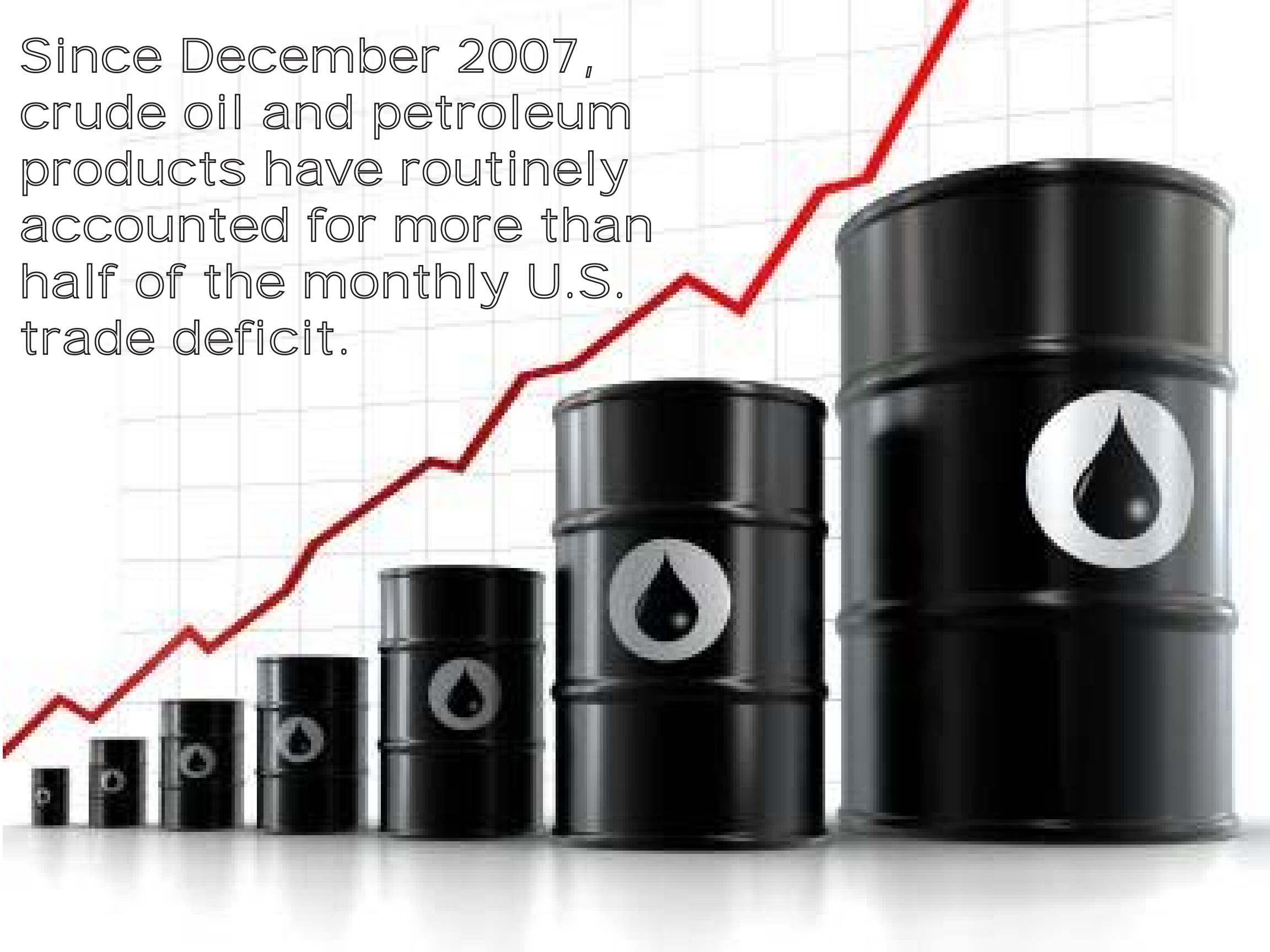
The US spends between 67.5 billion and \$83 billion annually to secure the international oil supply lines and infrastructure, using military force if required.

\*RAND Corporation - Imported Oil and U.S. National Security





Since December 2007, crude oil and petroleum products have routinely accounted for more than half of the monthly U.S. trade deficit.





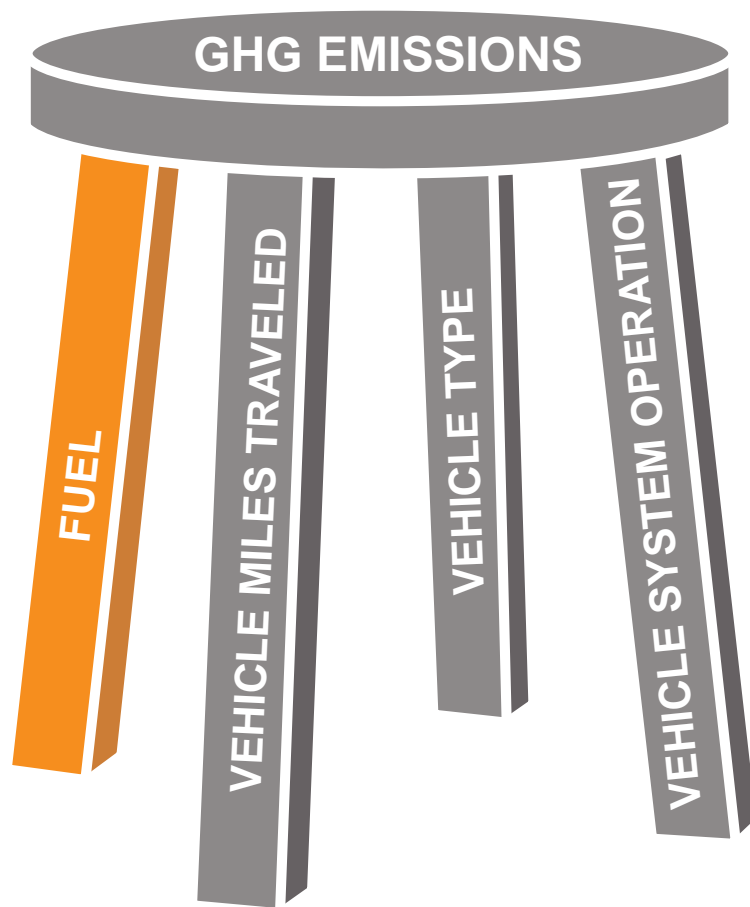


30% of Chicago's  
Greenhouse Gas  
Emissions are  
generated by  
Transportation.

\*Chicago Climate Action Plan

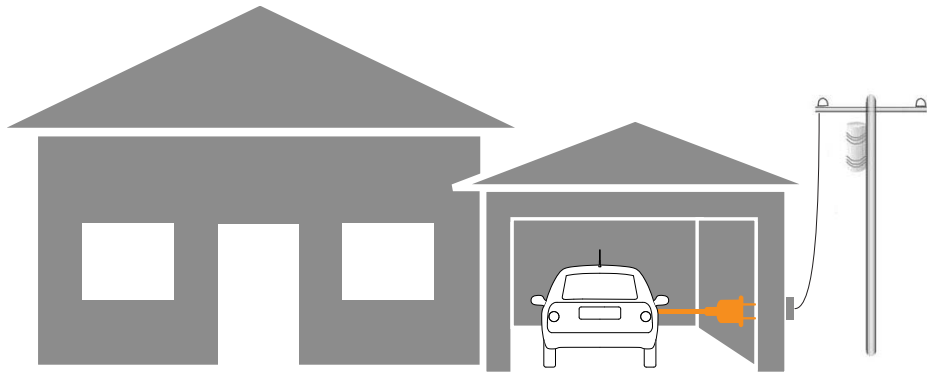


# 4 FACTORS AFFECT TRANSPORTATION EMISSIONS:

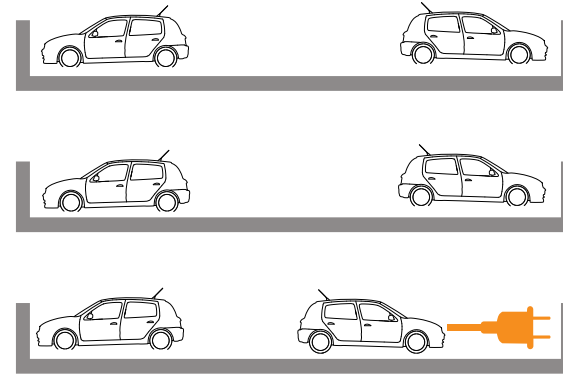


1. VEHICLE MILES TRAVELED
2. VEHICLE TYPE
3. VEHICLE SYSTEM OPERATION
4. FUEL

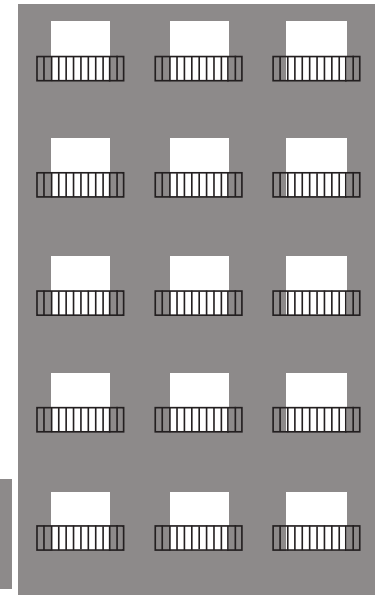




SCENARIO 1 - AT HOME - SINGLE FAMILY GARAGE CHARGING



SCENARIO 2 - AT HOME - MULTI-FAMILY PARKING GARAGE CHARGING




STORE



SCENARIO 3 - COMMERCIAL FACILITY

A series of errands over the course of a busy Saturday can extend beyond the life of the battery.

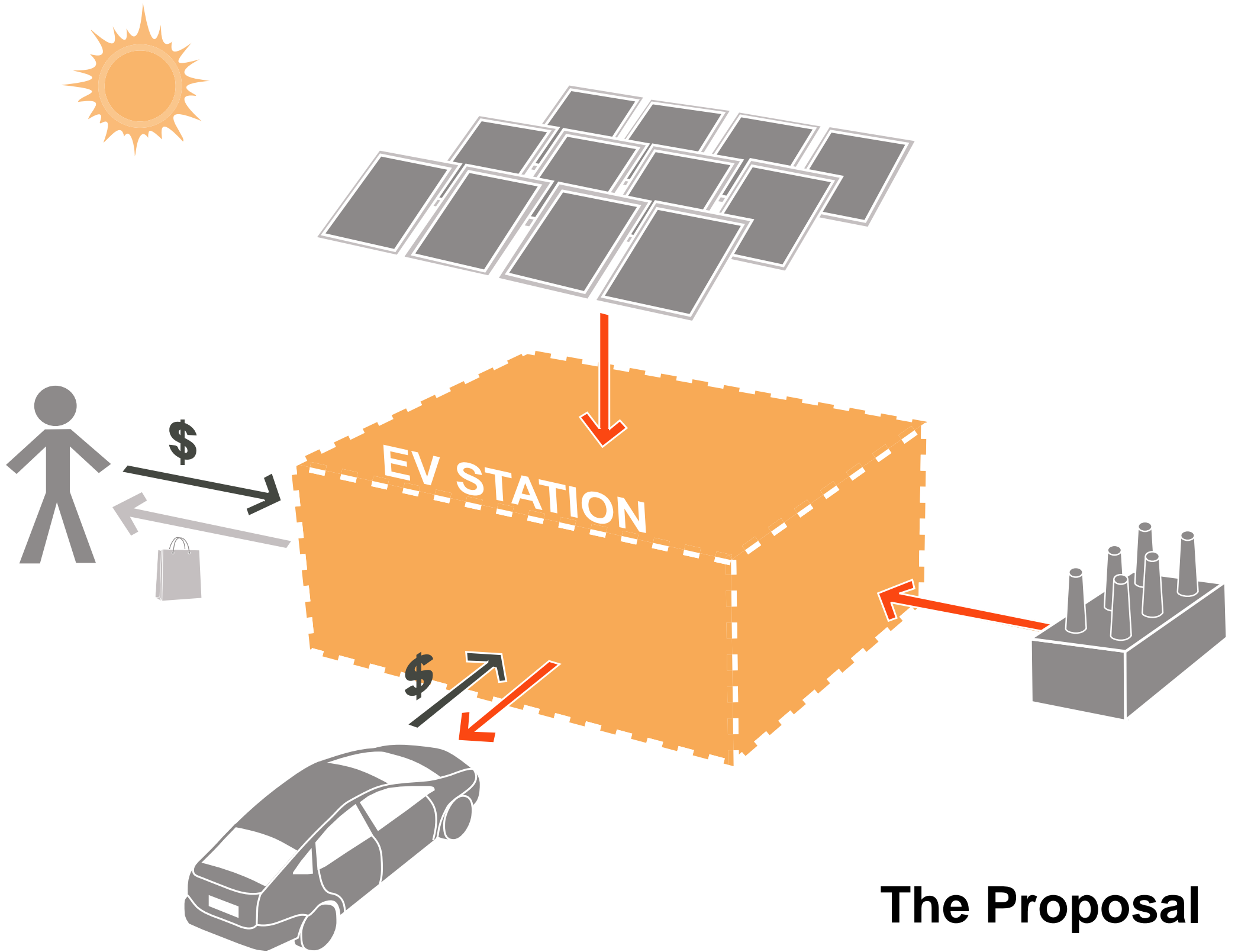
\*Electrification Coalition



The most significant challenge facing the deployment of public charging infrastructure is business model and cost. A profitable business model for public charging infrastructure has not been reliably demonstrated.

\*Electrification Corporation – Fleet Electrification Roadmap





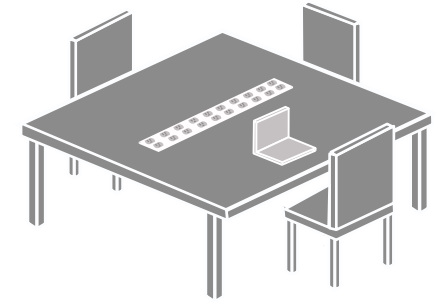
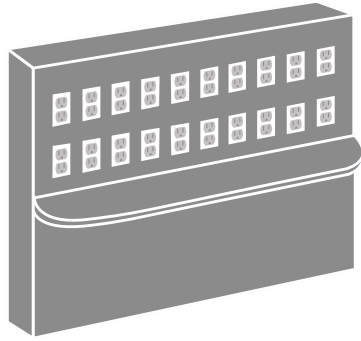
**The Proposal**

SMALL

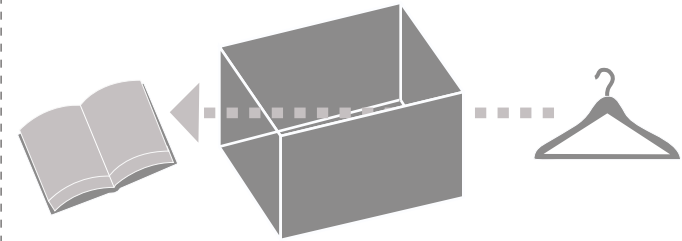
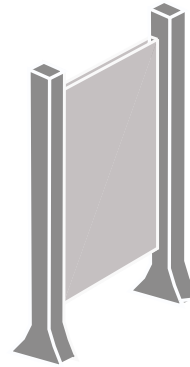
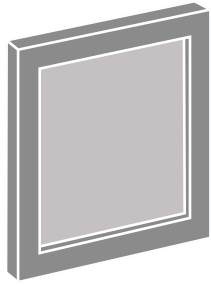
MEDIUM

LARGE

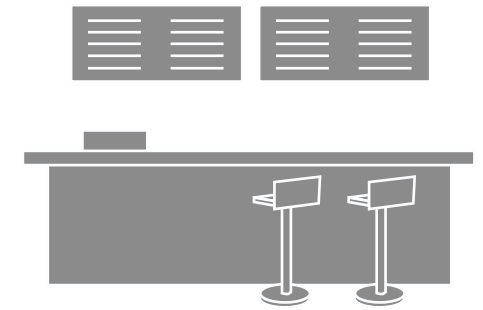
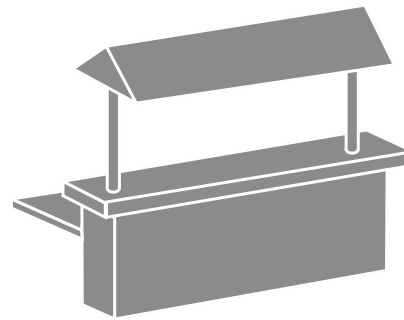
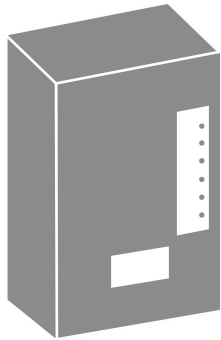
CHARGING



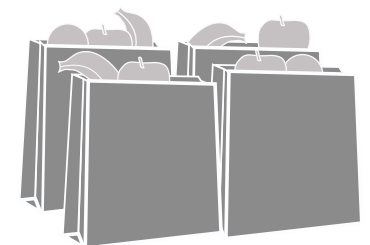
ADVERTISING



FOOD



GROCERY

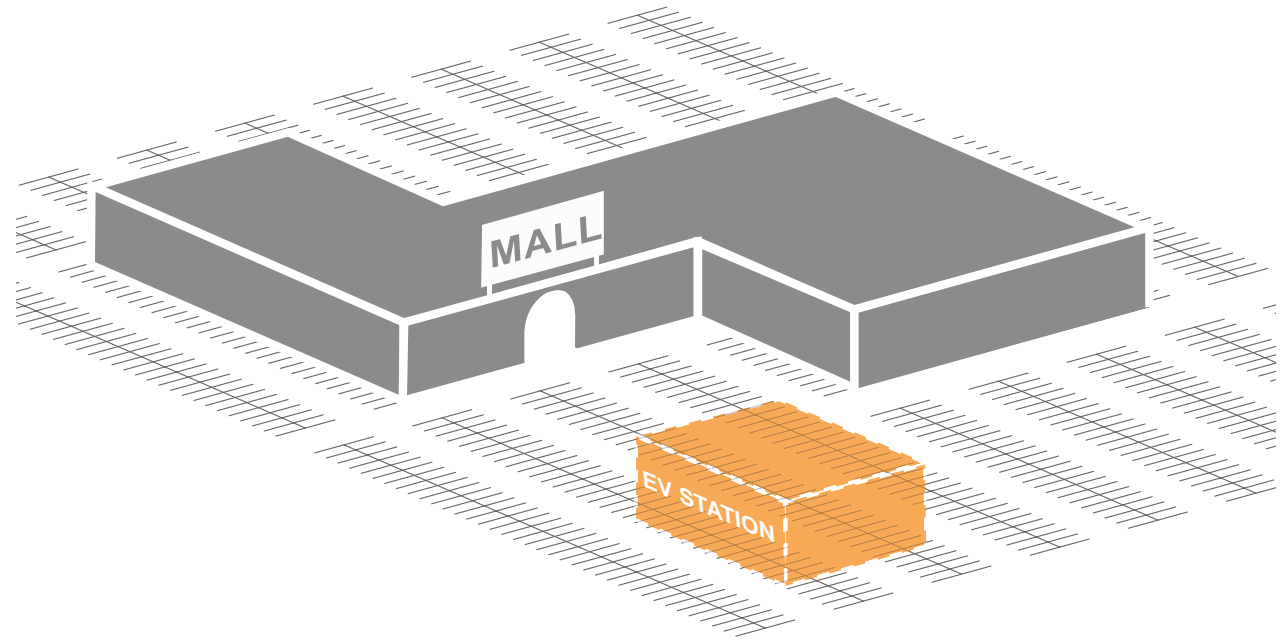




# PROTOTYPE

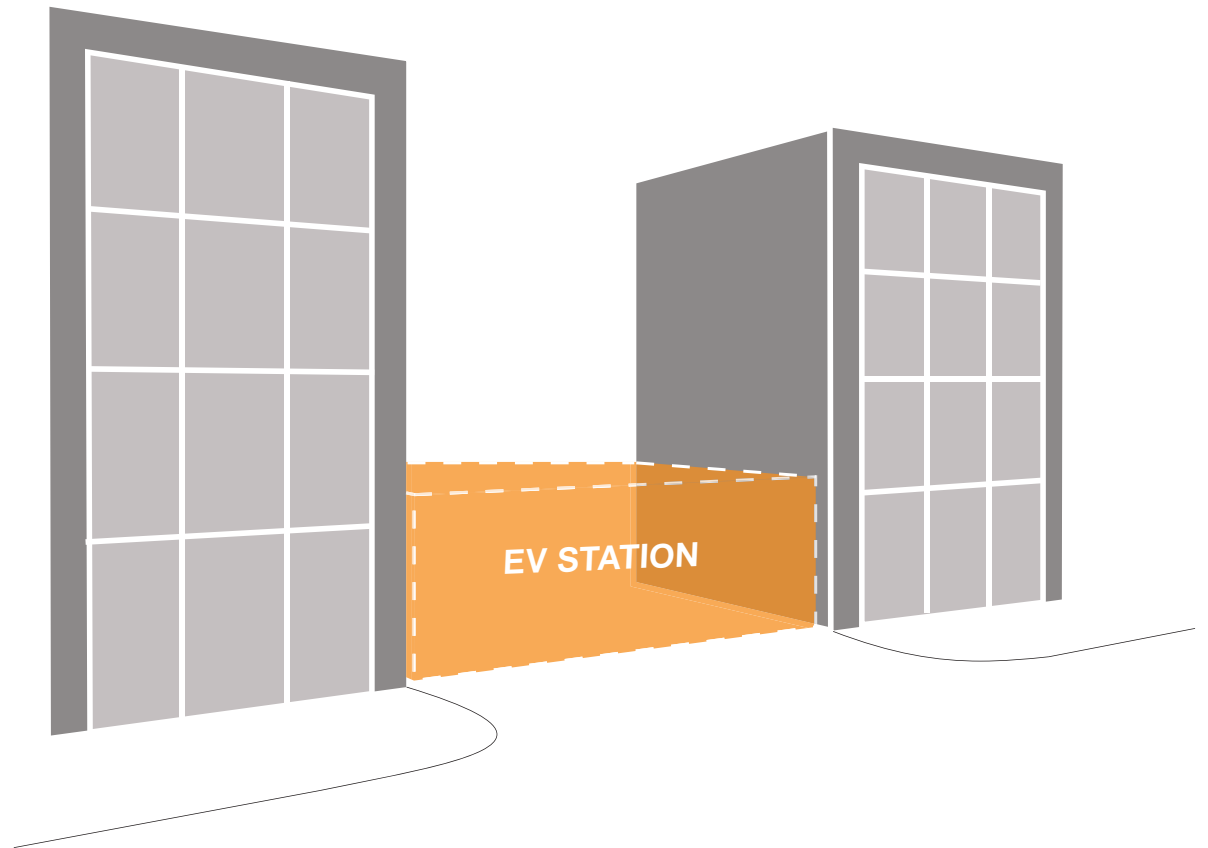
## SUBURBAN

MORE CHARGING SPACES  
BIGGER RETAIL SQUARE FOOTAGE  
POTENTIAL FOR LONGER CHARGE TIMES

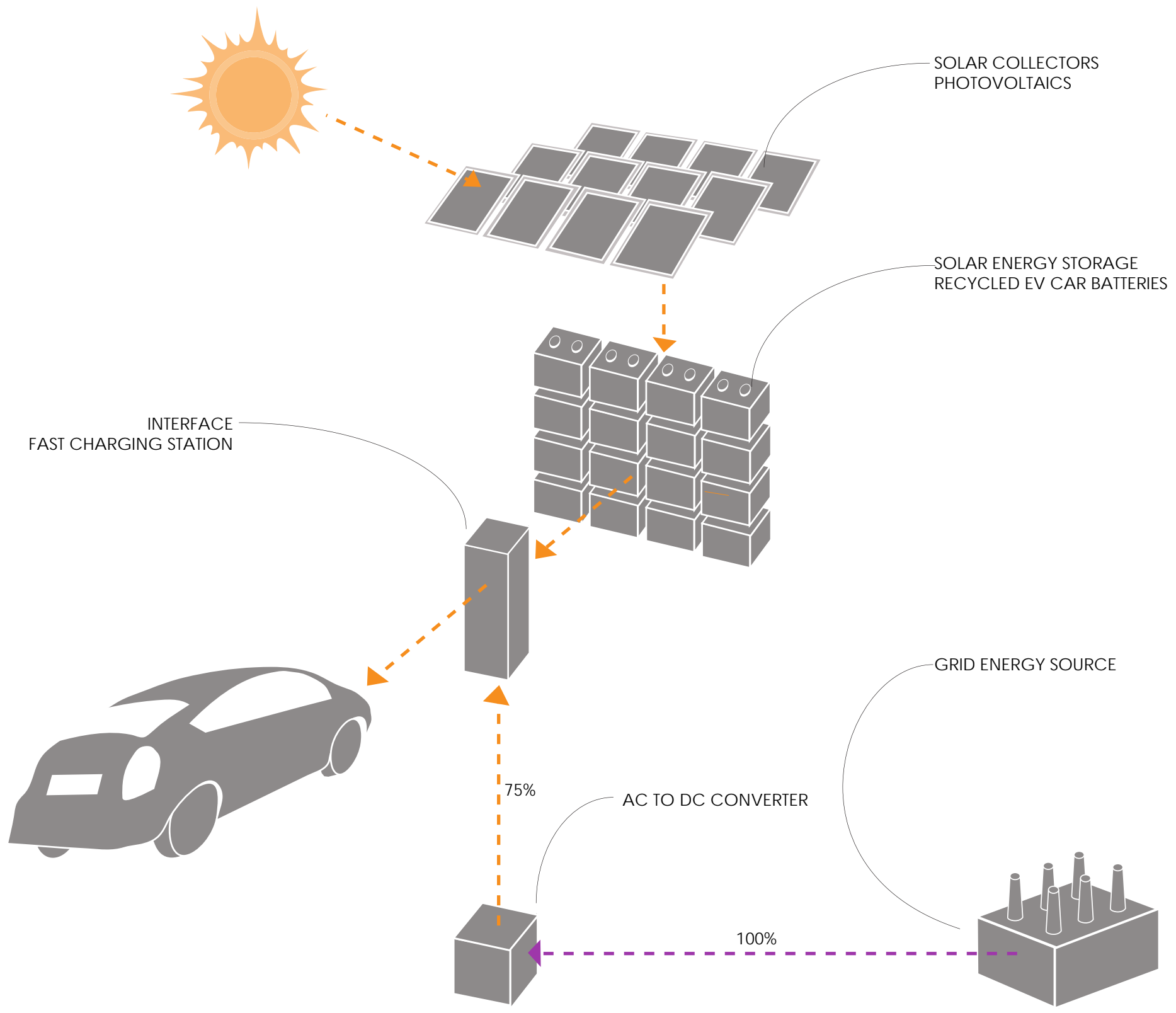


## URBAN

SMALLER RETAIL SF  
LESS PARKING SPACES







SOLAR COLLECTORS  
PHOTOVOLTAICS

SOLAR ENERGY STORAGE  
RECYCLED EV CAR BATTERIES

INTERFACE  
FAST CHARGING STATION

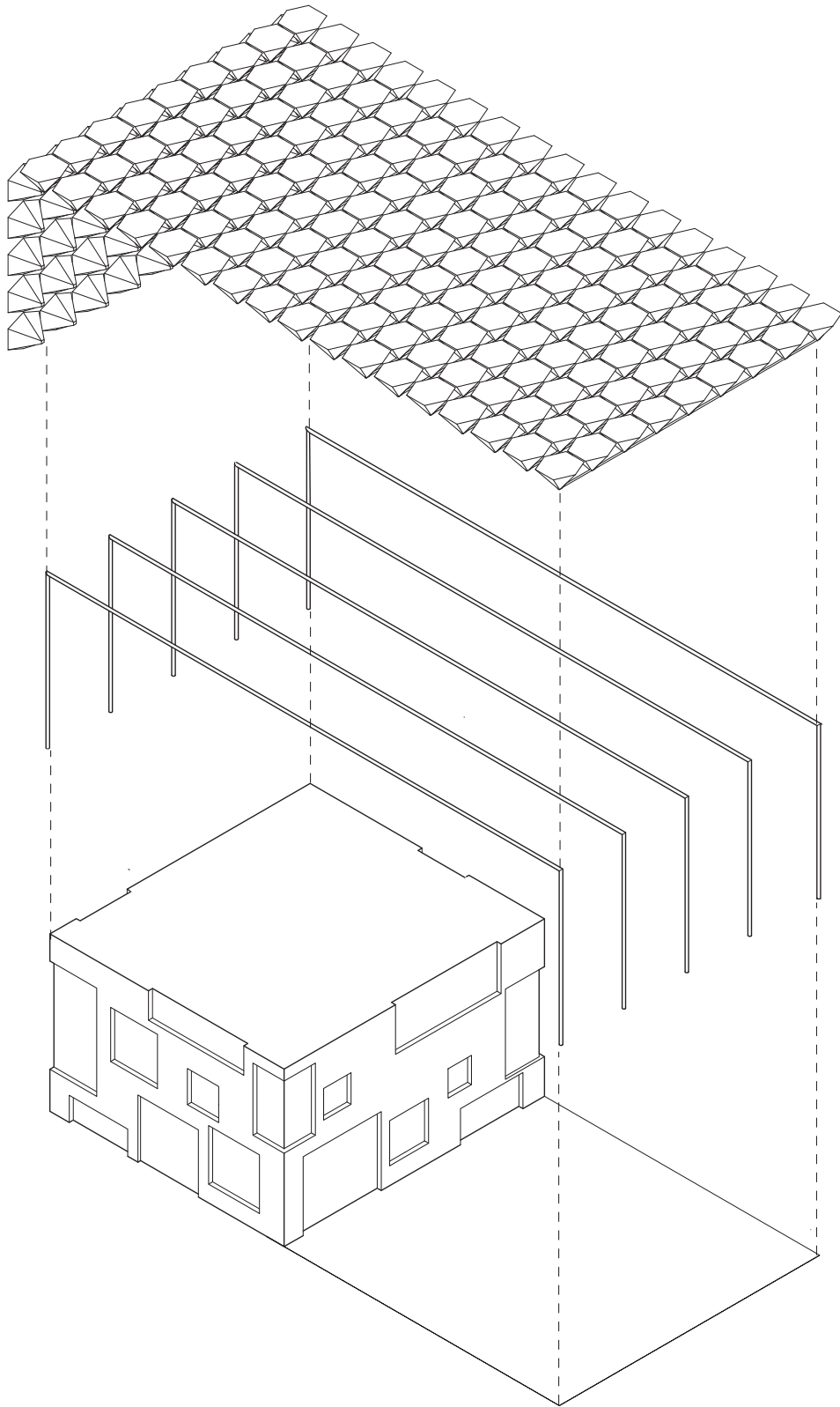
GRID ENERGY SOURCE

AC TO DC CONVERTER

75%

100%



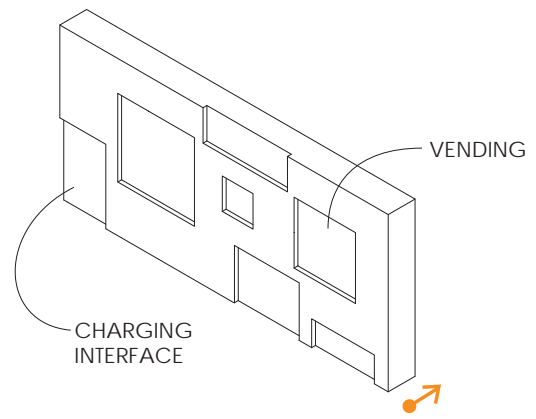


TRANSPARENT SOLAR PANELS

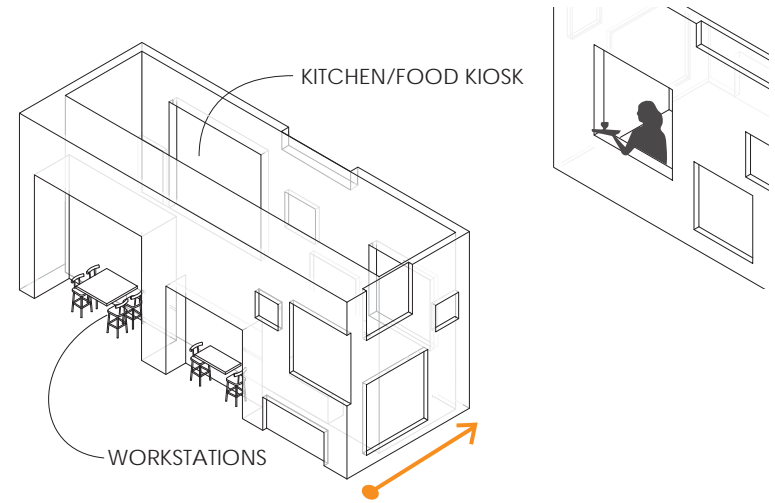
STRUCTURE

PROGRAM/INTERACTIVE BOX

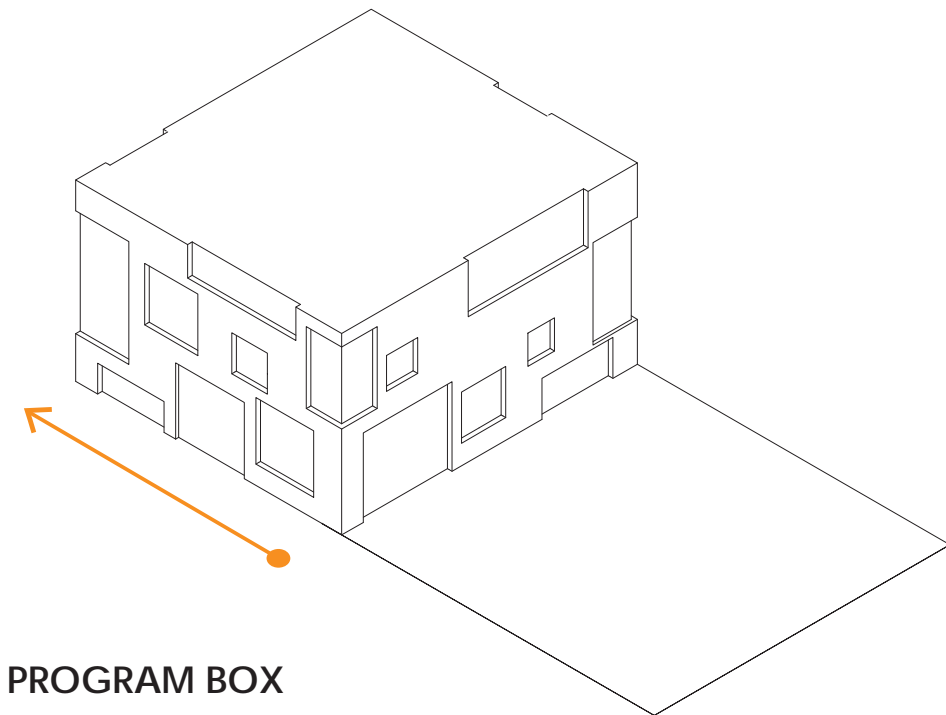
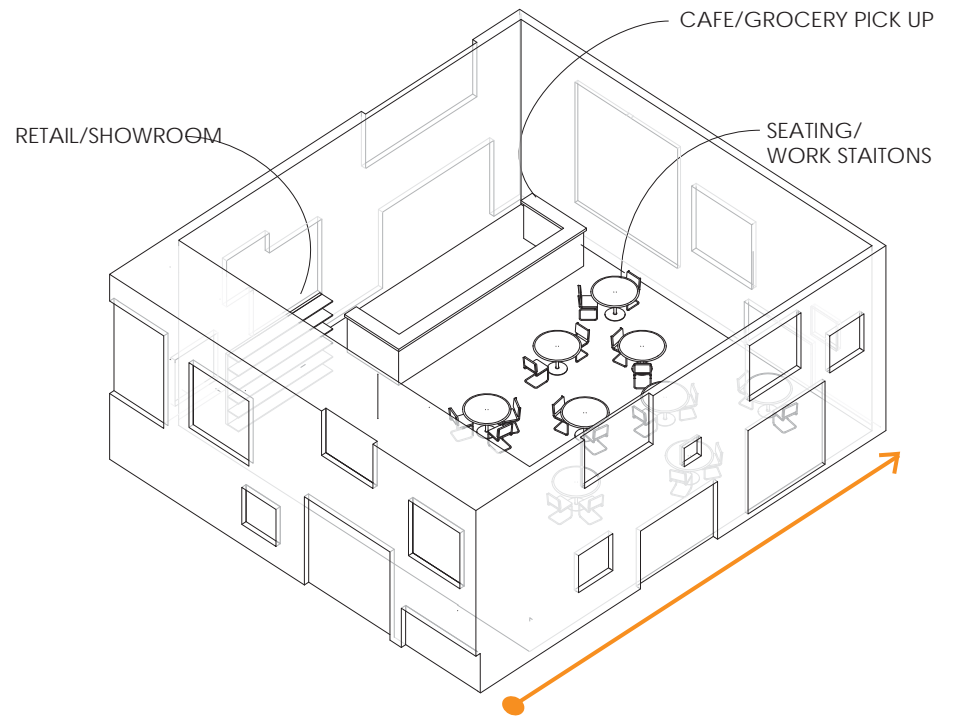
SMALL



MEDIUM

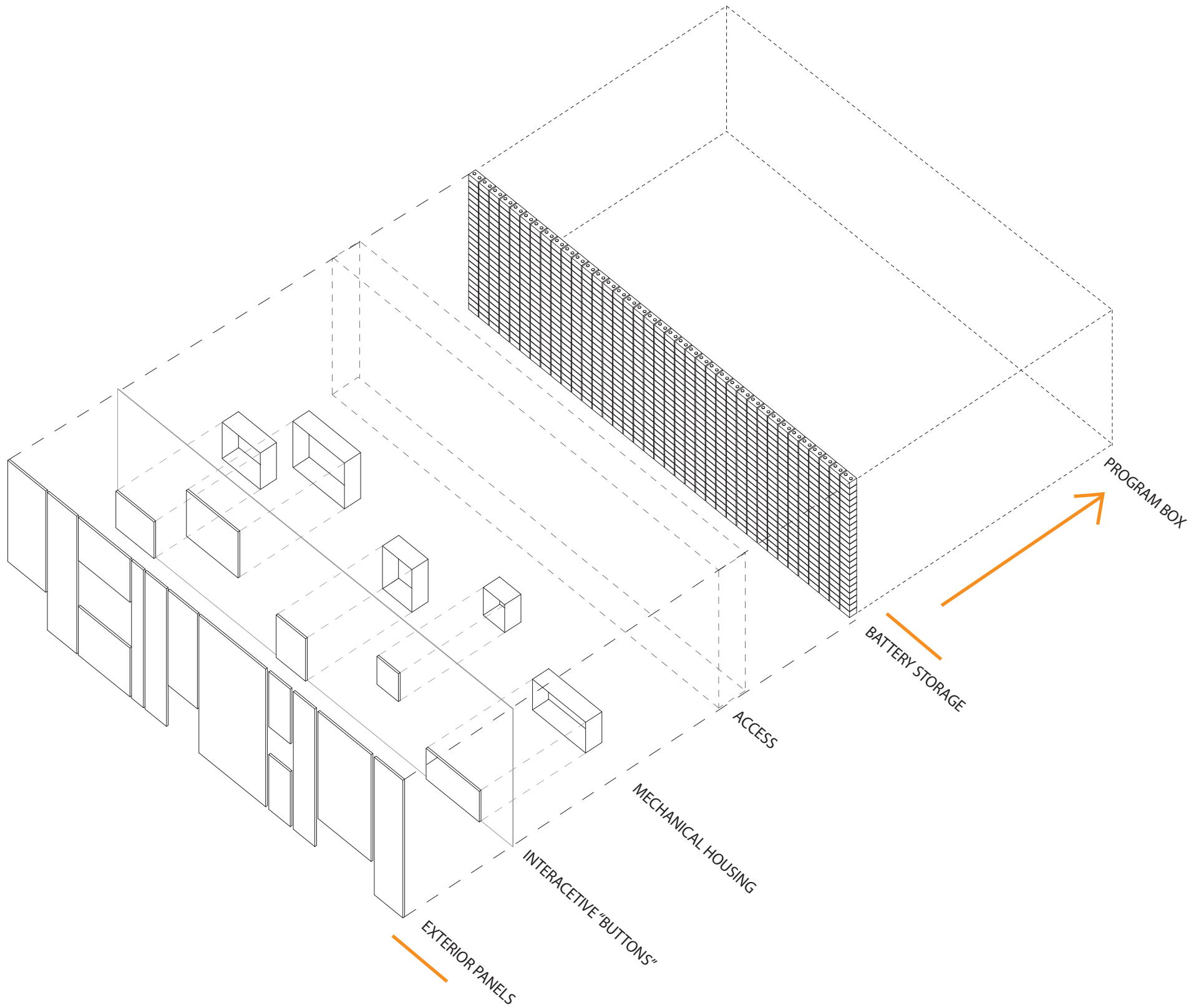


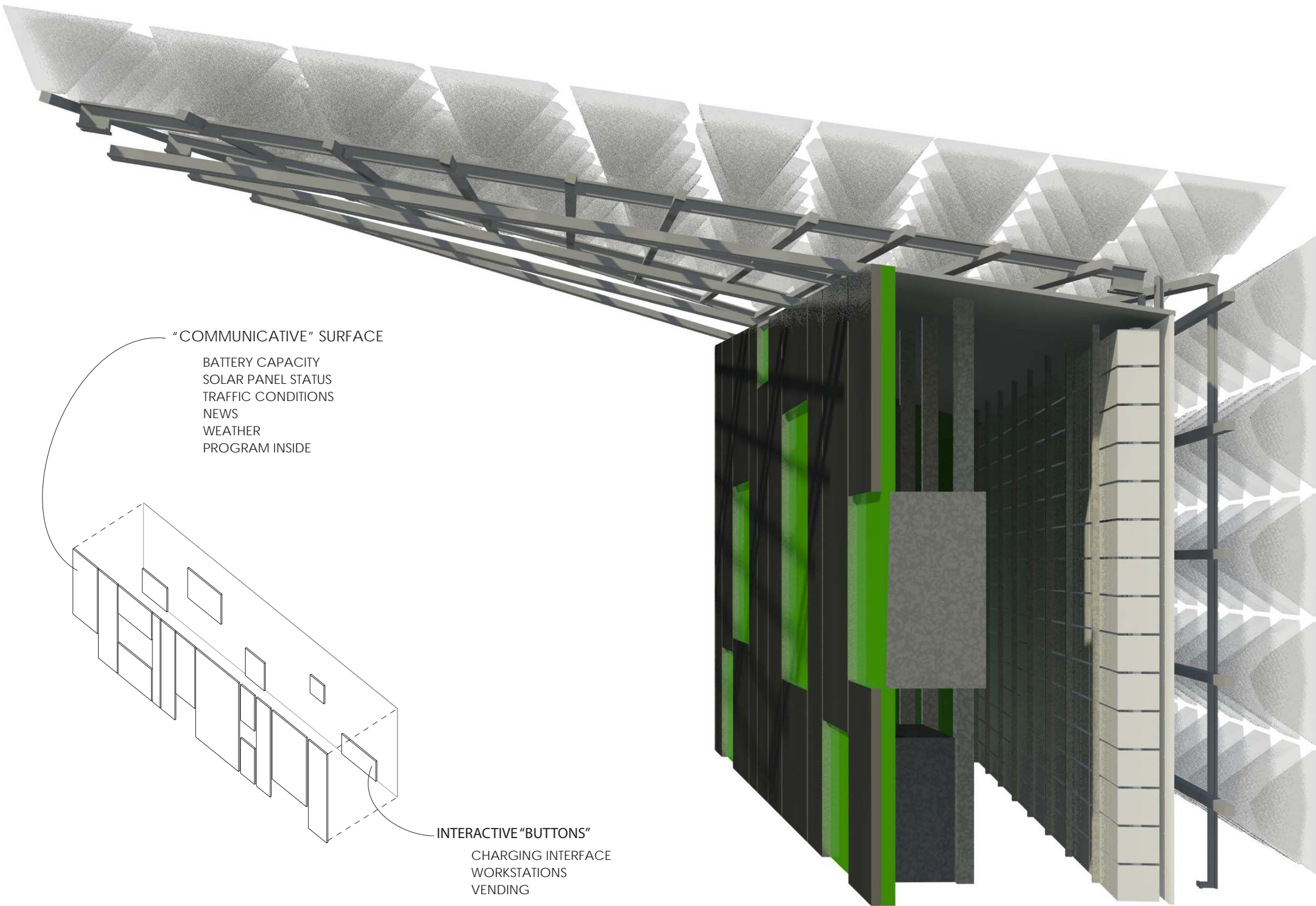
BIG



PROGRAM BOX







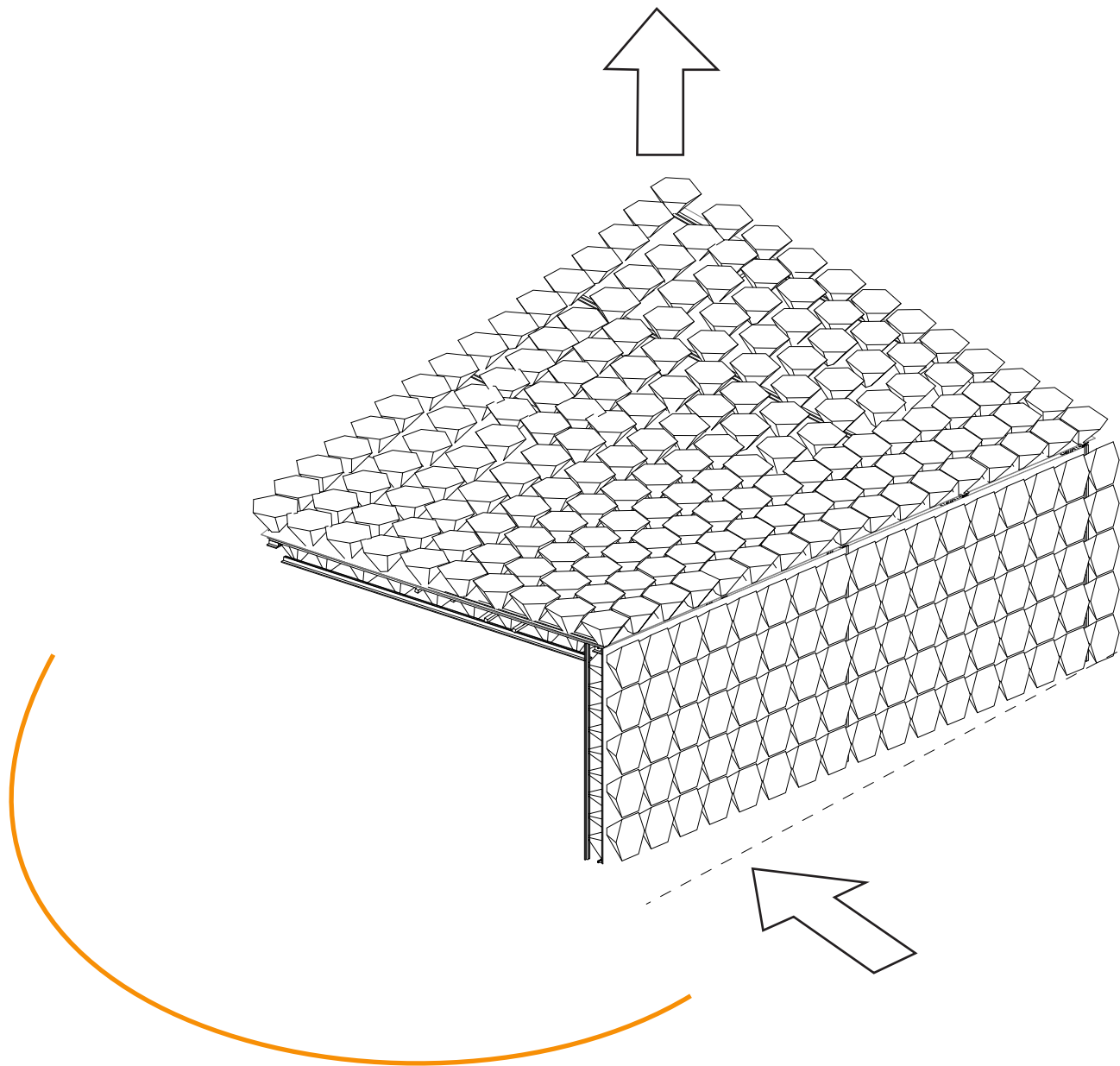
"COMMUNICATIVE" SURFACE

- BATTERY CAPACITY
- SOLAR PANEL STATUS
- TRAFFIC CONDITIONS
- NEWS
- WEATHER
- PROGRAM INSIDE

INTERACTIVE "BUTTONS"

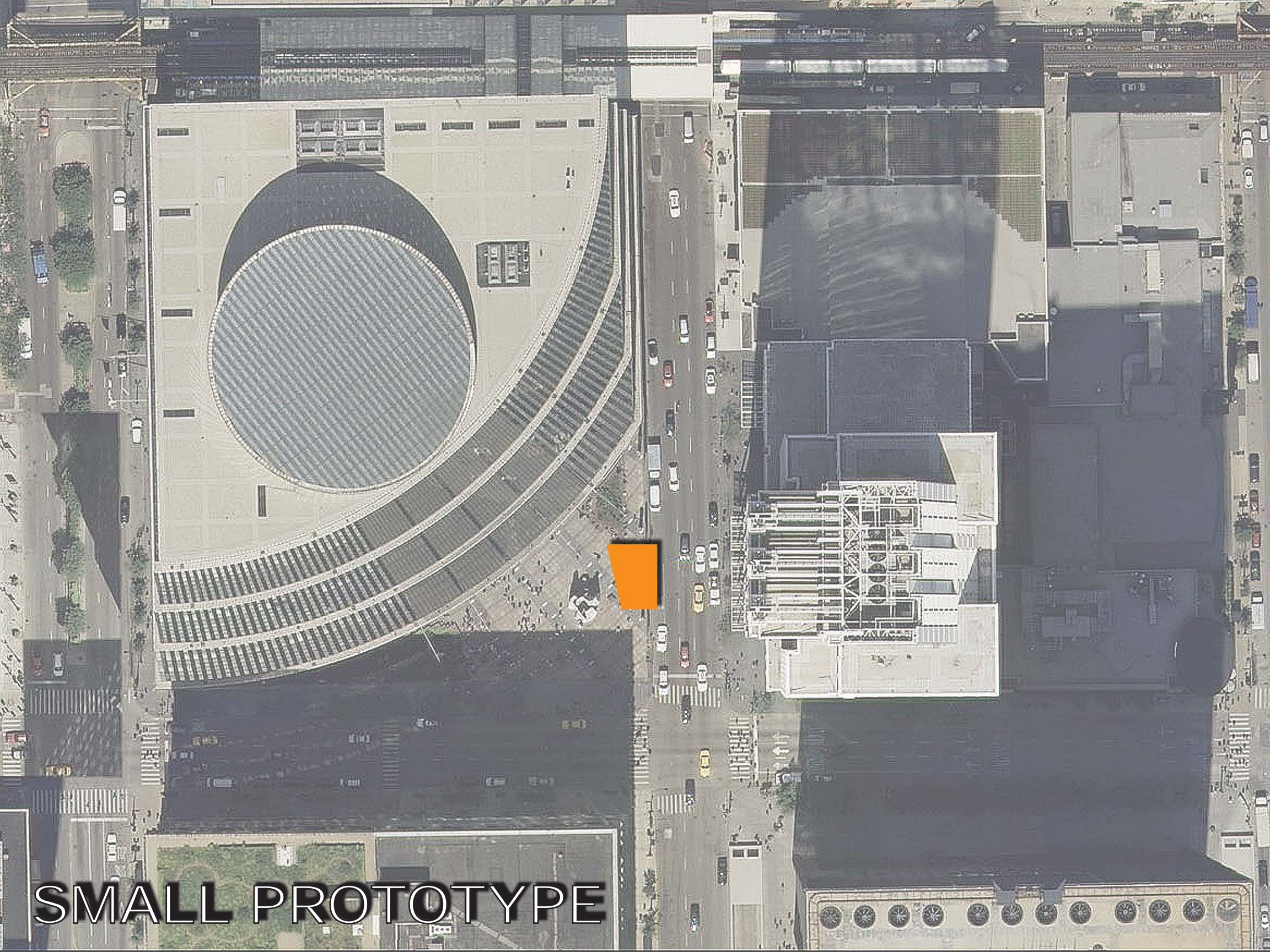
- CHARGING INTERFACE
- WORKSTATIONS
- VENDING

THE WALL SYSTEM



TRANSPARENT SOLAR PANELS





SMALL PROTOTYPE



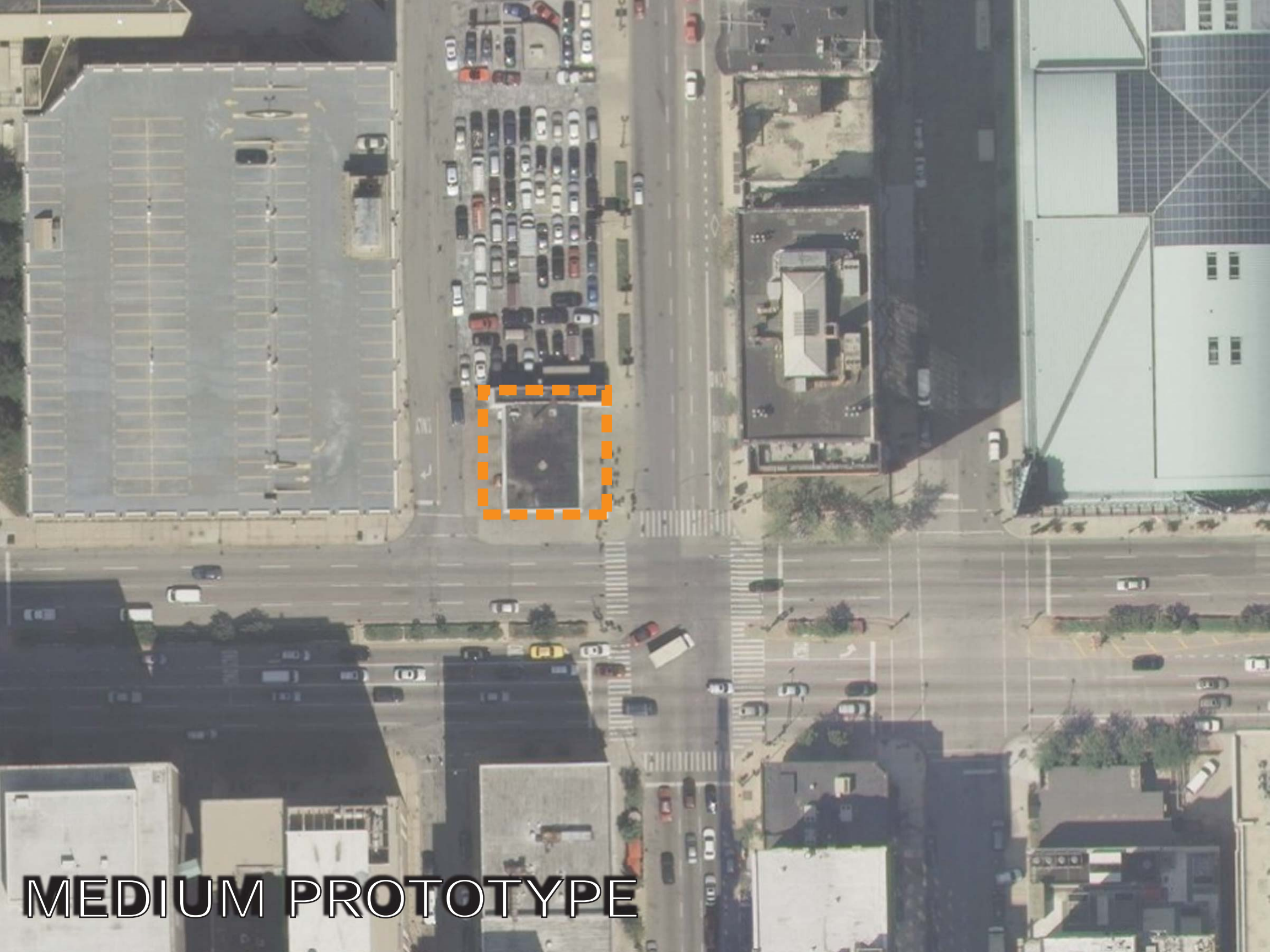


re:  
VOLT







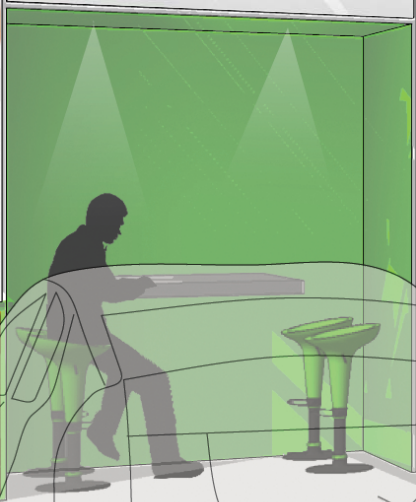
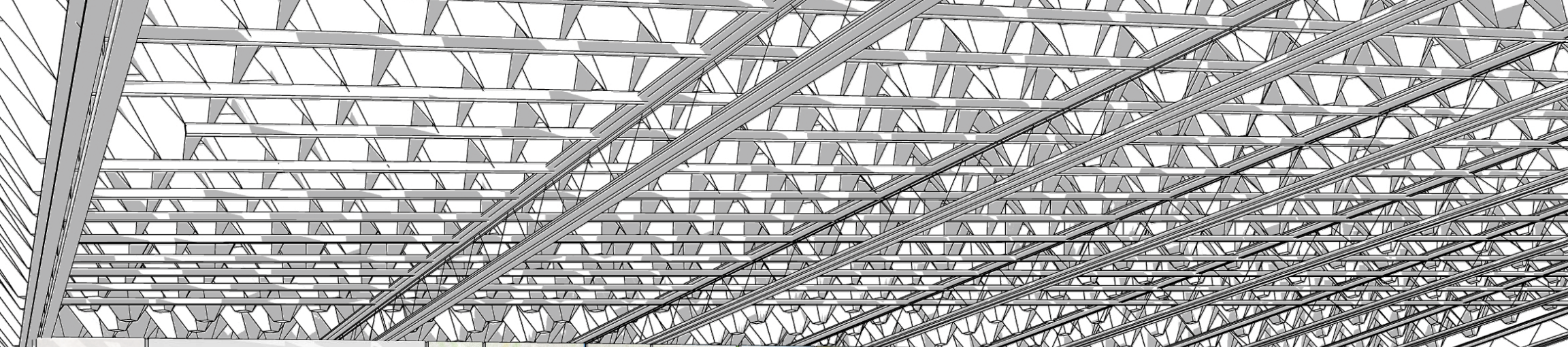


MEDIUM PROTOTYPE



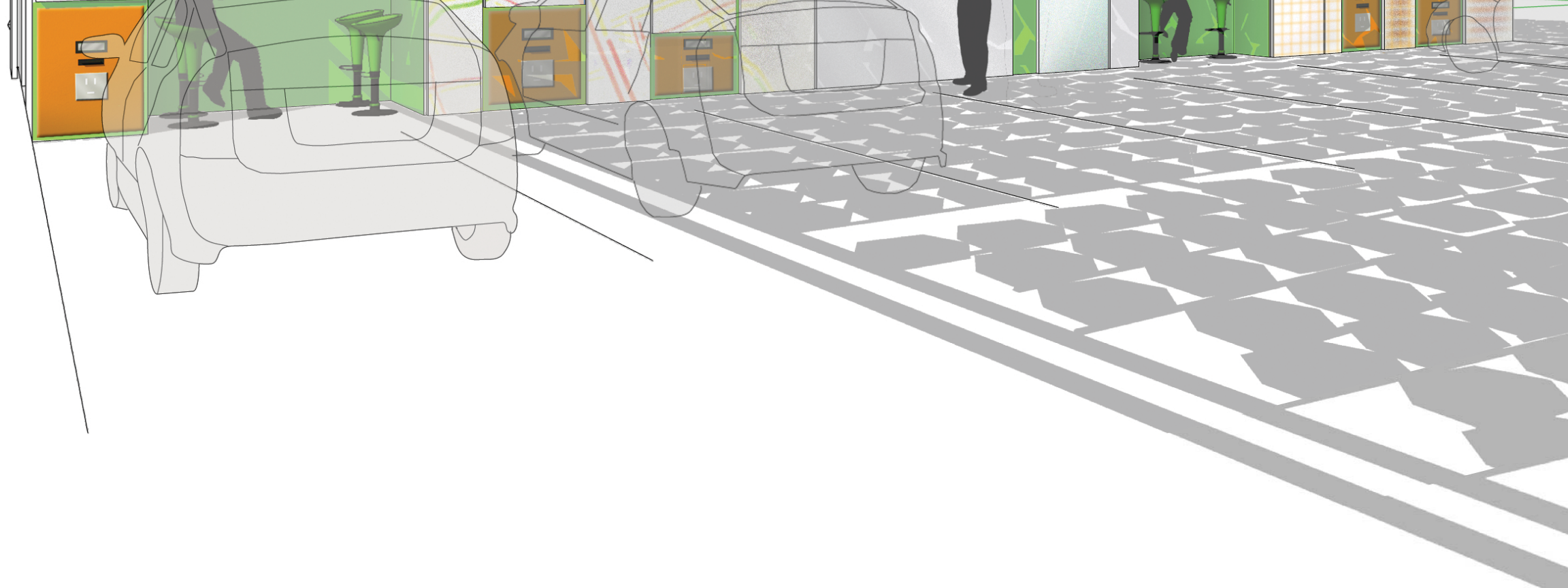
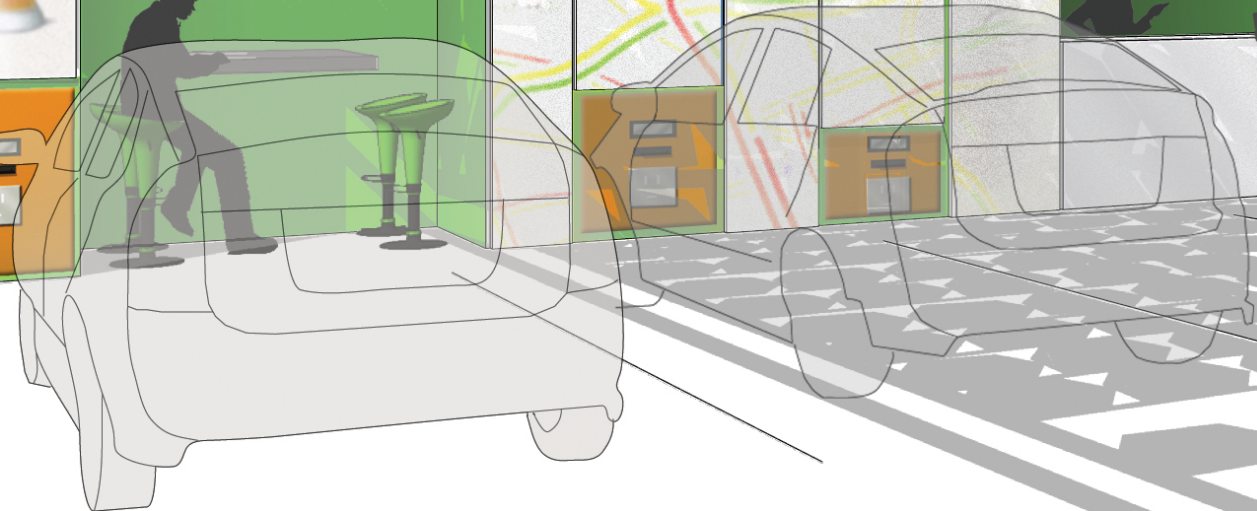
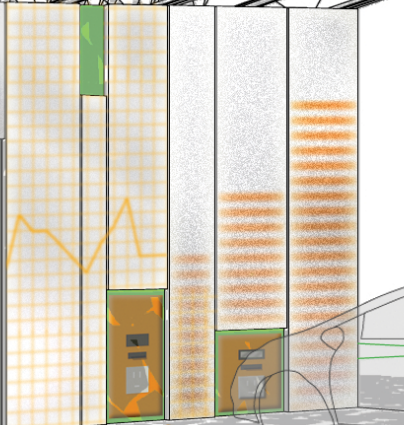
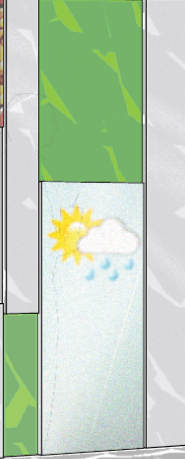




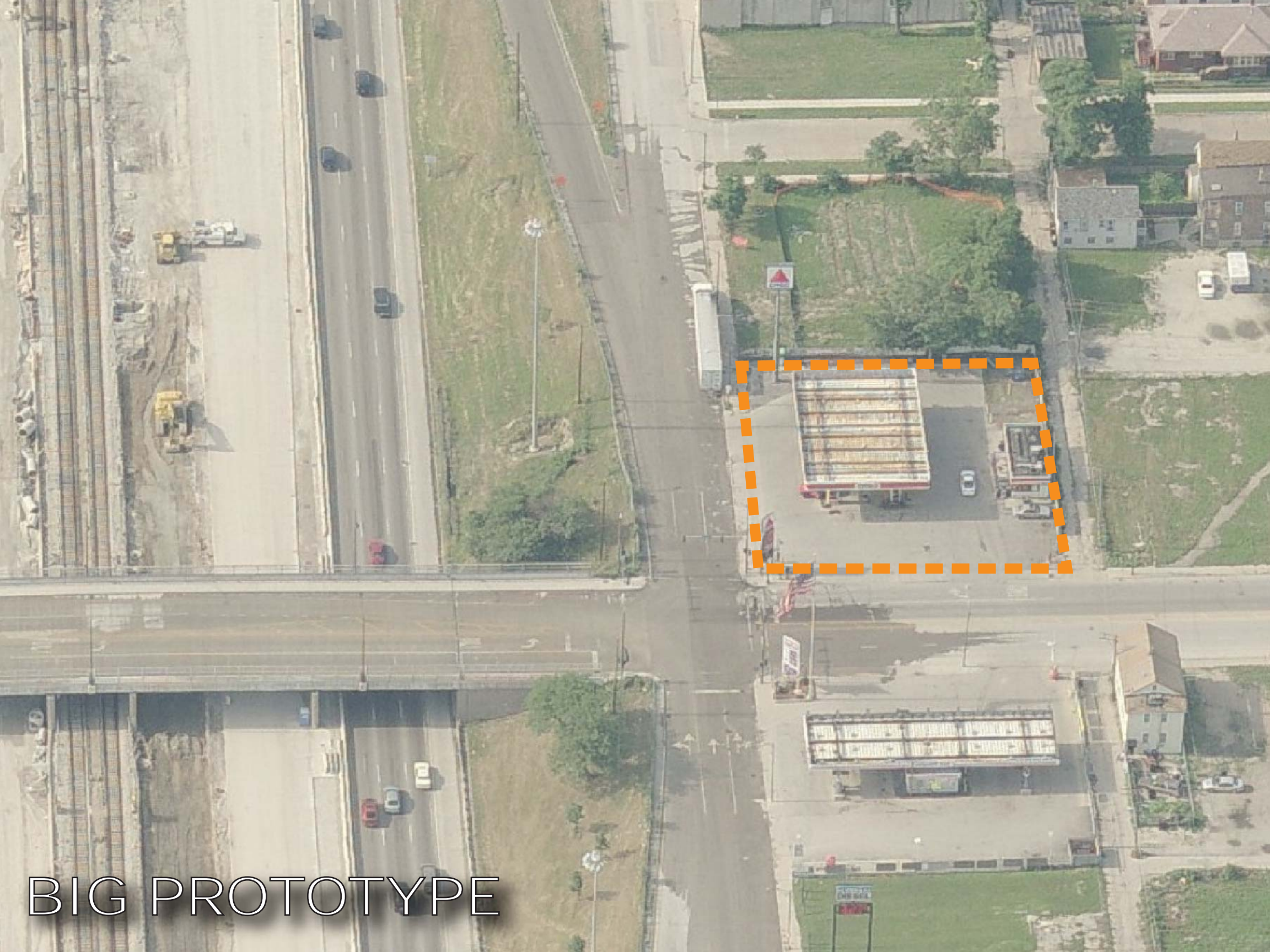


**CONCESSIONS**

Hot Dogs	2.50	French Fries	3.50
Submarine	4.50	Onion Rings	3.99
Cheese	4.00	Salted Potatoes	4.00
Hot Fennels	4.00	Salted Potatoes	2.99
Pizza	4.00	Ice Cream	3.00
Hot Nuts	3.50	Candy	2.99
Fajitas	3.50	Fresh Fruit	3.00
Philly Philly	3.00	Fruit Cakes	4.00
Hot Nuts	3.50	Apples	1.50
Churros	3.50	Todd Nuts	3.00

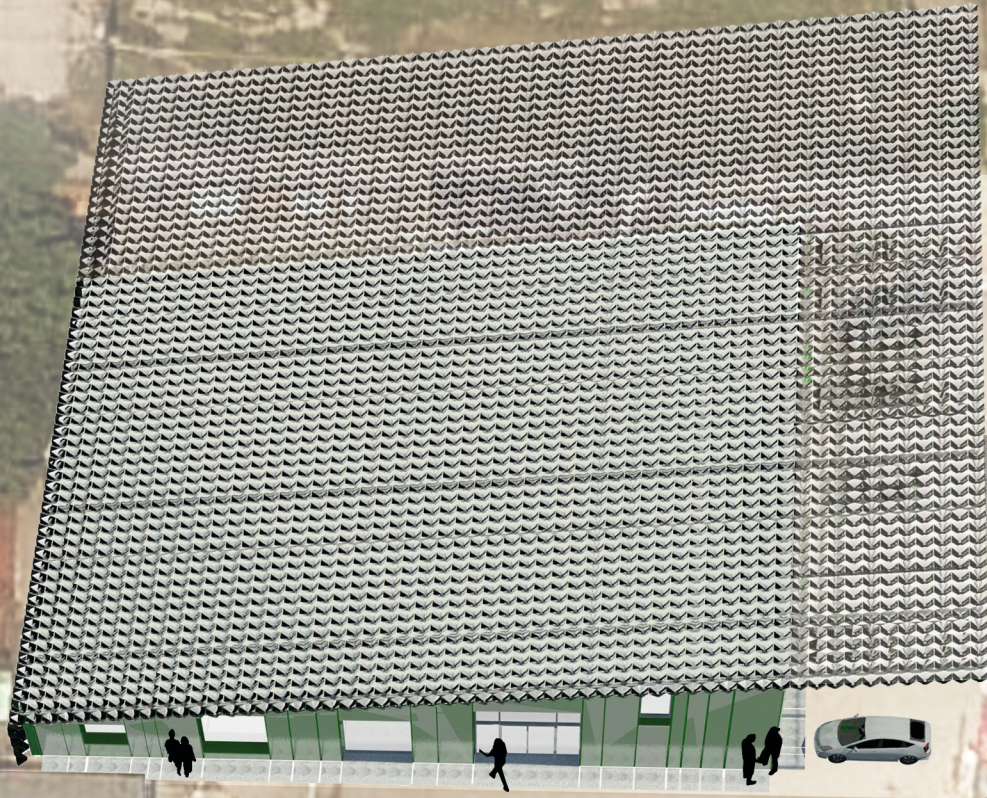






BIG PROTOTYPE









re:VOLT

60°F

Fair

5:31AM

Humidity: 69%

Dewpoint: 50°F

Feels like: 60°F

Wind

W at 6 mph

Alaska	0.0138	20000
Alabama	0.0220	17000
Alaska	0.0220	17000
Arizona	0.0220	17000
Arkansas	0.0220	17000
California	0.0220	17000
Colorado	0.0220	17000
Connecticut	0.0220	17000
Delaware	0.0220	17000
District of Columbia	0.0220	17000
Florida	0.0220	17000
Georgia	0.0220	17000
Hawaii	0.0220	17000
Idaho	0.0220	17000
Illinois	0.0220	17000
Indiana	0.0220	17000
Iowa	0.0220	17000
Kansas	0.0220	17000
Kentucky	0.0220	17000
Louisiana	0.0220	17000
Maine	0.0220	17000
Maryland	0.0220	17000
Massachusetts	0.0220	17000
Michigan	0.0220	17000
Minnesota	0.0220	17000
Mississippi	0.0220	17000
Missouri	0.0220	17000
Montana	0.0220	17000
Nebraska	0.0220	17000
Nevada	0.0220	17000
New Hampshire	0.0220	17000
New Jersey	0.0220	17000
New Mexico	0.0220	17000
New York	0.0220	17000
North Carolina	0.0220	17000
North Dakota	0.0220	17000
Ohio	0.0220	17000
Oklahoma	0.0220	17000
Oregon	0.0220	17000
Pennsylvania	0.0220	17000
Rhode Island	0.0220	17000
South Carolina	0.0220	17000
South Dakota	0.0220	17000
Tennessee	0.0220	17000
Texas	0.0220	17000
Utah	0.0220	17000
Vermont	0.0220	17000
Virginia	0.0220	17000
Washington	0.0220	17000
West Virginia	0.0220	17000
Wisconsin	0.0220	17000
Wyoming	0.0220	17000