

VOGAFJÓS GREENHOUSE RESTAURANT

Settled near the Mývatn Nature Baths in Iceland, the Vogafjós Restaurant focuses on Integration as a design concept. The combination of the restaurant with the greenhouses provides diners with a unique experience by physically linking the process of growing, preparing, and serving food. Meanwhile, the restaurant's elongated form frames views to the Southwest and establishes a relationship with the Mývatn hot springs and the Icelandic landscape. This elongated form also allows for maximum exposure of the dining area to natural light, and helps facilitate a connection between the diner, the landscape, and the greenhouses.

The integration of the greenhouses and the dining area provides customers with a unique dining experience by allowing them to observe how the restaurant grows and prepares their produce. Skylights frame the greenhouses above the dining area, allowing natural light to fill every part of the dining area.

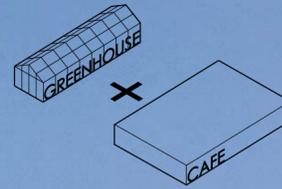
The form and orientation of the greenhouses provide the plants with maximum Southern exposure throughout the day, and the spacing between the greenhouses ensures equal sun exposure. A rotating planter carriage system within each of the greenhouses also provides each plant with an even exposure to sunlight. The direct connection between the restaurant and greenhouses results in a reduction in the financial and environmental costs of transporting and storing produce while ensuring customers receive the freshest possible ingredients for their meals.

The restaurant utilizes a geothermal closed loop heat pump to transfer heat from the earth and surrounding hot springs into the space. The greenhouses also act as solar chimneys by passively venting hot air out of the dining space and through vents located at the top of the greenhouses.

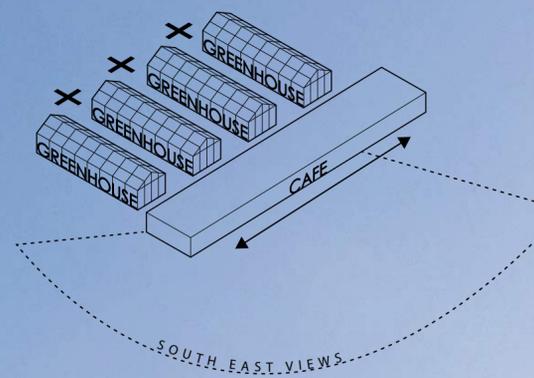
The restaurant's large, sloped roof diverts rainwater into underground cisterns. The harvested rainwater provides a sustainable source for irrigation purposes in the greenhouses.

CONCEPT DIAGRAM

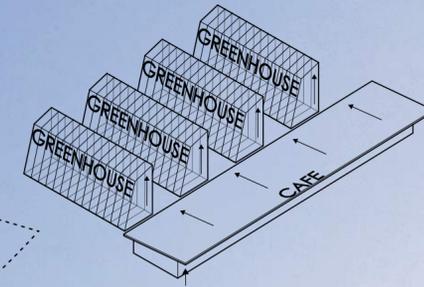
+ PROGRAM
Combining a greenhouse with a restaurant.



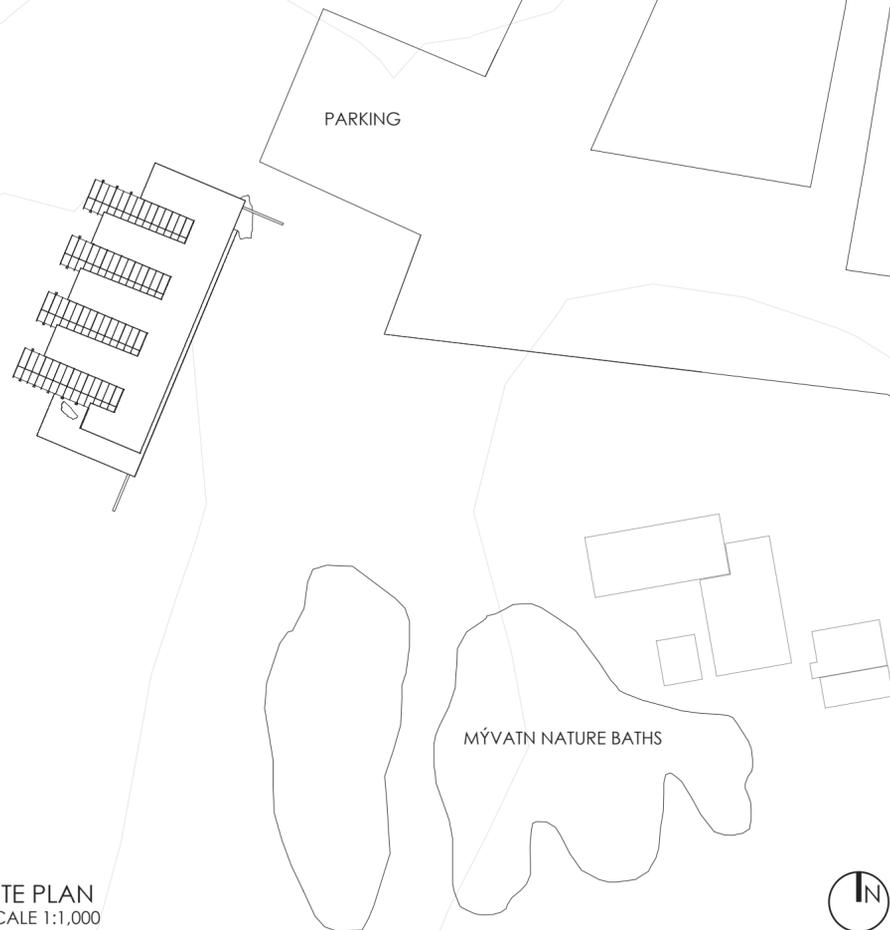
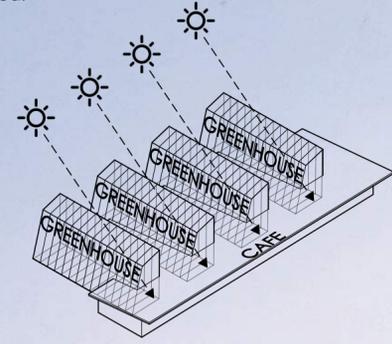
+ PRODUCE AND VIEWS
Multiply number of greenhouses to increase growth production. Elongate cafe to increase views towards the South East.



+ FORM
Configure greenhouse form to maximize Southern exposure. Slope roof of cafe back towards greenhouses.



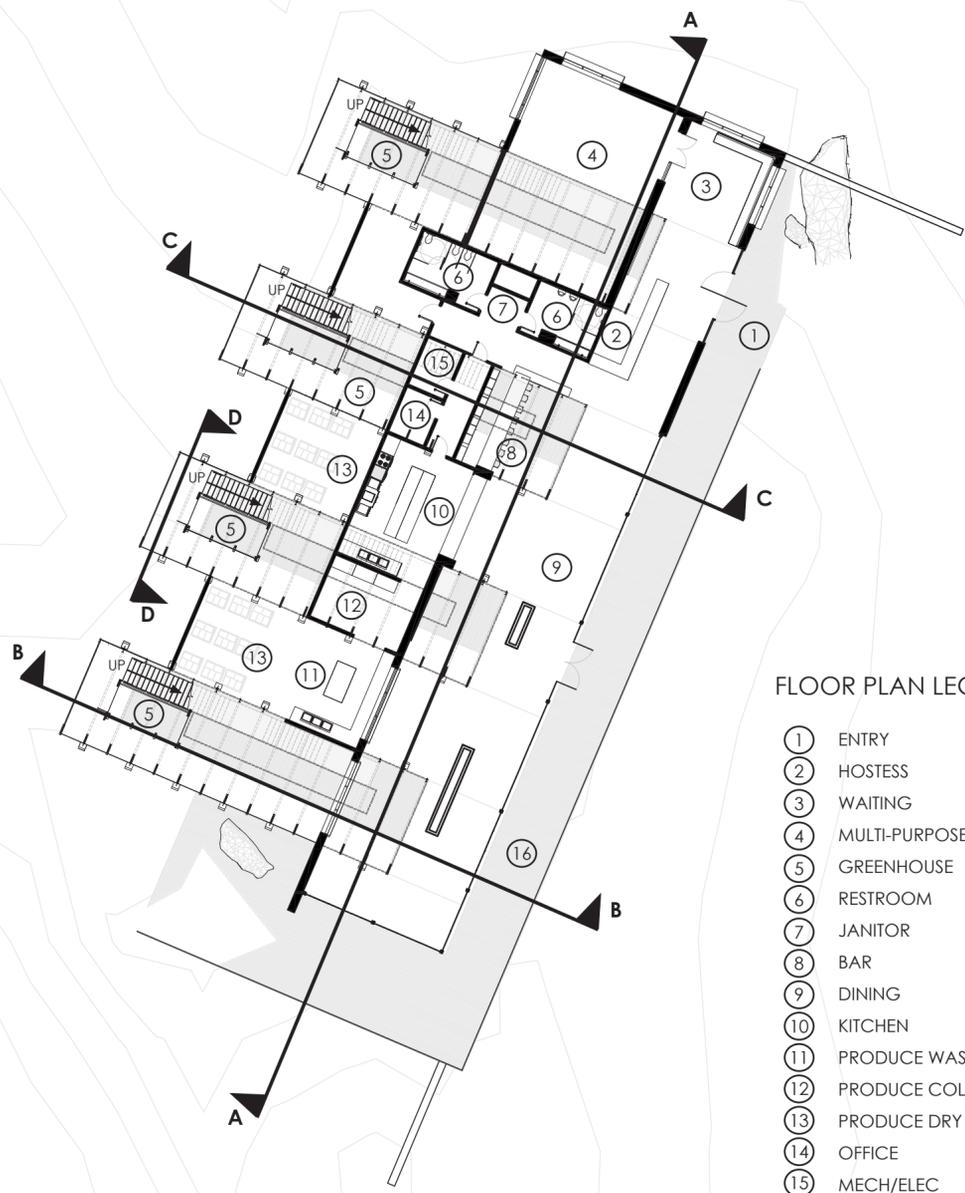
+ INTEGRATE
Integrate greenhouse form into the cafe and allow daylight to filter into the dining area.



SITE PLAN
SCALE 1:1,000



PERSPECTIVE LOOKING NORTH

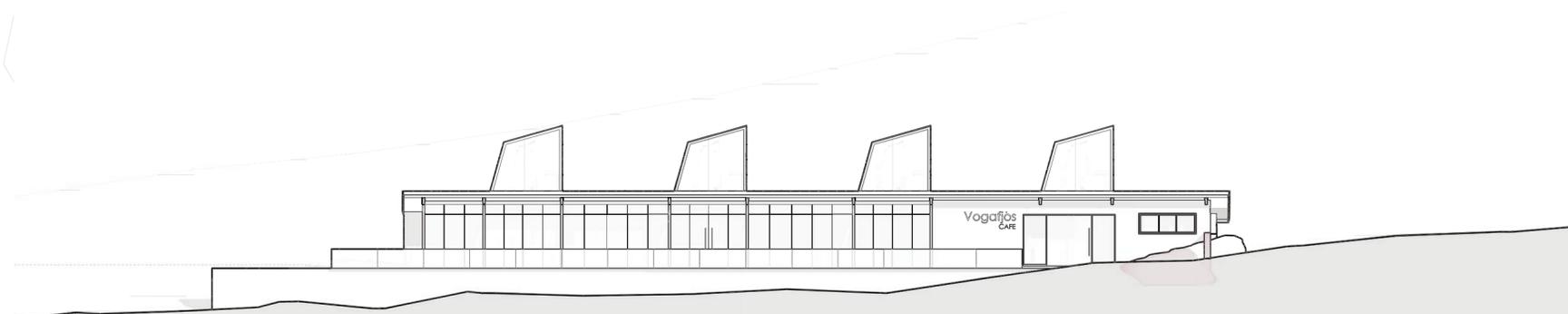


FLOOR PLAN LEGEND

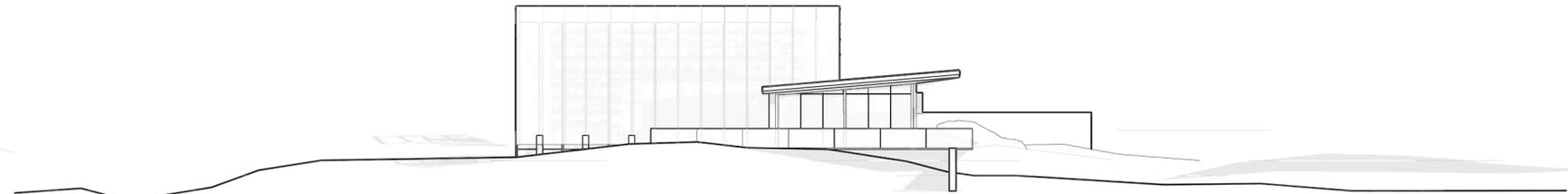
- ① ENTRY
- ② HOSTESS
- ③ WAITING
- ④ MULTI-PURPOSE ROOM
- ⑤ GREENHOUSE
- ⑥ RESTROOM
- ⑦ JANITOR
- ⑧ BAR
- ⑨ DINING
- ⑩ KITCHEN
- ⑪ PRODUCE WASH BAY
- ⑫ PRODUCE COLD STORAGE
- ⑬ PRODUCE DRY STORAGE
- ⑭ OFFICE
- ⑮ MECH/ELEC
- ⑯ VIEWING DECK



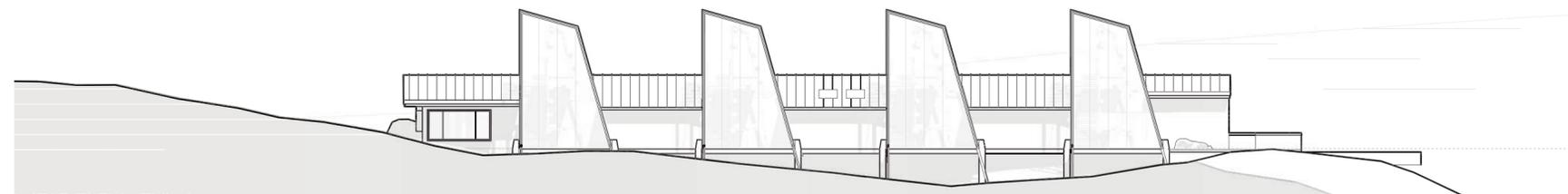
FLOOR PLAN
SCALE 1:300



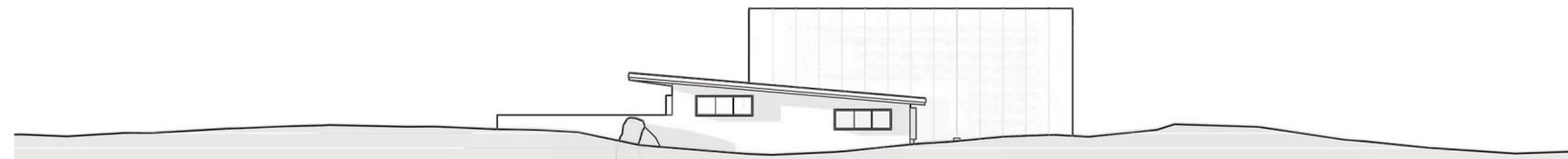
EAST ELEVATION
SCALE 1:300



SOUTH ELEVATION
SCALE 1:300



WEST ELEVATION
SCALE 1:300



NORTH ELEVATION
SCALE 1:300



PERSPECTIVE LOOKING SOUTH WEST



ENTRY PERSPECTIVE LOOKING SOUTH

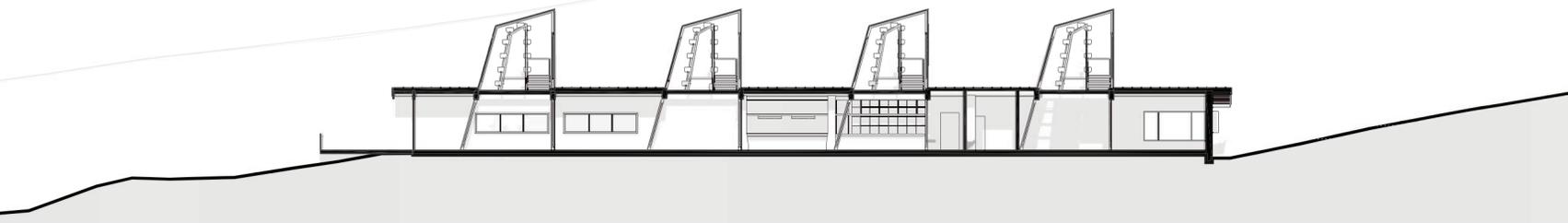
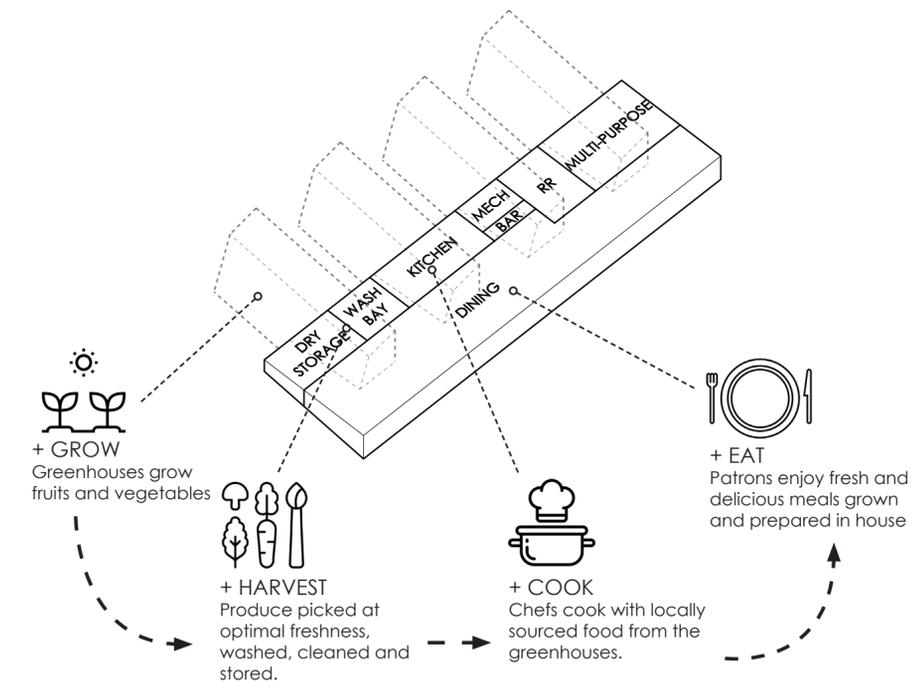


PERSPECTIVE AT TOP OF GREENHOUSE LOOKING EAST

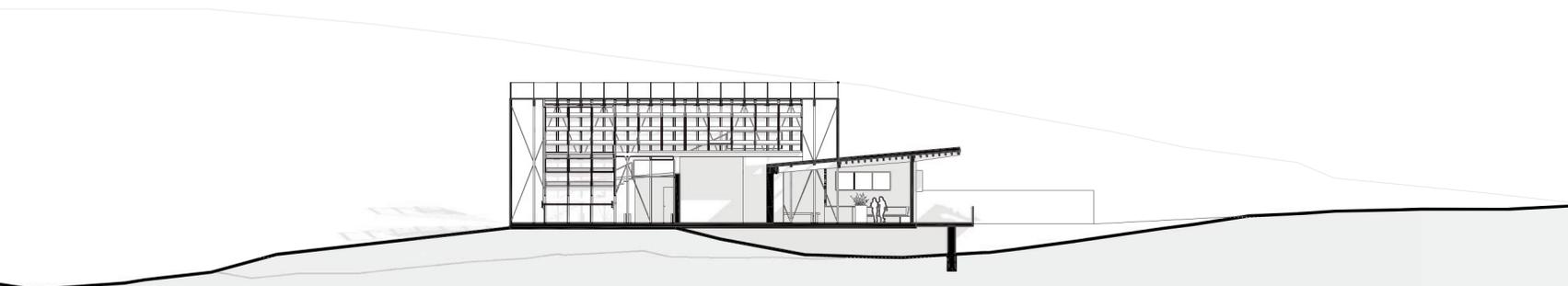


PERSPECTIVE IN GREENHOUSE LOOKING WEST

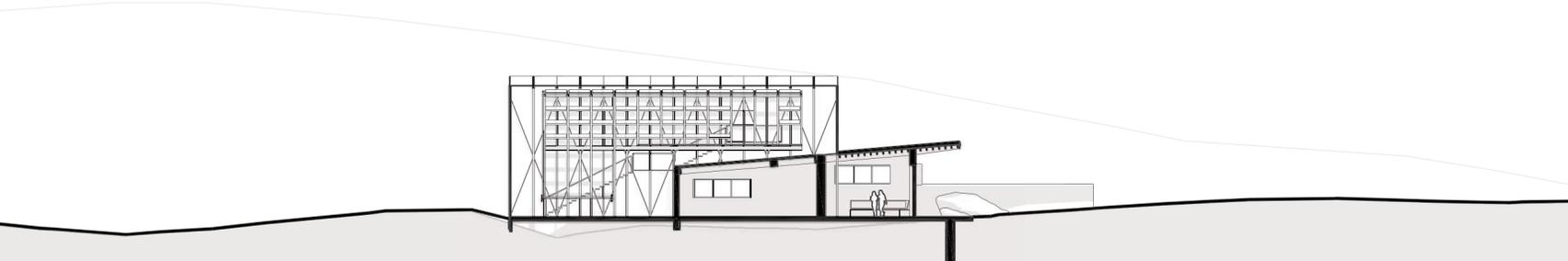
PROGRAM DIAGRAM



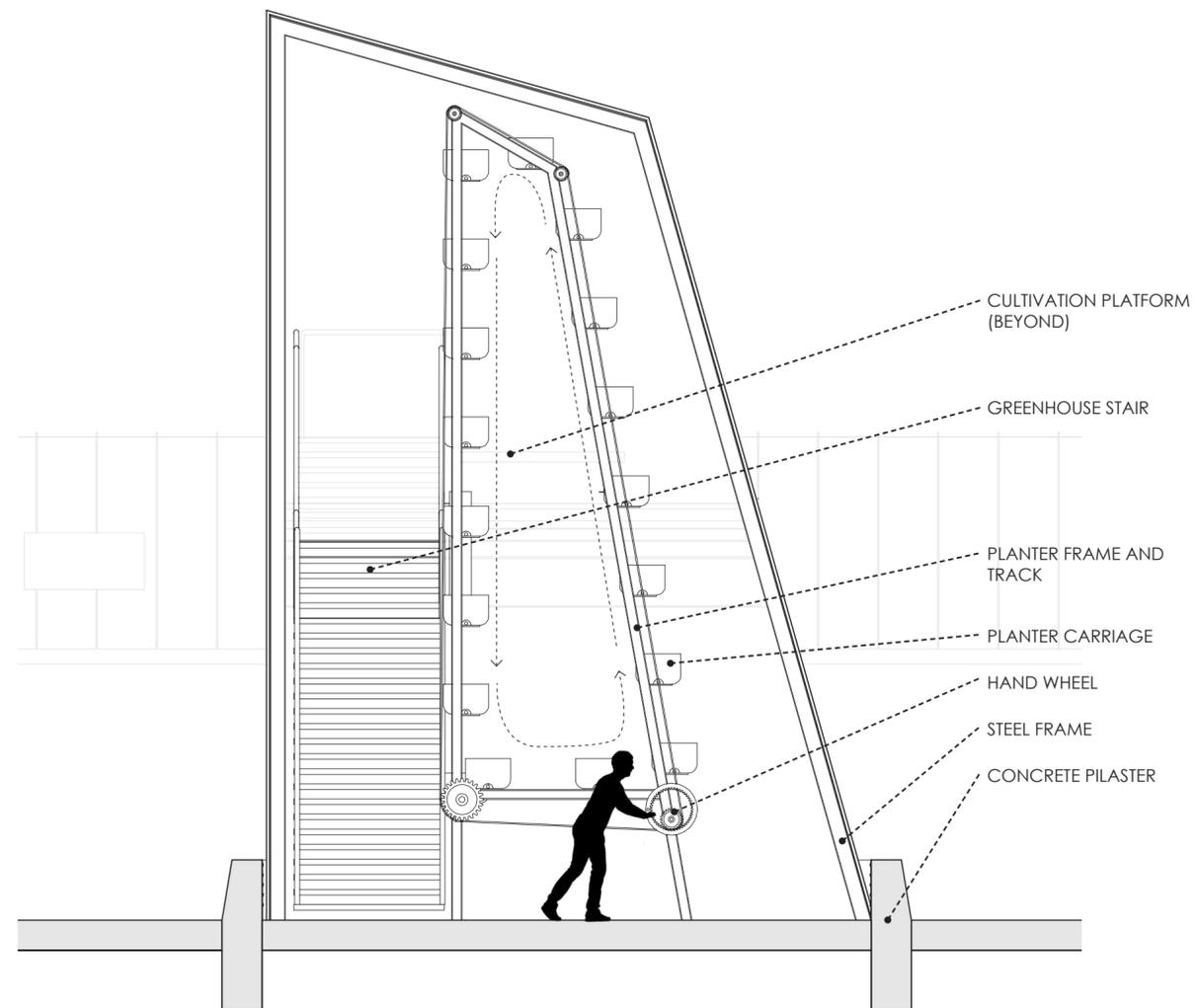
BUILDING SECTION A
SCALE 1:300



BUILDING SECTION B
SCALE 1:300



BUILDING SECTION C
SCALE 1:300

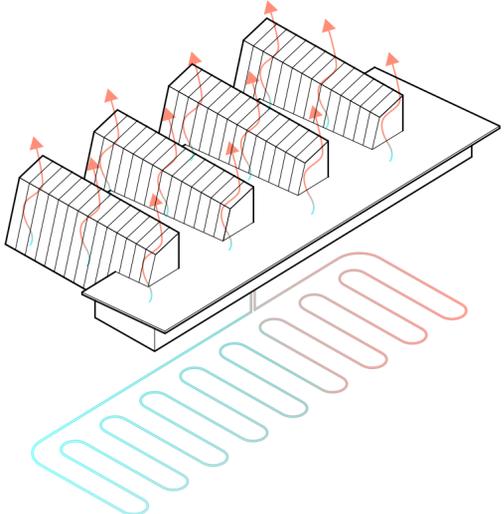


ENLARGED GREENHOUSE SECTION D
SCALE 1:300

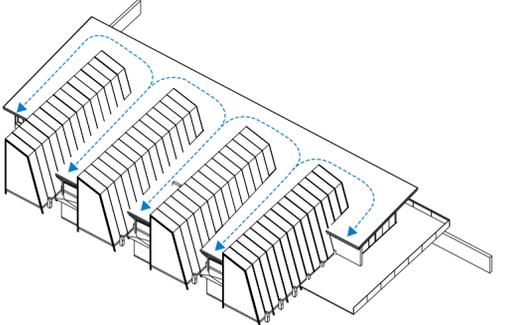
SUSTAINABLE STRATEGIES DIAGRAMS



+ GEOTHERMAL
Using a closed loop geothermal heat pump to transfer heat to the space. Greenhouses then can act as solar chimneys to regulate heat.



+ RAINWATER HARVESTING
Using the large sloped roof of the cafe, rainwater can be collected in designated cisterns below ground. The collected water can be used for irrigation for produce.



VIEWING DECK PERSPECTIVE LOOKING SOUTH



DINING PERSPECTIVE LOOKING SOUTH EAST



DINING PERSPECTIVE LOOKING WEST