

Making Space Transform

REARRANGE

STATEMENT OF INTENT

- × Can *kinetic architecture* help promote the development of scientific knowledge in the general public?

PROJECT GOALS

- × Create a building that can easily adapt to changes in technology .
- × Address the harsh winter winds and the strong summer sun.
- × Introduce kinetic elements to the design.
- × Allow for natural ventilation and lighting of the building.

SITE INFORMATION

- ✘ Located in Fargo, ND, near the intersection of 19th Ave N and 18th Street N.



SITE INFORMATION



Imagery Date: Aug 8, 2005

46°54'14.49" N 96°48'27.74" W elev 896 ft

Eye alt 2825 ft

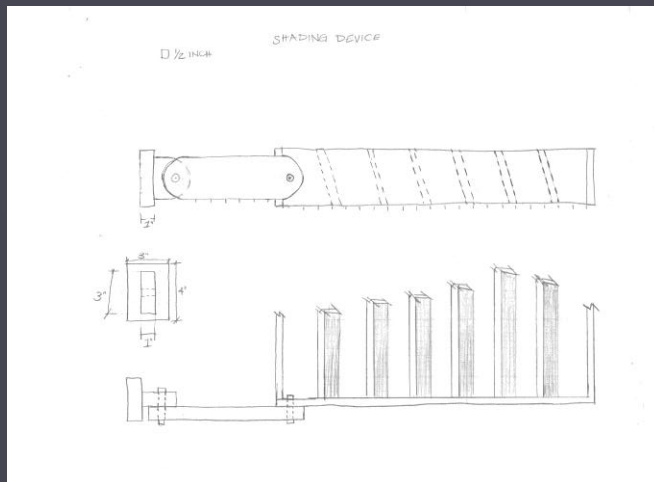
SITE INFORMATION



KINETIC ELEMENTS

× Sun Screen

- + Multi-angle sun screen to adjust to the season and time of day and needs of occupant
- + Reconsidered due to too many mechanical parts to work and maintain in the winter months.



KINETIC ELEMENT

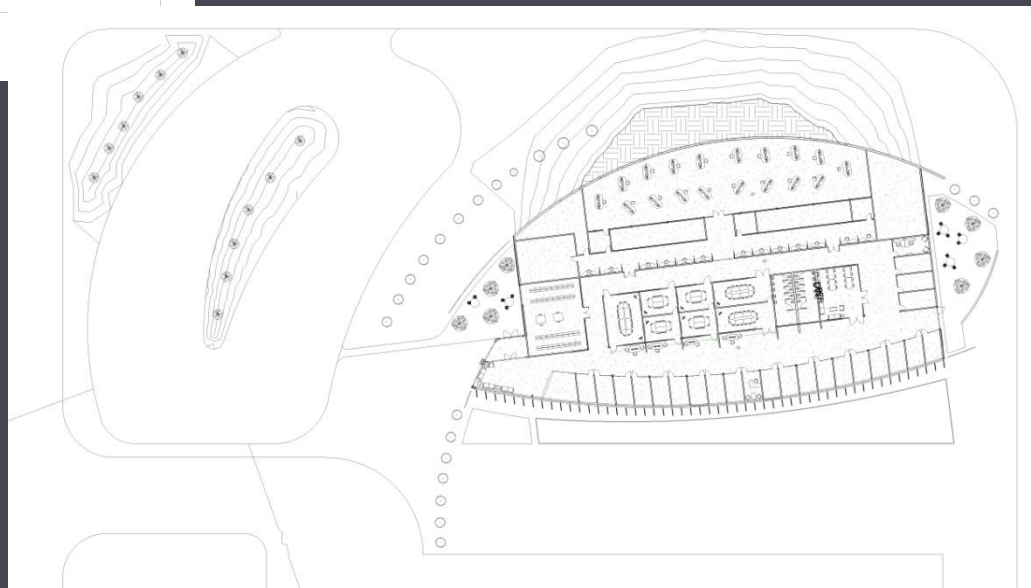
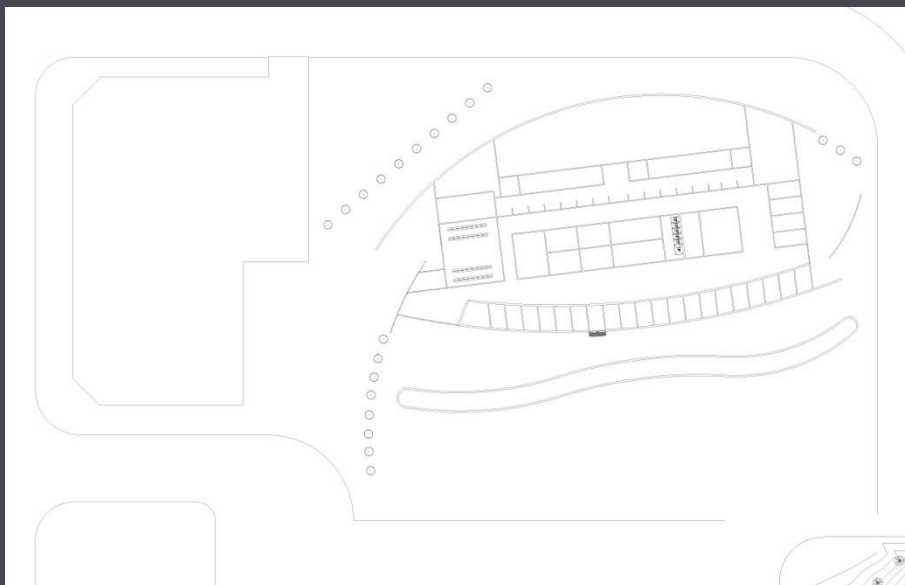
- × Wind turbines
 - + Small turbines are along the northern and southern walls
 - + Designed to handle the wind and ice conditions that are found in the area.
 - + Able to function in as little as 4 mph winds.
 - + Quiet and non-glare surface ideal in the residential and commercial area



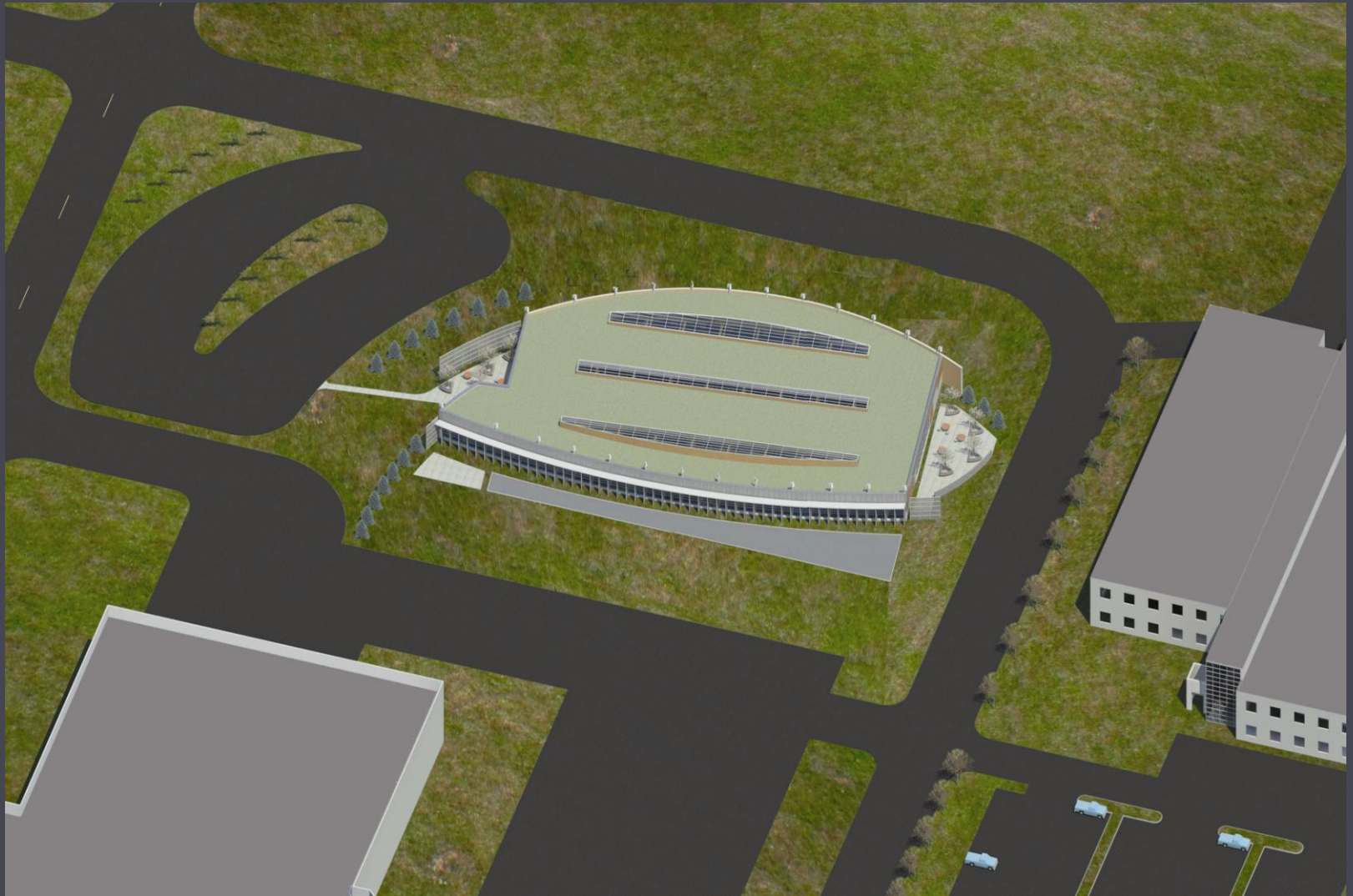
ADAPTABILITY

- × The building has been established on a 4 foot by 4 foot grid that is shifted 7 degrees west of north.
- × From this grid a structural grid is established in increments of 20 feet.
- × Within this grid there is plenty of flexibility to change the building without needed to

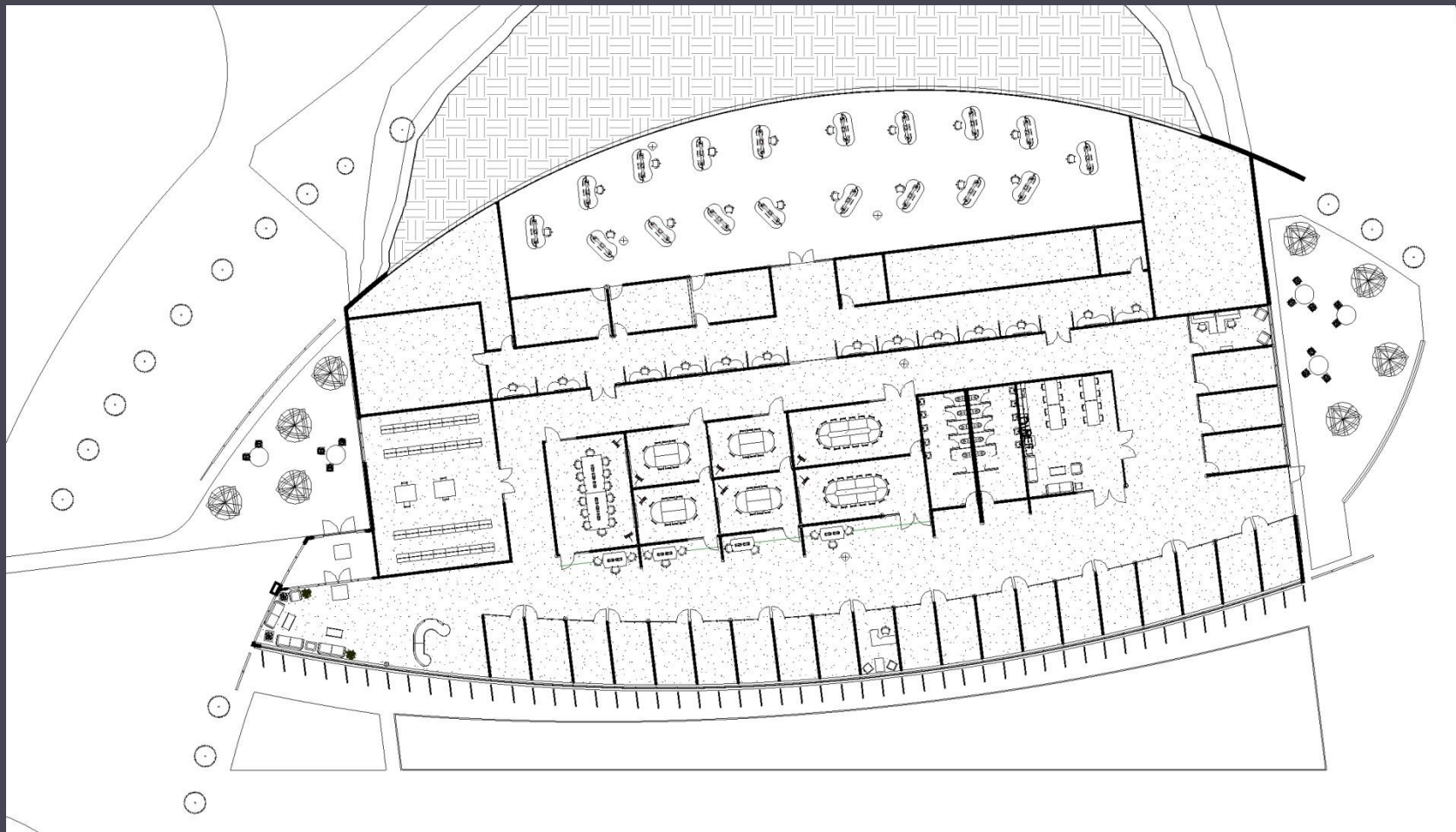
SITE PLAN EVOLUTION



SITE PLAN EVOLUTION



FLOOR PLAN



PROCESS – EASTERN PATIO



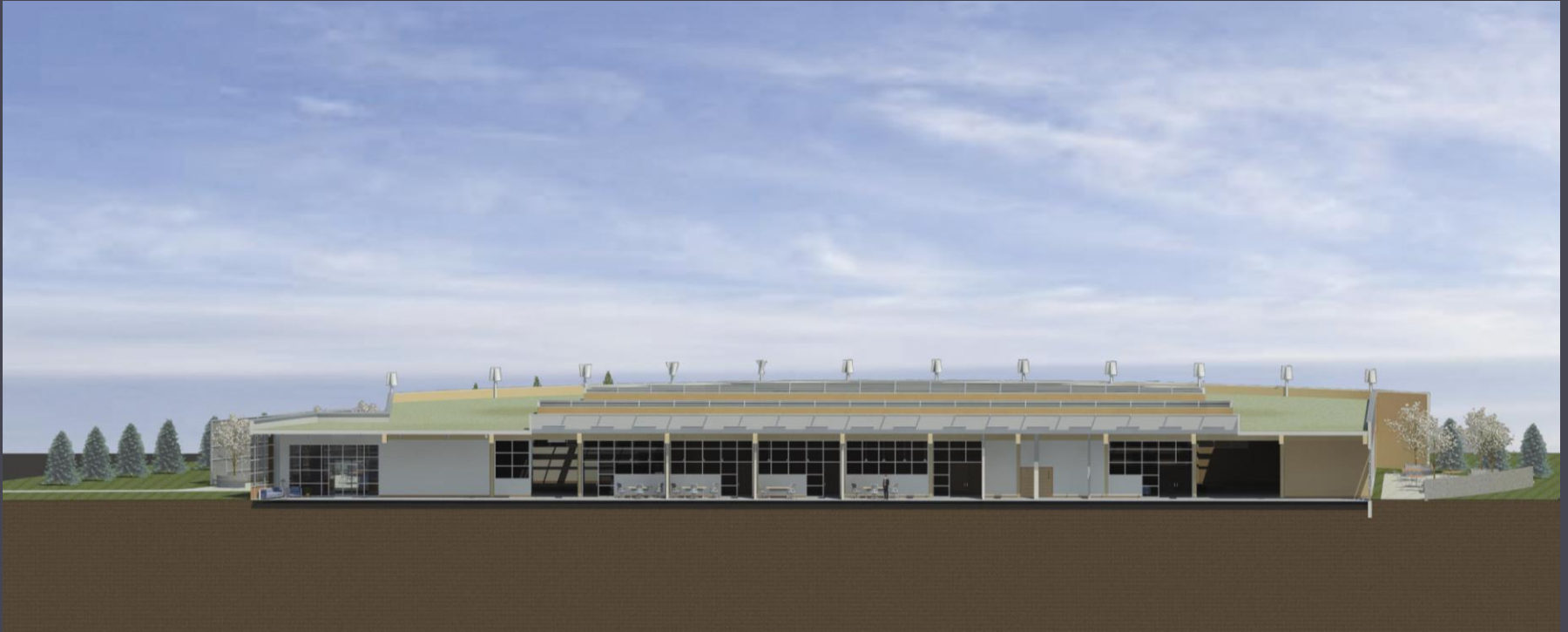
PROCESS



PROCESS - ENTRY

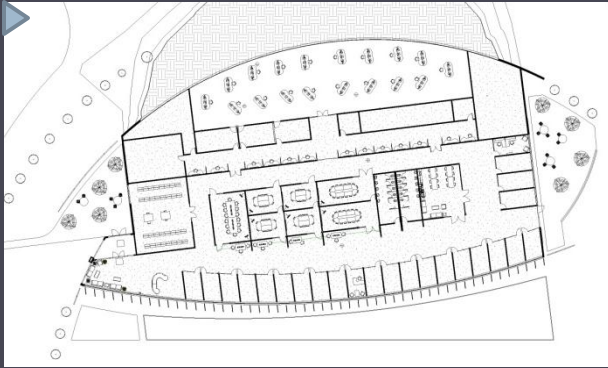


SECTION



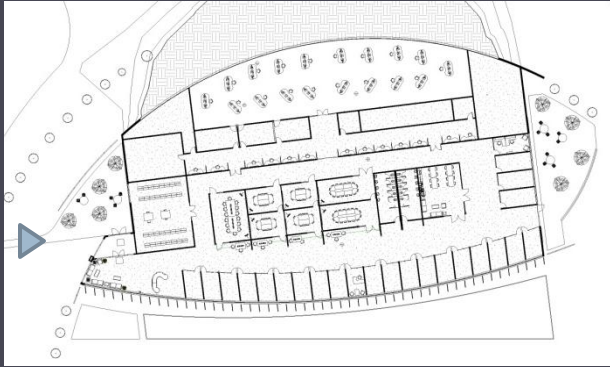
SECTION





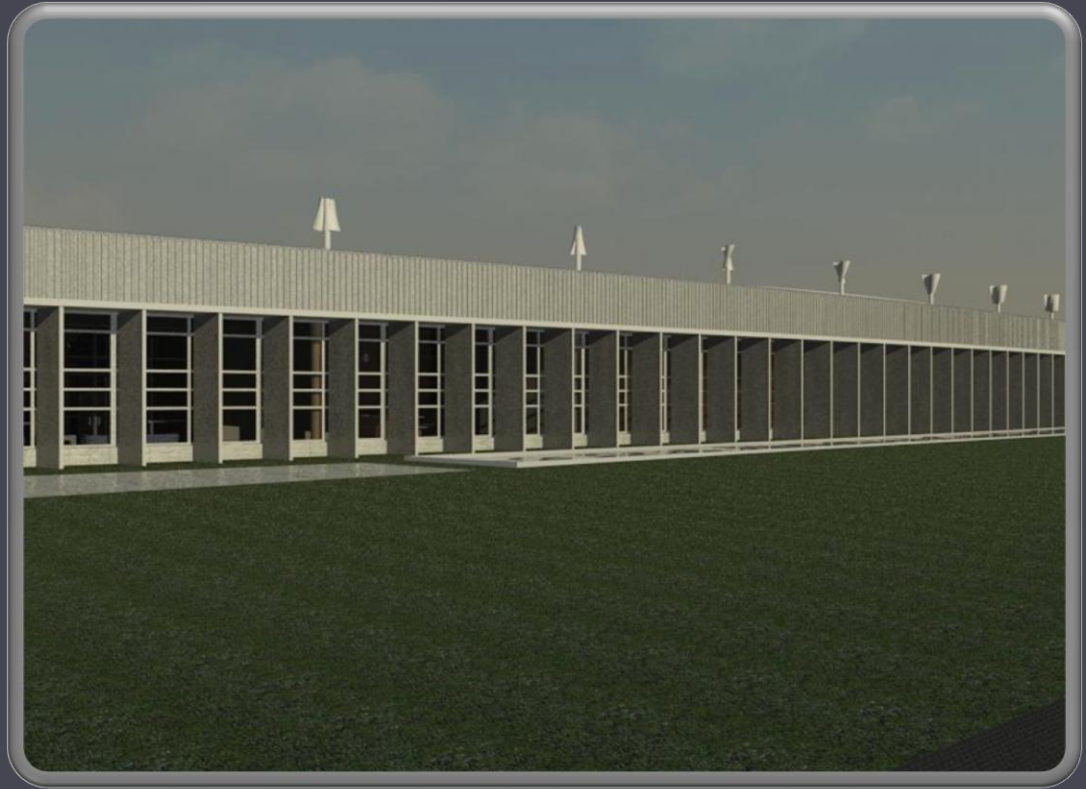
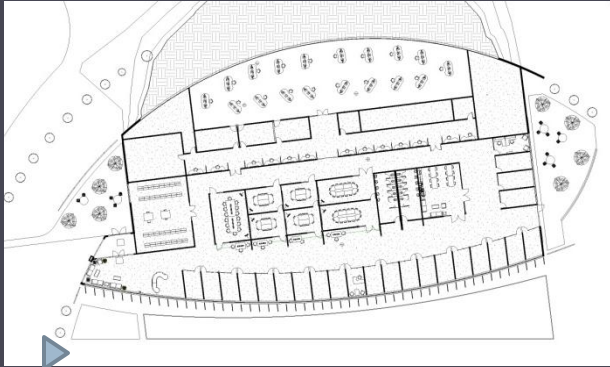
PARKING APPROACH

The parking lot can be reached from both 17th Ave N or 18th Street N along the access road that connects the roads.



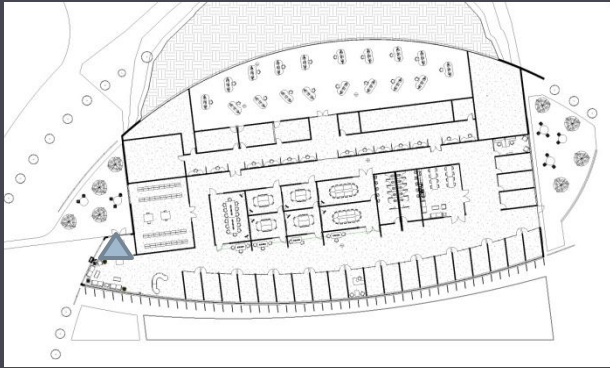
ENTRY

The entry includes a large patio space in which employees can relax and work in the summer and spring. Large planters with built in benches provide additional seating and shade. A large screen shades the north-west corner of the patio in the summer and block harsh winds and snow in the winter.



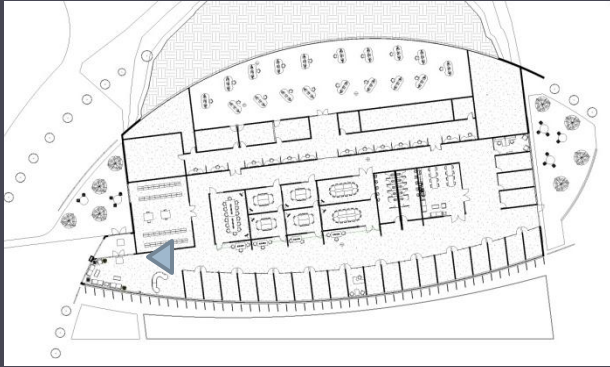
EXTERIOR FRONT

Wind turbines are visible on the top of the building.



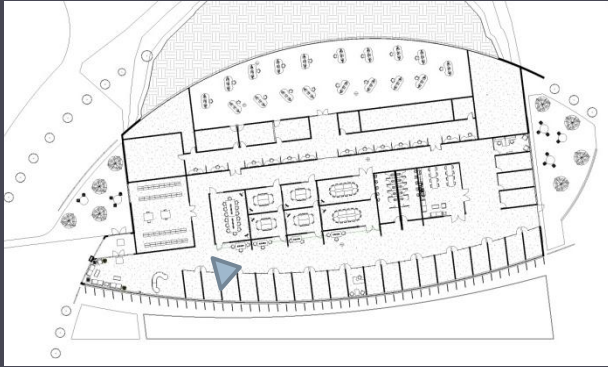
ENTRY VESTIBULE

A large entry vestibule allows for a smooth transition from warm to cool or cool to warm depending on the time of the year.



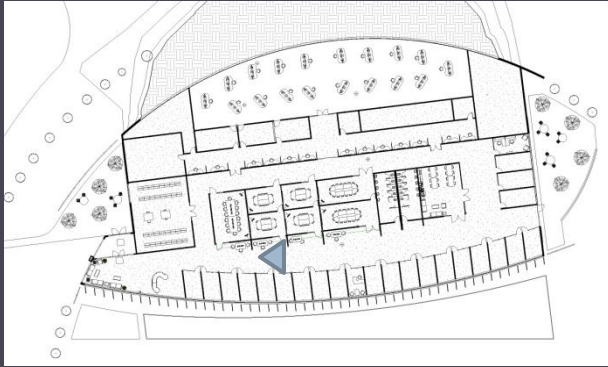
LOBBY

A large lobby provides space for groups to mingle before and after meetings as well as an organization space for tour groups.



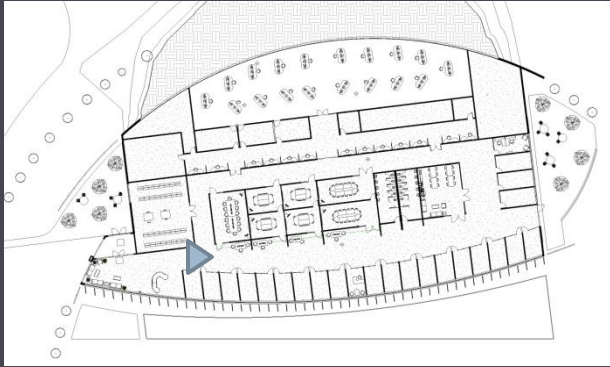
LIBRARY HALL

A large library is part of the building allowing for researches to have books and information readily available to them without needing to leave the site.

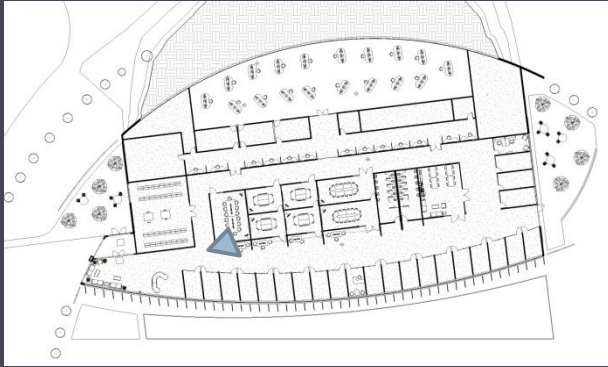


OFFICE HALL

This hall is wider than average to allow for impromptu meetings and the ability for people to congregate and work together on projects. A large skylight allows for natural light to fill the hall as well as surrounding spaces.



OFFICE HALL



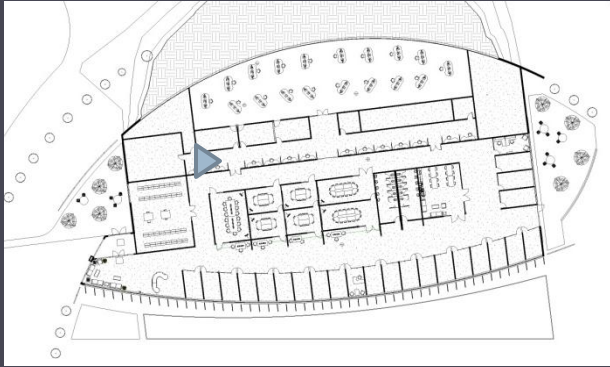
CONFERENCE ROOM

Seven conference rooms of various uses and sizes make the core of the building. Natural light infiltrates the conference rooms reducing the need use the lights during the daytime.



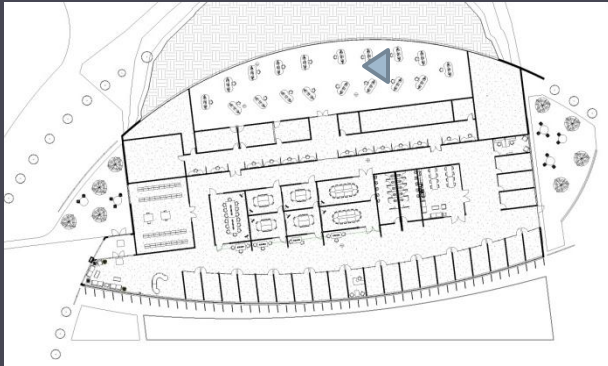
CENTRAL HALL

A central hall divides the building in half separating the office spaces from the laboratory spaces.



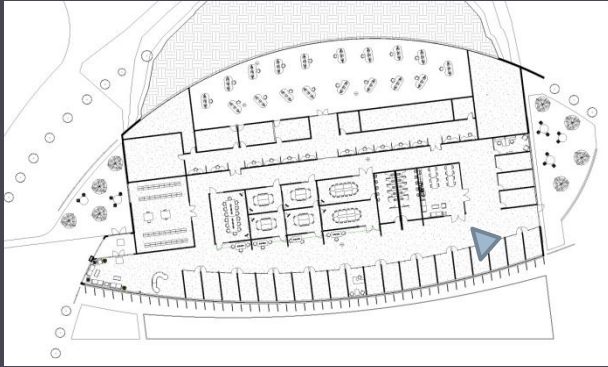
WRITE UP HALL

This hall provides a space in which researchers are able to step out of the lab and compile their notes and write up reports on their findings. Natural light infiltrates the space through a series of clearstory windows allowing sunlight to fill the space during the day



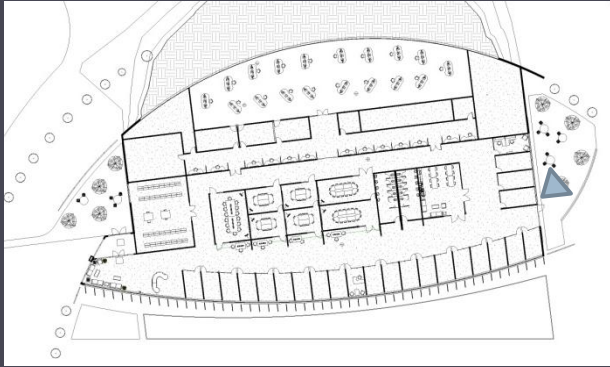
LABORATORY

A large open lab with sixteen workstations provides a place for researchers to work. The open floor plan allows for there to be changes over time based on the needs of research that is being done at that point in time.

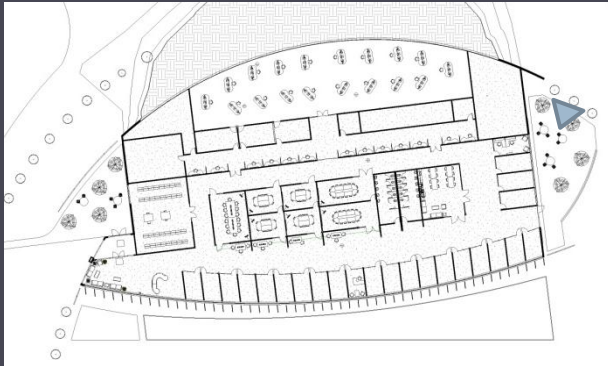


BREAK ROOM

A staff break room is at the eastern end of the central core. This space provides an area for the staff to eat as well as rest and step away from their work when necessary.

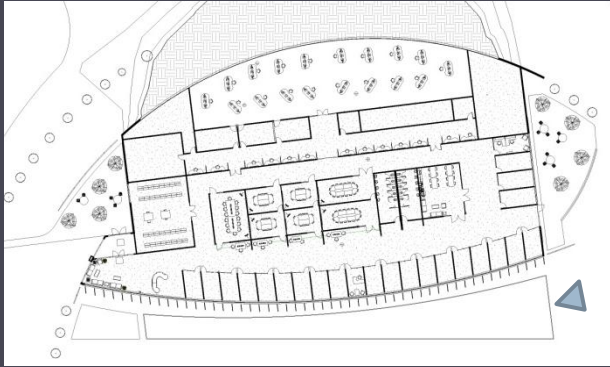


EXIT TO EASTERN PATIO



EASTERN PATIO

A patio is also on the eastern end of the building to provide for a more private patio for the staff to use at their leisure.



REFLECTING POND

A reflecting pond is a major element on the front of the building, this pond allows for air to be cooled from the water before entering the building.

QUESTIONS?
