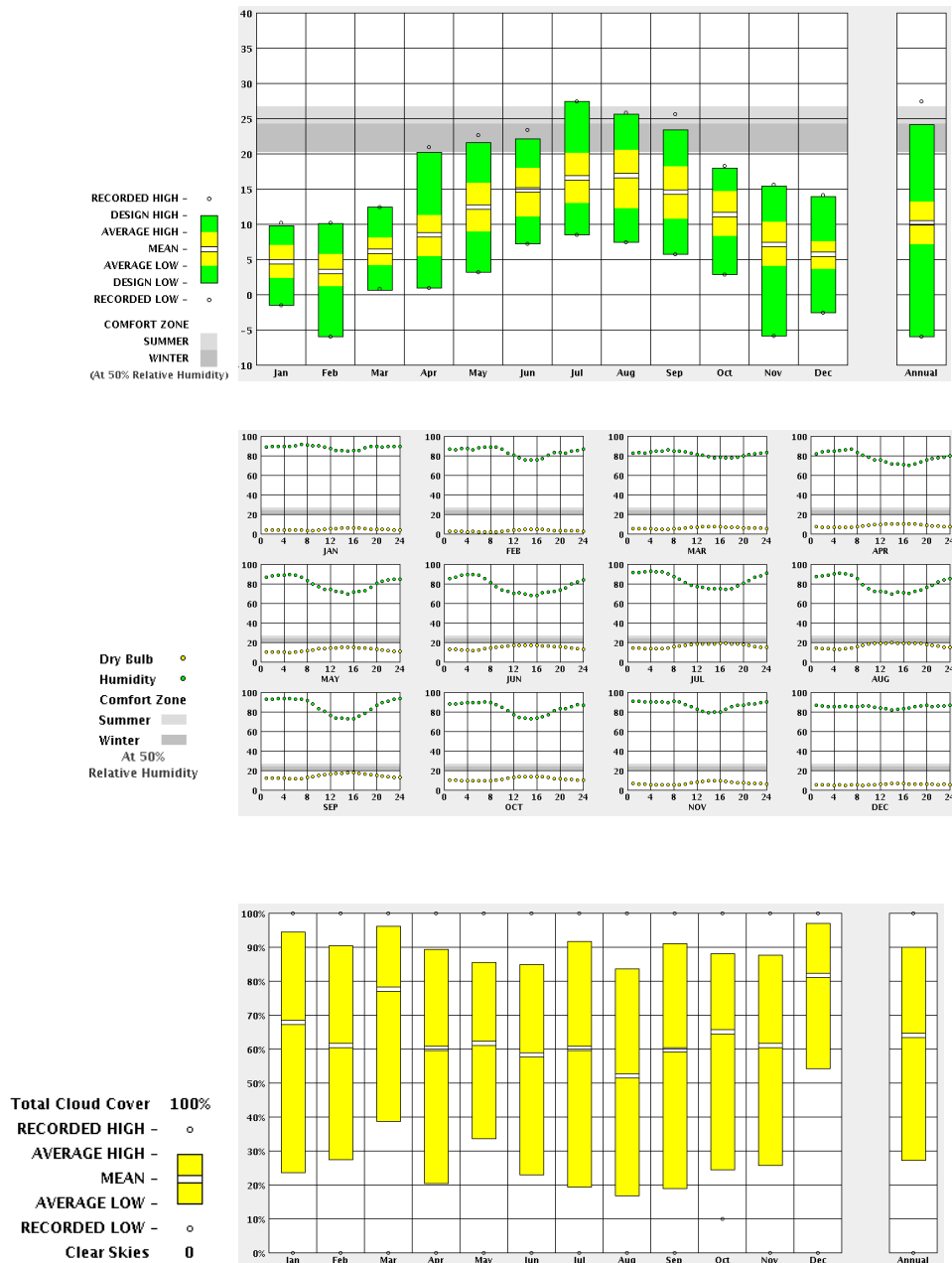


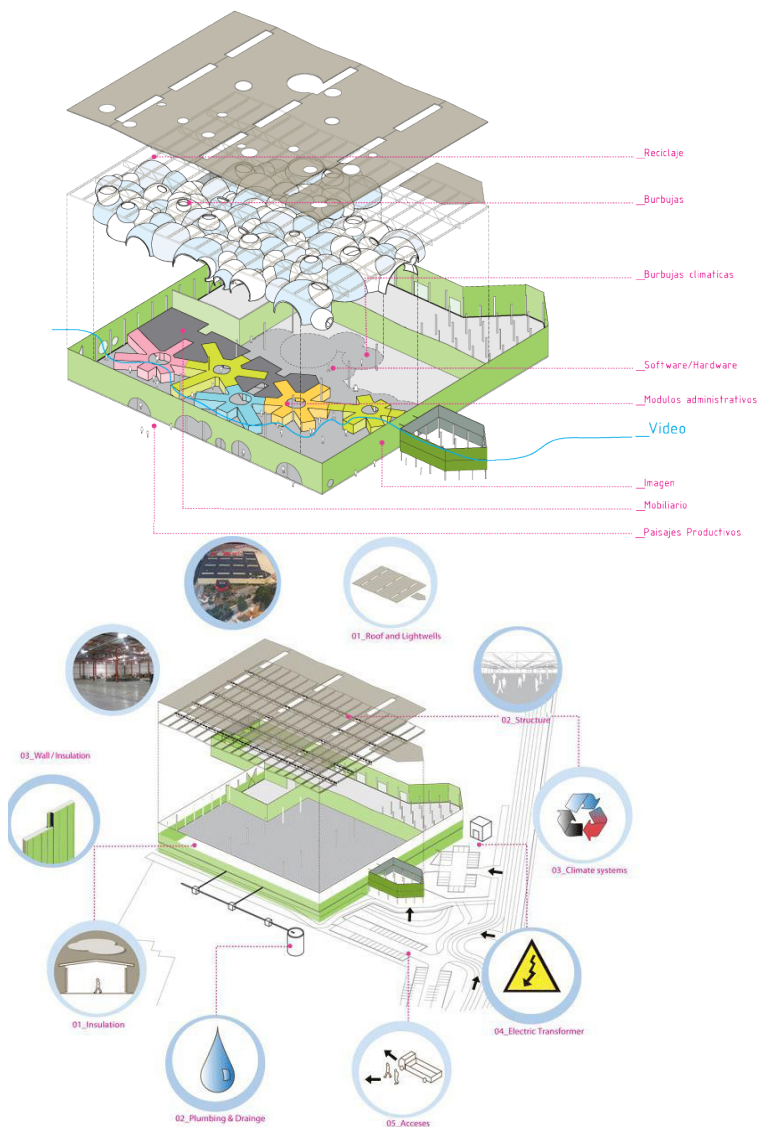
Environmental Studies  
Case Study Assignment  
Carla Bonilla

Project: Oostcampus - Carlos Arroyo

Climate Data: Oostkamp, Belgium is a coastal city with an oceanic climate. North winds keep the temperatures lower than inland Europe during the summers while winters remain cool. On average, the annual temperatures remain within a narrow range of -5°C - 27°C while precipitation is evenly distributed throughout the year with approximate 50% cloud coverage.



## Environmental Design Features:



-Adaptive reuse of existing building: Makes use of “Gray energy”. Recycled most of the structure, which used to be a coca cola factory.

- Thermal Onion: Thermal comfort is achieved through the use of a “thermal onion” , which optimizes areas according to level of use and making use of the thermal inertia of the concrete slab. This works as a double insulation with air in between. The first layer being the existing concrete slab and the second one the blocks on the inside, where the offices are located. The outer or “in between” spaces being the ones where people spend the least amount of time (circulation, etc) while the most thermally comfortable spaces are the blocks where the offices and meeting areas are located.

-Lightwells: makes use of different types of openings on the ceiling to provide the spaces with natural light. Some of this openings are not glazed, providing the space with interior courtyards allowing for natural ventilation.

## Suggestions:

- I would modify the openings on the ceiling to be more responsive to wanted and unwanted sun radiation. Extruding them in such a way to shade from summer sun and receive winter sun. Since the way it is the spaces probably receive a lot of sun radiation during the summer.