

## **ENPRO 357**

### **Project: 357**



#### **The Problem:**

We have a client in Oak Park that wanted an environmentally sustainable mixed use building that he would be able to both live in and work from. Our client owns a business that is currently renting office space in Oak Park, and wanted to be able to integrate these offices into his home. This building in addition to being environmentally sustainable needed to be economically sensible.

#### **Objectives:**

Our objective was to design a mixed use building that would meet the needs of our client, but could also be used as part of a bigger development by being easily adapted to the needs of other clients. With the revitalization of Madison St. in Oak Park, which is where our client owns land, we see many opportunities where our design could be used and hope to market this design to both our client and to other developers. While doing this we worked to design a building that would be environmentally sustainable while still keeping costs within a reasonable range.

#### **Basic Organization and Tasks:**

For this ENPRO we divided into seven sub-groups with each group independently researching their topics and bringing the results to the group for discussion. Final decisions were made mainly by consensus of the group. The seven sub-groups were:

- Zoning analysis
- Energy options
- Financial market study
- Site analysis/demographics/current conditions
- Design/ fabrication/ construction techniques
- Costs
- Convenience/promotional concerns
- Program/ market

**Accomplishments:**

Our team was able to design a building which addressed all of our client's needs while also working as a platform for other future developments. We designed a mixed use four story building that consists of first level retail and parking, two commercial units on the second floor, two rentable apartments on the third floor, and the owners residence on the top floor. Our design was within a reasonable budget and much more energy efficient than a conventional building as a result of using both active and passive green technologies. Our design also fits in well with the needs of the surrounding demographic, and will help with the Madison Street Corridor Revitalization project's goal of creating a more pedestrian friendly zone.

**Critical barriers and obstacles:**

This ENPRO encountered several barriers and obstacles:

- Oak Park zoning requires more parking than is easily available on the site.
- The Madison Street Corridor Revitalization project has not yet been approved, so the zoning requirements are not completely clear.
- After our client meeting near midterm we realized our client was more interested in the bottom line than energy efficiency.
- Many green technologies while giving the appearance of being sustainable, when analyzed in depth are not.

**Conclusion:**

We feel that we have produced a design that has met the needs of our client but can also be adapted to the needs of other clients easily.

**Next Steps:**

The next step is presenting our final plan to our client and also approaching other developers with our design.

**Faculty Advisors:**

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**Team Leaders:**

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**Student Members:**

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