Project Deliverable H - Prototype III and Customer Feedback

GNG 1103 - Group A2

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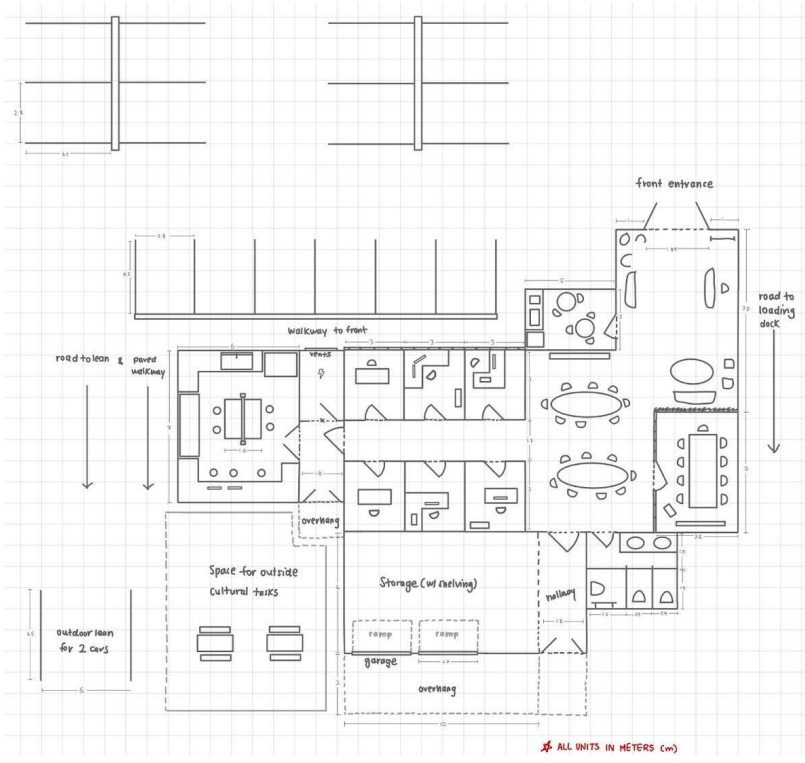
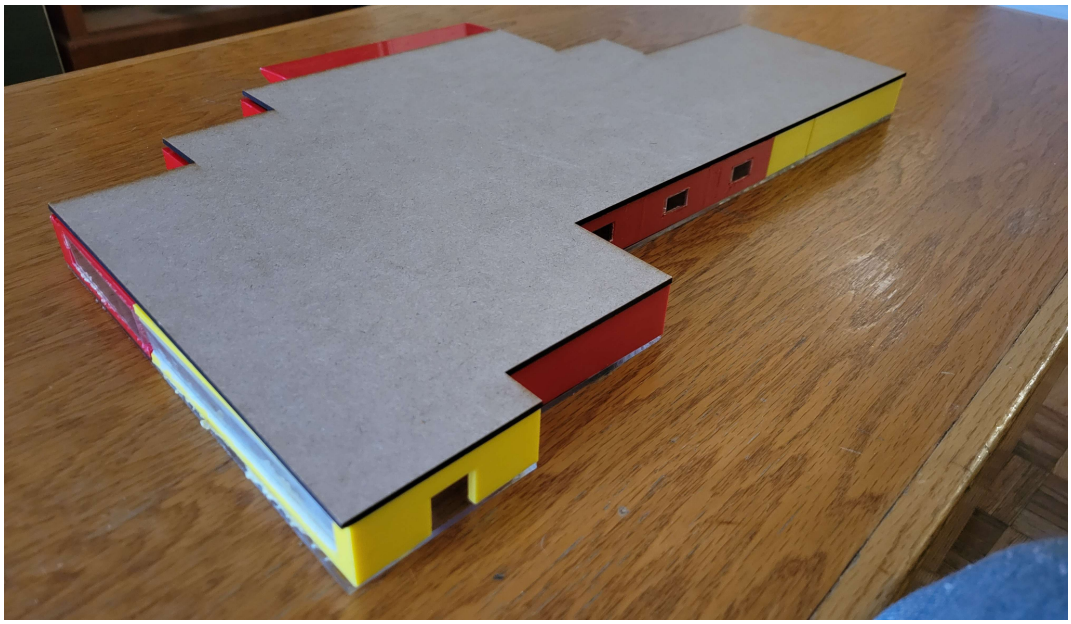
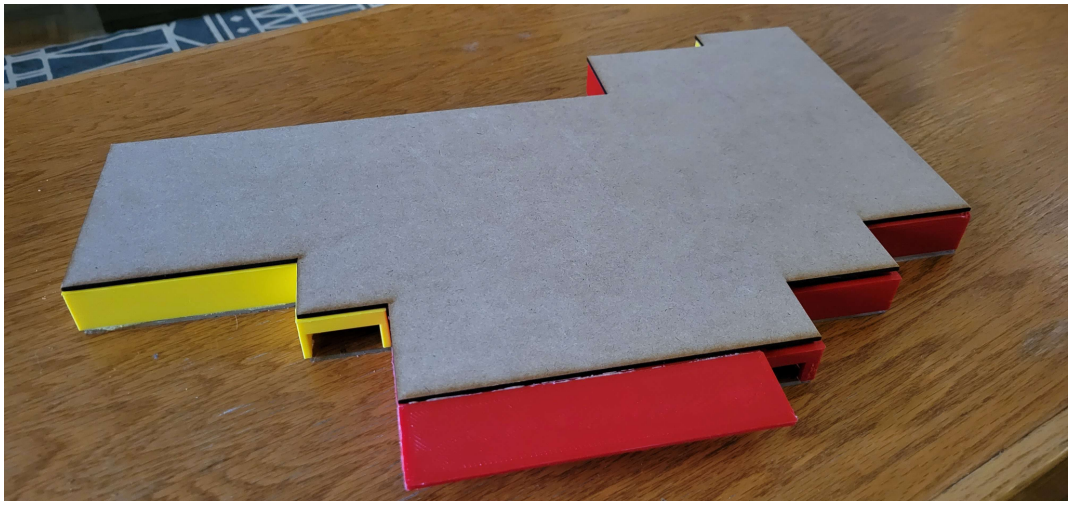
Introduction

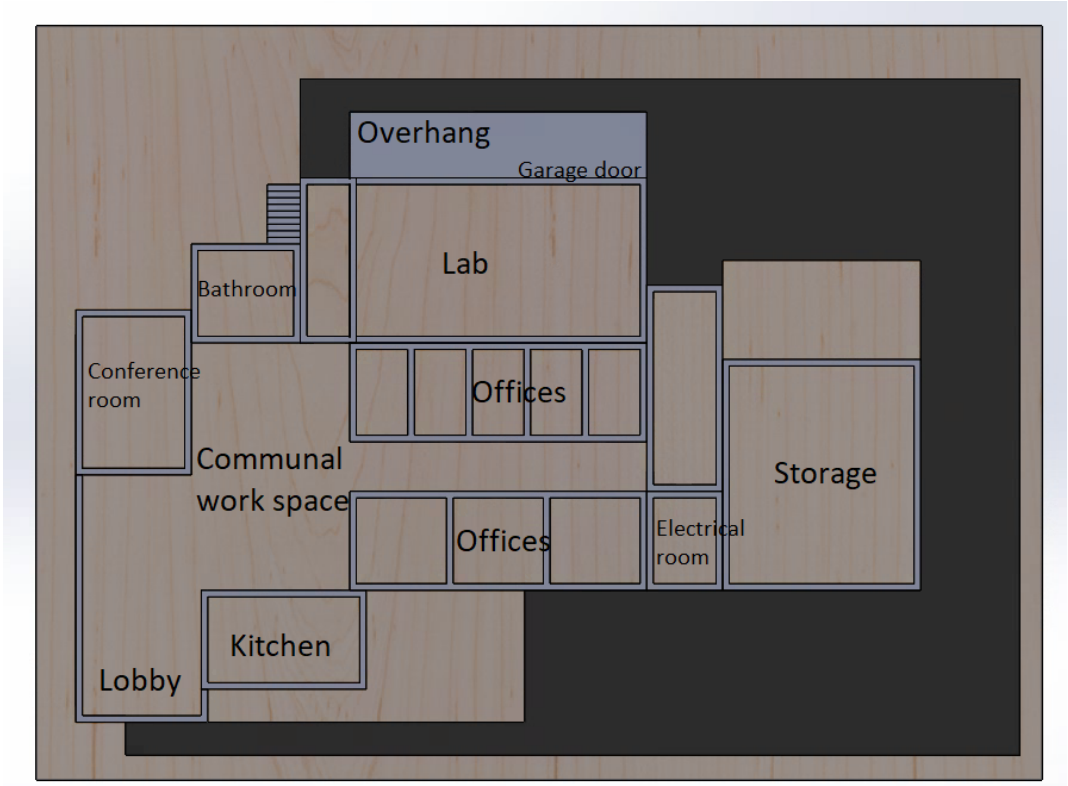
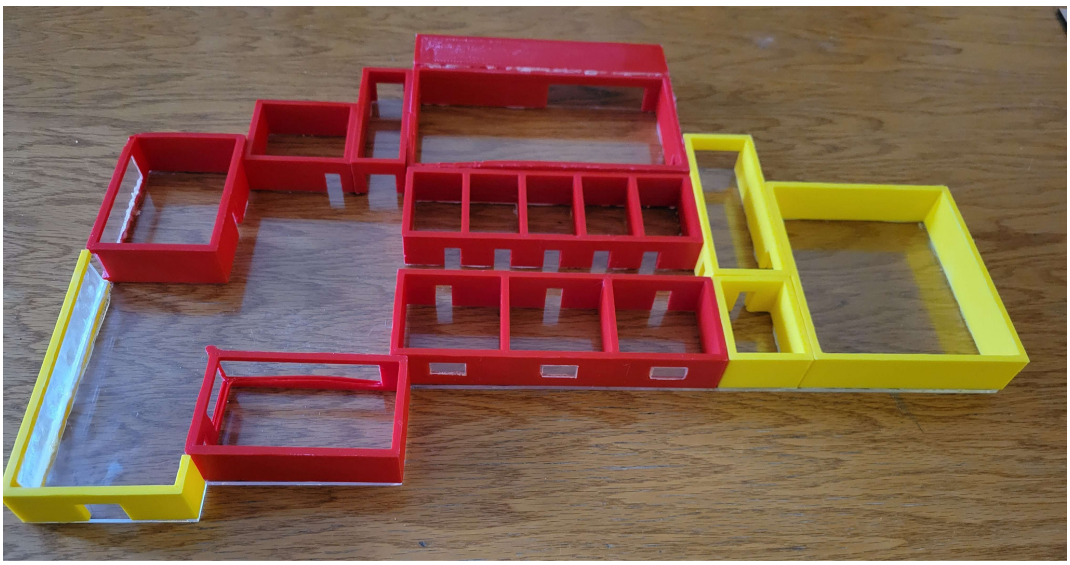
The third prototype and the customer feedback is an essential part of the project development. Our third prototype was implemented following the feedback provided by our client on the previous deliverable (i.e: prototype II). Our client mainly requested a change of additional office spaces and increased access to lab space.

Prototype III Development

The team continued to iterate on the previous model conceived during the creation of prototype I and II. The primary objective of this iteration was to finalize decisions made in previous meetings and ensure that everything had been included and thought out for the standpoint of functionality. In this prototype we were concerned with the ways that the space will be used by the end user and the client, as well as finalizing the components used in the final construction of the 3D model. Printing and laser cutting the components we need was undertaken and the final prototype III was completed.

Detailed Design	

Front view of building prototype	
Back view of building prototype	

Floor Plan of Building prototype	 

Prototype II Test Results

We found that the lab was not in an optimal location for moving things in and out of it, and as a result we decided that swapping the lab space with the storage space was the best solution. This allows the lab to be accessed directly from the loading dock garage doors.

Additional Potential User Feedback

Feedback and Comments	Implementation
Client requested that more offices are included in the final prototype, also mentioned that having smaller offices would be beneficial	Three of the six larger offices that were in the original design were reworked to be implemented as five smaller offices, designed for 1-2 people each. This brought our total number of offices from 6 to 8.
The lab space should be directly accessible by large garage/double doors	The spaces dedicated to storage and the lab were swapped, allowing for the lab to be directly accessed from outside the facility with large openings to accommodate loading/unloading of vehicles
Is the team going to add furniture to the 3D model to demonstrate how the space is going to be used?	Scaled 3D models of furniture will be added to show the client and the potential users how we imagine the space to be used.
What's going on with the roof? It's so flat.	In order to take advantage of the flat, empty roof space, the team added a point of roof-access that the client may utilize as needed. Additionally, the team is considering the addition of solar panels on the flat roof for some eco-friendly energy generation.

Prototype III Test Plan

Prototyping Test Plan			
Test ID	**Test Objective**	**Description of Prototype used and of Basic Test Method**	**Description of Results**
1	Functionality of space	Assume the perspective of each potential worker and evaluate if the facilities we have provided allow them to complete the task as described by the client (i.e lab worker, office worker, manager)	The result for this test influenced us to redesign the interior. The location of the lab space area and the storage area were switched as requested by the client.

2	Meeting the wants and needs of the client	Use 3D model prototype as a reference to test that all the different spaces that the client wants are present	Results will provide insight into how the space will satisfy the client needs'. It was determined that more offices were needed and the row of offices inside were able to be split into 5 smaller offices.

Wrike Snapshot

https://www.wrike.com/frontend/ganttchart/index.html?snapshotId=MhbxiprXEC0vCDS4E777PQJNgkdW5Mde%7CIE2DSNZVHA2DELSTGIYA

Conclusion

Our final iteration demonstrates the culmination of development on the building. Incorporating feedback from the client and other potential users the design concept was developed into a completed state. Utilizing skills in 3D modeling, printing, and laser cutting, the team realized the virtual model into a physical prototype that could be displayed to the client and any potential users. With the main structure of the building complete, the team will take the next handful of days to add finer details such as furniture, plumbing, and electrical wiring to be presented on design day.