Internal Risk Assessment

Part I: Background Research

The Landscape Architecture program at the University of Maryland's main mission is to develop eco-friendly landscapes, improve cityscapes with green infrastructure, engage with diverse communities, and create livable, healthy communities through smart design. Some objectives that this program looks to achieve are preparing students for future careers in this field, advancing knowledge in sustainable agriculture, and developing eco-friendly landscapes that protect natural resources and promote equity by ensuring that affected communities have a healthy and sustainable environment. They also promote inclusivity by ensuring that the design, planning, and development of landscapes reflect the needs of the community. To accomplish these goals, Landscape Architecture gives students the chance to choose different career paths and work with real employers to get hands-on experience. Their main strategy is to give students real-world experiences by taking the knowledge taught in class and allowing them to apply it by working on multiple projects with real clients on real sites. Tactics include implementing green infrastructure and using GIS technology to store and display data about specific sites.

Part II: Objective or Purpose of Our Project

First and foremost, our project matters because if it were a real clientele and they tasked us with an objective, it would be our job to make sure it is to their liking. Mainly, our project matters because our client needs a way for outside users or stakeholders in the plant science and architecture school to understand the work that the students produce. The students produce a multitude of information that could be beneficial for our environment and having an easy access way to navigate through that would produce useful information in the right hands. Some problems that the project addresses would be the need for a way to express the high level projects done in our environment from bachelors to masters and even doctorate programs. As previously mentioned, there is a lot of good and useful information within these projects and the school would greatly benefit from producing these projects for the greater good and the students would gain credibility in their future endeavors. Main objective is to improve services for the organization and create a tool that would be used for future services.

Part III: Project Stakeholders and Impact

The primary stakeholders of the database and interactive map for the UMD Landscape Architecture program include students and faculty who will benefit from the improved visualization and project data for coursework. The university's IT department is also a key stakeholder as it must maintain the system. Secondary stakeholders include prospective students who are interested in the program due to the impact of the

showcased projects. University administrators may see the project as a way to bolster the program's reputation by showcasing the projects that the program has completed. IT may face increased workloads and be resistant to make changes necessary to facilitate the system. Accessibility must also be considered to ensure inclusivity for all users.

Part IV: Potential Project Constraints

After meeting with Dr. Myers, a few potential project constraints have become clear. As a result of the remaining weeks in the semester, the project could be under time constraints as Dr. Myers has expressed a desire for website design via HTML as well as a database design. The initial statement of work suggested an existing database that may need updating; however, after speaking with the client, it's clear that they don't have an existing database, and one will need to be made from scratch. Because of the wide scope of the project, it may be difficult to complete the work on time. However, the team feels that splitting the work into a subteam of website designers and a subteam of database engineers will make this a completable task. Another potential constraint is currently the passing of data from the clientele. Currently, their data, the Landscape Architecture projects, is in different Google Drive folders owned by different members of the Landscape Architecture school. The client would like to curate their data on their own and hand-pick projects for us to input into the database and web page. This may result in a time constraint as the time it may take for the client to comb through their data and pick what they want might be longer than anticipated.

Part V: Necessary Resources to Complete Project

As our goal is to create an interactive map of projects done in certain areas, we are going to need a mix of technical and substantive resources. In terms of substantive resources, we are going to need a list of most (if not all) the projects done in specific areas of the map (possibly along with documentation of the requirements of each project), specific information listed on the Department of Plant Science and Landscape Architecture regarding their values, goals, and initiatives, and historical analyses or backgrounds of areas where projects have been conducted. All these resources are crucial to the completion of our project, however there are alternatives. There is not a specific number of projects we need to reach our goal, so having access to a limited number of projects is not an issue. Information about the department is listed on their website, but if there is some information that we need but can't find we can always set up a meeting with our client Dr. Myers and get whatever information we can from him. In terms of technical resources, we are going to need Google Earth or another GIS software, a mapping API, a database management software to store project data, GitHub pages to deploy the actual website, and data visualization libraries in the event that we need to display any extra information alongside the projects.

Part VI: Potential Project Transition and Closeout Plans

At the end of the semester, a potential plan for handing over the final deliverables to the Landscape Architecture department could include a clear process. A final presentation could be held to walk Dr. Meyers and the department through how the system works, how to add new projects, and how to maintain it. All project files, including the code and documentation, would be given to Dr. Meyers and UMD IT. The project manager could lead the handover process, ensuring everything is in place and conducting the final demo. The development team could be available to explain how the map and database work, while Dr. Meyers would work with UMD IT to host the website on the department's web page. We expect a user manual to be provided, explaining how to update the map and manage the data. Depending on how complex our product is, a training session could be planned to help Dr. Meyers and the team learn how to use the system and input metadata. Documentation for maintaining the database would also be included. If another team continues the project later, detailed code documentation and instructions on extending the system could be provided via Github.