<u>By CitySoftware Overview</u>

This will be a PC software that can be accessed via browser or downloadable client. Will also have a downloadable mobile version. The purpose is to form a model used by government led developers that gathers info on environmental impact as well as cost viability related to the development of more urban communities. It generates a map showing the most ideal locations for development based on the above criteria. The map will display data via multiple layers and icons - some of which indicate environmental impact - others indicate viability. This allows the city to weigh environmental impact VS the viability of the new development - the least environmental impact combined with high viability indicate the best areas to develop. Furthermore, there will be features to give more information on existing development and the economical status of cities found via search bar.

<u>Business Requirements - Features and Descriptions</u>

1. <u>Registration/Log-in</u>
    a. This will be the first page to open when the program starts.
    b. An account is required to use the program.
    c. Users login via government provided email addresses and a password created by the user during their account creation.
    d. Account setup requires: First and Last Name, email, employer, job position, building address, work number (cell number optional).

2. <u>Search - Dashboard</u>
    a. After login, this will be the main display page. The search page allows the user to search for a location by address which will be displayed via the map view.

3. <u>New Project - Data Entry</u>
    a. This page will allow the user to create a new development project which will then be saved to the user's profile. They can have multiple saved projects. It will include user submitted fields which will be the specs of the project and can be saved to be referred to and adjusted later. Will include project location, the project area (square kilometers), estimated population, and number of residential/commercial/industrial buildings to be built.

4. Map Page
    a. Whether partnered with Google maps, or Canadian government GIS programs, an interactive map of Canada will be used to display search results from the dashboard, as well as environmental and viability information.
    b. An <u>interactive legend</u> that allows the user to toggle layers on/off that will highlight areas with high/medium/low environmental impact and potential damages.
    c. More layers or indicators(map pins, icons, building markers, etc) will be used to display viability information. Where's the nearest electrical plant, water treatment centre, grocery store/shopping centres, etc. The further away the proposed development area is from these facilities will mean more expenses required to build at said location. Furthermore, will the development area be impacting privately owned farmland or other such property?
    d. There should also be a layer showing the proposed location and size of the currently selected user project. These layers will overlap to show where any proposed work stands in terms of environmental impact and viability.

5. Report/Results Page
    a. This will be where results will be shown via a screenshot of the map with all layers on (proposed project, environmental impact, viability) as well as a summary of possible costs that come with the proposed size and scope of the development as submitted in the data entry page.

6. Profile Options Page
    a. This will be a page that holds links to other pages as well as profile settings (logout, username/password changes, view/edit saved projects).

7. Contact Us Page
    a. Contact info to reach site support. Phone and email displayed, as well as a form to send an email straight from the page.

8. Current/Future Development Page
    a. This will hold a list of all developments currently in progress. Categorized by Province and sub-categorized by Province Regions. Will include information like Location, Project Lead, contractors involved, government entities involved (MNR, MTO, Municipal Government, etc), a link to a map of the location that shows existing and proposed land layout.

b. Similar to the current development page, but shows info for approved future development work to avoid overlap of project plans. Ideally shows all the same info as above, though some might not be available if the project is in early stages. Such as not having a list of contractors.

These features are ordered in a way so that the main purpose of the program is the first part to be user ready. Since having an account for the program is mandatory, registration and sign-in is the first feature that needs to be implemented. Furthermore, the interactive map is the bulk of the program's purpose, it needs to be ready as soon as the user logs in. Having the proper information on display and having a method to share or print off the program results are the top priority. Profile settings and the ability to log in or out should also be available in the first stages of design. The rest of the list are features that can be added in after the initial setup. While they are important, they are not the basis of the program, and can be implemented after it is functional and running.