

# RestroomMap: A Mobile App for Finding Accessible Restrooms

Andrew Murphy, Hao Dong, Youngbin Ha, and Fang Wang

IT Program, Electrical Engineering and Computer Science Department, College of Engineering, University of Missouri



## Introduction

As communities and public facilities promote inclusion, many are overlooking a crucial need that must be met for a place to be truly inclusive of everyone-accessible restrooms. Many people, children with disabilities who are too large for infant-size changing tables as well as adults who need assistance and privacy when using the restroom, would benefit from the existence of more private family restrooms that include adult-size changing tables

## Purpose

Collaborating with Missouri Disability Empowerment (MoDE), we are making information about accessible restrooms more available to the public. This project’s purpose is to provide mobile applications to view and submit restroom information, and a website for the management of this data.

## Mobile Applications

The mobile applications provide a map to locate accessible restrooms and display the necessary information for their access. They also provide a form to submit data about additional restrooms that may not already be in the database. These mobile applications have to be fully accessible and aim to be easy to use to properly serve the intended users of the apps.

## Website

Features:

- A filterable list of all the restroom entries.
- A map that displays restroom locations.
- Authentication for approving, editing, and deleting restroom location entries.
- A submission form for users to submit restrooms.

The filtering allows easy access to locate specific entries. When used in combination with the map, the restroom’s location details are easily verifiable and manageable. For example, the user can locate unapproved submissions, verify basic data (addresses, phone numbers, and building information), and approve the submission to be displayed on the map. The website needs to streamline the process as efficiently as possible to ensure the data is as accurate, and up-to-date as possible. This is especially important because the administrators from MoDE manually verify the crowdsourced submissions.

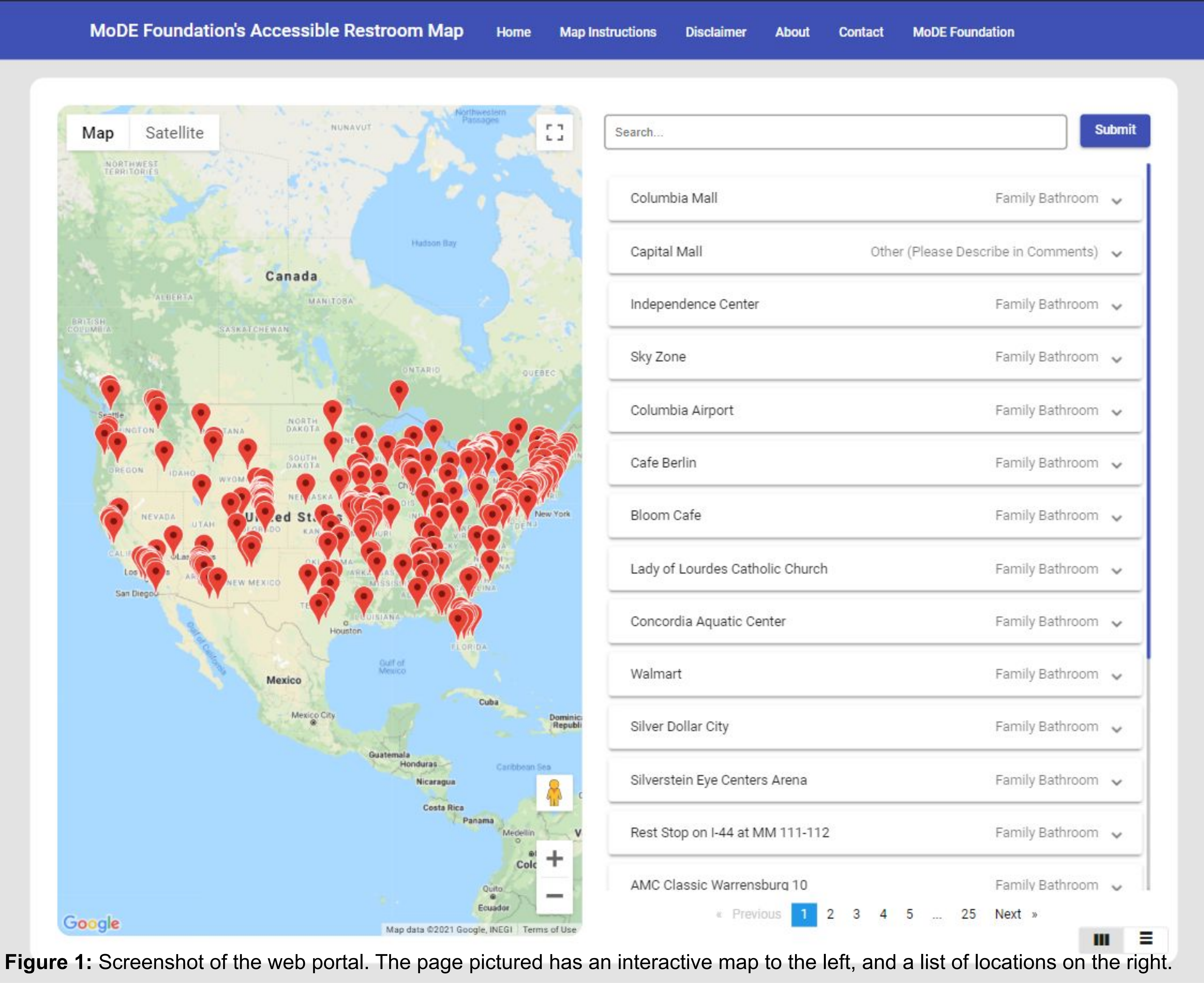


Figure 1: Screenshot of the web portal. The page pictured has an interactive map to the left, and a list of locations on the right.

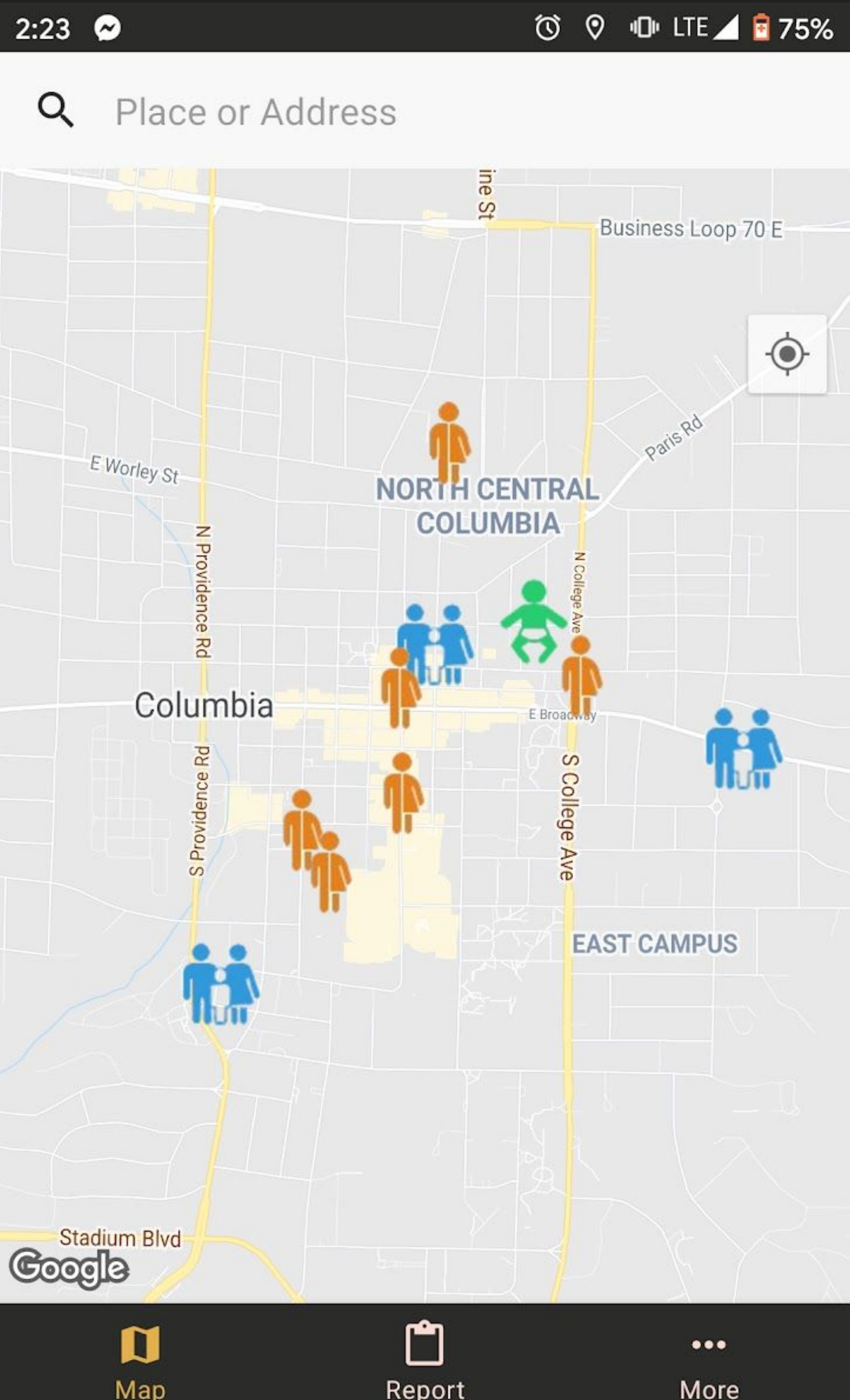


Figure 2: Android Application showing an interactive map of accessible restrooms.

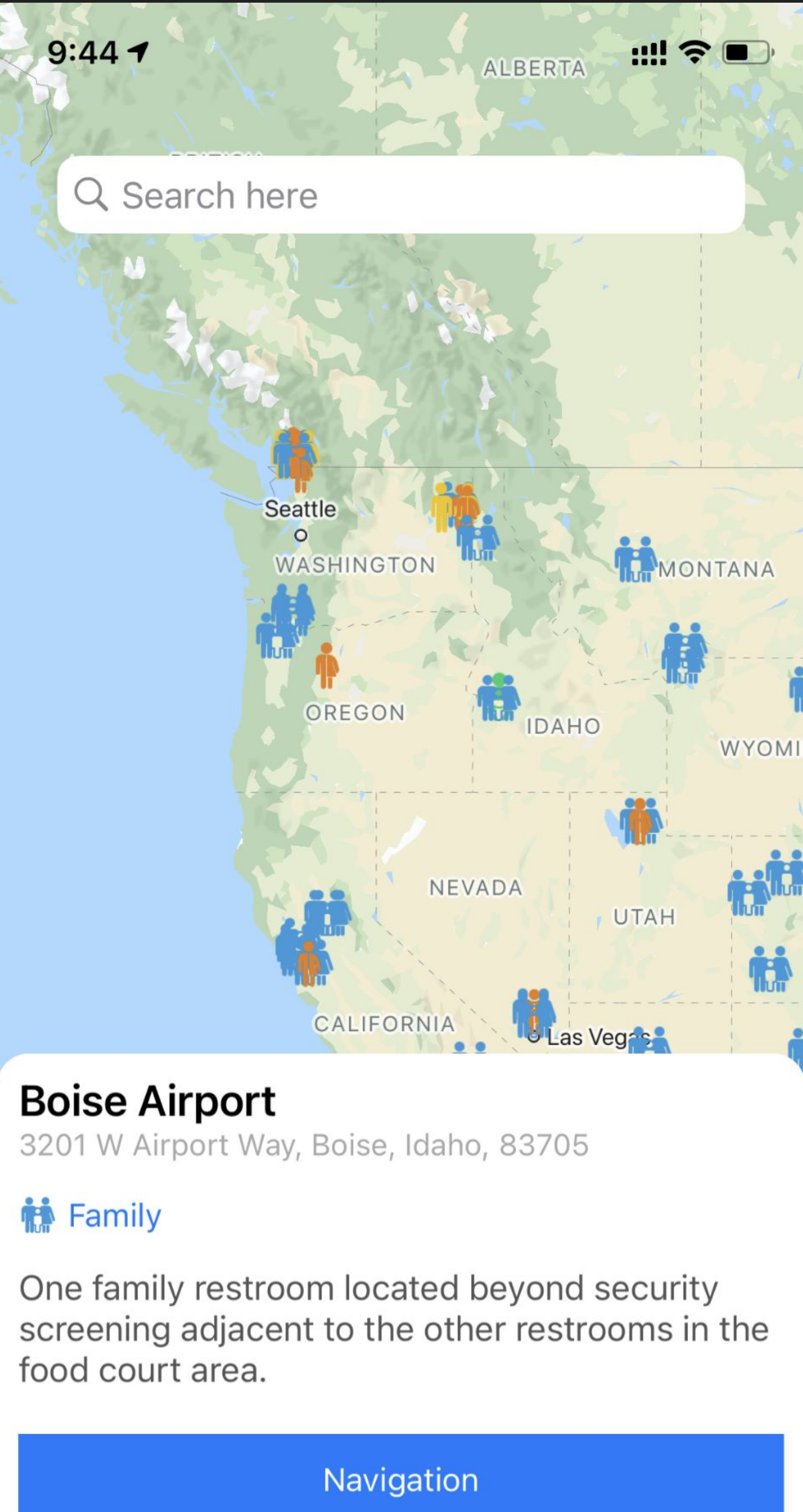


Figure 3: IOS Application showing an interactive map focused on Boise Airport.