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Student Research Conference Abstract

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This project examines the design of Burlington's Champlain Parkway through the development of alternative designs. Currently the Parkway is designed to connect the disused section of I-189 with Lakeside Avenue through the use of stoplights at all intersections. This research seeks an alternative option to stoplights that would be more efficient, quicker, safer, and more aesthetically pleasing through the use of roundabouts. This new design is based on interviews with Burlington Department of Public Works engineers, Stantec engineers, and roundabout expert Tony Redington. In this research I examined vehicle use, traffic data, as well as fuel use data. My findings concluded that the project could incorporate roundabouts resulting in significant savings in fuel and time as well as a reduction in the number of fatalities for bicyclists, pedestrians, and motorists. These results have the potential to be applied to other locations in Burlington and serve as a challenge to road design engineers.