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## Blue and Orange Lunch Line

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# The BLUE & ORANGE Line is actually GREEN!

In the Fall of 2013, Supply Chain Management 420-Creating Sustainable Goods and Services, taught by Dr. Tom Gattiker, completed a project using the Green Breakthrough process based on Design Thinking. The deliverable was a written proposal for a product or service that would be *Highly innovative, Not incremental, Meets a customer (e.g. student, faculty) need, Has a significant environmental benefit, Related to BSU or our campus, Customer facing, Could be implemented at BSU (or nearby) within one year.* Team 2 included Don Riger, Roger Perez, Andrew Johnson, and Richard Travis. We proposed the BLUE & ORANGE lunch time shuttle service so customers could get to and from local restaurants. This innovation would increase dining choices while reducing traffic and Green House Gas (GHG) pollution around campus.

## DESCRIPTION OF CUSTOMER

The service is targeted towards students who drive to campus and spend most of their day on campus. While campus offers a wide variety of dining opportunities, our observation has been that many students leave campus to eat.

|  | CAR          | SHUTTLE         |
|--|--------------|-----------------|
| <b>Avg. MPG</b>                                    | 21           | 7               |
| <b>GHG/gal</b><br><small>Gasoline / Diesel</small> | 19.64 lbs    | 22.38 lbs       |
| <b>GHG/mile</b>                                    | .982 lbs     | 3.197 lbs       |
| <b>Miles</b>                                       | 3.7/trip     | 96/day          |
| <b>GHG Total</b>                                   | 3.6 lbs/trip | 306 lbs/day     |
| <b>GHG OUTPUT AT VARIED LEVELS</b>                 |              |                 |
| <b>85 Riders/day</b>                               | 306 lbs      | 0 lbs SAVINGS   |
| <b>150 Riders/day</b>                              | 540 lbs      | 234 lbs SAVINGS |
| <b>250 Riders/day</b>                              | 900 lbs      | 594 lbs SAVINGS |

## BENEFIT TO OUR CUSTOMER

The major benefit to customers is an increased number of accessible restaurants without having to drive. Reduced wear and tear on vehicles and reduced fuel cost are other benefits. There is also the possibility that off campus restaurants are less expensive than on campus choices.

## ENVIRONMENTAL BENEFITS & CONCERNS

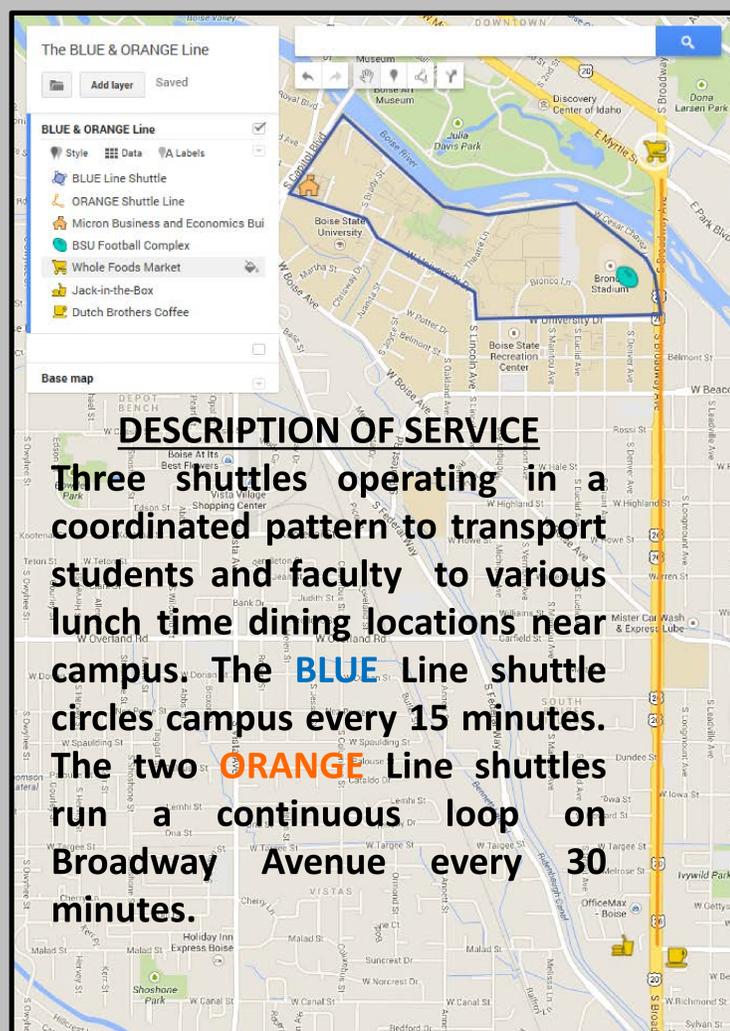
- 1) The most prominent environmental benefit will be the reduced emissions for every rider in excess of the 85 rider daily breakeven point.
- 2) One potential issue we foresee is an increase in solid waste disposal on campus due to students bringing back food with them. This could also be a benefit as many restaurants lack a recycling program, while BSU has many locations supporting waste recycling.

## SHUTTLE COST

Students and Faculty with a BSU ID card will not be charged for using this service. The shuttle leases and operating costs (roughly \$4,500 per month) will be paid for with advertising fees from local businesses.

**CONCLUSION:** The BLUE & ORANGE line would yield savings in terms of GHG emissions at relatively low ridership levels and low cost and increase customer service.

**BROADER CONCLUSION:** Not all efforts to decrease environmental impact require sacrificing customer service or good business practices.



## DESCRIPTION OF SERVICE

Three shuttles operating in a coordinated pattern to transport students and faculty to various lunch time dining locations near campus. The BLUE Line shuttle circles campus every 15 minutes. The two ORANGE Line shuttles run a continuous loop on Broadway Avenue every 30 minutes.