CCSM ITEM#7

Commuter Connections Dynamic Rideshare App

COMMUTER CONNECTIONS SUBCOMMITTEE

MARCH 15, 2016

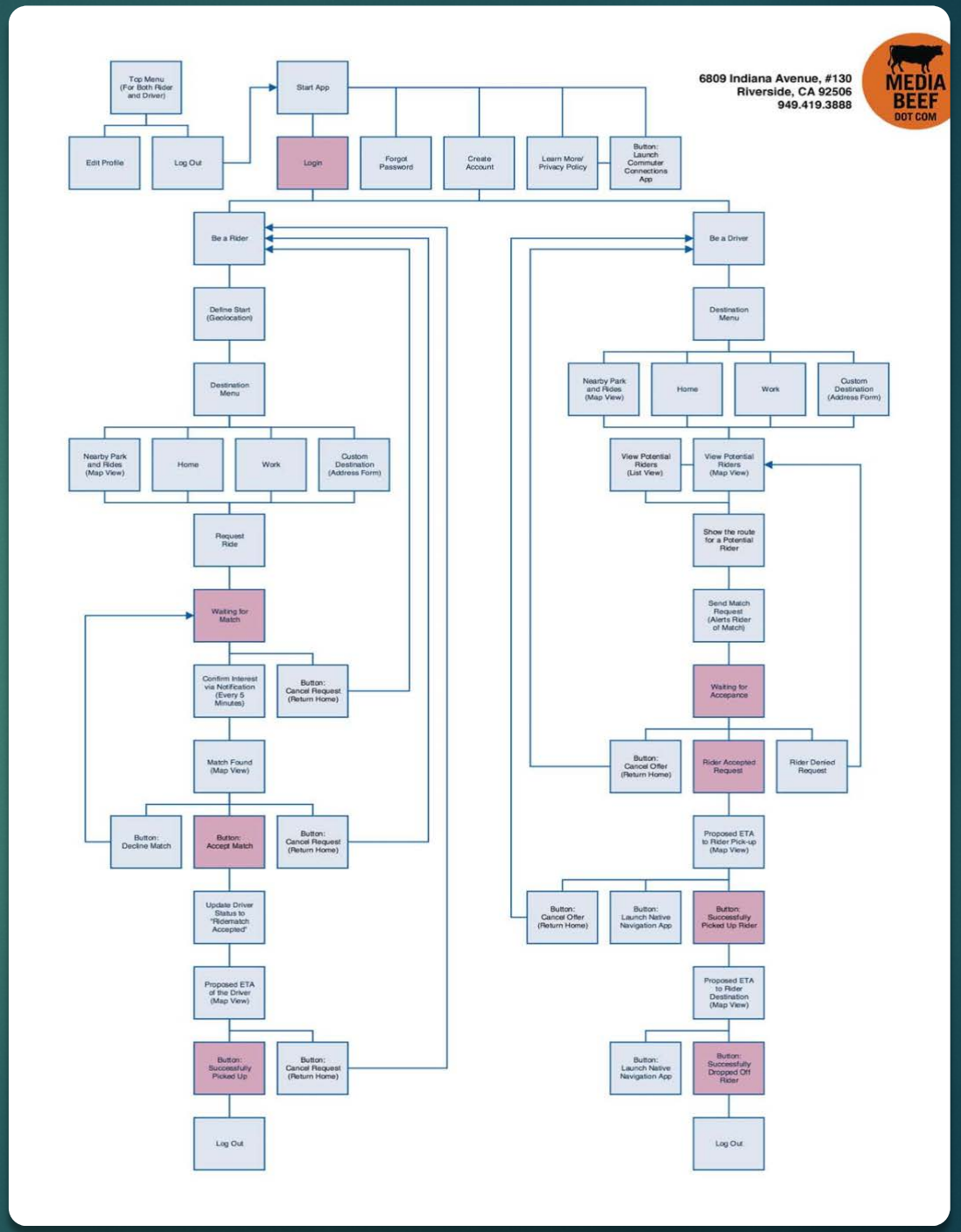
Milestones

- July 2015 – COG/TPB staff met with software development consultant, Media Beef, to discuss the Scope of Work for new dynamic rideshare app
- November 2015 – COG/TPB staff and consultant discuss parameters for the brand new, on-demand mobile application for carpool matching
- December 2015 – Consultant provides first draft of the workflow diagram, COG/TPB staff commented and revisions were made
- January 2016 – Consultant provided wireframes of the both the driver and rider functions of the app, CC staff commented and revisions were made
- February 2016 – Consultant begins programming the mobile app while COG/TPB staff begins preparations for a host environment
- Current – COG/TPB staff and consultant are beginning to apply variations of look and feel to the app
- Future – COG/TPB staff and consultant will test the app to ensure appropriate levels of security and functionality are present while continuously looking for improvements and additional TDM components for the app

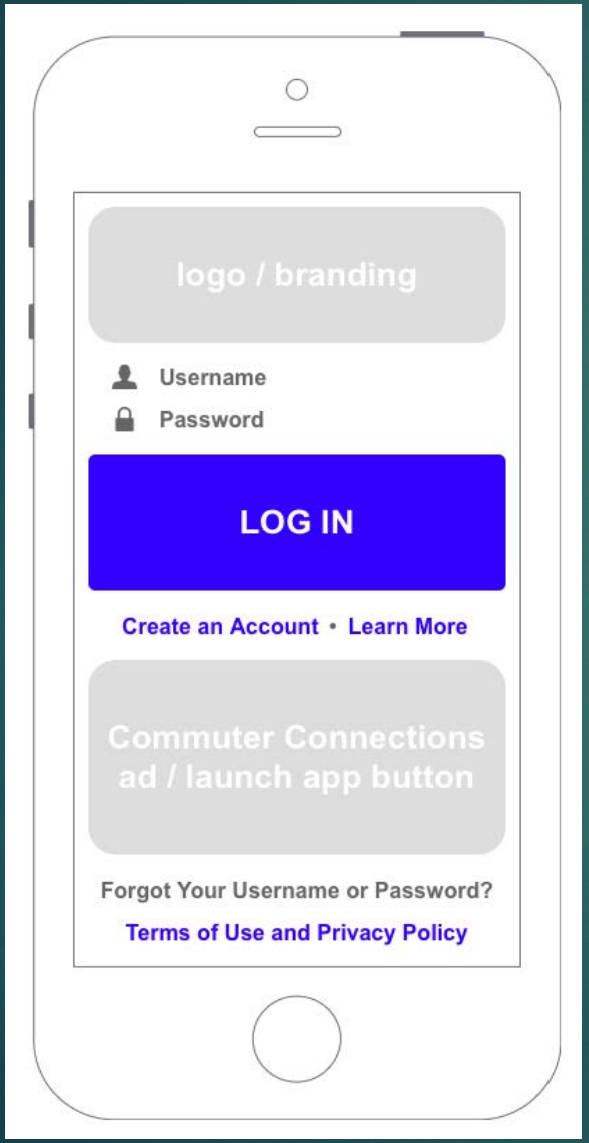
Parameters

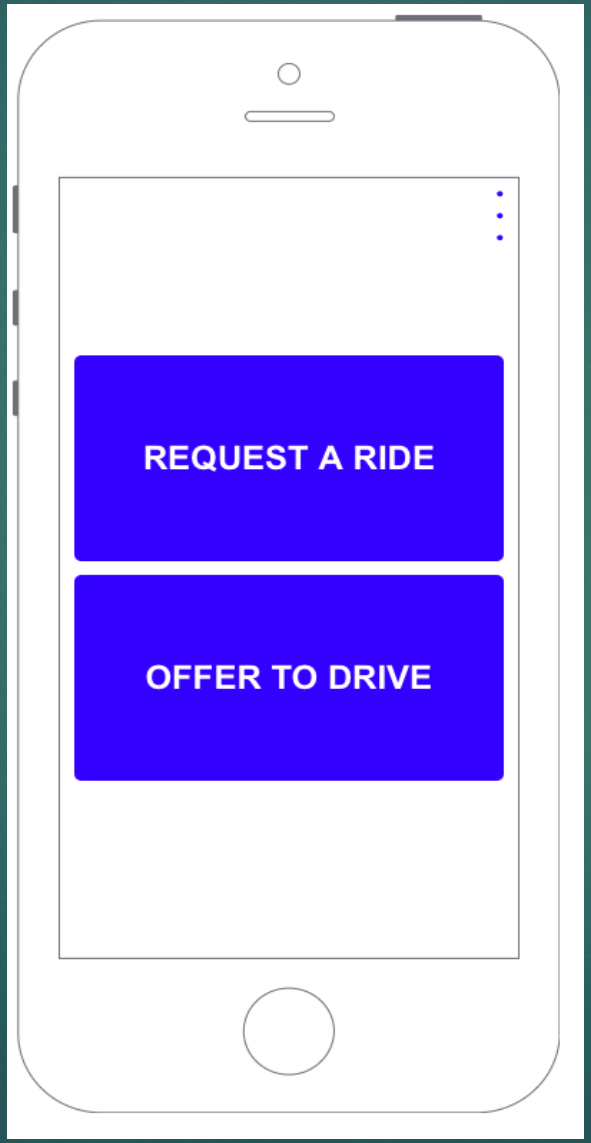
- Stand alone app with link to the current Commuter Connections app
- Must be registered with Commuter Connections to use app
- Initial two functions include that of a driver and rider
- Drivers will need to provide some additional information for identification and security reasons
- Map and list views will be available in both functions

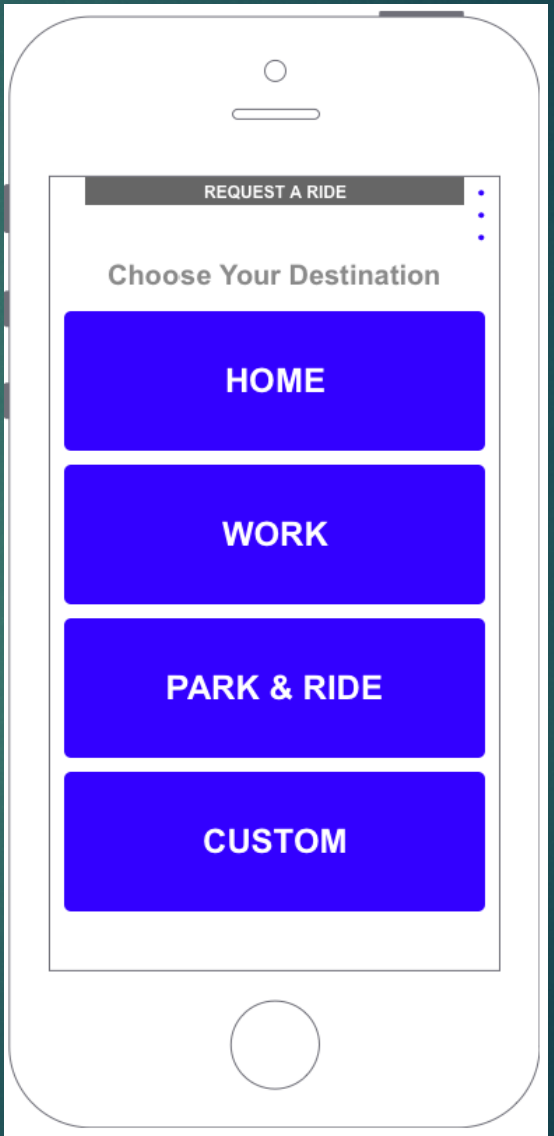
Draft Workflow Diagram



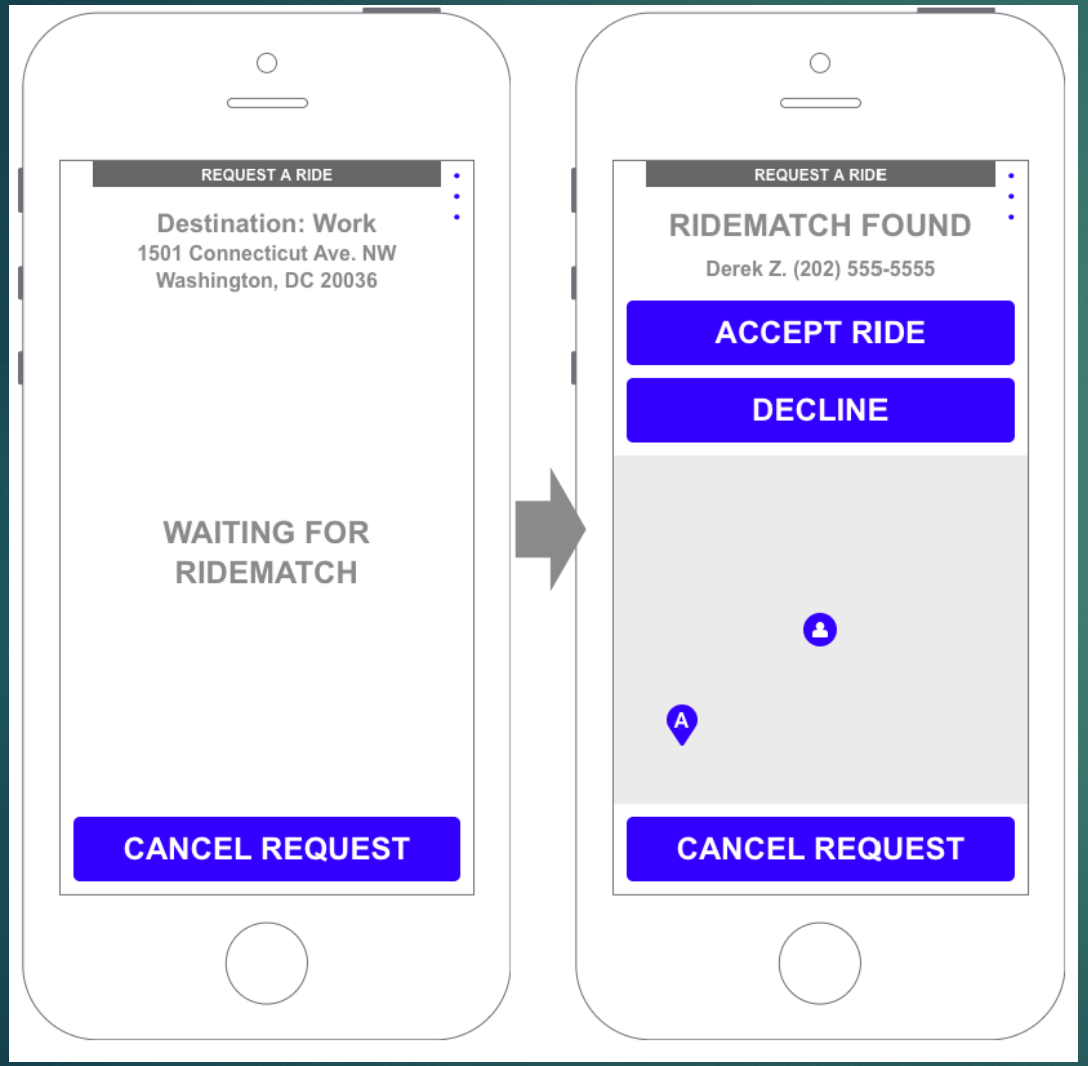
Wireframes

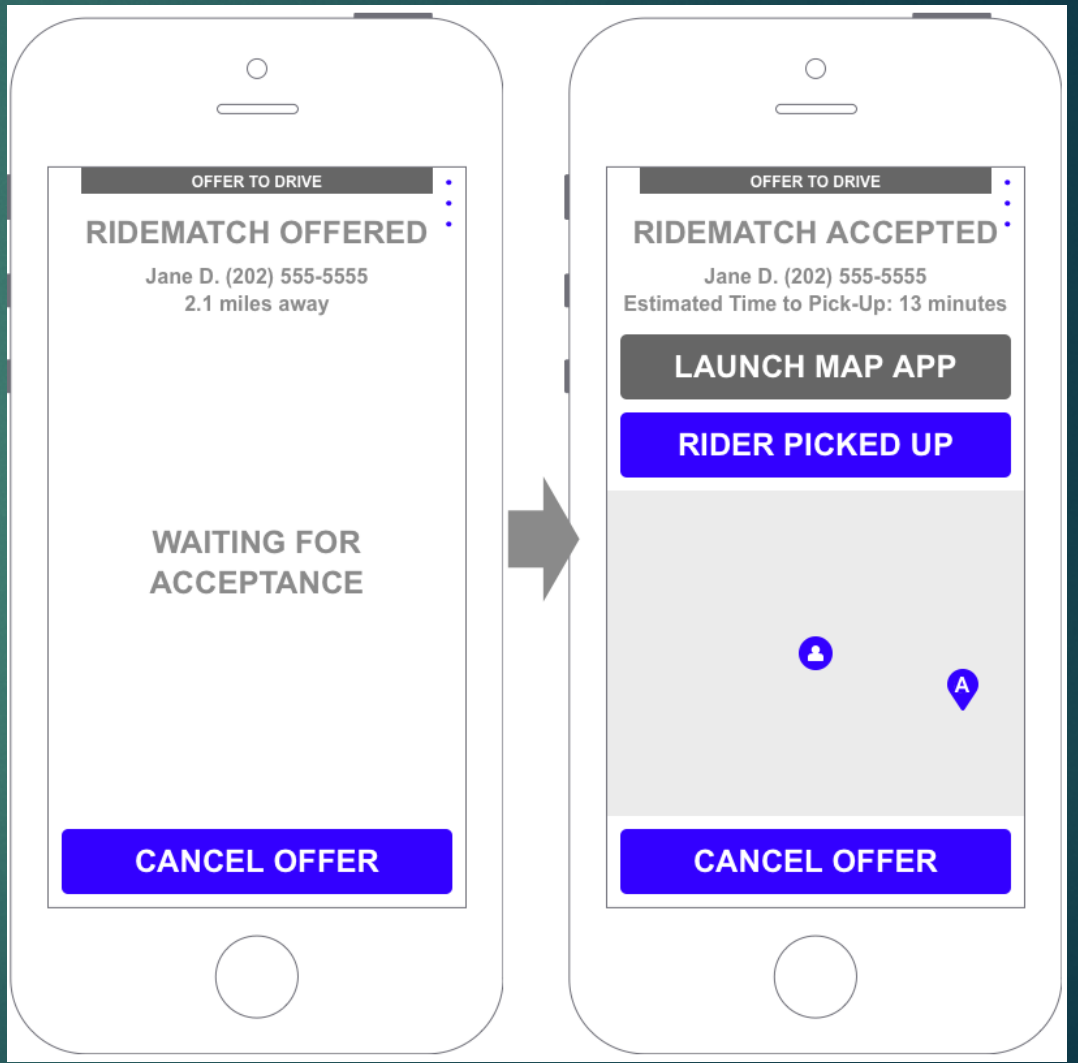

logo / branding
Username
Password
LOG IN
Create an Account • Learn More
Commuter Connections ad / launch app button
Forgot Your Username or Password?
Terms of Use and Privacy Policy


REQUEST A RIDE
OFFER TO DRIVE

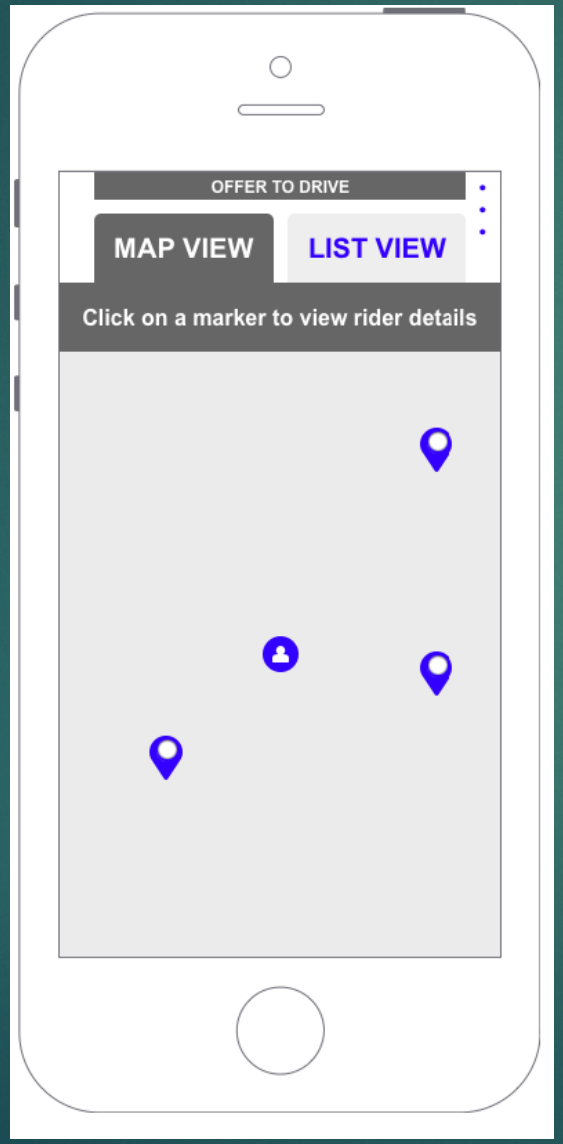

REQUEST A RIDE
Choose Your Destination
HOME
WORK
PARK & RIDE
CUSTOM

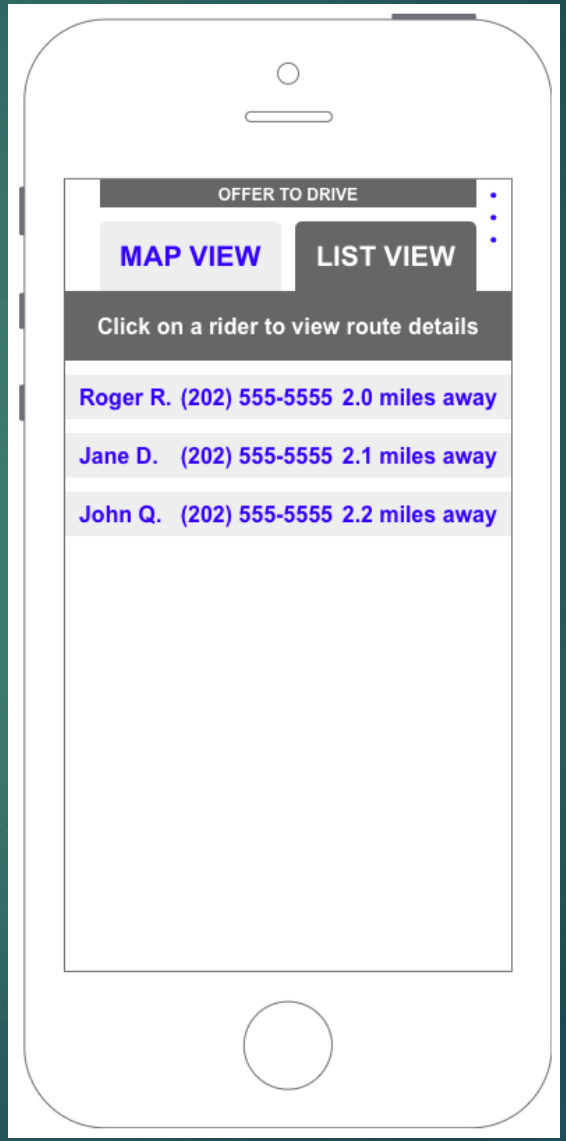
Wireframes


REQUEST A RIDE
Destination: Work
1501 Connecticut Ave. NW
Washington, DC 20036
WAITING FOR RIDEMATCH
CANCEL REQUEST
REQUEST A RIDE
RIDEMATCH FOUND
Derek Z. (202) 555-5555
ACCEPT RIDE
DECLINE
A
CANCEL REQUEST

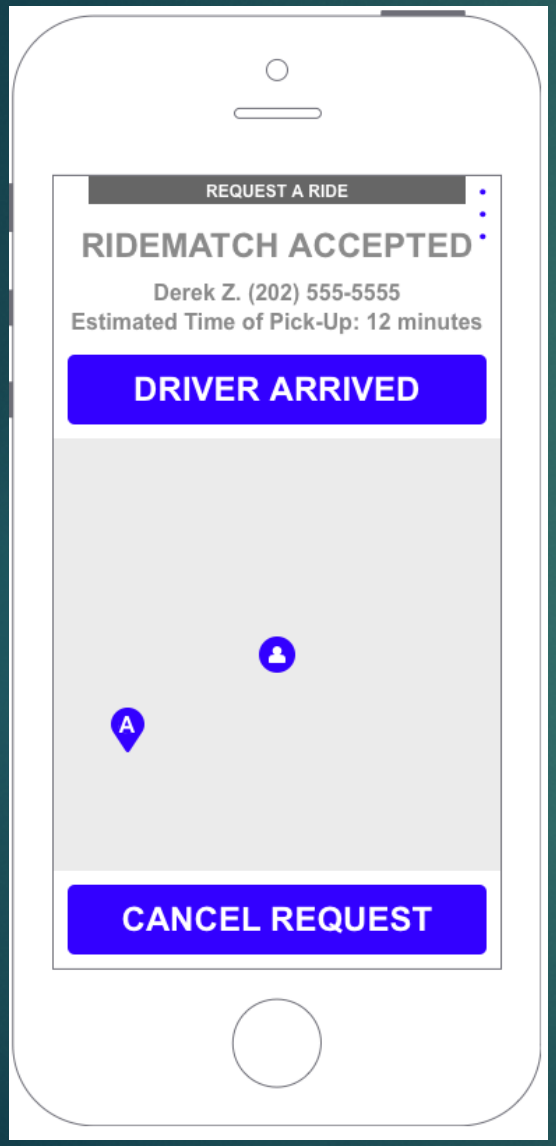

OFFER TO DRIVE
RIDEMATCH OFFERED
Jane D. (202) 555-5555
2.1 miles away
WAITING FOR ACCEPTANCE
CANCEL OFFER
OFFER TO DRIVE
RIDEMATCH ACCEPTED
Jane D. (202) 555-5555
Estimated Time to Pick-Up: 13 minutes
LAUNCH MAP APP
RIDER PICKED UP
A
CANCEL OFFER

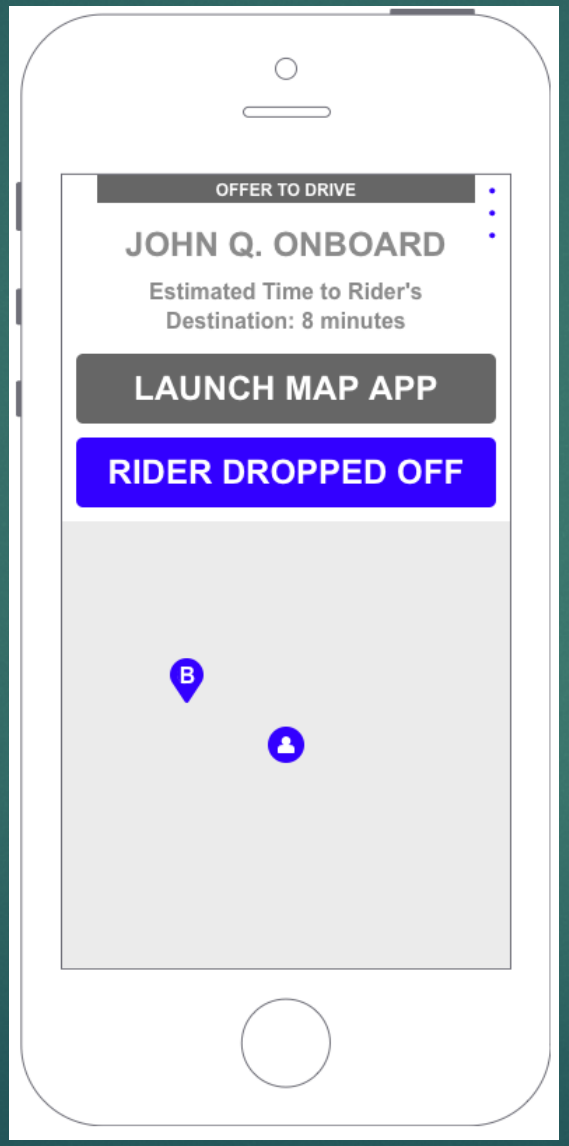
Wireframes

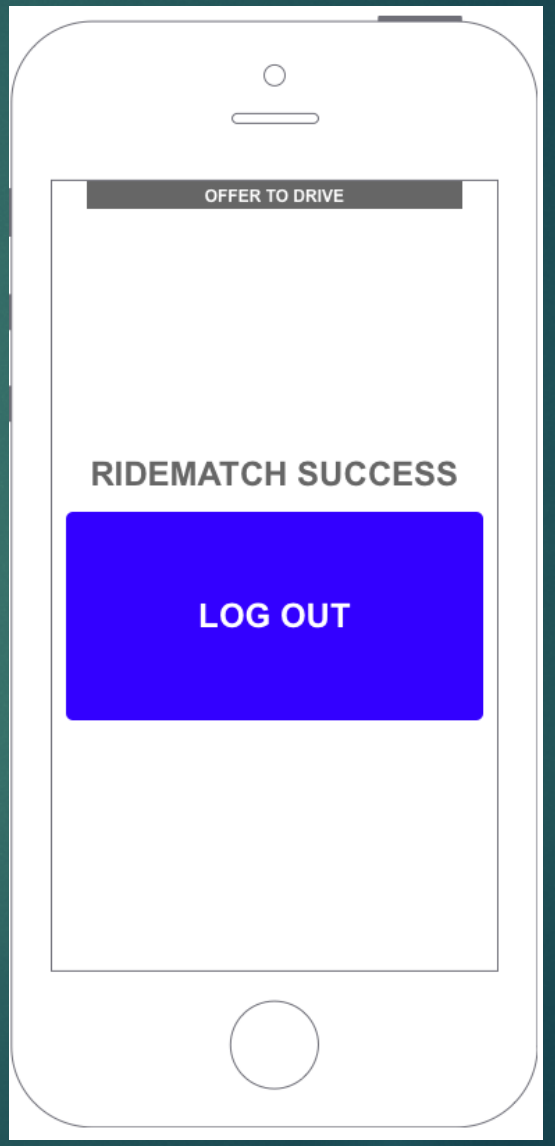

OFFER TO DRIVE
MAP VIEW
LIST VIEW
Click on a marker to view rider details


OFFER TO DRIVE
MAP VIEW
LIST VIEW
Click on a rider to view route details
Roger R. (202) 555-5555 2.0 miles away
Jane D. (202) 555-5555 2.1 miles away
John Q. (202) 555-5555 2.2 miles away

Wireframes


REQUEST A RIDE
RIDEMATCH ACCEPTED
Derek Z. (202) 555-5555
Estimated Time of Pick-Up: 12 minutes
DRIVER ARRIVED
A
CANCEL REQUEST


OFFER TO DRIVE
JOHN Q. ONBOARD
Estimated Time to Rider's Destination: 8 minutes
LAUNCH MAP APP
RIDER DROPPED OFF
B


OFFER TO DRIVE
RIDEMATCH SUCCESS
LOG OUT

Possible Options for the Future

- Link to Google Transit
- Link to Commuter Connections mobile logging function
- Addition of flex time incentive function
- Collaboration with University of Maryland supported Mobility App

Integrated, Personalized, REal-time Traveler Information and Incentive

Sponsored By:

U.S. DEPARTMENT OF ENERGY

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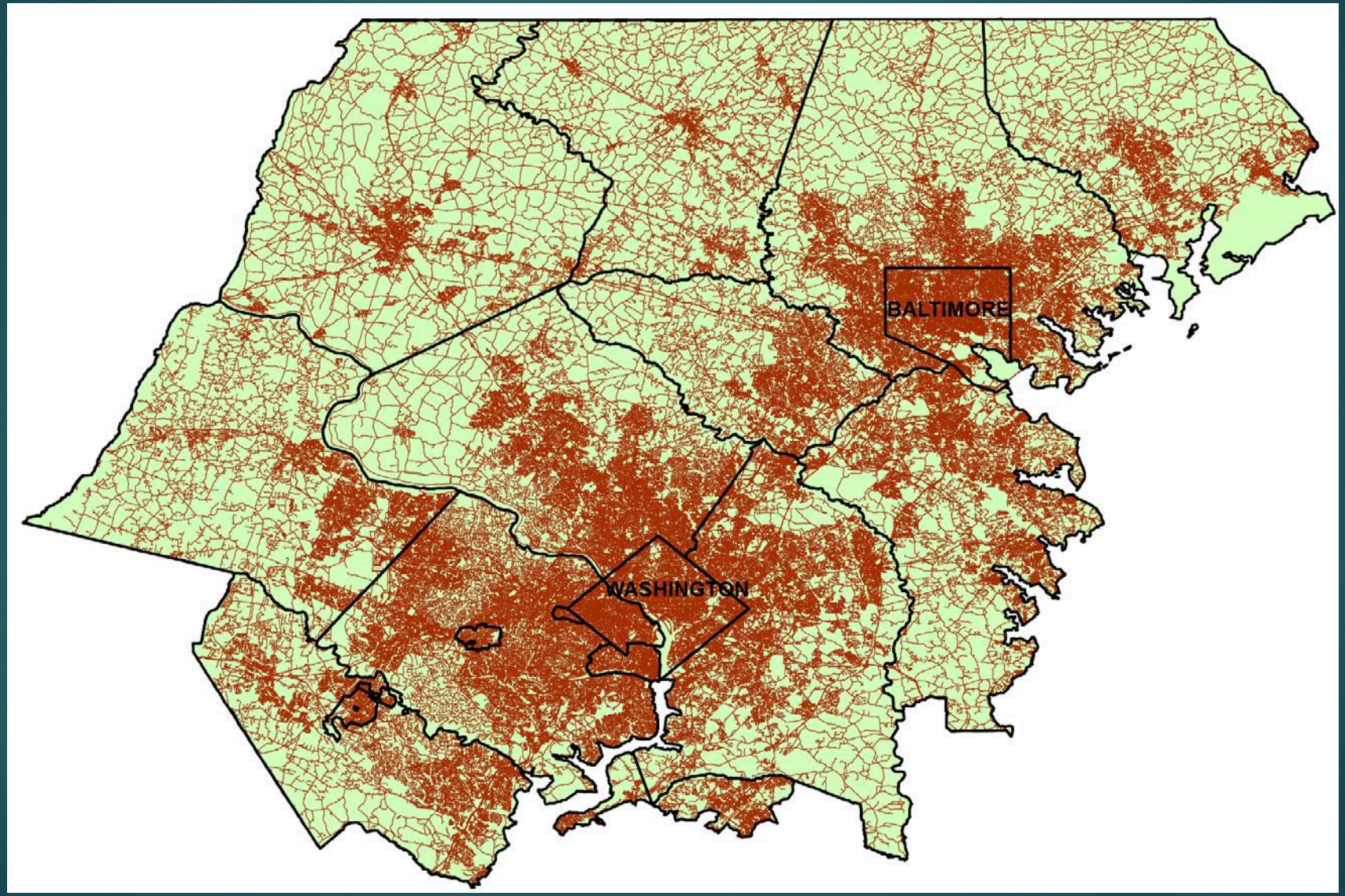
Project Objectives

- **Develop the System Model (SM) and Control Architecture (CA)** that can evaluate and optimize the effectiveness of personalized information and incentives in reducing transportation energy use
- **Conduct extensive behavior research** to design effective personalized incentives
- **Quantify potential energy savings** in the DC-Baltimore region through comprehensive simulation-based sensitivity analyses in the DC-Baltimore region
- **Demonstrate that the SM and CA can be implemented in the real world** with existing technologies or identify any technology gaps through field tests
- **Engage public and private sector partners** in technology development and commercialization

Study Area

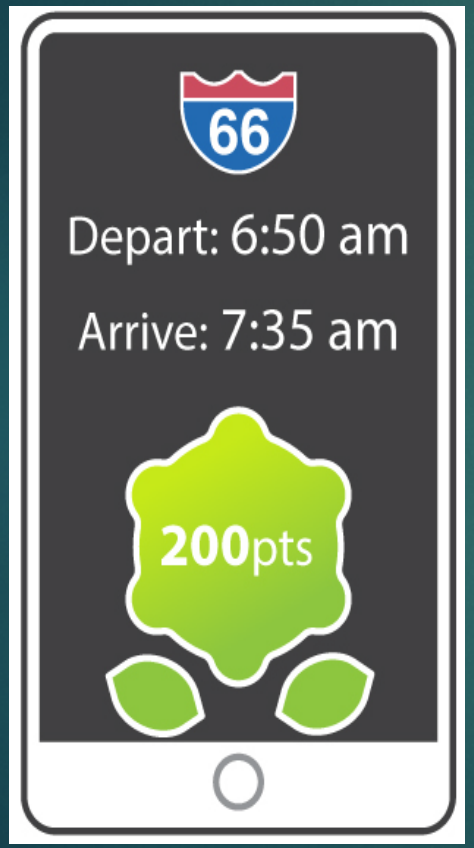


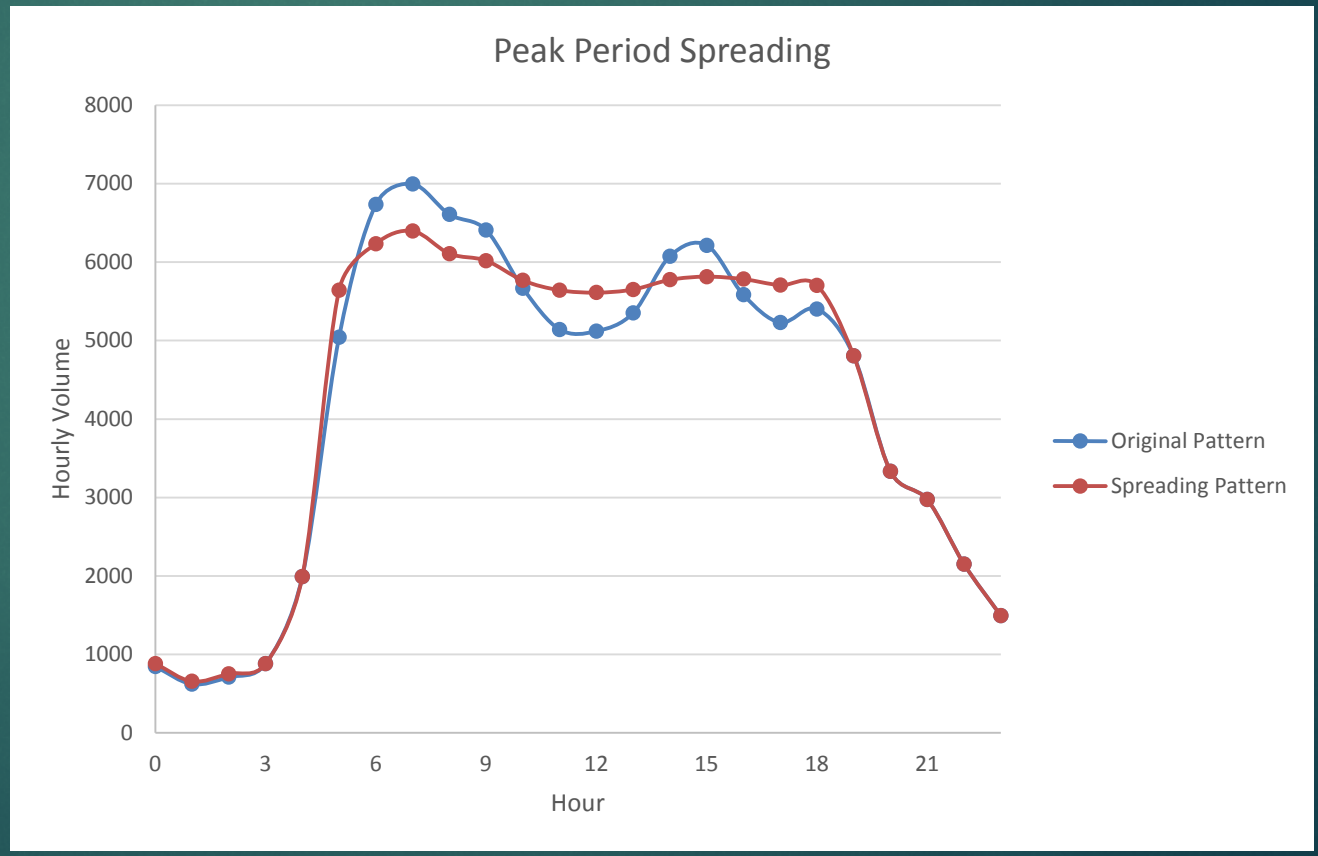
Choices to Be Influenced

- **Modal shifts to transit and ride share** Increase vehicle occupancy and reduce energy use. Modes include Bus, Light/Metro/Commuter rail, Ride hailing/share, Personal vehicles.
- **Departure time choice** Help iPretii users avoid congested periods on trips with flexible arrival time windows, and reduce peak-period demand and congestion for all travelers.
- **Pre-trip route choice** Guide users to routes with less energy use before departure, and also reduce congestion and energy use on routes already congested for all travelers.
- **En-route diversion choice** Guide users to routes with less energy use during their trips, and also reduce congestion and energy use on routes already congested for all travelers.
- **Driving style choices** Incentivize users to practice eco-driving to reduce energy use.

Departure Time Choice

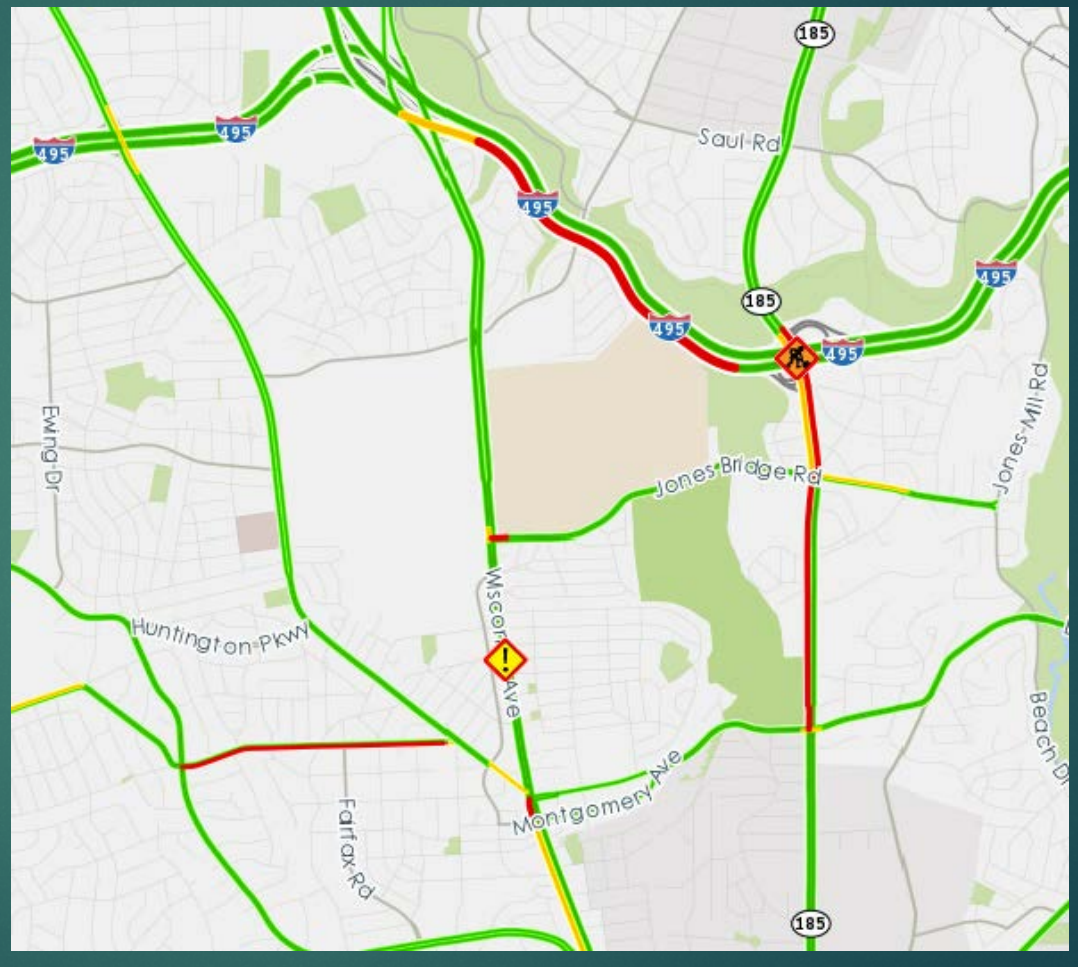
- **Benefit of Peak Period Spreading**
  - **3-5% shift in peak period demand can create significant impacts**





En-Route Diversion Choice

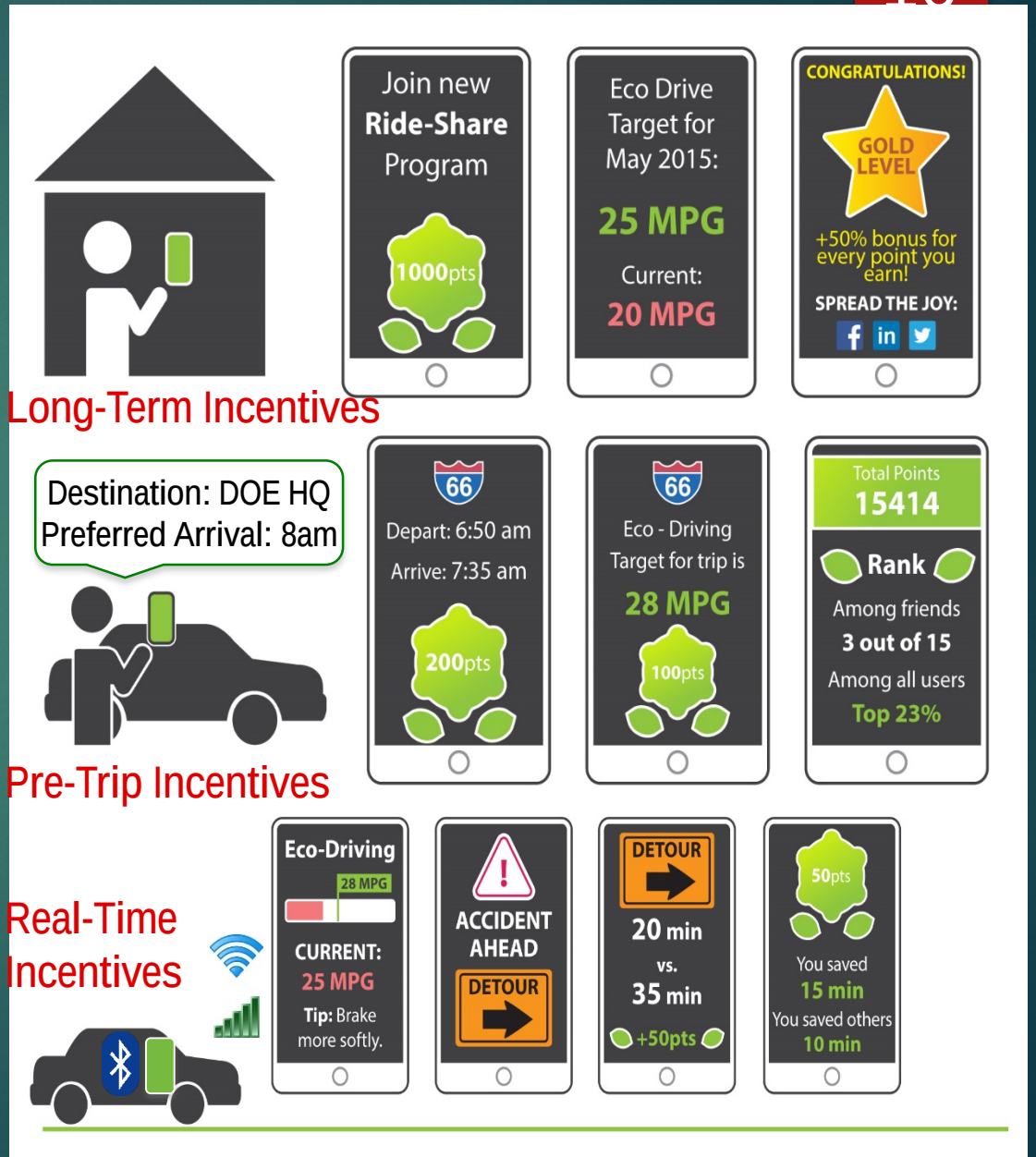
- Real-Time Event Alerts



Incentive Structure

- Personalized information
- Customized incentives
- Loyalty program
- Gaming
- Social networking
- Peer influence

App Demo



Questions ?

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