

AGENDA

Mobility on Demand (MOD) Working Group Meeting at NCTCOG

4/16/2018 2:00 pm – 3:30 pm

NCTCOG William J. Pitstick Executive Board Room

616 Six Flags Drive, CenterPoint II, Arlington, TX 76011

2:00 pm Welcome and Introductions (Sarah Chadderdon - NCTCOG)

2:05 pm Mobility on Demand (MOD) Program Update (Jing Xu - NCTCOG)

2:10 pm Arlington/Via On Demand Transportation Partnership (Alicia Winkelblech - City of Arlington)

2:30 pm Mobility Challenges and Opportunity in Mesquite (Valerie Bradley - City of Mesquite)

2:45 pm DART MOD Sandbox Project Update (Ralph Zaragoza - DART)

3:05 pm DCTA MOD Initiatives Update (Jonah Katz - DCTA)

3:15 pm Waze Carpool Program Introduction (Flavia Sasaki Siqueira - Waze Carpool)

3:20 pm Q&A, Discussion and Future Topics (All)

Mobility on Demand (MOD) Working Group
April 16, 2018
North Central Texas Council of Governments (NCTCOG)
William J. Pitstick Executive Board Room

1. Meeting Summary
 - a. Welcome & Introductions
 - b. Mobility on Demand (MOD) Program Update
 - c. Arlington/Via On Demand Transportation Partnership
 - d. Mobility Challenges and Opportunity in Mesquite
 - e. DART MOD Sandbox Project Update
 - f. DCTA MOD Initiatives Update
 - g. Waze Carpool Program Introduction
 - h. Future Topics
2. Attendee List

1. Meeting Summary

a. Welcome

Sarah Chadderdon from NCTCOG welcomed and thanked everyone for attending the meeting. All attendees gave brief introductions as well.

b. Mobility on Demand (MOD) Program Update

Jing Xu gave a brief update on the MOD Program key components as a summary of the Shared Mobility Summit she attended in March in Chicago:

- Sandbox Program – first launched in October 2016 and DART was one of eleven recipients of federal funds to explore MOD models. A second round of funding is expected in late 2019 or 2020, but an official announcement has not yet been made.
- Innovation & Knowledge Accelerator Initiative – A partnership between FTA and the Shared Use Mobility Center (SUMC) to support successful implementation of MOD projects with a focus on the sandbox projects. They have identified two main types of projects: trip planning and service implementation. The trip planning type of the sandbox projects have been generally experiencing technical challenges and going through their API agreements with plans of beta releasing soon. The service implementation type of sandbox projects are slightly delayed in service launch timeline due to challenges during the partnership building process.
- On-Ramp Program – This is another partnership between FTA and SUMC to provide 12-month technical assistance for up to six promising, but not fully-baked MOD ideas. NCTCOG promoted the RFP to all transit providers in the region and facilitated discussion and potential cooperation at the regional level. DCTA and Trinity Metro both submitted applications.
- Foundational Research – The USDOT and FTA partner with academia and stakeholders on enabling smarter, more efficient, and safer mobility within a seamless multimodal transportation systems. Two recent publications related to MOD are list below:
 - [TCRP Report 195](#): Broadening Understanding of the Interplay Between Public Transit

- [TCRP Report 196](#): Private Transit: Existing Services and Emerging Directions
- Performance Metrics – an important tool of using industry benchmarks and performance indicators to measure the success of MOD projects. Based on FTA’s scope, the next steps include: 1) to develop a list of performance metrics for MOD project; 2) to conduct comprehensive individual evaluation of MOD sandbox projects. Researcher team at the University of California at Berkeley who partners with U.S. DOT on a relevant project suggested the MOD performance metrics should cover a broad range of topics including environmental metrics, financial metrics, legal issues, and so; and when applicable, performance metrics should be comparable to other transportation modes to make comparison across the transportation network possible.

c. Arlington/Via On Demand Transportation Partnership

Alicia Winkelblech, Assistant Director of Strategic Planning with the city of Arlington, gave an overview of their Public-Private Partnership with Via Rideshare to provide public transportation to a portion of Arlington. The city’s 1-year pilot with Via is the first of its kind and utilizes FTA funding to cover up to 65% of the capital and operating costs. This is a “turn-key” solution that included technology, vehicles, drivers, a local Via office, and a call-in number for individuals without a smartphone to schedule a ride. Wheelchair accessibility is provided by a dedicated, spare Handitran vehicle and trained driver. This service is cost effective at \$3/ride and competes well locally with Uber and Lyft. If a rider doesn’t have a credit card, cash can be used to purchase a pre-paid credit card at a local store. Lastly, this partnership includes data sharing that the city will use to inform future transit planning.

d. Mobility Challenges and Opportunity in Mesquite

Valerie Bradley, Managing Director of Community Services with the city of Mesquite, gave an overview of how the city is considering working with MOD providers. Currently, the city has partnerships with DART and STAR Transit to operate the Mesquite COMPASS and demand response service respectively. Ridership on the COMPASS has not met expectations over the last couple years. In 2017, the city worked with DART to develop a near-term and long-term public transit service plan for Mesquite. Part of the plan’s recommendations include utilizing MOD to:

- Relieve pressure form popular demand-response service
- Move residents within the city
- Contain operating costs
- Show “non-bureaucratic” thinking

Valerie identified some of the challenges for MOD in Mesquite including accommodating accessible ride requests and staffing.

e. DART MOD Sandbox Project Update

Ralph Zaragoza, Project Manager with DART, gave an update on DART’s MOD Sandbox Project. This project has three main components to its vision:

- Continuously improving the transportation experience
- Expanding the reach of public transportation

- Allowing access to all consumers

DART has completed three elements of the Sandbox project including journey planning, smart-switches to other apps (from DART GoPass to Uber), and payment API. Integrated trip planning allows riders to plan their trip and refine their search by mode. The updated GoPass app will allow riders to pay for fares with a credit card or with cash at a local convenience store. Once tickets are purchased and activated, they'll display the time remaining to use the pass.

DART's GoLink Pilot has expanded from the Legacy area in Plano to two other locations in Plano (Far North Plano, North Central Plano) and three in southern Dallas (Inland Port, Rylie, and Kleberg). This on-demand service uses the TapRide app for riders to schedule trips and request an accessible vehicle, if necessary. There is also a call-in option for riders that may not have access to smartphones. The call-in option is most popular in southern Dallas.

f. DCTA MOD Initiatives Update

Jonah Katz, Senior Planner with DCTA, gave a brief update on their MOD projects. DCTA staff recently submitted an application for the On Ramp proposal to develop a 3rd party payment system for public transit that would allow riders to travel anywhere and pay with any app. DCTA is considering using MOD to improve access to jobs from Denton neighborhoods. DCTA will be taking ideas for public comment soon. Collin County Transit Programs include the city of Frisco and the McKinney Urban Transit District (UTD). The use of autonomous vehicles are being considered as well as additional Lyft programs to extend service in Frisco. Lastly, DCTA staff is working with the Texas A&M Transportation Institute this summer to conduct an analysis on using MOD in suburban areas. This will be one of the first suburban shared mobility plans in the country.

g. Waze Carpool Program Introduction

Flavia Sasaki, Waze Carpool Business Manager for the Central Region, gave a brief overview of their new app. Waze Carpool connects drivers and riders that share a similar morning and evening commute. The app is optimized for people-first so riders can find the driver they're most comfortable with (e.g. a woman riding with another woman). Waze does not conduct background checks, rather they empower the rider to determine which driver will provide their requested ride. Waze Carpool wants to work with DFW employers to encourage ridesharing by tapping into existing platforms (like Facebook, blogs, Try Parking It, DART's vanpool, etc.). Waze Carpool has employer subsidies, incentives, and custom contests to help encourage employees to carpool.

h. Future Topics

The committee did not recommend topics for next quarter's meeting. The next meeting will focus on business/major employer's perspective, as planned.

2. Attendee List

City of Arlington: Alicia Winkelblech, Bob Johnson

City of Grand Prairie: Walter Shumac

City of McKinney: Anthony Cao

City of Mesquite: Valerie Bradley

Community Transit Services: Daniel Edwards, Sr.
Dallas Area Rapid Transit: Ralph Zaragoza
Denton County Transportation Authority: Jonah Katz, Lindsey Baker
Federal Transit Administration: Melissa Foreman
Irving Holdings: Jack Beverly
North Central Texas Council of Governments: Sarah Chadderdon, Jing Xu, Kelli Schlicher, Cody Nelson, Natalie Bettger, Tom Bamonte, Shannon Stevenson, Karina Maldonado, Travis Liska, Ying Cheng, Donald Parker, Caryn Sanders, Clint Hail
Span, Inc.: Deb Robertson
STAR Transit: Aaron Reese
Tarrant County: Russell Schaffner
Trinity Metro: Carla Forman, Phil Dupler
Uber Technologies: Leandre Johns
University of Texas at Arlington: Harya Dillon, David Weinrich
Waze Carpool: Flavia Sasaki



April 16, 2018

Via On-Demand Rideshare Arlington, TX

VISION

CONNECT ARLINGTON



VIA RIDESHARE

- **Public-Private Partnership for a 1 year pilot project**
- **Turn-key solution for \$922,500**
- **First city to use Rideshare as our public transportation solution**
- **Unique funding stream – 60-65% cost covered by FTA**
- **Service revenue used to grow project**
- **Comprehensive customer service and a local presence**
- **Data sharing to inform future transportation planning decisions**



VIA RIDESHARE

App-based system

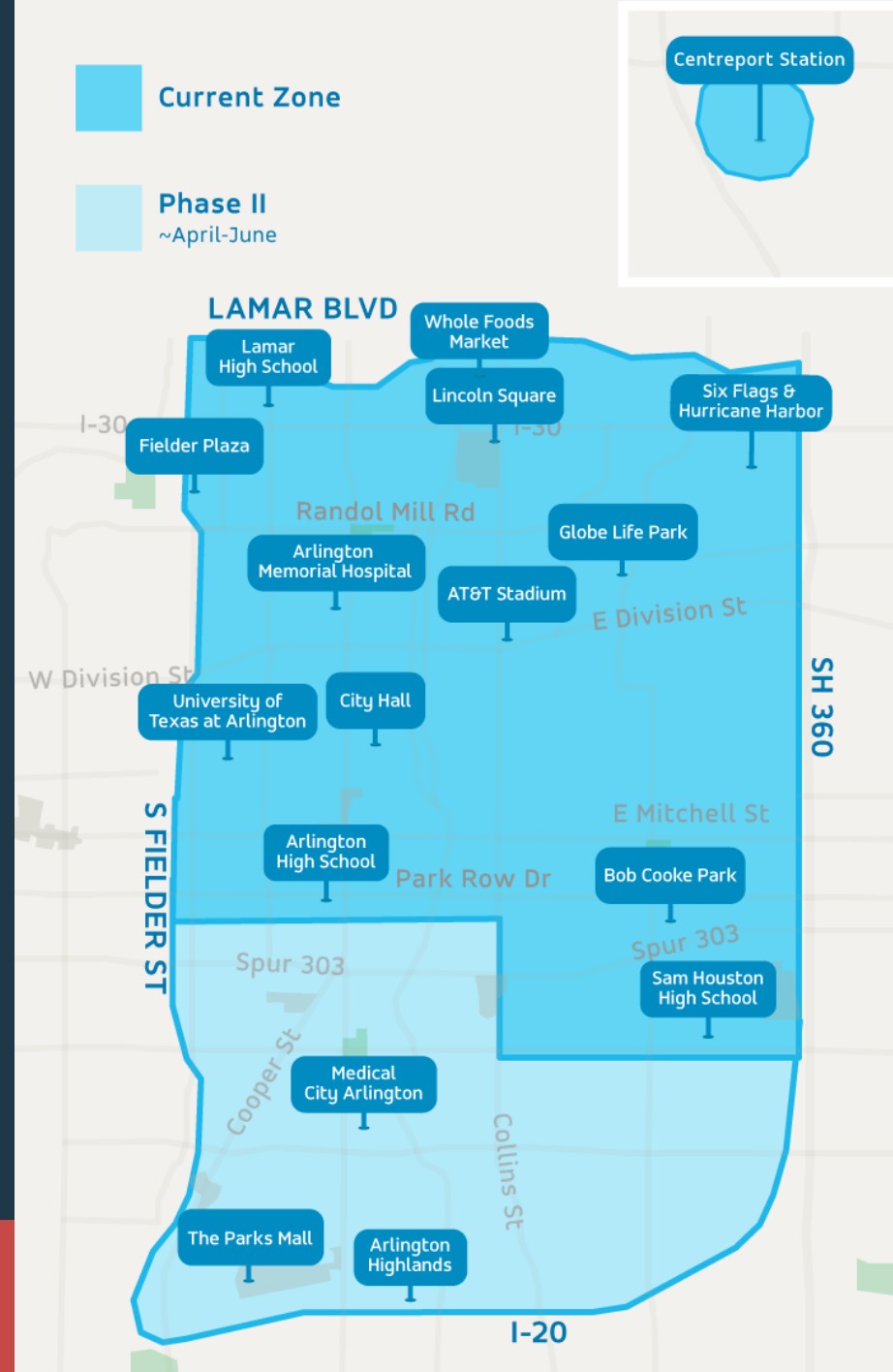
No fixed schedules or routes

On-demand pick-up/drop-off anywhere
in the service area (<12 min)

Monday-Friday: 6am-9pm

Saturday: 9am-9pm

\$3 per person per trip



VIA RIDESHARE

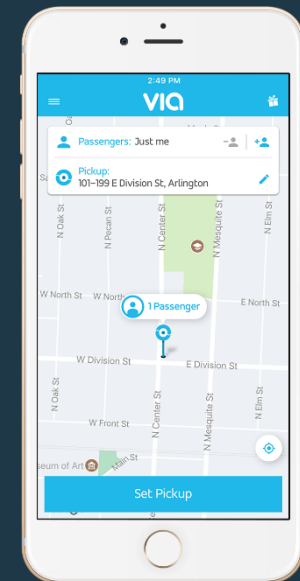
- Download the free Via app in the App Store or Google Play Store
- Choose “Via – affordable ride-sharing”
- Set up an account using your credit card
- If no credit card, use cash to purchase a pre-paid credit card at a local store
- If no smartphone, call Via to set-up an account at 817-784-7382



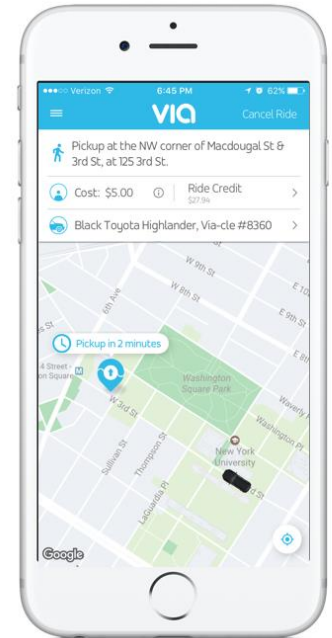
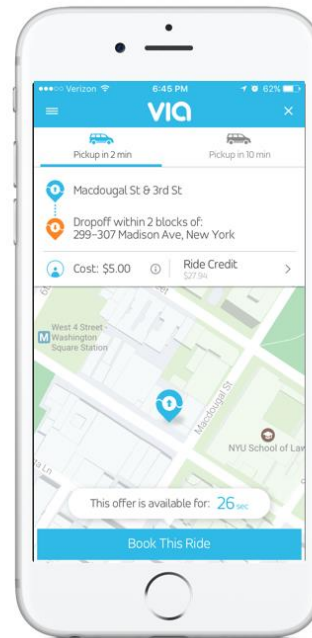
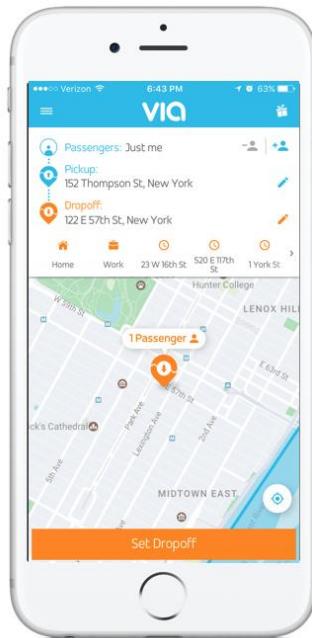
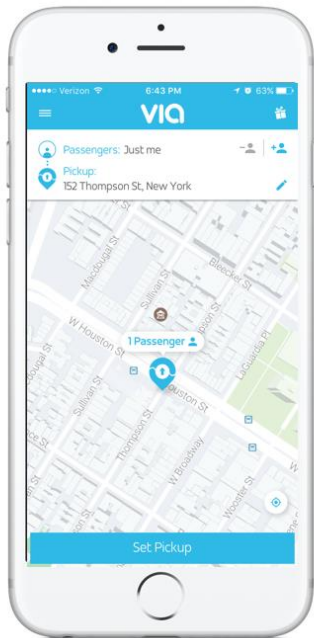
GET IT ON
Google Play



Download on the
App Store

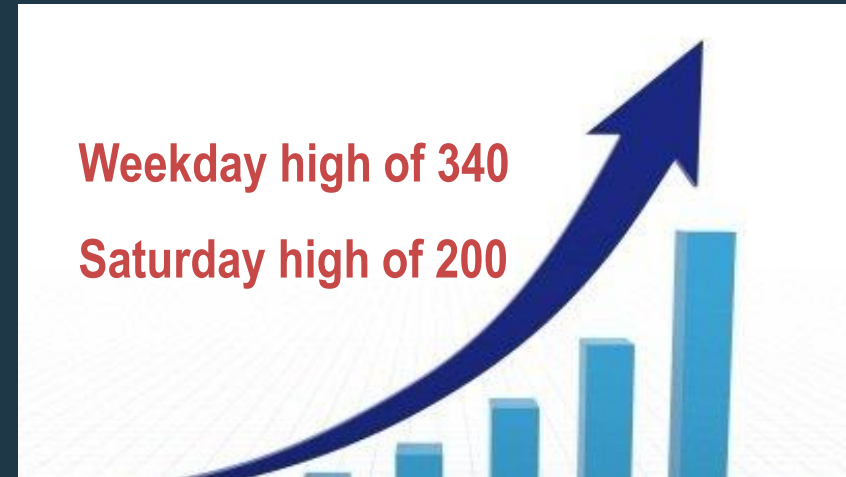
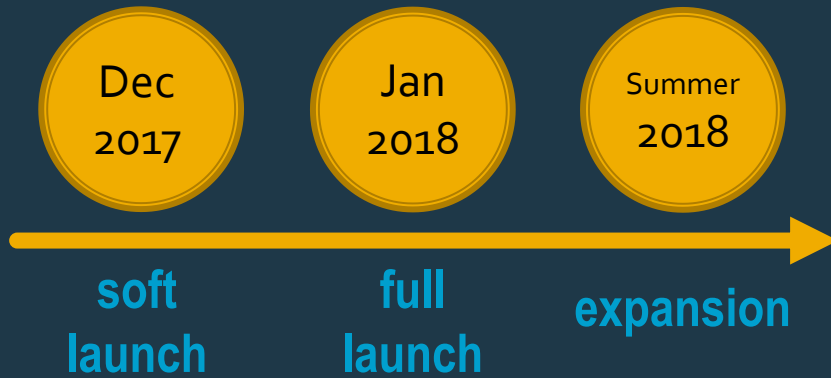


VIA RIDESHARE



VIA RIDESHARE

Ridership trending upwards



Significant regional and national attention

Customer Satisfaction of 97%





Comments/Questions

Alicia Winkelblech

Assistant Director, Strategic Planning

alicia.winkelblech@arlingtontx.gov

MOD Working Group Presentation

City of Mesquite

April 16, 2018

Valerie Bradley, Managing Director of Community Services

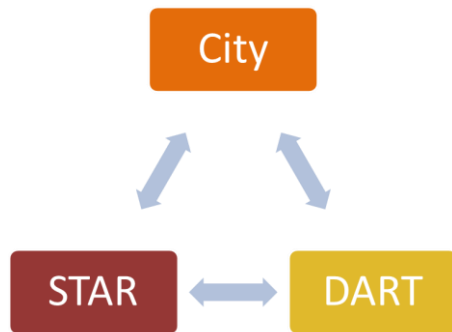
Current Public Transportation Services



4B \$385,000

(federal = \$175,000, state = \$75,000,
local = \$135,000)

- Federal match available



Demand-Response (former MTED)

General fund \$964,000

(federal = \$701,000, state = \$75,000,
local = \$188,000)

- No additional federal match available

COMPASS Service Reduction October 1, 2018

Current COMPASS Service

- \$385,000
- \$125,000 local
- Includes midday service

Reduce COMPASS Service

- \$270,000
- \$90,000 local
- Removes midday service
- Public Hearing Process

Discontinue COMPASS Service

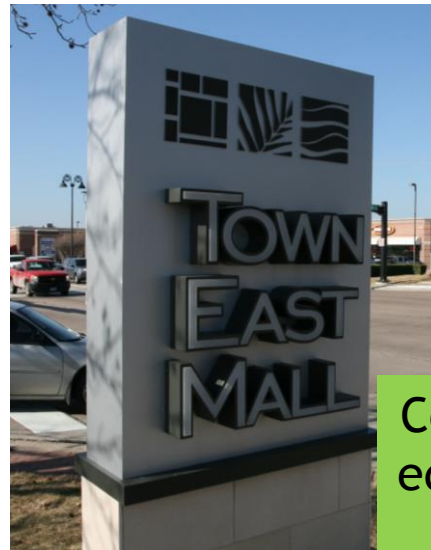
- (\$385,000)
- (\$125,000) local
- Public Hearing Process



Council Near-term Objectives of Fixed Route Service in Mesquite



Connection to Dallas



Connection to employment or education centers in Mesquite



Working on a *Multi-year Plan*

- ▶ Keep existing DRT service
- ▶ Move residents within the City
- ▶ Contain costs
- ▶ Utilize creative options

Council's Expectation

- ▶ Utilize MOD
 - ▶ Relieve pressure from popular DRT service
 - ▶ 40,000 trips per year
 - ▶ No more match grant available
 - ▶ To move people within Mesquite
 - ▶ Contain costs
 - ▶ Show “non-bureaucratic” thinking

Challenges Moving Forward

- ▶ **Staffing**

- ▶ Moved to outsourcing transportation

- ▶ **FTA will require a “hands-on” approach to contracting**

- ▶ Companies providing MOD not traditional public transportation providers

Questions?





Dallas Area Rapid Transit Mobility On Demand Sandbox Project

Mobility On Demand Working Group

April 16, 2018

Ralph Zaragoza, Project Manager
Dallas Area Rapid Transit



Agenda

SANDBOX Update

- Vision for Sandbox Shared Mobility
- Current Status of Technology Improvements
- GoLink Sandbox Pilot Results

SANDBOX Optional Topics

- Sandbox as an expansion platform
- Building a regional roadmap
- Examples investment themes
- Detailed example of a theme
- Budget Options for Expansion
- How do we move forward



A photograph of a city street featuring a yellow tram. The tram is positioned in the center of the frame, moving towards the viewer. The street is paved with cobblestones and has tram tracks. In the background, there are several modern buildings with glass facades. A sign on one of the buildings reads "1505" and "214-871-1905". A street sign on the left side of the image reads "Akard St. 1000 ft". The text "LEDGETTER" is visible on the front of the tram, and the number "171" is on the side. The entire image has a yellowish tint and a semi-transparent orange box overlaid in the center containing the text.

The Sandbox Mobility Vision

CONTINUOUSLY IMPROVE THE TRANSPORTATION EXPERIENCE

A seamless and user-friendly solution for public and third party mobility transport options with a one-touch payment solution.

GOALS

- + Increase number of riders
- + Increase frequency of rides per user
- + Increase revenue per ride
- + Increase customer satisfaction
- + Engage directly with customers via GoPass++

EXPAND THE REACH OF PUBLIC TRANSPORT

Lower the cost and expand the reach of public transportation to provide high quality, first and/or last mile services.

GOALS

- + New riders from previously unserved areas
- + Lower trip costs compared to existing alternatives
- + Simple and quick integration of new first/ last mile solutions
- + Fast ramp-up of services in new service corridors

ACCESS TO ALL CONSUMERS

Integrate equitable MOD solutions including comparable access for the unbanked, disabled, low income, smartphone challenged customers and typically non-transit customers.

GOALS

- + Improved the Corporate Social Responsibility
- + Increase number of riders from target groups
- + Increase frequency of rides per user
- + Increase off-peak trips

A photograph of a city street featuring a yellow tram. The tram is positioned in the center of the frame, moving towards the viewer. The street is paved with cobblestones and has tram tracks. In the background, there are several modern buildings with glass facades. A sign on one of the buildings reads "1505". The tram has "LEDGETTER" written on its front and the number "171" on its side. A text overlay in the center of the image reads "Current Status of Our Project".

Current Status of Our Project

DART SANDBOX

Completed Elements

JOURNEY PLANNING

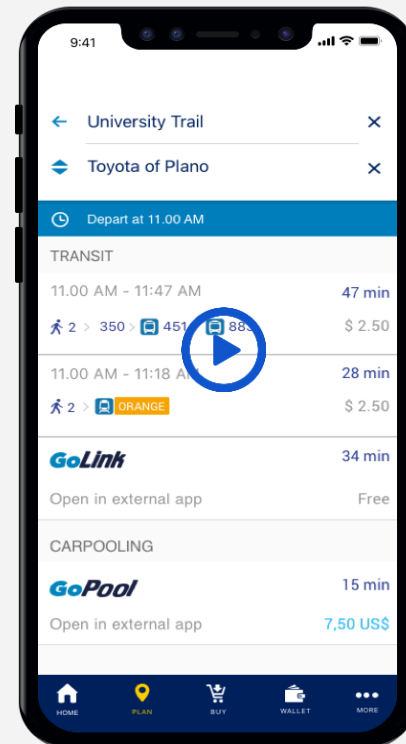
- Offering on demand services, GoPool, GoLink and MoBike, as alternatives to public transport where available
- DART ticketing platform integrated to SpareLabs and DoubleMap for real-time offers

APP SMART-SWITCH

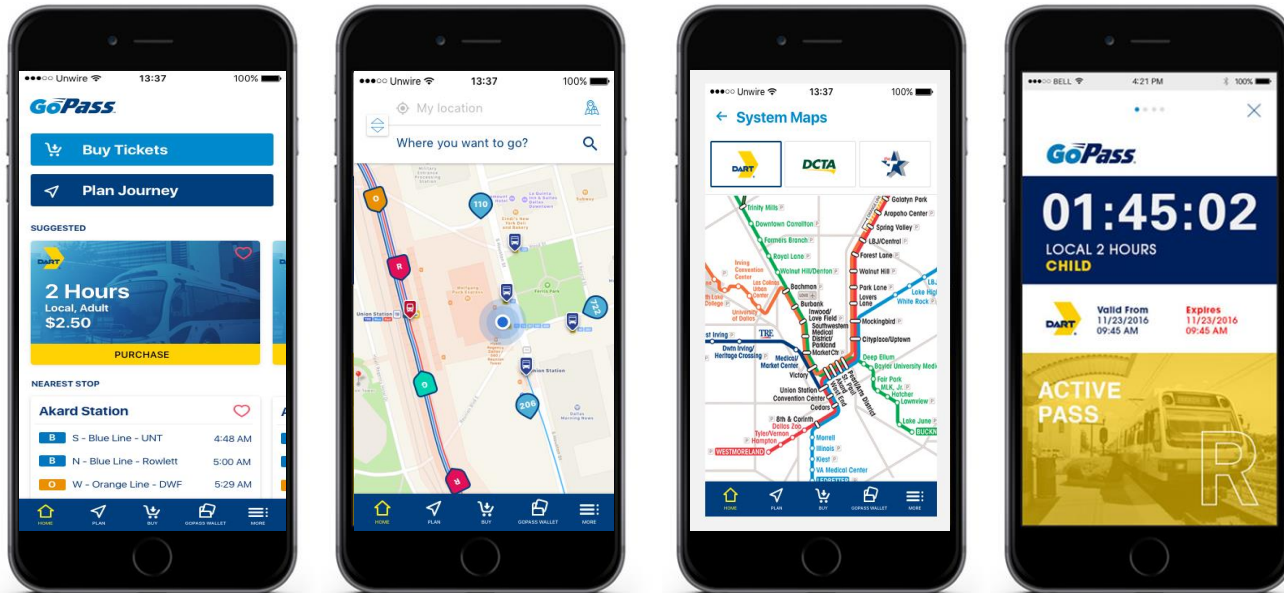
- Deep links to GoPool, GoLink (and MoBike) from GoPass
- Using meta-data from GoPass to deep link into other apps

PAYMENT API

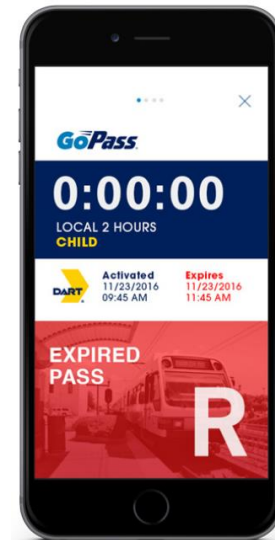
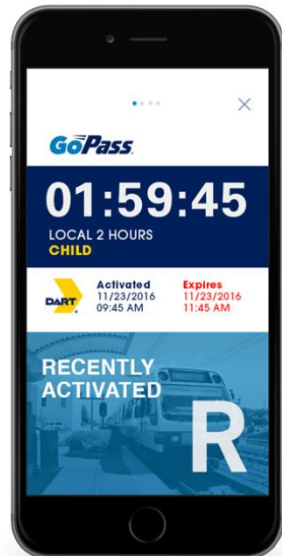
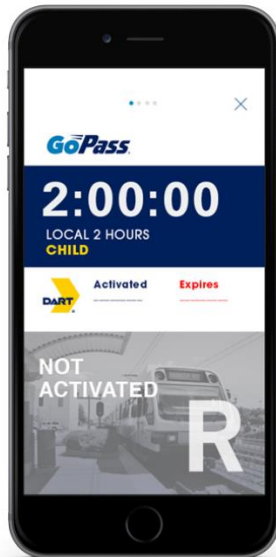
- User's GoPass wallet available as a payment instrument to 3rd party apps



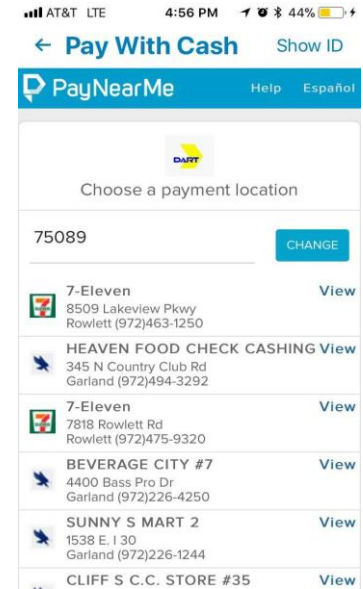
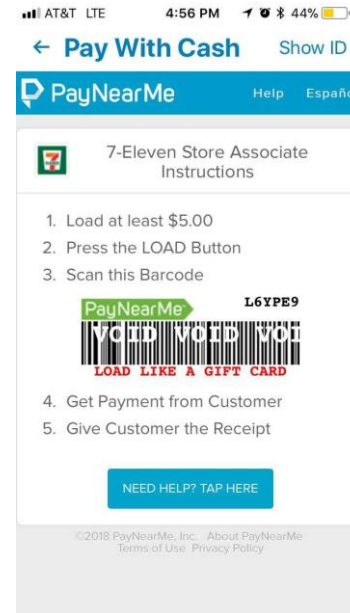
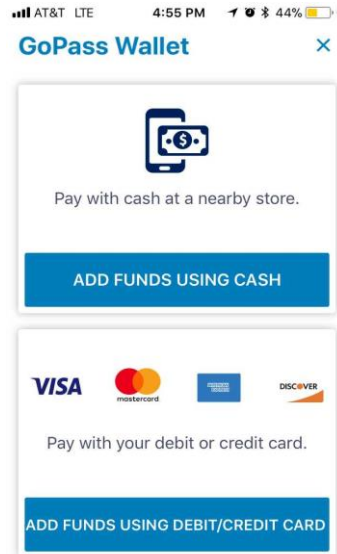
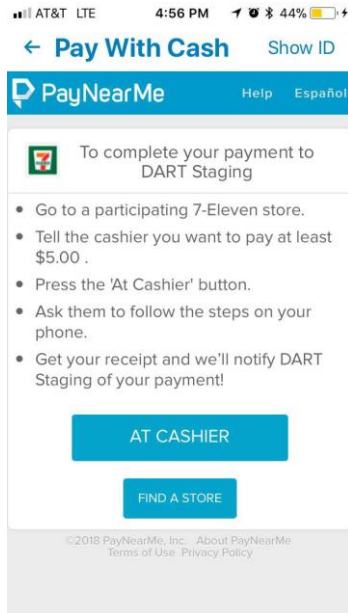
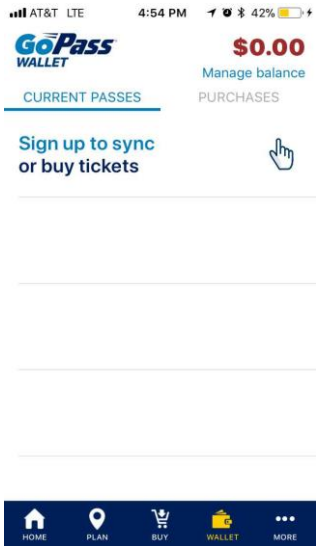
GoPass 2.0 "New Look"



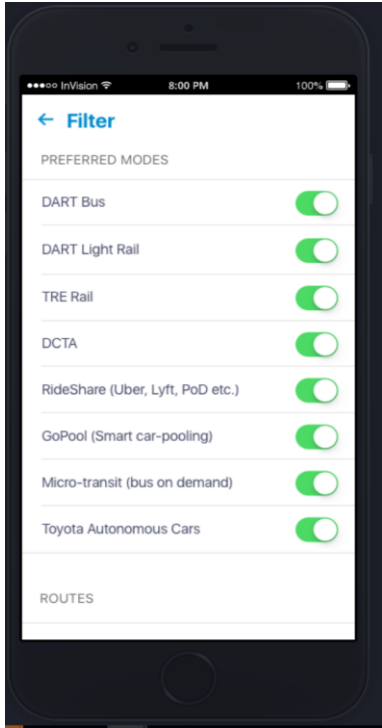
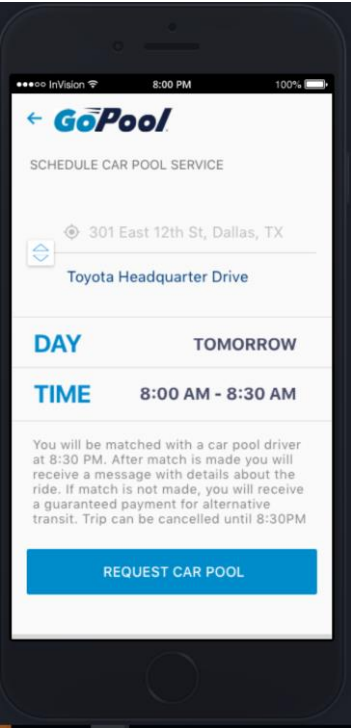
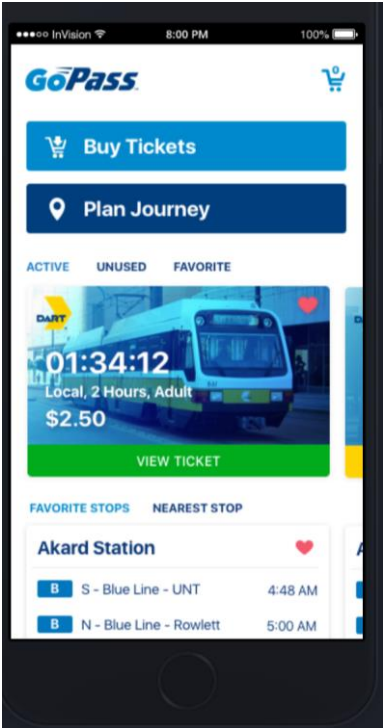
GoPass 2.0 Tickets Samples



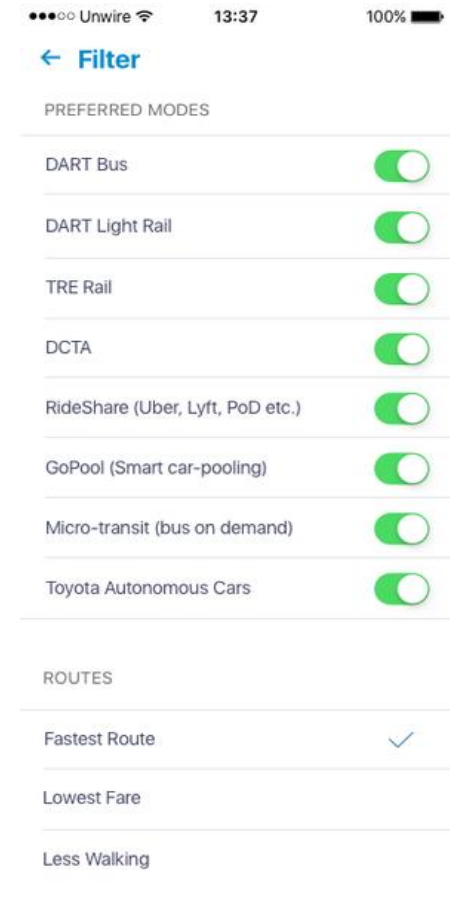
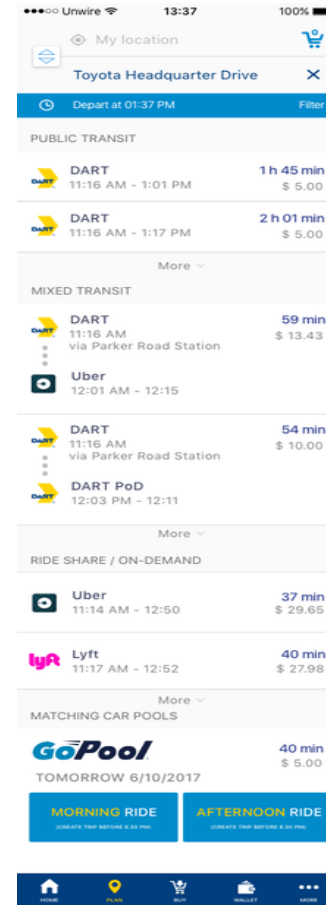
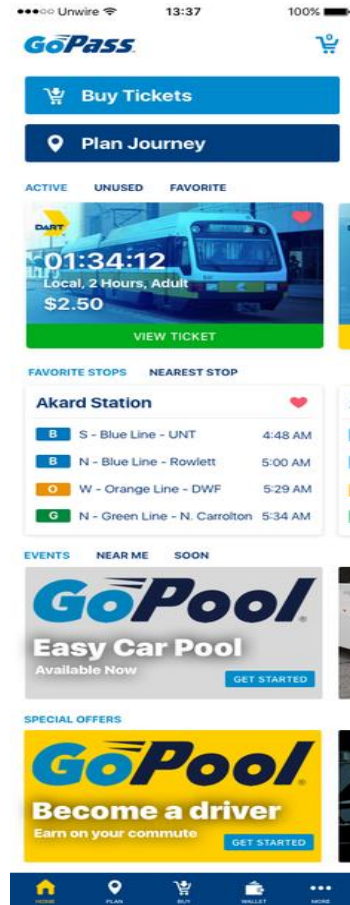
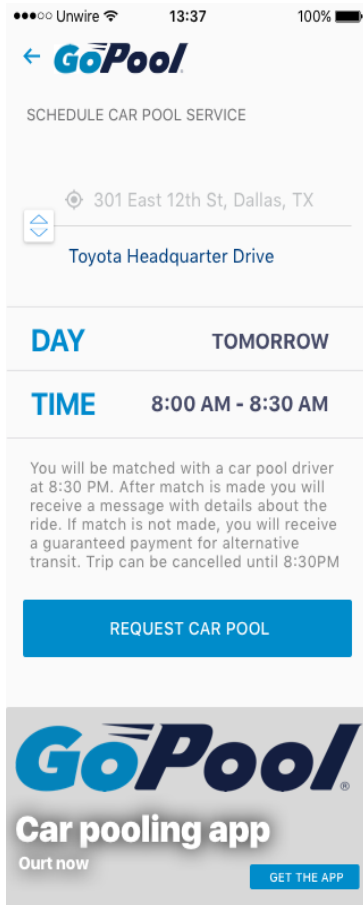
Retail Network Cash to Mobile



Integrated Ticketing and Payment



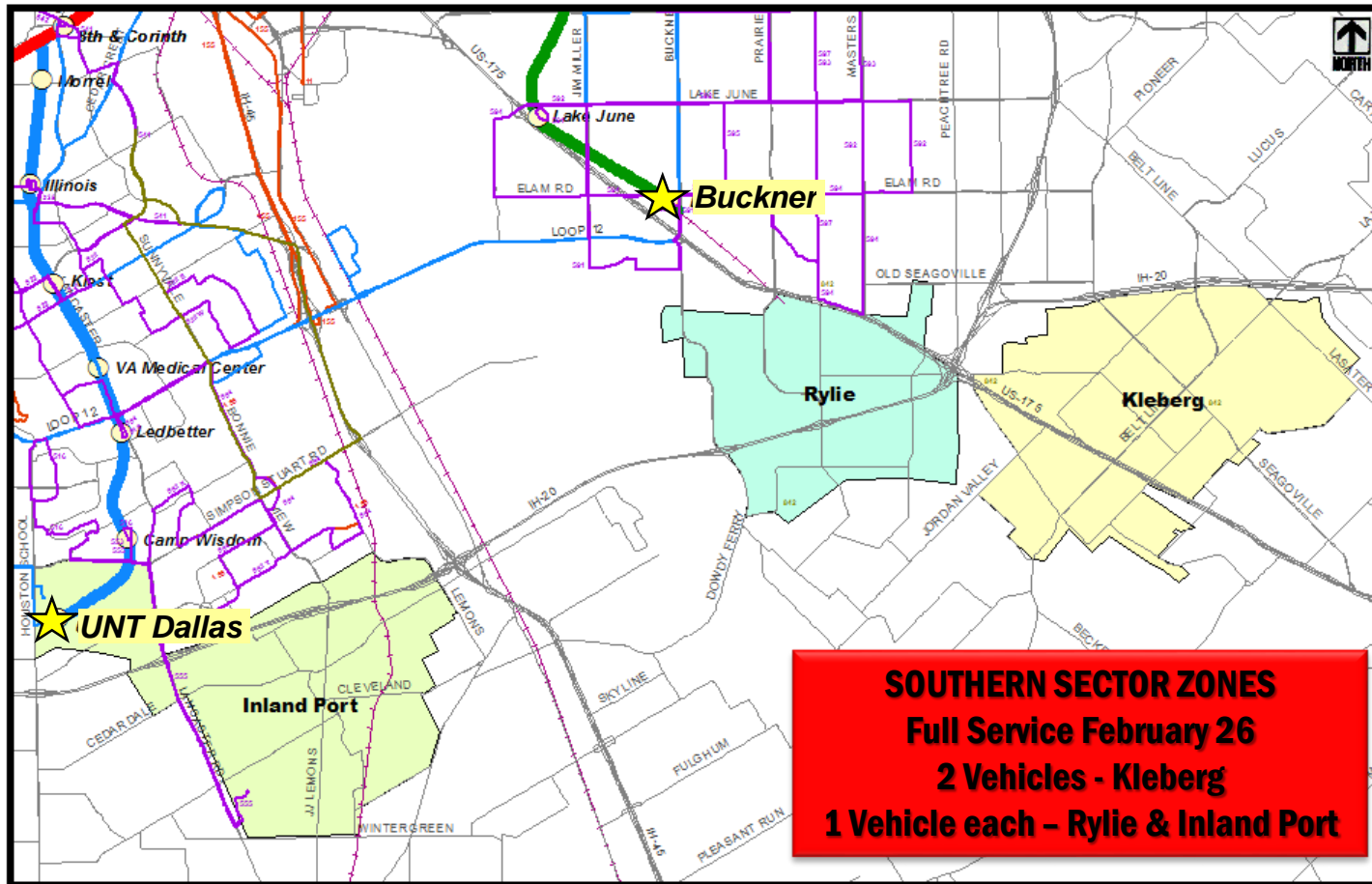
Integrate Trip Planning



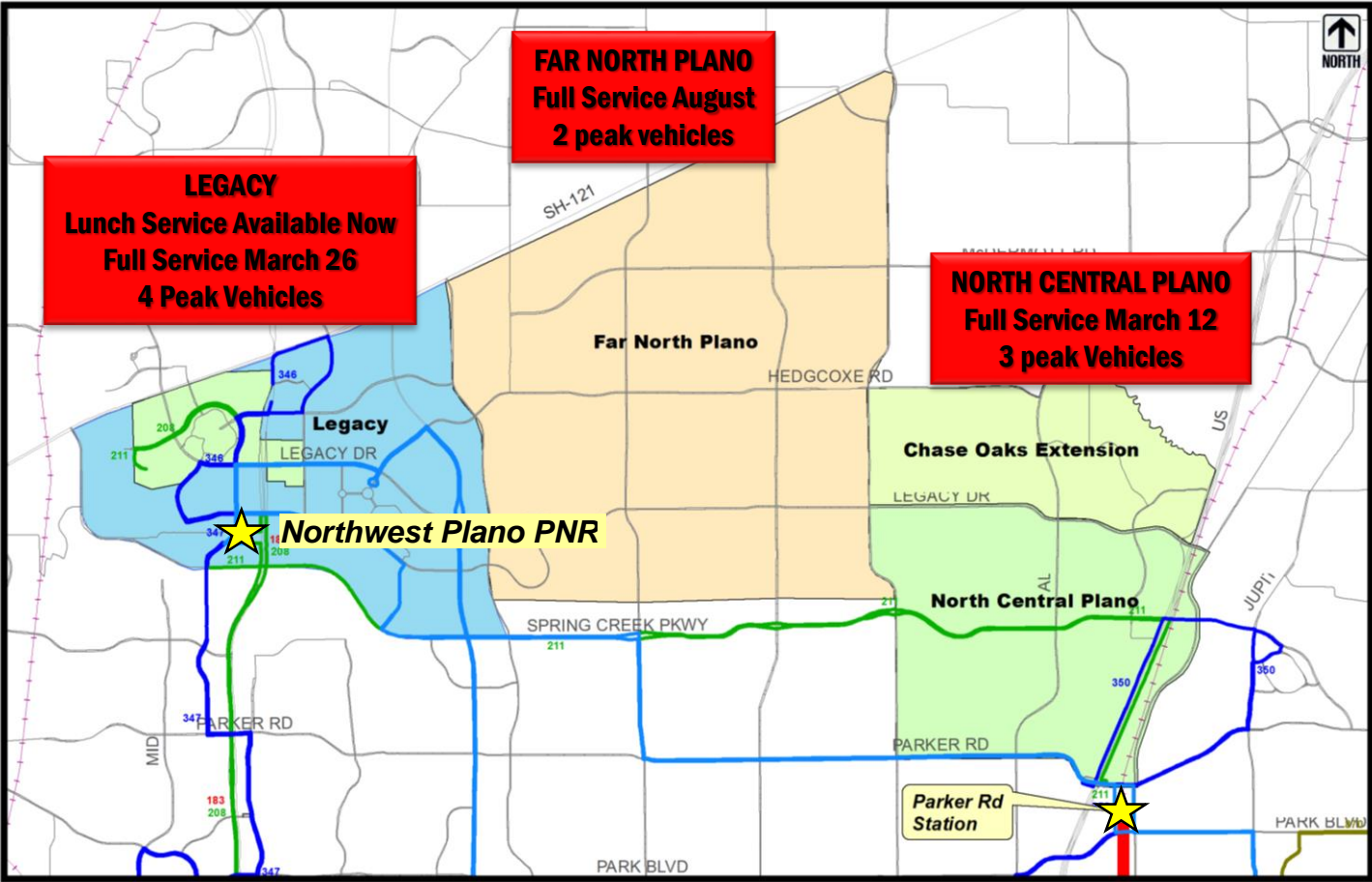
A photograph of a city street featuring a yellow and white tram. The tram is positioned in the center of the frame, moving towards the viewer. It has "LEDGETTER" displayed on its front destination sign and the number "171" on its side. The tram is on a street with visible tracks. In the background, there are several modern buildings with glass facades. One building has a large sign that says "1505" and "214-871-1905". Another building has a sign that says "PUBLIC MARKET". On the left side of the street, there is a street sign that says "Akard St" and a speed limit sign that says "10". The entire image has a semi-transparent orange overlay, and a white box with an orange border is centered over the tram, containing the text "GoLink Pilot Results".

GoLink Pilot Results

Southern Sector Mobility on Demand Zones

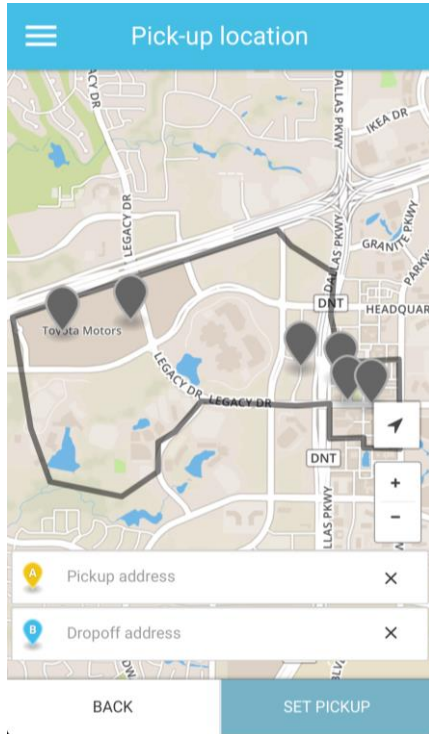


Plano Mobility on Demand Zones

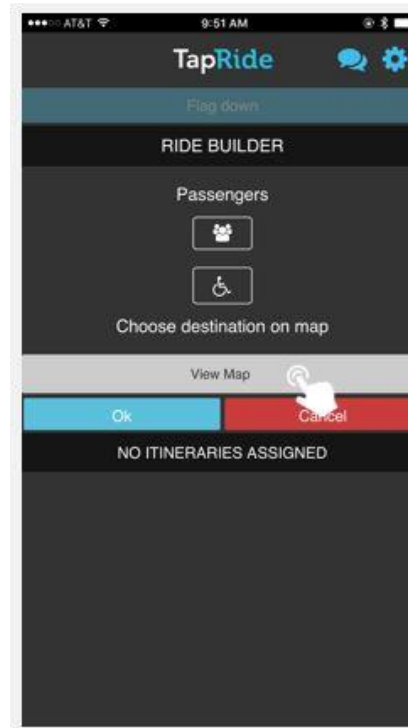




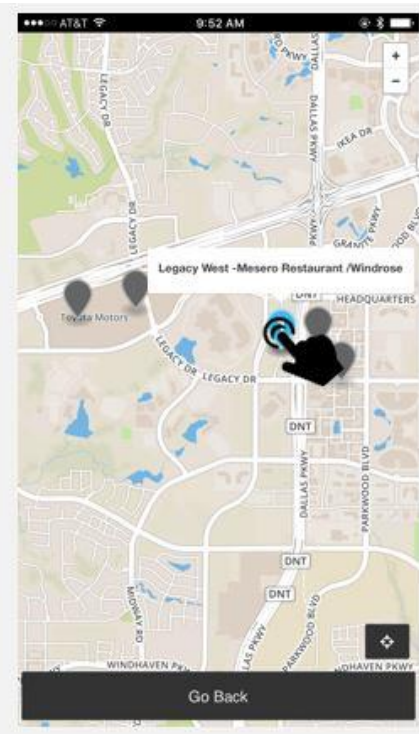
TapRide App: Customer Interface



Trip locations can be selected by map or address



Selection by pointing at the service map



How Did GoLink Work in the Field on Early Field Test?

- Pilot test began on Oct. 2nd and includes 2 stops at Toyota, 1 stop at Legacy West, and 3 stops at Shops at Legacy
- Service operates to designated stops only – not to entire zone
- Weekdays 11am-2pm
- 3 vehicles in operation
- 247 active accounts from Toyota employees



Legacy Lunch Field Test Program

Ridership Summary October through January

Month	Service Days	Total Trips	Total Riders
Oct-17	22	262	682
Nov-17	20	225	625
Dec-17	20	331	1,165
Jan-18	21	365	1,055

Legacy Lunch Pilot Program

App Usage, Average Riders & Cost/Trip October through January 2018

Month	% of Riders Using App	Riders/Trip	Passengers per Veh Hr	Cost/Passenger
Oct-17	69%	2.60	3.46	\$13.57
Nov-17	88%	2.78	3.47	\$13.46
Dec-17	98%	3.52	6.47	\$7.22
Jan-18	99%	2.90	5.60	\$8.37

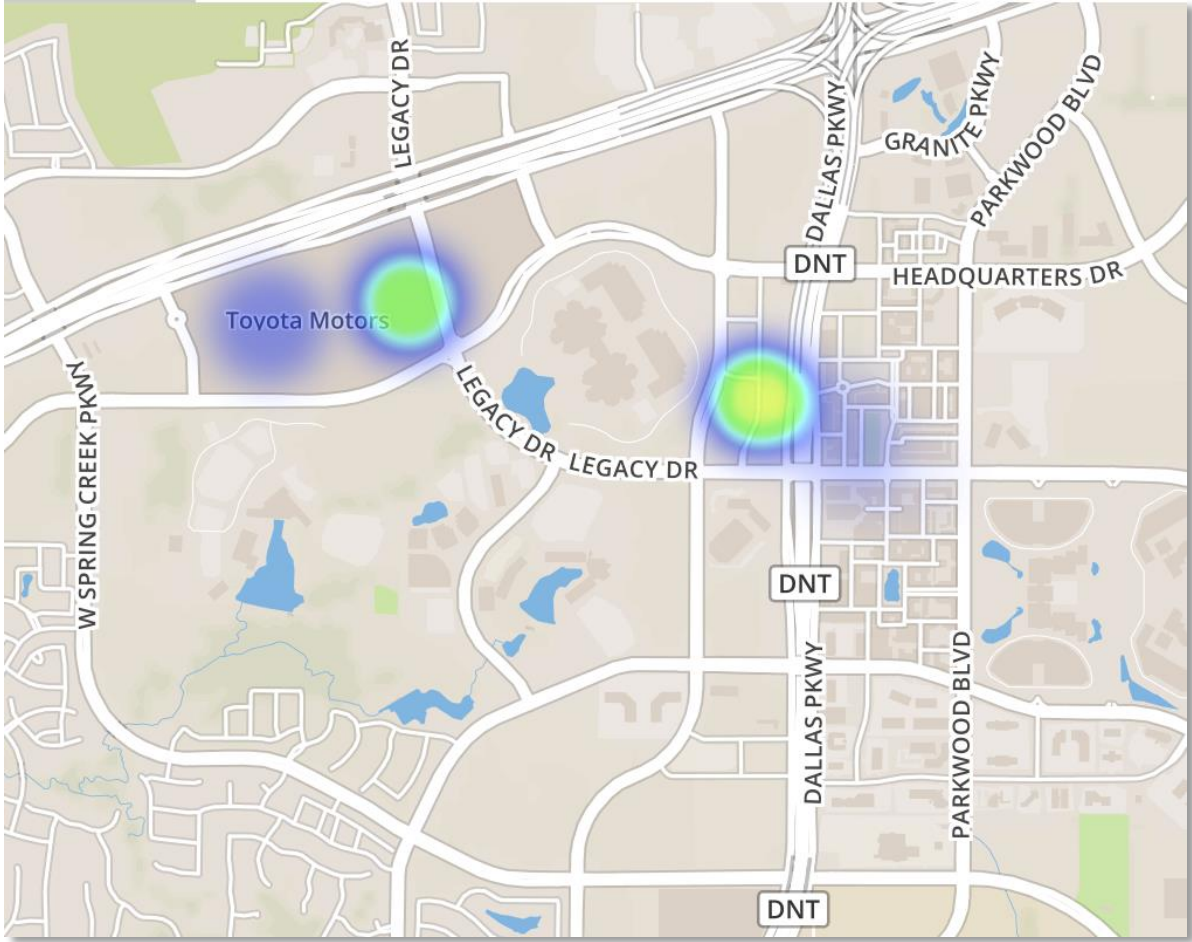
Legacy Lunch Pilot Program

Operating Statistics from Wednesday 1/24/18

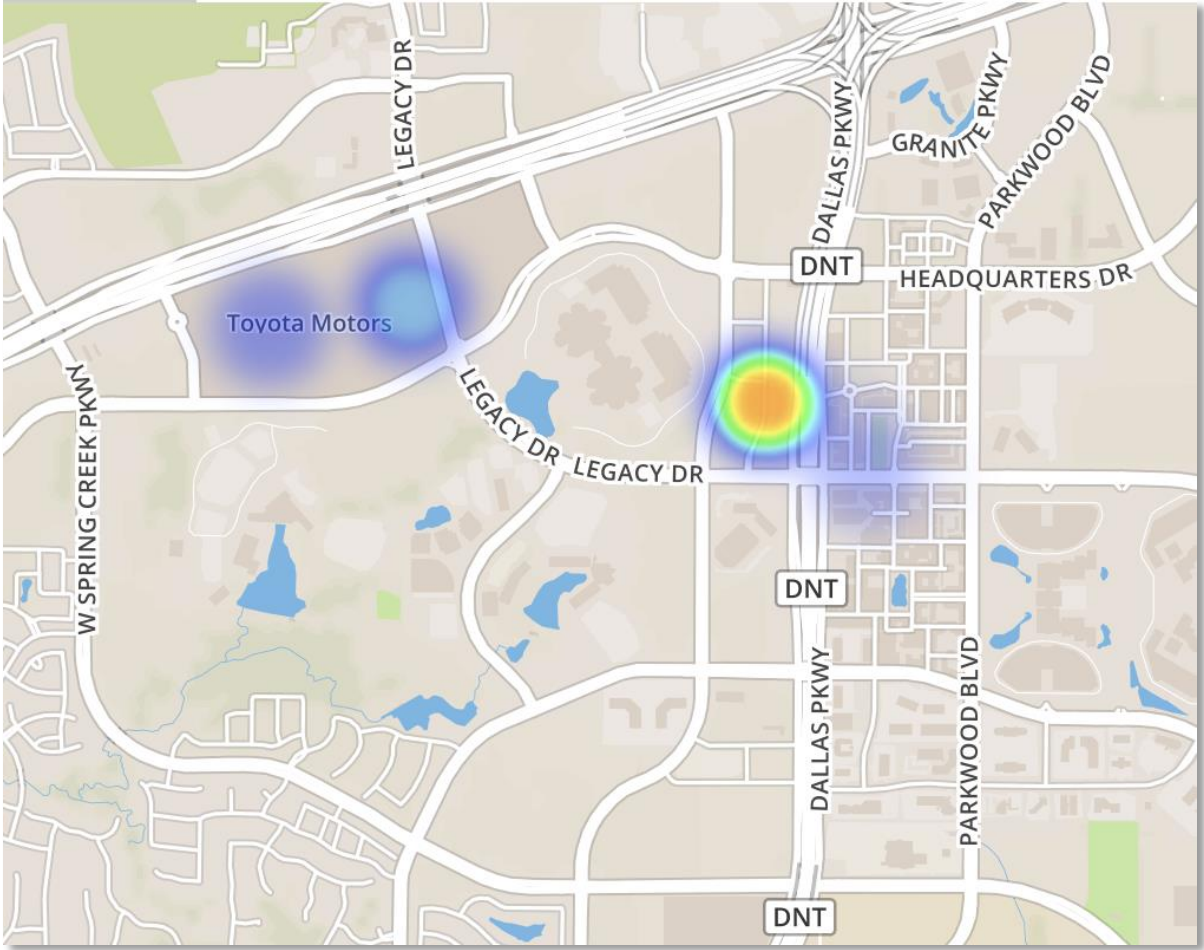
Measure	Wed 24 Jan
Trips Requested	43
Cancellations	12
Trips Completed	31
Passengers on Completed Trips	108
Average Response Time (Request to Pickup)	6:28
Average Travel Time	7:57

From TapRide daily statistical report

Lunch Service Heat Map 11-Noon Week of 1/15/18

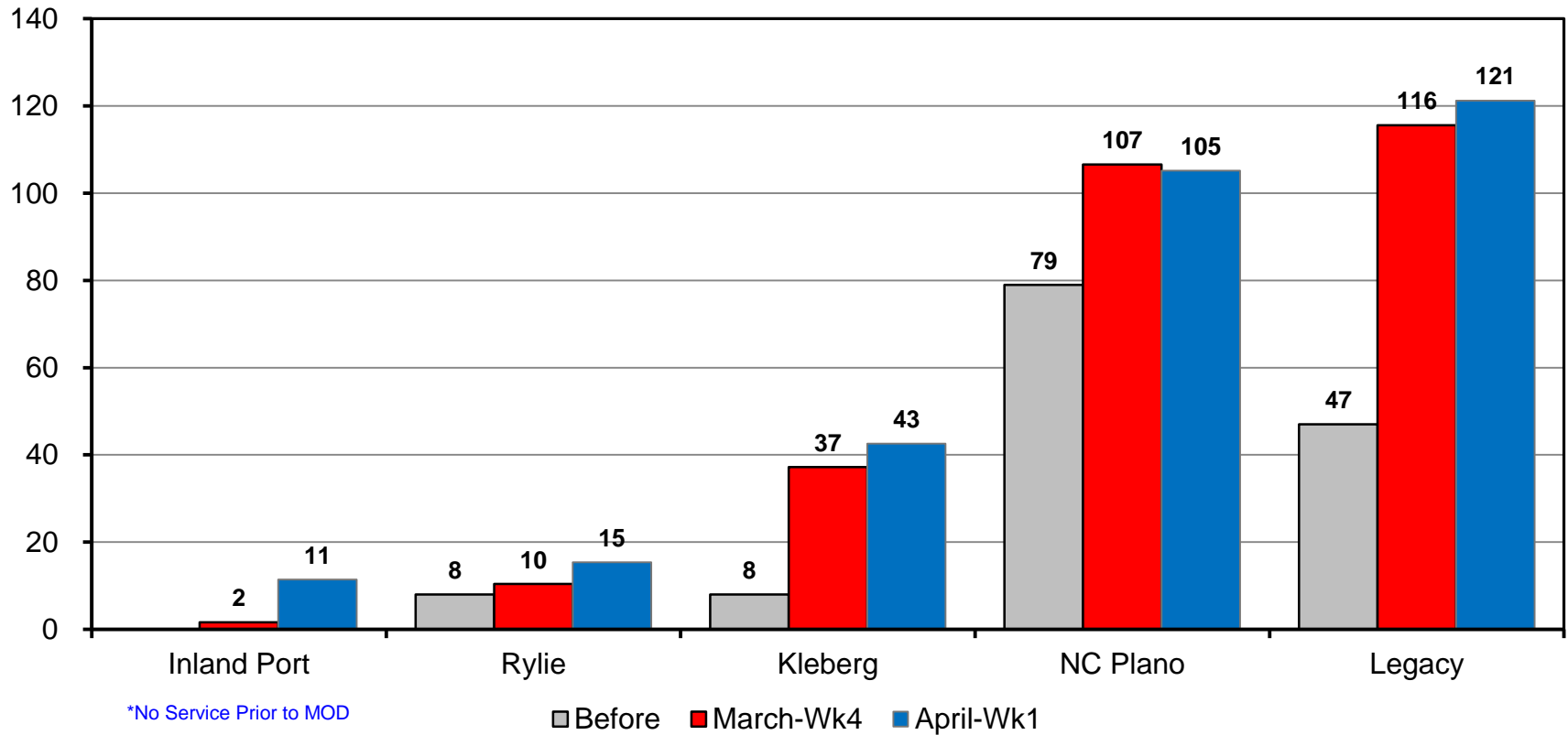


Lunch Service Heat Map Noon-1 Week of 1/15/18



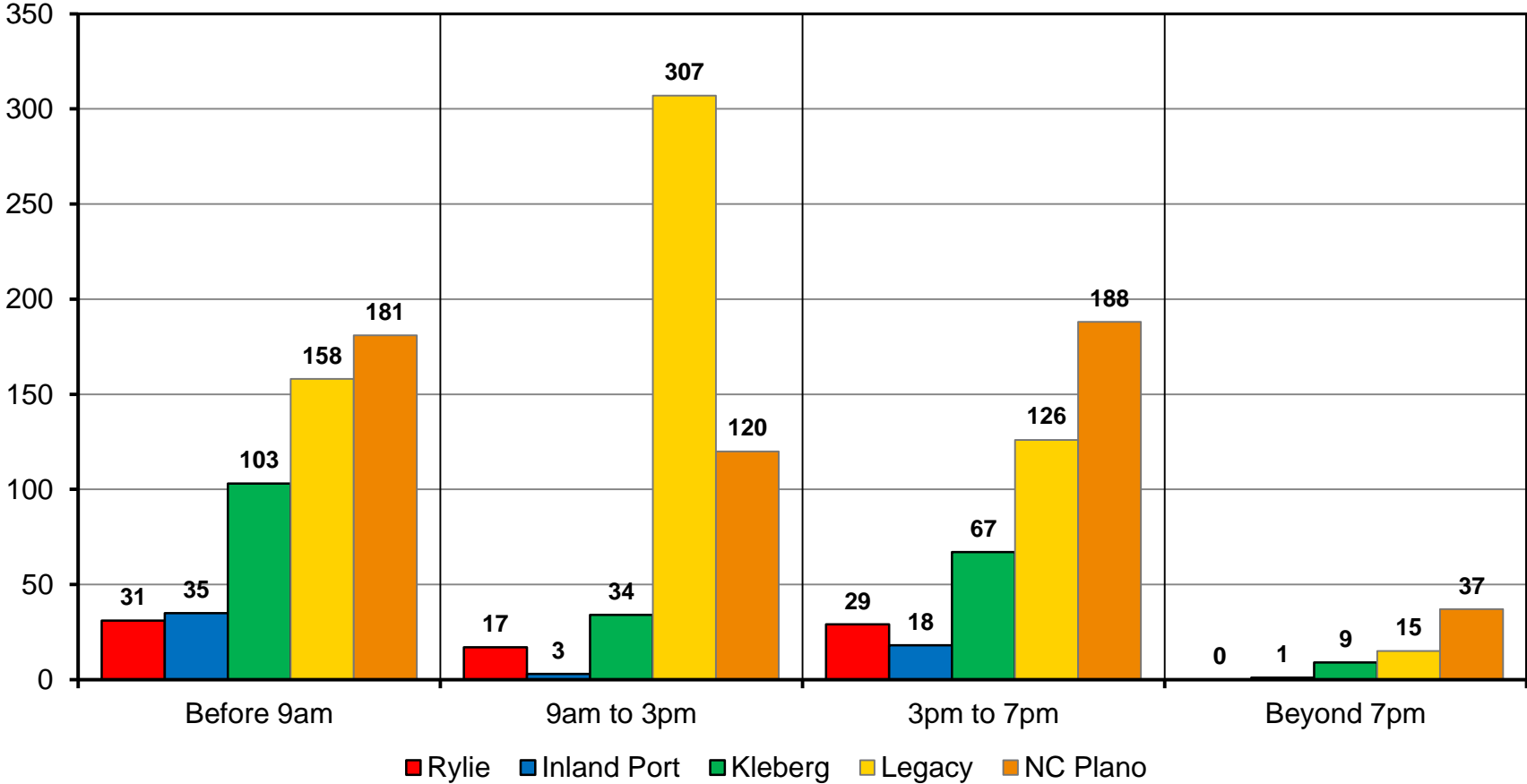
Average Daily Ridership

Average Daily Ridership
Before – After MOD Implementation



Ridership by Time Quadrant

Ridership by Time of Day

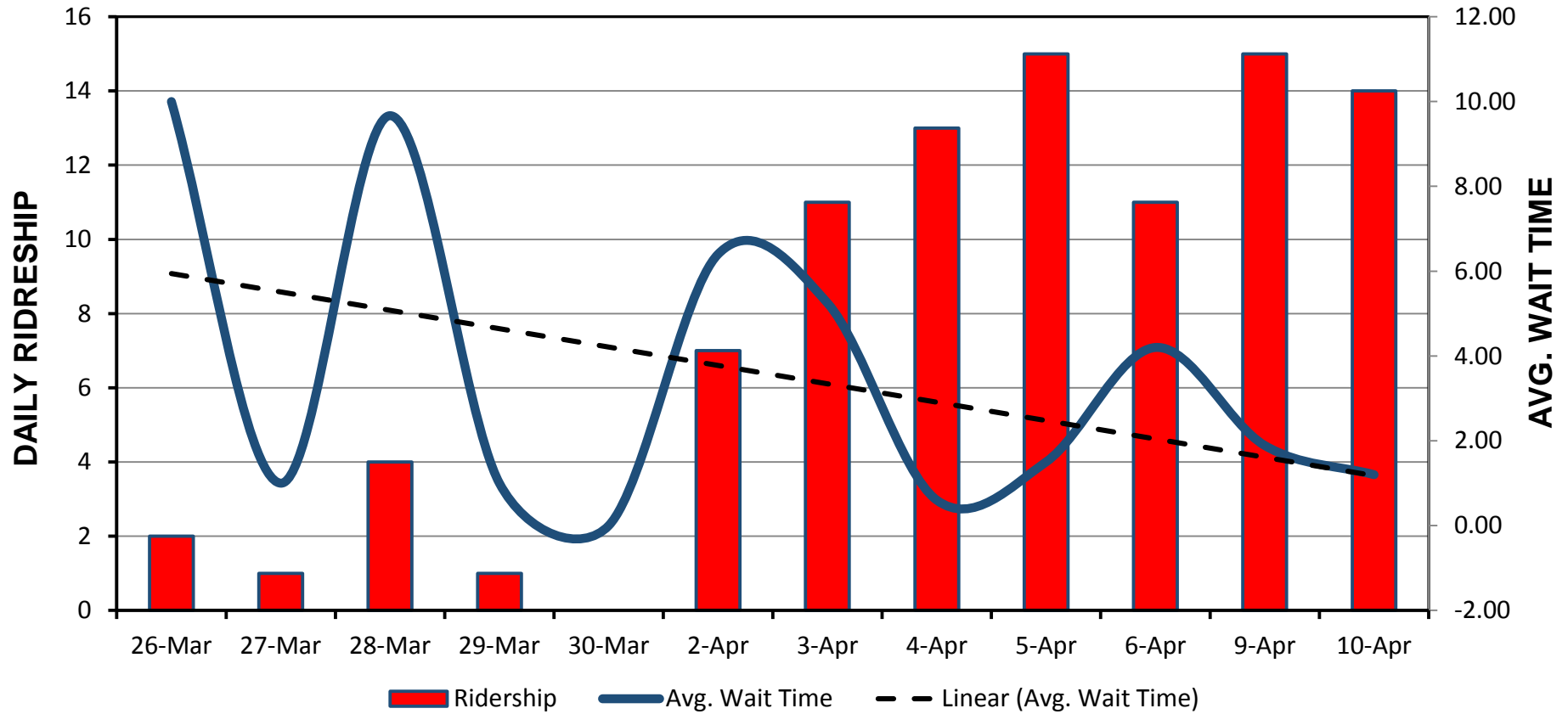


Total Riders: March 26 – April 10



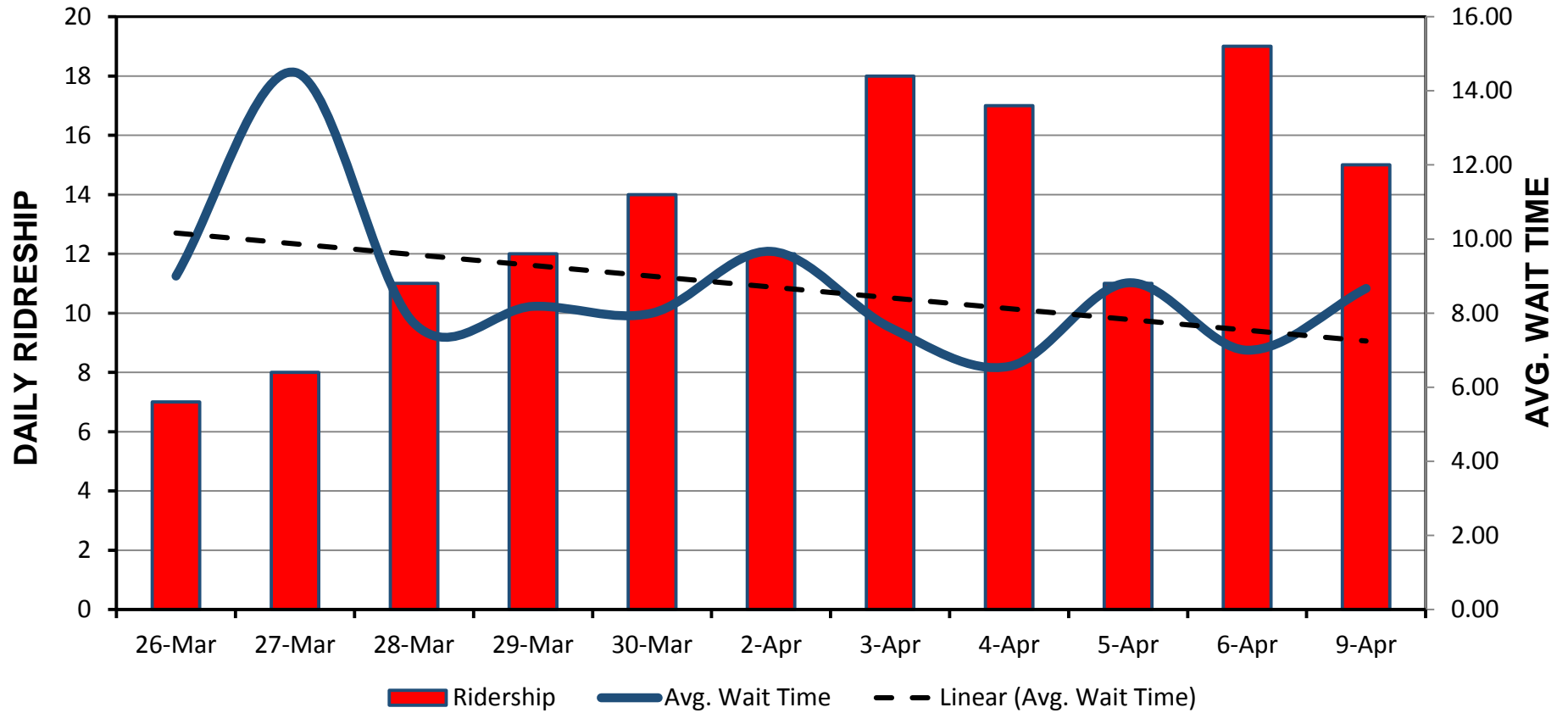
Inland Port

Total Daily Ridership and Average Wait Times



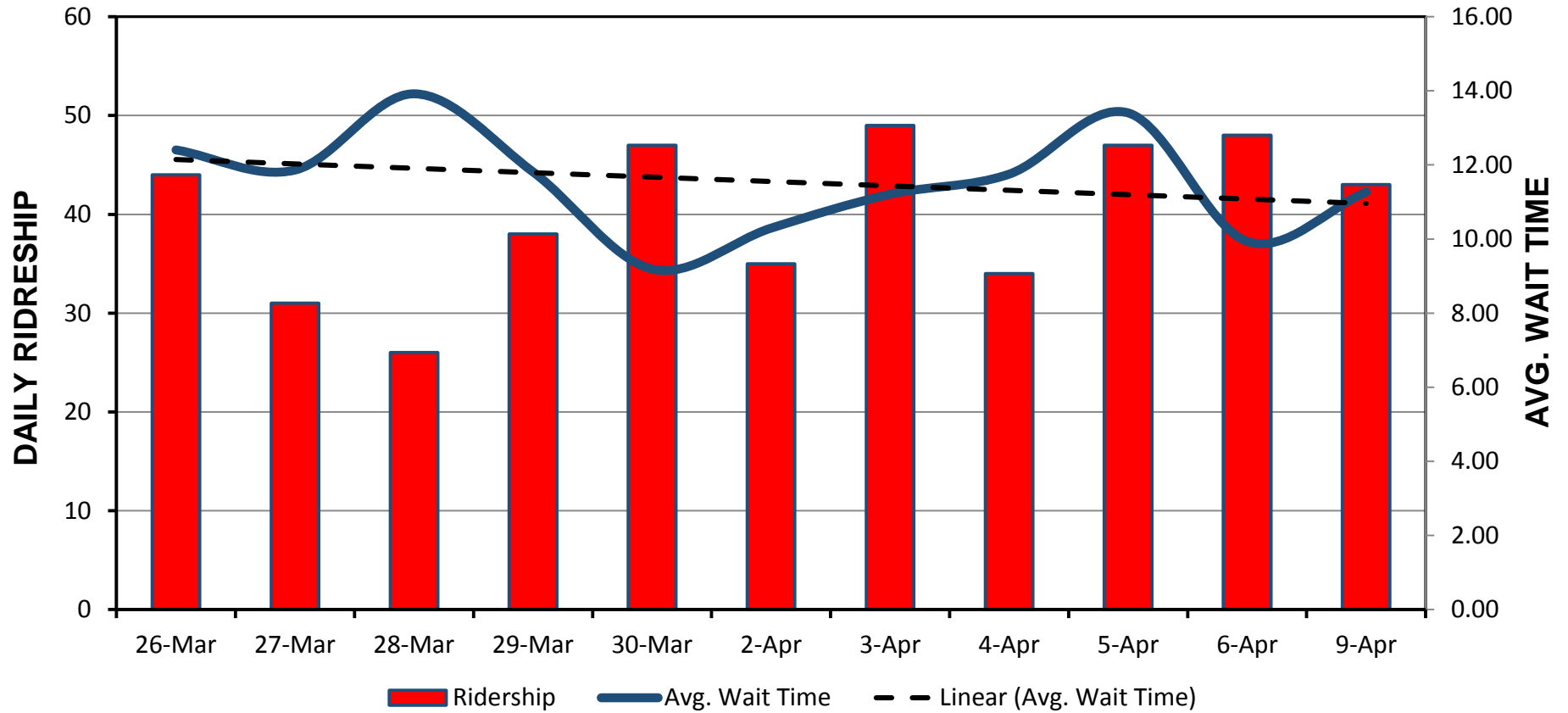
Rylie

Total Daily Ridership Vs. Average Wait Times



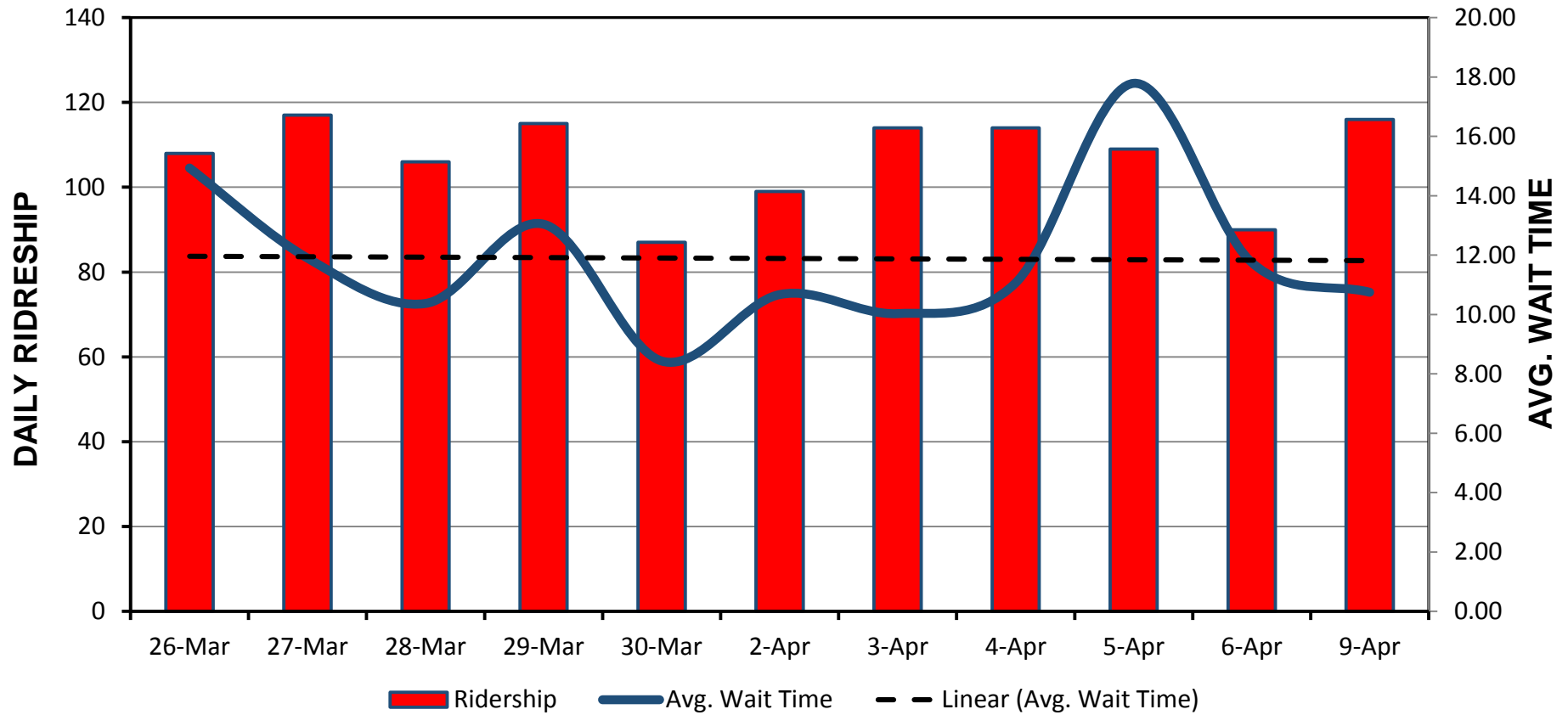
Kleberg

Total Daily Ridership and Average Wait Times



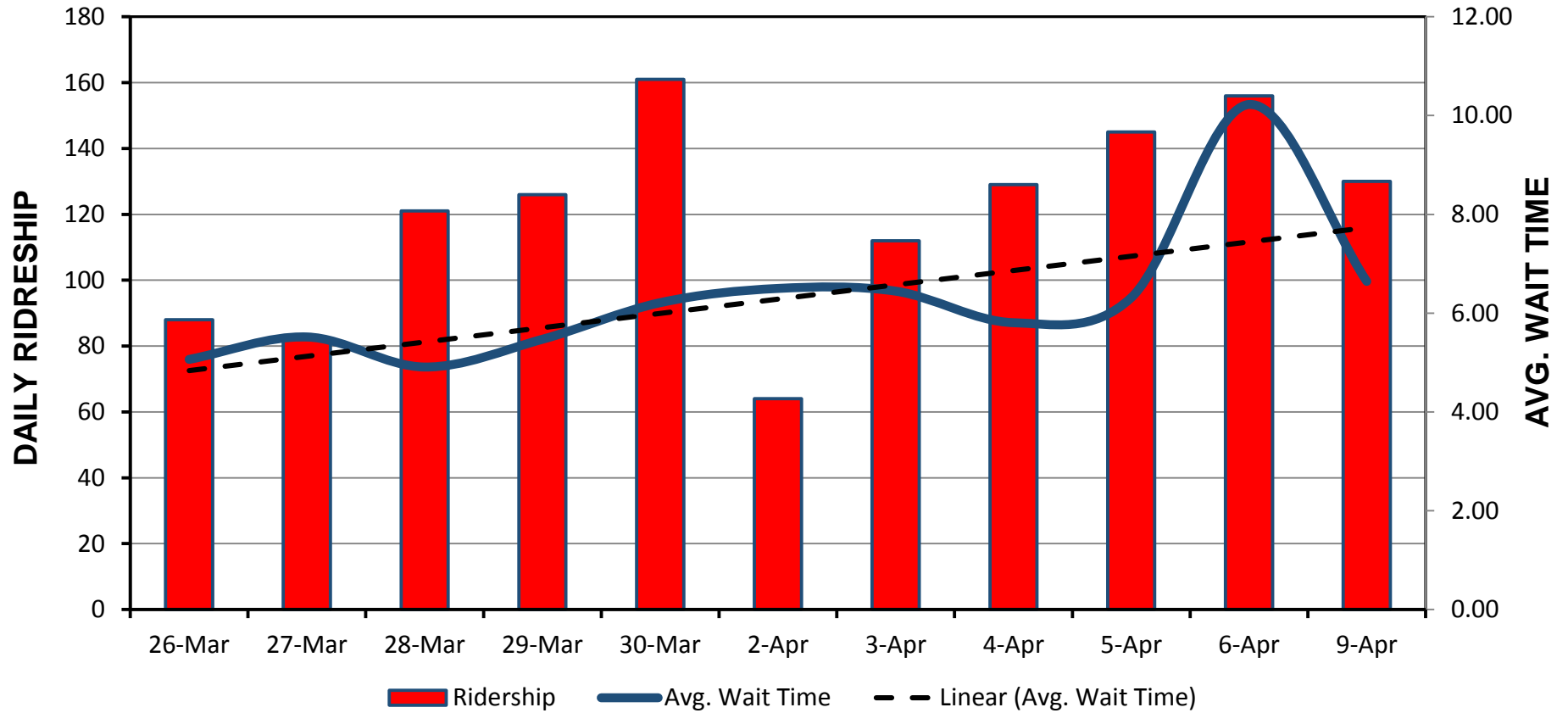
North Central Plano

Total Daily Ridership Vs. Average Wait Times



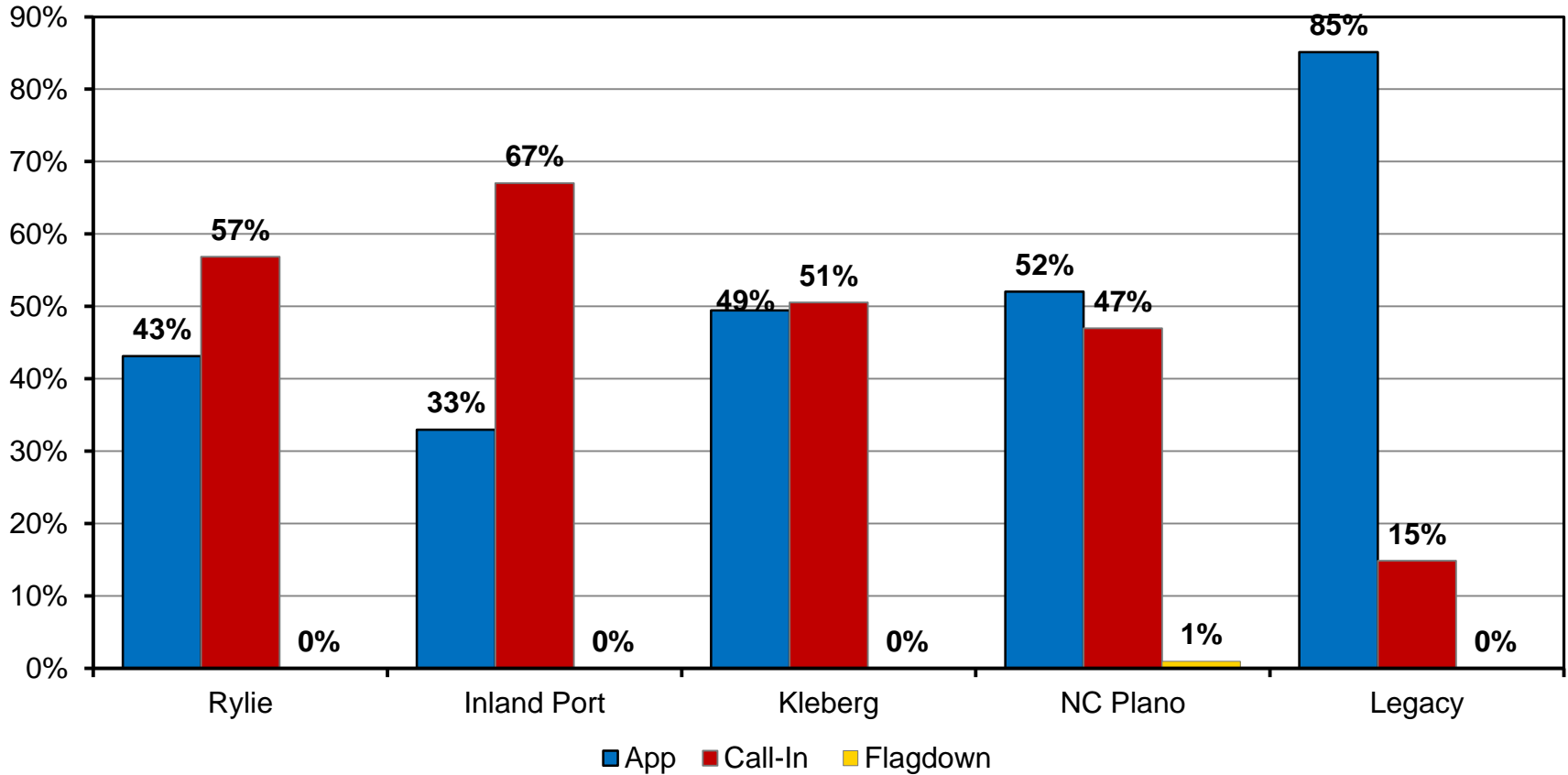
Legacy

Daily Ridership and Average Wait Times

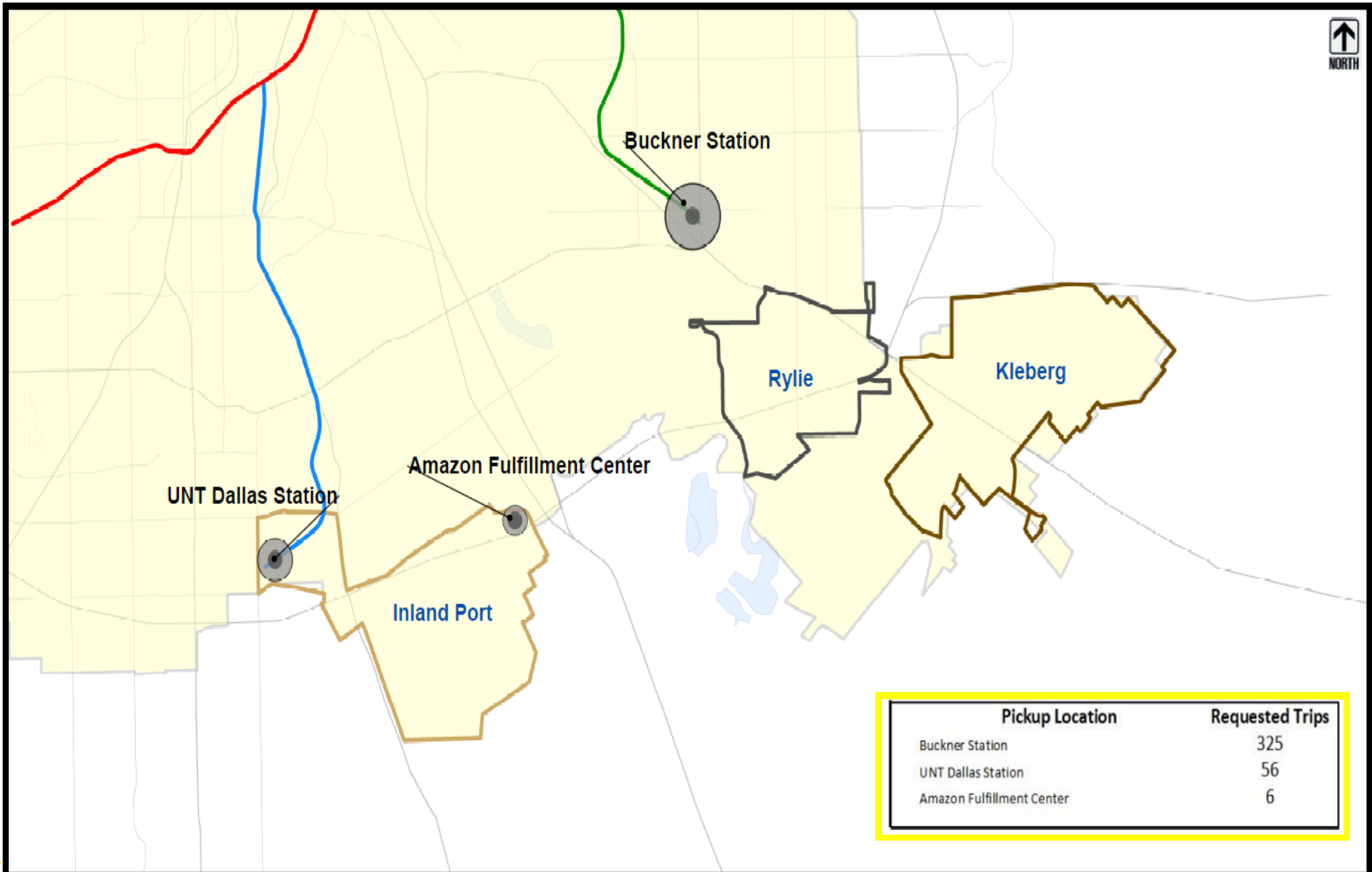


Reservation Type

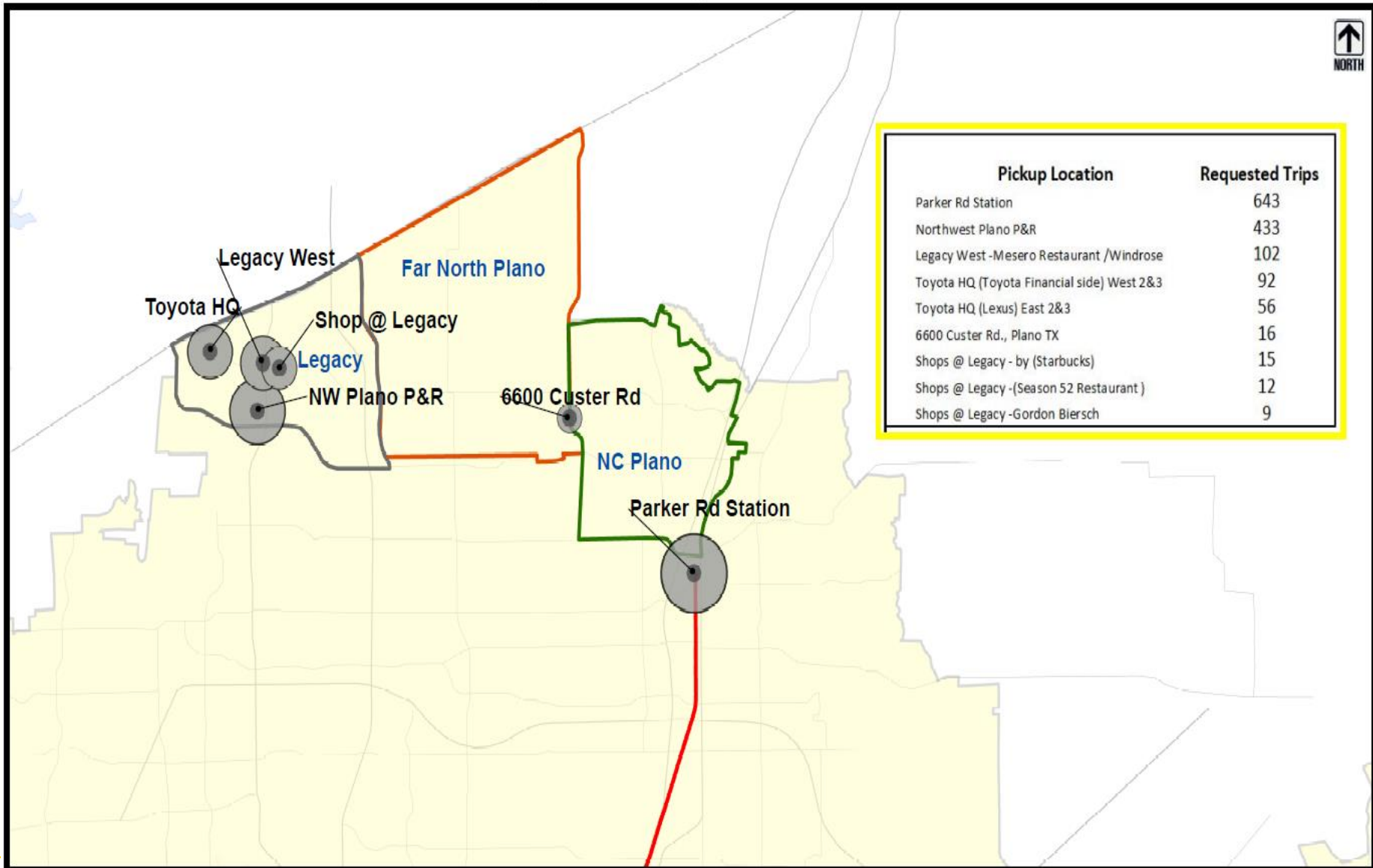
Reservation Type



High Demand Trip Originations



High Demand Trip Originations



— Questions

A photograph of a city street with a tram. The tram is white and yellow, with 'LEDGETTER' on its destination sign and the number '171' on its side. The street is paved with cobblestones and has tram tracks. In the background, there are modern buildings, one with a large '1505' sign. A text box with an orange border is overlaid on the image, containing the text 'Optional Sandbox as A Platform for Future Expansion'.

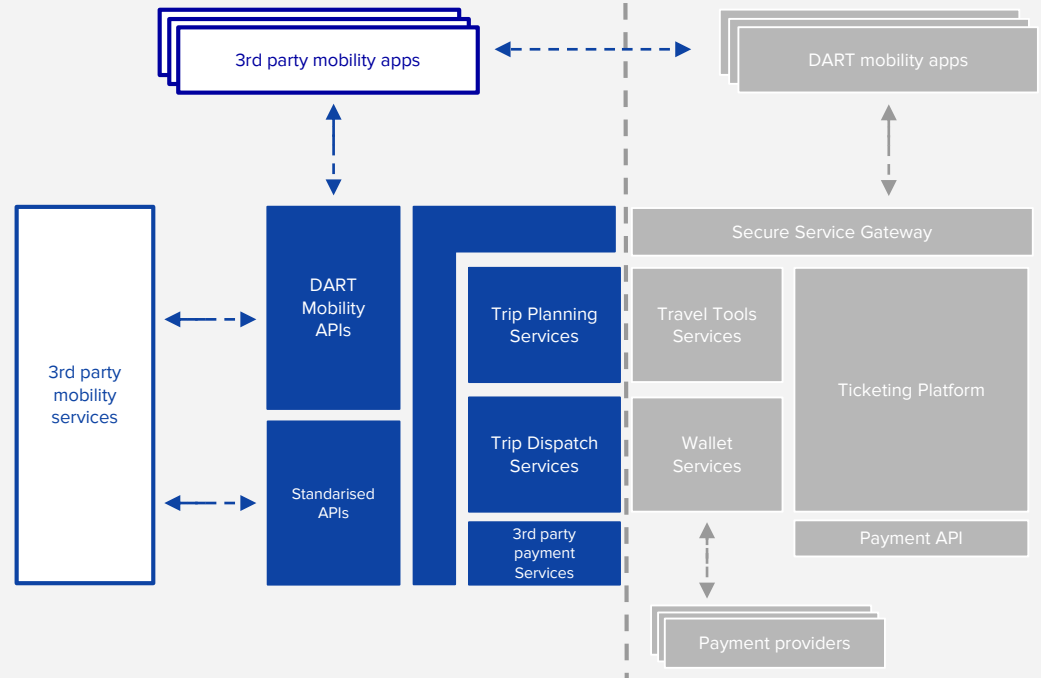
**Optional
Sandbox as A Platform for
Future Expansion**

DART MOBILITY PLATFORM

- RAPID 3RD PARTY INTEGRATION THROUGH DART MOBILITY APIs
- SUPPORT FOR INDUSTRY STANDARD APIs
- INCREMENTAL PLATFORM EXPANSION THROUGH SERVICE MODULES
- STANDARDIZED 3RD PARTY EXPERIENCES INSIDE GOPASS APP
- BEING PREPARED TO SEIZE OPPORTUNITIES AS THEY ARISE

The Optimal Future Platform

EXISTING Platform

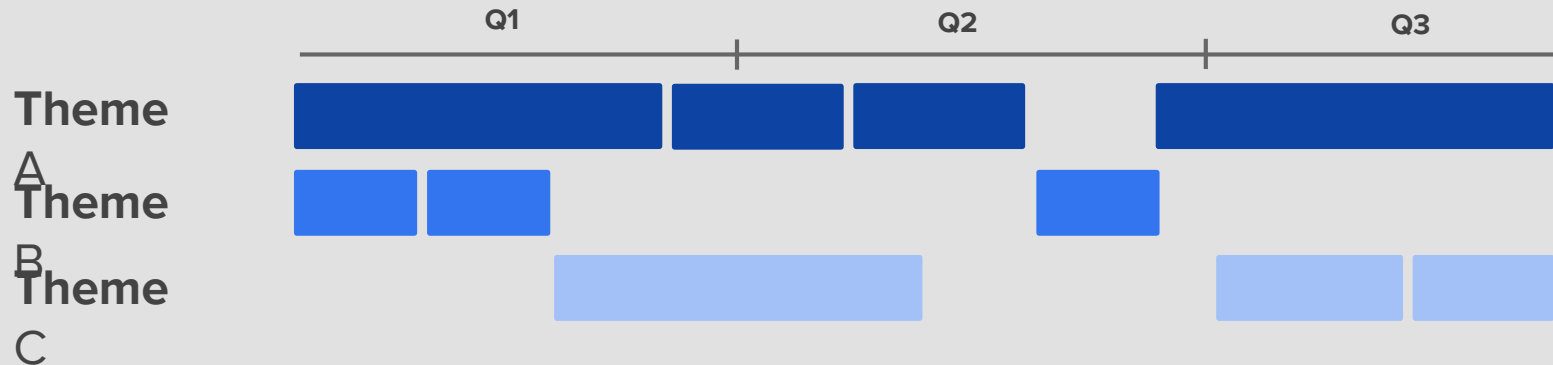


A yellow tram is positioned on a city street, moving towards the viewer. The tram has "LEDGETTER" written on its front. The street is paved with cobblestones and has tram tracks. In the background, there are modern buildings with glass facades. A sign on one of the buildings reads "1505". A street sign on the left says "Akard St". A speed limit sign shows "10".

Building a Roadmap for Regional Investment in MOD Products

THE ROADMAP

- Built around the high level goals
- Typically broken into Themes
- Approved by the DART and Regional Entity
- Used as input for budget approval



A photograph of a city street featuring a yellow tram. The tram is positioned in the center of the frame, moving towards the viewer. It has "LEDGETTER" displayed on its destination sign and the number "171" on its front. The street is paved with cobblestones and has tram tracks. In the background, there are modern buildings with glass facades. A sign on one of the buildings reads "1505" and "214-871-1905". On the left, a street sign indicates "Akard St" and "1019". A blue sign with the number "10" is also visible. The entire image has a yellow tint and a semi-transparent purple-bordered box in the center containing the text.

Examples of Investment Themes

THEMES

MOBILITY ON-DEMAND PLATFORM

- Providing a standard set of DART mobility APIs
- Focus on making integration easy for 3rd parties
- Focus on 3rd party taking the burden of the integration efforts
- Growing incrementally with micro-services offered as they become available

FIRST/LAST MILE

- Expand journey planning with first/last mile options
- Fast setup and integration with 3rd parties for trials and evaluation
- Mobility on demand ticket issuing and dispatching inside GoPass
- Automatic activation of mobility on demand services

ON ROUTE EXPERIENCE

- Follow your route on map
- Reminders and alerts for “next steps” on the route
- News ticker for traffic, delays or cancellations
- Real-time re-routing and suggestions for the optimum journey
- Special On Route Tools for Disabled Persons

COMMUTING & OFF-PEAK

- Specific on-demand off-peak journey planning where public transport frequency drops
- Dedicated experiences for on-demand commuting services
- Corporate shuttle service integration as first/ last mile

LOYALTY REWARDS

- GoPass loyalty points earned across 3rd party services
- GoPass Wallet QR code as a loyalty identifier
- What’s nearby?

SMART TECHNOLOGY

- ‘Wearables’ and ‘proximity sensors’ for alerts, information and “next step” actions

MOBILITY SDKS

- GoPass Wallet SDK for rapid integration of payment services to 3rd party mobility apps
- DART Mobility SDK rapid integration of features of the DART mobility platform for 3rd party apps

A photograph of a city street featuring a yellow tram. The tram is positioned in the center of the frame, moving away from the viewer. The street is paved with cobblestones and has tram tracks. In the background, there are several modern buildings with glass facades. A sign on one of the buildings reads "1505". The tram has "LEDGETTER" written on its front and the number "171" on its side. A text overlay in the center of the image reads "Detailed Example of a Theme Item".

Detailed Example of a Theme Item

ON-ROUTE EXPERIENCE

INSIGHT

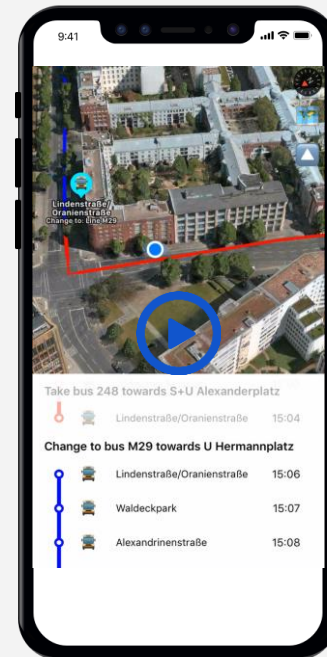
Journeys using multiple transport methods can be more complex to execute complete than standard point-to-point trips.

OUTCOME

Improving the trip experience will increase rider loyalty, frequency of riders per user and decrease customer service support.

FUTURE INCREMENTS

- Real-time trip suggestions
- Real-time dynamic traffic re-planning and notifications
- Personalized travel tips
- 3 D Mapping of travel path with real time information





Budget Options

BUDGET FOR MOVING FORWARD

Proposed Future Investment Strategy

- **APP developer** creates a **dedicated** Sandbox team and commits the resources for rolling **6 months**
- **App developer** scales resources up or down in line with the roadmap needs
- **App developer** provides high level estimates on the roadmap for budgeting guidance
- **DART and Regional Partners** approve the roadmap for **6 months**
- **DART and Regional Partners** approve a budget which matches the roadmap goals based on high level estimates
- **DART & Regional Partners and Developer** together form a steering group to approve go-ahead for work within the constraints of the budget and roadmap

SUGGESTED TEAM SIZE OPTIONS FOR BUILDING THE OPTIMAL SANDBOX

- **Minimum size (\$1,000, 000 annually**) : PM (50%), UI designer (50%), iOS dev, Android dev, Backend dev
- **Medium size (\$2,000,000 annually)** : PM, UI Designer (50%), Solution manager (50%), iOS dev, Android dev, Backend dev x 3, QA
- **Large size (\$3,000,000 annually)** : PM, UI Designer, Solution manager, iOS dev x 2, Android dev x 2, Backend dev x 4, QA

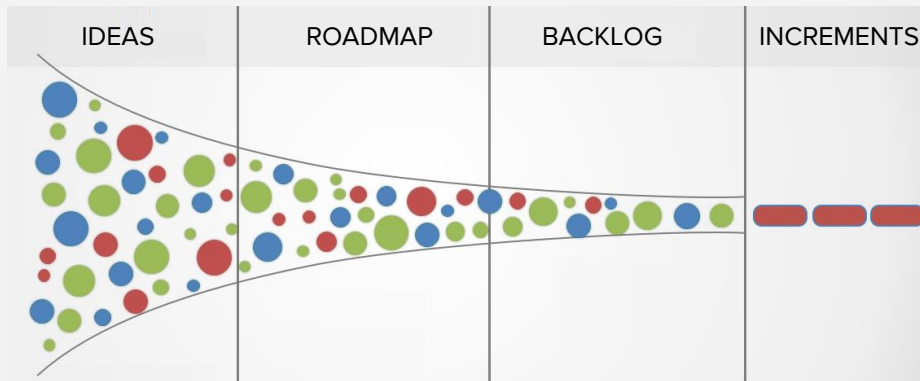
A photograph of a city street featuring a yellow tram. The tram is positioned in the center of the frame, moving towards the viewer. It has "LED BETTER" displayed on its front destination sign and the number "171" on its side. The tram is on a track set into a cobblestone-paved street. In the background, there are several modern buildings with glass facades. One building has a large red sign with the number "1505" and a phone number "214-871-1905". To the left, a street sign reads "Akard St 309th". A blue-bordered rectangular box is overlaid on the image, containing the text "STEERING GROUP FOR A WAY FORWARD".

STEERING GROUP FOR A WAY FORWARD

STEERING GROUP MEETING

- Monthly meeting
- Review the project goals/ roadmap
- Update and review the latest backlog
- Update and review the latest estimates
- Review the recent deliveries
- Review the latest KPIs
- Discuss lessons learned since last meeting

CREATING A PROJECT BACKLOG



Starts with existing ideas/ knowledge/ learnings to create the:

Roadmap : one pager descriptions/ high level estimates

Which is further developed into the:

Backlog : use cases/ UI examples/ detailed estimates

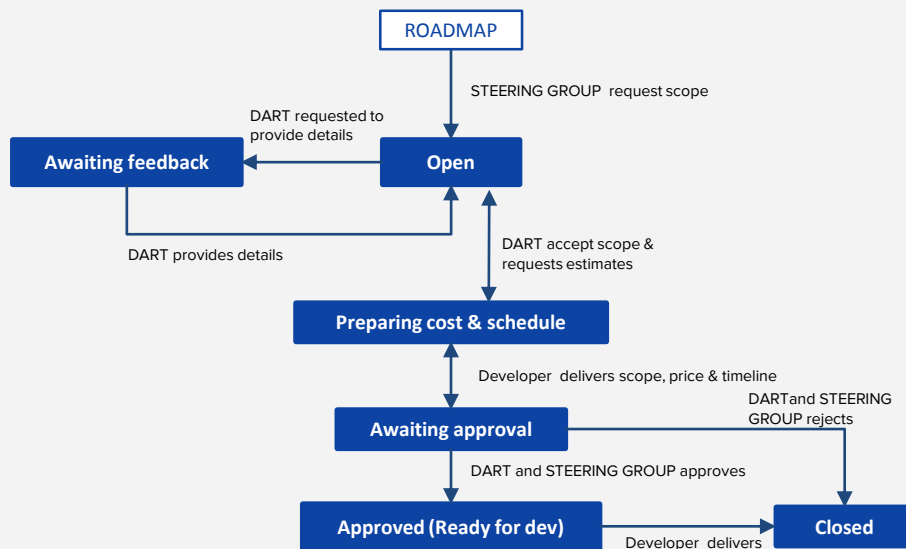
The backlog represents work which can be implemented and delivered according to a plan and a price.

The backlog is implemented, delivered in **Increments.**

Example Backlog

Increment	Status	ID	Priority	Summary	Cost Estimate
June 2018	CLOSED	DART-15	HIGH	Study showing bike share availability on a map	\$6,000
June 2018	CLOSED	DART-16	MED	Add extra dispatch support to mobility platform for Uber	\$72,000
June 2018	APPROVED	DART-17	HIGH	Show bike share availability on a map based on gbfs	\$12,000
July 2018	APPROVED	DART-18	HIGH	Add support for reading NABSA gbfs feeds	\$37,500
July 2018	APPROVED	DART-19	MED	Read and show MooBike gbfs feed	\$3,500
August 2018	OPEN	DART-20	MED	Study on-route notifications for transport switching	\$11,250
August 2018	OPEN	...	...	...	...
August 2018	OPEN	...	...	...	...
August 2018	OPEN	...	...	...	...

BACKLOG GOVERNANCE



ROADMAP

- The roadmap feeds items to be broken down and added to the backlog

OPEN

- DART requests that Unwire breaks down the roadmap item into use cases and screenshots

PREPARING COST & SCHEDULE

- DART asks Unwire to estimate the backlog item

AWAITING APPROVAL

- DART reviews the backlog item and approves for implementation or rejects

APPROVED

- The item is added to the backlog in the agreed priority and mapped to a delivery

CLOSED

- The backlog item is either delivered or has been rejected

— End



DCTA MOD INITIATIVES UPDATE

NCTCOG Mobility on Demand Working Group – April 16, 2018

DCTA MOD INITIATIVES UPDATE



- **On Ramp Proposal**



- **Regional Job Access for Denton Neighborhoods**



- **Collin County Transit Programs**



- **Shared Mobility Action Plan**

ON-RAMP PROPOSAL

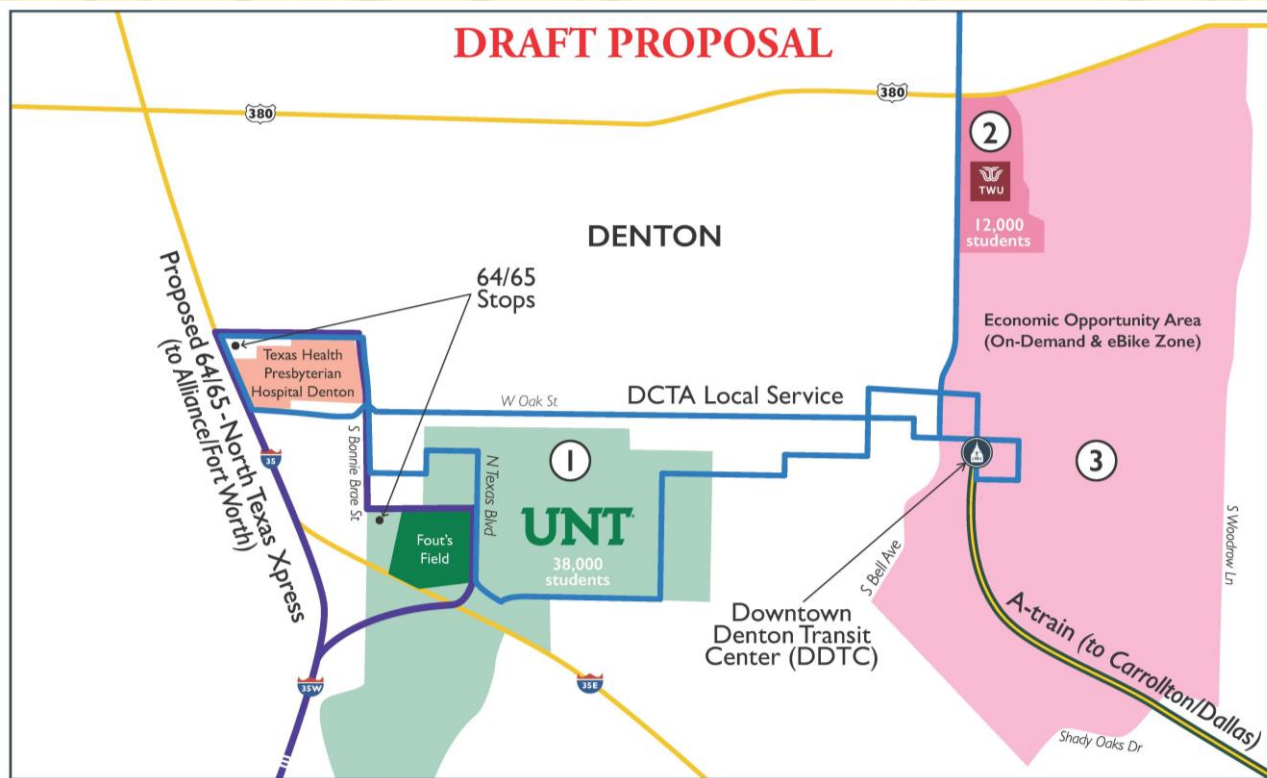
Shared Use Mobility Center – Technical Assistance for Business Plan

Project Description

- **Data and Financial Clearinghouse**
- **Neutral Third Party ‘Exchange’ to Settle Transactions Between Many Systems, Vendors, and Regional Solutions**
- **Ultimate MOD goal – travel anywhere and interface with any app that is part of the exchange**

15+ Letters of Support (including NCTCOG, Vendors, Cities)

REGIONAL JOB ACCESS FOR DENTON NEIGHBORHOODS



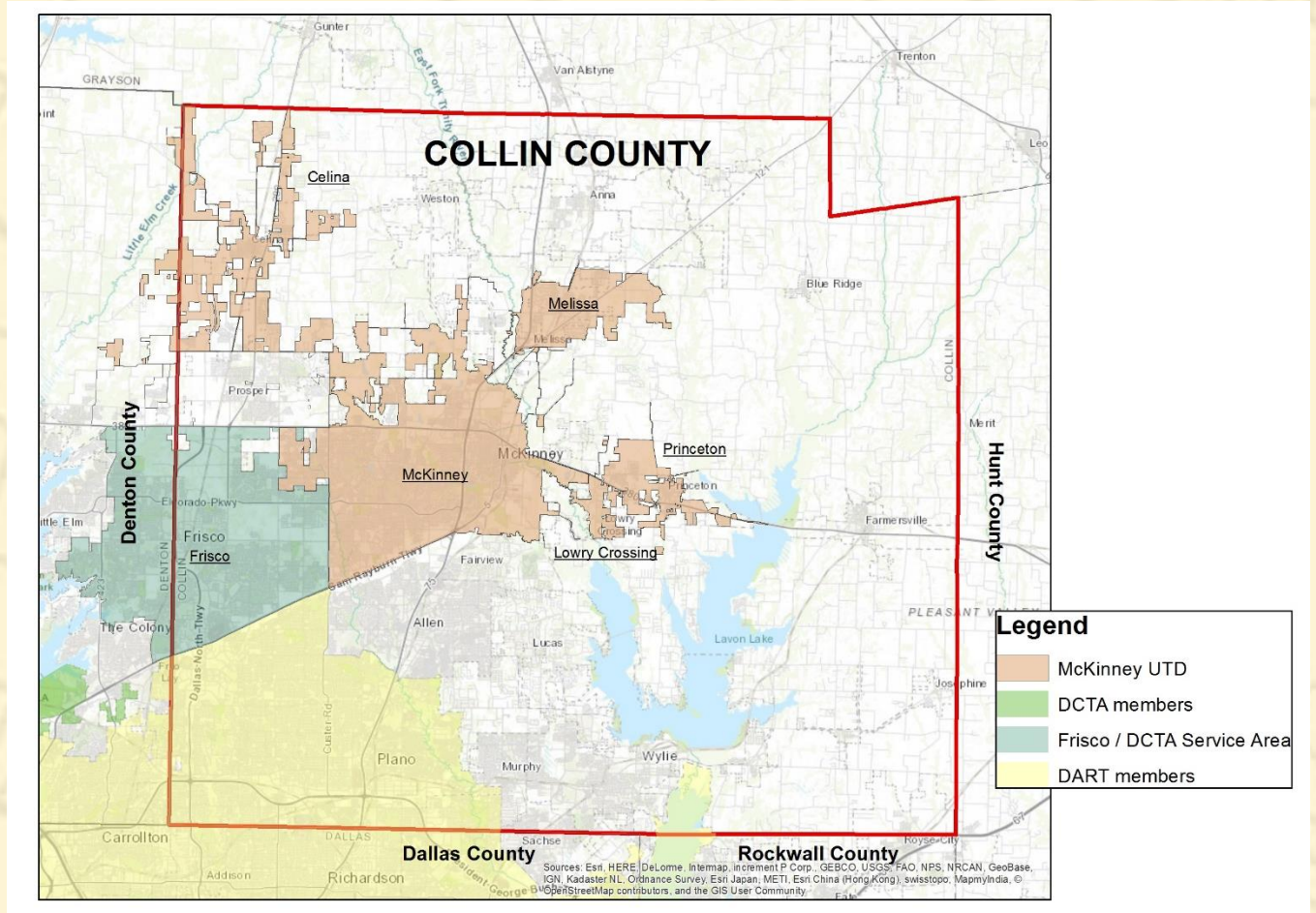
Connections to Alliance / Job Centers

Expanded North Texas Xpress Route

Lyft Service in Southeast Denton

eBike 'zone' to assist with first / last mile connections

COLLIN COUNTY TRANSIT PROGRAMS



COLLIN COUNTY TRANSIT PROGRAMS



City of Frisco



Taxi Voucher Program / McKinney
UTD

Low-Income Taxi Program

Autonomous Vehicles

Lyft Programs in Development



SHARED MOBILITY ACTION PLAN

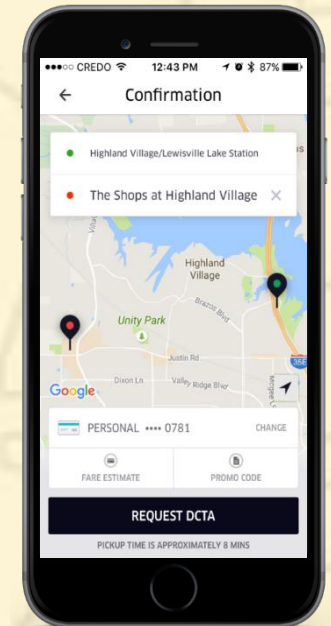
Texas A&M Transportation Institute
March-July 2018

Current Service and Existing
Conditions

Industry Trends and Recommended
Strategies

Conceptual Service Scenarios

One of the First Suburban Shared
Mobility Plans in the Country



MOBILITY ON DEMAND (MOD) PROGRAM UPDATE

Summary from Shared Mobility Summit 2018

Jing Xu

NCTCOG

Shared Mobility Summit 2018 Overview



- March 12-14, 2018 in Chicago
- 600+ industrial practitioners on shared mobility
- Workshops, presentations, panel discussions, and interactive dialogue regarding
 - Latest research findings
 - Policy innovations
 - Mobility transformations of shared mobility
- Networking opportunity with the newest companies and the nation's leading experts of shared mobility



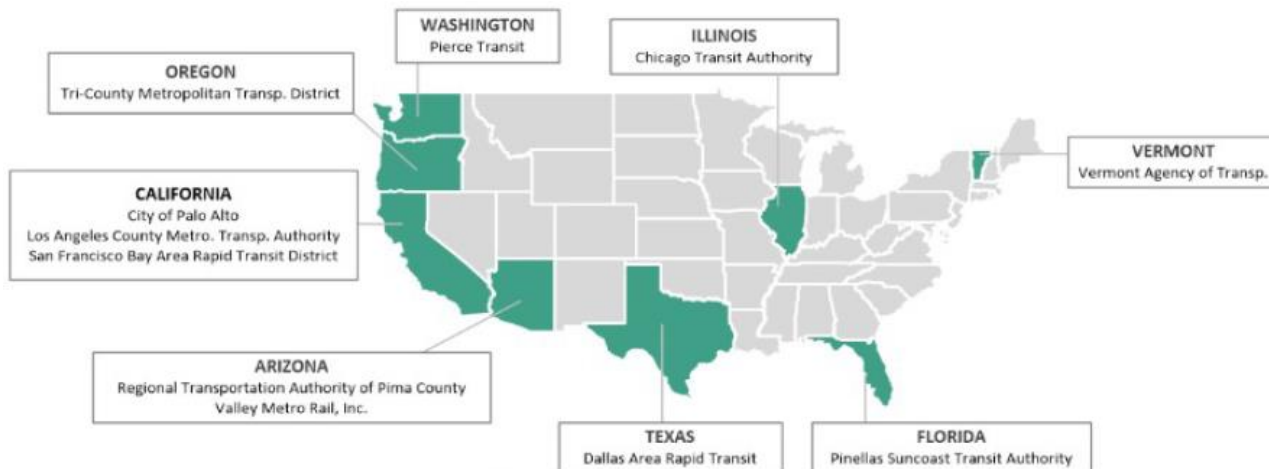
Source: dreamstime

MOD Program Key Components

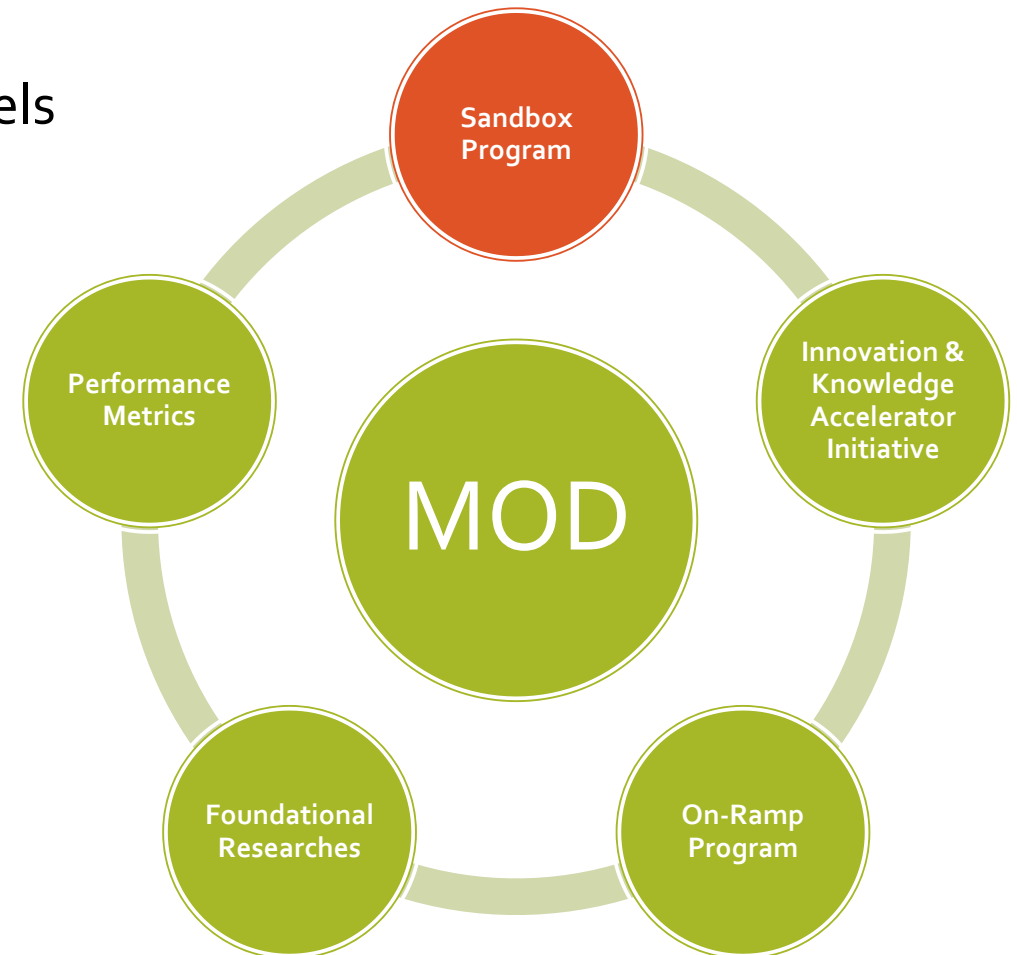
- Sandbox Program
- Innovation & Knowledge Accelerator Initiative
- On-Ramp Program
- Foundational Research
- Performance Metrics

Sandbox Program

- Demonstration program to explore MOD models
- 1.5 years old (launched October 2016)
- 11 projects across the country
- \$8 million in total

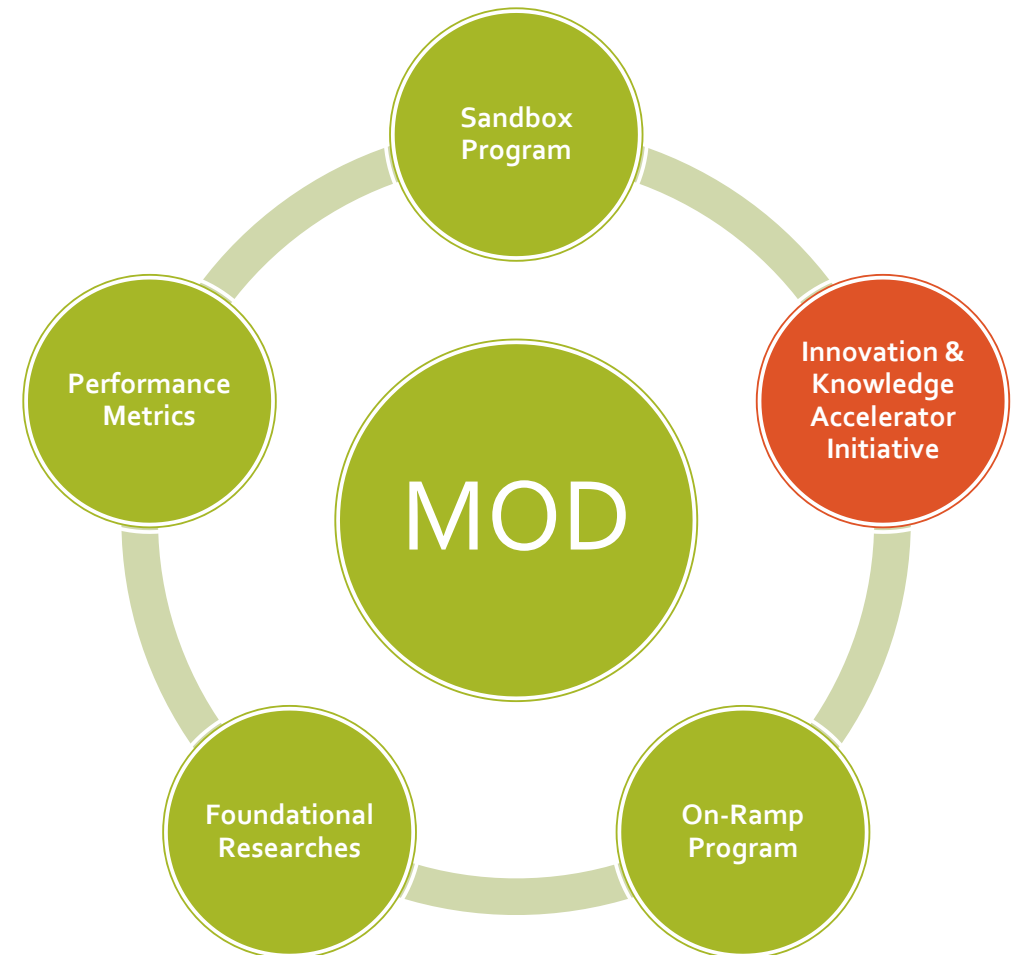


Source: Federal Transit Administration



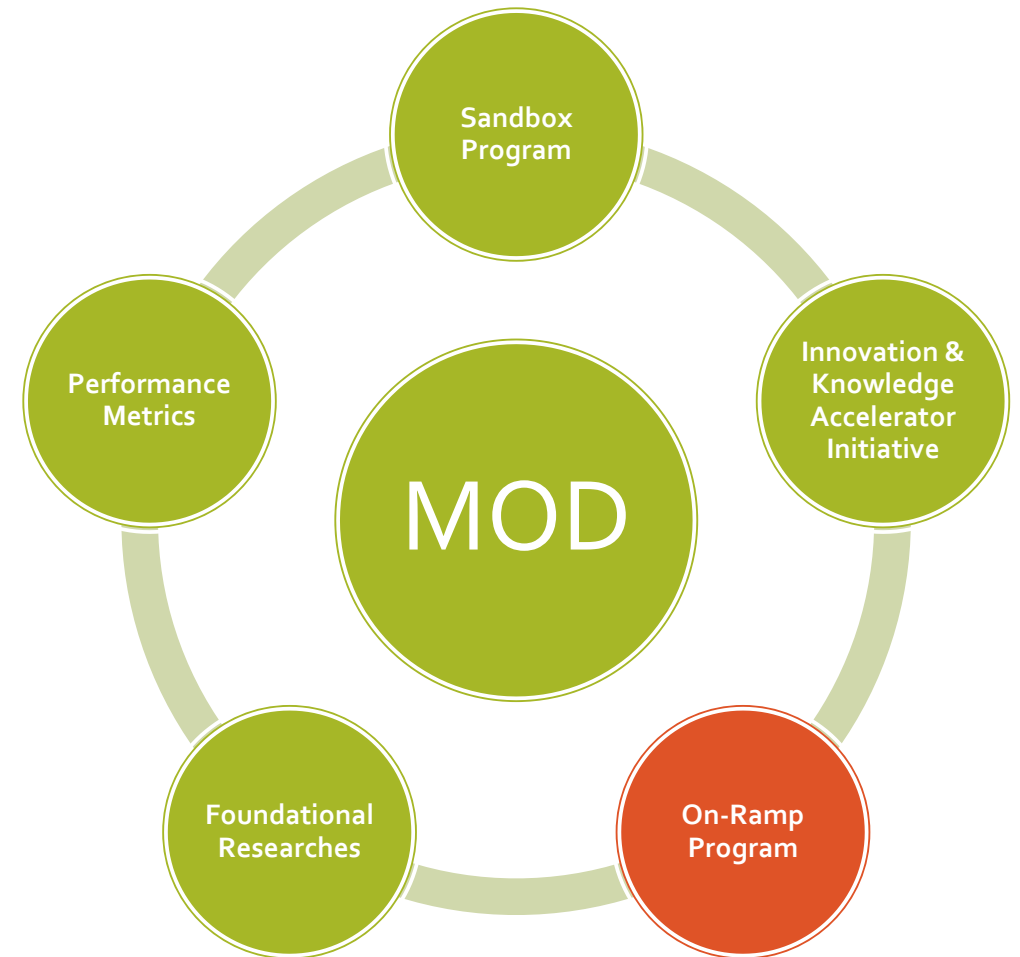
Innovation & Knowledge Accelerator

- Technical assistance effort to support the successful implementation of MOD projects with a focus on MOD Sandbox grantees.
 - Trip planning type of projects: technical challenge, working through API agreements with plans of releasing beta testing version soon.
 - Service implementation type of projects: not facing technical issues, delayed service launch due to partnership building process.



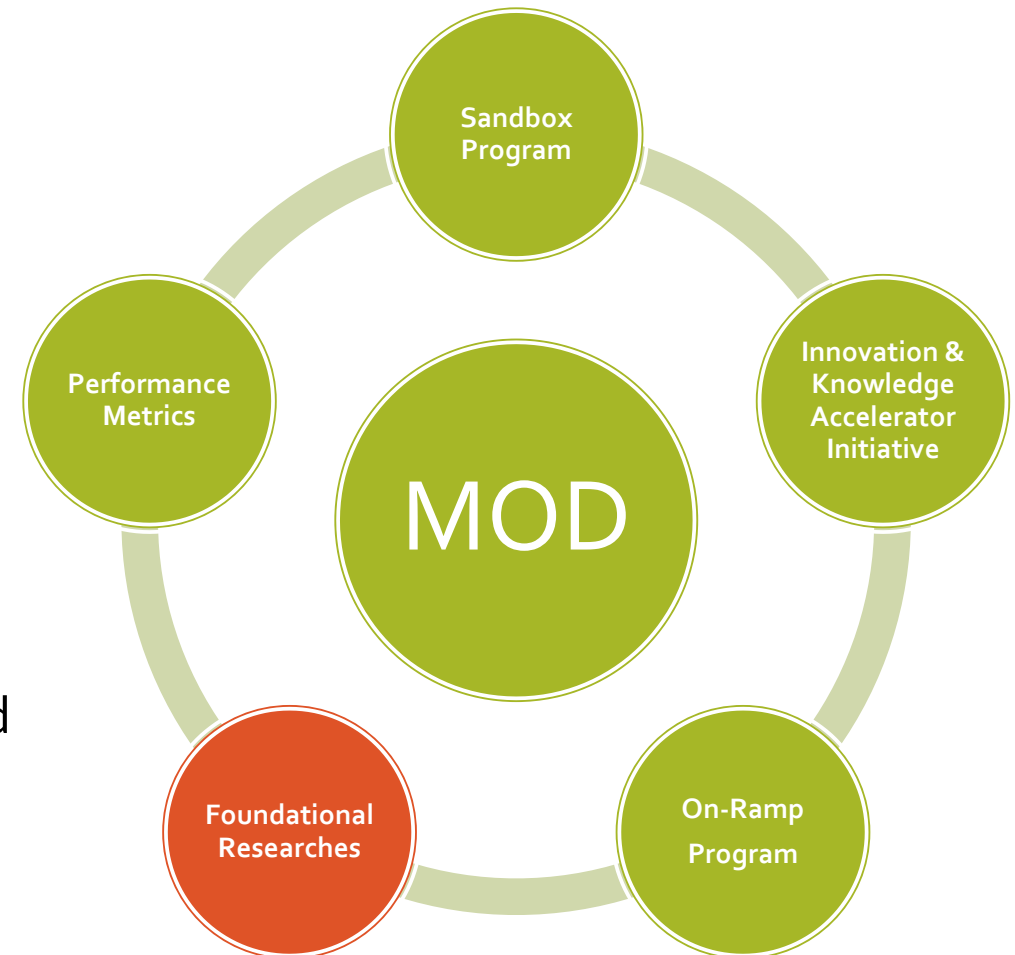
On-Ramp Program

- Technical assistance program for promising, not fully-baked MOD ideas.
- NCTCOG promoted the RFP to the region and helped facilitate applications.
 - DCTA
 - Trinity Metro



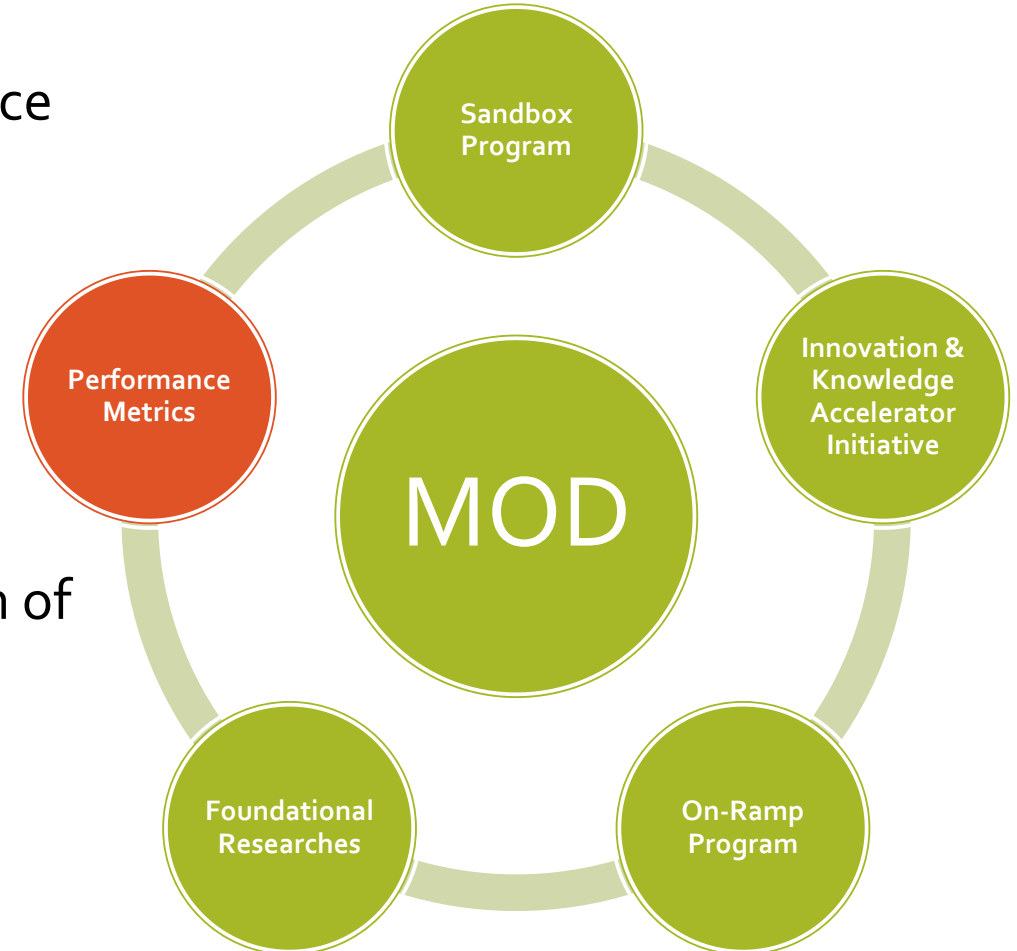
Foundational Research

- Research program USDOT/Federal Transit Administration (FTA) partners with academia and stakeholders on enabling smarter, more efficient, and safer mobility within a seamless multimodal transportation system.
- Recent Publications:
 - TCRP 195: Broadening Understanding of the Interplay Between Public Transit, Shared Mobility, and Personal Automobiles
 - TCRP 196: Private Transit: Existing Services and Emerging Directions.



Performance Metrics

- Develop industrial benchmarks and performance indicators to assess the success of MOD deployments.
 - Ridership
 - Traveler Behavior
 - User Satisfaction
 - Operational Metrics
 - Financial Metrics
 - Environmental Metrics
 - Legal and Policy Issues
 - Institutional Operation
 - Collaborative Impacts
- Inform comprehensive independent evaluation of the MOD Sandbox Demonstration Projects.



NCTCOG MOD Working Group Contacts

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Sarah Chadderdon

Program Manager

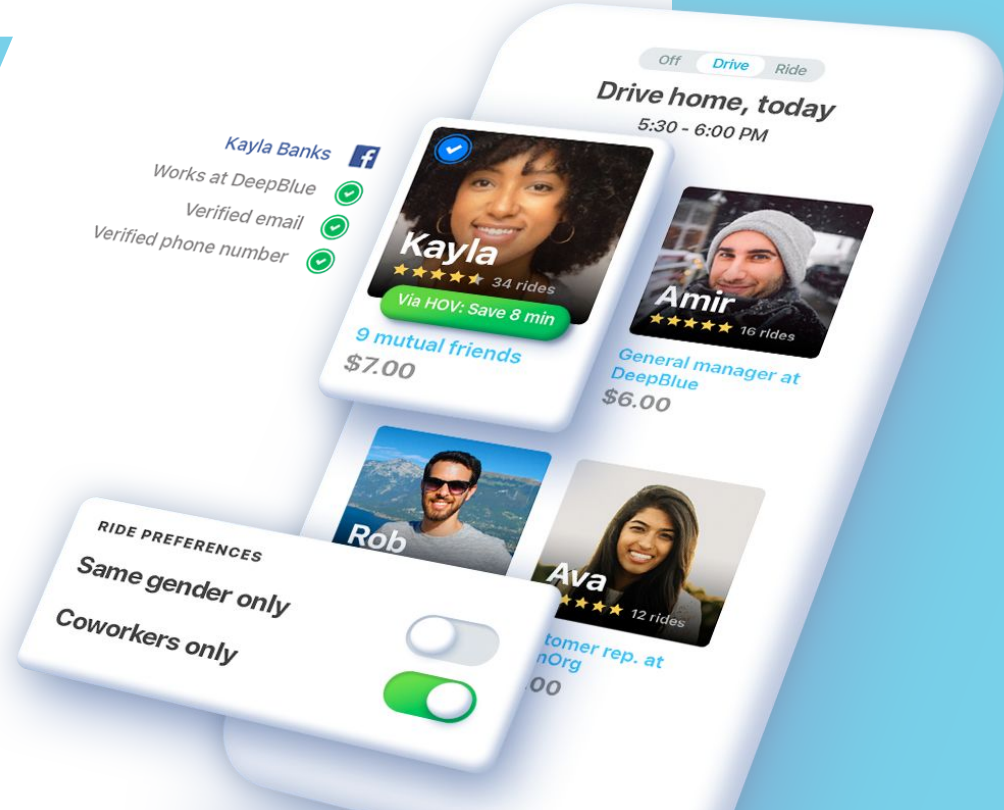
schadderdon@nctcog.org 817-695-9180

Visit us at www.nctcog.org/mod !



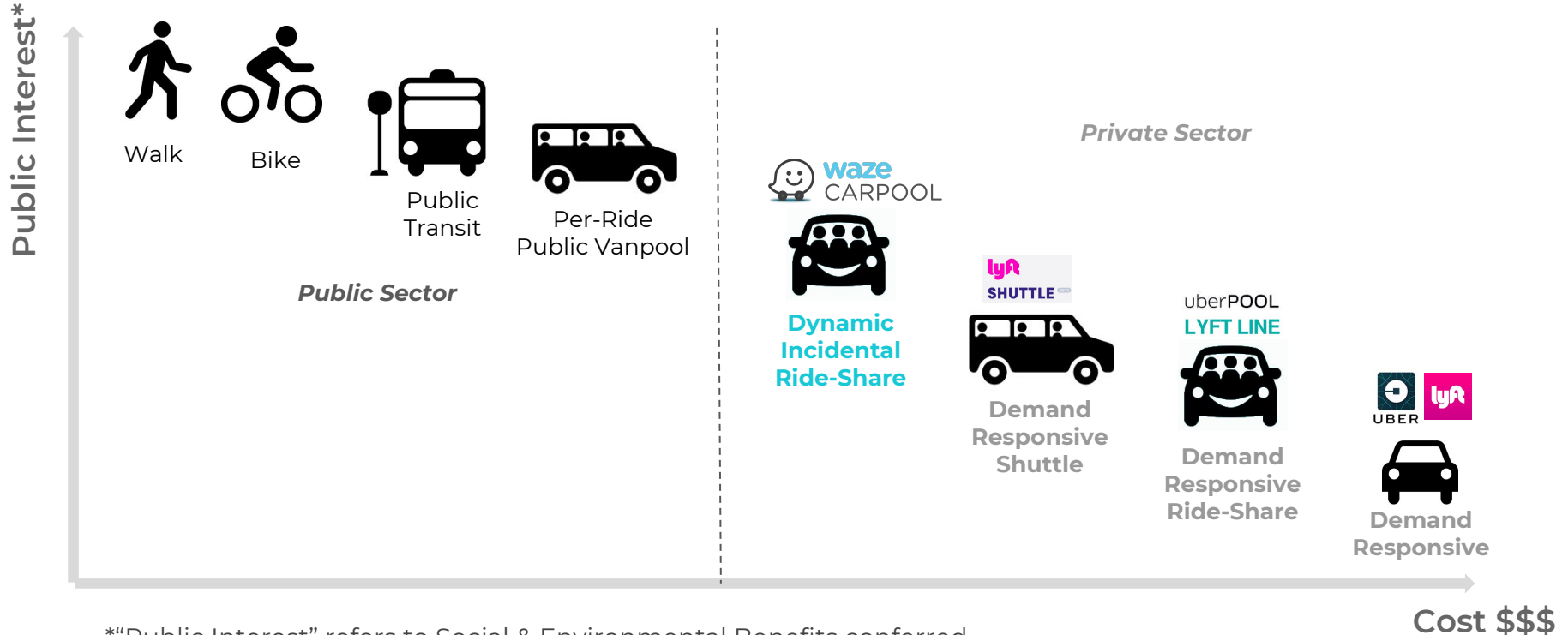
Carpooling, Powered by Waze

THE WAZE CARPOOL EXPERIENCE



“Mobility as a Service” Stack

Prioritizing transit modes based on Public Interest and Cost of service



*“Public Interest” refers to Social & Environmental Benefits conferred

Source: Matute, Juan (2017). Personal Communication via email on 8/30/17.

Waze Carpool- The Evolution

Evolving the Waze Mission: From “Outsmarting” to “Ending”

WAZE MISSION:
Outsmarting
Traffic, Together



WAZE CARPOOL MISSION:
~~Outsmarting~~ Ending
Traffic, **Altogether**



Core Benefits of Carpooling

What's in it for Wazers

Trusted
Community

1



Save
time

2



Save
money

3



Do good,
Feel good

4



End traffic,
altogether

5



What Makes it Different

Waze Carpool isn't like rideshare or taxis

Regular
Wazers, not
hired drivers

1



Know your
co-pilot

2



Drives
happening
anyway

3



Sharing
travel costs,
not earning

4



Score the
front seat

5



How does Carpool work?

WE CONNECT DRIVERS & RIDERS ON SIMILAR ROUTES

Behind the wheel?

Get Waze and give a ride.

Send to mobile



Waze Carpool is a **TWO APP CARPOOLING SYSTEM**

Drivers sign up and offer rides in the “Waze” app

Riders sign up and request rides in the “Waze Carpool” App

Ride shotgun?

Get Waze Carpool and catch a ride.

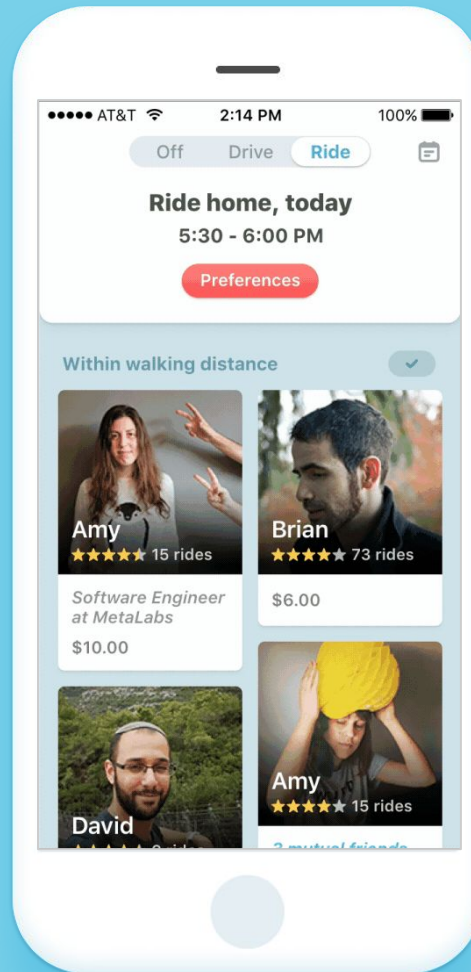
Send to mobile



What Changed?

~~Rides first.~~
People first.

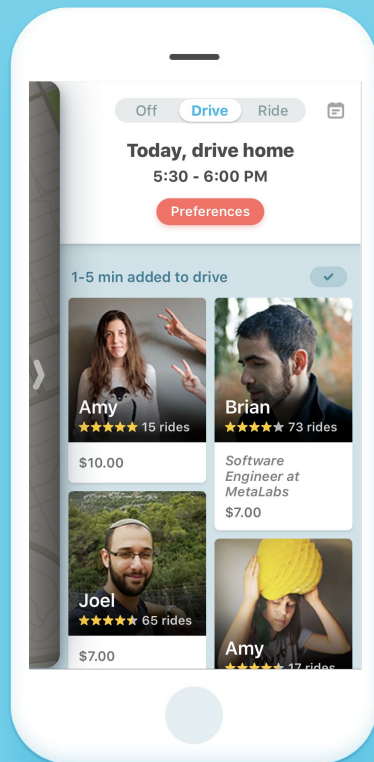
~~We choose.~~
You choose.



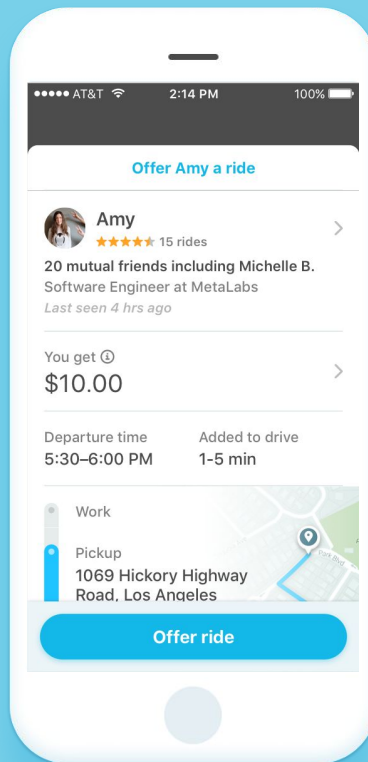
3 easy steps

Set up a carpool

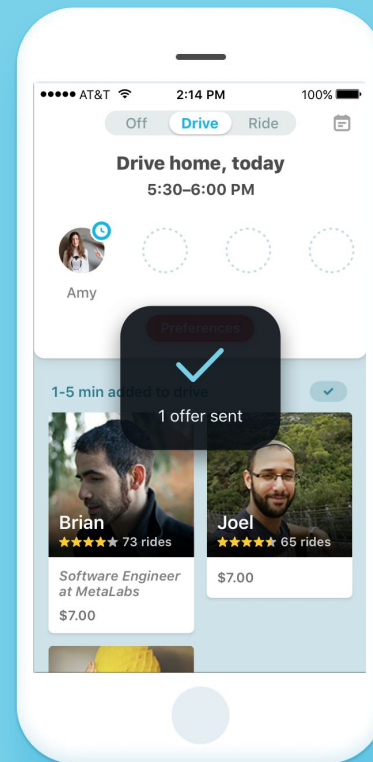
1 See people



2 Offer/request ride

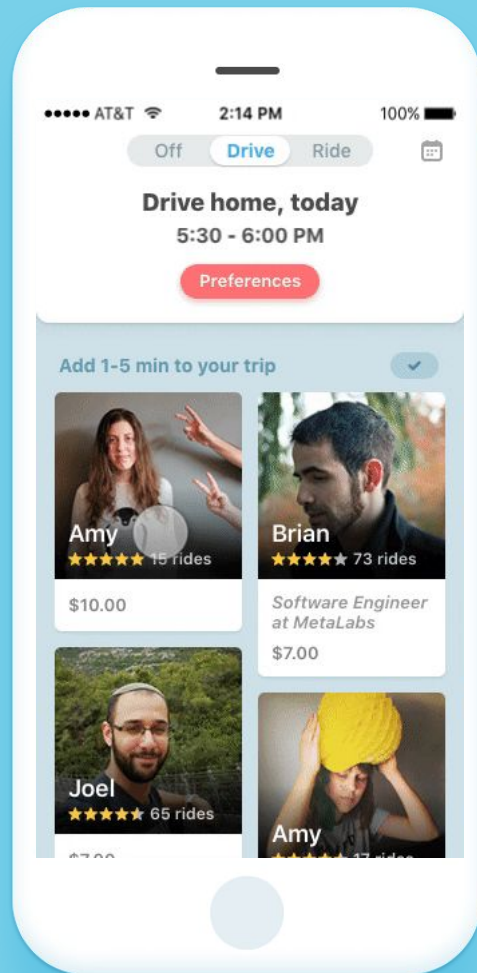


3 Wait for a reply



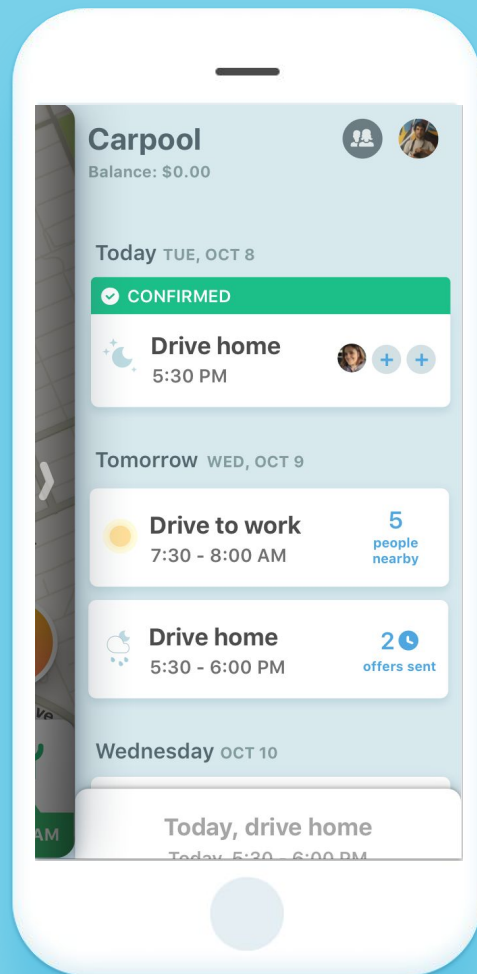
**Giving users
more control**

**Drivers can
choose who
they offer a
ride to**



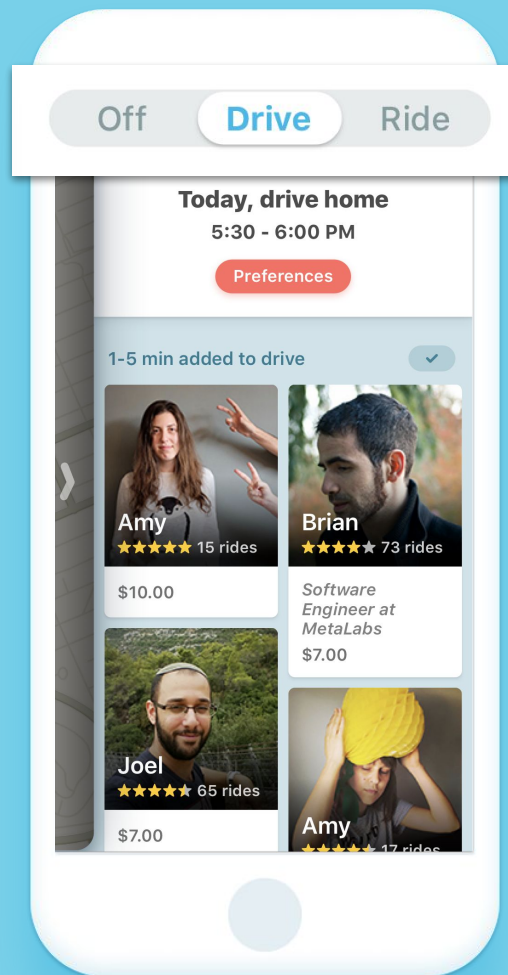
Manage your
carpools for
the week

Calendar View



Remove cars
from the road

Move easily
between the
rider and
driver apps



How have we worked with Transit Agencies in Texas?

“Bringing the benefits of Waze Carpool to San Diego together”

1 Commuters- Looking for carpool solutions

2 Employers- Strategic regional partners

3 Innovation- Optimizing mobility for all



Commuters- Outreach Channels

Transit Newsletters, RideShare Information Website

Commute

March 2018

Waze Carpool

Stay Connected

- CommuteSD (Facebook)
- CommuteSD (Twitter)
- SANDAGregion (YouTube)
- SANDAGregion (Instagram)
- 511sd.com/Commute (RSS)

Best News: \$2 Flat Rides through April 30!

Dates: Feb 1, 2018 - Apr 30, 2018

Riders: All rides will be just \$2, regardless of trip length!

Drivers: Receive free income payments around for the trip.

Hey, San Diego!

Carpool Rides to San Diego are just **\$2.00**

Did you miss our webinar on Waze Carpool? Learn how this dynamic carpooling option can improve your daily commute by watching the recorded information session on the [SANDAG YouTube channel](#). You also can take advantage of \$2 flat fee rides with Waze Carpool that start or end in [14 eligible ZIP codes](#) throughout the San Diego region through April 30.

Learn more or download the [Waze Carpool](#) app

CommuteSD: Hey, @ #SanDiego! We need your help choosing the

Commute | login | about | commuters | employers | partners | planners & developers | events

home > carpool

Search Go

- carpool
- vanpool
- bike
- transit
- telework
- school

carpool

commuter spotlight

Share your daily commute and save! Carpooling is an easy way to instantly reduce your commuting costs by 50 percent or more. Carpools also can take advantage of many free amenities throughout the region including carpool lanes, the [I-15 Express Lanes](#), [Park & Ride lots](#), and the [Guaranteed Ride Home](#) program. You'll save time, money, and wear and tear on your car, all while helping to save the planet.

Find someone to share the ride. Interested in trying a carpool commute but don't know how to find a carpool partner? Ridesharing apps like Waze Carpool, uberPOOL, and Lyft Line have you covered.

- Waze Carpool.** A carpool on-demand service through the Waze app. Carpools are driven by everyday individuals looking to fill the empty seats in their cars. Drivers and riders share the cost of commuting, and riders pay \$0.54 per mile, with a maximum cost of \$15 per trip.
 - Download in the [iTunes store](#) or [Google Play store](#).

carpool

"I generally carpool with my husband. What I like the most is we use our morning commute to plan our day and then in the afternoon we recap the main events of the day. Then when we get home we don't need to spend precious time talking about work; we can focus on family." – Yuki K., carpooler

Commuters- City Wide Promotion Program

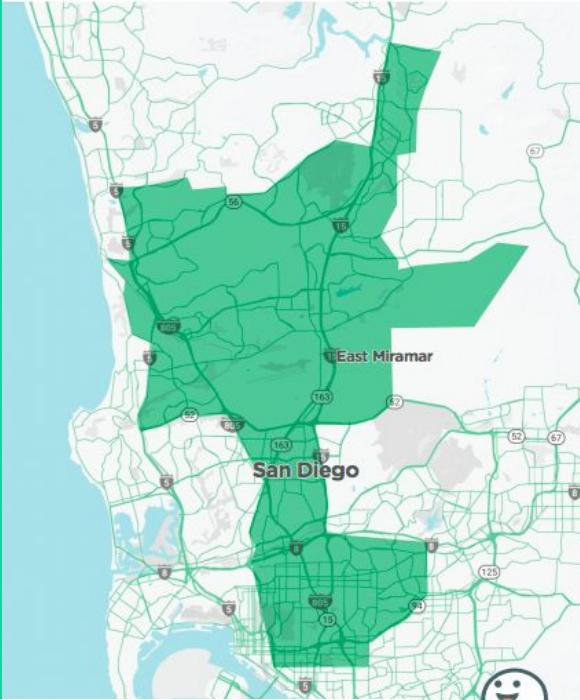
\$2 Flat Rides to Most Popular Zip Codes



San Diego!

\$2 FLAT RIDES
to and from San Diego

Feb 1 - Apr 30, 2018




waze CARPOOL

East Miramar

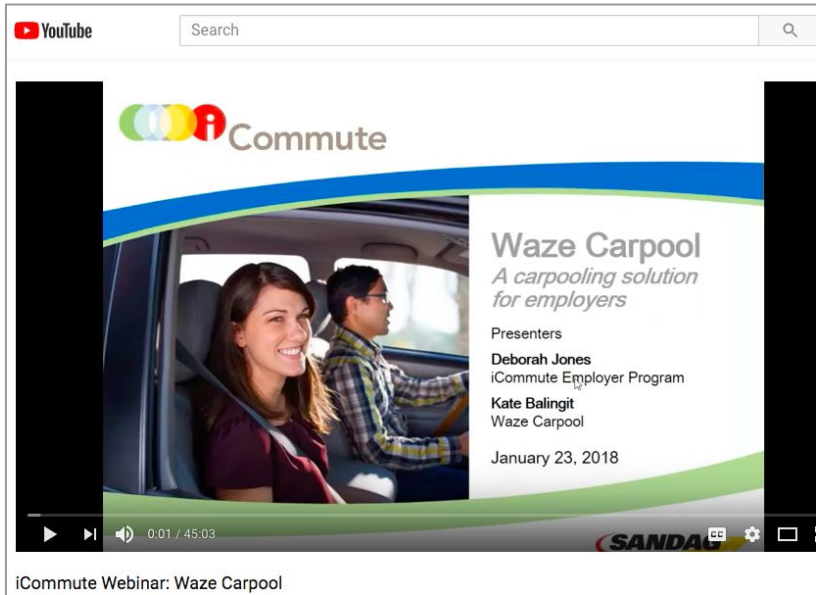
San Diego

Eligible Zip Codes: 92121, 92126, 92131, 92123, 92128, 92102, 92130, 92129, 92108, 92116, 92104, 92105, 92115, 92182



Employers- Outreach Channels

ETC Webinars & On-Site Tabling



The image shows a YouTube video player interface. At the top left is the YouTube logo and a search bar. The video content features the iCommute logo (three colored circles: green, yellow, red) and the text 'iCommute'. Below this is a video frame showing a woman in the passenger seat of a car and a man driving. To the right of the video frame, the title 'Waze Carpool' is displayed in a large font, followed by the subtitle 'A carpooling solution for employers'. Below the subtitle, the presenters are listed: Deborah Jones (iCommute Employer Program) and Kate Balingit (Waze Carpool). The date 'January 23, 2018' is shown at the bottom of the text area. The video player controls at the bottom show a play button, a progress bar at 0:01 / 45:03, and the SANDAG logo.

YouTube Search

iCommute

Waze Carpool

A carpooling solution for employers

Presenters

Deborah Jones
iCommute Employer Program

Kate Balingit
Waze Carpool

January 23, 2018

SANDAG

iCommute Webinar: Waze Carpool



Employer Subsidies // Waze Funded at 1 Employer

Testing One Month of Free Rides with Sony San Diego

SONY

2



65

Completed Rides
Jan 2018

Completed Rides
Feb 2018






See companies making an impact



Search company



San Diego

RANK	COMPANY	DISTANCE SAVED
1	 Qti	6,651 MILES
2	 Sony	2,297 MILES
3	 Qualcomm	1,243 MILES
4	 Illumina	438 MILES
5	 Intuit	260 MILES






[VIEW MORE](#)

Website
Tools

Employer Leaderboard

See companies making an impact

Search company Irvine

RANK	COMPANY	KMS/MILES SAVED
1		5,078
2		577
3		105
4		38
5		30

[VIEW MORE](#)

Employer Subsidies // SANDAG Funded across county

90-Day Subsidy Program launching May 1, 2018



10

Free Rides from
SANDAG*

*Includes 1st ride free from Waze



\$50

Driver Bonus after 10
completed carpools*

*Waze shares eligible Driver info
with SANDAG to distribute funds



IMPACT

First EVER ride subsidies
from Transportation Agency

First EVER driver incentive
program with a partner

New insights- SANDAG to
Survey Participants

Case Study in Summer 2018

INNOVATION, TOGETHER

New applications of Carpool technology

From Carpool..,

Bringing Waze Carpool to Employers & Commuters together



To Vanpool..,

Testing Waze Carpool to fill empty Vanpool Seats along strategic routes



To a Data-Driven Future

Comprehensive data-sharing strategy to optimize transit



**How can we bring Waze Carpool
to Dallas and all surrounding
areas commuters & employers?**

From Comms...

ORANGE COUNTY
On the move
A blog on OCTA transportation news & events

Bus MetroLink Share Freeways & Streets About

Share

Rideshare to Irvine for Only \$2 with New, Improved Waze Carpool

Twelve, March 25, 2016

OCTA's pilot program with Waze Carpool just got better. It already offers subsidized carpool rides to or from Irvine for only \$2 per rider, regardless of the length of the trip. Through its app, Waze Carpool matches up to 5 people with nearly identical commutes based on their home and destination addresses. Commuters can choose to be a driver or a rider. Drivers earn gas money and riders pay a small rate to cover the costs of gas and vehicle wear and tear.

And now there's an updated app that makes Waze Carpool even better. Improvements include:

- **No more bid/ded matching:** See drivers and riders going your way and choose the people you want to carpool with based on detailed profiles, star ratings, and connections like same workplaces and mutual friends—along with price and distance of route. Best matches (based on your needs) will appear at the top.
- **Customized Ride:** Now Riders like you choose to ride with coworkers only, or split to add a third of the same gender.
- **Improved matching:** Send multiple ride or drive requests and easily access your calendar view.

Along with Speculation and the University of California Irvine, OCTA is assisting with the Waze Carpool pilot program by promoting the offer and sharing it with employees in the Irvine area. For more about the Waze Carpool pilot program, click here.

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BE THE ONE BT1 TO HELP OUT

SHARE THE RIDE
A positive force in the community, dedicated to protecting both the environment and the quality of life in Orange County.

Orange County Transportation Authority
560 S. Main Street
P.O. Box 11594
Orange, CA 92667-1594

Share

waze CARPOOL

OCTA (Orange County Transportation Authority) has partnered with **Waze Carpool** to deliver a pilot program that offers subsidized carpool rides to or from Irvine! From February 1 through April 30, all rides to and from Irvine will be just \$2 per rider, regardless of how long the trip is. For example, this means your employees can get rides from Long Beach to Irvine for only \$2!

Waze Carpool matches up to 5 people with nearly identical commutes based on their home and destination addresses. Commuters can choose to be a driver or a rider. Drivers earn gas money and riders pay a small rate to cover the costs of gas and vehicle wear and tear.

Waze Carpool would like to work with you to get employees excited about this special promotion. With Waze Carpool you'll help your employees seamlessly carpool to and from work, make extra money for gas, reduce single occupancy trips to your workplace and reduce traffic congestion.

To help generate awareness for your employees Waze Carpool is offering you and your company:

- Free on-site visits from Waze representatives to assist employees with product education and onboarding. Representatives will come for 3 hours during lunchtime hours with coffee and pastries and fun promo items like t-shirts and phone chargers.
- Free customizable Email Templates to send to employees
- Free promo materials, including carpool parking signs, posters, brochures, stickers

Interested in hosting an on-site engagement for your employees? Please contact with Kylie Swepe at kswepe@octa.net or at (714) 560-5428 today!

Learn More!

SHARE THE RIDE
A positive force in the community, dedicated to protecting both the environment and the quality of life in Orange County.

Orange County Transportation Authority
560 S. Main Street, PO Box 14184
Orange, CA 92663-1584, USA

waze CARPOOL

Carpool Rides to or from Irvine are just \$2!

OCTA has partnered with Waze Carpool for a pilot program to deliver subsidized carpool rides to and from Irvine from February 1 through April 30. Rides to or from Irvine will be just \$2 per rider, regardless of how long the trip is!

Waze Carpool matches up to 5 people with nearly identical commutes based on their home and destination addresses. Commuters can choose to be a driver or a rider. Drivers earn gas money and riders pay a small rate to cover the costs of gas and vehicle wear and tear.

FAQ

Get answers

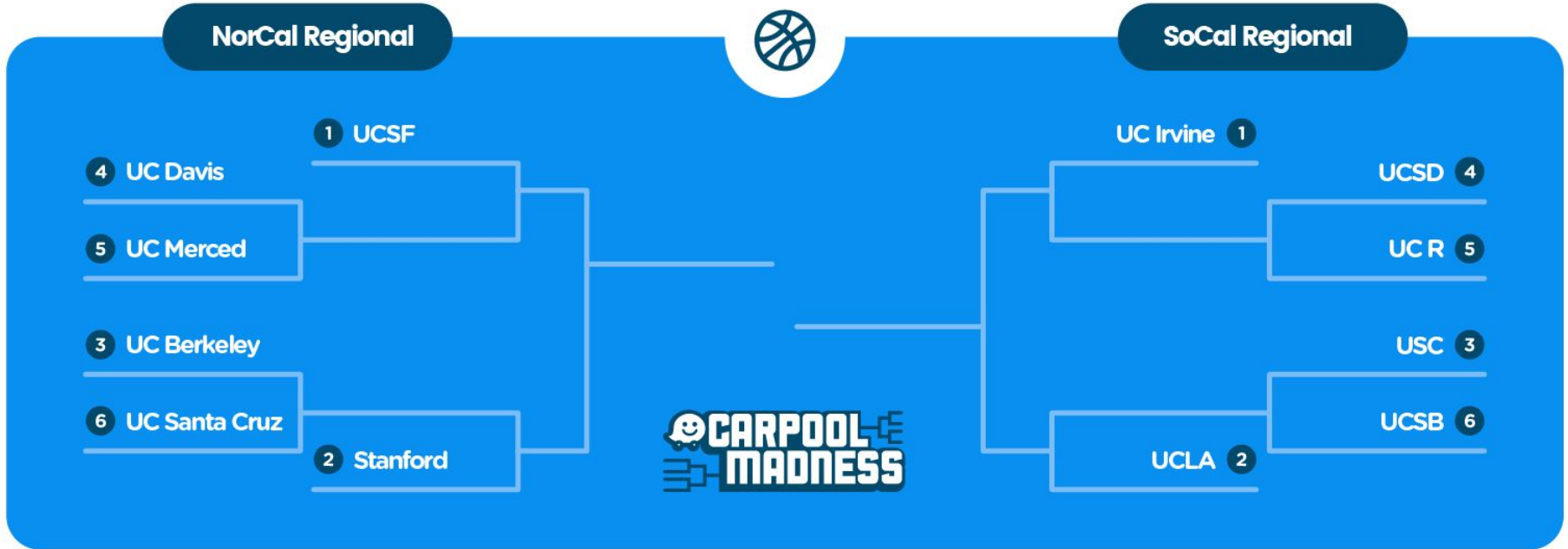
3 Easy Steps

- 1** Tell Waze Carpool where you live and where your destination is. Get matched with a fellow carpooler going your way.
- 2** When it's time, one carpooler picks up the other and off they go.
- 3** Payment is set in advance based on distance. When the ride is over, Carpool transfers \$ from rider to driver.

SIGN UP FOR UPDATES AND ALERTS

STAY CONNECTED

...to Custom Contests!



Schools are seeded based on number of miles carpooled.

THANK YOU!

Flavia Sasaki Siqueira

Fsasaki@google.com

Waze Carpool Business Manager - Central Region

