

# **Q2 2020** PROGRESS REPORT

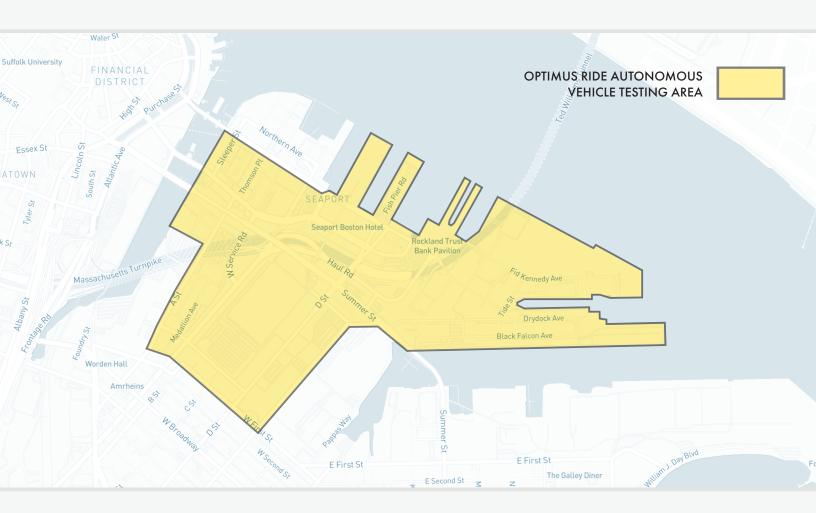
AUTONOMOUS VEHICLE TESTING CITY OF BOSTON

# About Optimus Ride

Optimus Ride designs, builds, and operates customized electric and autonomous transportation solutions for low-speed geofenced locations, from residential communities and mixed-use developments to office/industrial parks, ports, airports, academic campuses and city zones. Our company is based out of the original Autonomous Vehicle Testing Zone in Massachusetts, the Raymond L. Flynn Marine Park within Boston's Seaport District. Here, we conduct the majority of our research and development activities which prepare our autonomous mobility system for commercial deployment. Presently, we operate commercial deployment programs in New York, Virginia, Washington, D.C., and California. Each system is tailored to meet community needs for passenger service and last-mile logistics. We are grateful for the continuous support we have received to test automated vehicles on public ways in Massachusetts. Your work makes our research, development, and commercialization efforts possible.

Thank you,

#### The Optimus Ride Team





# Testing Activities – Q2 2020

During Q2, on-road testing activity was paused given the unfolding COVID-19 situation in Massachusetts. During April and May, we made improvements to our system capabilities while working from home. These include enhancements to our internal maps and expanded use of simulation testing to maintain a level of readiness in preparation for returning to public road testing when we would be able to safely do so. We also integrated our data analysis process more into our ability to monitor the system's performance relative to field testing. Meanwhile, the company continued to make preparations for the safe and gradual reopening of our office during Phase 1 of the business reopening plan in MA.

As we slowly reopened our office space in June, we prepared to restart our testing operations. To do this, a small group of employees began coming in to perform checks on our vehicle system in manual mode after several months of inactivity. We were able to leverage the period of inactivity to gather some data on how our vehicles fared under storage conditions (longer periods of inactivity) as they were intended for continuous use. Since then, we continued to ramp up testing inside the Marine Park, such that by the end of June we were sufficiently prepared to resume autonomous testing.



# COVID-19 Update

During Q2, the Optimus team developed a comprehensive approach to resume safe working conditions in our office and when performing in-vehicle testing. These include updating employee policies and designing new isolation features for our vehicle interior. Ultimately, we designed transparent in-vehicle dividers to allow operators and passengers to be isolated from one another. We are rolling out this feature to our testing and commercial fleets and will continue throughout Q3. To maximize employee safety as our office space reopened, we continued to support employees working from home. For those whose work required in-office presence or those wishing to return to the office at their discretion, we have made wearing masks inside our offices mandatory and have masks on-hand for those that need them. We additionally require employees working in our facilities to perform a COVID-19 self-evaluation each day before they arrive at the office to certify that they are symptom-free.

Employees working with the vehicles are required to wear masks inside the vehicles at all times and complete a cleaning protocol after each use. As we worked to resume service at our commercial sites, we retrained employees on service operations and updated them on our new COVID-19 policies, including those listed above. We also made passenger-specific modifications to our service vehicles, such as adding signage requiring passengers to wear masks and describing the preventative measures we are taking for our service operations (see images below).

### **PREVENTATIVE MEASURES AGAINST COVID-19** Optimus Ride is committed to the safety of our employees and the communities we serve. FACE MASKS OR COVERINGS **REQUIRED FOR ALL RIDERS OPERATORS** VEHICLES • Masks required for all • Hand sanitizer available in vehicle operators vehicles • PPE & Social Distancing Vehicles cleaned after every trainina passenger trip • Access to daily temperature Social distancing barriers for checks passengers • Access to antibodies testing





# **Community Engagement**

In May, Optimus Ride announced a new commercial deployment site with Brookfield Properties at The Yards in Washington, D.C., to deliver food directly – and contact-free – to families in Southeast D.C. who are struggling with food insecurity and access to food amid COVID-19. For The Yards, Optimus Ride has designed, built, and started the operation with a service model that has capabilities for both logistics and passenger mobility. The current system is supervised by trained staff and engineers while the vehicles learn the different routes around The Yards. The operation will begin by providing essential logistics services for transporting prepared foods and groceries - initially for nonprofit meals and eventually for commercial food or goods delivery services for the tenants at The Yards - and transition to people-moving as COVID-19 subsides. Through the system, Optimus Ride is integrating a new logistics vertical critical for restaurants, retailers and other businesses in order to safely serve their community during and after the pandemic. To learn more about our deployment at The Yards, please refer to our website.

### Takeovers

The takeover methods used in Optimus Ride's vehicles are designed to ensure that the Human Machine Interface (HMI) is clear, consistent, gives context, and provides operators the necessary feedback about the system. The system is designed to disengage autonomous control and enable manual control by the safety driver when a takeover is initiated. The safety driver can immediately take control using the brakes, throttle, or steering wheel, for example. Given Optimus Ride's limited on-road testing in Q2, we have no notable takeovers to report.

# **General Report**

### FEEDBACK FOR MUNICIPAL AND STATE TRANSPORTATION STAKEHOLDERS

Given limited on-road testing activities this quarter, Optimus Ride does not have feedback to share with municipal and state transportation stakeholders. We look forward to resuming feedback as we ramp up on-road testing in Q3.

### GOALS FOR CURRENT AND FUTURE TESTING, AND/OR PROPOSALS FOR CHANGES

Our current goals for testing are to safely and productively return to on road testing. Our goals for future testing or proposals for changes are currently under review with nothing to report at this time. For information related to our current and future testing efforts, please refer to the Testing Activities section of our report.

### DESCRIPTION OF ALL ADS SYSTEM FAILURES, CITATIONS, OR VIOLATIONS RECEIVED DURING TESTING

After Q2 2020, Optimus Ride conducted an internal audit of ADS system failures, citations, and violations received during testing. During this period, Optimus Ride has no system failures, citations or violations to report.

### **PILOT SERVICE TESTS**

Optimus Ride is not providing pilot service tests at this time in the State of Massachusetts. For more information regarding the services we provide, our commercial deployment sites, or general inquiries, please refer to our website: <u>www.optimusride.com</u>



