RESOLUTION ADOPTING THE EMERGING MOBILITY EVALUATION REPORT

WHEREAS, The San Francisco Charter mandates Transit First, charging the City and County of San Francisco with providing for the safe and efficient movement of people and goods in San Francisco; and

WHEREAS, In the last decade, San Francisco has seen dramatic growth of many emerging mobility services and technologies (EMST) that present opportunities while also challenging that core policy; and

WHEREAS, These services and technologies include everything from mobile applications that connect passengers with demand-responsive transportation vehicles to self-driving and connected vehicles; and

WHEREAS, These technological advances in transportation services have resulted in services that may complement and conflict with the City's Transit First and other policies and likely require updates to existing transportation infrastructure, rules, regulations and policies; and

WHEREAS, The Transportation Authority and the San Francisco Municipal Transportation Agency (SFMTA) collaboratively developed Guiding Principles for Emerging Mobility Services, adopted in June 2017, that serve as a framework both for proactive public-sector development of policies and programs, and for the formulation of sound, consistent responses when warranted; and

WHEREAS, Together with the SFMTA, the Transportation Authority has engaged in an EMST study that includes several core tasks such as documentation of existing services and technology, developing a policy framework, and evaluating existing services and their ability to meet San Francisco Transportation Plan and citywide goals; and

WHEREAS, For the EMST, staff developed evaluation criteria based on the Guiding Principles for Emerging Mobility, engaging a wide range of community, industry and civic stakeholders in the process; and

WHEREAS, Staff used a data-driven process to develop the Draft Emerging Mobility Evaluation Report, documenting how emerging mobility services were aligned or misaligned with the Guiding Principles and providing recommendations for sector management, research, and partnerships; and

WHEREAS, At its May 8, 2018 meeting, the Transportation Authority Board was briefed on the Draft Emerging Mobility Evaluation Report and provided input and feedback to staff which has been incorporated into the final Emerging Mobility Evaluation Report (enclosed); and

WHEREAS, The evaluation determined the following major takeaways:

- Companies that performed pilots with and provided data to San Francisco public agencies have informed development of permit systems for those mobility types and have guided those mobility types to be more aligned with the Guiding Principles;
- We do not have adequate data to fully evaluate alignment with our Guiding Principles.
 Other researchers have produced important studies and findings, but more traveler trip data and surveys are needed to characterize San Francisco travel markets;
- Many emerging mobility services are available during late-night hours, on weekends, and/or in areas less well covered by public transit. This may provide opportunities to increase mobility and access for people with disabilities and people underserved by public transit;
- While some services play a useful first/last-mile connection, very few emerging mobility companies have implemented design features or policies that our methodology identified as directly supportive of transit;
- Operator training is inconsistent among emerging mobility services; many services

- exhibit conflicts at curbs, in transit-priority lanes and on sidewalks;
- The City and the emerging mobility companies have not consistently coordinated to develop a robust curb management approach;
- The Transportation Authority's *TNCs Today* study found that ride-hail vehicles in San Francisco are concentrated during times of day and neighborhoods of the city where traffic is most congested; and

WHEREAS, Based on the study findings, the final report recommends that the city implement the following recommendations:

- **Partner:** The SFMTA and the Transportation Authority should develop a framework for emerging mobility pilots to proactively partner with companies to develop innovative solutions to address unmet city transportation needs;
- **Measure:** San Francisco public agencies should develop a data reporting and warehouse strategy to coordinate and consolidate existing data streams;
- **Regulate:** The SFMTA should harmonize existing permit programs related to emerging mobility and create a framework for new services;
- Bridge: The City should develop a user study to understand who uses emerging
 mobility services and focus on equity gaps for low-income users and issues related to
 disabled access;
- **Prioritize:** The Transportation Authority and the SFMTA should continue to support the expansion of transit-priority facilities and conduct pilot programs that improve first and last mile connectivity to transit stations;
- Enforce: The SFMTA and the Police Department should increase enforcement of known conflict areas and automate some enforcement duties to promote safety;

• **Price:** The SFMTA and the Transportation Authority should prioritize developing a curb management strategy that allocates and prices curb access appropriately. Based on current congestion levels on San Francisco roadways, San Francisco should move toward implementing a decongestion pricing and incentives system; and

WHEREAS, At its June 27, 2018 meeting, the Citizens Advisory Committee was briefed on and unanimously adopted a motion of support for the adoption of the final Emerging Mobility Evaluation Report; now, therefore, be it

RESOLVED, That the Transportation Authority hereby adopts the final Emerging Mobility Evaluation Report; and be it further

RESOLVED, That the Executive Director is hereby authorized to communicate this information to all relevant agencies and interested parties.

Enclosure:

1. Final Emerging Mobility Evaluation Report

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Memorandum

Date: June 27, 2018

To: Transportation Authority Board

From: Jeff Hobson – Deputy Director of Planning

Subject: 07/10/2018 Board Meeting: Adoption of Emerging Mobility Evaluation Report

RECOMMENDATION ☐ Information ☒ Action	☐ Fund Allocation
Adopt the Final Emerging Mobility Evaluation Report	☐ Fund Programming
SUMMARY	☐ Policy/Legislation
On May 8, we presented the Draft Emerging Mobility Evaluation Report	☑ Plan/Study
to the Board. Using a data-driven process, we documented how emerging mobility services were aligned or misaligned with the 10	☐ Capital Project
Guiding Principles for Emerging Mobility Services adopted by the	Oversight/Delivery
Transportation Authority and San Francisco Municipal Transportation	☐ Budget/Finance
Agency (SFMTA) in summer 2017. Based on the evaluation findings, the	☐ Contracts
report identifies seven recommendations for sector management, research and partnerships. The recommendations are described in this	☐ Procurement
memorandum, along with a summary of feedback received on the draft	☐ Other:
evaluation report, and a few examples of how we and the SFMTA are	
already addressing some of the report's recommendations. There have	
been no substantive changes to the report since the draft was released,	
though we have made slight adjustments to scores for some of the	
providers in response to additional data that they provided to us. The	
final report is included as an enclosure.	

DISCUSSION

Background

In the last decade, a number of emerging mobility services and technologies have emerged that increase mobility choices and transportation benefits for some travelers, while also presenting challenges or impacts to other travelers, or to the attainment of key city transportation policies and goals, such as Transit First, Vision Zero, climate and equity. These services and technologies include everything from mobile applications that connect passengers with demand-responsive transportation services to self-driving and connected vehicles.

The 10 Guiding Principles for Emerging Mobility, adopted in June 2017 serve as a framework both for proactive public-sector development of policies and programs, and for formulation of sound, consistent responses when warranted. They also provide a clear indication to mobility companies about what the City seeks and expects from emerging mobility service providers.

For the Emerging Mobility Evaluation Report, we developed evaluation criteria based on the adopted

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Guiding Principles for Emerging Mobility, engaging a wide range of community, industry and civic stakeholders in the process. Using a data-driven process, we developed and released the Draft Emerging Mobility Evaluation Report in May 2018 documenting how emerging mobility services were aligned or misaligned with the Guiding Principles and providing recommendations for sector management, research, and partnerships.

Draft Report Feedback

In addition to presenting the draft report to the Board and Citizens Advisory Committee, we solicited feedback on the draft report from community stakeholders, advocacy groups, and emerging mobility companies. Some emerging mobility companies provided additional data and information about their services, which resulted in minor changes to some service evaluation scores. Several stakeholders encouraged the city to prioritize opportunities to improve public transit and make it competitive with emerging mobility services. Advocacy groups encouraged the city to partner with, and when possible require, emerging mobility services to bridge gaps for low-income people and people with disabilities. Finally, Transportation Commissioners urged us to be more proactive in our efforts, work collaboratively with other city agencies including the Mayor's Office, and increase enforcement efforts when possible. To that end, we have continued outreach to emerging mobility companies to understand their company's next steps and goals. Additionally, we are developing future strategies with the Committee on Information Technology, the Mayor's Office of Civic Innovation, SF Environment, and the SFMTA.

Evaluation Results Overview

Our evaluation determined the following major takeaways:

- Companies that performed pilots with and provided data to San Francisco public agencies
 have informed development of permit systems for those mobility types and have guided those
 mobility types to be more aligned with the Guiding Principles.
- We do not have adequate data to fully evaluate alignment with our Guiding Principles. Other researchers have produced important studies and findings, but more traveler trip data and surveys are needed to characterize San Francisco travel markets.
- Many emerging mobility services are available during late-night hours, on weekends, and/or
 in areas less well covered by public transit. This may provide opportunities to increase mobility
 and access for people with disabilities and people underserved by public transit.
- While some services play a useful first/last-mile connection, very few emerging mobility companies have implemented design features or policies that our methodology identified as directly supportive of transit.
- Operator training is inconsistent among emerging mobility services; many services exhibit conflicts at curbs, in transit-priority lanes and on sidewalks.
- The City and the emerging mobility companies have not consistently coordinated to develop a robust curb management approach.
- Our *TNCs Today* study found that ride-hail vehicles in San Francisco are concentrated during times of day and neighborhoods of the city where traffic is most congested.

Recommendations

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Based on the findings of the Emerging Mobility Evaluation Report, we recommend the city implement the following recommendations:

- **Partner:** The San Francisco Municipal Transportation Agency (SFMTA) and the Transportation Authority should develop a framework for emerging mobility pilots to proactively partner with companies to develop innovative solutions to address unmet city transportation needs.
- **Measure:** San Francisco public agencies should develop a data reporting and warehouse strategy to coordinate and consolidate existing data streams.
- **Regulate:** The SFMTA should harmonize existing permit programs related to emerging mobility and create a framework for new services.
- **Bridge:** The City should develop a user study to understand who uses emerging mobility services and focus on equity gaps for low-income users and issues related to disabled access.
- **Prioritize:** The Transportation Authority and the SFMTA should continue to support the expansion of transit-priority facilities and conduct pilot programs that improve first and last mile connectivity to transit stations.
- **Enforce:** The SFMTA and the Police Department should increase enforcement of known conflict areas and automate some enforcement duties to promote safety.
- **Price:** The SFMTA and the Transportation Authority should prioritize developing a curb management strategy that allocates and prices curb access appropriately. Based on current congestion levels on San Francisco roadways, San Francisco should move toward implementing a decongestion pricing and incentives system.

Emerging Mobility Initiatives Underway

The Transportation Authority and the SFMTA have taken steps to advance several priority recommendations, including:

- We are working together with the Mayor's Office to develop a strategy for collaboration that includes a framework for future pilot projects.
- The Transportation Authority has partnered with the Metropolitan Transportation Commission (MTC) to conduct a travel behavior survey about emerging mobility and we are developing strategies to bridge access gaps in District 10 through our D10 Multimodal Mobility Management Study.
- The SFMTA is working to harmonize emerging mobility permits, coordinate data they receive through those permits and is developing a curb management strategy to improve roadway safety and reduce congestion.

FINANCIAL IMPACT

The recommended action does not impact the adopted Fiscal Year 2018/19 budget. Funding for the underway activities is included in the adopted Fiscal Year 2018/19 agency budget.

CAC POSITION

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The CAC was briefed on this item at its June 27, 2018 meeting and unanimously adopted a motion of support for the staff recommendation.

SUPPLEMENTAL MATERIALS

Enclosure – Final Emerging Mobility Evaluation Report