Brainstorm Exercise – Autonomous Vehicles

	Opportunities	Challenges	Tradeoffs	Potential Policy Tools
Equitable Access	New possibilities for street space previously occupied by parked cars. Door-to-door travel opportunities for people with mobility challenges and difficulties with navigation.	No guarantee of accessibility or affordability.		
Safety and Wellness	Potentially safer for all road users.	Potentially less safe for riders, other vehicles, and road users like cyclists and pedestrians, without regular hardware and software checks.		
Managing Congestion	Increased road safety and traffic efficiency.	Could worsen congestion from traffic.		
Resiliency and GHG Emissions	Lower emissions from electrification and less traffic.	Could shift users from transit. Might encourage sprawl and longer commutes.		

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Brainstorm Exercise – RHV's and Carshare

	Opportunities	Challenges	Tradeoffs	Potential Policy Tools
Equitable Access	Door-to-door travel opportunities for the elderly and mobility challenged. Makes cars available for individuals who can't otherwise afford.	Low income populations can't rely on RHV services to the extent that middle- and high-income individuals can. RHV's are not necessarily ADA compliant.		
Safety and Wellness		RHV pick-up and drop-off behaviors are currently unsafe and have led to numerous bike crashes through "doorings."		
Managing Congestion	Shared rides decrease congestion. Reduced competition for street parking.	Single-passenger RHV's and cruising drivers looking for fares increase traffic congestion, vehicle emissions and VMT.		
Resiliency and GHG Emissions	Shared rides can complement existing transit networks.	RHV's substitute for transit trips and make bus services less efficient through traffic. No vehicle requirements for fuel efficiency or other sustainably related measures.		

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Brainstorm Exercise – Micromobility

	Opportunities	Challenges	Tradeoffs	Potential Policy Tools
Equitable Access	Helps connect people to transit.	If shared micromobility becomes expensive, lower income groups won't share in the benefits. Physically challenging to ride.		
Safety and Wellness		if scooters are left on the sidewalks and in public spaces, they could impede movement by people with disabilities that impact navigation. High rate of injury in many cities.		
Managing Congestion	Helps create more demand for non-auto infrastructure as usage increases and might make traveling by bike safer in the process.			
Resiliency and GHG Emissions	Micromobility is a potential substitute for auto trips by RHV or private SOV and could help the City achieve its goal of reducing SOV trips.			

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Brainstorm Exercise – Electrification

	Opportunities	Challenges	Tradeoffs	Potential Policy Tools
Equitable Access	Important way to reduce GHG emissions from the transportation sector.			
Safety and Wellness		Electrifying vehicle trips does not alleviate other problems caused by vehicle trips or help achieve Vision Zero goals like fewer car accidents.		
Managing Congestion		EVs that have replaced Internal Combustion Engine (ICE) vehicles contribute the same amount of traffic to roads.		
Resiliency and GHG Emissions	Improves local air quality and reduces negative health impacts associated with localized air pollutants from transportation. EVs have a net emissions benefit when the electricity is generated primarily from natural gas, as is the case in New England.	Electrification is not necessarily cleaner if electricity is primarily generated by fossil fuels. Electrification of modes that have traditionally been non motorized can increase demand for electricity.		

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Brainstorm Exercise – MaaS

	Opportunities	Challenges	Tradeoffs	Potential Policy Tools
Equitable Access	Wheelchair accessible vehicles, if they are a part of the MaaS fleet, offer the opportunity for door-to-door service that might otherwise be difficult by public transit.	Based on the current rollout of MaaS platforms, a platform service for low-income populations might need to be subsidized by the City.		
Safety and Wellness	MaaS represents a simplified customer experience and door-to-door travel opportunities.			
Managing Congestion	MaaS can offer point-to-point travel for families, especially those without vehicles.	Could mean more RHV-like trips and fewer transit trips.		
Resiliency and GHG Emissions		Depending on platform set up, won't necessarily lead to more sustainable travel behavior.		

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Brainstorm Exercise – Sidewalk Delivery and Drones

	Opportunities	Challenges	Tradeoffs	Potential Policy Tools
Equitable Access	Might offer benefits in delivery speed and reduced cost for critical items such as medicines.	The impact to delivery labor could be significant if those jobs are not transitioned into another related role such as robotic maintenance.		
Safety and Wellness		The noise pollution caused by aerial drones will be difficult to limit.		
Managing Congestion	Could reduce deliveries made by car.	Robots might crowd streets, sidewalks and the skies to drop off packages.		
Resiliency and GHG Emissions				

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