

Mobility indicators

The below matrix summarizes the consultant team’s recommended indicators for inclusion in the Envision Cambridge plan. The recommended indicators were developed to cover as many as possible of the Envision Cambridge mobility goals:

- A. **Safety and Active Transportation** – Eliminate traffic fatalities and serious injuries, while encouraging active living and improving comfort.
- B. **Equity and Accessibility** – Ensure a diverse set of travel options that meet the access and mobility needs for people of all ages and abilities
- C. **Reliability and Efficiency** – Ensure transit and goods movement reliability, and move more people by space-efficient modes, such as walking, biking, taking transit, and carpooling
- D. **Community Character and Vitality** – Ensure that the transportation system supports place-making and shared community spaces, and protects neighborhood streets
- E. **Connectedness and User Friendliness** – Create an easy-to-understand, integrated, continuous, and comfortable transportation network
- F. **Climate Resilience and Environment health** – Achieve a carbon neutral transportation system and adapt to climate change

	Indicator	Potential Source	Additional Resources Required	Recommendation	Baseline		2030 Draft Target
					Year	FATAL INJURY	
1	# of fatalities and EMS transports for crashes by mode on city-owned streets	Cambridge Police / EMS Officer filed injury reports from Cambridge Police Department as reported by the Cambridge Police Department annual summary of crash reports injuries and fatalities.	Research via Vision Zero effort	Recommended: This indicator will help to identify priority areas for design interventions. It will also help track the City’s progress toward Vision Zero.	2015	1	Reduce number of fatalities and serious injuries to zero
				2016	4		
				2017	0		
				Baseline for serious injuries under development by Vision Zero team.			
2	Modal access: • A: Transit access % of residents within ½ mile to MBTA subway station and ¼ mile to high frequency bus lines B: Progress on Cambridge Bicycle Plan, defined by % of street segments that meet the city’ standard for bicycle comfort level (defined as BCL of at least 2) • C: Walking access Intersection density and % of roadways with sidewalks on both sides	City of Cambridge / GIS		Recommended: This indicator helps to measure progress in improving important modal infrastructure and access.	A: 39% of Cantabrigians live within a 5-minute walk of a frequent bus line, based on the 2012-2016 ACS 5-year estimate. 48% of Cantabrigians live within a 10-minute walk of a transit line, based on the (2012-2016 ACS 5-year estimate) B: 62.7% of all streets meet the city’ standard for bicycle comfort level C: 230 intersections per square mile (2018) 91.6% of roadways have sidewalks on both sides (2018) *excludes state roads	A: Increase by 20% of total over baseline levels B: 90% of all streets meet the city’ standard for bicycle comfort level C: 240 intersections per square mile No loss in % of roadways with sidewalks on both sides	

3	Mode share of all trip types (for example, visiting a friend, entertainment, etc.) by neighborhood	New data source	Yes	Recommended: Current data on mode share comes from the US Census, which only asks about travel to work. To fully understand travel choices for Cambridge residents, it is important to understand the mode share of all trips.	We'd like to track these in the future but requires new data source. The City plans to collect this data, but currently has no baseline data for all trip types. The city report when data is available We currently have baseline for drive/ride alone vehicle mode share for Cambridge residents and employees Baseline: Cambridge employees 44% - Target 37% Cambridge residents 28% - Target 24%	Reduce mode share of all trip types by 15% of total from 2030 (or date of first survey) level
4	Mode share for Cambridge employees and resident labor force <ul style="list-style-type: none"> Percentage of employees that drive alone to work Percentage of residents who drive alone to work 	American Community Survey		Recommended: The ACS reports mode share for residents and employees annually.	<ul style="list-style-type: none"> A: 42% drive alone B: 26% drive alone Weighted average of ACS 1-year estimates 2014-2016	A: 32% of Cambridge commuters drive alone B: 21% Cambridge residents drive alone
5	Access to connected transportation modes <ul style="list-style-type: none"> 5-min walk to Blue Bikes that are within a quarter mile of another Blue Bike Near a protected bicycle facility that intersects (w/in 50 ft) another bicycle facility 350 ft walk of an intersection (preferably crosswalks if data allows) ½ mile /10-min walk to a Red Line station ¼ mile /5 min walk to a bus line with a peak frequency < 10 min 	GIS, Census, Bikeshare, Cambridge bicycle infrastructure data, MBTA	GIS analysis	Recommended: Measuring the number of transportation options that the average Cantabridgian has is an indicator of overall freedom of mobility.	2.93	Increase to 4.4 options