

It's Not Easy Being the Green Line

The evolution of the Massachusetts Bay Transportation Authority rapid transit map (spider map) has been heavily influenced by the MBTA's relationship with its own Green Line. The original spider map, created by Cambridge Seven Associates, was a great leap forward. The transit lines got their well-known colors and the system was depicted in a concise, easy-to-read manner for the first time. But even at this beginning stage the Green Line was shown as a lesser part of the whole system. The original map, circa 1965-1987, omitted most of the stations and labeled even fewer. Internally at the MBTA, the Green Line surface branches were thought of as a separate system, less important than the rest, but to riders it's all the same. They call it the "subway" regardless of whether the vehicle was above or below ground.

In the mid 1990's when a new rapid transit map was designed, an attempt was made to better depict the Green Line. The four branches were drawn more geographically realistic and located every single stop, but only the accessible surface stations were labeled due to space limitations. Though better, this treatment still diminished the Green Line. A rider not familiar with the MBTA, may not understand why station labels were omitted.

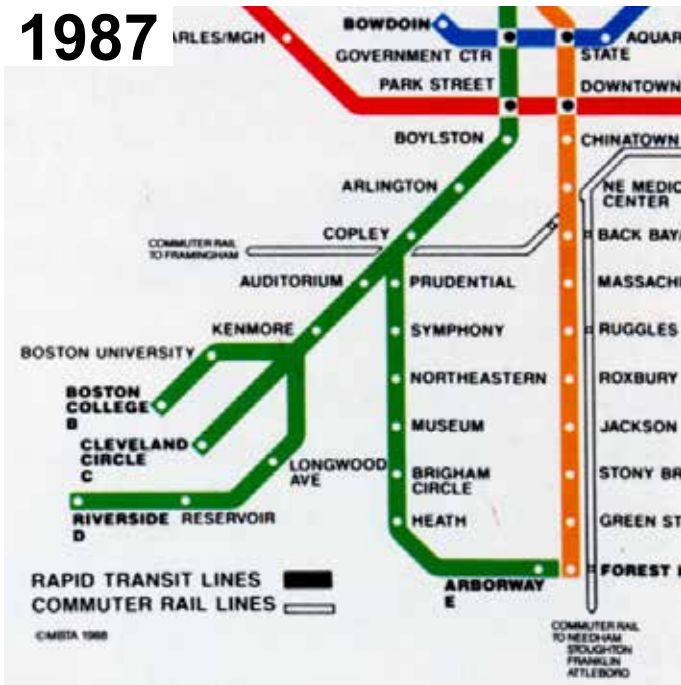
After a contest in 2013, the MBTA had a new map designed based on comments and suggestions from the public. They wanted all of the Green Line stations shown and labeled. The current map design had to have the "fully-loaded" Green Line branches somehow squeezed into the available map space. As a result, the four Green Line branches now resembles a pitchfork with the curving lines allowing all the surface stations to be shown and labeled.

One wonders if the public's opinion had been part of with original Cambridge Seven map, would the overall design have been quite different. The Green Line might have had equal weight with rest of the MBTA System and might have forced a rectangle map design as opposed the current square one.

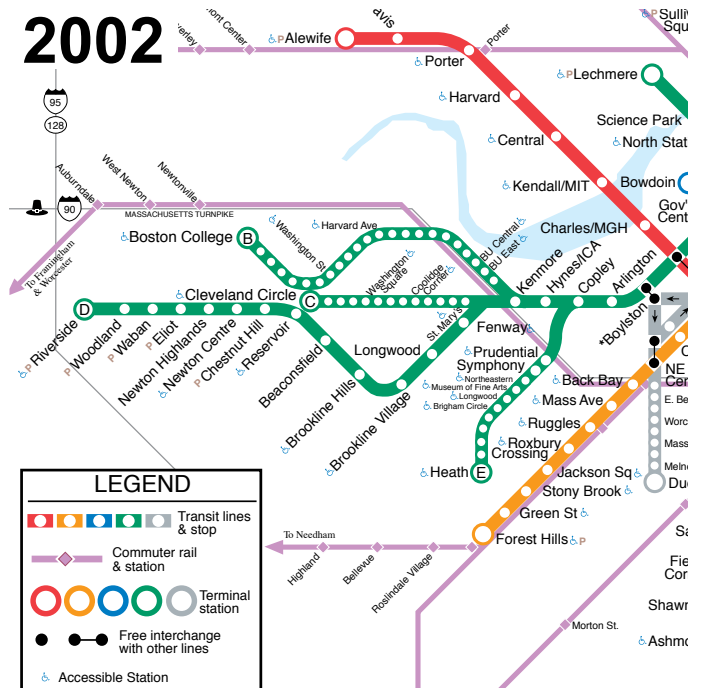
Green Line Branch Depictions Over Time

As seen below, the first map from 1987 depicts all four branches of the Green Line but only shows a limited number of surface stations west of Kenmore. The 2002 map improved upon this by showing all the stations but only labeling the accessible stations on the B, C, and E branches. With the addition of the Key Bus Routes, the 2009 map has a new configuration but essentially no changes or improvements to the Green Line were made. In 2014 the map was redesigned to show and label all Green Line surface stations. The Green Line design has returned to a less geographically accurate layout, not unlike the original 1987 map.

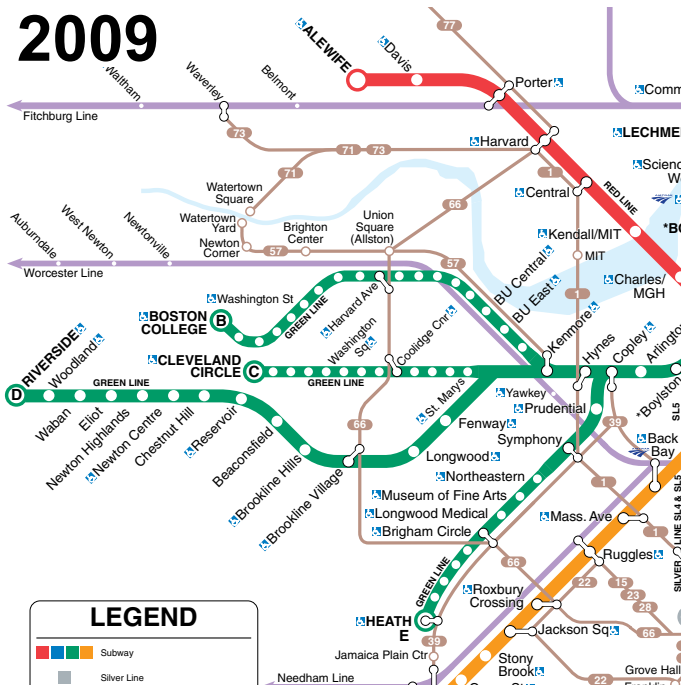
1987



2002



2009

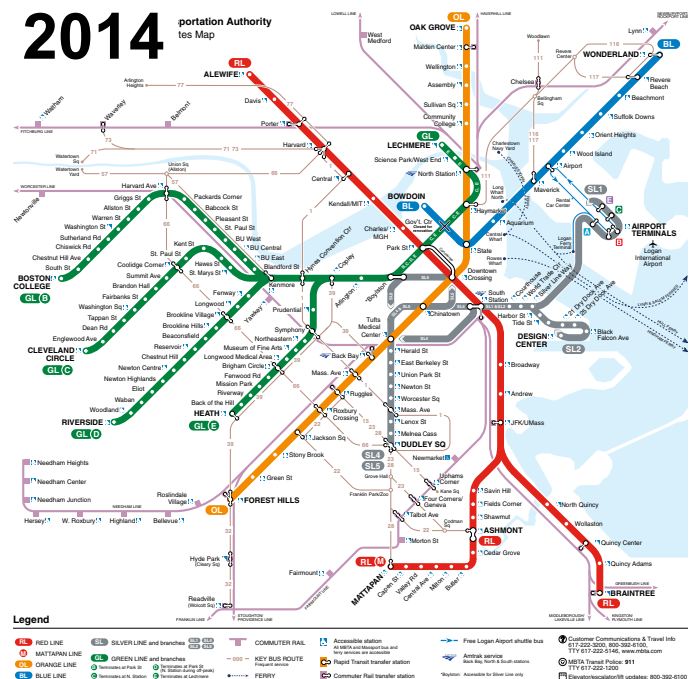
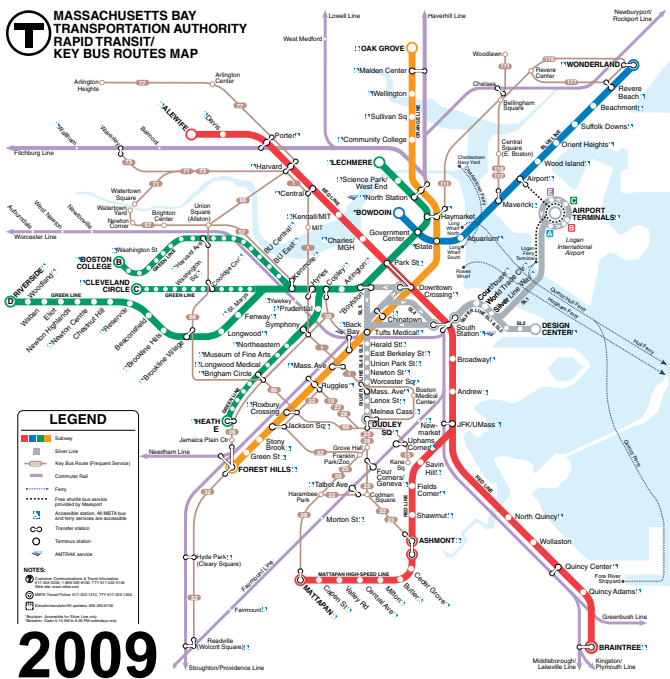
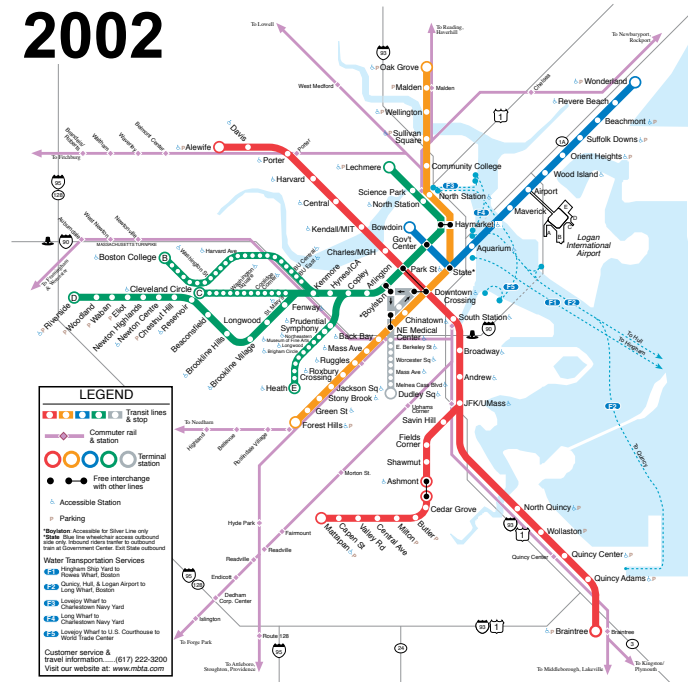
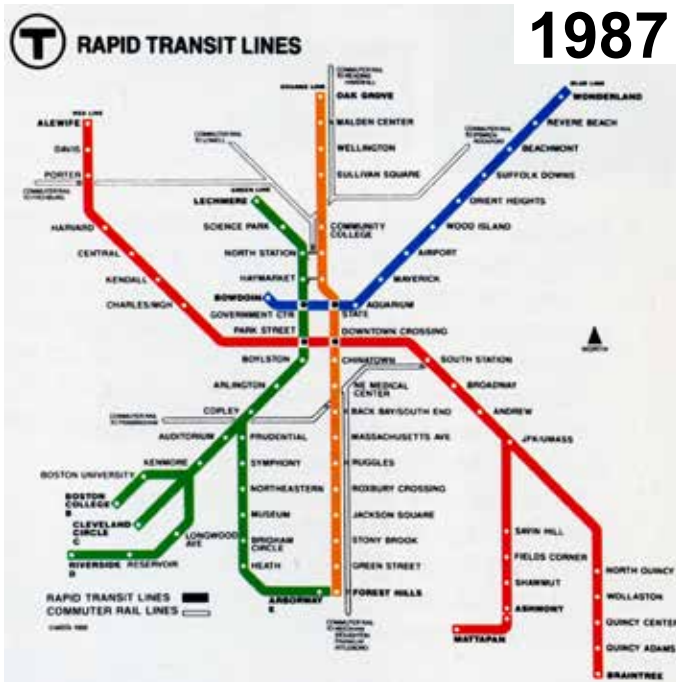


2014



Green Line Branches Affecting Overall Design and Layout

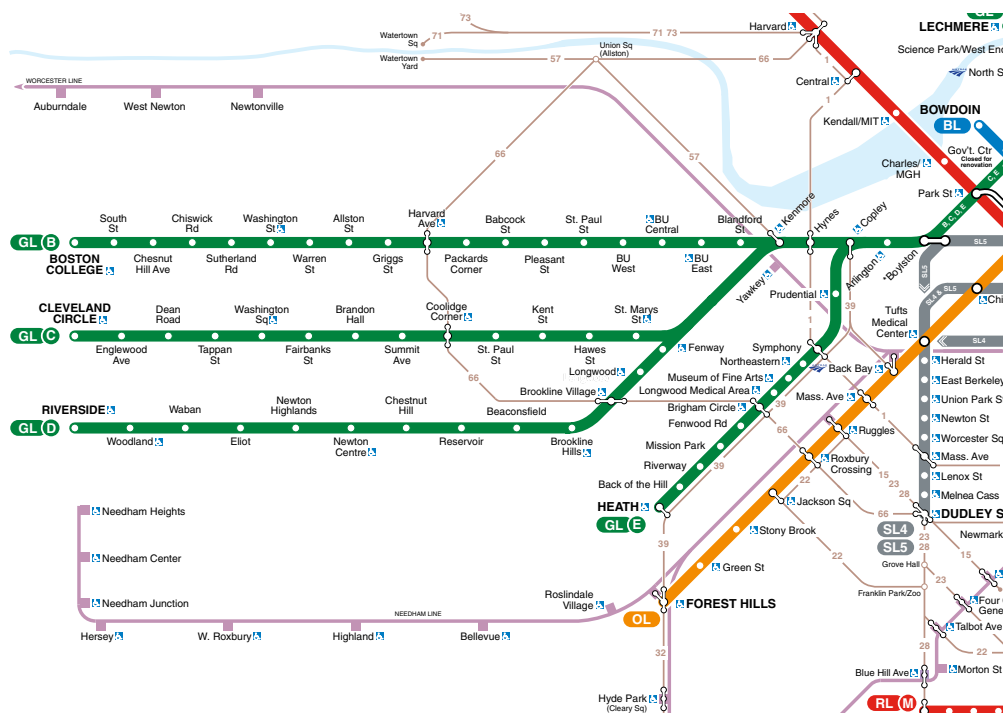
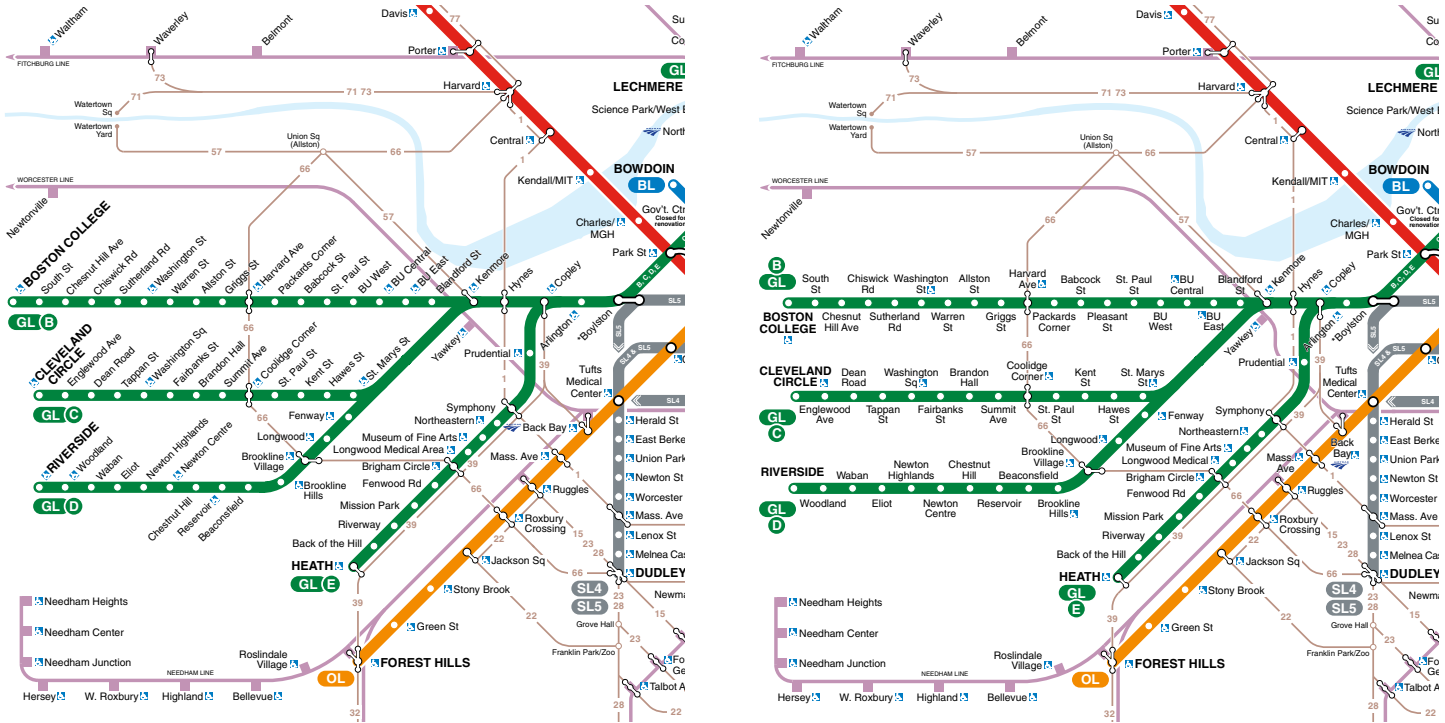
The 1987 map condensed the Green Line to fit into the lower left-hand corner of the map. The elimination of surface stations and labels allows the design to retain its balanced “spider” look. If all the stations were depicted and labeled the Green Line branches would overwhelm this map design. The 2002 map has the lines more geographically accurate allowing for the Southwest Corridor to be shown properly and enables the Silver Line to be easily included. In 2009 the map was essentially the same with the Key Bus Routes “squeezed” in. The 2014 map showed what happens when the Green Line is shown in its entirety. It takes up a larger area of the map than any previous version.



The Square Rectangle

The top two examples were alternate designs for the Green Line. The issue with the first one is that too many station names are displayed at a 45 degree angle. Ideally any and all maps should have labels horizontal. The second map achieves this but the station labels are too crowded.

The bottom map achieves the best rendering of the Green Line overall but creates a map that is not square. Since the MBTA cannot install rectangle maps in their stations this design was abandoned. In the end the design with the Green Line as a pitchfork (following page) was the best choice.



Devil's Advocate

In the end, given all the space limitations and other design parameters this design (below) was the best. The “pitchfork” design of the four Green Line branches allows all the stations to be displayed and labeled horizontally. This motif also allows for the Key Bus Routes (in particular the Route 66) to be integrated into the design simply and cleanly. At last the public has gotten their ideal map.

