Highway Shield Documentation

Highway shield iconography

What's the purpose & scope of highway shields?
- Clearly communicate route information quickly
- Used for wayfinding by locals and travelers

How are highway shield's perceived?
- Legibility is related to density & uniformity
- Identifying characteristics: size, shape, colour & number

Colour

If you were driving on this road 65 (or 80) mph, could you read this landscape easily?

While difficult, this is reasonably legible because the signage and the road have a similar depth and are part of the same landscape. This means that the distance, and therefore time, from viewing signage to the road is reduced exponentially.

Now, let's look at a Mapbox map.

Scenic on Web & Mobile
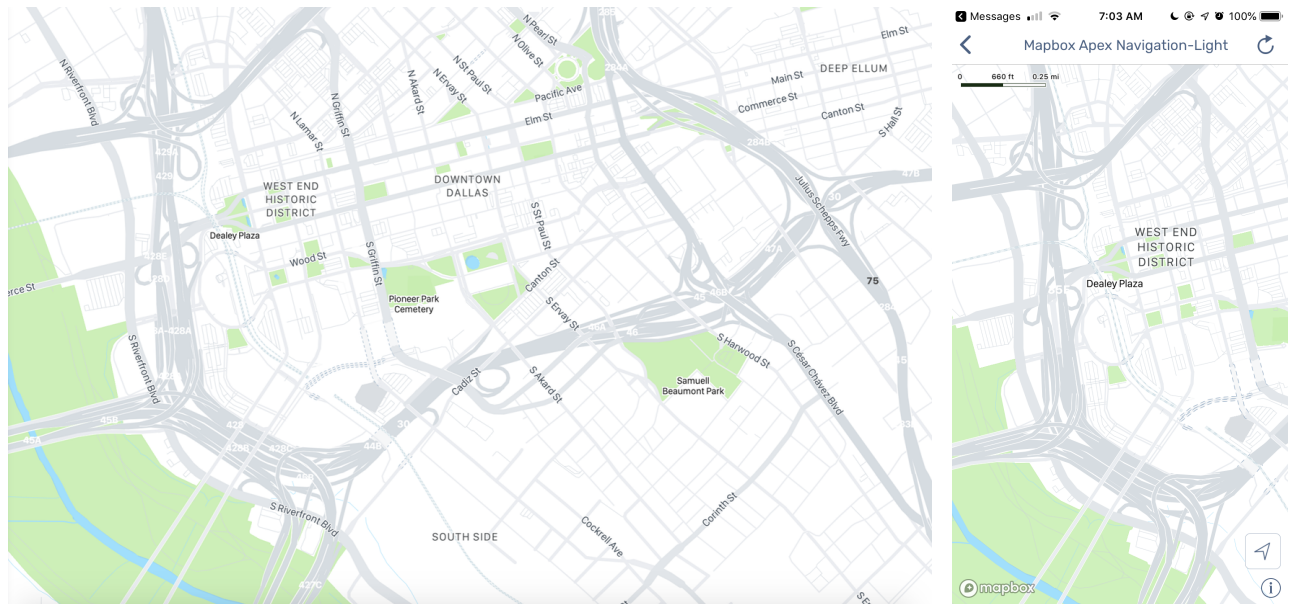
With respect to the ground, you and the phone are moving at the same rate of change. Speed is still a factor when looking at a map, but with a different connotation. The driver needs to be able to look and understand the map's visual language within seconds before returning to the road. Even if a driver has their app on the dash of their car, the difference of depth alters the visual and mental focus and the road becomes peripheral artifact.

When you consider land use, POIs and traffic on the map, there is a lot of colour going on. Aside from density, how else can the highway signs be designed to make this more legible?
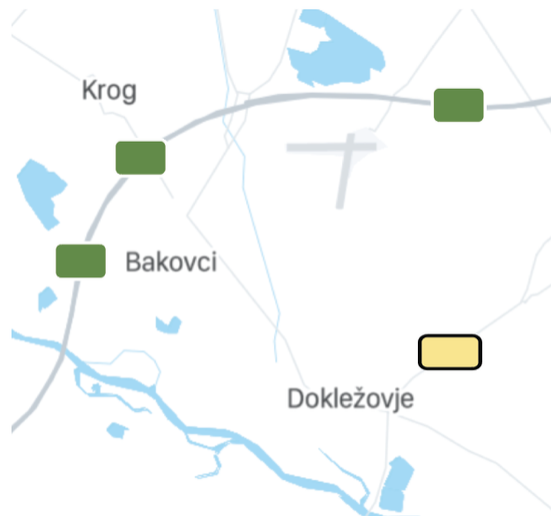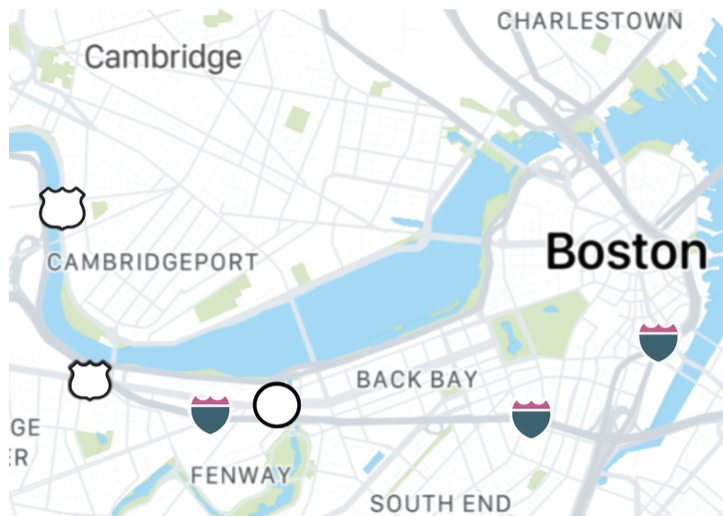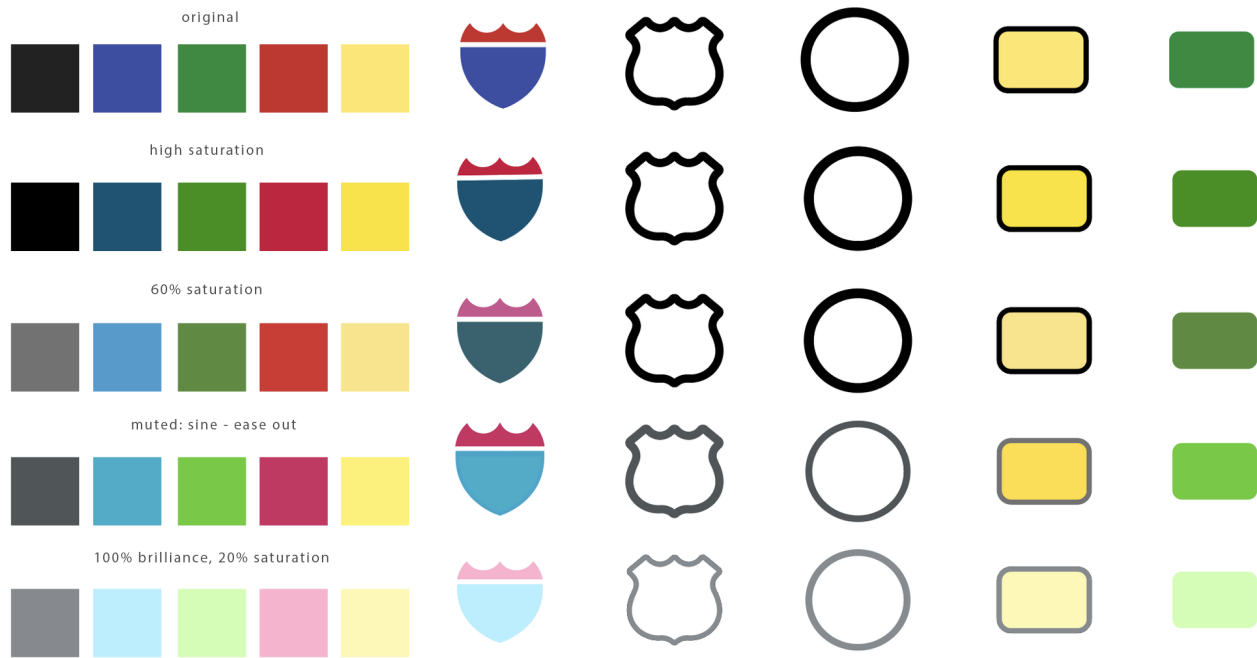
Bold: Colour Palettes

Colours with high contrast stand out quickly. Vividity and familiarity drive speed of understanding.

Scenic's tone isn't as strong, which creates a clash between the shields and the rest of the map. This can convolut the feel of the map.

The good: Easy to distinguish and true to life.
**The bad:** Difficult to make blend well with the map's theme.

Simple: Monochrome Palettes

Monochrome palettes offer simplicity and and ease a sense of overwhelming when there's too much colour.

Greys can be difficult to distinguish at a glance. However, it may make the communication of the number quicker. When people remember directions, they focus on the number of the road.

The good: These colours are true to the map and can emphasize the road number.

The bad: They blend in a little too easily that it can be hard to pick them out quickly.

grey - warm

grey - cold

3 color - light

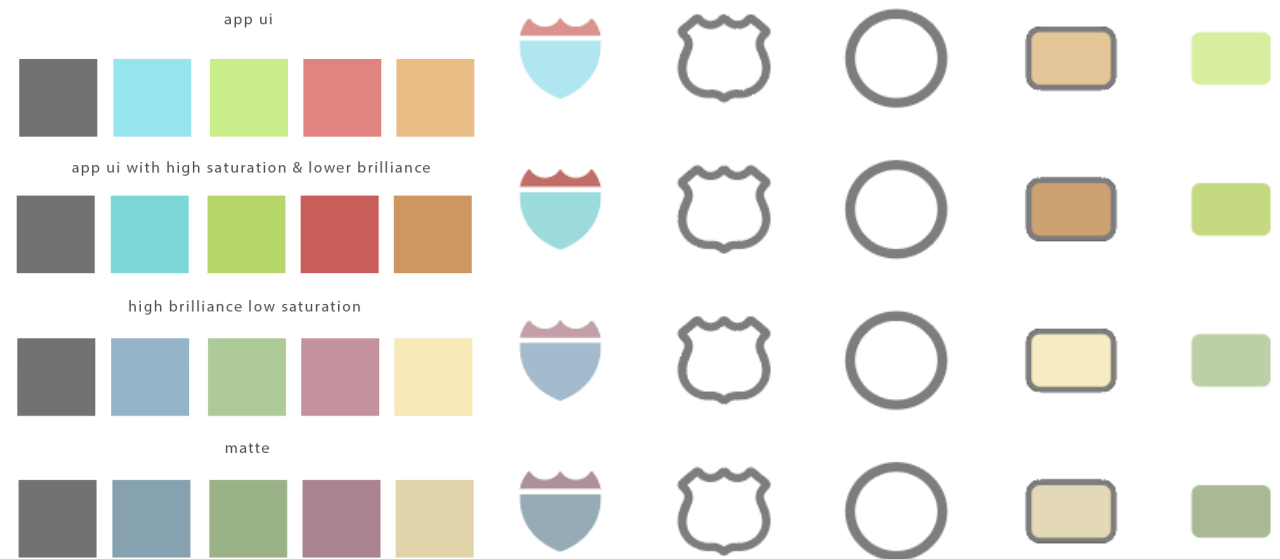3 color - dark

high zoom with lower B
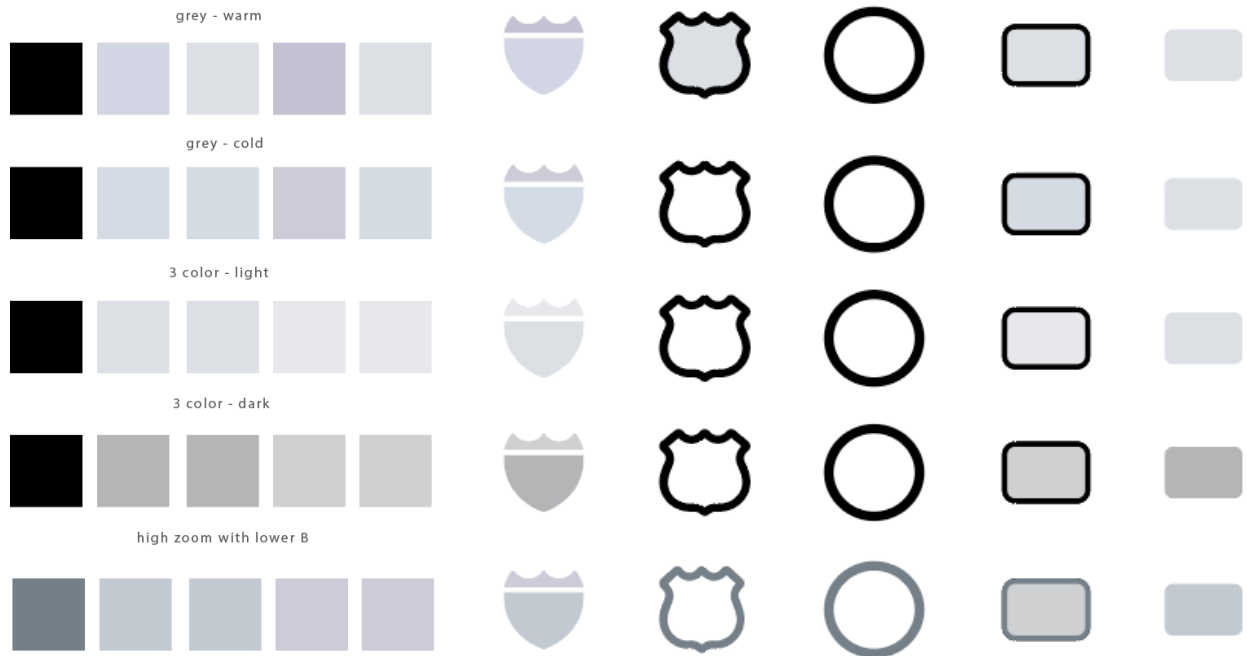
Soft: Muted Palettes

Colour is still a very powerful tool. It makes features more apparent faster. For someone more familiar with this area, these signs are indicative of what type of road they're on.

Colour isn't always an obvious signal to people. Some people are colourblind, for example. When you de-emphasize colour, you shift the focus to shape, size and density.

The good: These colours blend well with the base map's theme and tone.
**The bad:** It can be very overwhelming to look at a screen of arbitrary colours.

app ui

app ui with high saturation & lower brilliance

high brilliance low saturation

matte

Process to Progress

This is an iterative process. It helped me substantially to juxtapose the purpose of highway shield iconography in context of the highway landscape and the cartographic representation. They are more similar than different.

Narrative
We started off reviewing the highway shields currently used in Scenic. Neither of us felt strongly about keeping the gradient colouring, so we began looking at colours used in Streets. Those colours proved too boldly on the map, so variations were

made. We then felt like the colours could blend into the map better, so we tried monochromatic and muted palettes. While these fit well into the map's overall theme, they poorly communicated the purpose of highway shields. This lead us back to the bolder colours and another round of refinement.
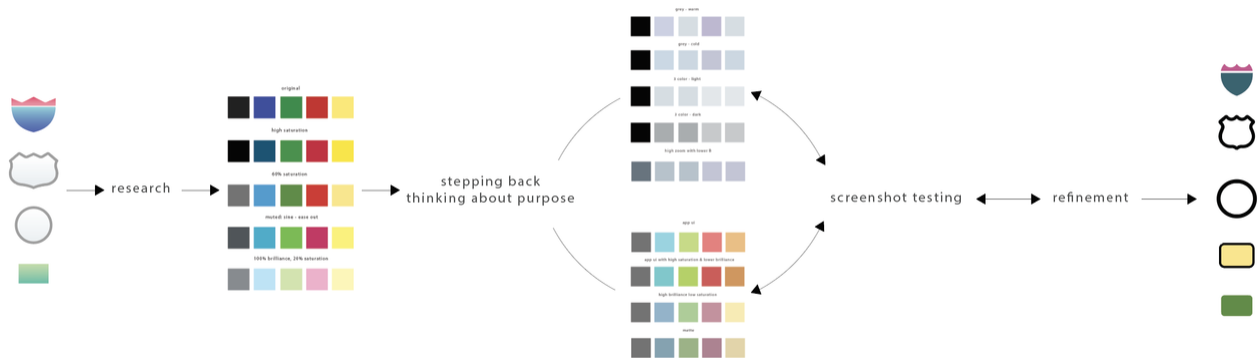
At the end of this process, it became clear that a softer version of the Streets highway shields are harmonious with Scenic, but stand out enough for quick communication.
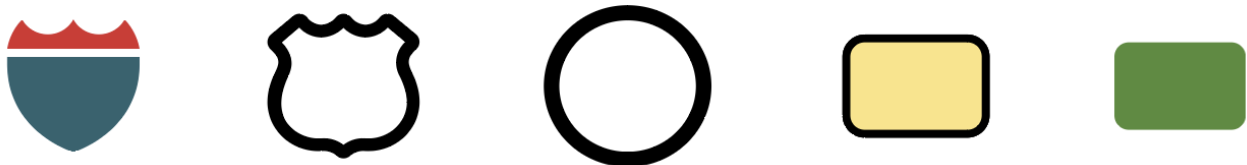
Tools & Terms

Tools

- **Adobe Illustrator** was used for the design and development of the Map Taxonomy Chart
- **Sketch** was used for viewing the map in the context of the Apex's UI
- **Text Editor** to quickly swap out hex values
- **Mapbox Studio Preview App** and **Apex App** was used for prototyping how the icons would look in a mobile environment
- **Dropbox** was used to store and share materials
  - Instead of deleting folders, it's important to keep records in archive folders

Terms

- **Map Taxonomy Chart**: Planning document, a design tool, and a documentation format showing the stylistic rules and structure of a map and its features

- Remove elements from their geographic context
  - Plan what the map wants to be
- **Visual language:** Typography, colour, etc

🎉 Fun fact 🎉

The signage for North Interstate 5 is an act of guerrilla public service performed by a civilian. The leftmost sign originally indicated all 3 lanes directed drives to the 110 towards Pasadena. (99pi).