



# SE HAWTHORNE PAVE AND PAINT

Decision Report - February 2021



**PBOT**  
PORTLAND BUREAU OF TRANSPORTATION

**AREA + PROJECT PLANNING**

Hawthorne Boulevard is scheduled for repaving in summer 2021. Over the past year, the Portland Bureau of Transportation (PBOT), has worked with the community to determine how we can take advantage of this repaving to improve safety on Hawthorne, support its main street function, and connect people to and from other parts of the city. There was broad community support for transforming the status quo on Hawthorne. With this support, PBOT has developed a project that advances key goals, including increased safety and accessibility, a better transit experience, and a boost to the continued economic vitality of one of the city's most important shopping and entertainment destinations. This is how we got there.

## OVERARCHING PROJECT GOALS AND PROCESS

When we started this process, we outlined goals to guide the development of alternatives and that would help make our decision. These goals reflect the nature of Hawthorne as a true “Civic Main Street”:

- 1. Take advantage of near-term opportunity with repaving.** Within a repaving project, there can be elements added or changed without a *major impact* to the cost. One goal of the project is to identify and build these elements as part of the repaving this summer.
- 2. Improve safety.** Portland’s Vision Zero Action Plan identified SE Hawthorne Boulevard as one of Portland’s 30 High Crash Corridors and it is a particularly dangerous corridor for pedestrians. People driving on Hawthorne drive significantly higher than the speed limit, and higher speeds contribute to more severe crashes. This project seeks to improve these conditions.
- 3. Support Hawthorne’s main street function and help people get to destinations there.** The Hawthorne District has almost 600 businesses across numerous business categories, with a concentration in retail and entertainment. Our streets need to support the ability of people and businesses to connect and thrive. As a “Civic Main Street,” Hawthorne needs to be a place people can get to safely by various modes of travel.
- 4. Connect people to other parts of the city.** Hawthorne is also a key link in our city’s transportation network. Not only do people need to get from the district to areas beyond, but people need to be able to travel across it north-south safely. Furthermore, Hawthorne is a priority corridor for transit, as identified in the City’s Enhanced Transit Corridors Plan and Rose Lane Project, carrying the Line 14 TriMet bus, which connects people directly from Lents to downtown.
- 5. Advance citywide goals on equity and climate.** PBOT’s strategic plan directs us to consider how we can advance citywide goals on equity and climate with every project.

### PROJECT TIMELINE



## ALTERNATIVES EVALUATION

Because this is a paving project, not a major capital project, PBOT is *limited* on the changes we can consider. Within the scope and budget of this project, for example, we can't relocate the curb or add new traffic signals. These budget and construction realities guided the conversations we had with the community.

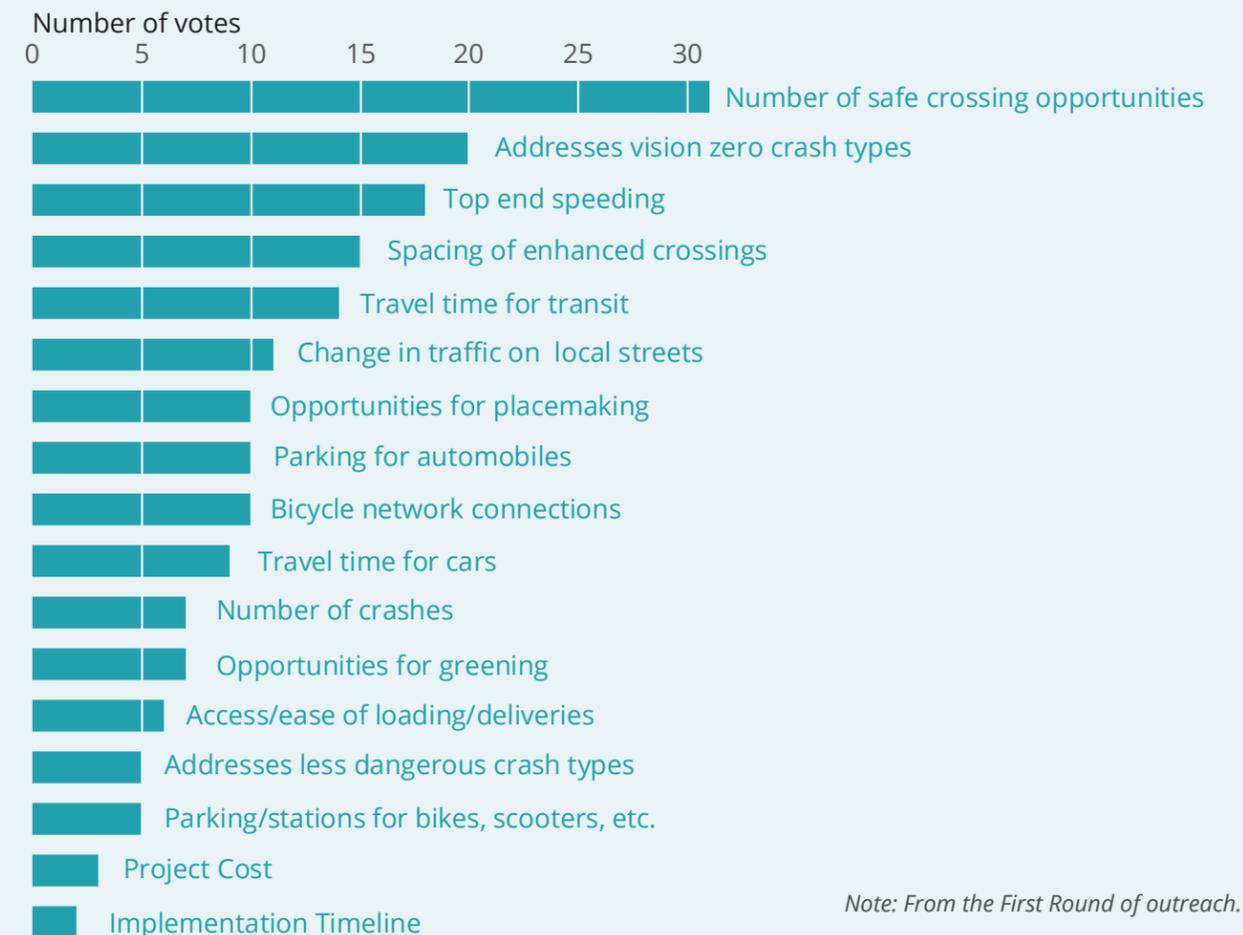
### Community Input - First Round

In our first round of community feedback, from January to March 2020, we heard a wide variety of ideas, such as:

- Making pedestrian safety crossing Hawthorne one of the top priorities
- Emphasizing and supporting the unique business district on Hawthorne
- Reconfiguring the street in different ways to prioritize buses, add bike lanes, and add more space for pedestrians

People attending open houses shared how they would prioritize evaluating the project alternatives, as shown. This was consistent with input from people in our online engagement and other meetings.

### Community member priority metrics



Note: From the First Round of outreach.

### Initial Alternatives

Our team developed a set of alternatives for technical evaluation which incorporated many of the ideas from the community. These alternatives are as follows:

#### Alternative 1 - Maintain existing lane configurations

Alternative 1 maintains the existing lane configurations, with four general travel lanes west of César E Chávez Blvd and three general travel lanes east of César E Chávez Blvd. This alternative also includes space for on-street parking on both sides of the street.

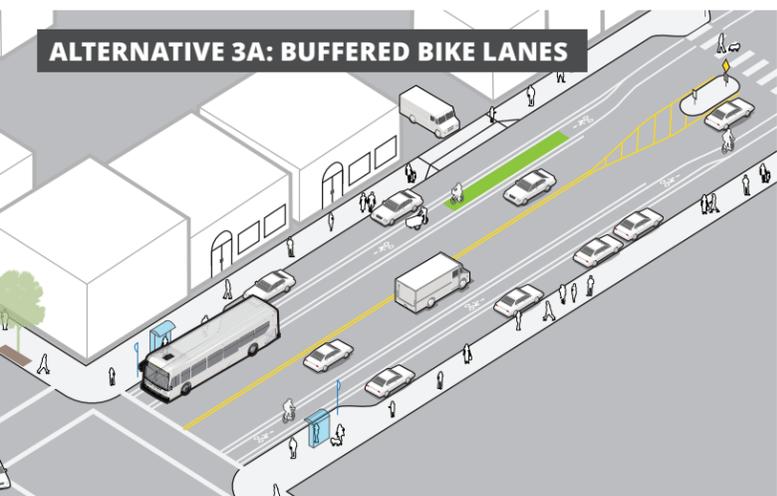
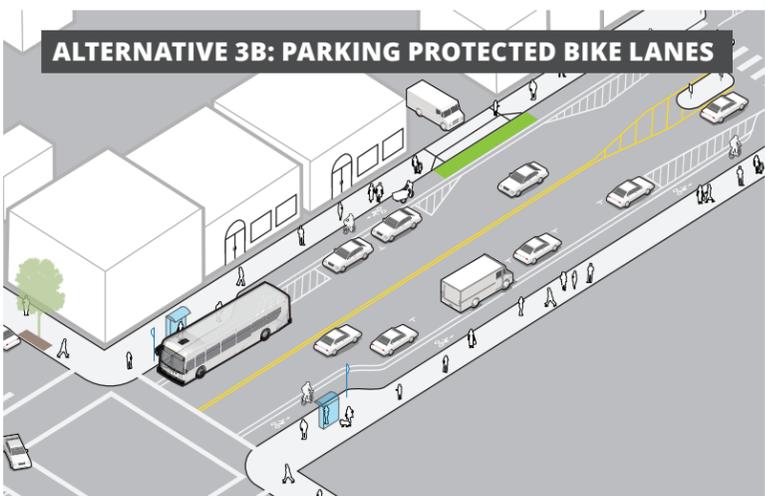
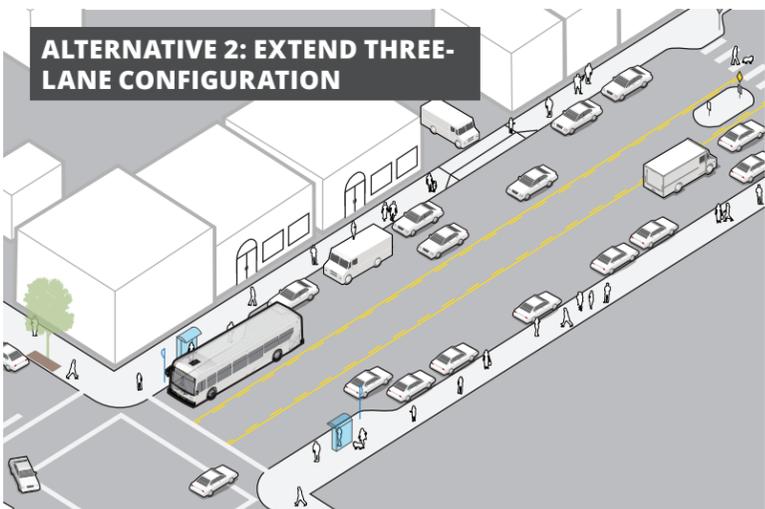
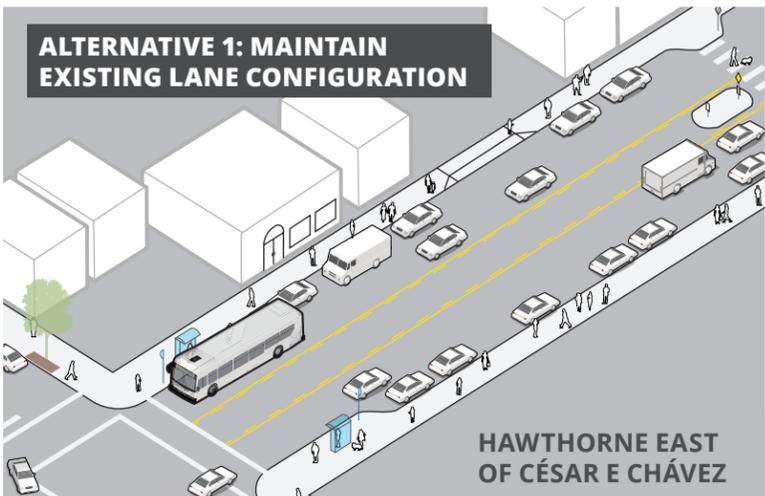
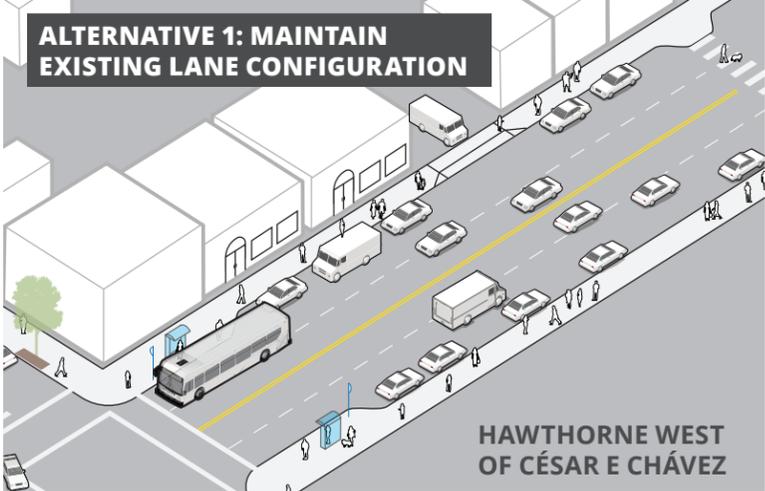
#### Alternative 2 - Extend three-lane configuration

Alternative 2 extends the three-lane configuration currently in place east of César E Chávez Blvd west to 22nd Ave, with right turn (except bus) lanes provided at César E Chávez Blvd. This alternative also includes space for on-street parking on both sides of the street.

#### Alternative 3 - Two general lanes and bike lanes

Alternative 3 reconfigures the street from 22nd Ave to 50th Ave to include two general travel lanes and two bike lanes, with no center turn lane. This alternative also includes space for on-street parking on both sides of the street, though a significant amount would have to be removed to accommodate bike lanes at crossings. Within Alternative 3, the project team is considering two sub-options:

- Alternative 3a maintains space for on-street parking at the curb, with **buffered** bike lanes between parking and the general travel lanes
- Alternative 3b considers the potential to shift the bike lane to the curb, creating **"parking-protected bike lanes,"** with a significant portion of the on-street parking removed to provide visibility.



### Initial Alternatives Evaluation

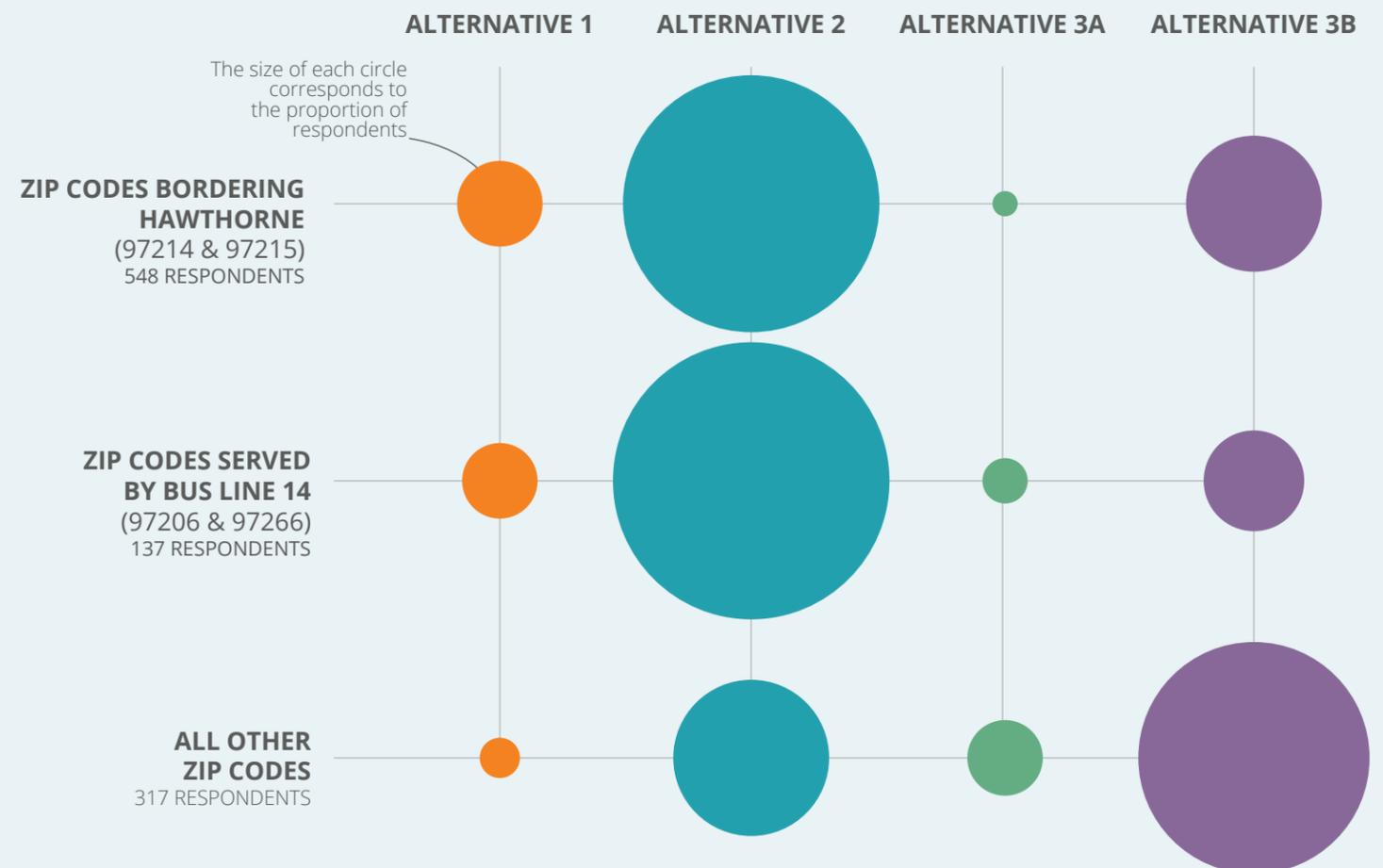
We then conducted a technical analysis of the four alternatives and reported on our findings. The initial evaluation of these four alternatives is described in the ["Alternatives Evaluation Report."](#) A summary of our final evaluation is included in this report in the following pages.

### Community Input - Second Round

From September to November 2020, we asked for more feedback, this time to evaluate the alternatives we developed. During this round of input, we found broad support for changing the existing lane configuration. The community also reconfirmed that making Hawthorne safer was their top priority. Alternative 2 was the overall most preferred option across the people surveyed. When we analyzed based on respondents' home location, people immediately around the Hawthorne corridor had a strong preference for Alternative 2, as did the people living in areas served by TriMet's Line 14 (Foster/Powell and Lents). People living outside these areas had a stronger preference for Alternative 3b.

We also got feedback on ways we could refine the alternatives. This informed the next round of technical work and evaluation from October 2020 through January 2021, which led to our choice of a refined version of Alternative 2 as the final design.

#### TOP CHOICE ALTERNATIVE TO MEET PROJECT GOALS BY ZIPCODE



### Alternatives Refinements

In response to public feedback, we refined Alternatives 2 and 3 to explore ways to improve these options and conduct a closer analysis of benefits and impacts. Due to the lack of public support and the lack of significant benefits for safety, the PBOT team did not advance Alternative 1 for further evaluation. With the other alternatives, we explored ways to expand pedestrian space on the street, either with this project or in the future. We looked at whether or not we could refine Alternative 3 to include combined bus and bike lanes at SE César E Chávez Boulevard as a way to accommodate both modes with less impact to transit delay. We also considered possibilities for improving bike access in Alternative 2 by expanding the bike network surrounding the corridor. Finally, we prepared engineering layouts of the alternatives to better understand how each would appear in the Hawthorne context.

#### Expanding Pedestrian Space

In further review of the alternatives and the project constraints, we considered whether there are opportunities to expand pedestrian space without moving and rebuilding the curb which is outside the budget of this maintenance project. The best opportunity for this expansion comes from conversion of the curb zone to a use that enriches the pedestrian experience, such as through parklets or through “Healthy Business” installations developed by adjacent business owners. While we were not able to come up with a new, viable alternative to significantly expand pedestrian space with this project, we did re-evaluate and consider ways that the current alternatives could evolve into a longer-term vision that does meet this need.

#### Adding transit priority at César Chávez to Alternative 3

We updated both Alternative 3a and 3b to consider the option of “mixing zones” at SE César E Chávez Boulevard to allow bike lanes with less delay to transit. In this scenario, bikes approaching SE César E Chávez Boulevard would share the outside lane with buses and right-turning vehicles for approximately one block on each side of the intersection.

#### Improving bicycle access in Alternative 2

We updated Alternative 2 to include upgrades to existing neighborhood greenways and add new north-south bikeway connections, with the intent of making access to Hawthorne destinations easier for cyclists using Hawthorne’s parallel neighborhood greenways.

### PLANVIEW CONCEPTS DESIGNS OF THE REFINED ALTERNATIVES

**ALTERNATIVE 2**

- 8- to 10-foot crossing refuge islands
- Yellow boxes indicate parking removal
- Center turn lane for left turns at unsignalized locations
- Two 11- to 12-foot general travel lanes with a center turn lane
- Bus and right turn lane approaching César Chávez

**ALTERNATIVE 3A**

- 6-foot crossing refuge islands, 5-foot bike lanes with no buffer
- Yellow boxes indicate parking removal
- Lane shift around crossing refuge islands
- Two 10-foot general travel lanes, two buffered bike lanes (8-foot lane+buffer)
- Bus, bike, and right turn lane approaching César Chávez

**ALTERNATIVE 3B**

- 6-foot crossing refuge islands, 5-foot bike lanes with no buffer
- Yellow boxes indicate parking removal
- Hashed striping to clear space for visibility
- “Floating” parking/ flex space between bike lane and general travel lane
- Two 10.5-foot general travel lanes, two bike lanes (7.5-foot lane+buffer)
- Bus, bike, and right turn lane approaching César Chávez

*Note: All drawings shown above have not yet gone through final engineering design.*

### Final Evaluation

Refining the alternatives led us to update our evaluation of some criteria to inform the final decision. We also considered additional details within these criteria that emerged as we further developed the alternative designs. This section summarizes the criteria that contributed to decision-making.

#### Alternative 2 is best for overall safety.

- Hawthorne Blvd is on the Vision Zero High Crash Network, meaning safety improvements are a top priority for this project. PBOT takes a data-driven approach looking at crash data to find the most effective designs to reduce serious injury and fatal crashes.
- In looking at crash patterns on Hawthorne, our team determined that we need designs to address the serious crash types occurring most often on Hawthorne: pedestrians and bicyclists crossing Hawthorne, and crashes involving turning vehicles hitting pedestrians, bicyclists, or other vehicles.
- Reducing Hawthorne from four lanes to three lanes with Alternative 2 is expected to reduce all crash types on the boulevard by 29%, including the most prevalent crash types that involve pedestrians and turning vehicles. This crash reduction is based on national studies as well as Portland’s own experience. Adding median refuge islands at crossings is expected to further reduce pedestrian crashes for a total reduction of about 50% where islands are installed. The refuge islands are also expected to reduce crashes for bicyclists crossing Hawthorne. Seven crashes within the project footprint involved a bicyclist—two were hit while crossing Hawthorne and three were hit by turning vehicles at intersections. This alternative is predicted to have the highest level of crash reduction.

- With the refinements, Alternative 2 augments and strengthens the neighborhood greenway network for bicyclists. Our greenways are among the safest bike routes in the city.
- Alternative 3 would reduce Hawthorne from four lanes to two lanes with bike lanes. PBOT does not have experience with this type of lane reduction but national studies indicate that left turn crashes are reduced when turn lanes are added on urban 2-lane roadways. Given that Alternative 3 does not include turn lanes, we would not expect a decrease in left turn crashes. In Alternative 3, we expect pedestrian crashes to be reduced by 31 percent where median refuge islands are installed, and these islands would also reduce crashes for bicyclists crossing Hawthorne.
- In Alternative 3, the addition of bike lanes to Hawthorne would increase the number of cyclists using Hawthorne. Given that a significantly higher volume of people on bikes would be using Hawthorne, it is difficult to predict

how this will affect overall bicycle crashes. Physically separated bicycle facilities, which would be present for a portion of Alternative 3b, have lower crash rates than traditional and buffered bike lanes. Additionally, protected intersection designs can reduce crashes at intersections. Unfortunately, the current curb extensions, configuration of Hawthorne, and scope and budget constraints of this project do not allow for protected intersection designs or physical separation at intersections. Overall, Alternative 3 is predicted to reduce crashes over today’s design, but *not as much as Alternative 2.*

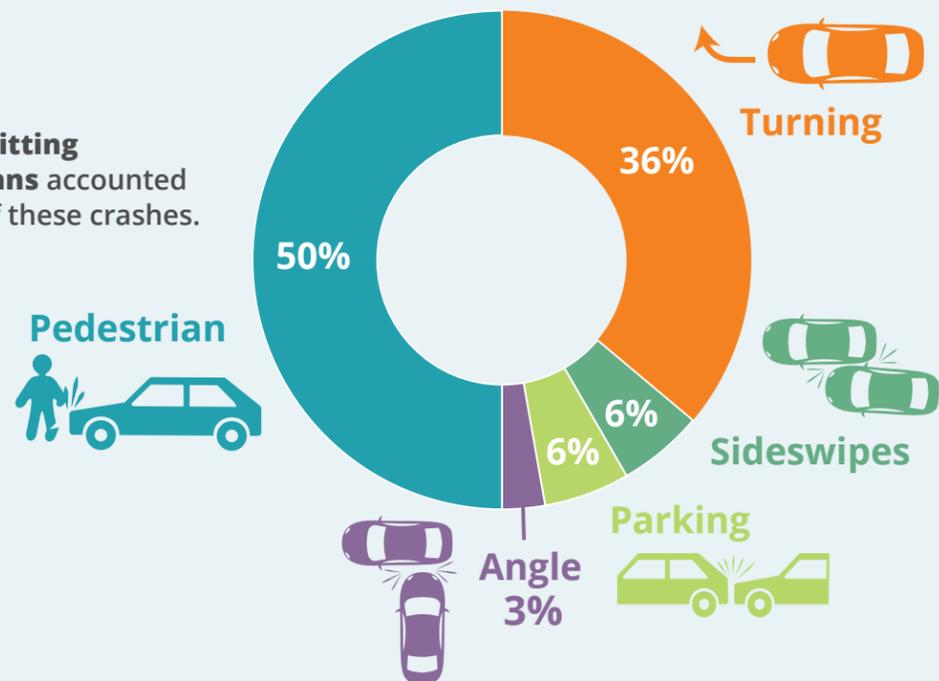
- Both Alternatives 2 and 3 are expected to reduce speeding. We are seeking a speed limit change to 20mph for the length of the corridor.
- Both Alternatives 2 and 3 are expected to reduce the number of sideswipe crashes and TriMet mirror strikes on Hawthorne given the wider lanes.

### VISION ZERO CRASHES ON HAWTHORNE 2013 - 2017

**36** VISION ZERO-FOCUSED\* CRASHES

\*any crash that involves a pedestrian or person biking or where a person in or operating a vehicle is seriously injured or killed

Drivers hitting pedestrians accounted for half of these crashes.



**HAWTHORNE MODAL PRIORITIES\***



A potential strategy of using the curb zone to expand pedestrian space.

**Alternative 2 is the best option for pedestrians.**

- According to the *Transportation System Plan*, Hawthorne is a Major City Walkway, placing pedestrians at the highest priority level in terms of prioritizing modes of travel on this street. Our public outreach process also supports this prioritization, with most respondents saying pedestrians should be the highest priority for Hawthorne.
- Our team re-evaluated Alternatives 2 and 3 to consider the potential to add pedestrian space. Within the constraints of this project, sidewalks cannot be widened. However, Alternative 2 offers the most potential for sidewalk widening in the future by preserving the most curb zone space that could be converted to more sidewalk space over time. Also, Alternative 2 allows for wider median refuge islands than Alternative 3, providing more comfort for pedestrians crossing the street.

- Alternative 2 offers the best configuration for pedestrians and bicyclists crossing at unmarked, legal locations. In this alternative, pedestrians and people on bikes would only have to navigate two lanes of traffic. The center turn lane would also offer a refuge in unexpected circumstances. In Alternative 3, people crossing would still have to navigate four streams of traffic at the same time (two bike lanes and two vehicle lanes), with nowhere to pause if traffic fails to stop to let them cross.
- Alternative 2 is also likely to benefit pedestrians crossing side streets as they move along Hawthorne because of the center turn lane. Alternative 2 and Alternative 3 will both likely result in fewer gaps between cars for drivers turning left, but *Alternative 2 gives drivers a place to wait for a gap and assess other drivers, bicyclists, and pedestrians moving through the intersection rather than feeling the pressure of blocking the through travel lane.*

**Alternative 2 is the best option for transit.**

- According to the *Transportation System Plan*, Hawthorne is a Major Transit Priority Street, placing transit at the highest priority level in terms of prioritizing modes of travel on this street. Hawthorne is also part of the Rose Lane Project priority network, meaning that Hawthorne is an important corridor where the bus is experiencing lower speeds and reliability due to private vehicle congestion. Alternative 2 can best support speed and reliability for TriMet's frequent Line 14 bus that directly connects downtown Portland to the Lents neighborhood.
- Alternatives 2 and 3 provide lanes that accommodate the width of transit vehicles, unlike the current 9-foot lanes on part of Hawthorne. We expect transit mirror strike crashes to be virtually eliminated with these alternatives, improving reliability. However, Alternative 3 would require buses to pull partially out of the travel lane and into the bike lane at bus stops. In some locations, buses would then have to re-enter the stream of traffic when pulling away from stops. This adds new delay and conflicts.
- Alternative 2 includes a dedicated bus priority lane (with right turns allowed) on the approaches to SE César E Chávez Boulevard and moves the eastbound stop far-side, offering improvements to transit speed and reliability. With the refinements, Alternative 3 includes a "mixing zone" design treatment at the approach to SE

César E Chávez Boulevard that was not included in the original Alternative 3. In this design, the outer lane is used by buses, bikes, and right turning vehicles in the block approaching the intersection. This treatment significantly reduces, but does not eliminate, the added transit delay we found in the earlier evaluation of Alternative 3. Buses would be delayed by turning vehicles at side streets and driveways along the corridor, with the most significant delay caused by left-turning vehicles blocking the through lane in Alternative 3. We expect some additional delay caused by right-turning vehicles yielding to bicyclists.

- The lane configuration of Alternative 2 provides the flexibility for PBOT to consider additional bus priority lanes at other locations in the corridor where the bus is delayed. Alternative 3 does not offer this same flexibility to add additional transit priority improvements over time.

**Alternative 2 is the best option for emergency response.**

- According to City Policy, Hawthorne is a Major Emergency Response Street, placing emergency response at the highest priority level in terms of prioritizing modes of travel on this street. PBOT consulted with the Portland Fire Bureau and they indicated that Alternative 2 would be the safest way to improve and reduce the traffic and pedestrian crashes in this area of town and still provide the best emergency coverage.



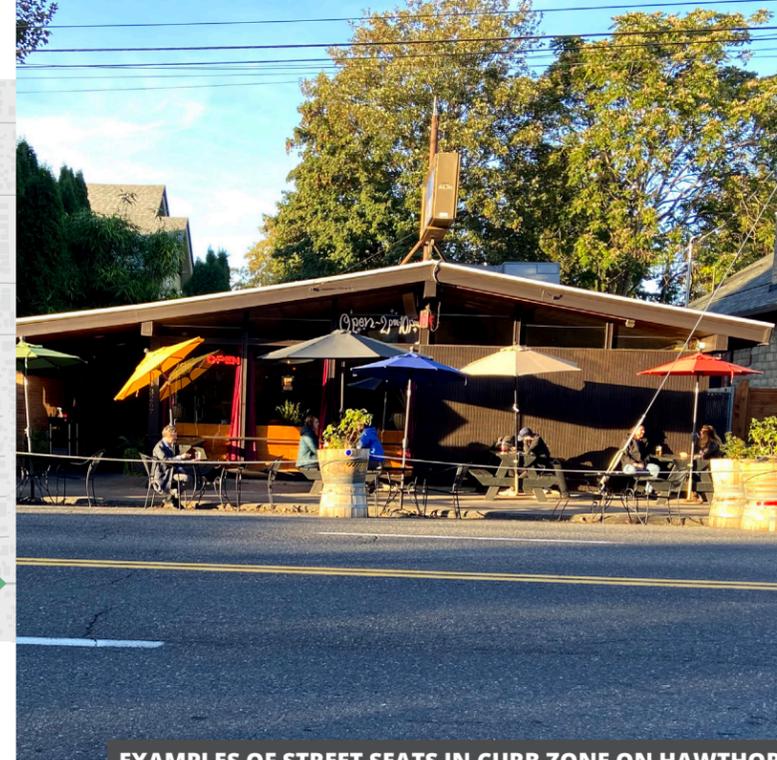


**Alternative 2 overall provides better low-stress bicycle access.**

- According to the *Transportation System Plan*, Hawthorne is a City Bikeway, placing bicycling at a medium level in terms of prioritizing modes of travel on this street. While the policy encourages providing bike lanes on City Bikeways, it also allows use of parallel bikeways with connecting routes as an alternative, if limited space makes it difficult to fully prioritize all modes.
- With the refinements, Alternative 2 prioritizes low-stress bicycle access to destinations on Hawthorne via north-south local streets connecting from the Salmon-Taylor and Lincoln-Harrison neighborhood greenways, which have been designed as calm, low-stress bike routes that appeal to a wide variety of people biking. By providing closely-

spaced north-south neighborhood greenway connections, with good wayfinding and bike parking where these routes cross Hawthorne, we can improve bike access to businesses on Hawthorne. Once this expanded network is fully established, all destinations along Hawthorne will be within roughly a three-block walk from a designated bikeway. This map shows potential future bikeway connections to improve bike access.

- Alternative 3 would provide bike lanes on Hawthorne itself. The lanes would cover about 20 blocks of Hawthorne, from 23rd or 24th Avenue to 45th or 46th Avenue (east of 46th Avenue there are constraints we cannot change with the repaving project). On the approaches to SE César E Chávez Boulevard, bicyclists would enter a “mixing zone” shared with buses and right turning vehicles, and buses would block bicycle travel at the far-side stops in both directions. At median refuge islands along the corridor, the bike lanes would narrow to 5-feet wide with no painted buffer. At bus stops, the bus would pull into the bike lane to stop. *Given the constraints of this project and the factors described above, Alternative 3 would have limited bicycle network benefits and would not provide a consistent low-stress environment for people accessing businesses and other destinations on Hawthorne by bike.*
- Both Alternative 2 and 3 make improvements for bicyclists crossing Hawthorne by including new median refuge islands at key locations to facilitate crossings for both pedestrians and people biking. In Alternative 2, the refuge islands can be 8 to 10 feet wide. In Alternative 3, refuge islands would only be 6 feet wide. Some types of bicycles, such as the one shown here, are longer than 6 feet and may not be fully protected by a 6-foot refuge island.



**EXAMPLES OF STREET SEATS IN CURB ZONE ON HAWTHORNE**



**SE HAWTHORNE PAVE AND PAINT | 13**

**Alternative 2 offers the most flexible curb zone space.**

- According to the *Transportation System Plan*, Hawthorne is a “Civic Main Street,” which emphasizes the importance of a flexible curb zone space to support local businesses. The curb zone can be used for a variety of supportive activities like street seats, parklets, bike corrals, bikeshare stations, bus stops, loading zones, pick-up/drop-off zones, and on-street parking.
- Alternative 2 does not require changes to the curb zone beyond limited parking removal at street corners to improve safety. By reducing the travel lanes from four to three, Alternative 2 provides more space and buffer for uses in the curb zone beyond parking, including “Healthy Business” uses, loading/unloading, bike corrals, or expansion of pedestrian space.
- Alternative 3a would narrow the curb zone at locations of crossing refuge islands, preventing some uses such as car parking or loading, but this space could potentially still be used for other uses that can fit in a narrower space.
- Alternative 3b would significantly change use of the curb zone. In alternative 3b, approximately 50-60 percent of the curb zone would not be available for parking or other uses, due to the need for visibility between bicyclists and drivers approaching intersections. Parking and any other curb zone uses would not be curb-side anymore, instead “floating” between the bike lane and travel lane

with minimal buffer. Given the constrained dimensions of Hawthorne, and the need to cross the bike lane to access it, *the floating space that remains is much less likely to be used as additional pedestrian space or for Healthy Business uses.*

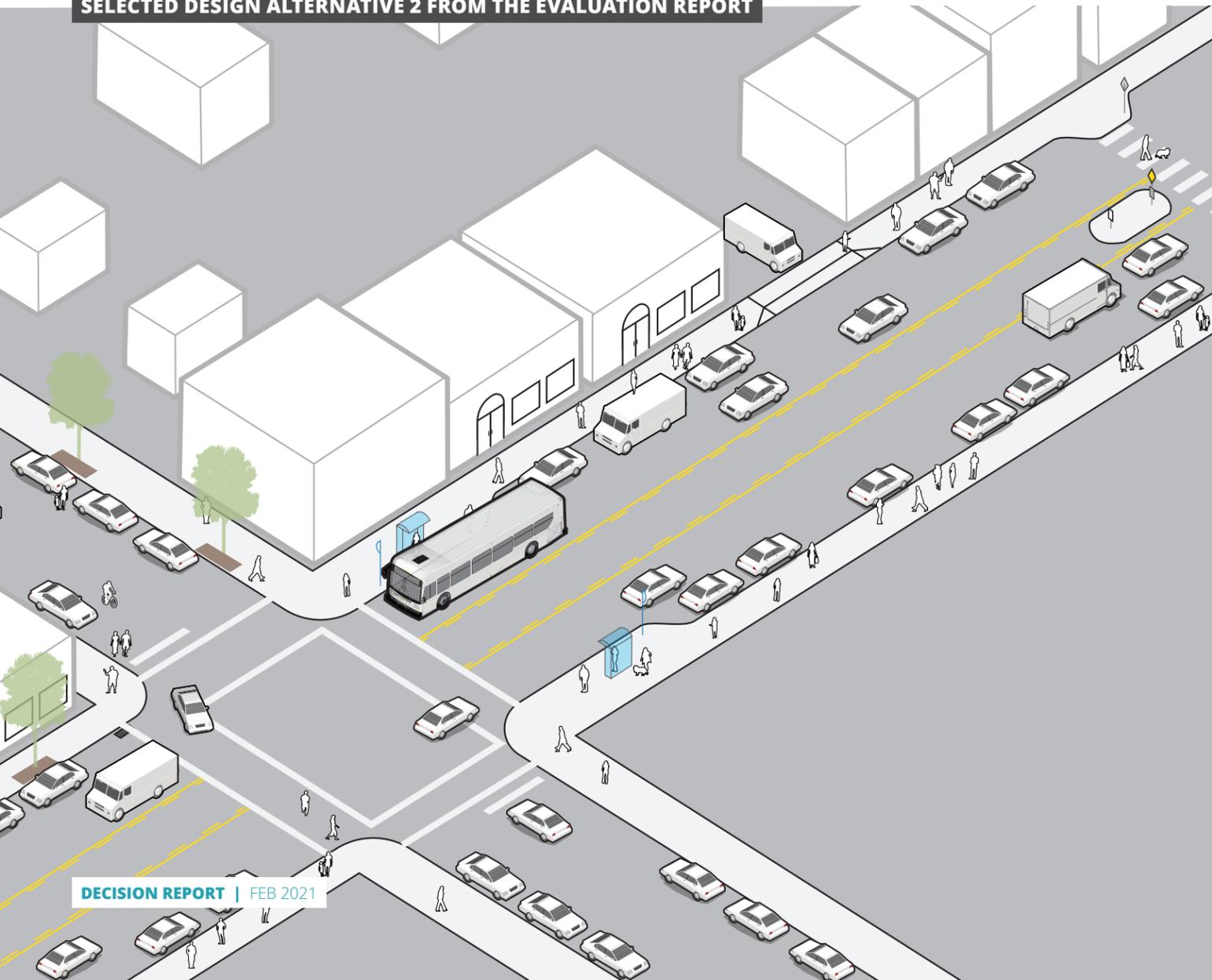
**Alternative 2 advances citywide goals on equity and climate.**

- With guidance from PBOT’s Strategic Plan, when we make decisions, we ask: Will it advance equity and address structural racism? Will it reduce carbon emissions? If the answer is “no” to either of these questions, we need to re-evaluate. In this case, with Alternative 2 as the selected design, the answer to both questions is yes.
- Alternative 2 improves safety and access for climate-friendly active transportation and transit modes. It focuses on pedestrian safety, with investments that will benefit people of all ages, people with disabilities, and people crossing the street on bikes. It avoids overly negative impacts for equity priority areas further east of Hawthorne, enhances transit reliability along the corridor, and it preserves the opportunity to further enhance transit priority to and from these areas if needed. Alternative 2 uses our limited resources wisely, leveraging the investment in repaving while preserving more discretionary funding for other areas of the city with greater infrastructure needs.

## SELECTED DESIGN SUMMARY

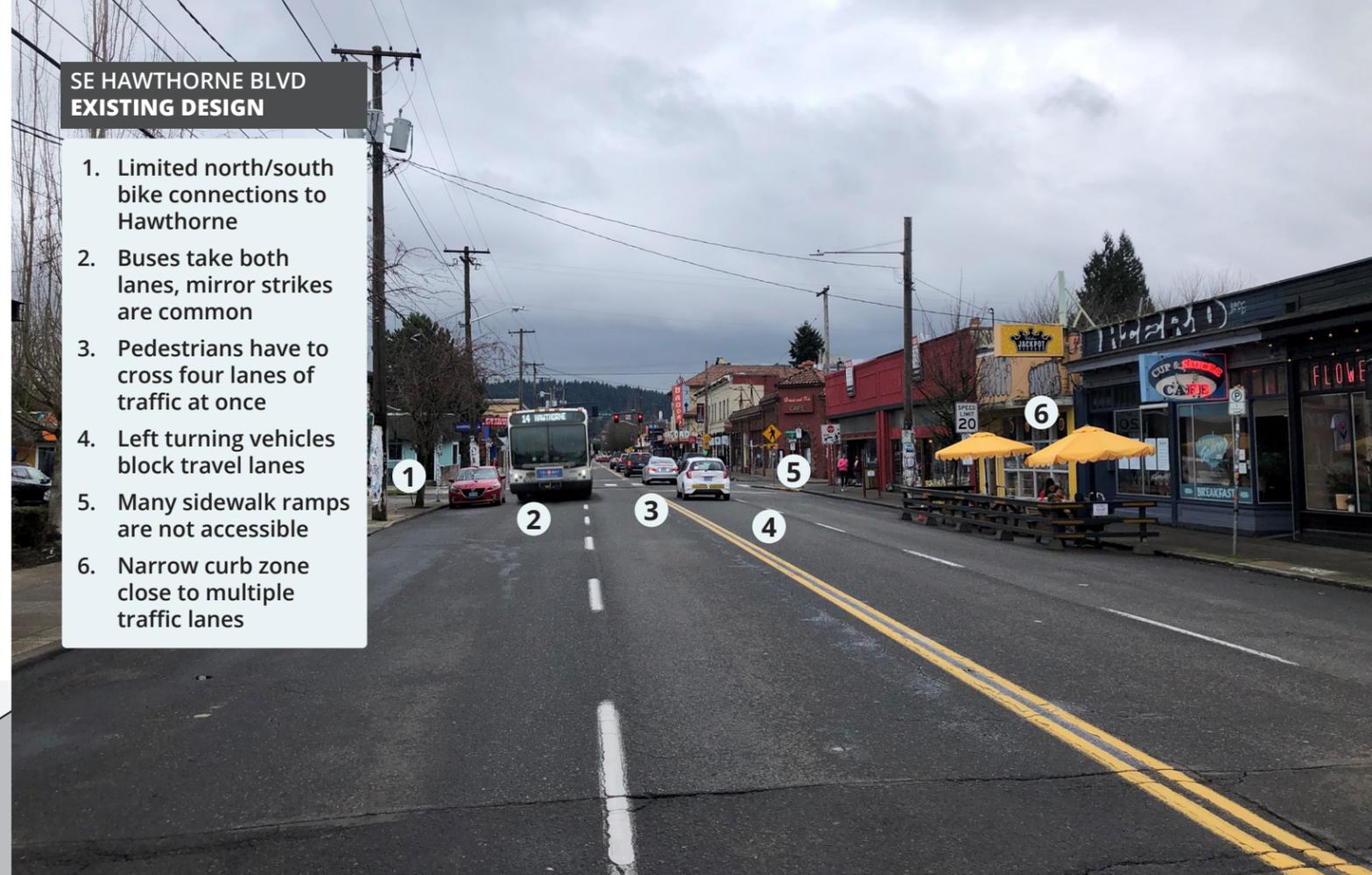
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### SELECTED DESIGN ALTERNATIVE 2 FROM THE EVALUATION REPORT



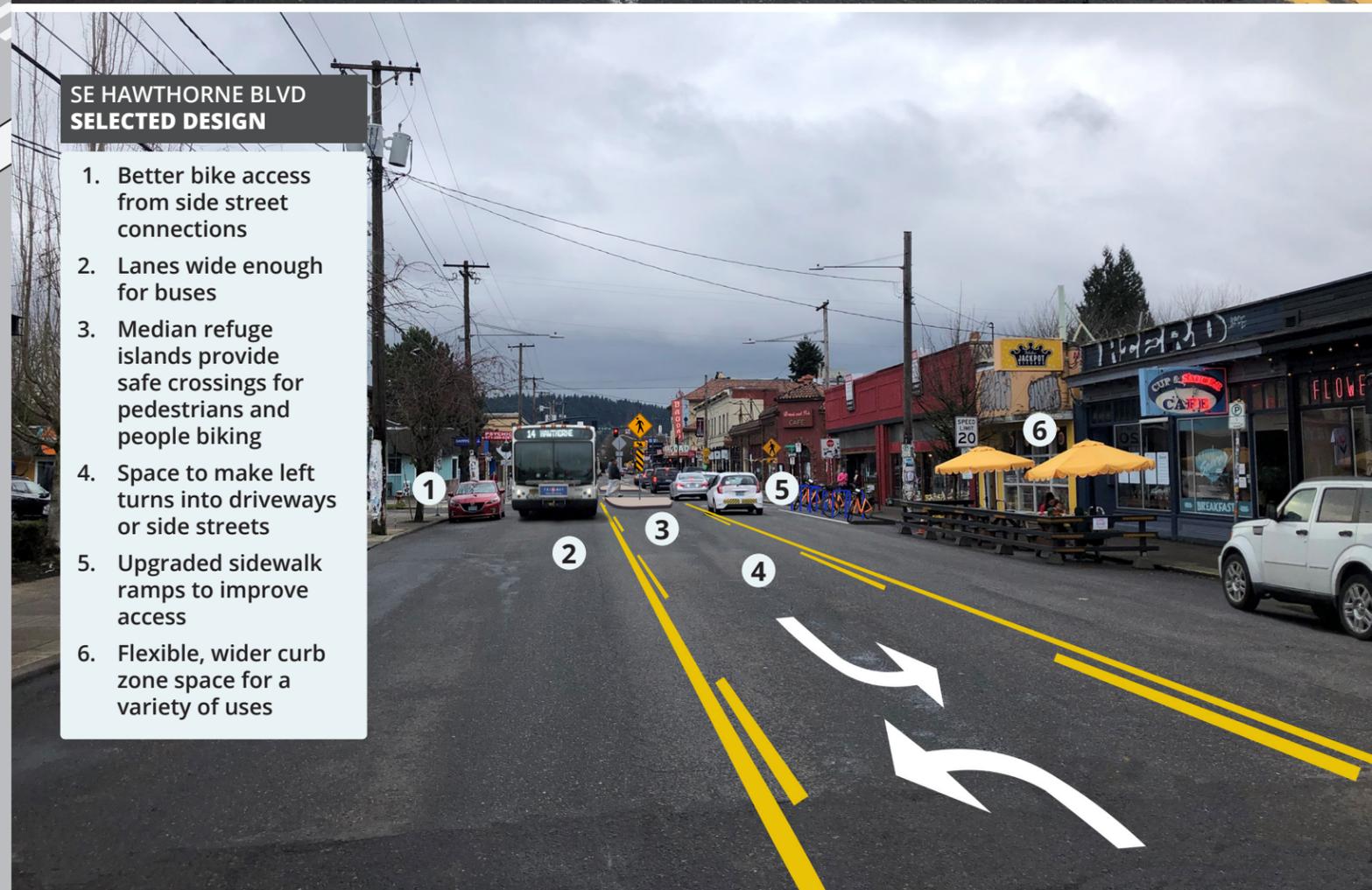
### SE HAWTHORNE BLVD EXISTING DESIGN

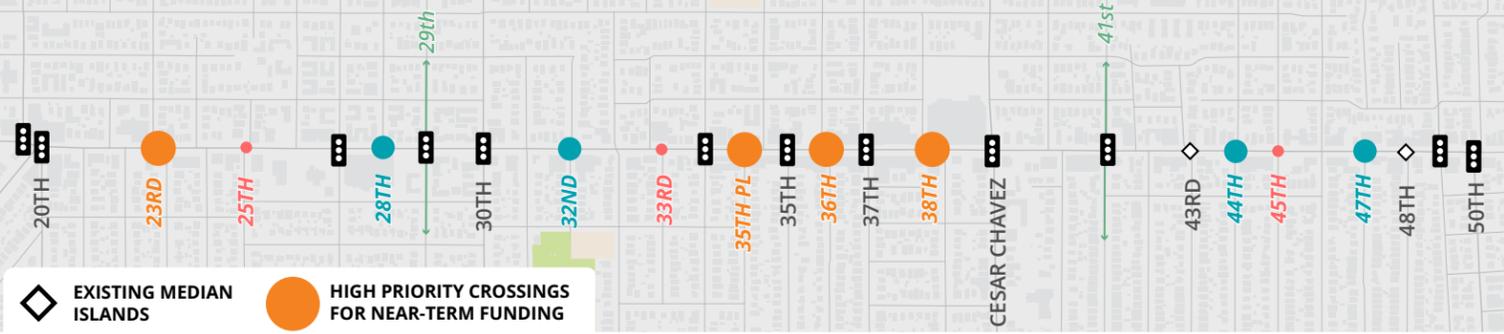
1. Limited north/south bike connections to Hawthorne
2. Buses take both lanes, mirror strikes are common
3. Pedestrians have to cross four lanes of traffic at once
4. Left turning vehicles block travel lanes
5. Many sidewalk ramps are not accessible
6. Narrow curb zone close to multiple traffic lanes



### SE HAWTHORNE BLVD SELECTED DESIGN

1. Better bike access from side street connections
2. Lanes wide enough for buses
3. Median refuge islands provide safe crossings for pedestrians and people biking
4. Space to make left turns into driveways or side streets
5. Upgraded sidewalk ramps to improve access
6. Flexible, wider curb zone space for a variety of uses





Crossing refuge islands will be installed at key locations as funding allows.

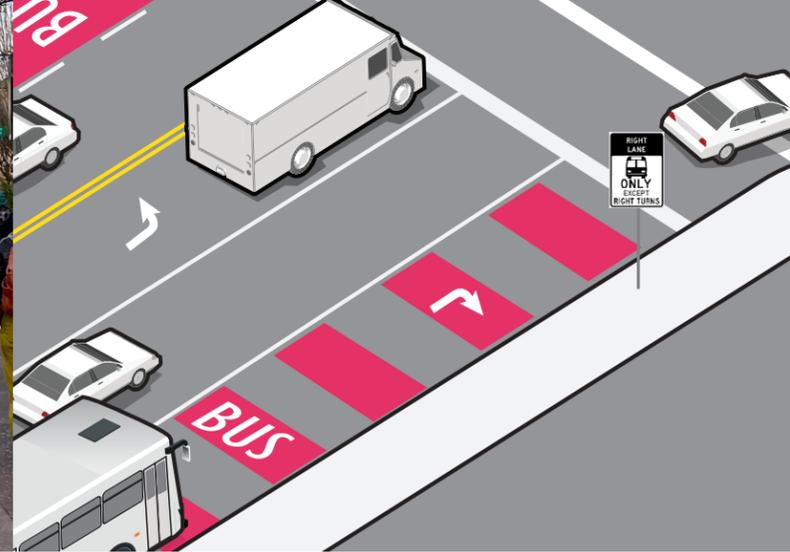
The design PBOT selected does the most to advance the goals of the community and the bureau. The redesigned street will have one general travel lane in each direction and a center turn lane. The design includes new curb ramps that meet Americans with Disabilities Act (ADA) standards for accessibility. As part of the project, we will add median refuge islands and marked crosswalks at bus stops and other high-priority locations within the project area to make crossing Hawthorne easier and safer for pedestrians and people biking. Where needed, we will add street lighting to make sure people crossing are more visible at night. Over the coming months, we will determine how many crossings can be improved within our budget. We will first address the high priority locations, and then select from the medium and lower priority locations as budget allows.

Immediately next to the curb, space will be used in a variety of ways: on-street parking, loading/unloading zones, parklets, street seats, or expanding the pedestrian space. PBOT encourages local businesses and property owners to consider ways this space can be used to enhance the experience of people coming to the Hawthorne District, and to work with PBOT to implement these ideas.

People enjoy eating at 3 Doors Down in outdoor, street-side tables permitted under PBOT's Healthy Business program on 37th Ave. Street-side uses on Hawthorne itself will be more inviting with the future street design.



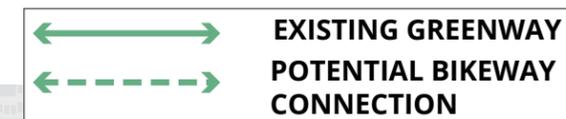
Current stop configuration at SE César E Chávez creates delay for transit riders.



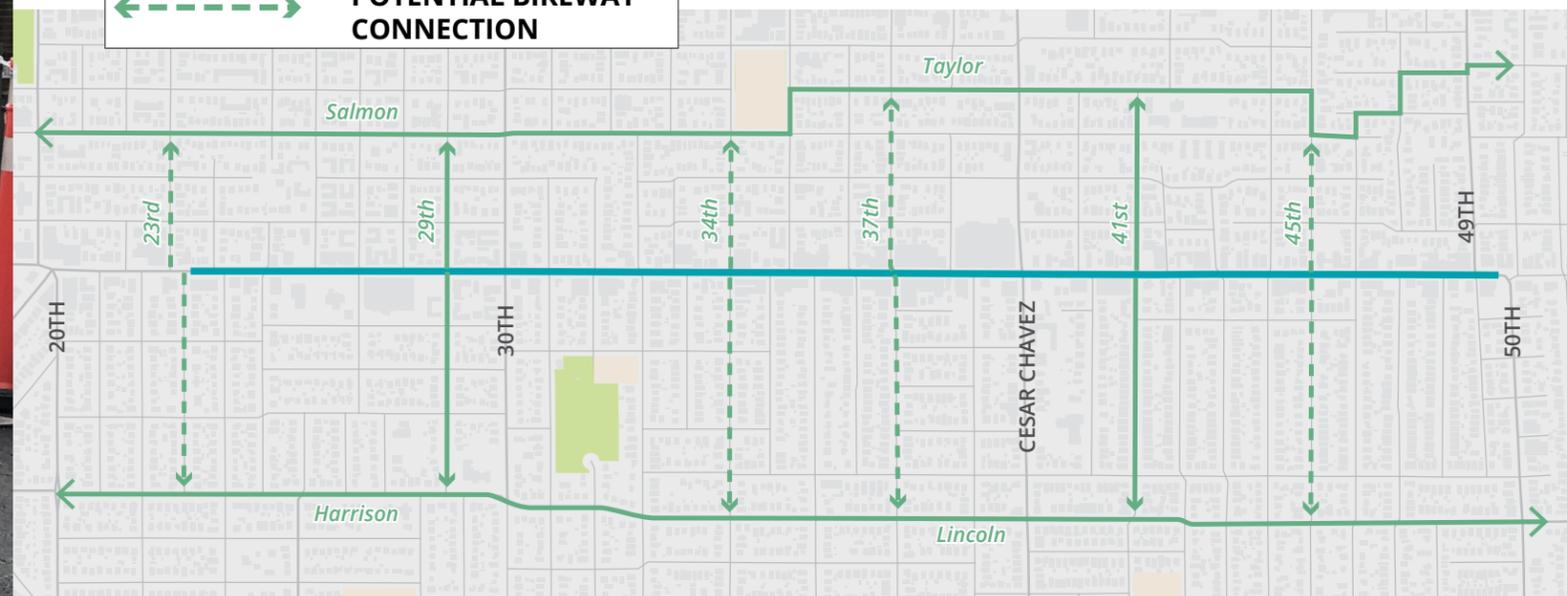
Rose Lane improvements will help buses move through the SE César E Chávez Boulevard intersection.

This project also includes Rose Lane improvements, with dedicated bus lanes that allow the frequent Line 14 bus to bypass through-traffic on both approaches to the SE César E Chávez Boulevard intersection. The bus priority lanes may also be used by right-turning vehicles closer to the intersection. To keep buses on time, the bus stop for the Line 14 (eastbound), will move to the east side of SE César E Chávez Boulevard.

PBOT will also make it easier for people biking to get to Hawthorne from the existing parallel neighborhood greenways on SE Lincoln, Harrison, Salmon, and Taylor streets. We'll invest in more north-south bike connections to Hawthorne, and improve the neighborhood greenways so they are safer, more comfortable bike routes. We'll also look for opportunities to improve signage for wayfinding along these routes and provide additional bike parking where neighborhood greenways cross Hawthorne. In the coming months, we'll gather community input on these routes, looking to build these improvements over the next five years.



We will invest in improvements to the bikeway connections to Hawthorne, to improve access to destinations there.





## DESIGN - NEXT STEPS

**PBOT will now begin developing the final design details for the street.** The design and construction of new ADA-compliant curb ramps has already begun. That work will be completed this summer. Paving will follow as soon as the curb ramps are done. We are finalizing locations for median refuge islands and marked crosswalks that will improve crossing safety for pedestrians and people biking. These should be built in the months immediately following the paving. We also plan to improve the surrounding bikeway network, with investments occurring over the next five years.

We will continue to provide updates, so sign up for our email list to stay in the loop. We look forward to building this project this year!



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