

NORTH WILLIAMS TRAFFIC OPERATIONS SAFETY PROJECT



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The purpose of the North Williams Traffic Operations Safety Project was to conduct an open, community-driven planning process to identify strategies for making travel on North Williams Avenue safer and more comfortable for all roadway users. This report describes the stakeholder and public outreach process that was used to develop streetscape design concepts and the resulting community recommendation.

This project was informed by previous planning work conducted in 2006 as part of the Vancouver-Williams Transportation Project. In that 2006 project, a committee recommended pedestrian safety improvements—most of which have since been constructed with funding from the Portland Development Commission. City staff for the North Williams Traffic Operations Safety Project expanded on this work by approaching the re-design of

the streetscape with seven initial project goals that were later expanded to address specific desirable project outcomes.

The North Williams Traffic Operations Safety Project relied heavily on input from a Stakeholder Advisory Committee, comprised of local residents, small business owners, religious leaders and transportation advocates, to design alternative concepts for the street (see page 5 for a full list of participating SAC members). Portland Bureau of Transportation staff and project consultants also relied on a Technical Advisory Committee (TAC) to review and analyze design concepts for feasibility, impact to existing street operations and safety. For a list of the bureaus and City staff that participated in the Technical Advisory Committee, see Appendix A.



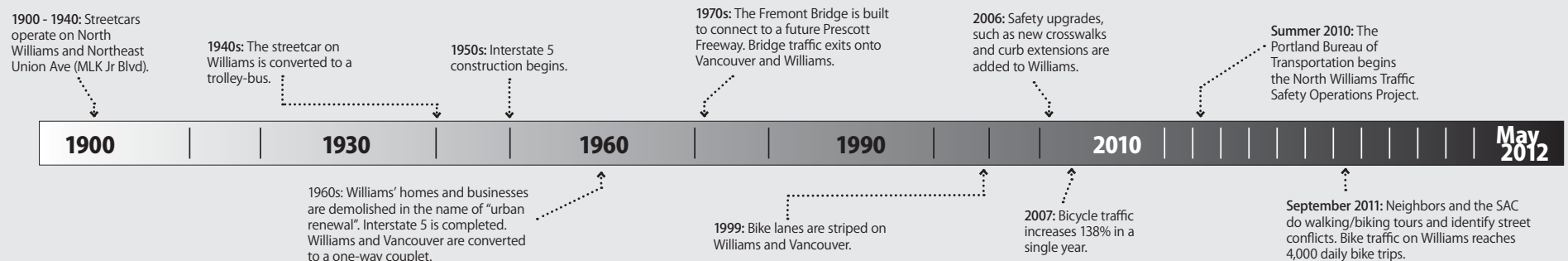
A high level of public involvement was key to the success of the North Williams Traffic Operations Safety Project

INITIAL PROJECT GOALS

- 1** To conduct an open planning process through which all voices can be heard by the City
- 2** To reduce or manage traffic conflicts between people bicycling, people driving, and buses operating on North Williams
- 3** To improve conditions for bicycling on North Williams
- 4** To maintain or improve conditions for walking on or across North Williams
- 5** To explore innovative solutions and strategies in the North Vancouver/Williams corridor
- 6** To create conditions for transit service, traffic flow, parking and active transportation that support existing businesses and future business development
- 7** To honor the history of North Williams Avenue through elements of the transportation project*

*Added per Stakeholder Advisory Committee recommendation in December 2011.

How has traffic on North Williams Avenue changed over the years?



North Williams Avenue is a one-way street (northbound) and an existing bikeway connecting the Rose Quarter Transit Center and Springwater Corridor to North Portland, and areas beyond. The street runs through the heart of the historic Albina community, one of Portland's oldest neighborhoods and once an independent city.

North Williams Avenue is a historic "main street" for Portland's African American community. It was significantly impacted by past major redevelopment projects, including Memorial Coliseum, I-5 construction, and especially the early 1970s Emanuel Hospital expansion that was never completed. The North Williams Traffic Operations Safety Project acknowledged the negative impact of these past planning efforts. It strived to conduct a planning process that addressed community concerns, needs and desires—a process that eventually led to a solution on North Williams supported by the community.



A snapshot of the predominantly African American owned businesses on North Williams in 1956. The top left corner is the future site of New Seasons Market



The project study area included the approximately 2-mile section of North Williams from North Winning Way in the Rose Quarter to Killingsworth Street. At present, there are 34 intersections in the study corridor. The character and function of North Williams Avenue changes along its length. Similarly, the issues and concerns identified by stakeholders varies. As a result, the project team broke the corridor into five smaller segments to better distinguish these differences and allow design solutions to be tailored to the conditions found in each segment.

The typical street existing cross-section is shown in Figure 1 and has a curb-to-curb width of 40' that includes parking on both sides of the street, two travel lanes, and a 5' - 6' wide bike lane. The existing bike lanes were added to North Williams Avenue in 1999 by narrowing the two motor vehicle travel lanes. Although the lane configuration varies at a number of intersections (where the parking lane is dropped prior to the intersection to form right- or left-turn lanes), the typical roadway width is 40' between Killingsworth Street and Hancock Street. South of Hancock Street the pavement width reduces to 36' (see Figure 2).

Existing transportation conditions along the corridor, including bicycle and motor vehicle traffic volumes, transit boardings and alightings, crash history, and parking utilization, were documented in the *North Williams Existing Conditions* memorandum prepared by Kittelson & Associates, Inc. (see Appendix B). This report relied on 2010 bike count data, but the most recent counts demonstrate a 29-percent increase in bicycle traffic between 2010 and 2011.

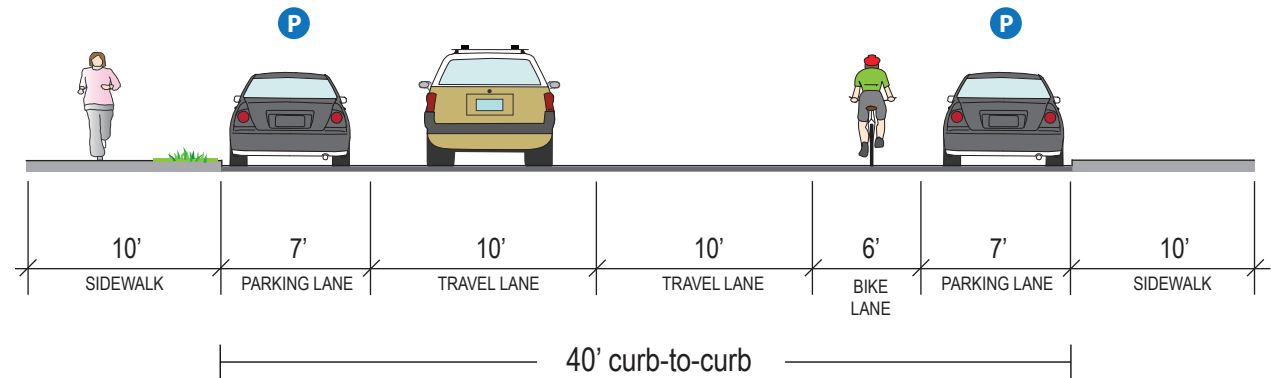


FIGURE 1: Existing street cross section between Hancock Street and Killingsworth Street

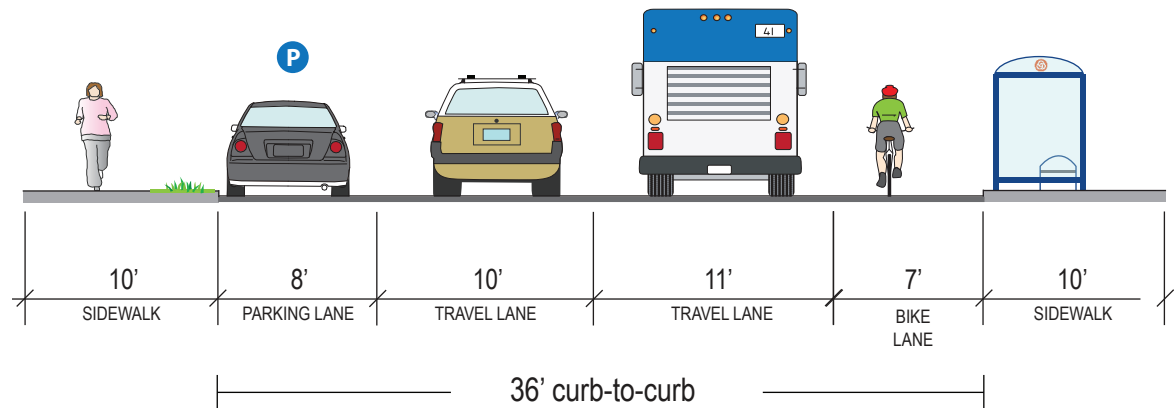


FIGURE 2: Existing street cross section south of Hancock Street

A summary of the role of this street for each of the major travel modes is included below:

WALKING

The corridor contains several attractors for people walking, with high crossing demands in a number of locations. There are also a number of crossings that serve slower and more vulnerable pedestrians (e.g. the elderly, people with disabilities, or school-aged pedestrians). North Williams offers a large quantity of housing and assistance services for people with mental or physical disabilities, low-income people and people recovering from addiction. Many of the people traveling on North Williams depend on sidewalks and pedestrian crossings to access TriMet buses, TriMet LIFT service or private lift-equipped vehicles.

BICYCLING

North Williams is one of the busiest bikeways in Portland. Its popularity is partially due to the directness of the route in comparison to alternate streets. Adjacent north-south streets do not go straight through and often require difficult crossings at major east-west streets. About 400 people were counted bicycling north on Williams during an evening peak hour in summer of 2011 and this number makes up approximately 20- to 35-percent of summer weekday evening vehicle volumes. North Williams is designated as a Major City Bikeway in the *Portland Bicycle Plan for 2030*.

TRANSIT

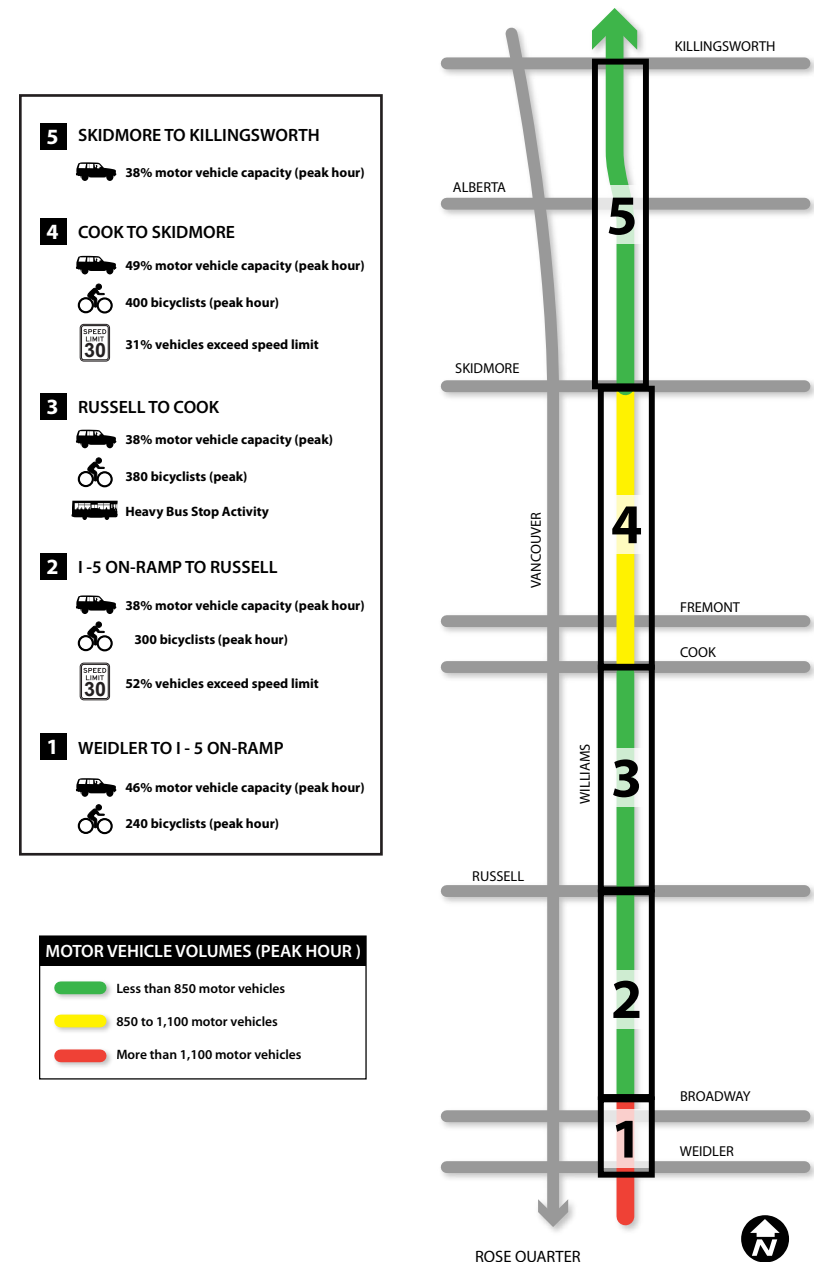
The corridor offers frequent transit service with the #4 and #44 TriMet bus routes operating approximately every 5-6 minutes (10 – 11 buses) south of Fremont Street and every 15 minutes (4 buses) north of Fremont Street during peak hours. South of Graham Street, Williams also receives a high level of TriMet LIFT service for transit passengers with disabilities.

MOTOR VEHICLE TRAFFIC

The street is classified as a Neighborhood Collector in the City's Transportation System Plan. Neighborhood Collectors generally have higher traffic volumes than local service streets. By policy they are intended for trips into, out of and within the neighborhood, unlike higher-classified streets which are meant for longer trips that pass through neighborhoods. Motor vehicle volumes vary along the corridor, see Figure 3.

At its south end, North Williams plays an important role in delivering motor vehicle traffic to I-5. Except for the segment south of the I-5 entrance ramp, the biggest influx of motor vehicle traffic enters onto North Williams Avenue at Cook Street, coming from I-405, and the highest right-turn traffic is one block later, onto NE Fremont. Motor vehicle volumes range from 700 to 1,100 vehicles per hour during the evening peak. The single lane capacity of the street is estimated at a planning level at approximately 850 vehicles per hour per lane.

FIGURE 3: Existing conditions on the North Williams corridor



Public outreach began with City staff and consultants going door-to-door on North Williams, conducting interviews and inviting neighbors to join the project's Stakeholder Advisory Committee. The first Committee meeting was held in February, 2011.

Early planning for this project focused on technical transportation issues. Committee members and the public were concerned, however, that the City was ignoring and exacerbating issues of race, gentrification, and equity. In response to their concerns and requests, the project team extended the public process, broadened the topics the Advisory Committee would address, and emphasized outreach to the older residents, people of color and low-income neighbors who often do not have access to transportation planning processes. For a complete list of public events held during this process, see Appendix C.

In addition, by May of 2011 it was clear to Committee members and to the project team that the Committee was not representative of the community around North Williams. There were only four people of color on the then-18 member Committee. City staff asked Debora Leopold Hutchins, a prominent member of the community, to serve as Committee Chair, and to help recruit a more diverse Committee. In the summer of 2011 the Committee was expanded to 26 members (see Table 1).

Once the Stakeholder Advisory Committee was expanded, the group began educating itself about the existing traffic and safety conditions on North Williams and the traffic engineering tools available to affect change. Part of this education process involved project staff-led walking and bicycling tours for the SAC. The committee then agreed on ten potential "outcomes" that this project could achieve. These outcomes served as the foundation of the alternative design concepts for North Williams. The SAC recommended concept was the option that best met the requirements of these ten outcomes.



“ The community helped us understand that, on North Williams, history, justice, development and transportation are all related. ”

Table 1. Stakeholder Advisory Committee Members

| NAME | AFFILIATION |
|--------------------------------|--|
| Debora Leopold Hutchins, Chair | Sistas Weekend Cyclers |
| Allan Rudwick | Neighbor |
| Ben Foote | Neighbor |
| Caitlin Wood | Disability Rights Oregon |
| Diana Moosman | MOSI Architecture |
| Dwight Terry | Terry Family Funeral Home |
| Gahlana Easterly | Property owner |
| Irek Wielgosz | King Neighborhood Association |
| Jana McLellan | Port City Development Center |
| Jazzmin Reece | Reece Consulting, LLC |
| Jerrell Waddell | Life Change Christian Center |
| Jrdn Freeauf | Eddie Murphy Cabinets |
| Karis Stoudamire | Boise Neighborhood Association |
| Kenneth Doswell | Betty Jean Couture |
| Laurie Simpson | Eliot Neighborhood Association |
| Melissa Lafayette | Jesuit Volunteer Corps |
| Michelle DePass | Neighbor |
| J.W. Matt Hennessee | Vancouver Avenue First Baptist Church |
| Mychal Tetteh | Village Market at New Columbia |
| Nathan Roll | Metropolis Cycle Repair |
| Noni Causey | Education specialist, small business owner |
| Pamela Weatherspoon | Legacy Emanuel Hospital |
| Paul Anthony | Humboldt Neighborhood Association |
| Shara Alexander | Neighbor |
| Steve Bozzone | Willamette Pedestrian Coalition |
| Susan Peithman | Bicycle Transportation Alliance |

In February 2012, the Stakeholder Advisory Committee adopted the following Top Ten Outcomes for this project, in order of importance. In later discussions the top three listed Outcomes were emphasized.

1 Increase convenient opportunities for pedestrians to safely cross North Williams:

Committee members were concerned about the ease and safety of crossing North Williams. Even where high-visibility signed crossings exist, pedestrians experience challenges crossing North Williams due to prevalent speeding, few gaps in traffic and the failure of vehicle operators to obey the legal requirement to stop for pedestrians.

3 Reduce motor vehicle speeds:

Most Committee members were concerned about motor vehicle speeds on North Williams Avenue. Traffic speed observations between Broadway and Russell Street showed that 52% of motor vehicles exceeded the 30 mph speed limit. Observations just north of Beech Street showed that 31% of motor vehicles exceeded the 30 mph speed limit. Having two travel lanes, limited stops (for signals), and relatively low traffic volumes tends to promote high motor vehicle speeds. Two 20 mph school zones have little effect on speeds.

2 Mitigate conflicts between all modes:

The Committee wished for more clarity about how bicycles, buses, cars and pedestrians should interact on North Williams. Where congestion, speeding or passing create conflict they wanted to see those needs accommodated and those conflicts diminished. They perceived a high level of conflict between people driving and bicycling today, and wanted to see it improved.

4 Improve the visibility of pedestrians:

The Committee sought to increase the visibility of pedestrians to both motorists and bicyclists. There are a number of crossings where pedestrians have limited visibility of oncoming traffic due to parked vehicles or other obstructions. Automobile speeds on North Williams are high, signalized crossing opportunities are few and many people walking across Williams have physical disabilities or are walking with children. Two automobile travel lanes heading in the same direction make pedestrian crossing challenging because vehicles in an adjacent lane can impede a driver's ability to see the pedestrian, and because people driving know that if they stop the cars alongside them and behind them may not stop and may put the pedestrian at risk (known as a "multiple threat" situation).



High visibility crosswalks and a median refuge island help improve the pedestrian experience while crossing busy thoroughfares



A channelized cycle track in Amsterdam is the height of user separation. The recommended concept for North Williams seeks to improve user comfort without using as high a level of physical separation



City staff and the Stakeholder Advisory Committee take the opportunity to look at the speeding problem on North Williams first hand



Curb extensions reduce pedestrian crossing distance and make it easier for motorists to see them, as well as for pedestrians to see approaching vehicles



5 Reduce the risk of people bicycling being struck by opening car doors: The threat of “dooring” on North Williams is very real to bicyclists, especially in areas with high parking turnover. This type of crash is rarely reported to police and is therefore underrepresented in crash statistics. The existing lane configuration on North Williams places bicyclists adjacent to the eastside parking lane. Drivers must open their door into the bike lane to exit their vehicle. The current five- or six-foot wide bike lane does not provide enough room for a bicyclist to avoid an open car door without entering the adjacent travel lane. The Committee was interested in improving this hazardous and uncomfortable situation.



6 Create opportunities for people bicycling to pass one another without entering the motor vehicle travel lane: The skill and speed at which bicyclists travel varies can vary considerably and the North Williams corridor is one of the most popular bikeways in Portland. This can lead to crowded conditions where faster cyclists try to pass slower cyclists. There is currently not enough room for bicyclists to pass each other within the bike lane. This means that bicyclists are actually riding in the auto lane at times to pass slower cyclists. While this is legal, it is not comfortable for most cyclists or drivers, especially in places where auto speeds are high.



7 Manage conflict between bus and bicycle lane operations: A decade ago, when there were just a few hundred people biking up North Williams each day, pulling a bus into the bike lane to drop off and pick up passengers worked fine. But now that there are more than 4,000 cyclists a day in warm months, causing delay, stress, and safety concerns for bicyclists and bus operators.



8 Reduce all crashes in the North Williams corridor: With speeding, poor visibility at many pedestrian crossing locations, bicycle demand above existing capacity, and frequent bus service, the North Williams streetscape is faced with significant safety challenges. The Committee was interested in design solutions to help reduce crashes on North Williams.



9 Maintain or improve the ease with which people bicycling can turn on and off of Williams: There are many destinations and neighborhoods just east and west of North Williams. The Committee desired that turns onto and off of Williams from the bikeway should be intuitive and legible to all roadway users.



10 Maintain access and operability for TriMet LIFT vehicles and private lift-equipped vans: The high density of housing and services for people with mental or physical disabilities, low-income people and people recovering from addiction makes safe and convenient access to TriMet’s LIFT service essential. The Committee wished to maintain, if not improve, the current level of service for LIFT and other private lift-equipped vehicles.

In addition to meeting the SAC's project outcomes, design concepts for North Williams faced the following challenges:

MOTOR VEHICLE CAPACITY

Though maintaining motor vehicle capacity was not one of the SAC's Outcomes, the City also relies on transportation policies included in the Comprehensive Plan. One of the challenges for this project was carefully balancing the needs of all users—pedestrians, bicyclists and transit—with the predicted consequences of congestion. The project team determined that the street could function effectively with a single motor vehicle travel lane so long as motor vehicle traffic volumes did not exceed 850 cars per lane/per hour. While existing motor vehicle traffic volumes fell below this threshold for most of the corridor, within the section between Cook Street and Shaver Street they exceeded that threshold. This is the section of North Williams that serves automobile traffic exiting the Fremont Bridge.

FUTURE DEVELOPMENT

Development on North Williams has been occurring at a consistent pace for the past several years. Traffic modeling performed by the City did take into account further residential and commercial development on North Williams. The model predicted that an increase in motor vehicle congestion, resulting from implementation of the SAC's recommendation, could be effectively managed in a manner that is consistent with City policy.

Long queues and wait times for motor vehicles between Cook and Fremont on North Williams would also have implications for motor vehicle access to the expected new commercial driveways in that block. This is one impact that dissuaded the SAC from recommending only one motor vehicle through-lane in this section.

ON-STREET PARKING

There are many blocks of North Williams which are currently empty or underused, and the on-street car parking facing them is almost always empty. However, because they anticipate future development in these blocks, the SAC was not inclined to convert that on-street car parking space to another use.

Though it was not named as a Top Ten Outcome by the SAC, most Committee members and City staff clearly shared an assumption that on-street car parking along North Williams is valuable and should be preserved wherever possible.

EMERGENCY VEHICLE ACCESS

The SAC did not discuss Emergency Vehicle Access at length, in part because the TAC (which included representatives from the Police and Fire Bureaus) evaluated each design alternative in this light and their recommendations were passed on to the SAC through project staff.

TRIMET AND LIFT SERVICE ACCESS

The TAC evaluated design alternatives for their impact on current and future transit access, and project staff held additional meetings with TriMet for more detailed analyses. After consulting with the TAC and TriMet, City and project staff decided that a right-side cycle track would not be feasible on North Williams, and they made that recommendation to the SAC.

The Initial Concept Development Memorandum (see Appendix D) provides a comprehensive overview of the existing conditions in each segment and the identified opportunities for improving safety and comfort. However, the Memorandum was written to address the City's goals for this project, before the SAC set its own Top Ten Outcomes.

Throughout the planning process the following strategies were considered to address, first, the City's goals for this project and, later, the SAC's Top Ten Outcomes. They are listed below under the Outcomes that they would most directly affect.

1 Increase convenient opportunities for pedestrians to safely cross Williams

- Reduce the number of auto lanes in certain locations to slow traffic, allow drivers to better see pedestrians, and improve driver yielding behavior.
- Provide curb extensions to allow pedestrians and drivers to see one another (e.g., Tillamook, Stanton, Page, Beech and Cook St).
- Provide enhanced or signalized crosswalks at strategic locations (e.g., Cook, Stanton, Beech and Failing St).

2 Mitigate conflicts between all modes

- Manage conflicts between people walking and people riding bicycles by separating them in space or in time (using signals).
- Reduce conflict between people bicycling and buses by diverting bicyclists behind bus stops, in a cycletrack. However, this would require managing conflicts between bus passengers and bicycles.
- Manage crossing of the bike lane and stopping in the bike lane by buses by providing extra width in the bike lane.
- Reduce conflicts between buses and people bicycling by moving the bike lane to the left side of the street.
- Add width or a buffer to the bike lane. This creates a cushion between cyclists and motor vehicles. It allows bicyclists to pass one another or avoid obstacles without encroaching into the travel lane. Providing a buffer on the parking side of the bike lane reduces the risk of being struck by a car door.

3 Reduce motor vehicle speeds

- Narrow North Williams to one motor vehicle travel lane. Providing a single motor vehicle travel lane generally reduces speeds because the lead driver limits the speed of the vehicles behind them.
- Use signal timing to progress traffic at slower speeds. Signals can be timed to move traffic at a certain speed. (However, existing signalized intersections are too far apart for use of this strategy.)
- Visually narrow the street. Curb extensions, pedestrian crossings, and other street treatments visually change the street for drivers, tending to slow motor vehicle speeds.



Failure to yield to pedestrians at crosswalks is a common complaint

4 Improve the visibility of pedestrians

- Provide curb extensions to allow pedestrians and drivers to see one another.

5 Reduce the risk of people bicycling being struck by opening car doors

- Switch the placement of the bike lane to the curb side of the parking lane, next to the sidewalk. This design reduces the risk to cyclists of being struck by a car door.
- Add width or a buffer to the bike lane. Providing a buffer on the parking side of the bike lane reduces the risk of being struck by a car door.

6 Create opportunities for people bicycling to pass one another without entering the motor vehicle travel lane

- Add width or a buffer to the bikeway. This allows bicyclists to pass one another or avoid obstacles without encroaching into the travel lane.

7 Manage conflicts between bus and bicycle lane operations

- Reduce conflict between people bicycling and buses by diverting bicyclists behind bus stops, in a cycletrack. However, this would require managing conflicts between bus passengers and bicycles.
- Manage crossing of the bike lane and stopping in the bike lane by buses by providing extra width in the bike lane.
- Reduce conflicts between buses and people bicycling by moving the bike lane to the left side of the street.
- Separate buses and cyclists in time using separate signal phases at intersections.

8 Reduce all crashes in the North Williams corridor

9 Maintain or improve the ease with which people bicycling can turn on and off of Williams

- In the case of a left-side bike lane or cycletrack, create right-turn boxes where people bicycling can pull over and wait to cross North Williams if they are heading east. (Some people may not be comfortable merging out of a left-side bike lane, across the motor vehicle lane, to make a right turn; in the case of a physically-separated left-side cycletrack, this would not be possible.)

10 Maintain access and operability for TriMet LIFT vehicles and private lift-equipped vans

- Manage crossing of the bike lane and stopping in the bike lane by buses and LIFT vehicles by providing extra width in the bike lane.
- Reduce conflicts between LIFT vehicles and people bicycling by moving the bike lane to the left side of the street.



A TriMet bus stops in the bike lane to pick up/drop off

Refinement of the initial concepts for the North Williams streetscape were informed by twenty-three public meetings, four community workshops, two public open houses and a number of one-on-one conversations with community leaders and business owners. Following the first open house in April 2011, it became apparent that the North Williams Traffic Operations Safety Project may be a transportation project, but that in this community history, justice, development and transportation are all related. The initial concepts displayed at the April 2011 open house received a divided reception from the community. Long-time neighbors of North Williams and many members of the African American community were concerned about their underrepresentation in the planning process and the concepts it was producing so far.

In response to this critique, the technical planning process was placed on hold as additional community outreach was conducted. In early 2012, the new 26-person SAC began judging alternative concepts against their 10 Outcomes. The following section provides an overview of the final recommended concept—the streetscape plan that was deemed the most capable of achieving the SAC's outcomes (see Figure 4).

LEFT-SIDE BUFFERED BIKE LANE

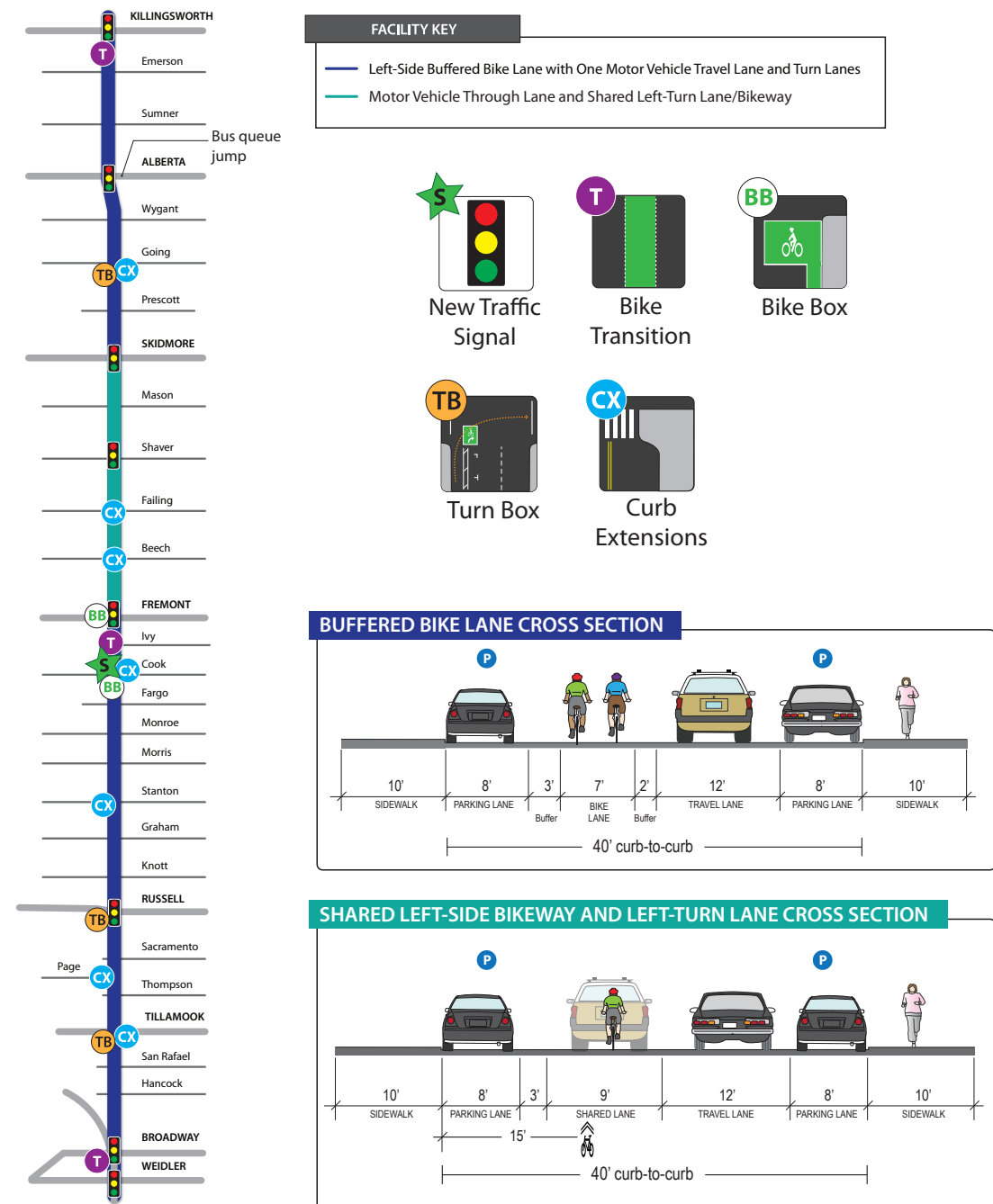
The preferred concept for the majority of the corridor is a left-side buffered bike lane with strategically placed pedestrian crossing improvements (see Figure 5). This concept involves converting the westside motor vehicle travel lane into a buffered bike lane. The advantages of this concept include:

Traffic Calming: The buffered bike lane is created by eliminating a motor vehicle travel lane. This reduction in capacity has a slowing effect on motor vehicles.

Eliminates bus/bike conflict: Under this concept bicyclists and transit operators will only be required to navigate the same roadway space at Fremont Street, where the #4 bus turns left.

Safe passing: The left-side buffered bike lane provides space for bicyclists to safely pass one another without needing to enter the adjacent motor vehicle lane.

FIGURE 4: Overview of the recommended concept for North Williams



Increased separation of bicyclists and motorists: As the speed differential between bicyclists and motor vehicles increases, the comfort of bicyclists decreases. The 3' buffer that separates the bike lane from the motor vehicle lane helps to mitigate this problem and creates a more comfortable environment for all road users.

Reduced threat of “dooring” incidents: The buffered bike lane concept provides a 2' painted buffer between the parking lane and the bike lane and a 3' buffer between the bike lane and adjacent travel lane. This creates greater shy distance between the space where car doors are opening and the area where bicyclists are riding, as well as greater navigating area on the through lane side, should the bicyclist have to swerve to avoid an opening door. In addition, having the bike lane on the left side means that the passenger side of motor vehicles faces the bike lane. Passenger-side doors open less frequently than driver's-side doors.

Emergency service vehicle access: A buffered bike lane does not create a hard barrier between the motor vehicle and bicycle travel lane (unlike a physically-separated cycletrack). As such, bikes and motor vehicles alike can move to the sides of the street to allow enough room for emergency vehicles to pass in the middle of the roadway.

SHARED LEFT-SIDE BIKEWAY AND LEFT-TURN LANE

In the commercial corridor between Fremont Street and Skidmore Street, approximately five city blocks, the Committee wanted to maintain two motor vehicle travel lanes and on-street parking. To provide a low-stress bikeway under these conditions it recommended an innovative approach: the left-hand lane will be for bicycles and for cars that are parking, unparking or making a left turn within one block.

The shared left-side bikeway and left-turn lane utilizes a traffic diverter at the end of each block that allows bicyclists to pass through and continue straight on North Williams, but prevents motorists from continuing straight (see Figure 6). This design is intended to create a low-volume and low-speed shared bike and motor vehicle lane. The City will use ample and thoughtful pavement markings, signs and educational campaigns to teach travellers on North Williams how to bike and drive in it.

FIG 5. LEFT-SIDE BUFFERED BIKE LANE:
Broadway to Fargo; Skidmore to Killingsworth

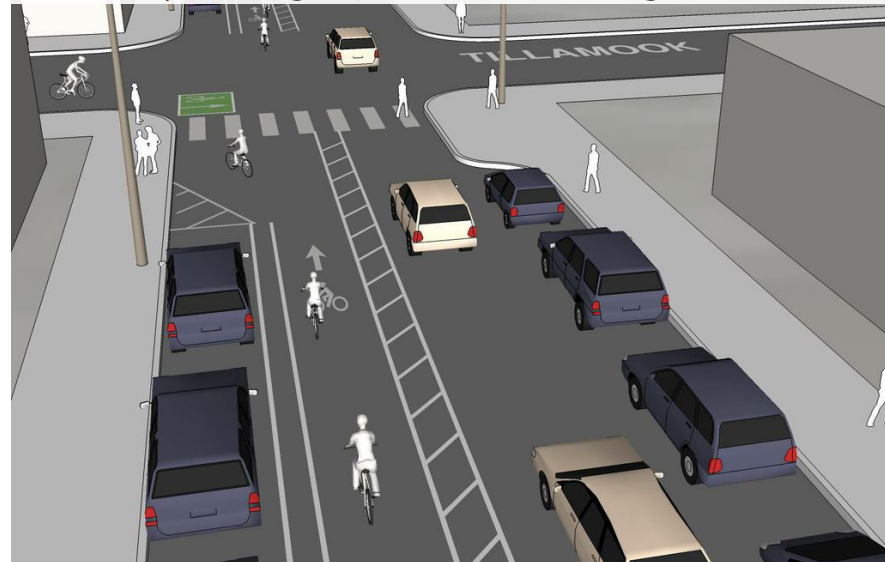


FIG 6. SHARED LEFT-SIDE BIKEWAY AND TURN LANE:
Fremont to Skidmore



Table 2. Outcomes addressed by the preferred concept

| | OUTCOME | RECOMMENDATION | REASON |
|-----------------|---|---|---|
| PEDESTRIANS | Improve safety and convenience of pedestrian crossings | <i>NE Broadway to N Fargo/ N Skidmore to N Alberta:</i> Convert to a single travel lane | Shortens the distance needed to cross the auto traffic lanes. |
| | Improve visibility between drivers and crossing pedestrians. | Curb extensions at: <ul style="list-style-type: none"> Tillamook Page Stanton Beech Failing Goings | Improves sight distances for both pedestrians and traffic. |
| TRAFFIC CALMING | Reduce traffic speeds | <i>NE Broadway to N Fargo/ N Skidmore to N Alberta:</i> Convert to a single travel lane | Reduces the travel speed of the roadway. Retains the second travel lane to provide maneuvering capacity for parking while limiting through capacity to one travel lane. |
| | | Investigate reducing the speed limit from 30 mph to 25 mph | Slower traffic speeds will create a safer environment for all users. |
| SAFETY | Reduce conflicts between all modes | <i>Broadway to Fremont / Skidmore to Killingsworth:</i> Buffered bicycle lane | More separation from car traffic and parked cars. |
| | | <i>Fremont to Skidmore:</i> Shared left side bikeway and left-turn lane | The shared left travel lane retains the existing two lane capacity in the busiest section of the corridor. By retaining two travel lanes in this section there is not enough room to also provide a buffered bicycle lane. |
| | | Move bicycles to left side | Eliminates bus/ bike conflict. |
| | | Safety Campaign | Education campaign to raise awareness of safety issues. |
| | | Traffic signal at N Cook | Better control of turn movements at a high crash location. |
| | | Bus queue jump at N Alberta | Allows buses to move back into the thru travel from the turn lane without conflicts from bikes or autos. |
| | | <i>Broadway to Fremont/ Skidmore to Killingsworth:</i> Convert to a single travel lane | Provides the space necessary to widen the buffered bicycle lanes. |
| BICYCLISTS | Reduce risk of cyclists being struck by opening vehicle doors | <i>Broadway to Fargo/ Skidmore to Killingsworth:</i> Convert to a single travel lane | Provides space for a wider bicycle lane (with buffer). |
| | Improve capacity for bikes passing without having to use the adjacent travel lane | | |
| | Reduce conflicts between bus operations and bicycles | Move bicycles to left side | Eliminates current bus/ bike conflict when buses move across the bicycle lane to access bus stops. |
| | Reduces conflicts between bicyclists and cars | Bike Boxes • Cook | Allows for improved visibility of bicyclists and reduces conflict between through bike traffic and turning cars at signalized intersections. |
| | Maintain or improve the ease of transitions for bicyclists making turns | Bike Turn Boxes • Tillamook • Russell • Goings | Offers a safe way for bike to make a right turn from a left side bike lane. |

Table 2 demonstrates how the preferred concept meets the Outcomes established by the SAC. In addition, the preferred concept addresses the identified constraints as shown below:

Motor Vehicle Capacity: In the segment of North Williams where motor vehicle volumes are highest (from Cook to Shaver) and around the intersection that is most taxed by evening peak traffic (North Fremont and Williams), this recommended concept provides two through lanes for motor vehicles. It also includes new traffic signals that will provide a safer and more predictable experience for people exiting the Fremont Bridge onto North Williams.

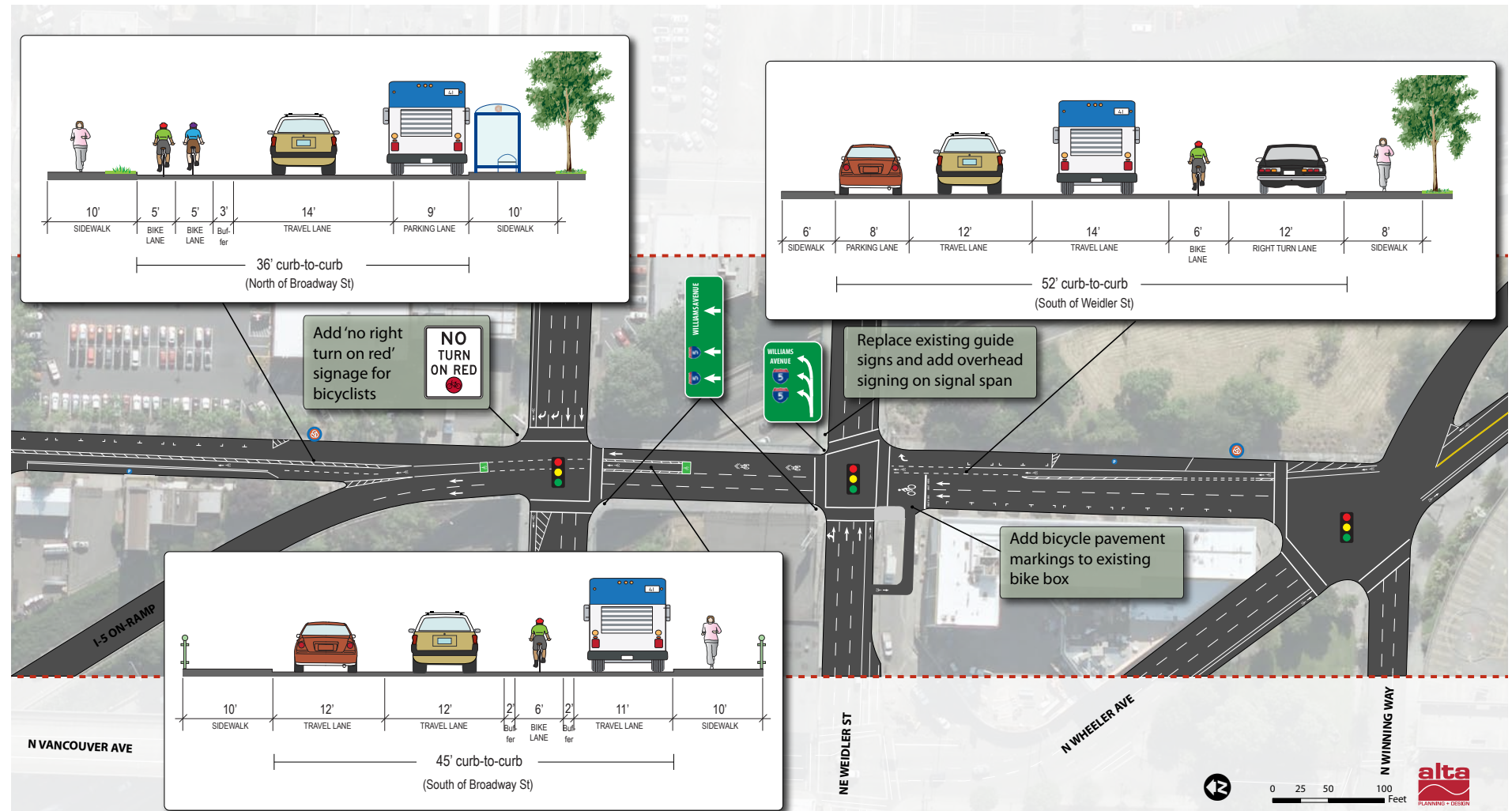
Future Development: The recommended concept maintains levels-of-service at North Fremont and Williams that will allow future development to occur. It also supports future commercial driveway access in this segment of the street.

On-Street Parking: The concept converts very little on-street car parking on North Williams to other uses. Also, the addition of a buffer to the bike lane will allow people to enter and exit parked cars more easily.

TriMet and LIFT access: Moving the bike lane to the left side of the street will eliminate almost all conflicts between people bicycling, buses and bus passengers. LIFT vehicles, which are wider than the parking lane in some segments of Williams, will no longer block part of the bike lane when they are parked. Access by people with disabilities to TriMet LIFT service and private lift-equipped vehicles will not change with the implementation of this concept.

The following section provides a detailed design overview of the key features of the recommended concept on a block-by-block basis.

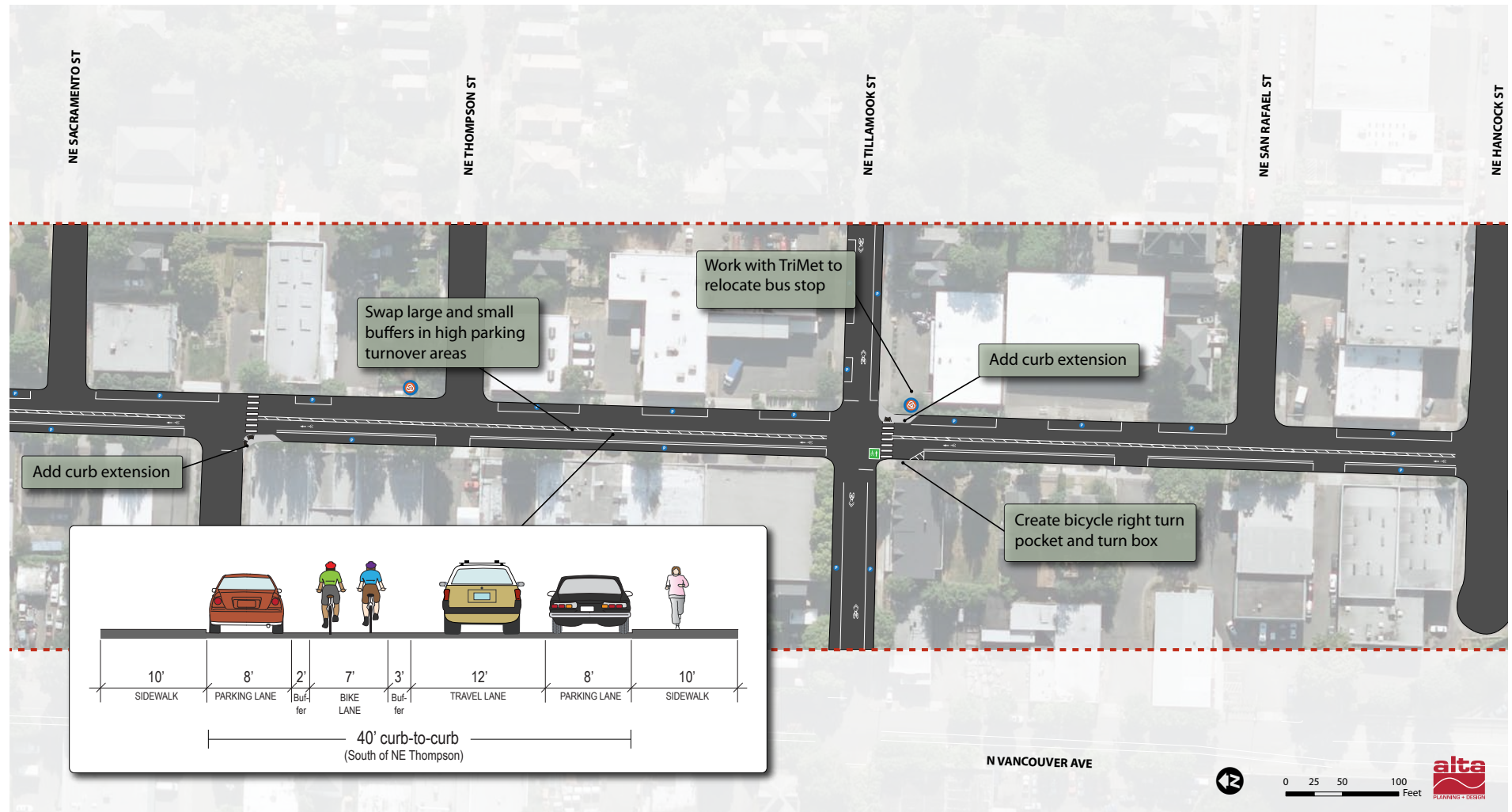
Winning Way to I-5 On-Ramp



KEY FEATURES

One of the challenges of developing a left-side bikeway on North Williams is safely and intuitively transitioning bicyclists from the right side to the left. This design demonstrates how such a transition might operate. Instead of separating modes with signal phases, the design relies on sorting bicyclists and motorists in advance of the intersection at Broadway. Motor vehicle through traffic continuing on North Williams is required to stay in the far right lane and bicyclists are placed between motor vehicles entering I-5 and the right travel lane. Prominent pavement markings and signage are used to inform motorists and bicyclists about proper placement on the roadway. At the Broadway signalized intersection, a green phase allows all modes to travel forward at the same time and for bicyclists to transition comfortably to a left-side buffered bike lane.

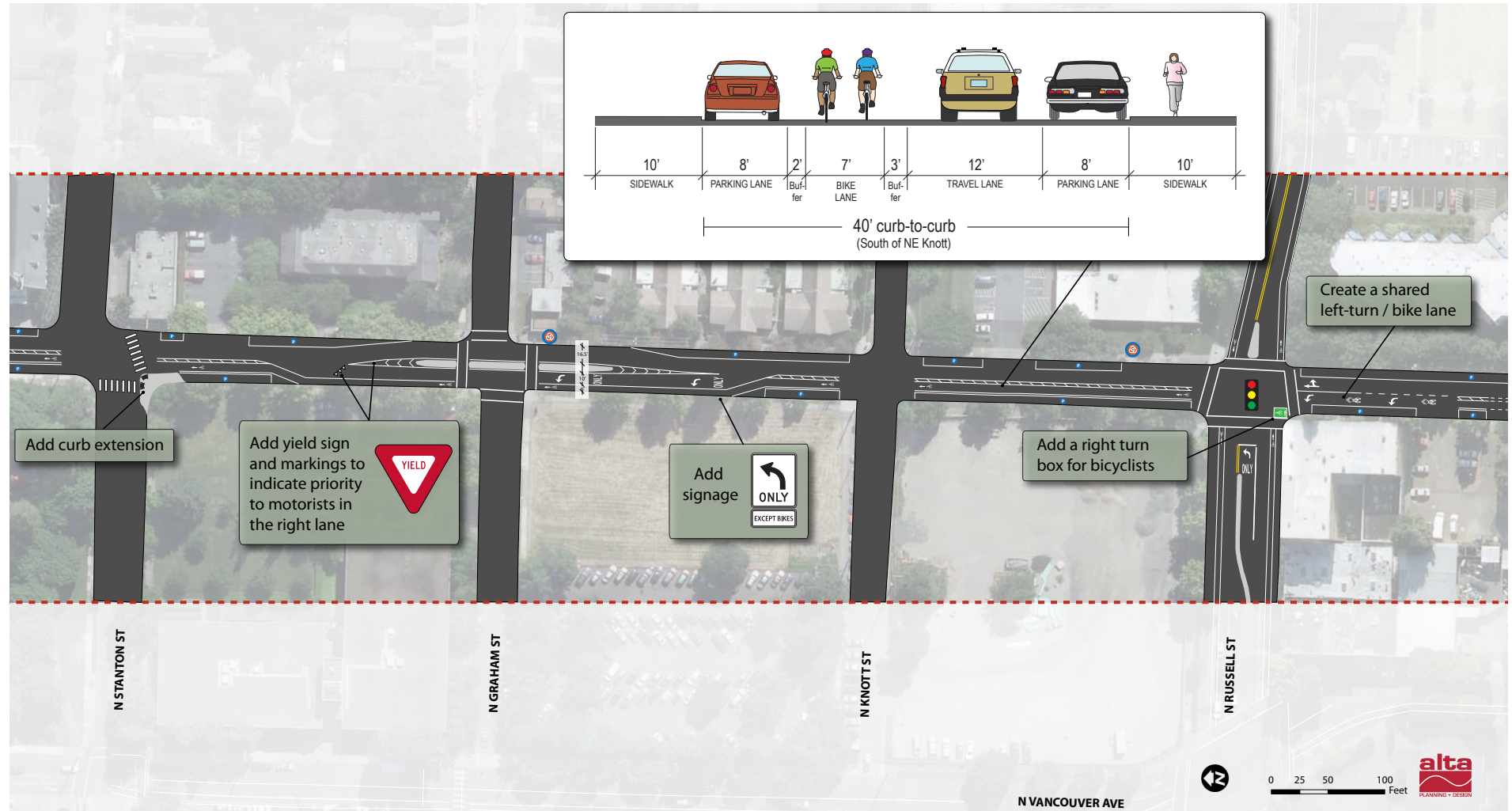
Hancock Street to Sacramento Street



KEY FEATURES

The left-side buffered bike lane is continued in this section, between Hancock Street and Sacramento Street. Special considerations are taken at the intersection with an existing Neighborhood Greenway on Tillamook Street. The increased design emphasis at this intersection anticipates high volumes of bicycle cross traffic, as well as northbound bicyclists on Williams making frequent turn movements onto Tillamook. To better facilitate right turns from North Williams onto Tillamook Street a parking space was removed in advance of the intersection to make room for a turn box. Bicyclists making right turns are able to wait in the green box for an acceptable gap in traffic prior to crossing the street. Removing parking and placing a curb extension and high visibility crosswalk at the southeast corner of the Tillamook Street intersection also helps to improve the pedestrian experience by reducing the crossing distance at this high pedestrian volume intersection.

Russell Street to Stanton Street



KEY FEATURES

Motor vehicle left turn volumes are significant at Russell Street, which requires maintaining a dedicated left turn only lane. To accommodate both motorists and bicyclists at this intersection a marked shared lane has been developed. Russell Street is also a popular east/west city bikeway with existing on-street bike lanes. Northbound bicyclists traveling on Williams that plan to turn eastbound on Russell Street may not be comfortable navigating across the motor vehicle travel path in advance of the intersection so a turn box has been established just in front of the existing crosswalk.

The existing concrete diverter at Graham Street proves a challenge for this design. Care was taken to separate modes through this section, however, additional steps may be required to safely accommodate all roadway users. Historically, the intersection of Williams and Stanton St has been an area of concern for the community, and there have been numerous requests for a signal at this intersection. The recommended concept for this intersection would help to increase pedestrian comfort and safety at this intersection by adding a curb extension to reduce crossing distance. In addition, pedestrians would only need to cross a single lane of traffic, as opposed to multiple lanes.

White "candlesticks" or other bollard creates physical buffer

Add curb extension; Requires parking removal

Work with TriMet to relocate bus stop

New signal at NE Cook Street

Remove existing curb extension

NE COOK ST

NE FARGO ST

NE MONROE ST

NE MORRIS ST

NE STANTON ST

40' curb-to-curb
(North of Cook St)

10' SIDEWALK

7' BIKE LANE

3' Buf-fer

11' TRAVEL LANE

13' TRAVEL LANE

8' PARKING LANE

10' SIDEWALK

40' curb-to-curb
(South of NE Monroe)

10' SIDEWALK

8' PARKING LANE

2' Buf-fer

7' BIKE LANE

3' Buf-fer

12' TRAVEL LANE

8' PARKING LANE

10' SIDEWALK

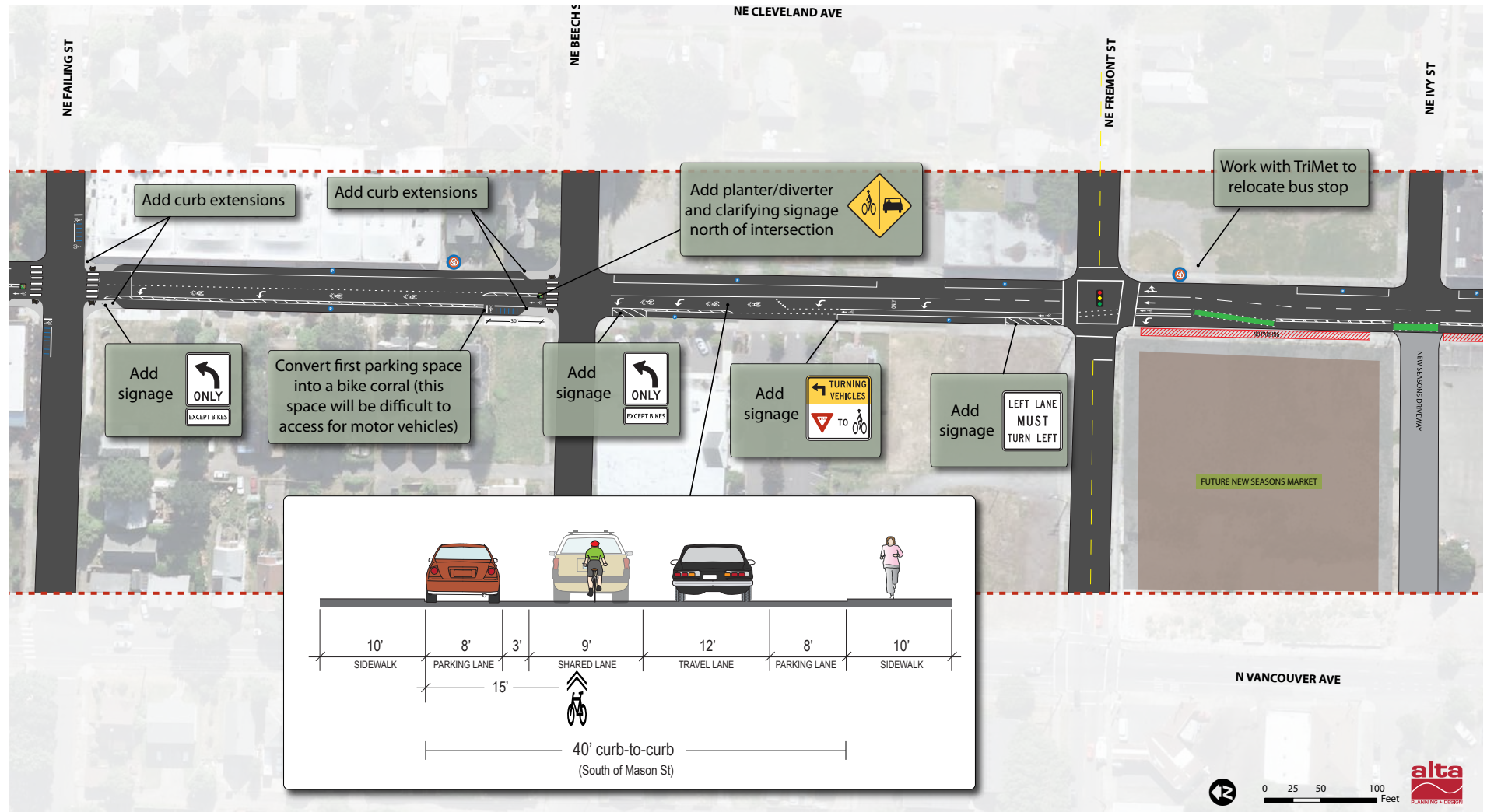
N VANCOUVER AVE

0 25 50 100 Feet

alta
PLANNING + DESIGN

One of the most popular strategies for managing the impact of motor vehicle traffic leaving the nearby Fremont Bridge is to add a signal at the Cook Street intersection. This will help to increase predictable behavior at a problematic intersection for pedestrians, bicyclists and motorists. The left-side buffered bikeway transitions into a barrier-protected buffered bike lane after Cook Street. Two motor vehicle through lanes are maintained, beginning at Cook Street, to help manage higher motor vehicle volumes in this section. The westside parking lane has been removed to continue the buffered bike lane. White “candlesticks” or another barrier device is recommended to prevent motorists from entering the bikeway in advance of the planned New Seasons Market driveway.

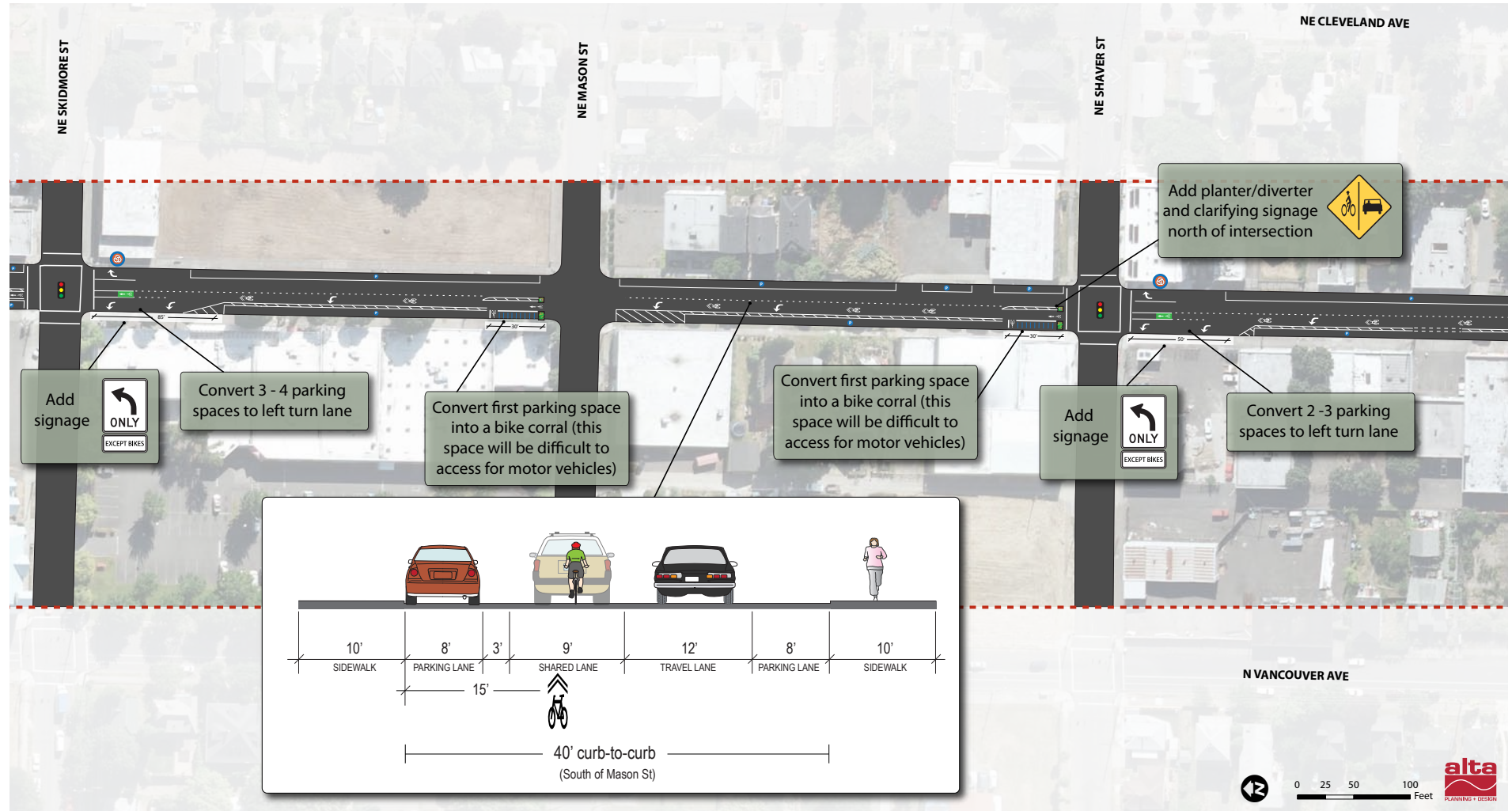
Cook Street to Failing Street



KEY FEATURES

It is expected that there will be high levels of activity at the driveway to the planned New Seasons Market. Green thermoplastic and dashed lane markings are proposed to help mitigate conflicts. The Fremont Street intersection experiences some of the highest turn volumes on the corridor and a series of alternate intersection concepts were developed to demonstrate how motor vehicle operations can be maintained while also meeting the needs of bicycle through traffic. The left-side shared bikeway and left-turn lane facility begins mid-block north of Fremont Street. Pavement yield markings and signage alert motorists to yield to bicyclists in the mid-block transition area. At the end of each block, beginning with Beech Street, a planter flanking the bike lane requires motorists traveling in the shared lane to turn left at the intersection. Bicyclists are able to continue traveling through.

Failing Street to Skidmore Street



KEY FEATURES

The shared left-side bikeway and left-turn lane continues through the commercial area to Skidmore Street. Left-turn volumes at Shaver Street and Skidmore warrant dedicated turn lanes, so through bicyclists are directed to a bike lane pocket between the turn and through movement motor vehicle travel lanes.

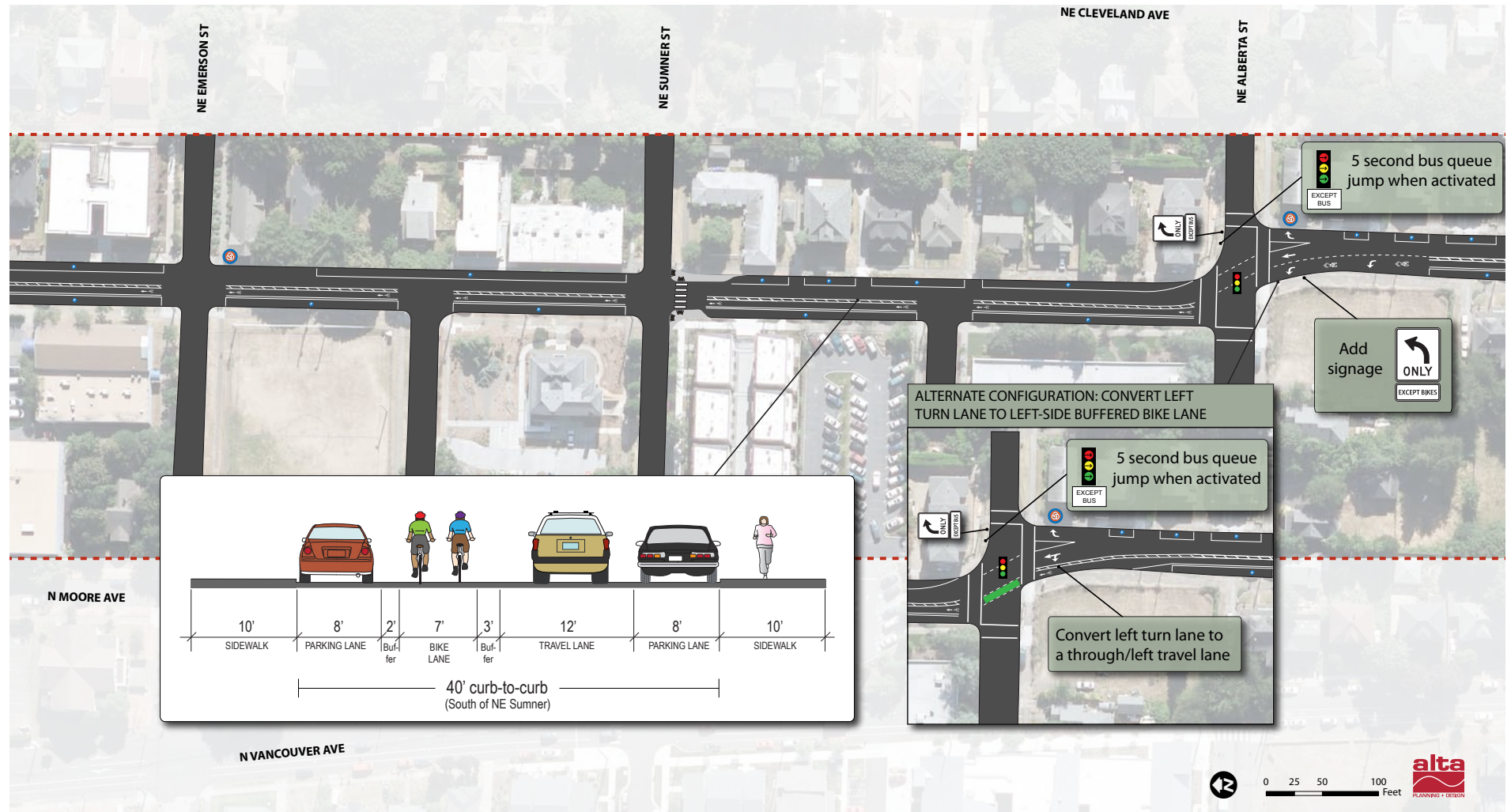
Skidmore Street to Wygant Street



KEY FEATURES

The left-side buffered bike lane begins again after Skidmore Street and continues through to the project's terminus at Killingsworth Street. Going Street is a designated Neighborhood Greenway, so an increased design emphasis for bicyclists and pedestrians has been developed here. The curb extension helps to improve the visibility of pedestrians and reduce the crossing distance, while the green turn box helps right-turning bicyclists do so comfortably.

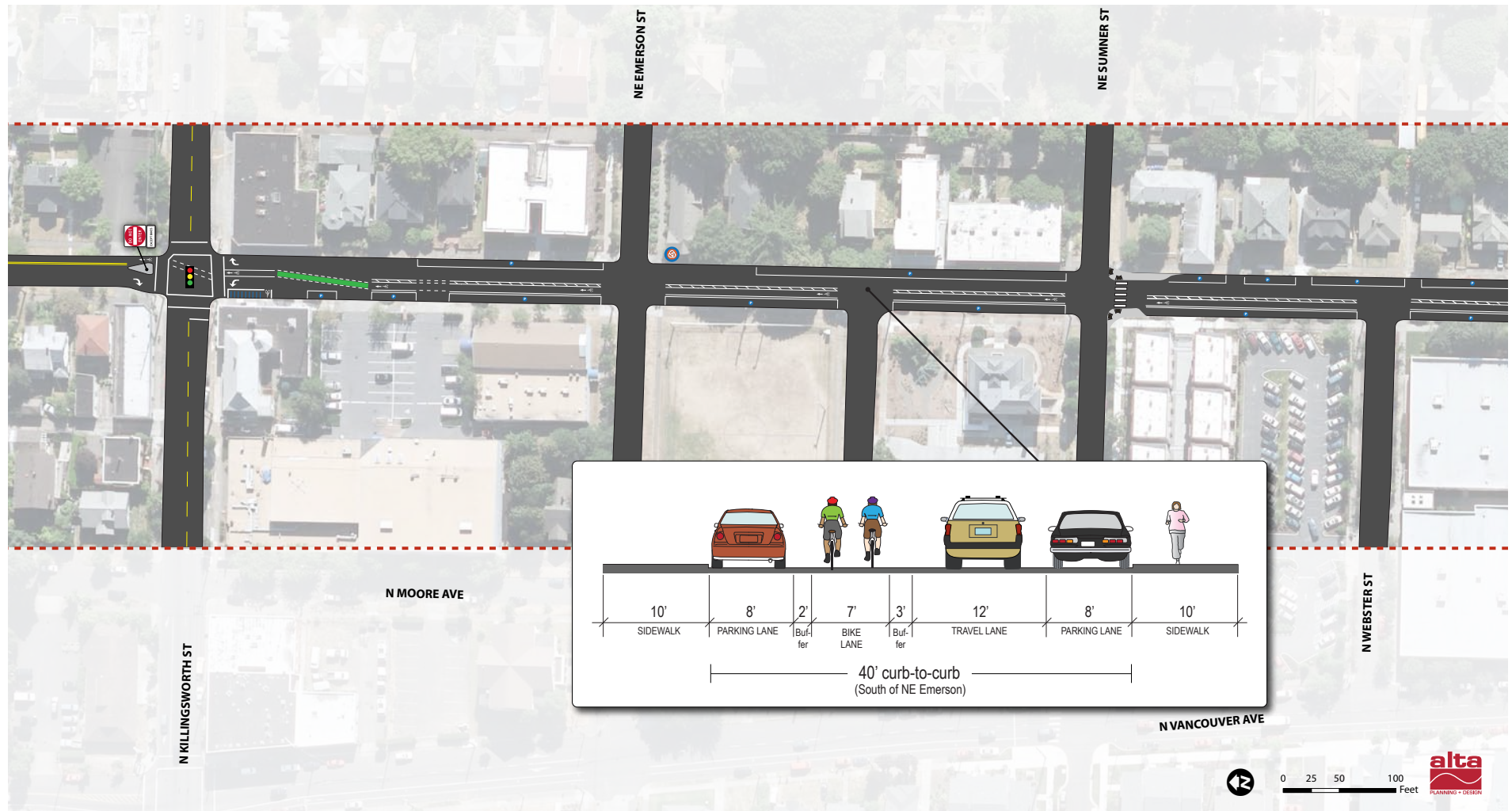
Alberta Street to Emerson Street



KEY FEATURES

The off-set intersection with Alberta Street and the existing bus stop in the right turn only lane were challenges in this section. To better facilitate movement of bus traffic a bus queue jump is proposed, similar the one at Southeast Belmont Street and Southeast Cesar Chavez Blvd. In addition, two separate intersection designs are under consideration for accommodating through bicycle traffic and left-turning motorists.

Emerson Street to Killingsworth Street



KEY FEATURES

The treatment in advance of the intersection with Killingsworth Street involves the use of green thermoplastic to highlight the conflict area between merging motorists and through bicyclists. The bike lane pocket positions bicyclists for good access to the existing Neighborhood Greenway north of the intersection.

The recommended concept for North Williams improves conditions for all active transportation modes and transit while also maintaining current conditions for motor vehicles. The following section identifies traffic operations observations that should be kept in mind as the recommended concept moves toward design, construction and daily operation.

WINNING WAY TO I-5 ON-RAMP

- The traffic signing, striping and signal timing associated with transitioning the bike lane from the right side of North Williams to the left will require detailing in cooperation with ODOT during final design.
- Providing a single northbound lane on North Williams is expected to adequately serve motor vehicles and TriMet buses.

HANCOCK STREET TO SACRAMENTO STREET

- Providing a single northbound lane on North Williams is expected to adequately serve motor vehicles and TriMet buses.
- As the popularity of the Tillamook Neighborhood Greenway increases, the demand for bicycle right turns from North Williams could create queuing and congestion challenges for bicyclists.

RUSSELL STREET TO STANTON STREET

- Reconfiguring North Williams' motor vehicle lanes at Russell Street, from two through lanes to one, is not expected to significantly impact motor vehicles. Even during the busiest times of the day drivers can still expect to experience no new delay when traveling through the intersection.
- The traffic signing and striping, as well as the signal timing associated with merging motor vehicles from Graham Street with through traffic on North Williams will require detailing during final design.

STANTON STREET TO COOK STREET

- Providing a single northbound lane on North Williams is expected to adequately serve motor vehicles and TriMet buses.
- When North Williams' intersection with Cook Street is signalized, existing delays to motor vehicles and TriMet buses will be mitigated significantly.
- The traffic signing and striping associated with merging right-turning motor vehicles and bicyclists as they approach Cook Street will require detailing during final design.

COOK STREET TO FAILING STREET

- Reconfiguring North Williams' motor vehicle lanes at Fremont Street is not expected to significantly impact motor vehicles. Even during the busiest times of the day drivers can still expect to experience no new delay when traveling through the intersection.
- The traffic signing and striping and signal timing associated with crossing right-turning motor vehicle and through bicycles as they approach Fremont Street will require detailing during final design.

FAILING STREET TO SKIDMORE STREET

- Reconfiguring North Williams' motor vehicle lanes from two lanes to one at the signalized intersections with Shaver Street and Skidmore Street is not expected to significantly impact motor vehicles. Even during the busiest times of the day drivers can still expect to experience no new delay when traveling through this section of North Williams.
- The traffic signing and striping and signal timing associated with right-turning motor vehicles and bicyclists sharing the same lane will require detailing during final design.

SKIDMORE STREET TO WYGANT STREET

- Providing a single northbound lane on North Williams is expected to adequately serve motor vehicles and TriMet buses.
- As the popularity of the Going Street Neighborhood Greenway increases, the demand for bicycle right turns from North Williams could create queuing and congestion challenges for bicyclists.

ALBERTA STREET TO EMERSON STREET

- Providing a single northbound lane on North Williams is expected to adequately serve motor vehicles and TriMet buses.
- Reconfiguring North Williams' motor vehicle lanes at Alberta Street from two lanes for through moves to one through lane and a left-turn lane is not expected to significantly impact motor vehicles. Even during the busiest times of the day drivers can still expect to experience no new delay when traveling through the intersection.
- The traffic signing and striping and signal timing associated with right-turning motor vehicles and bicyclists sharing the same lane will require detailing during final design.

EMERSON STREET TO KILLINGSWORTH STREET

- Providing a single northbound lane on North Williams is expected to adequately serve motor vehicles and TriMet buses.
- Reconfiguring North Williams' motor vehicle lanes at Killingsworth Street to create a through lane for bicycles is not expected to significantly impact motor vehicles. Even during the busiest times of the day drivers can still expect to experience no new delay when traveling through the intersection.
- The traffic signing and striping and signal timing associated with crossing right-turning motor vehicle and through bicycles as they approach Killingsworth Street will require detailing during final design.

Did the project team consider a right-side cycle track facility on North Williams?

Yes, the idea for a right side cycle track was publicly vetted at the first Open House in April 2011 and discussed by the Stakeholder Advisory Committee. City staff and the Committee did not recommend it due to complications with transit operations on the street, wheelchair and LIFT access problem, negative impacts to emergency vehicle access and loss of on-street parking.

Are left-side bikeways used elsewhere in the City?

There are several examples of left-side bikeways in Portland. Of note, is the left-side bike lane on SW 12th Ave that links Portland State University to Jefferson St and NW Portland. There is also a left-side bike lane on SW 5th Ave between the Portland Building and Portland State University that has been operating since 2010. In other US cities, such as Minneapolis and New York City, left-side bike lanes have been used extensively and successfully.

Why can't bicyclists use the side streets (NE Rodney) instead of riding on North Williams?

Just like when they drive, most people want to bicycle on a direct route, without many turns that send them out of the way. The side streets east and west of North Williams are disconnected and require making undesirable jogs in the route. These routes also require difficult unsignalized crossings of busy east/west streets, which makes them poor substitutes for bicycling North Williams. Streets east of 9th Ave, meanwhile, present very steep hills.

Isn't North Williams an Arterial street?

North Williams is classified for car travel as a Neighborhood Collector, which belongs to

Portland's lowest classification of arterial streets. (NE MLK Blvd, by way of contrast, is a Major City Traffic Street, a higher classification.) North Williams is also classified as a Major City Bikeway, which means that developing safe and comfortable bicycle transportation infrastructure is a priority on this street.

Does the preferred concept for North Williams consider impacts to new development on the corridor?

In order to predict the impacts of changes to North Williams – such as converting a motor vehicle travel lane, changing signal timing or adding turns lanes – City staff used a traffic model. This model looks twenty years into the future and predicts where people will be travelling to and from and what streets they will use for those trips. The model assumes that the city—and the properties around North Williams—continue to develop into new buildings, as they have in the past. The Stakeholder Advisory Committee was presented with the results of this traffic modelling, including future new development, and their recommendation for a new design was based in part on it.

How much is on-street parking impacted by this recommendation?

On-street parking will be mostly unchanged when this recommendation is implemented. However, new “No Parking” zones will be established at some intersections to improve pedestrian visibility, and there will be some parking removal between Cook St and Fremont St (in front of the planned New Seasons Market). If TriMet moves bus stop locations in concert with this project, those may result in parking changes as well.

APPENDIX A. TECHNICAL ADVISORY COMMITTEE MEMBERS

APPENDIX B. EXISTING CONDITIONS REPORT

APPENDIX C. LIST OF PUBLIC OUTREACH EVENTS

APPENDIX D. INITIAL CONCEPT DEVELOPMENT MEMO

APPENDIX E. SAC FINAL RECOMMENDATIONS

TECHNICAL ADVISORY COMMITTEE MEMBERS

| Member | AGENCY | Group |
|-------------------|----------------------|---------------------------------|
| Wendy Cawley | PBOT | Traffic Engineering |
| Dave Nunamaker | BES | Engineering |
| Ivy Dunlap | BES | Stormwater Management |
| Rick Aragon | Portland Fire Bureau | |
| Erin Smith | Portland Police | |
| Heather Boll | TriMet | |
| Carol Herzberg | PDC | Interstate Corridor |
| Irene Bowers | PDC | Oregon Convention Center |
| Roger Geller | PBOT | Bicycle Coordinator |
| April Bertelsen | PBOT | Pedestrian Coordinator |
| Jimi Joe | PBOT | Civil Design |
| Peter Koonce | PBOT | Signals and Street Lighting |
| Larry Stevens | PBOT | Maintenance Group |
| Dave Hutson | PBOT | Maintenance Group |
| Kirsten Byers | PBOT | Maintenance Group |
| Mauricio Leclerc | PBOT | Central City Plan N/NE Quadrant |
| Jay Rogers | PBOT | Parking Control |
| Ellen Vanderslice | PBOT | Project Manager |
| Dan Layden | PBOT | Project Management |
| Rob Burchfield | PBOT | Traffic Operations |

| Member | AGENCY | Group | Notes |
|------------------------------|------------------------------|-------|-------|
| Steve Durrant | Alta Planning + Design | | |
| Adrian Witte | Alta Planning + Design | | |
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| Robin Wilcox 503-962-2277 | Alta Planning + Design | | |
| Drew Meisel | Alta Planning + Design | | |
| Mike Coleman | KAI | | |
| Michelle Poyourow | Michelle Poyourow Consulting | | |
| Scott Bricker | Scott Bricker Consulting | | |

NORTH WILLIAMS EXISTING CONDITIONS REPORT

**KITTELSON & ASSOCIATES, INC.**

TRANSPORTATION ENGINEERING / PLANNING

610 SW Alder Street, Suite 700, Portland, OR 97205 P 503.228.5230 F 503.273.8169

MEMORANDUM

| | | |
|-----------------|---|--------------------|
| Date: | February 5, 2011 | Project #: 11049.0 |
| To: | Ellen Vanderslice City of Portland 1120 SW 5th Avenue Portland, OR 97204 | |
| From: | Mike Coleman and Jessica Horning | |
| Project: | Portland Bikeway Project Development | |
| Subject: | North Williams Existing Conditions | |

This technical memorandum describes the existing transportation conditions on the North Williams Avenue corridor between Weidler Street and Killingsworth Street. The assessment of existing conditions is based on a compilation of parking, transit, and transportation data obtained from available sources and is intended to inform future alternatives analyses. The details of the existing conditions analysis are documented herein.

INTRODUCTION

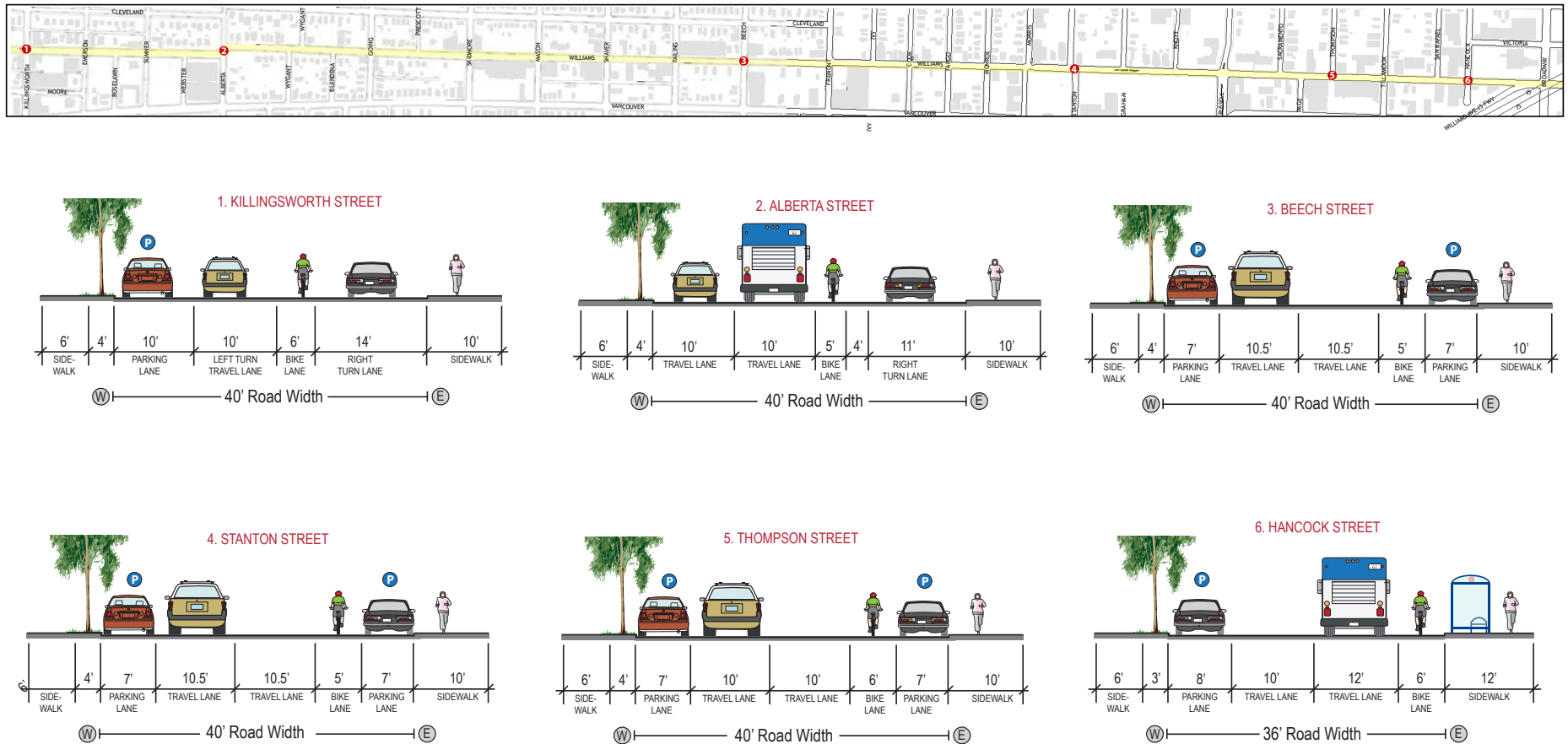
The Portland Bicycle Plan for 2030 sets a new direction for bikeway design and network completion in Portland. The plan emphasizes creating conditions to make bicycling more attractive than driving for short trips, and on completing a bikeway network that attracts new riders. A new generation of bikeway designs is envisioned to make riders feel safer and more comfortable than they would in standard bike lanes. To achieve these objectives, the City aims to pilot and implement a variety of separated in-roadway designs, including cycle tracks, buffered bike lanes, contra-flow bike lanes, and wide bike lanes.

EXISTING CONDITIONS

To provide information on opportunities and constraints on potential pedestrian and bicycle design treatments, the existing conditions analysis identifies traffic volumes and operations, parking supply and demand, public transportation supply and demand, and bicycle/pedestrian safety issues along the North Williams corridor. Figure 1 shows existing cross sections on the North Williams corridor.

North Williams Traffic Operations Safety Project

January 2011



Measurements taken using GIS from 2009 Ortho Imagery provided by the City of Portland

EXISTING CROSS SECTIONS -
NORTH WILLIAMS AVENUE

FIGURE
1

Traffic Operations

Motor Vehicles

Figure 2 shows existing traffic controls and volumes on the North Williams corridor. P.M. peak hour traffic volumes are relatively consistent along the entire corridor (700 to 1,000 motor vehicles/hour), with the exception of the block between Broadway and the I-5 on-ramp, which serves the highest volume on the corridor, approximately 1,570 motor vehicles/hour.

Intersections with high volumes of turning movements and east/west cross traffic have higher potential for motor vehicle/bicycle conflicts than intersections that serve primarily northbound traffic, due to higher volumes of motor vehicles crossing marked bike lanes and visibility issues. Drivers traveling on low bicycle volume cross streets may also be unaware of the need to be alert for high bicycle volumes on North Williams. Turning movements and cross traffic volumes are highest at the following intersecting streets:

- Broadway/Weidler couplet at the southern end of the corridor;
- Russell Street, which is one of the few surface streets that provides access across I-5;
- Fremont/Cook Street, which provides access/egress to/from I-405's Fremont Bridge;
- Alberta Street neighborhood commercial corridor; and
- Killingsworth Street at the northern end of the corridor.

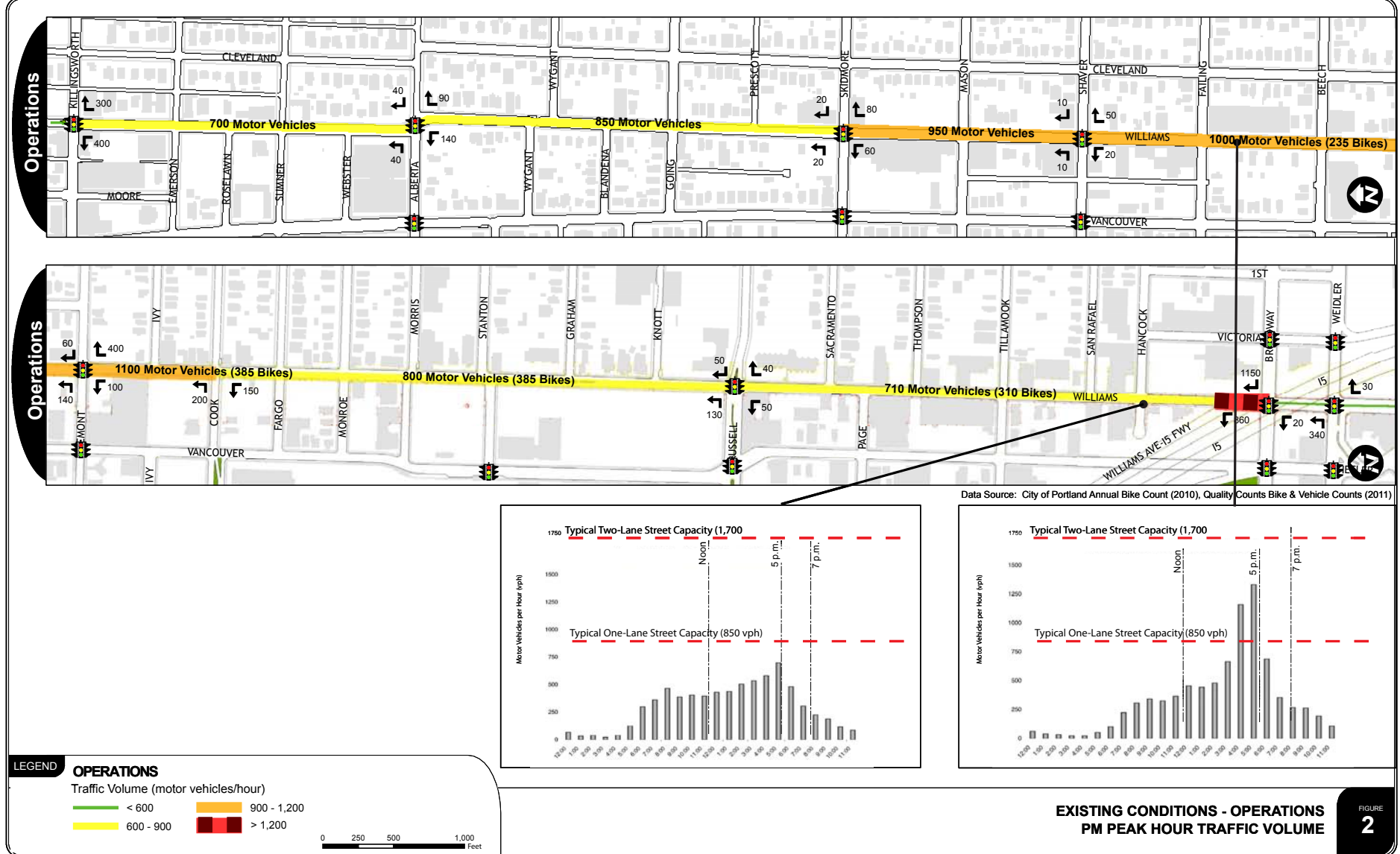
Emanuel Hospital and the related medical office uses are the highest generator of transportation activity along the corridor.

Of the locations analyzed, all of the intersections along the corridor meet City of Portland level-of-service "D" or better conditions. These intersections generally operate well below capacity and at a level-of-service "A" or "B" during both the a.m. and p.m. peak periods.

Figure 3 shows existing speed profiles for select locations on North Williams and North Vancouver Avenue. Both corridors have a posted speed limit of 30 miles per hour. On the North Williams corridor, 31 to 52 percent of motor vehicles were observed to exceed the speed limit and the 85th percentile speed was 33 to 36 miles per hour. In comparison, only 12 percent of motor vehicles on the North Vancouver corridor were found to exceed the speed limit and the 85th percentile speed was 29 miles per hour.

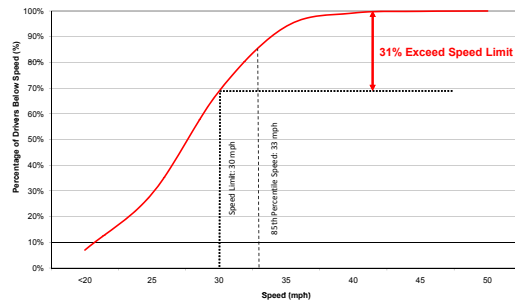
Bicycles

The North Williams corridor is one of the most popular bicycle corridors in the Portland metropolitan area. P.M. peak hour bicycle volumes at various locations along the corridor were observed to be as follows:

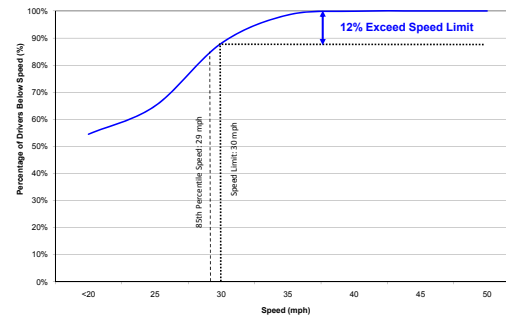




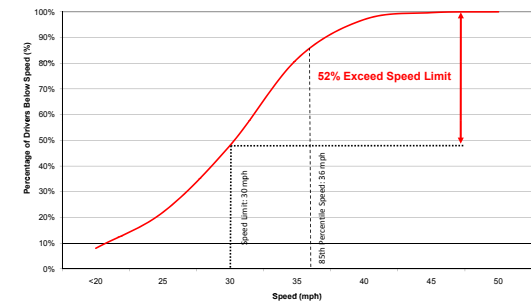
**Speed Profile for Williams Avenue,
North of Beech Street (2007)**



**Speed Profile for Vancouver Avenue,
North of Beech Street (2007)**



**Speed Profile for Williams Avenue,
North of Hancock Street (2008)**



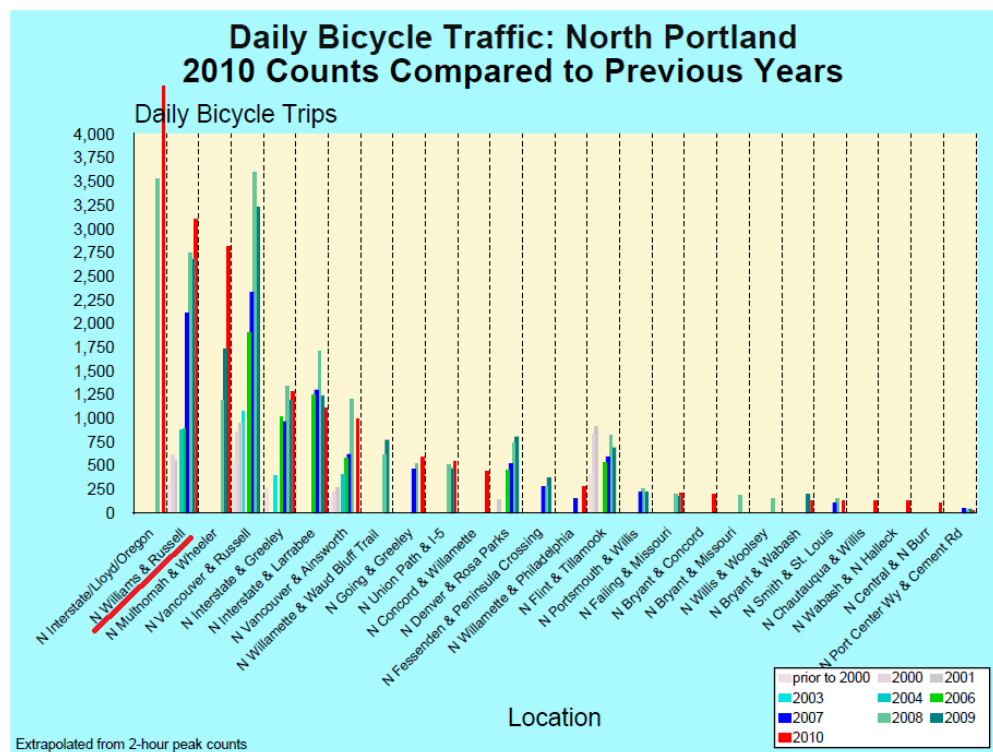
**EXISTING SPEED PROFILES -
NORTH WILLIAMS AVENUE**

FIGURE
3

- Williams at Broadway Avenue = 310 bicycles per hour (May 2009)
- Williams at Russell Street = 385 bicycles per hour (August 2010)
- Williams at Cook/Fremont Streets = 235 bicycles per hour (January 2011)

Of the 109 non-bridge intersections that were observed citywide for the City of Portland's 2010 bicycle count, the North Williams/Russell intersection had the 5th highest bicycle traffic volume (over 3,000 daily bicycle trips).¹ Figure 4 compares daily bicycle volumes observed at North Portland intersections during the City's annual bicycle counts since 2000. In 2010, the North Williams corridor was also observed to be one of 10 locations citywide with the highest percentage of female cyclists, an important indicator of success in creating safe, comfortable and attractive conditions for bicycling.

Figure 4 Daily Bicycle Traffic at Select North Portland Intersections



Source: Portland Bicycle Count Report 2010

¹ The four highest non-bridge bicycle traffic volumes were recorded at: North Interstate/Lloyd/Oregon (over 4,000 daily trips), SW Harrison/Ladd Circle and SW Waterfront Park/Morrison (over 3,750 daily trips each), and SW Waterfront Park/Ankeny (over 3,250 daily trips).

On-Street Parking

Figure 5 shows existing on-street parking supply and peak daily demand along the North Williams corridor. In October 2010, a planning level assessment of on-street parking on the North Williams corridor was conducted. The number of on-street parking spaces available and the number of spaces in use was inventoried during the business day and during the evening hours. These counts were used to estimate maximum daily on-street parking usage. Appendix A shows the results of the parking supply and demand estimates for North Williams Avenue.

Based on this inventory, there are 721 on-street parking spaces (375 west side, 346 east side) on the North Williams corridor. On-street parking is also available on most cross streets. Overall, parking spaces on the west side of North Williams are less utilized than those on the east side of the street. Areas where most on-street parking is generally under-utilized during the day (less than 50% utilization) include:

- Broadway to Morris (except near Knott, Sacramento, and Tillamook)), and
- Shaver to Wygant (except near Skidmore and Going).

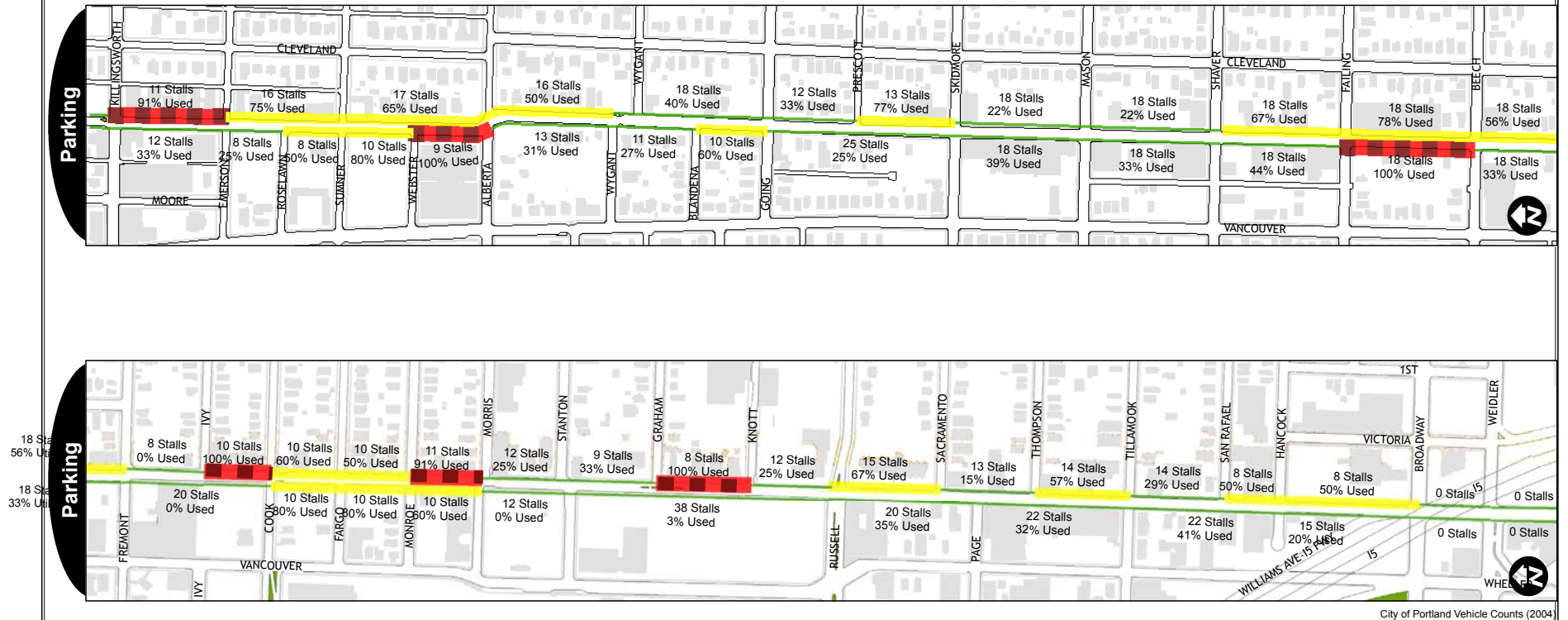
Areas where virtually all on-street parking is utilized during the day (greater than 85% usage) include:

- Alberta to Killingsworth near multiple businesses and community uses,
- Morris to Shaver near multiple businesses and community uses, and
- Knott to Graham near Legacy Hospital.

Safety

Figure 6 shows the locations of reported bicycle and pedestrian crashes between January 1, 2005 and December 31, 2009 on the North Williams corridor. Over this period, 24 bicycle crashes and four pedestrian crashes were reported. Appendix B includes a detailed summary of reported bicycle and pedestrian crashes on North Williams Avenue between 2005 and 2009.

Seven of the reported bicycle crashes involved westbound motor vehicles making right turns from Broadway to North Williams Avenue. Striping and signal changes - including addition of a "No Turn on Red" LED signal and bike signal - were implemented at this intersection in October, 2010 in an attempt to reduce bicycle/motor vehicle conflicts and crashes at this intersection. Future crash volumes at this intersection should be monitored to evaluate the effectiveness of these treatments and the potential need for additional safety improvements.



LEGEND

PARKING

On-Street Parking Use*

0% - 49% (Low Parking Usage)

50% - 84% (Moderate Parking Usage)

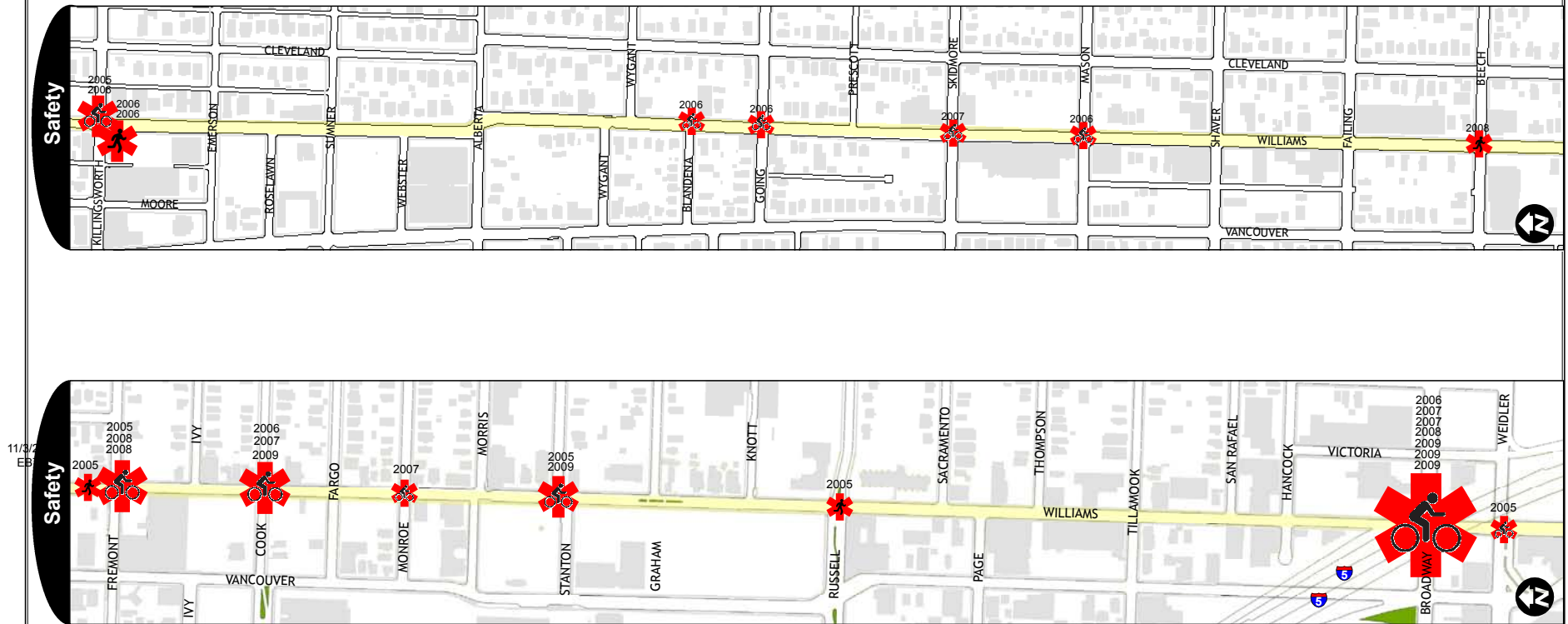
85% - 100% (High Parking Usage)

0 250 500 1,000 Feet

*Note: Number of parking stalls in use during the weekday AM and PM peak hours was observed. The higher of these was used to calculate usage.

**EXISTING CONDITIONS - PARKING
ON-STREET PARKING SUPPLY AND PEAK USE**

FIGURE
5



Data Source: Portland Department of Transportation, 2005-2009

LEGEND

SAFETY



EXISTING CONDITIONS - SAFETY
REPORTED CRASHES INVOLVING BICYCLISTS
AND PEDESTRIANS (2005-2009)

FIGURE
6

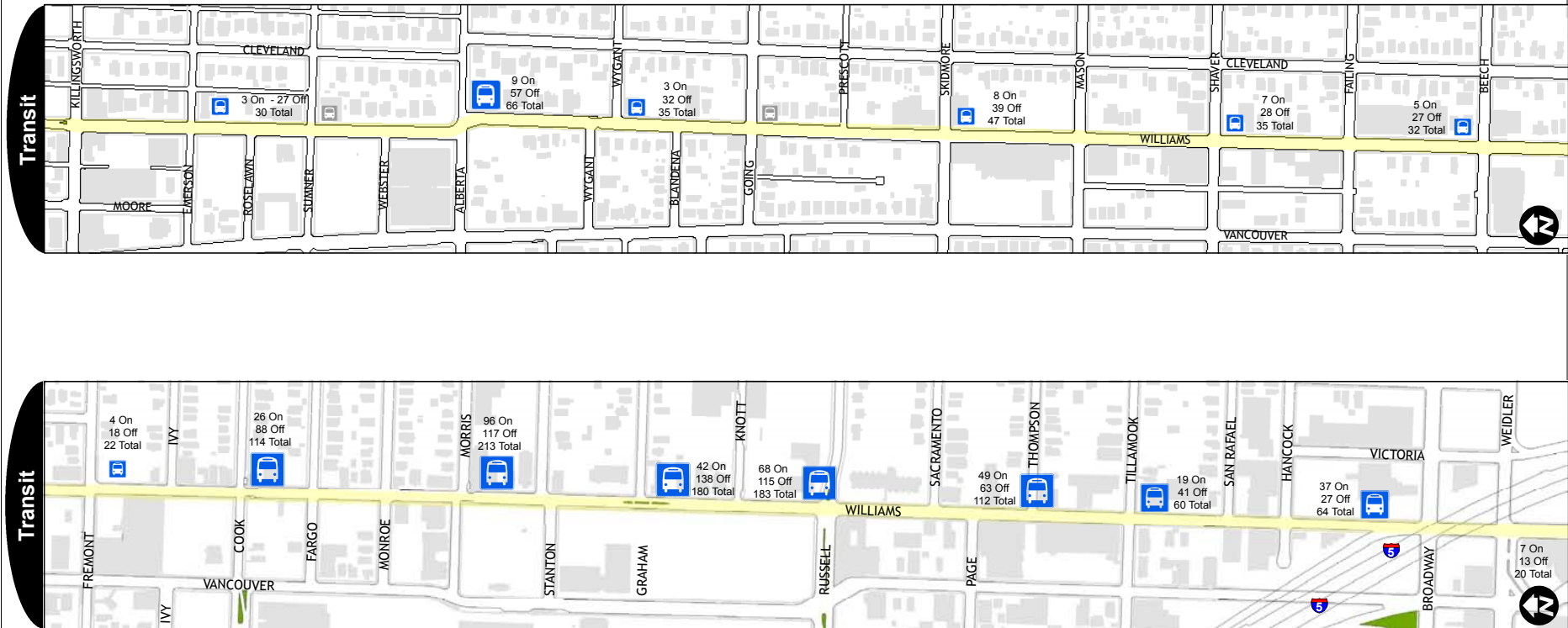
Four crashes (two bicycle and two pedestrian) were reported at the North Williams/Killingsworth intersection between 2005 and 2009; however, no crashes involving bicycles or pedestrians have been reported at the intersection since 2006, indicating that intersection improvements since this time may have adequately addressed safety issues. The remainder of reported crashes on North Williams occurred on low traffic cross streets and involved east/westbound through movements or left turns. This trend may indicate a need for signage to alert drivers on cross streets to the presence of cyclists on Williams.

Public Transportation

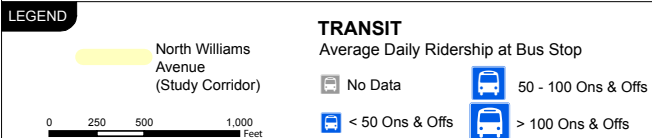
Figure 7 shows the locations of existing bus stops and average daily ridership at stops on the North Williams corridor. TriMet routes 4, 24, and 44 provide service on the corridor on weekdays with 10 to 30 minute peak hour headways.

- Route 4 provides service between St. Johns, downtown Portland, and Gresham;
- Route 24 provides east west service along the Fremont corridor; and
- Route 44 provides service between St. Johns, downtown Portland, and the PCC Sylvania campus.

Appendix C shows a summary of daily bus stop usage for the North Williams Avenue corridor. Bus stops at Cook, Morris, Graham, Russell, and Thompson each have average daily ridership (ons and offs) of over 100 passengers. In several locations on North Williams, bus stops are located on curb bump outs, resulting in buses stopping in the marked bike lane when serving the stop and requiring cyclists to stop or move into motor vehicle travel lanes. There does not appear to be a correlation between bus stop and bicycle/pedestrian crash locations on the corridor, with the exception of the Cook and Fremont intersections; however, these intersections are also high cross traffic and turning movement locations.



Data Source: TriMet, Spring 2010



**EXISTING CONDITIONS - TRANSIT
BUS STOP LOCATIONS & AVERAGE
DAILY RIDERSHIP (2010)**

FIGURE
7

CONCLUSIONS

In summary, the existing conditions analysis reveals that North Williams Avenue currently meets City of Portland operations standards for motor vehicles. The safety analysis reveals that reported bicycle and pedestrian crashes have occurred most frequently at the intersections of North Williams with Broadway, Fremont, and Cook Streets. Recent signal and striping improvements at the Broadway intersection may have addressed the “right-hooks” that resulted in most crashes at this intersection, but should continue to be monitored. The project team recommends that the Fremont and Cook intersections be the focus of future safety efforts on North Williams. Potential improvements should address the high volume of cross traffic and turning movements at these intersections and alert drivers on Fremont and Cook to the presence of high volumes of bicycles on Williams.

On-street parking on North Williams is generally adequate to accommodate typical weekday demands. Several low usage (less than 50% peak utilization) areas have been identified where changes to current on-street parking arrangements to accommodate bikeways or other improvements may have a minimal impact on adjacent land uses. However, several areas with high on-street parking usage (greater than 85% peak utilization) have also been identified where changes to current on-street parking supplies would have a significant impact on adjacent land uses. Areas with concentrations of bicycle/pedestrian crashes generally coincide with areas of high on-street parking usage associated with businesses and community uses on North Williams, which may indicate a need to reevaluate the relationship between bike lanes and on-street parking in these areas. Though not specifically observed in this analysis, special events at the Rose Quarter may also influence parking demand at the southern end of the corridor.

In addition to motor vehicles and bicycles, North Williams serves a high volume of transit riders. Five bus stops on the corridor served over 100 passengers a day in 2010. Although no clear correlation between bus stop locations and high crash areas was found in this analysis, the high volume of transit users and bicycles on North Williams confirms that there is potential for conflicts between bicycles and buses. In order to reduce potential conflicts between bicycles, buses, and motor vehicles near stops located on curb bump outs, innovative bicycle design treatments may be needed.

EXISTING CONDITIONS REPORT APPENDIX A

Table 1 North Williams Avenue On-Street Parking Summary: Supply & Demand

| Block | West Side | | | East Side | | | Total | | |
|-------------------------------|------------|-----------|------------|------------|------------|------------|------------|------------|------------|
| | Supply | AM Demand | PM Demand | Supply | AM Demand | PM Demand | Supply | AM Demand | PM Demand |
| Emerson to Killingsworth | 12 | 4 | 4 | 11 | 10 | 7 | 23 | 14 | 11 |
| Roselawn to Emerson | 8 | 1 | 2 | 8 | 4 | 2 | 16 | 5 | 4 |
| Sumner to Roselawn | 8 | 4 | 3 | 8 | 8 | 7 | 16 | 12 | 10 |
| Webster to Sumner | 10 | 0 | 8 | 10 | 3 | 6 | 20 | 3 | 14 |
| Alberta to Webster | 9 | 2 | 9 | 7 | 2 | 5 | 16 | 4 | 14 |
| Wygant N to Alberta | 13 | 4 | 3 | 13 | 5 | 7 | 26 | 9 | 10 |
| Wygant S to Wygant N | 3 | 0 | 0 | 3 | 1 | 1 | 6 | 1 | 1 |
| Blandena to Wygant S | 8 | 3 | 2 | 8 | 3 | 3 | 16 | 6 | 5 |
| Going to Blandena | 10 | 6 | 4 | 10 | 1 | 4 | 20 | 7 | 8 |
| Prescott to Going | 12 | 4 | 4 | 12 | 3 | 4 | 24 | 7 | 8 |
| Skidmore to Prescott | 13 | 2 | 1 | 13 | 10 | 5 | 26 | 12 | 6 |
| Mason to Skidmore | 18 | 7 | 0 | 18 | 4 | 0 | 36 | 11 | 0 |
| Shaver to Mason | 18 | 0 | 6 | 18 | 2 | 4 | 36 | 2 | 10 |
| Failing to Shaver | 18 | 8 | 8 | 18 | 7 | 12 | 36 | 15 | 20 |
| Beech to Failing | 18 | 18 | 16 | 18 | 14 | 12 | 36 | 32 | 28 |
| Fremont to Beech | 18 | 6 | 4 | 18 | 10 | 8 | 36 | 16 | 12 |
| Ivy to Fremont | 11 | 0 | 0 | 8 | 0 | 0 | 19 | 0 | 0 |
| Cook to Ivy | 9 | 0 | 0 | 9 | 2 | 10 | 18 | 2 | 10 |
| Fargo to Cook | 10 | 0 | 8 | 10 | 0 | 6 | 20 | 0 | 14 |
| Monroe to Fargo | 10 | 2 | 8 | 10 | 3 | 5 | 20 | 5 | 13 |
| Morris/Dawson Park to Monroe | 10 | 0 | 6 | 11 | 6 | 10 | 21 | 6 | 16 |
| Stanton to Morris/Dawson Park | 12 | 0 | 0 | 12 | 0 | 3 | 24 | 0 | 3 |
| Graham to Stanton | 13 | 0 | 1 | 9 | 2 | 3 | 22 | 2 | 4 |
| Knott to Graham | 13 | 0 | 0 | 8 | 6 | 8 | 21 | 6 | 8 |
| Russell to Knott | 12 | 0 | 0 | 12 | 3 | 3 | 24 | 3 | 3 |
| Sacramento to Russell | 15 | 6 | 6 | 15 | 6 | 10 | 30 | 12 | 16 |
| Page to Sacramento | 5 | 1 | 1 | 5 | 1 | 3 | 10 | 2 | 4 |
| Thompson to Page | 8 | 0 | 1 | 8 | 1 | 0 | 16 | 1 | 1 |
| Tillamook to Thompson | 14 | 0 | 6 | 14 | 2 | 8 | 28 | 2 | 14 |
| San Rafael to Tillamook | 14 | 3 | 4 | 14 | 0 | 4 | 28 | 3 | 8 |
| Hancock to San Rafael | 8 | 3 | 5 | 8 | 0 | 4 | 16 | 3 | 9 |
| Broadway to Hancock | 15 | 3 | 3 | 0 | 0 | 0 | 15 | 3 | 3 |
| Weidler to Broadway | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 375 | 87 | 123 | 346 | 119 | 164 | 721 | 206 | 287 |

EXISTING CONDITIONS REPORT APPENDIX B

Table 2 Reported Bicycle and Pedestrian Crashes on North Williams (2005-2009)

| Date | Time | Collision | Crash Type | Cross Street | Vehicle Type | Movement | From/To |
|------------|------|-----------|------------|-----------------|--------------|----------|---------|
| 9/19/2006 | 4PM | TURN | BIKE | N KILLINGSWORTH | PSNGR CAR | TURN-L | S to W |
| 8/16/2006 | 10AM | PED | PED | N KILLINGSWORTH | PSNGR CAR | TURN-L | S to W |
| 1/3/2006 | 3PM | PED | PED | N KILLINGSWORTH | PSNGR CAR | TURN-L | S to W |
| 1/3/2005 | 3PM | TURN | BIKE | N KILLINGSWORTH | PSNGR CAR | TURN-R | S to E |
| 7/12/2006 | 1PM | REAR | BIKE | N GOING ST | PSNGR CAR | STOP | E to W |
| 7/27/2008 | 11AM | TURN | BIKE | N BLANDENA ST | PSNGR CAR | TURN-L | S to W |
| 2/10/2007 | 10PM | TURN | BIKE | N SKIDMORE ST | PSNGR CAR | TURN-L | W to N |
| 11/2/2006 | 6PM | ANGL | BIKE | N MASON ST | PSNGR CAR | STRGHT | W to E |
| 11/3/2008 | 6PM | ANGL | BIKE | N BEECH ST | PSNGR CAR | STRGHT | W to E |
| 10/23/2008 | 9AM | PED | PED | N FREMONT ST | PSNGR CAR | TURN-L | W to N |
| 10/16/2008 | 6AM | ANGL | BIKE | N FREMONT ST | PSNGR CAR | TURN-R | E to N |
| 9/2/2005 | 5PM | ANGL | BIKE | N FREMONT ST | PSNGR CAR | TURN-R | S to E |
| 8/4/2005 | 4PM | ANGL | BIKE | N FREMONT ST | SEMI TOW | STRGHT | S to N |
| 3/3/2009 | 3PM | TURN | BIKE | N COOK ST | PSNGR CAR | TURN-L | W to N |
| 6/25/2007 | 5PM | ANGL | BIKE | N COOK ST | PSNGR CAR | STRGHT | W to E |
| 10/3/2006 | 5PM | ANGL | BIKE | N COOK ST | PSNGR CAR | STRGHT | S to N |
| 4/28/2009 | 3PM | ANGL | BIKE | N STANTON ST | PSNGR CAR | STRGHT | W to E |
| 1/2/2005 | 6PM | ANGL | BIKE | N STANTON ST | PSNGR CAR | STRGHT | W to E |
| 7/17/2007 | 5PM | TURN | BIKE | N MONROE ST | PSNGR CAR | TURN-L | W to N |
| 1/26/2005 | 7PM | PED | PED | N RUSSELL ST | PSNGR CAR | STRGHT | E to W |
| 8/7/2009 | 6PM | TURN | BIKE | NE BROADWAY | PSNGR CAR | TURN-R | E to N |
| 7/30/2009 | 8PM | TURN | BIKE | N BROADWAY | PSNGR CAR | TURN-R | E to N |
| 1/22/2009 | 8AM | TURN | BIKE | N BROADWAY | PSNGR CAR | TURN-R | E to N |
| 9/25/2008 | 4PM | TURN | BIKE | N BROADWAY | PSNGR CAR | TURN-R | E to N |
| 3/6/2007 | 11AM | TURN | BIKE | N BROADWAY | PSNGR CAR | TURN-R | E to NW |
| 12/2/2006 | 8AM | TURN | BIKE | N BROADWAY | PSNGR CAR | TURN-R | E to N |
| 10/11/2007 | 4PM | ANGL | BIKE | N BROADWAY | PSNGR CAR | STRGHT | E to W |
| 8/3/2005 | 5PM | ANGL | BIKE | N WEIDLER ST | PSNGR CAR | STRGHT | W to E |

EXISTING CONDITIONS REPORT APPENDIX C

Table 3 TriMet Bus Stop Usage

| Route # | Stop Location | Direction | Ons | Offs | Total | Monthly Lifts |
|--------------|----------------------------|-----------|------------|------------|-------------|---------------|
| 44 | N Williams at Emerson | N | 3 | 27 | 30 | 2 |
| 44 | N Williams at NE Alberta | N | 9 | 57 | 66 | 33 |
| 44 | N Williams at NE Wygant | N | 3 | 32 | 35 | 5 |
| 44 | N Williams at NE Skidmore | N | 8 | 39 | 47 | 3 |
| 44 | N Williams at NE Shaver | N | 7 | 28 | 35 | 3 |
| 44 | N Williams at NE Beech | N | 5 | 27 | 32 | 2 |
| 44 | N Williams at NE Fremont | N | 4 | 18 | 22 | 1 |
| 4 | N Williams at NE Cook | N | 16 | 68 | 84 | 6 |
| 24 | N Williams at NE Cook | N | 3 | 0 | 3 | 0 |
| 44 | N Williams at NE Cook | N | 7 | 20 | 27 | 3 |
| 4 | N Williams at NE Morris | N | 68 | 85 | 153 | 70 |
| 24 | N Williams at NE Morris | N | 10 | 1 | 11 | 2 |
| 44 | N Williams at NE Morris | N | 18 | 31 | 49 | 24 |
| 4 | N Williams at NE Graham | N | 25 | 101 | 126 | 38 |
| 24 | N Williams at NE Graham | N | 10 | 3 | 13 | 0 |
| 44 | N Williams at NE Graham | N | 7 | 34 | 41 | 10 |
| 4 | N Williams at NE Russell | N | 52 | 81 | 133 | 78 |
| 44 | N Williams at NE Russell | N | 16 | 34 | 50 | 17 |
| 4 | N Williams at NE Thompson | N | 32 | 44 | 76 | 6 |
| 44 | N Williams at NE Thompson | N | 17 | 19 | 36 | 2 |
| 4 | N Williams at NE Tillamook | N | 14 | 27 | 41 | 8 |
| 44 | N Williams at NE Tillamook | N | 5 | 14 | 19 | 1 |
| 4 | N Williams at NE Broadway | N | 27 | 19 | 46 | 16 |
| 44 | N Williams at NE Broadway | N | 10 | 8 | 18 | 3 |
| TOTAL | | | 376 | 817 | 1193 | 333 |

LIST OF PUBLIC OUTREACH EVENTS

| Name | Date |
|---|-------------|
| Stakeholder Advisory Committee Meeting | 2/1/2011 |
| Stakeholder Advisory Committee Meeting | 3/1/2011 |
| Stakeholder Advisory Committee Meeting | 4/5/2011 |
| Open House | 4/16/2011 |
| Developers Focus Group | 4/29/2011 |
| Stakeholder Advisory Committee Meeting | 5/3/2011 |
| Local Business Focus Group | 5/23/2011 |
| Stakeholder Advisory Committee Meeting | 6/7/2011 |
| Community Meeting | 6/23/2011 |
| Tabling | 6/25/2011 |
| Community Meeting | 7/20/2011 |
| Community Meeting | 7/27/2011 |
| Stakeholder Advisory Committee Meeting | 8/2/2011 |
| Tabling | 8/31/2011 |
| Stakeholder Advisory Committee Walking Tour | 9/6/2011 |
| Stakeholder Advisory Committee Biking Tour | 9/8/2011 |
| Stakeholder Advisory Committee Meeting | 10/11/2011 |
| Stakeholder Advisory Committee Meeting | 11/1/2011 |
| Community Forum | 11/28/2011 |
| Stakeholder Advisory Committee Meeting | 12/6/2011 |
| Non-Profit Focus Group | 12/9/2011 |
| Church Focus Group | 12/14/2011 |
| Stakeholder Advisory Committee Meeting | 1/10/2012 |
| Stakeholder Advisory Committee Work Group Meeting | 1/24/2012 |
| Stakeholder Advisory Committee Meeting | 2/7/2012 |
| Stakeholder Advisory Committee Meeting | 2/21/2012 |
| Stakeholder Advisory Committee Meeting | 3/6/2012 |
| Stakeholder Advisory Committee Meeting | 3/20/2012 |
| Stakeholder Advisory Committee Meeting | 4/3/2012 |
| Open House | 5/19/2012 |
| Stakeholder Advisory Committee Meeting | 6/19/2012 |

INITIAL CONCEPT DEVELOPMENT MEMO



To: Ellen Vanderslice, *Portland Bureau of Transportation*

From: Adrian Witte, *Alta Planning + Design*

Date: June 23, 2011

Re: North Williams Traffic Operations Safety Project – Initial Concept Development

This memorandum describes the process and outcomes of initial concept development for the North Williams Traffic Operations Safety Project. These projects explore traffic operations improvements, particularly including enhanced bikeways, along approximately 2 miles of North Williams Avenue between Weidler Street and Killingsworth Street with the purpose of “making travel on North Williams Avenue safer and more comfortable for all users”.

Project objectives were established at the beginning of the project to guide the development and refinement of options. These include:

1. To conduct an open planning process through which all voices can be heard by the City.
2. To reduce or manage traffic conflicts between people bicycling, people driving, and buses on North Williams Avenue.
3. To improve conditions for bicycling on North Williams Avenue.
4. To maintain or improve conditions for walking on or across North Williams Avenue.
5. To explore innovative solutions and strategies.
6. To create conditions for transit service, traffic flow, parking, and active transportation that support existing businesses and future business development.

This study builds on previous work conducted in 2006 as part of the Vancouver-Williams Transportation Project that recommended pedestrian safety improvements - most of which have since been constructed with funding from the Portland Development Commission.

Needs, concerns, and desires along the corridor were informed by an extensive stakeholder engagement process that included one-on-one interviews with residents, business owners, developers, and community groups in the area as well as meetings of a specially convened Stakeholder Advisory Committee (SAC) that represents resident, business, community group, and commuter interests in the area.

It is intended that the project team will work in consultation with the SAC to refine the initial concepts towards a preferred alternative that can be endorsed by the SAC and recommended to PBOT. This process will be informed by feedback obtained from:

- Meetings of the project's Technical Advisory Committee (TAC) consisting of City and other agency staff representing various disciplines. The TAC is responsible for identifying and addressing any specific technical issues that may impact the feasibility of proposed transportation improvements.
- A public open house held Saturday 16th April 2011.
- Additional stakeholder engagement including individual interviews, meetings with specific stakeholders (such as developers, business owners, area churches, etc.), and meetings of the SAC.

Study Corridor

North Williams Avenue is a one-way street (northbound) and an existing bikeway connecting the Rose Quarter Transit Center to North Portland, and areas beyond. The study section, between Weidler Street and Killingsworth Street is approximately 2 miles long and includes 34 intersections. The street runs through the heart of the historic Albina community, one of Portland's oldest neighborhoods and once an independent city. The Vancouver/Williams corridor was the historic "main street" for Portland's African American community, but was significantly impacted by past major redevelopment projects, including Memorial Coliseum, I-5 construction, and especially the early 1970s Emanuel Hospital expansion that was never completed. Bike lanes were added to N Williams Avenue in the early 1990s by narrowing the existing travel lanes.

The typical street cross-section is shown on **Figure 1** and has a curb-to-curb width of 40' that includes parking on both sides of the street, two travel lanes, and a 5' - 6' wide bike lane. Although the lane allocation varies at a number of intersections (where the parking lane is dropped prior to the intersection to form right- or left-turn lane lanes), the typical roadway width varies from the 40' curb-to-curb only south of Hancock Street. Cross-sections south of Hancock Street are shown on **Figure 2**.

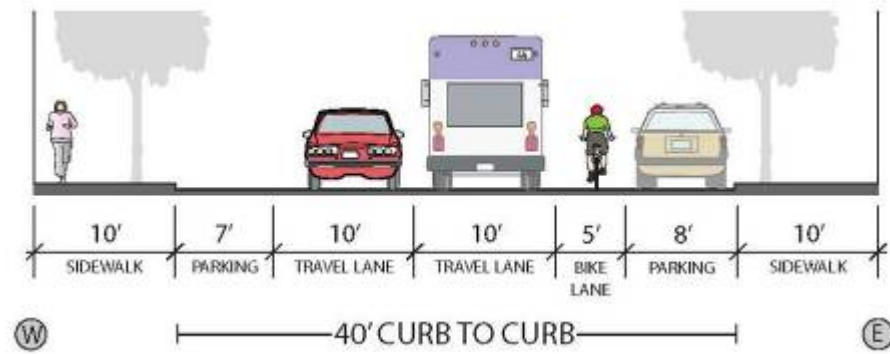


Figure 1: Typical Cross-Section for North Williams Avenue.



Figure 2: Cross-Sections for North Williams Avenue south of Hancock Street.

Existing transportation conditions along the corridor, including bicycle and motor vehicle traffic volumes, transit boardings and alightings, crash history, and parking utilization, were documented in the *North Williams Existing Conditions* memorandum prepared by Kittelson & Associates, Inc. dated 5th February 2011.

A summary of the role of this street for each of the major travel modes is included below:

- **Walking:** the corridor contains several attractors for people walking, with high crossing demands in a number of locations. There are also a number of crossings that serve slower and more vulnerable pedestrians (e.g. elderly, disabled, or school-aged pedestrians).
- **Bicycling:** the corridor is one of the busiest bikeways in Portland and bicycle traffic represents anywhere from 240 to 385 people on bicycles per hour during the peak hour (approximately 20- to 35-percent of total traffic volumes). It is designated as a Major City Bikeway in the *Portland Bicycle Plan for 2030*.
- **Transit:** the corridor offers frequent transit service with the #4, #24, and #44 TriMet bus routes operating approximately every 5-6 minutes (10 – 11 buses) south of Fremont Street and every 15 minutes (4 buses) north of Fremont Street during peak hours.
- **Motor Vehicle Traffic:** the street is classified as a Neighborhood Collector in the City's Transportation System Plan. At its south end it plays an important role in delivering motor vehicle traffic to I-5. Motor vehicle volumes vary along the corridor. Except for the segment south of the I-5 entrance ramp, the biggest influx of traffic enters onto North Williams Avenue at Cook Street, coming from I-405. Motor vehicle volumes range from 700 to 1,100 vehicles per hour during the PM peak hour. The single lane capacity of the street is estimated at a planning level at approximately 850 vehicles per hour per lane.

Option Development

The initial concepts target four primary issues that were determined to be the most pertinent from stakeholder consultation along the street. These included:

- **Crosswalk compliance:** local stakeholders are concerned about the ease and safety of crossing North Williams Avenue. Two automobile travel lanes introduce a number of problems for people walking: firstly, the crossing distance is greater than for a single travel lane. Secondly, vehicles in an adjacent lane can impede a driver's ability to see people walking (known as a "multiple threat" situation). Lastly, motorists tend to travel faster on a two-lane street than they would with a single travel lane (e.g. the number of drivers exceeding the speed limit on North Vancouver Avenue is much less than on North Williams Avenue). There are also a number of crossings where pedestrians have limited visibility of oncoming traffic due to parked vehicles or other obstructions.

- **Motor vehicle speeds:** residents and users of the street have expressed concerns about motor vehicle speeds on all segments of North Williams Avenue. Traffic speed observations between Broadway and Russell Street showed that 52% of motor vehicles exceeded the 30 mph speed limit. Observations just north of Beech Street showed that 31% of motor vehicles exceeded the 30 mph speed limit. Having two travel lanes, limited stops (for signals), and relatively low traffic volumes tends to promote high motor vehicle speeds.
- **Bus/bike conflicts:** buses serve curbside stops and therefore need to pull across the bike lane to access the stop. Often buses block the bike lane while loading / unloading passengers. Cyclists following a bus either have to wait or pull into the adjacent motor vehicle travel lane to pass the bus. Once the bus has finished loading / unloading it pulls out across the bike lane and often passes the cyclist – buses and bikes passing one another (referred to as “bus / bike leapfrogging”) is particularly prevalent in the southern half of the corridor.
- **Bikeway capacity:** the bike lane on North Williams Avenue moves up to 385 persons per hour during the PM peak and as a result, cyclists passing one another (or a stopped bus) often encroach into the adjacent travel lane. This is legal, but not comfortable for most cyclists or drivers.

Available Tools

The project team has investigated ways to address these issues and better reflect the demands and importance of certain movements (e.g. crossing safety). Many of the treatments considered seek to better allocate or separate travel modes in time or space.

Opportunities to separate movements in space include:

1. Narrowing motor vehicle travel and parking lanes and reallocating this space to bike facilities. South of the I-5 on-ramp there may be opportunities to reduce the width of motor vehicle travel lanes to accommodate an enhanced bikeway. North of the I-5 on-ramp, this is not an option as all parking and motor vehicle travel lanes are currently provided to minimum standards (i.e. 10' travel lanes and 7' – 8' parking lanes).
2. Converting one of the two motor vehicle travel lanes into space for bus or bike operations. This option is most applicable where motor vehicle traffic volumes are less than the single lane capacity of the street (approximately 850 vehicles per hour), but could be considered in other sections. Capacity of a single travel lane is affected by traffic signal operations and the presence (or absence) of turning lanes at intersections. The benefits of providing a single motor vehicle travel lane include lower vehicle speeds and more comfortable crossing conditions for pedestrians. The disadvantages can include limited opportunities to pass vehicles maneuvering into parking or to pass buses picking up or dropping off passengers (although a passing lane could be provided at transit stops).

3. Converting parking on one side of the street to space for bus or bike operations. This option is most applicable where parking is not critical to the function of the street or is under-utilized. This space, typically 7 to 8' wide, can be reallocated to other uses.

Separating movements in time includes:

- Creating specific signal phases or overlaps to allow certain movements or modes to go before other modes (e.g. providing bikes a separate signal phase, a leading pedestrian interval, or a bus queue jump).
- Coordinating signals along a corridor to allow progression at a certain speed.
- Accounting for the variation in speeds to allow for sorting between modes (e.g. over longer, uphill distances motorized vehicles will separate from cyclists).
- Managing traffic speeds to provide a more comfortable walking and cycling environment.
- Designating space as parking at some times and for travel at other times (“pro-time” lanes).

Street Segments

The character and function of North Williams Avenue changes along its length. Similarly, the issues and concerns identified by stakeholders vary. As a result, the project team has broken the corridor into a number of smaller segments to distinguish these differences and to allow design solutions to be tailored appropriately to the conditions in that segment. From south-to-north, the analysis segments include:

- Weidler Street to the I-5 On-Ramp.
- I-5 On-Ramp to Russell Street.
- Russell Street to Cook Street.
- Cook Street to Skidmore Street.
- Skidmore Street to Killingsworth Street.

The characteristics of each segment, and the opportunities available in each for making transportation improvements, are shown on **Figure 3**. These are described in more detail below.

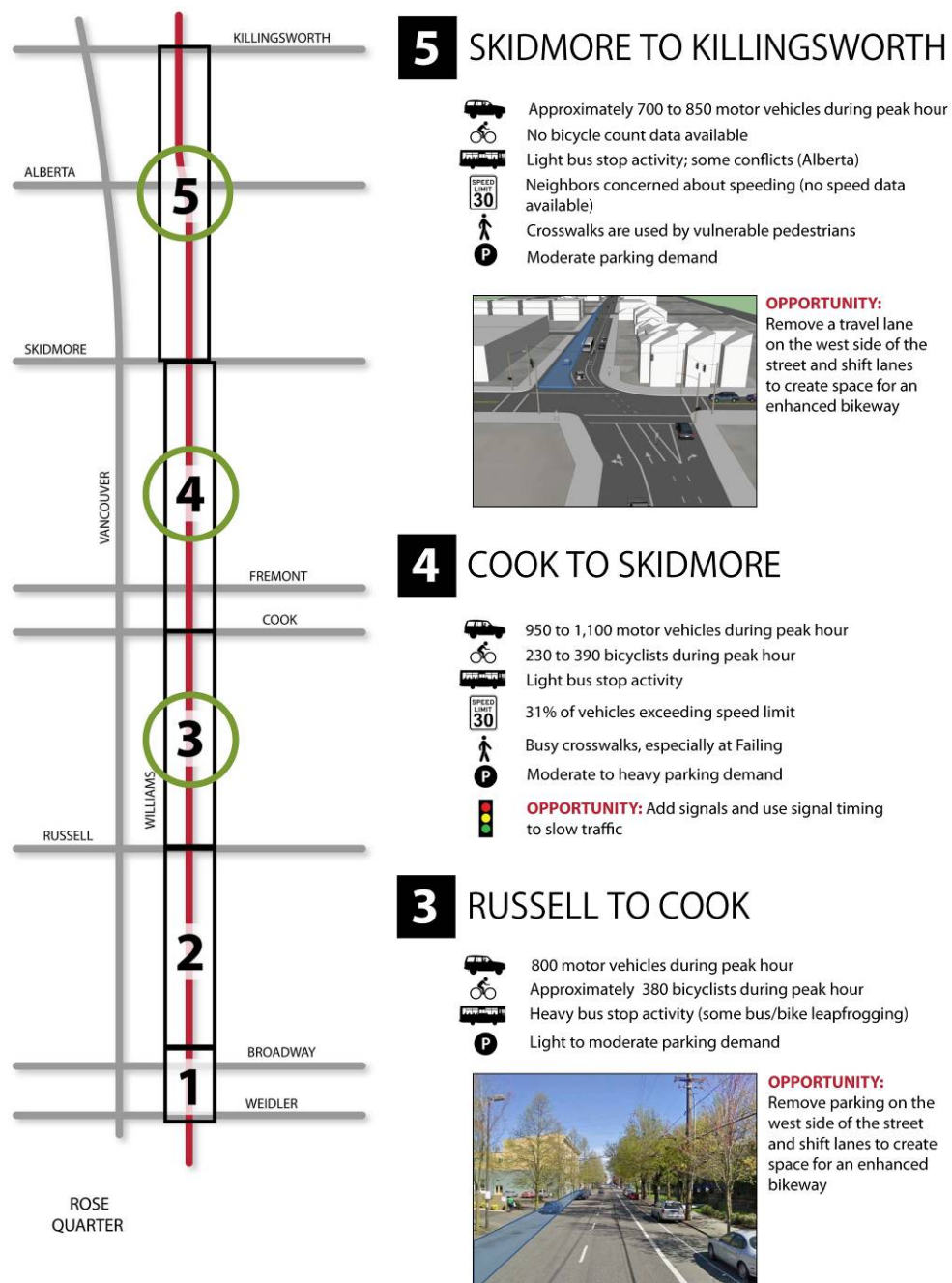


Figure 3A: North Williams Avenue Analysis Segments.

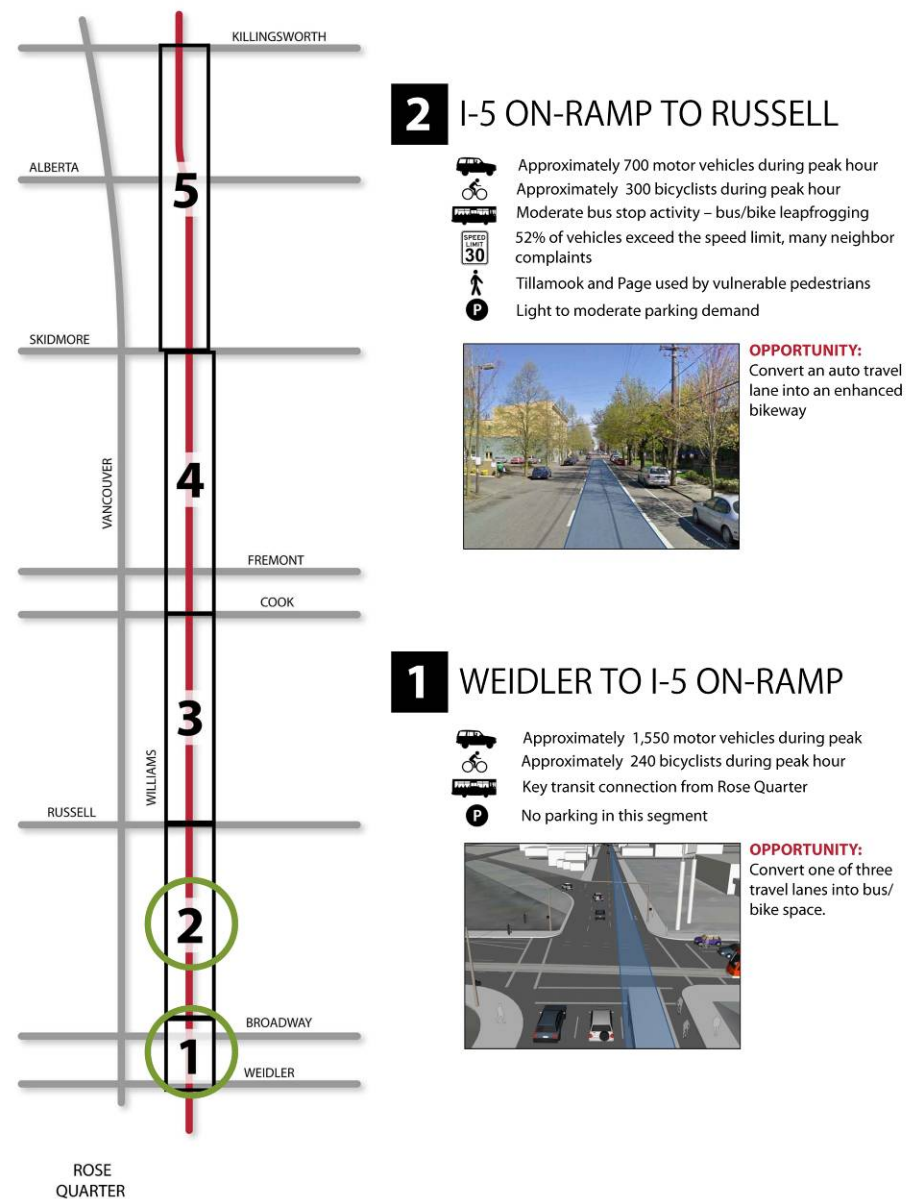


Figure 3B: North Williams Avenue Analysis Segments.

Segment 1: Weidler Street – I-5 On-Ramp

Function / Character

This section serves an important traffic delivery function to I-5 as well as being a key transit and bikeway connection between the Rose Quarter Transit Center and North Williams Avenue. Key characteristics of this segment include:



Approximately 1,550 motor vehicles during the afternoon peak hour (measured between Broadway and the I-5 On-Ramp).



Approximately 240 bicyclists during the afternoon peak hour.



Key transit connection from Rose Quarter.



No parking in this segment.

Opportunity

North Williams Avenue between Weidler Street and Broadway is currently 45' wide (curb-to-curb) and consists of three northbound travel lanes plus a curbside bike lane on the eastern side. This feeds three travel lanes north of Broadway - a left-turn lane onto I-5, a shared lane serving I-5 and traffic continuing north on North Williams Avenue, and a through lane onto North Williams Avenue (see **Figure 2**).

Options identified for this segment include:

- Reducing the width of the automobile travel lanes to provide width for an enhanced bikeway. Providing dual bike lanes in this section would add bikeway capacity and provide a dedicated space for fast cyclists to pass slower cyclists. The outside bike lane also acts as a buffer between auto traffic and those people bicycling who are most comfortable in the curbside bike lane.
- Convert the easternmost travel lane into an enhanced bikeway or bus/bike operating space (see **Figure 4**). This would provide an opportunity for cyclists to pass one another without encroaching into the adjacent travel lane and provide an opportunity to treat or better manage bus bike conflicts through this section (for example, the bike lane could be moved to the right of the bus stop). The impact of this change on signal operations and the potential for queues from I-5 to block access to North Williams Avenue would need to be considered further.



Figure 4: Possible Space Conversion for Enhanced Bus/Bike Space (Weidler Street to I-5 On-Ramp).

This section would be the best place for the bikeway to transition to the left side of the street if a left-side bikeway is to be considered, although there are a number of challenges associated with this, in particular crossing the I-5 on-ramp.

Segment 2: I-5 On-Ramp – Russell Street

Function / Character

The high volume of northbound cyclists, coupled with signal timing and the uphill nature of the section, results in significant bicycle passing as faster cyclists try to move past slower cyclists. There is also considerable interaction between buses and bicyclists through this section as they “leapfrog” one another between transit stops to the north of the I-5 On-Ramp.

Vehicle speeds are also an issue in this segment, particularly as there are a number of well used crosswalks that serve slower moving and vulnerable pedestrians.

Key characteristics of this segment include:



Approximately 700 motor vehicles during the afternoon peak hour.



Approximately 300 bicyclists during the afternoon peak hour.



Moderate bus stop activity – bus/bike leapfrogging.



52% of vehicles exceed the speed limit (recorded just north of Hancock Street), many neighbor complaints.



Tillamook Street and Page Street crosswalks used by vulnerable pedestrians.



Light to moderate parking demand.

Opportunity

North of the I-5 on-ramp, PM peak hour traffic volumes are below the one-lane capacity of the street (700 vph compared to the 850 vph one-lane capacity) and as such one of the two automobile travel lanes could be converted into additional space for an enhanced bikeway (see Figure 5).

Providing only one motor vehicle travel lane would reduce travel speeds, improve crosswalk compliance, and provide more comfortable pedestrian crossings. The reallocated space could be used to provide opportunities for cyclists to pass one another and to manage bus/bike conflicts in this segment.

Further analysis of this section will need to consider the width of the remaining motor vehicle travel lane and whether there is sufficient width for a vehicle to pass a vehicle maneuvering into parking, pass a stationary bus, or pull to the right to allow emergency vehicles to pass. The width required for the Fire Bureau to respond to a fire also needs to be considered in the design.



Figure 5: Possible Space Conversion for Enhanced Bus/Bike Space (I-5 On-Ramp to Russell Street).

Segment 3: Russell Street – Cook Street

Function / Character

This section includes a number of community and service-oriented land uses. These uses generate a significant amount of pedestrian traffic crossing North Williams Avenue. There is generally light parking demand and parking that is used can be an obstruction to visibility for motorists crossing or turning onto North Williams Avenue.

Key characteristics of this segment include:



Approximately 800 motor vehicles during the afternoon peak hour.



Approximately 380 bicyclists during the afternoon peak hour.



Heavy bus stop activity – some bus/bike leapfrogging.



Light to moderate parking demand.



Preventable crashes and poor visibility for turns onto Williams.

Opportunity

Traffic volumes in this segment approach the single lane capacity of the street (approximately 850 vph). Conversion of a motor vehicle travel lane could be considered for this section. On-street parking is generally under-utilized during the weekday AM and PM peak hours – particularly the western side which observes a peak parking utilization of only 29-percent. Converting the parking lane on the western side of the street would provide additional space to accommodate an enhanced bikeway. The reallocated space can be used to provide opportunities for cyclists to pass one another and to manage bus/bike conflicts in this segment.

Converting parking could also improve visibility for drivers crossing or turning left onto North Williams Avenue from the side streets and for pedestrians crossing the street from the western side of the street.

Segment 4: Cook Street – Skidmore Street

Function / Character

Traffic volumes increase significantly north of Cook Street as a result of traffic exiting I-405 and turning left onto North Williams Avenue. The high number of turning and crossing vehicles at the North Williams Avenue / Cook Street intersection, along with sight distance limitations when vehicles are parked on the western side of the street, likely contributes to the high crash rate at this intersection, which includes several pedestrian and bicycle crashes.

North of Fremont Street, North Williams Avenue serves a vibrant and growing business district. Transportation modes compete for available space in this section and there are numerous pedestrian crossing movements (several with limited sight distance), well-utilized motor vehicle parking on both sides of the street, high bicycle volumes and bicycle parking demands, and relatively high traffic volumes.

Key characteristics of this segment include:



Approximately 950 – 1,100 motor vehicles during the afternoon peak hour.



Approximately 230 - 390 bicyclists during the afternoon peak hour.



Light bus stop activity.



31% of vehicles exceed the speed limit (recorded just north of Beech Street).



Busy crosswalks, especially at Failing Street.



Moderate to heavy parking demand.



Poor crosswalk visibility, poor left-turn visibility, hazards in bike lane (e.g. double-parked cars, open doors, etc.)

Opportunity

This is the highest traffic volume segment along the corridor with an influx in motor vehicles coming off I-405 and entering or crossing North Williams Avenue at Cook Street. The traffic volumes in this segment suggest that reducing to one motor vehicle travel lane in this section would create a noticeable increase in traffic congestion during peak travel times. Additional surveys may be required to estimate how much of this traffic is using North Williams Avenue as an alternative to other facilities such as I-5, Interstate Avenue, or Martin Luther King Jr. Boulevard.

Parking is well utilized in the commercial district, particularly between Fremont Street and Shaver Street and is important to the businesses along this section. The business community is unlikely to support converting parking in this segment.

For these reasons, the opportunities to obtain physical space to enhance the bikeway through this section may be limited. However, active and passive techniques to slow vehicle speeds could be used to enhance the commercial district into a vibrant “Main Street”. This could include installing traffic signals at up to three additional locations – Cook Street, Beech Street, and Failing Street. This would create a series of closely spaced signals that could be used to progress traffic at a much slower speed. Further, the signals could be timed to allow cyclists to travel through the area without having to stop (i.e. create a bicycling green wave). Signalizing these intersections also provides safer opportunities for pedestrian crossings and vehicle turns from the side streets. Passive speed control measures could include textured intersection treatments or other visual cues to slow drivers.



Although the conversion of travel or parking lanes was not initially preferred in this section, if there is demonstrated community support either for accepting additional traffic congestion or for converting parking, or if further technical analysis suggests ways to mitigate or accommodate the traffic volumes within a single lane, then these options can be reconsidered.

Segment 5: Skidmore Street – Killingsworth Street

Function / Character

Motor vehicle traffic volumes in this segment are generally below the one lane capacity of the street. The adjacent land use is primarily residential and on-street parking is generally well used. Neighbors have raised concerns that vehicle speeds are an issue in this segment, particularly as there are a number of crosswalks that serve slower moving and vulnerable pedestrians.

Key characteristics of this segment include:



Approximately 700 – 850 motor vehicles during the afternoon peak hour.



No bicycle count data available for this segment.



Light bus stop activity; some conflicts (e.g. Alberta Street).



Neighbors concerned about speeding (no speed data available).



Crosswalks are used by vulnerable pedestrians.



Moderate parking demand.



Poor crosswalk visibility, poor left-turn visibility, hazards in bike lane (e.g. double-parked cars, open doors, etc.)

Opportunity

Parking is generally well used in this segment, particularly between Alberta Street and Killingsworth Street. However, traffic volumes are below or approaching the single lane capacity of the street (approximately 850 vph) and one of the motor vehicle travel lanes could be converted into space for an enhanced bikeway.

Providing a single motor vehicle travel lane has the potential to reduce travel speeds, improve crosswalk compliance, and provide more comfortable pedestrian crossings (through improved visibility and easier gap selection). The reallocated space can be used to provide opportunities for cyclists to pass one another without encroaching into motor vehicle travel lanes.

PBOT is also investigating the potential to add a bus queue jump at the Alberta Street intersection.

As with segments to the south, further analysis of this section will need to consider the width of the remaining motor vehicle travel lane and whether there is sufficient width for a vehicle to pass a vehicle maneuvering into parking, pass a stationary bus, or pull to the right to allow emergency vehicles to pass. The width required for the Fire Bureau to respond to a fire also needs to be considered in the design.

The design for this segment should consider how to transition an enhanced bikeway to the N Williams Avenue neighborhood greenway north of Killingsworth Street.

Design Strategies

Strategies were developed to address each of the four major problem areas identified by stakeholders including:

- Crosswalk safety.
- Speed reduction.
- Bus/bike conflicts.
- Bikeway capacity.

These strategies are described in more detail below.

Crosswalk Safety Strategy

Providing safe and comfortable travel for pedestrians using North Williams Avenue is one of the highest priorities for this project. The potential strategy for improving the pedestrian environment includes:

- Reducing the number of auto lanes in certain locations to slow traffic, allow drivers to better see pedestrians, and allow more comfortable driver yielding behavior.
- Providing enhanced or signalized crosswalks at strategic locations.
- Providing curb extensions to allow pedestrians and drivers to see one another.
- Managing conflicts between people walking and people riding bicycles.

Elements of the crosswalk safety strategy are illustrated on Figure 6.

Speed Reduction Strategy

Reducing motor vehicle travel speeds reduces the potential for high severity crashes and creates a more comfortable environment for all users of the street. Techniques that could be used on North Williams Avenue to reduce motor vehicle travel speeds are shown on Figure 7 and include:

- Reducing to one motor vehicle travel lane. Providing a single motor vehicle travel lane generally reduces speeds as vehicles travel behind other slower-moving vehicles, as on North Vancouver Avenue.
- Using signal timing to progress traffic at slower speeds. Signals can be timed to move traffic at a certain speed. For example, signal timing along SW Broadway (downtown) allows traffic to move at about 12 mph. A similar strategy could be applied in the commercial area (Segment 4) with additional signals at Cook Street, Beech Street, and Failing Street. (Existing signalized intersections are likely too far apart for effective traffic progression.)
- Visually narrowing the street. Curb extensions, pedestrian crossings, and other street treatments visually change the street for drivers, tending to slow travel speeds.



Figure 6: Elements of the Crosswalk Safety Strategy.



Figure 7: Elements of the Speed Reduction Strategy.

(Left to right: North Vancouver Avenue is a one lane street that typically records fewer drivers exceeding the speed limit; signal progression is used to move traffic on SW Broadway at 12 mph; curb extensions visually change the street and tend to slow drivers.)

Bus/Bike Conflict Strategies

There are a number of techniques that can be used to address bus/bike conflicts along the corridor. These are illustrated on **Figure 8** and include:

- **Cycle Track:** divert bicyclists behind bus stops so they do not have to interact with buses. This treatment requires managing conflicts between bus passengers and bicycle traffic.
- **Separate buses and cyclists in time:** separate signal phases can be used to separate buses and bikes, e.g. buses could be allowed to travel forward prior to cyclists (and cars) at signals - or vice versa.
- **Manage crossing of bike lane:** in the case of a right-side buffered bike lane, buses would still have to cross the bike lane, but the additional width allows people cycling to pass more easily while the bus is stopped.
- **Left-side bikeway:** moving cyclists to the left side of the street effectively removes the bus/bike conflict. Additional considerations for a left-side bikeway are included in **Table 1**.

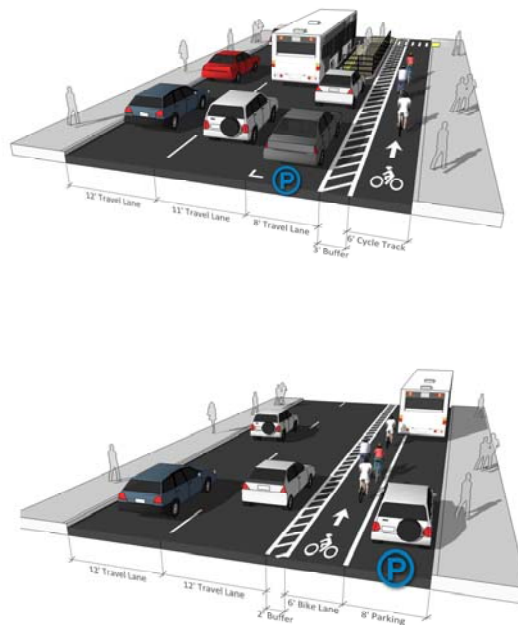


Figure 8: Potential Bike / Bus Treatments.

(Clockwise from top left: cycle track running behind “floating” bus stop; separate bicycle signal phase, left-side bikeway in New York City; buffered bike lane to provide additional width for bicyclists to pass stopped buses).

Table 1: Considerations for Left-Side Bikeways

| Advantages | Disadvantages |
|---|--|
| <ul style="list-style-type: none"> • Removes bus/bike conflict • Drivers can see cyclists in side mirror (eliminates blind spot) • Removes conflicts with right turning traffic • Easier for cyclists to turn left • Fewer door openings on passenger side | <ul style="list-style-type: none"> • Difficult to transition from right side bikeway • Drivers expect cyclists on their right - possible increased risk of crashes • Introduces conflicts with left turning traffic • More difficult for cyclists to turn right • Cyclists placed next to “fast” traffic lane (if there are two motor vehicle travel lanes) |

Bikeway Capacity Strategies

The North Williams corridor is one of the most popular bikeways in Portland. This can lead to crowded conditions where faster cyclists try to pass slower cyclists. Providing more space, so bicyclists do not encroach into traffic lanes when passing, will create a more comfortable cycling environment and allow the street to carry even more cyclists in the future. Some potential bikeway enhancements are shown on **Figure 9** and include:

- **Wide bike lane:** existing bike lanes on North Williams Avenue are 5' to 6' wide. A “wide bike lane” would increase this width to 7' or 8'. Some of the benefits include increased distance between motorists and cyclists compared to a conventional bike lane, the ability for cyclists to pass one another without encroaching into the travel lane, and the ability for some cyclists to ride side-by-side (such as a parent accompanying a child).
- **Buffered bike lane:** provides a cushion between cyclists and motor vehicles, particularly on streets with fast moving traffic. It allows bicyclists to pass one another or avoid obstacles without encroaching into the travel lane. Providing a buffer on the parking side of the bike lane reduces the risk of being struck by a car door.
- **Cycle track:** switch the placement of the bike lane to the curb side of the parking lane. The parking lane, plus a painted buffer, isolates cyclists from moving motor vehicle traffic. This design also reduces the risk of being struck by a car door.
- **Dual bike lane:** provides a dedicated passing lane for faster cyclists to pass slower cyclists. This also can allow faster cyclists to move off more quickly than the slower cyclists at signals.

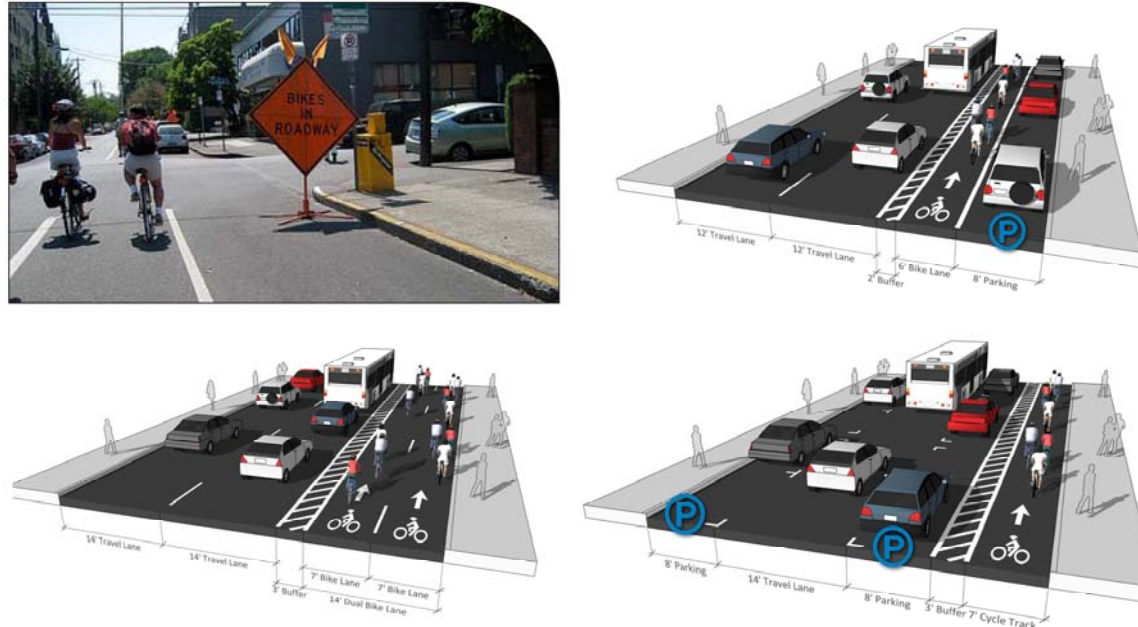


Figure 9: Potential Bikeway Treatments.

(Clockwise from top left: wide bike lane on North Vancouver Avenue; buffered bike lane; cycle track; dual bike lane).

Summary

Preliminary concepts have been prepared for the North Williams Traffic Operations and Safety Project. These have been developed in consultation with local stakeholders and a specially convened Stakeholders Advisory Committee and will be presented to the public. Public and stakeholder comment will be used to refine these alternatives in consultation with the SAC with the intent of developing a preferred alternative that can be supported and recommended by the SAC. Technical issues will be addressed in consultation with the Technical Advisory Committee.

STAKEHOLDER ADVISORY COMMITTEE
FINAL RECOMMENDATIONSSam
Adams
MayorTom
Miller
Director

M E M O R A N D U M

April 26, 2012

From: Ellen Vanderslice, Project Manager *Ellen*

To: Sam Adams, Mayor and Commissioner in charge of Transportation
Tom Miller, Director, Portland Bureau of Transportation
Greg Jones, Development and Capital Program Group Manager
Robert Burchfield, City Traffic Engineer

cc: Catherine Ciarlo, Office of the Mayor
Katja Dillmann, Office of the Mayor
Grace Uwagbae, Office of the Mayor
Debora Leopold Hutchins, Chair, Stakeholder Advisory Committee
Dan Layden, Capital Project Supervisor
Rich Newlands, Project Manager
Wendy Cawley, Traffic Safety Engineer
Adrian Witte, Alta Planning + Design
Michelle Poyourow, Poyourow Consulting, public involvement
Joan Brown-Kline, Brown-Kline and Co., public involvement

Regarding: North Williams Avenue Traffic Operations Safety Project
Stakeholder Advisory Committee Final Recommendations

Please find attached to this memorandum the FINAL RECOMMENDATIONS of the Stakeholder Advisory Committee (SAC) for the North Williams Avenue Traffic Operations Safety Project, along with a list of all the SAC members.

The SAC chose a decision-making process that called for a 2/3 super majority vote to approve the final recommendations, with everyone offered the opportunity to add comments, concerns, or dissenting remarks to the final document. Of the 26 members of the committee, 25 voted on these recommendations, which were approved by a vote of 22 to 3. Comments, concerns and remarks have been incorporated as footnotes.

The North Williams project has been an amazing process, and I hope you will join me in thanking the many members of the community who joined us on this journey. In particular, I wish to express my deep thanks to Debora Leopold Hutchins, who chaired the SAC and whose leadership was essential to reaching this agreement.

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FINAL RECOMMENDATIONS
From the North Williams Stakeholder Advisory Committee
Regarding the North Williams Avenue Traffic Operations Safety Project

Background

The North Williams Stakeholder Advisory Committee was charged by the Portland Bureau of Transportation (PBOT) with making a recommendation regarding the North Williams Avenue Traffic Operations Safety Project.

We, the 26 members of the Stakeholder Advisory Committee, accepted this charge to address safety and traffic concerns on Williams Avenue. We agreed as a Committee to make our decisions with compassion and integrity within a contextual framework, understanding the safety issues while at the same time acknowledging past planning processes and those who have been hurt by those planning processes. We agreed to do this in a way that was inclusive, safe, considered all voices, and had positive impact on the entire community. We committed to recommending sustainable transportation solutions that balance the needs and concerns of all users of the corridor, including neighborhood residents, workers, businesses, religious institutions, pedestrians, bicyclists, transit users and motorists.

In the course of our process, we worked hard to hear the needs and concerns of all parties involved, while being cognizant of the history of the area. As individuals, we immersed ourselves in activities and events related to the issues before us. As a Committee, we took public comment at every Stakeholder Advisory Committee meeting, and convened a Community Forum at which nearly 200 people expressed their hopes and dreams for Williams Avenue.

We believe that the members of the community are the experts in their neighborhoods, and that the City has expertise in traffic planning and engineering. Working with the project team of City staff and consultants, our Committee learned all we could related to Williams Avenue, including its history, how it functions for all modes today, and its place in the hierarchy and aspirations of the City's long-adopted plans.

To guide our process, we adopted a Charter, a Guiding Statement and a Decision-Making Process. We agreed that a two-thirds super-majority of those Committee members in attendance at a meeting would suffice to pass a proposal, and that any Committee member not in agreement would be welcome to write a dissenting opinion to be included in the record of the vote.

The Committee affirmed seven objectives for the project, then developed and adopted a set of ten desired project outcomes. The project team worked to develop project options to deliver our top ten outcomes. In evaluating and discussing these options, our Committee labored to integrate what each of us has observed and learned, while at the same time honoring the diversity of truths that we heard from members of the community.

Having reached agreement through this process, we now present our recommendations to the City.

RECOMMENDATIONS

1. Left-hand buffered bike lane

Believing that it is our best option for:

- addressing dangerous interactions between bicycles and buses;
- creating a safer environment for pedestrians of all ages and abilities to cross Williams Avenue;
- preserving a viable environment for local businesses; and
- encouraging through-traffic to take more appropriate arterials:

We recommend a left-side, buffered bike lane with one motor vehicle lane on Williams Avenue from the I-5 on-ramp to Fargo Street, and from Skidmore to Killingsworth.

2. Shared left-turn lane/bikeway

Believing that, in the busiest section of the Williams corridor, it will:

- keep vehicles flowing around temporary obstacles and through high-traffic intersections;
- maintain effective neighborhood and business access; and
- allow for safe left and right turns from Williams by bicycles:

We recommend a shared left-turn lane/bikeway on Williams Avenue between Fremont and Skidmore with demarcated left turns and a physical barrier to through-vehicle traffic in the left lane on the north side of left-turn intersections.¹

¹ SAC member Allan Rudwick notes: “I trust that if it [shared lane] doesn’t work, more input will be taken.” SAC member Noni Causey notes that she does not support a physical barrier at every block; that she thinks the shared left lane will be confusing, cumbersome and inefficient for drivers; that she would rather have had two travel lanes and a regular bike lane on the left than the shared lane section; and that she believes the buffered bike lane and single travel lane should have ended at Russell rather than Fargo, and not be continued in the northern section.

3. Fargo to Fremont

Believing:

- that pedestrian traffic will increase significantly with the construction of the new grocery store at the intersection of Williams and Fremont;
- that Line No. 4 buses will continue to turn from Williams left onto Fremont;
- that traffic will continue to enter Williams at N Cook Street:

We encourage PBOT to develop a design that makes a safe and comfortable transition from the buffered bike lane to the shared left-turn lane/bikeway while safely accommodating bus and motor vehicle turning movements.

4. Traffic Speed

For reasons of:

- increased safety for all users, including pedestrians, bicyclists, and motorists;
- safer school crossings;
- the health and prosperity of the local business community; and
- encouraging through-traffic to use more appropriate arterials²:

We recommend that all available tools be used to reduce motor vehicle speeds on Williams Avenue, including reducing the speed limit on Williams Avenue allowing traffic engineers to determine best design speed.³

5. Pedestrian Visibility at Crosswalks

Believing:

- that pedestrians are at risk in certain parts of the commercial district;
- that on-street parking is important for the businesses and churches on North Williams Avenue;
- that pedestrian traffic will continue to increase because of the two new housing developments; and
- that sightline visibility is important for safe pedestrian crossings, but is often impeded by vehicles parked too closely to crosswalks:

We recommend the removal of 2 parking spaces on the west and east side of N Failing which should make it safer and more comfortable for pedestrians to cross the street.

We recommend that the City adopt a plan that includes curb extensions at corners in the business district.

We further recommend that PBOT strongly consider prohibiting parking within 20ft of crosswalks where curb extensions are not possible.

² SAC member Jerrell Waddell disagreed with this bullet point, saying that, “Williams has been used as an arterial for more than 30 years. Demand has grown for vehicle traffic as well as bicycling, and overall use of the street should not dictate that we encourage traffic to use other streets.”

³ SAC member Paul Anthony submitted a dissenting opinion on Recommendation No. 4: “I disagree strongly with the language in the recommendation: ‘...allowing traffic engineers to determine best design speed.’ Over the last year, the Stakeholder Advisory Committee had heard a significant body of testimony to the effect that traffic engineers have not been honest brokers and have pursued an agenda radically at odds with the safety and livability of the community around North Williams. The effect of their actions has been to push as many vehicles as possible through the neighborhood as fast as possible. The perennial PBOT argument that speed limits are set by the Oregon Department of Transportation is specious; the Bureau regularly pursues policies and actions contrary to state law when it suits the city’s convenience (Portland’s habitual failure to enforce the statewide law precluding parking within twenty feet of an intersection is only one such example). The speed limit on North Williams must be lowered to reflect the needs and realities of the schools, churches, social service agencies, businesses, and residents around the Avenue.”

6. Traffic Signals

Recognizing:

- that traffic signals have previously been requested by the community at Williams/Stanton;
- that the significant traffic congestion as vehicles access and egress the Kerby ramp off the Fremont Bridge results in dangers to all system users;
- that the longstanding history of vehicle and pedestrian accidents at these intersections warrants safety improvements; and
- that extensive growth is anticipated in the immediate Williams Avenue area:

We recommend, as a highest priority, that traffic signals be installed at the intersections of Williams and Cook and Vancouver and Cook, and at the intersection of Williams and Stanton.

We recommend the committee (or community representatives) approach Emanuel Hospital to participate as a good neighbor in establishing the recommended traffic signals.⁴

7. Bus Stop Relocations

Believing that the current bus stop at Williams and Fremont:

- contributes to congestion by unnecessarily routing buses across a major demarcated right turn lane, and
- by relocating the bus stop TriMet can anticipate expected passenger demand;

And, further believing that the current bus stop at Williams and Tillamook:

- creates a hazard for bicyclists turning right at Tillamook and the many bicyclists crossing Williams at Tillamook in both directions:

We recommend that PBOT and TriMet review the placement of all transit stops on Williams to optimize locations with respect to the new design, and we particularly recommend that the bus stop at Williams and Fremont be moved one block south to Williams and Ivy, and that the bus stop at Williams and Tillamook be moved north to the north side of the intersection.

⁴ SAC members Gahlana Easterly, Michelle DePass, and Chair Debora Leopold Hutchins had concerns in the final vote that this second recommendation under No. 6 as written had not accurately captured the Committee's intent, in which community outreach to Emanuel referred only to the signal at Williams and Stanton. PBOT is actively pursuing private and public sector partners for funding for the signals at Williams and Cook and at Vancouver and Cook. In particular, SAC member Gahlana Easterly wished this document to mention her meeting with New Seasons Market CEO Lisa Sedlar, and Ms. Sedlar's verbal promise during that meeting that NSM would participate in funding the signal at Vancouver and Cook. SAC member Laurie Simpson notes: "I also think the traffic signal at Stanton is very, very important to Eliot and Williams safety – controlling speeds on Williams and providing safe opportunities to cross the street." PBOT has clarified regarding the requested signal at Williams and Stanton that changes in the intersection operation with the new cross-section are expected to resolve some of the safety issues at this intersection, which will be reevaluated once those changes have been implemented.

8. Honoring the History of Williams Avenue

Recognizing and honoring:

- the many people who have been residents, visitors, workers, business owners and property owners in the historically Black community (Albina) made up of the Boise, Eliot, King, and Humboldt neighborhoods;
- the descendants and collective memory of the community, and all those who have suffered, or watched their families or businesses suffer, due to systemic processes of racial residential segregation, housing condemnation to make way for urban renewal, institutional disinvestment, and governmental or institutional goals that collided with neighborhood dreams, goals, and hopes;
- the legacy of these processes and the history of insensitivity that has taken place as it relates to neighborhood change;
- the community's need to honor its past and learn from our collective experiences; and
- the opportunity to use this project intentionally to reverse that negative legacy and begin the healing process:

We recommend that the City work with the community to further short- and long-term projects to honor the people, businesses and civic institutions that have lived and thrived on Williams Avenue, including using elements of the North Williams Traffic Operations Safety Project, such as the safety campaign, signage, placemaking, and public art, to achieve these ends, and incorporating features such as oral history excerpts, photographs of significant people and places, walking tours, and a web presence.⁵

9. Safety Campaign

Believing:

- that our own travel behaviors have been affected by the insight and information we have gained through our service on this Committee; and
- that information about the changes to Williams Avenue will be critical to safely transitioning to the new configurations:

We recommend that PBOT undertake a Safety Campaign concurrently with the implementation of the first changes to the roadway, using education, enforcement and encouragement, and incorporating short-term projects to honor the history of Williams Avenue.

⁵ SAC member Jerrell Waddell has this dissenting comment: “Regarding honoring the history of Williams Avenue, I believe this decision to change the street is dishonoring the people who were historically engaged in commerce and who lived in this area, by creating a venue designed to be used by a particular population of younger, white professional people who bicycle.”

10. Neighborhood Greenways

Recognizing:

- that Williams Avenue is used by a diverse bicycle community with many different and sometimes competing needs,
- that the number of active bicyclists in North and inner-Northeast Portland will increase significantly in the near term; and
- that any improvements recommended by our Committee to streets other than Williams Avenue must develop from their own process and stakeholders:

We recommend that PBOT aggressively pursue options such as North Rodney Avenue for neighborhood greenways that can serve as viable alternatives supplementing bicycle use of Williams Avenue.

11. Future Outreach and Actions by PBOT and the City of Portland

Recognizing:

- that changing transportation design has a significant impact on quality of life;
- that impacted local communities are diverse and multi-faceted, have frequently been marginalized and disproportionately impacted by past efforts at civic improvement, and are often difficult to access through conventional means;
- that the City needs to be responsible to all communities, especially those which are under-served communities, or culturally disadvantaged communities, when considering project sites; and
- that the history, land use, and prior planning efforts should be considered and questioned while engaging in these projects:

We strongly recommend that the City right past wrongs by studying the North Williams Avenue Traffic Operations Safety Project, its success and failures, utilizing a formal facilitated evaluation process, to guide new policy on engagement processes that ensure that all voices are heard.⁶

We strongly recommend that the City of Portland critically evaluate its public participation efforts and stakeholder input processes to determine who in a particular community is not being heard in the process and ask why they are not being engaged, and furthermore to make every effort to actively engage those who have been marginalized.

We strongly recommend that the City start future projects from a place of community need with early input and guidance.

We strongly recommend that the City recognize the opportunities and challenges inherent in planning efforts, and to strive for an outcome that is truly sustainable.

⁶ SAC member Jerrell Waddell has this dissenting comment: “I don’t see how we can right the wrongs when this Committee, even as expanded, did not adequately represent those who do not bicycle.”

We recommend that PBOT’s future outreach utilize the resources of the city’s Office of Neighborhood Involvement.⁷

We offer the North Williams Stakeholder Advisory Committee’s Guiding Statement as a model for future outreach.

12. Housing

Having accepted public testimony on, and in the cases of some SAC members, directly experienced:

- the decades-long history of displacement of minority communities from the area served by N. Williams;
- the ongoing effects of gentrification on aging households; and
- the lack of acceptable affordable, and accessible housing alternatives for seniors, the disabled community, and families making less than the median family income as determined by HUD standards⁸:

We recommend the City find additional sustainable funding for the Interstate URA pilot program for culturally appropriate outreach to assist homeowners in danger of losing their homes, currently administered by Portland Housing Bureau

We strongly recommend the City develop an affordable housing strategy for North Williams Avenue, using a community-based committee and observing the principles and tools outlined above.

13. Project Funding and Phasing

Recognizing:

- that the recommendations of this Committee likely exceed the resources immediately available for implementation of the project;
- that it would be advantageous to reallocate roadway space in time for the peak bicycle use months of 2012; and
- that pedestrian safety is our highest consideration, but that some pedestrian improvements are relatively expensive:

We strongly recommend that the City seek funding for all elements of the project, including those that exceed currently allocated resources; and we encourage the City to develop a phasing plan for the project elements that implements as much of the intent of the project as possible in the first phase, even if some elements are first implemented as interim improvements.

⁷ SAC member Michelle DePass asks that the expertise of the Office of Equity also be leveraged.

⁸ See the US Department of Housing and Urban Development MFI for Portland area 2011:

<http://www.portlandonline.com/phb/index.cfm?c=50010&a=352655>