



seattle bicycle master plan ●●●

Public Engagement Summary Report
PHASE TWO



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KEY FINDINGS & THEMES

In spring 2012, the Seattle Department of Transportation (SDOT) began an update of the 2007 Bicycle Master Plan (BMP). From the first public comment period, SDOT gained a better understanding of how to create a better bicycling environment from people who responded to the survey and web mapping tool. SDOT used this input to develop draft products for public review.

In November of 2012, SDOT began Public Engagement Phase Two to hear the public's thoughts regarding three main elements of the plan: the draft network plan map, programs and policies, the proposed vision, and goals of the plan. The main findings from the second public comment period are summarized here:

Suggestions for adding to the proposed network:

- Address connectivity gaps
- Focus more on intersections
- Increase the multimodal corridors, specifically around the new streetcar lines
- Add facilities on arterials (eg. Rainier Avenue S)
- Tweak neighborhood greenway routes

Suggestions for removing streets:

- Streets that are too steep or too narrow
- Streets that have transit service
- Street in neighborhood commercial districts, particularly where parking would be lost
- Critical downtown transit streets
- Increase car capacity downtown rather than build bicycle facilities

Comments regarding the facility designation criteria and facility design:

- Interest in seeing criteria for intersection design
- Concern about safety of sharrows, bike lanes, and any facility in the "door zone"
- Concern for downhill cycle tracks and high speeds resulting in unsafe facility design
- Interest in adding more information to the criteria regarding truck volumes, transit classifications and high ridership stop locations, 85th percentile speeds, and slope





- Suggestions to modify criteria:
 - i. Neighborhood Greenways should be their own generalized classification (not combined in “enhanced street” category with sharrows)
- Comments that “in street, minor separation” (bike lanes and buffered bike lanes) should not be considered an “all ages and abilities” facility type
- Comments about deviating from the facility designation criteria to provide an upgraded facility type to improving safety and encouraging more ridership

Multimodal corridors (arterials with a proposed bicycle facility and other important transportation needs, such as Major Truck Streets or Transit Priority Corridors) are a topic of great interest and source of conflicting public comment

- Concern that the planned network is too ambitious and not realistic
- Support moving forward with bicycle facilities on these arterials and removing parking or travel lanes to do so
- Support the utilization of residential streets for bike facilities instead of arterials
- Removal of lines on the map where both Major Truck Streets and Transit Priority Corridors overlap with planned bike facilities



The policy framework (proposed vision and goals) were generally supported

- Interest in performance measures such as demographics of cyclists, safety measures, and connectivity
- Comments that perceived safety may be even more important than actual safety

Support for a variety for programmatic activities

- Support for researching methods to educate drivers during the driver's education and licensing process
- Excitement for neighborhood rides
- Programs like "Bike to School" and bike clubs in our schools were popular ideas
- Suggestions to market the benefits of bicycling

Other Topics

- Curious about funding strategies and how maintenance of new facilities ties in to the update
- Questions about how to promote electric bicycles
- Negative comments regarding Business Access & Transit (BAT) lanes allowing bikes
- Comments about the challenge of crossing I-5 in different locations
- Feedback regarding the network and legibility of the map, specifically regarding the lack of clarity on how to connect core parts of the city by bike
- Comments about the need for better lighting on the multi-use trails



Context



In 2012, SDOT embarked on an update to the BMP. While the current BMP, which was adopted in 2007, has been effective at guiding improvements to the City's bicycle network over the last five years, an update to the plan presents an opportunity to include fast-evolving best practices and new thinking in bicycle facility planning and design. This will result in a connected bicycle network that will appeal to a larger number of bicycle riders in the future.

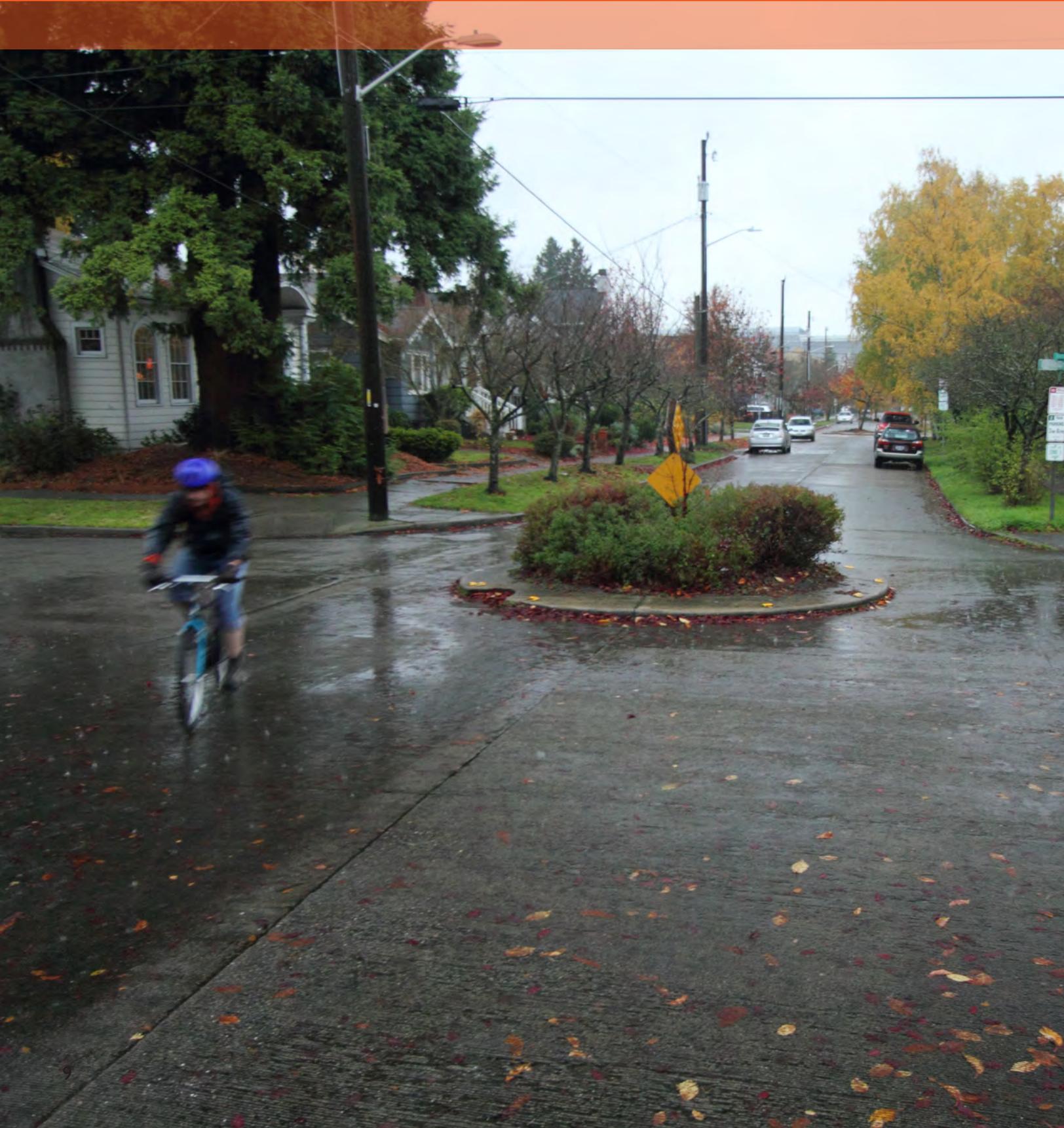
At the beginning of the planning process SDOT completed the *State of the Seattle Bicycling Environment Report* and identified updated vision, goals, objectives and performance measures for the BMP. SDOT also completed the first phase of public engagement early in the planning process. This included an online survey and mapping tool to gain an understanding of how Seattleites feel about biking currently. In conjunction with a valid phone survey and comments gathered at outreach events and received via email, the following key themes emerged and set the foundation for the BMP Update. SDOT learned that:

- safety is a major concern for current and prospective riders
- facilities need to be built for people all ages and abilities
- existing bicycle lanes and sharrows need to be reevaluated
- maintenance and pavement improvements are needed
- education and enforcement campaigns for all road users should be implemented
- there are significant non-infrastructure related challenges, like weather and topography

Next, SDOT analyzed all potential bicycling corridors and assigned them facility types given their street characteristics. Guiding principles that drove the first draft of the network map include serving people of all ages and abilities and connecting the high bike-demand areas of the city. In the fall of 2012, the first draft of the BMP Update network map, programs & policies, and the bicycle facility toolkit were ready for public review and SDOT began the second period of public comment.



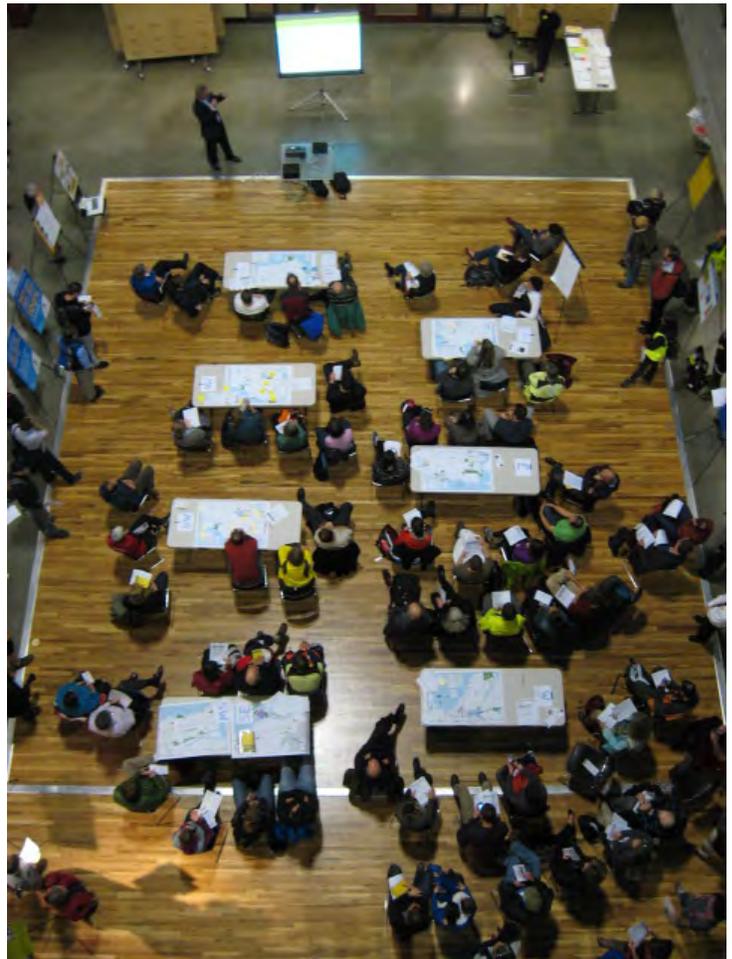
Process



In an effort to engage the community and receive feedback, SDOT attended 23 community/ stakeholder meetings, held three open houses specifically for public input, and hosted an online *Lunch & Learn*. In addition, meetings were held with various City advisory boards, other transportation agencies like Sound Transit and King County Metro, as well as numerous bicycle advocacy groups and community organizations from all over the city (a list of meetings and events can be found in Appendix A).

Public Open Houses

SDOT held three open house events in November 2012; City Hall on November 7, New Holly on November 8, and at the University of Washington on November 13. At each open house, a presentation on the progress of the BMP update was given and attendees were encouraged to converse with volunteers from Seattle Bicycle Advisory Board (SBAB) and SDOT about the bicycle facilities displayed in the draft network map, or the programs & policies and bicycle facility toolkit. The draft network was broken up into six sectors of the city. Each sector had its own table and staff member to lead the discussion and record comments. Images of all the sector maps can be found in Appendix E. The complete network map, as well as display boards with information on programs and the bicycle facility toolkit were set up around the periphery of the space and attendees were encouraged to engage in those aspects of the plan and provide feedback. To see the display boards from the open houses, see Appendix B.



University of Washington public meeting

Comment Sheet

In addition to commenting on the network map and the other materials for review, attendees at the open houses were handed a comment sheet with a list of questions to answer about the draft products. The comment sheet was also made available online.



“Add & Delete” Online Mapping Tool

In an effort to gain a better idea about how the community felt about the draft bicycle network, SDOT put the draft network map online and asked individuals to draw lines where they would add or delete a facility on the map. Including the online comment sheets, over 1,400 comments were submitted, which provided valuable insight into where the community does and does not want bicycle facilities to be built. One thing to note about the online mapping tool is that many users did not understand the exercise completely, so the results were a bit different than intended. Many of the “Add” lines were put on streets that displayed a bicycle facility currently. This could have meant that they either agreed with the line or were proposing to upgrade the facility. Similarly, “Delete” lines were drawn on streets where there was no facility showing; which most likely means that they oppose a bicycle facility being added to the street. SDOT still took feedback from the online mapping tool, however the data was interpreted as “Support vs. Oppose” a facility on a given street, rather than “Add or Delete” a facility from the draft network map.

Emails and Letters

All parties interested in providing feedback were encouraged to send their comments and ideas to the *bmpupdate@seattle.gov* email address. SDOT received over 200 emails from members of the community, all of which were aggregated with the feedback from the open houses and the online comment sheet and mapping tool. In addition, many organizations and stakeholder groups sent letters with their opinions.

Additional Outreach

SDOT attended 23 community/stakeholder meetings between November, 2012 and February, 2013, in addition to the SDOT-hosted open houses. These meetings included various City advisory boards, other transportation agencies like Sound Transit and King County Metro, and bicycle advocacy groups and community organizations from all over the city. Lastly, SDOT hosted an online *Lunch & Learn* for anyone interested in learning more who was unable to attend one of the open houses or one of the community/stakeholder meetings.

Moving forward, SDOT will use the findings from the public comment period to refine the network map, amend programs, and policy framework, as well as define the prioritization and implementation strategies. SDOT will continue to work with the Seattle Bicycle Advisory Board, and the BMP Executive Steering Committee, and the inter-agency technical team, with the goal to release the first draft of the full plan in June.



What SDOT Heard



Open House Attendees by Location

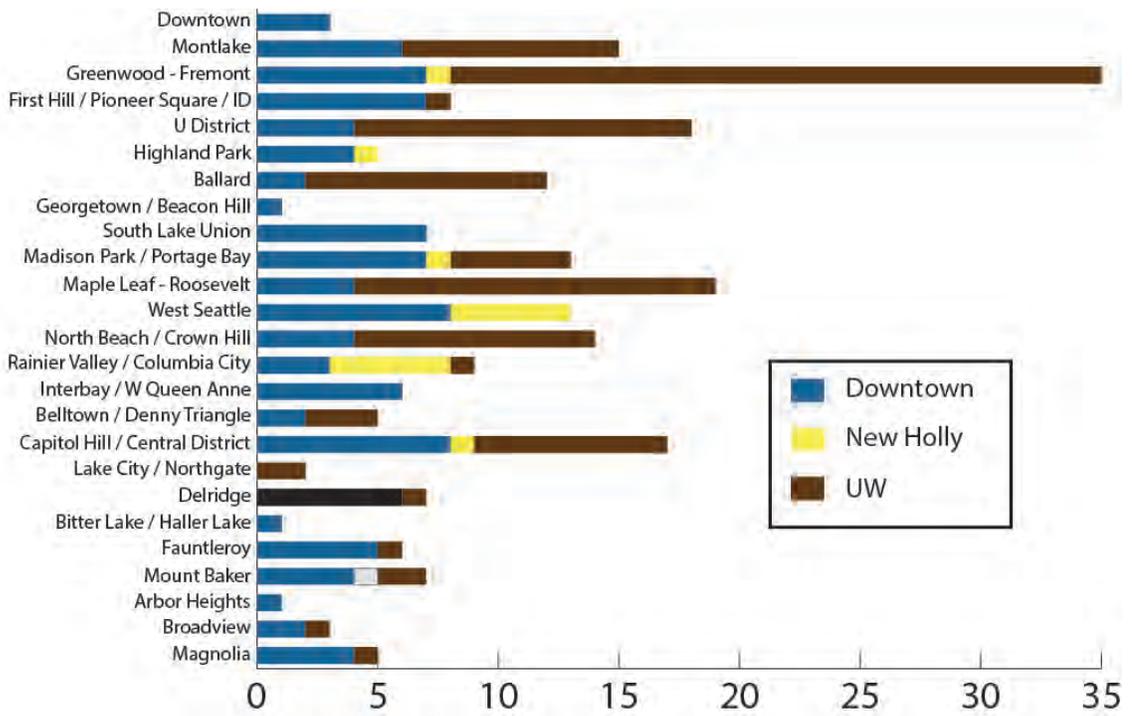


Figure 1: Open House Attendance and Attendees Place of Residence

This section explains some of the feedback SDOT received at the three open houses, the online “Add & Delete” mapping tool, as well as the responses received via email and letter from various individuals and organizations. Almost 300 individuals attended the open houses, which were held at City Hall, New Holly, and the University District. Over 1,400 people used the online mapping tool and comment sheet, and over 200 emails came in with comments and feedback about the various elements of the plan. The graph above represents the neighborhoods that the attendees of the open houses live in.

In an effort to organize the thousands of comments that SDOT received, this chapter categorizes comments based on the topic responded to. The sections are:

- Responses to the NETWORK MAP
- Responses to the PROGRAMS & POLICY FRAMEWORK
- Responses to the BICYCLE FACILITY TOOLKIT & FACILITY DESIGNATION CRITERIA



NETWORK MAP

SDOT aggregated all feedback that contained suggestions for additional bicycle facilities to understand where the community saw gaps in the draft network. The corridors that were in the top 20% of popularity are highlighted to the right, in Figure 2. Considering that many users of the online mapping tool did not use the tool as directed, the corridors highlighted are understood as areas where respondents generally *support a bike facility*. One result of the facilities that the public showed significant support for was an increase in multimodal corridors; SDOT also heard that there were too many miles of multimodal corridors. Decision framework strategies on multimodal corridors are being analyzed and will be included in the draft plan.



Figure 2: Top "Add" Corridors

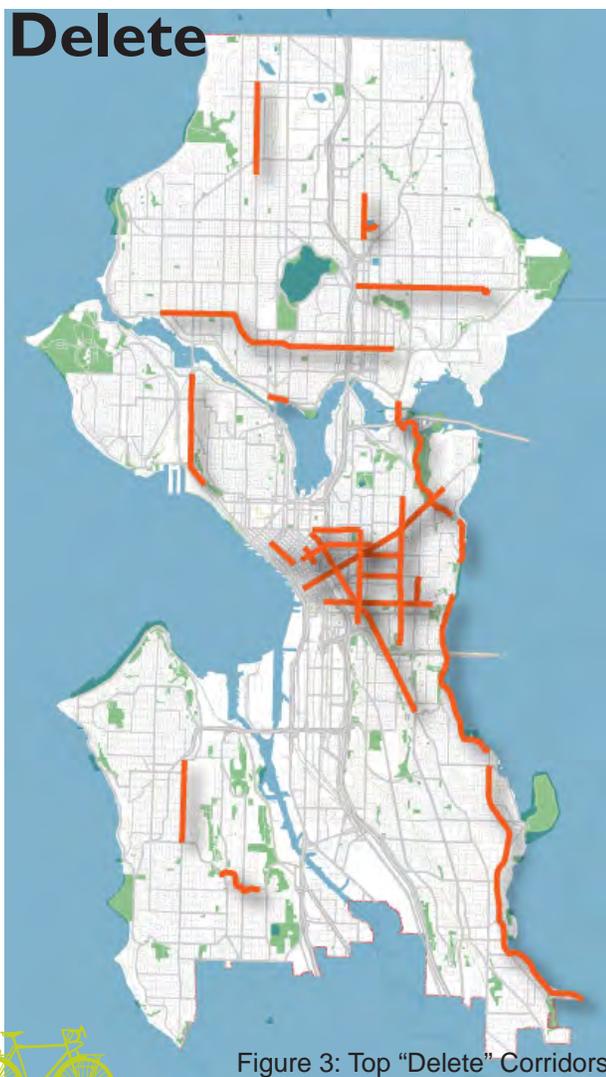


Figure 3: Top "Delete" Corridors

Similar to the top "add" corridors, many users of the online mapping tool drew "delete" lines where there was no facility planned; therefore SDOT is interpreting this map (figure 3) as the corridors where respondents do not support a bike facility. One of the main reasons individuals suggested removing facilities was safety concerns: steep grades, narrow right-of-way, car-door zones, high automobile speeds, reckless driving, poor road quality, conflict with streetcar tracks, and railroad train tracks. In some cases, many respondents commented that they would like to see more space allocated for cars on streets rather than install a bicycle facility. This was especially prevalent in downtown and NE 65th St.



Multimodal Corridors

An area of focus during the public comment period was multimodal corridors. A multimodal corridor is identified where a Transit Master Plan priority transit corridor or a Major Truck Street coincide with either an existing bicycle facility or a proposed bicycle facility. These overlaps are largely due to the nature of Seattle's topography and the streets' ability to provide direct connections to destinations.

Many respondents commented that the plan was too ambitious with its quantity of multimodal corridors, and suggested that SDOT consider moving some of the facilities to nearby residential streets. Others commented that they would like to see space on multimodal corridors allocated to bikes, since they are often the best streets for direct access to key destinations. The right-of-way on S Jackson St. was particularly addressed because of the First Hill Streetcar that is being installed. SDOT heard from many respondents that they would have preferred a physical separation from the cars, buses, and streetcar, yet the design that is being implemented is installing shared-lane markings and keeping two travel lanes each direction for transit and cars. Alternatives on nearby residential streets are being studied.

Intersections

Intersection improvements were also a popular topic among the public comments. SDOT heard from respondents that even if a bicycle facility provides sufficient protection from automobiles, a bad intersection becomes a significant barrier and can deter a lot of people from riding. In addition to existing intersection concerns, many individuals had questions about how future facility designs will impact and mitigate intersection crossings. Particularly, many questions were raised around cycle track intersections and the intersection of neighborhood greenways with arterials. Some of the intersections that received a large number of feedback are:

- 39th Ave NE & Burke-Gilman Trail
- Crossings of 23rd Ave E
- Underpass of Aurora at N 46th St.
- Burke-Gilman Trail / 7th Ave NE / NE 40th St.



Address Existing Connectivity Gaps

The public had concerns about existing connectivity gaps that make connections between neighborhoods difficult in Seattle. Physical barriers like I-5 or waterways create bottlenecks at existing crossings and access for bicyclists is often difficult and unsafe. Connectivity gaps that impede bicycle access in Seattle include:

- I-5
- Aurora / SR 99
- Ship Canal / Lake Union / Portage Bay / Montlake Cut
- Duwamish River
- SR-520

Local Knowledge of Neighborhood Greenway Routes

One aspect of the 2013 update to the Bicycle Master Plan is the implementation of a neighborhood greenways network throughout the city. This facility type has proven to be a successful method to navigate bicyclists and pedestrians within their neighborhoods, as well as provide alternatives to arterials that have constrained right-of-way space. 226 miles of “Enhanced Street” facilities were on the draft network map, most of which are planned to be designed as neighborhood greenways. Although SDOT analyzed every street for its feasibility and connectivity, no one knows their neighborhood better than the people that live or work there. Throughout all of the open house events SDOT heard where neighborhood greenway routes could be tweaked to make the best route through each neighborhood.

“36th Ave NE, between the Burke Gilman Trail and NE 70th. This is a much better alternative to 35th Ave NE, as drawn on the map. By comparison, 36th Avenue is a much calmer street, and is already actively being used by many bicyclists...”

BMP Update Respondent



PROGRAMS & POLICIES



At the open houses, a preliminary list of programs was provided for individuals to comment on, as well as suggest ideas of their own. Each attendee was given dot stickers to place on the programs board, to show which of the ideas they supported. The results are displayed in the table to the right (figure 4). The top programs are described below.

Programs Board



Figure 4: Programs Board Results

Bicycle safety in drivers' education & licensing

The need for bicycle safety education within the WA State drivers' licensing process was the most supported program during the public comment period. With the bicycle facility design field evolving fast, it is difficult to keep those who do not use bicycle facilities aware and informed. SDOT is conducting research on methods that could be introduced into the licensing process to inform drivers of the various types of bicycle facilities on our roads and how to interact with them.



Bicycle-friendly business district program

The second most popular program idea was bicycle-friendly business districts. A bike-friendly business district (BFBD) is a commercial district where merchants encourage customers and employees to bike to the district to shop, dine, and work. Bikes are an integral part of a BFBD's everyday operations, and add to the livability, enjoyment, and activation of the street. In addition, the economic benefit that bicycle infrastructure can provide to a neighborhood business district is little known, but potentially significant. The gap in data prevents SDOT from being able to tell businesses how they may be affected by changes in the right-of-way; research is currently being conducted to better understand this relationship.

Education & enforcement efforts

Even with sufficient education, many roadway users simply do not follow the rules. This includes motorists, bicyclists, and pedestrians. This is particularly dangerous for bicyclists and pedestrians due to their lack of protection from automobiles. Not only was this a popular program at the open houses, but many individuals who wrote letters and submitted online surveys said that they would like to see enforcement on our roads increased – for everyone.

Other Programs

Another popular program that would strengthen the cycling community is starting cyclovias in Seattle. A cyclovia is an event, usually during the weekend on a commercial street, where the road is closed to cars. Bikes, pedestrians, scooters, strollers, and pets fill the streets and make for a safe way to enjoy a whole new part of your neighborhood. Lastly, respondents said they would like to see the benefits of biking marketed more to the public. Bicycling is a great way to save money, stay in shape, and help your community; so we might as well advertise that for anyone who is not already aware.

Policy

In addition to the ideas presented on the display boards, SDOT heard from many individuals about ideas they have and policies they would like to see implemented along with the plan. Lots of respondents were interested in how SDOT plans to measure the performance of the BMP Update. Three areas were highlighted as metrics that should be used to measure success: demographics of cyclists, number of accidents, and connectivity of the network.



RESPONSES TO BICYCLE FACILITY TOOLKIT & FACILITY DESIGNATION CRITERIA

The bicycle facility toolkit, which described each type of facility that is included on the draft network map was presented (see Appendix B). In general, attendees agreed with the facility designs that were proposed in the plan, however SDOT received valuable feedback on areas to provide more detail and tweak the facility designs to adapt to Seattle's unique geography. Below are some of the common responses that emerged:

Bicycle Facility Toolkit

- Need for intersection design criteria;
- Concern about the proximity of bike lanes to the “door zone”;
- Downhill cycletracks may not be safe due to speed of cyclists;

Bicycle Facility Designation Criteria

- More detailed information on:
 - Truck volumes,
 - Transit classifications,
 - High ridership stop locations,
 - 85% speeds,
 - Slope;
- Modifications to facilities:
 - Neighborhood greenways – should have its own classification;
 - In street, major separation – ADT threshold should be lower; and
 - In street, minor separation – should not be considered an “All Ages & Abilities” facility.



How SDOT Will Respond

WALLIN



NETWORK MAP

Legibility

Consolidating public comment led SDOT to realize that many individuals were having a difficult time understanding the network map. People commented that the map looked like a “Universe of Possibilities” and did not help them understand how to best get from A to B, and which facilities were going to be the safest route versus the fastest route. In response, SDOT will break the network into two categories: a citywide network and a local connector network. The citywide network will strive to connect areas of high bike-demand with only “All Ages & Abilities” facilities. “All Ages & Abilities” facility types are multi-use trails, cycle tracks, and neighborhood greenways.

Gaps

Many respondents were interested in the plans for their neighborhood, and were quick to identify where gaps existed in the network. SDOT will continually refine the network map before publishing the draft plan. The gaps identified help to inform where to make revisions to the network map.



Multimodal Corridors

Many individuals had concerns about the amount of miles of bicycle facilities that were planned on Transit Priority Corridors or Major Truck Streets. SDOT will respond by refining the network map to reduce conflict with these modes.



Programs

The project team will continue to research programs that were presented during the public comment period. The focus will be on driver's license and education, programs in schools, and changes to our legislation to better promote bicycling. The draft plan will include program recommendations.

Bicycle Facility Toolkit & Facility Designation Criteria

There is desire for more information on how SDOT plans to treat intersections. SDOT has decided to include a list of *Catalyst Projects* in the plan, some of which will be intersection treatments, as well as develop intersection treatments suitable for all potential intersections. Catalyst Projects are improvements that make connections significantly safer for riders. These projects may be given high priority and will be examples of how infrastructure changes can be monumental for the connectivity of the bicycling network. In addition, details about slope and how it relates to the safety of a downhill cycle track will be included in the Bicycle Facility Glossary. This will avoid bicyclists from being "trapped" by a cycle track when they are traveling at high speeds alongside other bicyclists.

"I think the most important thing at this point would be to try to identify future potential cyclists, and see what barriers they perceive..."

BMP Update Respondent

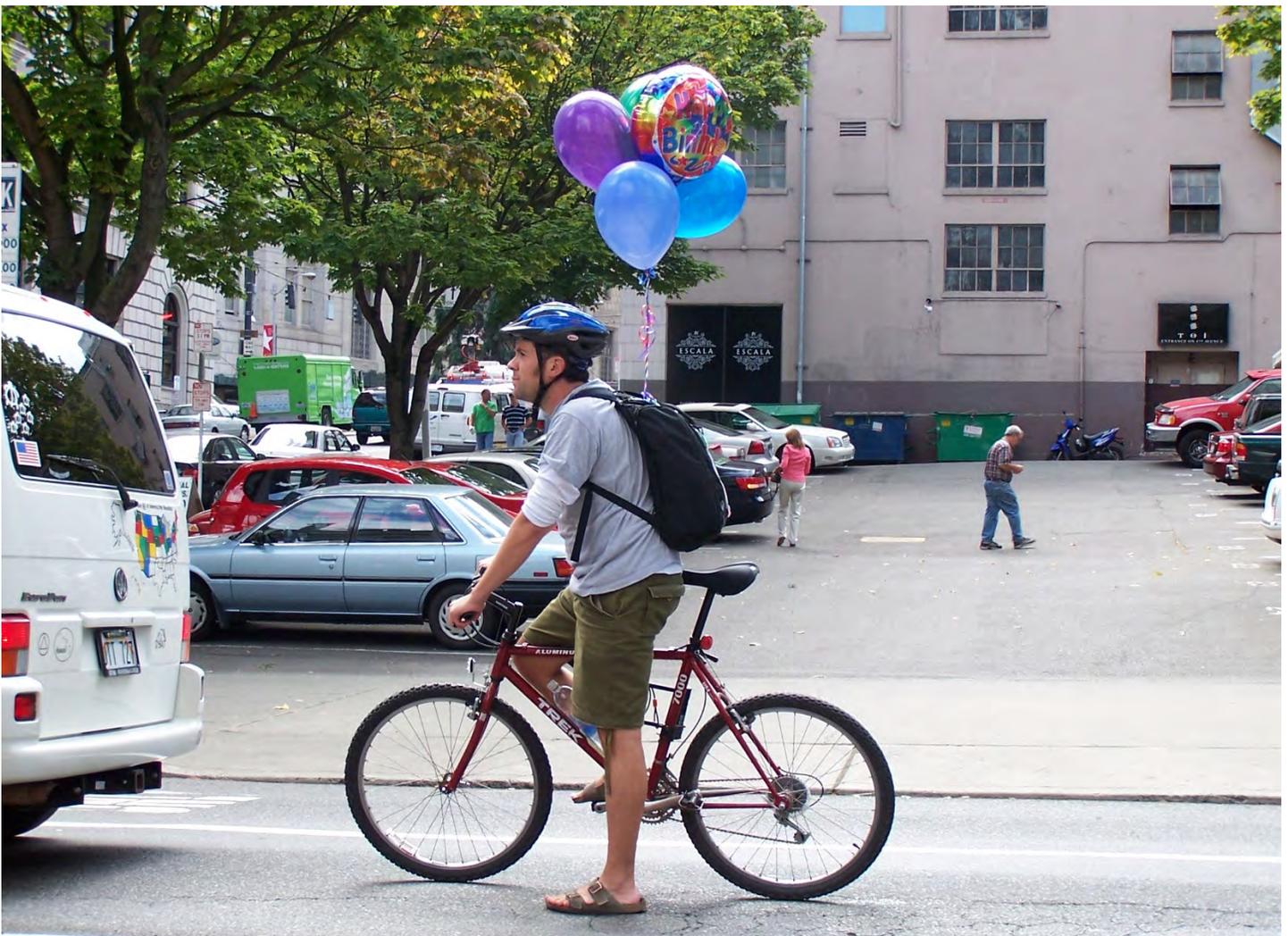
"On steep uphill grades where bicycle and motor vehicle speeds might be very different and where cyclists may meander as they work to climb the grade, a separated facility may be more important."

BMP Update Respondent



Next Steps

In the final months before the release of the draft plan, SDOT will focus on refining the draft network map, developing a prioritization framework and implementation strategy, and recommend end-of-trip facilities. The draft plan will be released for public comment in June 2013. The final plan is expected to be adopted in late 2013. Thank you for providing feedback to the Bicycle Master Plan update, and stay tuned for the release of the draft plan!



APPENDICES

APPENDIX A: List of Events

APPENDIX B: Display Boards from Open Houses

APPENDIX C: Comment Sheet

APPENDIX D: Presentation

APPENDIX E: Network Map (by sector)

Appendix A: LIST OF EVENTS

November, 2012 meetings:

- 7: Open House – City Hall
- 8: Open House – New Holly
- 13: Open House – University District (Gould Hall - UW)
- 15: Online Lunch & Learn
- 16: downtown Employer Transportation Coordinators
- 20: Seattle Freight Advisory Board
- 26: City Neighborhood Council
- 28: Southeast District Council
- 29: Downtown Seattle Association bike event

December, 2012 meetings:

- 5: Seattle Youth Commission
- 5: Seattle Bicycle Advisory Board
- 10: Sound Transit
- 11: Neighborhood Greenways Organizers
- 12: Chief Sealth High School / Major Taylor Project
- 12: Seattle Pedestrian Advisory Board
- 13: West Seattle Bike Connections
- 18: Cascade Bicycle Club - Bikes & Business Forum

January, 2013 Meetings:

- 8: University of Washington
- 14: Laurelhurst Community Club
- 15: Seattle Freight Advisory Board
- 15: Magnolia Community Club
- 16: Morgan Community Association
- 16: Delridge Neighborhood District Council
- 22: North Seattle Industrial Association
- 23: American Institute of Architects (AIA) Seattle
- 25: King County Metro
- 25: Port of Seattle



Appendix B: DISPLAY BOARDS FROM OPEN HOUSES

: WELCOME :

Visit the following stations as you move around the meeting tonight and learn more about the Bicycle Master Plan Update.

- 1. Vision** — Review the vision for bike riding in Seattle and see the process for completing the Bike Master Plan Update
- 2. Goals** — Consider the five goals of the Bike Master Plan Update and share your thoughts
- 3. What We've Heard** — Learn what we've heard to date and how we're addressing your input.
- 4. Draft Citywide Bike Network Map** — See where we are recommending facilities and share your thoughts
- 5. Bike Facilities Toolkit** — See examples of Neighborhood Greenways, Cycle Tracks, intersection treatments and more innovative facilities that may be built
- 6. Programs** — Share ideas and help prioritize programs to encourage more bike riding
- 7. Creative Corner** — "Seattle: best scene from a bike." Help us illustrate why biking is a great way to travel around Seattle
- 8. Be Super Safe** — Be a part of Seattle's awareness campaign to increase road safety
- 9. Bike Share** — Find out how this innovative project will be part of Seattle's urban transportation network providing on-demand bikes for short trips

seattle bicycle master plan update goals ...

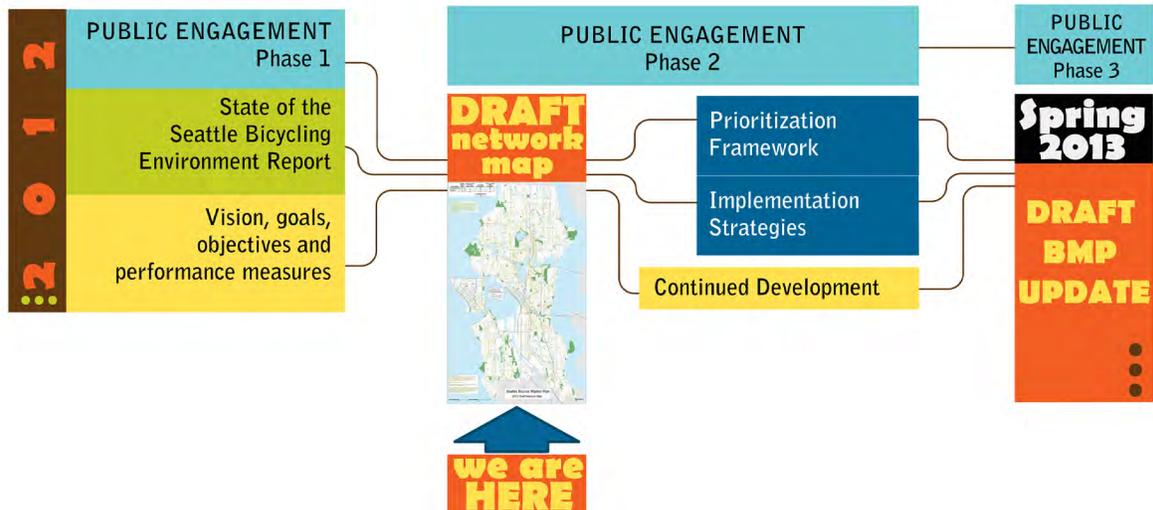
- 1. Ridership** — Increase the amount and mode share of bicycle riding in Seattle for all trip purposes
- 2. Safety** — Improve safety for bicycle riders
- 3. Connectivity** — Create a bicycle network that connects to places people want to go and provides a time-efficient travel option
- 4. Equity** — Provide equal cycling access for all through public engagement, program delivery, and capital investments
- 5. Livability** — Build vibrant and healthy communities by creating a welcoming environment for bicycle riding




BMP Update Roadmap

Draft Vision:

Riding a bicycle is a comfortable and integral part of daily life in Seattle for people of all ages and abilities.



Appendix B: DISPLAY BOARDS FROM OPEN HOUSES

what we've heard ...



Maintenance—Poor pavement conditions, faded paint, debris and construction impacts

Safety—Dangerous behavior by all road users and the quality of existing bicycle facilities and routes

Facilities—Lack of facilities that work for bicycle riders of all ages and abilities

Education and enforcement—General lack of knowledge and compliance with rules of the road

Non-infrastructure challenges—Weather and hills are barriers, as is limited bicycle ownership/access



how we're responding ...

Safety—Implement 'Be Super Safe, Seattle' neighborhood toolkits, consider bicycle-specific safety education programs and campaigns, and update bicycle facility types and design standards.

Maintenance—Update maintenance implementation and funding strategies and pilot different types of road striping paint

Facilities—Add new all ages and abilities facilities to the network map, update design standards for existing facilities and establish new facility designation thresholds

Education and enforcement—Develop programs and campaigns to educate all users of the roadway about bicycle facilities and improvements, market bike-friendly business districts and enforce illegal behavior

Non-infrastructure challenges—Research hill climb assistance techniques, begin Puget Sound Bike Share program, and update city policies for use of abandoned bikes.




Programs

The BMP is about more than concrete and paint!

Please use your dots to indicate which programs you think will help achieve the BMP's vision of making Seattle a place where riding a bicycle is a comfortable and integral part of daily life for people of all ages and abilities, and suggest your own ideas in the space below!

BMP Goals					
	Ridership	Safety	Connectivity	Equity	Livability
PROPOSED PROGRAMS (see handout for descriptions)	1. Marketing campaign 	4. Bike safety in drivers' education & licensing 	7. Promotion of new bicycle facilities 	10. Neighborhood & residential campaigns 	13. Bicycle Sundays continuation & expansion 
	2. Workplace promotion of bike commuting 	5. School-based safety programs 	8. Promotion of bike & transit connections 	11. Youth employment programs in bike-related fields 	14. Bike-friendly business district program 
	3. Family ride nights 	6. Education & enforcement efforts 	9. Marketing strategies for hills and weather 	12. Outreach & promotion of biking to seniors 	15. Outreach to untraditional partners 
	Suggest your own!				
	Suggest your own!				



Appendix B: DISPLAY BOARDS FROM OPEN HOUSES

bicycle facility toolkit ...

In street, minor separation

NE Pacific St.



Conventional Bike Lane

Bike lanes designate an exclusive space for bicyclists through the use of pavement markings and signage. The bike lane is located adjacent to motor vehicle travel lanes and flows in the same direction as motor vehicle traffic.

Buffered Bike Lane

Buffered bike lanes are conventional bicycle lanes paired with a designated buffer space separating the bicycle lane from the adjacent motor vehicle travel lane and/or parking lane.



Dexter Ave N

In street, major separation



Vancouver, BC



Portland, OR

Cycle Track

A cycle track is an exclusive bike facility physically separated from motor traffic and distinct from the sidewalk. Cycle tracks have different forms but all share common elements – the space provided is exclusively for bicycles, and they are physically separated from motor vehicle lanes, parking lanes, and sidewalks.



bicycle facility toolkit ...

Enhanced street (non-arterial)



N 43rd St

Neighborhood Greenway

Neighborhood Greenways are streets with low motorized traffic volumes and speeds, designated and designed to give people who walk and bike priority. Neighborhood Greenways use signs, pavement markings, and other measures to discourage through trips by motor vehicles and create safe, convenient bicycle and pedestrian crossings of busy arterial streets.

Enhanced street (arterial)

Shared Lane Marking

Shared Lane Markings (SLMs), or "sharrows," are road markings used to indicate a shared lane environment for bicycles and automobiles. Although shared lane markings are not a facility type, they do provide a variety of uses and support a complete bicycle network.



Jackson St

Off-Street



Burke-Gilman Trail

Multi-use trail

A multi-use trail allows for two-way, off-street bicycle use and also may be used by pedestrians, skaters, wheelchair users, joggers and other non-motorized users. These facilities are frequently found in parks, along rivers, beaches, and in greenbelts or utility corridors where there are few conflicts with motorized vehicles.



bicycle facility toolkit ...

Sample Intersection Treatments



Pine & 12th St

Green Bike Box

A bike box is a safe and visible area for bicyclists to queue in front of motor vehicle traffic at signalized intersections.



Dexter Ave N

Intersection Crossing Markings

Bicycle pavement markings through intersections guide bicyclists and indicate the intended path of through an intersection or across a driveway or ramp to motor vehicles.



Portland, OR

Two-Stage Turn Box

Two-stage turn queue boxes facilitate safe turning movements by providing a designated space in the direction of traffic for bicyclists to pull into before crossing the roadway perpendicularly.



Fremont Ave N & N 24th St

Bicycle Signal

Bicycle detection at traffic signals uses either push-buttons or automated detection to alert the signal controller of the presence of a waiting cyclist.



Vancouver, WA

Median Refuge Island

Median refuge islands are protected spaces in the middle of the street to facilitate bicycle and pedestrian crossings.



Bicycle Master Plan

Public Meeting Comment Sheet

TODAY'S DATE:

Thanks for attending the Bicycle Master Plan (BMP) Update public meeting. Please fill out this comment sheet to help make riding a bike more safe, comfortable and convenient in Seattle.

Proposed Citywide Bicycle Network Map

Review the proposed citywide bicycle network map and answer the questions below.

1. Are there any streets missing a bike facility and why should it be **added**?

2. Are there any streets where a bike facility should be **removed** or relocated and why?

3. Refer to the handout on **facility designation criteria**. Do the criteria make sense? Why or why not?

4. Some bike facilities are located on **multi-modal corridors**. Adding facilities to these corridors could require trade-offs such as on-street parking removal or motor vehicle lane reduction. Do you have comments or concerns about these corridors?



Appendix C: COMMENT SHEET

POLICY FRAMEWORK

Refer to the plan **policy framework handout**. Do you have comments on the goals, or recommended changes? Based on the five plan goals, what do you think are the most important things to measure (e.g., number of bicycle riders, decrease in serious injuries, increase in number of bike riders in different demographic groups, percentage of households within ¼ mile of bike facility, etc.) to ensure that we are achieving the goals in the future?

PROGRAMS

Refer to the handout on **potential programs**. Which of these programs do you think would be most effective in achieving the five plan goals? Do you have other ideas?

WHAT ELSE?

Do you have any comments on the draft goals, facility toolkits, or any other information presented tonight?

Need more time to respond to comments? Would you like your friends, neighbors and local businesses to provide input? Visit www.seattle.gov/transportation/bikemaster.htm to comment on our online citywide bicycle network map available starting November 15 or email comments to bmpupdate@seattle.gov.

Comments must be received by **December 17, 2012**. SDOT will incorporate feedback in the draft Bicycle Master Plan Update which will be released for public review in spring 2013.





AGENDA

- Overview of the 2007 Bicycle Master Plan (BMP)
- BMP update roadmap
- What we've been hearing
- State of the Seattle Bicycling Environment report
- Proposed policy framework
- Draft programs
- Draft network map development
- Next steps

... 2

What is the Bicycle Master Plan?



- A blueprint for making improvements to Seattle's bicycle network since adoption in 2007
- Two goals:
 - Triple the amount of bicycling between 2007-2017
 - Reduce the rate of bicycle collisions by one-third between 2007-2017
- Focused on completing the urban bicycle trail system and expanding on-street bicycle facilities



... 3

Bicycle Master Plan Accomplishments



- Significant Accomplishments Since 2007
 - Installed 129 miles of on-street facilities, including bike lanes and sharrows (shared lane markings)
 - Added nearly 8 new miles of multi-use trail improvements
 - Implemented 98 miles of signed bicycle routes
 - Installed over 2,200 bicycle parking spaces



... 4



Appendix D: PRESENTATION

Why update the BMP?



- The plan assumed an update after five years (timeline of the plan is 2007-2017)



- Fast-evolving best practices in safety and design



- Opportunity to include new bicycle facilities
 - Focus on a more dense, intra-neighborhood bike network (neighborhood greenways)
 - On-street separated bicycle facilities (cycle tracks)

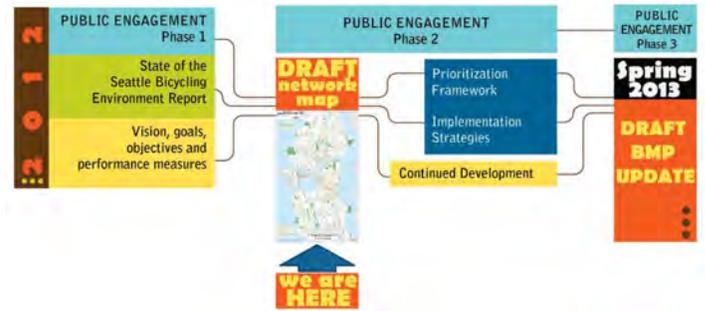


- Interest in a more data-driven method to identify facility needs and priorities (similar to Pedestrian Master Plan)



... 5

BMP Update Roadmap



... 4

What We've Been Hearing

Summary of public comments to date:



- Safety
- Facilities
 - Concerns about some existing facilities
 - Future: design for all ages and abilities



- Maintenance
- Education and enforcement
 - Understanding the rules of the road for all users



- Non-infrastructure challenges
 - Weather and hills



... 7

State of the Seattle Cycling Environment Report



- Presents data and information on what has been implemented since the BMP was adopted in 2007
- Helps set the stage for developing recommendations in the Bicycle Master Plan Update



... 8



Appendix D: PRESENTATION

Why update the BMP?

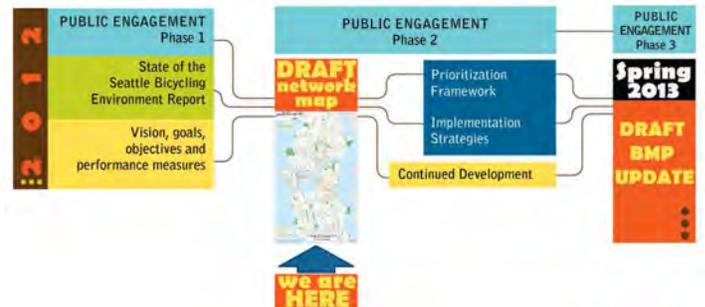


- The plan assumed an update after five years (timeline of the plan is 2007-2017)
- Fast-evolving best practices in safety and design
- Opportunity to include new bicycle facilities
 - Focus on a more dense, intra-neighborhood bike network (neighborhood greenways)
 - On-street separated bicycle facilities (cycle tracks)
- Interest in a more data-driven method to identify facility needs and priorities (similar to Pedestrian Master Plan)



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BMP Update Roadmap



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Summary of public comments to date:

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State of the Seattle Cycling Environment Report



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... 8



Appendix D: PRESENTATION

Draft programmatic categories



Programs to help achieve the goals: ridership, safety, connectivity, equity, livability



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Draft Network Map Development

Purpose: to update the bicycle network map in a manner that is consistent with updated plan vision, goals and objectives

- Principles:
 - Consider land use (destinations and demand rankings)
 - Emphasize network connectivity
 - Improve conditions for bicyclists of all ages and abilities

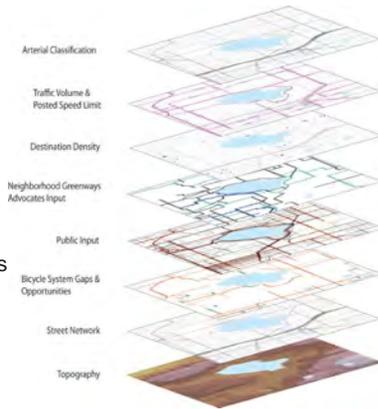


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Draft Network Map Development

Network map update approach

- Step 1:
 - Data and inputs:
 - 2007 BMP recommendations
 - Gap analysis
 - Identified opportunities
 - Demand/land use destinations
 - Topography
 - Public input
 - Policy framework

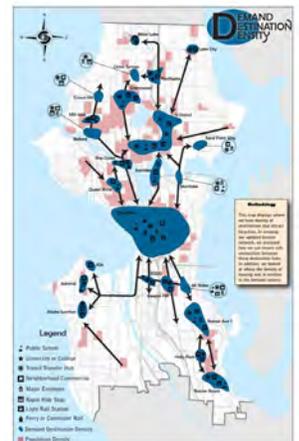


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Draft Network Map Development

Network map update approach

- Demand/land use destinations – connect people to places they want to go



Draft Network Map Development

Network map update approach

- Step 2:
 - Developed a draft network representing the 'universe of possibilities' based on step 1
 - Have a bicycle facility within a quarter-mile of every household



Draft Network Map Development

Network map update approach

- Step 3:
 - Recommend facility types
 - Update facility types (bicycle facility toolkit):
 - Condense the legend in updated network plan map (current legend is very complex and too directive)
 - Include of neighborhood greenways
 - Include in-street, minor and major separation designations
 - Proposing a tiered facility approach
 - Encourages facilities that will work for bicycle riders of all ages and abilities
 - Allows for some design flexibility based on local conditions and changes to design standards



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Draft Bicycle Facility Toolkit

- Enhanced street – neighborhood greenways
 -
- In street, minor separation – bike lanes and buffered bike lanes
 -
- In street, major separation – cycle tracks
 -



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Draft Network Map Development

Preliminary Draft Bicycle Facility Designation Criteria

Generalized Bicycle Facility Designation	Detailed Bicycle Facility Designation	Speed Limit (mph)	ADT (vehicles per day)	Street Classification
Enhanced street	Neighborhood Greenway	25 or less	1,500 or less	Non-arterial
	Shared lane pavement marking	25	To be used due to ROW constraints or downhill	Non-arterial and Collector/minor arterials
In street, minor separation	Bicycle lane	25-30	8,000 or less	Collector arterials
	Buffered bicycle lane	25-30	15,000 or less	Collector/minor arterials
In street, major separation	Cycle track (raised or with barrier)	30 and greater	15,000 and above	Minor/principal arterials
Off-street	Multi-use trail	N/A	N/A	N/A



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Draft Network Map Development

Preliminary Draft Bicycle Facility Designation Criteria

“Enhanced Street”

- Most are proposed to be neighborhood greenways
- The specific location of a neighborhood greenway may change based on more detailed analysis and design work
- Map is intended to show corridors where a greenway would be an appropriate connection



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Draft Network Map Development

Multi-Modal Corridors – (highlighted in yellow)

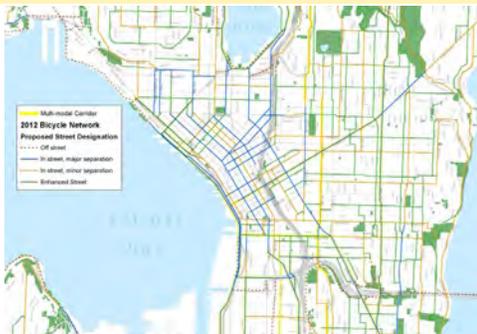
The map designates some areas as multi-modal corridors, based on:

- Priority transit corridors identified in the City's Transit Master Plan (TMP)
- Major Truck Streets (key freight routes)
- Will require more analysis about potential to build a bicycle facility on that street, or a parallel street



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Draft Network Map Development



Street Designation	Total Miles on Network Map	Existing Facilities that Meet/Exceed Recommendations	New Facilities Recommendations	Upgrade to Existing Facility Recommended	Facilities to build
Enhanced Street	226	15	211	0	211
In-Street, Minor Separation	200	43	109	48	157
In-Street, Major Separation	137	0	80	57	137
Off-Street	64	46	18	0	18

Key Questions on Draft Network Map



1. Are there streets that are missing a bicycle facility that should have one ADDED and why?
2. Are there any proposed streets that do have a proposed bicycle facility that should be REMOVED and why?
3. Does the proposed facility designation criteria make sense?
4. Are there any concerns about the multi-modal corridor approach and the potential trade-offs that could arise?

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BMP Update Next Steps

- The comment period on the draft map and other draft materials is open until Monday, December 17.
- Find the draft materials here:
http://www.seattle.gov/transportation/bikemaster_materials.htm



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BMP Update Next Steps

Thank you for attending!
Please give us your input.

Project Website:

www.seattle.gov/transportation/bikemaster.htm

Project email address: bmpupdate@seattle.gov



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Appendix E: DRAFT NETWORK MAP (NW)

Neighborhood greenways:
 Many "enhanced streets" will be neighborhood greenways which will provide connections within and between neighborhoods. While the draft network map shows potential improvements on specific streets, the final location of a neighborhood greenway (in terms of what street is improved) may change once a project goes into the more detailed design process. The enhanced streets shown on the draft bicycle network map are intended to focus on general corridors which should be connected with bicycle improvements versus specific streets.

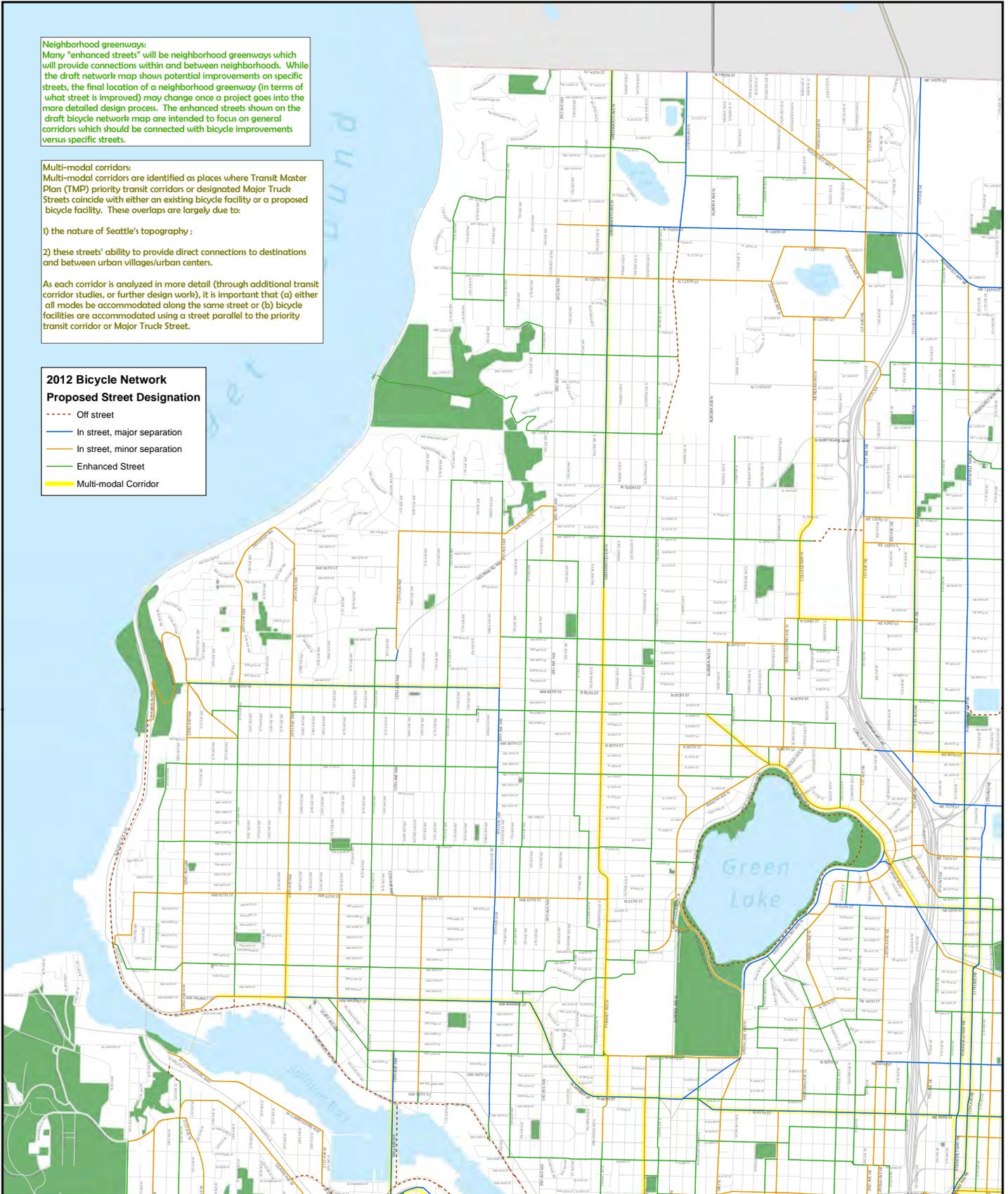
Multi-modal corridors:
 Multi-modal corridors are identified as places where Transit Master Plan (TMP) priority transit corridors or designated Major Truck Streets coincide with either an existing bicycle facility or a proposed bicycle facility. These overlaps are largely due to:

- 1) the nature of Seattle's topography ;
- 2) these streets' ability to provide direct connections to destinations and between urban villages/urban centers.

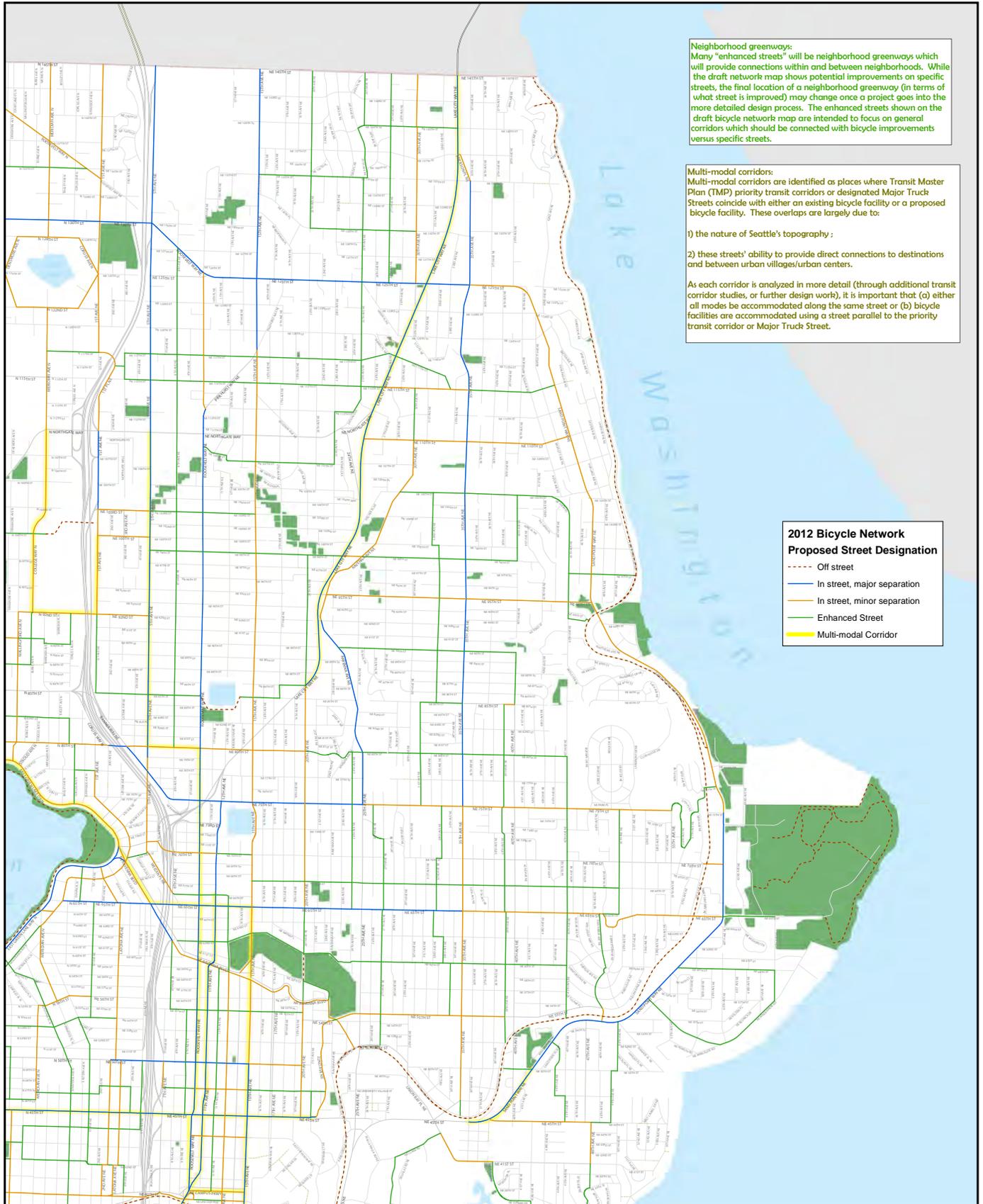
As each corridor is analyzed in more detail (through additional transit corridor studies, or further design work), it is important that (a) either all modes be accommodated along the same street or (b) bicycle facilities are accommodated using a street parallel to the priority transit corridor or Major Truck Street.

**2012 Bicycle Network
 Proposed Street Designation**

- Off street
- In street, major separation
- In street, minor separation
- Enhanced Street
- Multi-modal Corridor



Appendix E: DRAFT NETWORK MAP (NE)



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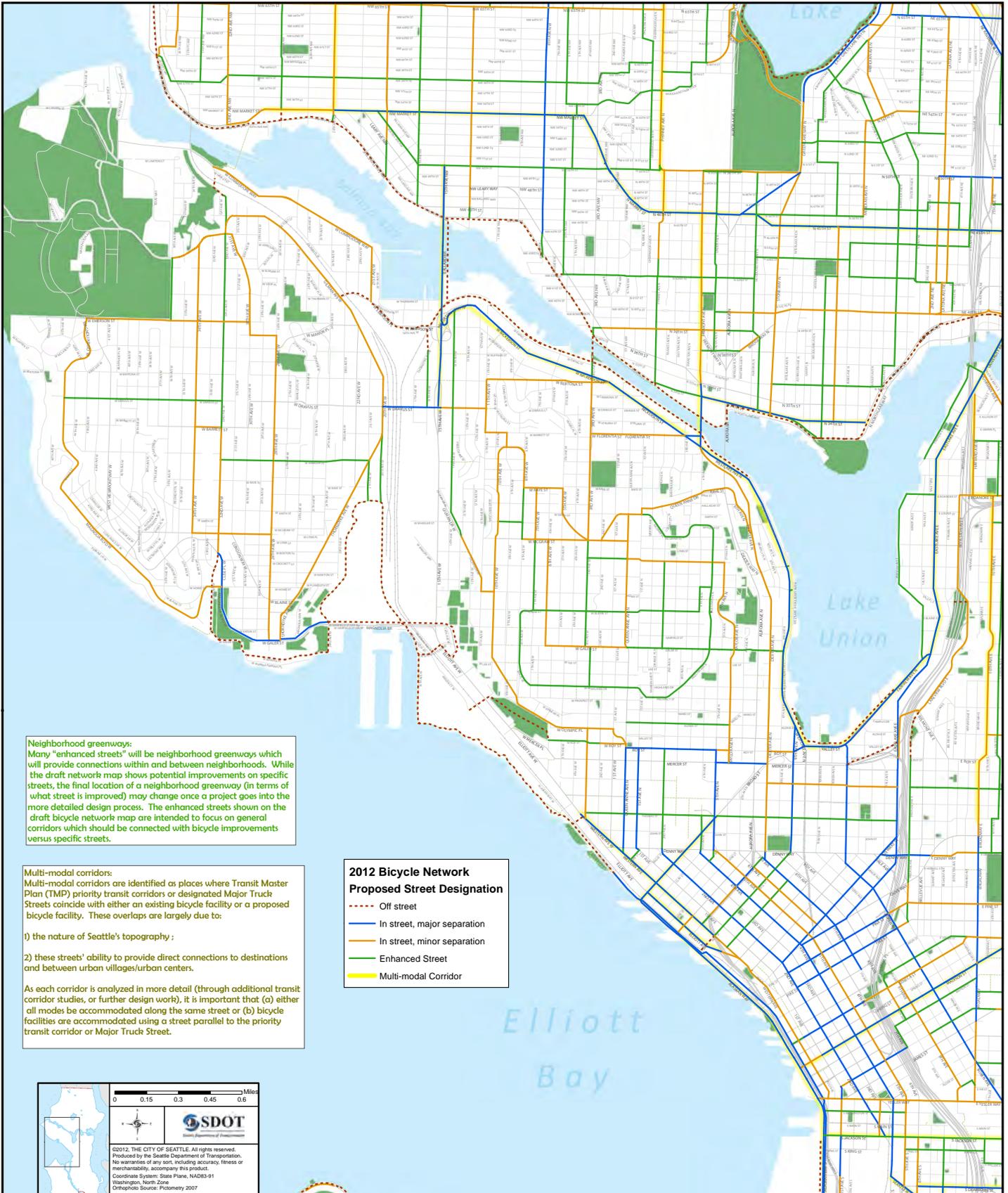
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2012 Bicycle Network Proposed Street Designation

- - - - Off street
- In street, major separation
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Appendix E: DRAFT NETWORK MAP (W)



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2012 Bicycle Network Proposed Street Designation

- Off street
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- In street, minor separation
- Enhanced Street
- Multi-modal Corridor

0 0.15 0.3 0.45 0.6 Miles

SDOT
 Washington State Department of Transportation

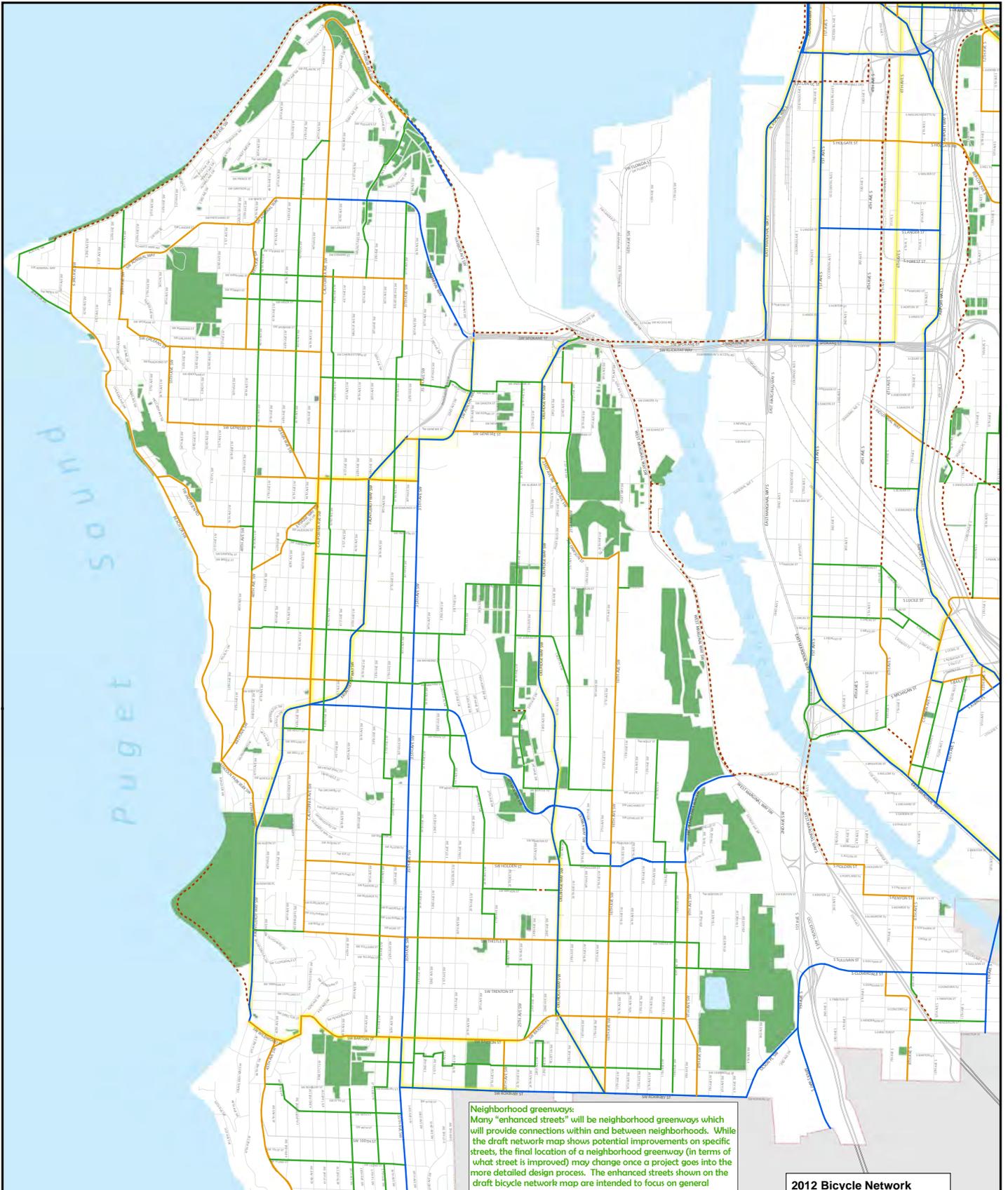
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 Coordinate System: State Plane, NAD83-91
 Washington, North Zone
 Orthophoto Source: Pictometry 2007



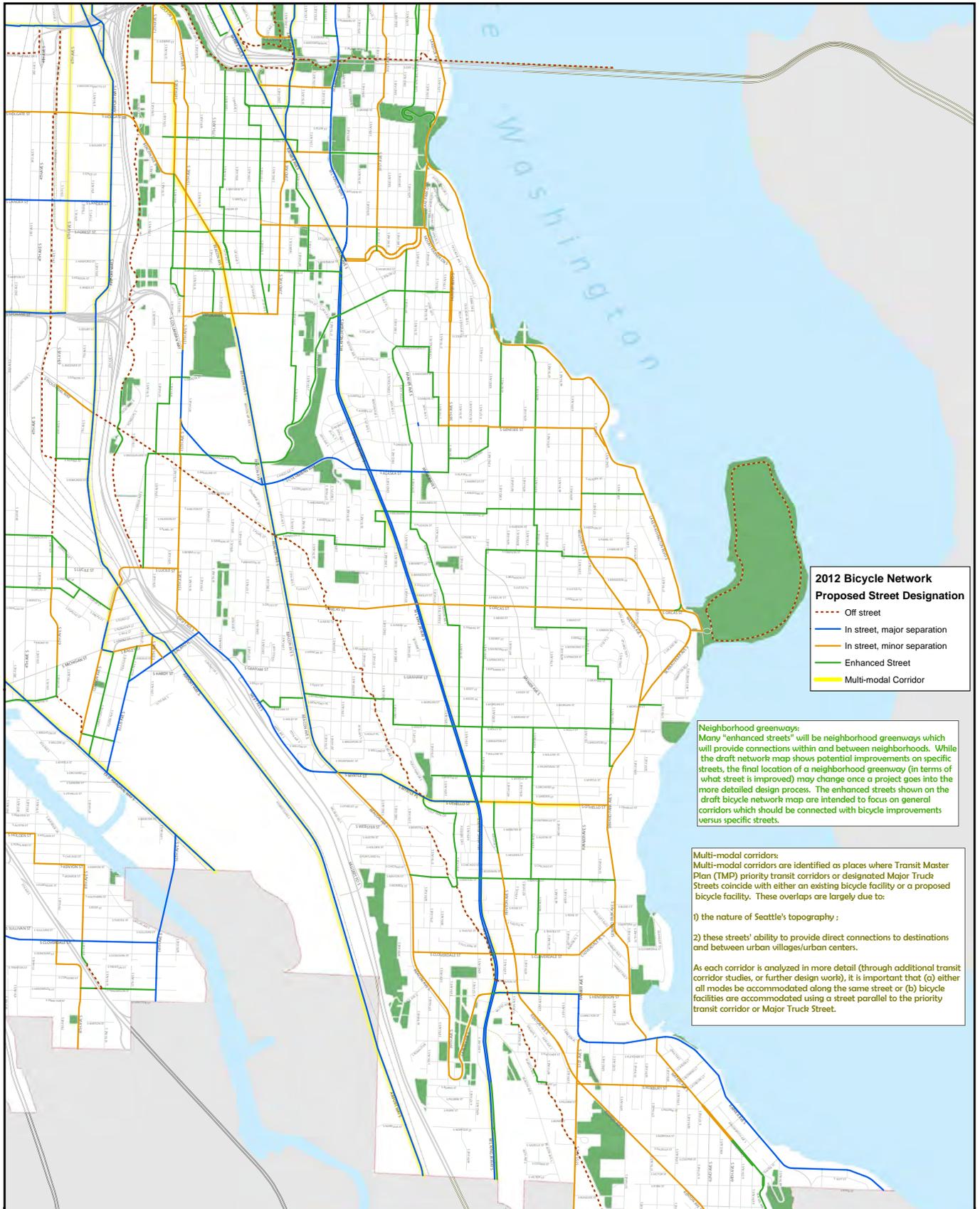
Appendix E: DRAFT NETWORK MAP (E)



Appendix E: DRAFT NETWORK MAP (SW)



Appendix E: DRAFT NETWORK MAP (SE)



**2012 Bicycle Network
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- In street, minor separation
- Enhanced Street
- Multi-modal Corridor

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contact information:

[http://www.seattle.gov/transportation/
bikemaster.htm](http://www.seattle.gov/transportation/bikemaster.htm)

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