What are Neighborhood Greenways?

from Chapter 6 (Bicycle Element) of the Milwaukie Transportation System Plan (TSP)

Neighborhood Greenways

The term "neighborhood greenway" has recently evolved from the "bike boulevard" concept of treatments, which improve the network of safe bicycle routes by generally utilizing streets with lower traffic volumes and vehicle speeds, such as minor collectors or local streets that pass through residential neighborhoods. The neighborhood greenway treatments also make these routes safer for pedestrians and motorists (for example, through inclusion of traffic-calming devices), while at the same time incorporating low-impact stormwater treatment measures such as bioswales and raingardens. The general traffic calming provided by neighborhood greenway improvements adds to neighborhood livability.

Figure 6-6 Neighborhood Greenway

Image credit: Bicycle Transportation Alliance/Owen Walz, owenwalzdesign.com

Traffic controls along a neighborhood greenway assign priority to bicyclists while encouraging through-vehicle traffic to use alternate parallel routes. Traffic calming and other treatments along the corridor reduce motor vehicle speeds so that motorists and bicyclists generally travel at the same speed, creating a safer and more comfortable environment for all users. Neighborhood greenways also incorporate treatments to facilitate safe and convenient crossings of major streets. Neighborhood greenways work best in well-connected street grids, where riders can follow reasonably direct and logical routes and where higher-order, parallel streets exist to serve through-vehicle traffic.

Milwaukie's neighborhood greenway network could be developed through a variety of improvements ranging from minor street enhancements (e.g., directional pavement markings) to larger-scale projects (e.g., intersection signalization). The various treatments fall into five major application levels based on their degree of physical intensity, with Level 1 representing the least physically intensive treatments that can be implemented at relatively low cost:

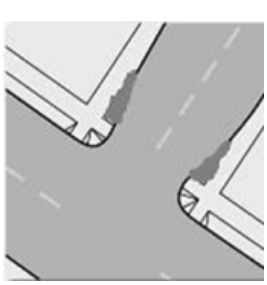
- **Level 1: Signage** (e.g., wayfinding and warning signs along and approaching the neighborhood greenway).
- **Level 2: Pavement markings** (e.g., directional pavement markings, shared lane markings).
- **Level 3: Intersection treatments** (e.g., signalization, curb extensions, refuge islands).
- **Level 4: Traffic calming** (e.g., speed humps, mini traffic circles).
- **Level 5: Traffic diversion** (e.g., choker entrances, traffic diverters).

Corridors targeted for higher-level applications would also receive relevant lower-level treatments. For instance, a street targeted for Level 3 applications should also include Level 1 and 2 applications as necessary. It should be noted that some applications might not be appropriate on all streets. In other words, it may not be necessary to implement all Level 2

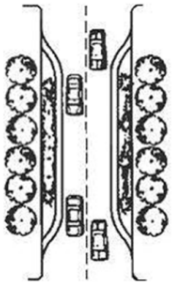
applications on a particular street designated for Level 2 treatment in order to create a functional neighborhood greenway.

Figure 6-7 shows examples of some of the types of intersection treatments and traffic-calming measures that could be appropriate for application on neighborhood greenway routes. Some study and analysis is necessary to determine which measures would be most effective in specific locations. Within Chapter 11 Neighborhood Traffic Management, Table 11-1 provides more examples of traffic-calming measures.

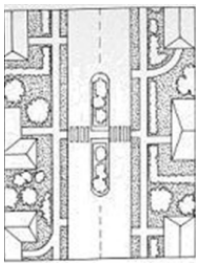
Figure 6-7 Sample Traffic-Calming Measures



Bulbout

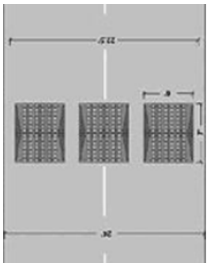


Choker



Center Median

Traffic Circle



Speed Cushion

Experience from other cities that have implemented neighborhood greenways shows that on-street vehicle parking can function as a traffic-calming measure. Drivers generally seem to slow down in response to the physical narrowing of the travel lane and the higher perceived risk of collision. In addition, parked cars create a barrier between moving cars on the street and pedestrians on the sidewalk. This barrier enhances both actual and perceived safety for pedestrians. Allowing or encouraging on-street vehicle parking can be one tool employed to make neighborhood greenways safe and pleasant for nonmotorized travel.

Figure 6-5 Bicycle Signs and Markings

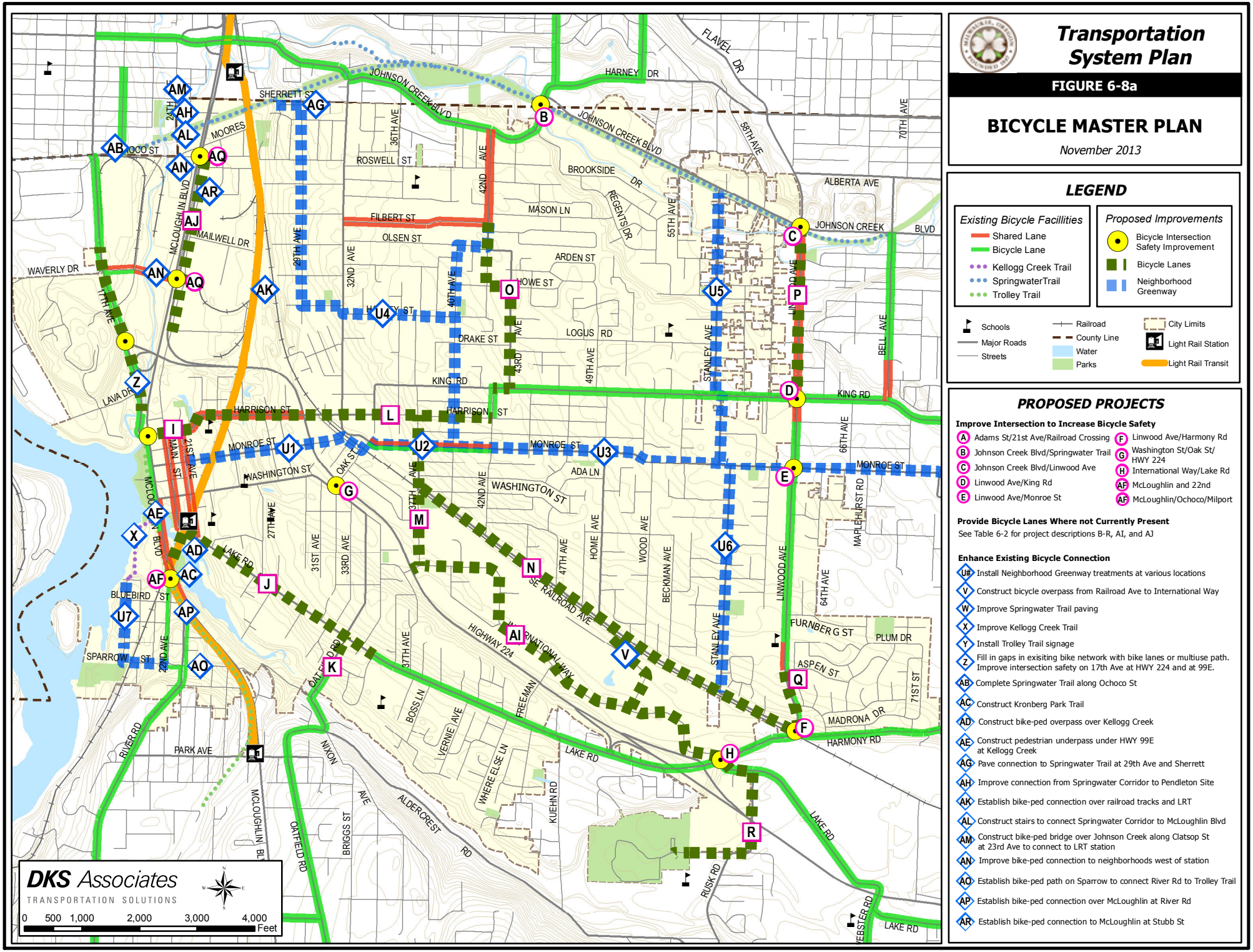
Bicycle Warning Sign

"Share the Road" Plaque

Bike Route Sign

Bicycle Pavement Marking

Bicycle Wayfinding Signage


Transportation System Plan
FIGURE 6-8a
BICYCLE MASTER PLAN
November 2013
LEGEND
Existing Bicycle Facillities
Shared Lane
Bicycle Lane
Kellogg Creek Trail
SpringwaterTrail
Trolley Trail
Proposed Improvements
Bicycle Intersection Safety Improvement
Bicycle Lanes
Neighborhood Greenway
Schools
Major Roads
Streets
Railroad
County Line
Water
Parks
City Limits
Light Rail Station
Light Rail Transit
PROPOSED PROJECTS
Improve Intersection to Increase Bicycle Safety
A Adams St/21st Ave/Railroad Crossing
B Johnson Creek Blvd/Springwater Trail
C Johnson Creek Blvd/Linwood Ave
D Linwood Ave/King Rd
E Linwood Ave/Monroe St
F Linwood Ave/Harmony Rd
G Washington St/Oak St/ HWY 224
H International Way/Lake Rd
AF McLoughlin and 22nd
AF McLoughlin/Ochoco/Milport
Provide Bicycle Lanes Where not Currently Present
See Table 6-2 for project descriptions B-R, AI, and AJ
Enhance Existing Bicycle Connection
U# Install Neighborhood Greenway treatments at various locations
V Construct bicycle overpass from Railroad Ave to International Way
W Improve Springwater Trail paving
X Improve Kellogg Creek Trail
Y Install Trolley Trail signage
Z Fill in gaps in exisiting bike network with bike lanes or multiuse path. Improve intersection safety on 17th Ave at HWY 224 and at 99E.
AB Complete Springwater Trail along Ochoco St
AC Construct Kronberg Park Trail
AD Construct bike-ped overpass over Kellogg Creek
AE Construct pedestrian underpass under HWY 99E at Kellogg Creek
AG Pave connection to Springwater Trail at 29th Ave and Sherrett
AH Improve connection from Springwater Corridor to Pendleton Site
AK Establish bike-ped connection over railroad tracks and LRT
AL Construct stairs to connect Springwater Corridor to McLoughlin Blvd
AM Construct bike-ped bridge over Johnson Creek along Clatsop St at 23rd Ave to connect to LRT station
AN Improve bike-ped connection to neighborhoods west of station
AO Establish bike-ped path on Sparrow to connect River Rd to Trolley Trail
AP Establish bike-ped connection over McLoughlin at River Rd
AR Establish bike-ped connection to McLoughlin at Stubb St
DKS Associates
TRANSPORTATION SOLUTIONS
0 500 1,000 2,000 3,000 4,000 Feet
JOHNSON CREEK BLVD
HARNEY DR
FLAVEL DR
SHERRETT ST
MOORES
OCO ST
MCLOUGHLIN BLVD
MAILWELL DR
WAVERLY DR
17TH AVE
LAVA DR
ROSWELL ST
BROOKSIDE DR
REGENTS DR
ALBERTA AVE
JOHNSON CREEK BLVD
FILBERT ST
OLSEN ST
MASON LN
ARDEN ST
HOWE ST
HARVEY ST
DRAKE ST
LOGUS RD
KING RD
HARRISON ST
MONROE ST
WASHINGTON ST
ADA LN
OAK ST
MAIN ST
21ST AVE
27TH AVE
31ST AVE
33RD AVE
36TH AVE
42ND AVE
43RD AVE
47TH AVE
49TH AVE
55TH AVE
58TH AVE
66TH AVE
70TH AVE
HOME AVE
WOOD AVE
BECKMAN AVE
STANLEY AVE
LINWOOD AVE
MAPLEHURST RD
64TH AVE
FURNBERG ST
PLUM DR
ASPEN ST
71ST ST
MADRONA DR
HARMONY RD
LAKE RD
SE RAILROAD AVE
HIGHWAY 224
INTERNATIONAL WAY
FREEMAN
BOSS LN
VERNIE AVE
WHERE ELSE LN
KUEHN RD
NIXON AVE
ALDERCREST RD
OATFIELD RD
BRIGGS ST
RIVER RD
PARK AVE
MCLOUGHLIN BLVD
BLUEBIRD ST
SPARROW ST
22ND AVE
RUSK RD
WEBSTER RD
BELL AVE
LINWOOD AVE
99E