

Underline/Strikeout Amendments

Transportation System Plan (TSP)

Table 5-1 Pedestrian Master Plan Projects

| Map ID ¹ | Priority | Type | Project Name | Project Description ² | From | To | Cost (\$1,000s ³) |
|-------------------------------|----------|------|---|--|-------------------|-------------------|-------------------------------|
| High Priority Projects | | | | | | | |
| N/A | High | P | Study of Pedestrian Crossings on Hwy 224 | Examine alternatives for improving pedestrian crossings at five intersections along Hwy 224 (Harrison St, Monroe St, Oak St, 37 th Ave, Freeman Way) | Harrison St | Freeman Way | \$50 |
| A | High | C | Intersection Improvements at Hwy 224 and Freeman Way | Improve pedestrian crossing. | Location-specific | Location-specific | \$20 |
| B | High | C | Intersection Improvements at Hwy 224 and 37 th Ave | Improve pedestrian crossing. | Location-specific | Location-specific | \$20 |
| C | High | C | Intersection Improvements at Hwy 224 and Oak St | Improve pedestrian crossing. | Location-specific | Location-specific | \$20 |
| D | High | C | Intersection Improvements at Hwy 224 and Monroe St | Improve pedestrian crossing. | Location-specific | Location-specific | \$20 |
| E | High | C | Intersection Improvements at Hwy 224 and Harrison St | Improve pedestrian crossing. | Location-specific | Location-specific | \$20 |
| L | High | C | 17 th Ave Improvements | Fill in sidewalk gaps on both sides of street; fill in gaps in existing bicycle network with bike lanes; and/or provide multiuse path. Improve intersection safety at Milport Rd, McBrod Ave, Hwy 224, Lava Dr, and Hwy 99E. | Ochoco St | McLoughlin Blvd | \$1,000 |

¹ See Figure 5-1.

² The projects in this table assume traditional sidewalks on both sides of the street. In some cases it may be appropriate to construct a nontraditional pedestrian facility on one side of the street. See Chapter 10 Street Design for more information on the City's approach to designing pedestrian facilities.

³ Project costs are order-of-magnitude estimates and are in 2012 dollars. Future costs may be more due to inflation. In the case of operational projects, estimated costs are for the entire 22-year planning period.

| Map ID ¹ | Priority | Type | Project Name | Project Description ² | From | To | Cost (\$1,000s ³) |
|---------------------|----------|------|--|--|------------------------------|------------------------------|-------------------------------|
| O | High | C | Railroad Ave Capacity Improvements | Pedestrian aspect: Fill in sidewalk gaps on both sides of street or construct multiuse path on one side. | 37 th Ave | Harmony Rd | \$1,800 |
| P | High | C | Monroe St Neighborhood Greenway | Fill in sidewalk gaps on both sides of street. | 42 nd Ave | City limit | \$1,800 |
| U | High | C | 43 rd Ave Sidewalks | Fill in sidewalk gaps on both sides of street. | Howe St/42 nd Ave | King Rd/43 rd Ave | \$600 |
| V1 | High | C | Stanley Ave Neighborhood Greenway (north) | Fill in sidewalk gaps on both sides of street. | Johnson Creek Blvd | King Rd | \$1,900 |
| V2 | High | C | Stanley Ave Neighborhood Greenway (south) | Fill in sidewalk gaps on both sides of street. | King Rd | Railroad Ave | \$2,800 |
| W2 | High | C | Linwood Ave Sidewalks (south) | Fill in sidewalk gaps on both sides of street (part of Linwood Ave road-widening project). | King Rd | Railroad Ave | \$2,150 |
| Y | High | C | International Way Sidewalks | Fill in sidewalk gaps on both sides of street. | Criterion Ct | Lake Rd | \$840 |
| Z | High | C | Harmony Rd Sidewalks | Fill in sidewalk gaps on both sides of street. | Linwood Ave | City limits | \$40 |
| AL | High | C | River Rd Sidewalks | Fill in sidewalk gaps on both sides of street. | McLoughlin Blvd | City limits | \$690 |
| AR | High | C | Kellogg Creek Dam Removal and Hwy 99E Underpass | Replace Hwy 99E bridge over Kellogg Creek, remove dam, restore habitat. Construct bike/ped undercrossing between downtown Milwaukie and Riverfront Park. | Location-specific | Location-specific | \$9,900 |
| AU | High | C | Kellogg Creek Bike/Ped Bridge | Construct bike/ped overpass over Kellogg Creek in conjunction with light rail bridge. | Lake Rd | Kronberg Park | \$2,500 |
| AV | High | C | Kronberg Park Trail | Construct multiuse path to connect bike/ped bridge to safe crossing of Hwy 99E. | Kellogg Creek Bridge | River Rd | \$300 |
| AW | High | C | Intersection Improvements at McLoughlin Blvd and 22 nd Ave | Improve safety of Trolley Trail crossing at 22 nd Ave. | Location-specific | Location-specific | \$200 |
| AX | High | C | Improved Connection to Springwater Trail at 29 th Ave and Sherrett St. (TSAP NMIA Plan) | Pave the connection to Springwater Trail at 29 th Ave and Sherrett St. (TSAP NMIA Plan) | Location-specific | Location-specific | \$20 |
| AY | High | C | Improved Connection from Springwater Trail to Pendleton Site (Ramps) | Construct ramps to improve existing connection of Springwater Trail to Pendleton site at Clatsop St. (TSAP NMIA Plan) | Location-specific | Location-specific | \$630 |

| Map ID ¹ | Priority | Type | Project Name | Project Description ² | From | To | Cost (\$1,000s ³) |
|---------------------------------|----------|------|--|--|----------------------|----------------------|-------------------------------|
| AY | High | C | Improved Connection from Springwater Trail to Pendleton Site (Widened Undercrossing) | Widen existing undercrossing to improve connection of Springwater Trail to Pendleton site at Clatsop St. (TSAP NMIA Plan) | Location-specific | Location-specific | \$100 |
| AZ | High | C | Improved Connection from Springwater Trail to Tacoma Station | Construct stairs to connect Springwater Trail to Tacoma station. (TSAP NMIA Plan) | Location-specific | Location-specific | \$80 |
| BL | High | C | Adams St Connector | Construct pedestrian- and bicycle-only facility on Adams St between 21 st Ave and Main St | 21 st Ave | Main St | \$450 |
| N/A | High | C | Intersection Curb Ramp Improvements | Install curb ramps at all intersections with sidewalks (approximately 700 intersections). | Citywide | Citywide | \$3,500 |
| Medium Priority Projects | | | | | | | |
| F | Med | C | King Rd Blvd Treatments | Install street boulevard treatments: widen sidewalks and improve multiple crossings. | 43 rd Ave | Linwood Ave | \$550 |
| M | Med | C | McLoughlin Blvd Sidewalks | Fill in sidewalk gaps on both sides of street. | Washington St | Southern city limits | \$650 |
| N | Med | C | Lake Rd Sidewalks | Fill in sidewalk gaps on both sides of street. | Where Else Ln | Hwy 224 | \$2,200 |
| Q | Med | C | Logus Rd Sidewalks | Fill in sidewalk gaps on both sides of street. | 43 rd Ave | 49 th Ave | \$850 |
| T | Med | C | 37 th Ave Sidewalks | Fill in sidewalk gaps on both sides of street. | Lake Rd | Harrison St | \$870 |
| AE | Med | C | Brookside Dr Sidewalks | Fill in sidewalk gaps on both sides of street. | Johnson Creek Blvd | Regents Dr | \$20 |
| AT | Med | C | Springwater Trail Completion | Contribute to regional project to complete Springwater Trail ("Sellwood Gap") along Ochoco St. | 17 th Ave | 19 th Ave | \$90 |
| BA | Med | C | Bicycle and Pedestrian Overpass over Railroad Ave | Establish a dedicated bicycle and pedestrian connection across Railroad Ave and the railroad tracks. | Railroad Ave | International Way | \$2,200 |
| BB | Med | C | Bicycle/Pedestrian Improvements to Main St | Construct multiuse path or other improved bike/ped facilities on Main St to provide safer connection between downtown and Tacoma station. (TSAP NMIA Plan) | Hanna Harvester Dr | Tacoma station | \$2,900 |
| BC | Med | C | Bicycle/Pedestrian Connection from Eastern Neighborhoods to Tacoma Station Area | Establish bike/ped connection over existing railroad tracks and light rail to Tacoma station area. (TSAP NMIA Plan) | Olsen St & Kelvin St | Mailwell Dr | \$4,000 |
| BD | Med | C | Improved Connection from Springwater Trail to McLoughlin Blvd | Construct stairs or other facility to connect Springwater Trail to west side of McLoughlin Blvd. (TSAP NMIA Plan) | Location-specific | Location-specific | \$500 |

| Map ID ¹ | Priority | Type | Project Name | Project Description ² | From | To | Cost (\$1,000s ³) |
|------------------------------|----------|------|---|---|----------------------|----------------------|-------------------------------|
| BE | Med | C | Bicycle/Pedestrian Connection over Johnson Creek | Construct bike/ped bridge over Johnson Creek along Clatsop St at 23 rd Ave to connect Tacoma station area with adjacent neighborhood. (TSAP NMIA Plan) | Location-specific | Location-specific | \$400 |
| BF | Med | C | Improved Bicycle/Pedestrian Connections on West Side of Tacoma Station Area | Improve bike/ped connections to adjacent neighborhood to west of Tacoma station area at Ochoco St and Milport Rd. (TSAP NMIA Plan) | Location-specific | Location-specific | \$500 |
| N/A | Med | C | Downtown Streetscape Improvements | Install sidewalk bulbouts, lighting, and pedestrian amenities. | Downtown | Downtown | \$7,300 ⁴ |
| N/A | Med | O | Pedestrian Walkway Amenities | Install amenities, such as benches, along key walking routes. | Citywide | Citywide | \$60 |
| Low Priority Projects | | | | | | | |
| G | Low | C | Intersection Improvements at Olsen St and 42 nd Ave | Improve pedestrian crossing. | Location-specific | Location-specific | \$20 |
| H | Low | C | Intersection Improvements at Railroad and 37 th Ave | Improve pedestrian crossing. | Location-specific | Location-specific | \$10 |
| K | Low | C | Intersection Improvements at Stanley Ave and Logus Rd | Improve pedestrian crossing. | Location-specific | Location-specific | \$20 |
| R | Low | C | Olsen St Sidewalks | Fill in sidewalk gaps on north side of street. | 32 nd Ave | 42 nd Ave | \$470 |
| S | Low | C | Johnson Creek Blvd Sidewalks | Fill in sidewalk gaps on both sides of street. | Harney St | City limits | \$410 |
| W1 | Low | C | Linwood Ave Sidewalks (north) | Fill in sidewalk gaps on both sides of street (part of Linwood Ave road-widening project). | Johnson Creek Blvd | King Rd | 1,050 |
| X | Low | C | Hwy 224 Sidewalks | Fill in sidewalk gaps on both sides of street. | Oak St | 37 th Ave | \$460 |
| AA | Low | C | Home Ave Sidewalks | Fill in sidewalk gaps on both sides of street. | Railroad Ave | King Rd | \$830 |
| AB | Low | C | Harvey St Sidewalks | Fill in sidewalk gaps on both sides of street. | 32 nd Ave | 42 nd Ave | \$590 |
| AC | Low | C | Roswell St Sidewalks | Fill in sidewalk gaps on both sides of street. | 32 nd Ave | 36 th Ave | \$210 |
| AD | Low | C | Mason Lane Sidewalks | Fill in sidewalk gaps on both sides of street. | 42 nd Ave | Regents Dr | \$740 |

⁴ Estimated \$500,000 per block face.

| Map ID ¹ | Priority | Type | Project Name | Project Description ² | From | To | Cost (\$1,000s ³) |
|---------------------|----------|------|---|---|----------------------|----------------------|-------------------------------|
| AF | Low | C | Regents Dr Sidewalks | Fill in sidewalk gaps on both sides of street. | Brookside Dr | Winsor Dr | \$540 |
| AG | Low | C | Rusk Rd Sidewalks | Fill in sidewalk gaps on both sides of street. | Lake Rd | North Clackamas Park | \$730 |
| AH | Low | C | Pedestrian Connection to North Clackamas Park | Create pedestrian connection between the school and the park. | Rowe Middle School | North Clackamas Park | \$1,400 |
| AI | Low | C | Washington St Sidewalks | Fill in sidewalk gaps on both sides of street. | 32 nd Ave | 35 th Ave | \$130 |
| AJ | Low | C | 22 nd Ave Sidewalks | Fill in sidewalk gaps on both sides of street. | McLoughlin Blvd | Sparrow St | \$360 |
| AK | Low | C | 19 th Ave Sidewalks | Fill in sidewalk gaps on both sides of street. | Kellogg Creek Trail | Sparrow St | \$330 |
| AM | Low | C | Oatfield Rd Sidewalks | Fill in sidewalk gaps on both sides of street. | Guilford Ct | City limits | \$150 |
| AN | Low | C | 49 th Ave Sidewalks | Fill in sidewalk gaps on both sides of street. | Logus Rd | King Rd | \$270 |
| AO | Low | C | Franklin St Sidewalks | Install sidewalks on both sides of street to connect to Campbell Elementary School. | 42 nd Ave | 45 th Ave | \$220 |
| AP | Low | C | Ochoco St Sidewalks | Construct sidewalks on Ochoco St to connect bus stops to Goodwill. | 19 th Ave | McLoughlin Blvd | \$1,300 |
| AQ | Low | C | Edison St Sidewalks | Fill in sidewalk gaps on both sides of street. | 35 th Ave | 37 th Ave | \$130 |
| AY | Low | C | Improved Connection from Springwater Trail to Pendleton Site (Tunnel) | Construct tunnel under Springwater Trail to improve connection to Pendleton site at Clatsop St. (TSAP NMIA Plan) | Location-specific | Location-specific | \$1,200 |
| BG | Low | C | Intersection Improvement at all Crossings of McLoughlin Blvd | Improve all existing crossings of McLoughlin Blvd (e.g., extended time for crossing, signage). (ODOT to do.) | Location-specific | Location-specific | — |
| BH | Low | C | Bike/Ped Path on Sparrow St | Establish a dedicated bicycle and pedestrian connection on Sparrow St, connecting River Rd to Trolley Trail | River Rd | Trolley Trail | \$350 |
| BI | Low | C | Bike/Ped Overpass over McLoughlin Blvd at River Rd | Establish a dedicated bicycle and pedestrian connection across McLoughlin Blvd. | Kronberg Park | River Rd | \$2,500 |
| BJ | Low | C | Crossing Improvements for McLoughlin Blvd at Ochoco St and Milport Rd | Construct improvements at Ochoco St and Milport Rd to improve bike/ped crossing of McLoughlin Blvd (per ODOT, this will require full intersection improvements). (TSAP NMIA Plan) | Location-specific | Location-specific | \$8,320 |
| BK | Low | C | Bicycle/Pedestrian Connection between McLoughlin Blvd and Stubb St | Establish bike/ped connection to McLoughlin Blvd sidewalk at west end of Stubb St. (TSAP NMIA Plan) | Location-specific | Location-specific | \$20 |

| Map ID ¹ | Priority | Type | Project Name | Project Description ² | From | To | Cost (\$1,000s ³) |
|----------------------------------|----------|----------|--|--|--------------------------|--------------------------|-------------------------------|
| N/A | Low | O | Pedestrian Walkway Signage | Provide maps and wayfinding signage on streets that identify ways to get around the city. | Citywide | Citywide | \$10 |
| Priority to be Determined | | | | | | | |
| BM | - | C | Harrison/32 nd Ave Intersection | Open the currently closed pedestrian crosswalk on the west leg of the intersection | Location-specific | Location-specific | - |
| BN | - | C | Oak St/34 th Ave Connection | Provide pedestrian/bicycle connection between Monroe St and 34 th Ave (nearby residential neighborhood) | Location-specific | Location-specific | - |
| BO | - | C | Campbell St and Railroad Ave upgrades | Provide pedestrian/bicycle treatments on Campbell St and Railroad Ave between Monroe St and Harrison St | Location-specific | Location-specific | - |
| BP | - | C | Connection through Union Pacific Railroad property | Provide pedestrian/bicycle connection on Union Pacific Railroad land located in the triangle formed by the rail line, Railroad Ave and Monroe St | Location-specific | Location-specific | - |
| <u>CA</u> | - | <u>C</u> | <u>NMIA Bike-Ped Connections – Ochoco</u> | <u>Provide pedestrian/bicycle connection along Ochoco St to Roswell St across the railroad tracks to improve connectivity and circulation to/from the NMIA.</u> | <u>Location-specific</u> | <u>Location-specific</u> | - |
| <u>CB</u> | - | <u>C</u> | <u>NMIA multi-use path extension</u> | <u>Extend the Main St multi-use path from Beta St to the Tacoma light rail station</u> | <u>Location-specific</u> | <u>Location-specific</u> | - |
| <u>CC</u> | - | <u>C</u> | <u>McBrod Ave green street</u> | <u>Develop McBrod Ave as a demonstration project that integrates green street/shared facility approaches to treat both the right-of-way and adjacent development.</u> | <u>Location-specific</u> | <u>Location-specific</u> | - |
| <u>CD</u> | - | <u>C</u> | <u>NMIA sidewalk improvements</u> | <u>Provide sidewalks along Milport Rd, Ochoco St and new local streets. This includes filling gaps in the sidewalk network.</u> | <u>Location-specific</u> | <u>Location-specific</u> | - |
| <u>CE</u> | - | <u>C</u> | <u>NMIA McLoughlin Blvd green street demonstration</u> | <u>Partner with ODOT to develop a green street demonstration project for McLoughlin Boulevard between Downtown Milwaukie and the Springwater Corridor Pedestrian Bridge.</u> | <u>Location-specific</u> | <u>Location-specific</u> | - |

Notes:

C = Capital Project
O = Operational Project
P = Policy Project

High = High priority
Med = Medium priority
Low = Low priority

~~TSAP NMIA Plan = North Milwaukie Industrial Area Plan Tacoma Station Area Plan~~

Table 6-2 Bicycle Master Plan Projects

| Map ID ⁵ | Priority | Type | Project Name | Project Description | From | To | Cost (\$1,000s ⁶) |
|-------------------------------|----------|------|---|--|----------------------|----------------------|-------------------------------|
| High Priority Projects | | | | | | | |
| E | High | C | Intersection Improvements at Linwood Ave and Monroe St | Improve safety of crossing at intersection. | Location-specific | Location-specific | \$10 |
| G | High | C | Hwy 224 Crossing Improvements at Oak and Washington St | Improve intersection crossing safety for bicyclists at Washington St and Oak St. | Location-specific | Location-specific | \$10 |
| J | High | C | Lake Rd Bike Lanes | Fill in gaps in existing bicycle network with bike lanes. | Main St | Guilford Dr | \$3,400 |
| N | High | C | Railroad Ave Capacity Improvements | Bicycle aspect: Fill in gaps in existing bicycle network with bike lanes, cycle track, multiuse path, or other facilities. | 37 th Ave | Linwood Ave | \$4,800 |
| U1 | High | C | Monroe St Neighborhood Greenway (downtown) | Designate as a "neighborhood greenway" and install traffic-calming improvements. | 21 st Ave | Hwy 224 | \$85 |
| U2 | High | C | Monroe St Neighborhood Greenway (central) | Designate as a "neighborhood greenway" and install traffic-calming improvements. | Hwy 224 | 42 nd Ave | \$80 |
| U3 | High | C | Monroe St Neighborhood Greenway (east) | Designate as a "neighborhood greenway" and install traffic-calming improvements. | 42 nd Ave | Linwood Ave | \$165 |
| U4 | High | C | 29 th /Harvey/40 th Neighborhood Greenway | Designate as a "neighborhood greenway" and install traffic-calming improvements. | Springwater Trail | Monroe St | \$220 |
| U5 | High | C | Stanley Ave Neighborhood Greenway (north) | Designate as a "neighborhood greenway" and install traffic-calming improvements. | Springwater Trail | King Rd | \$135 |
| U6 | High | C | Stanley Ave Neighborhood Greenway (south) | Designate as a "neighborhood greenway" and install traffic-calming improvements. | King Rd | Railroad Ave | 195 |
| Z | High | C | 17 th Ave Improvements | Fill in sidewalk gaps on both sides of street, fill in gaps in existing bicycle network with bike lanes, and/or provide multiuse path. Improve intersection safety at Milport Rd, McBrod Ave, Hwy 224, Lava Dr, and Hwy 99E. | Ochoco St | McLoughlin Blvd | \$1,000 |
| AC | High | C | Kronberg Park Trail | Construct multiuse path to connect bike/ped bridge to safe crossing of Hwy 99E. | Kellogg Creek Bridge | River Rd | \$300 |
| AD | High | C | Kellogg Creek Bike/Ped Bridge | Construct bike/ped overpass over Kellogg Creek in conjunction with light rail bridge. | Lake Rd | Kronberg Park | \$2,500 |

⁵ See Figure 6-3a.

⁶ Project costs are order-of-magnitude estimates and are in 2012 dollars. Future costs may be more due to inflation. In the case of operational projects, estimated costs are for the entire 22-year planning period.

| Map ID ⁵ | Priority | Type | Project Name | Project Description | From | To | Cost (\$1,000s ⁶) |
|---------------------------------|----------|------|--|--|----------------------|----------------------|-------------------------------|
| AE | High | C | Kellogg Creek Dam Removal and Hwy 99E Underpass | Replace Hwy 99E bridge over Kellogg Creek, remove dam, restore habitat. Construct bike/ped undercrossing between downtown Milwaukie and Riverfront Park. | Location-specific | Location-specific | \$9,900 |
| AF | High | C | Intersection Improvements at McLoughlin Blvd and 22 nd Ave | Improve safety of Trolley Trail crossing at 22 nd Ave. | Location-specific | Location-specific | \$200 |
| AG | High | C | Improved Connection to Springwater Trail at 29 th Ave and Sherrett St | Pave the connection to Springwater Trail at 29 th Ave and Sherrett St. (TSAP NMIA Plan) | Location-specific | Location-specific | \$20 |
| AH | High | C | Improved Connection from Springwater Trail to Pendleton Site (Ramps) | Construct ramps to improve existing connection of Springwater Trail to Pendleton site at Clatsop St. (TSAP NMIA Plan) | Location-specific | Location-specific | \$630 |
| AH | High | C | Improved Connection from Springwater Trail to Pendleton Site (Widened Undercrossing) | Widen existing undercrossing to improve connection of Springwater Trail to Pendleton site at Clatsop St. (TSAP NMIA Plan) | Location-specific | Location-specific | \$100 |
| N/A | High | O | Bike Lane Maintenance | Sweep bike lanes to remove debris. | Citywide | Citywide | \$1,200 |
| N/A | High | O | Bicycle-friendly Street Grates | Install bicycle-friendly street grates. | Citywide | Citywide | \$60 |
| Medium Priority Projects | | | | | | | |
| I | Med | C | Harrison St Bike Lanes | Fill in gaps in existing bicycle network with bike lanes (cost included with Harrison St road widening project). | Hwy 99E | 21 st Ave | \$300 |
| K | Med | C | Oatfield Rd Bike Lanes | Fill in gaps in existing bicycle network with bike lanes. | Guilford Ct | Lake Rd | \$380 |
| U7 | Med | C | 19 th and Sparrow Neighborhood Greenway | Designate as a "neighborhood greenway" and install traffic-calming improvements. This would connect the south end of Kellogg Creek Trail to River Rd. | Eagle St | River Rd | \$800 |
| V | Med | C | Bicycle and Pedestrian Overpass over Railroad Ave | Establish a dedicated bicycle and pedestrian connection across Railroad Ave and the railroad tracks. | Railroad Ave | International Way | \$2,200 |
| AB | Med | C | Springwater Trail Completion | Contribute to regional project to complete Springwater Trail ("Sellwood Gap") along Ochoco St. | 17 th Ave | 19 th Ave | \$90 |
| AI | Med | C | International Way Bicycle Facilities | Construct bike lanes or other bike facilities. | 37 th Ave | Lake Rd | \$400 |
| AJ | Med | C | Bicycle/Pedestrian Improvements to Main St | Construct multiuse path or other improved bike/ped facilities on Main St to provide safer connection between downtown and Tacoma station. (TSAP NMIA Plan) | Hanna Harvester Dr | Tacoma station | \$2,900 |

| Map ID ⁵ | Priority | Type | Project Name | Project Description | From | To | Cost (\$1,000s ⁶) |
|------------------------------|----------|------|---|---|----------------------|----------------------|-------------------------------|
| AK | Med | C | Bicycle/Pedestrian Connection from Eastern Neighborhoods to Tacoma Station Area | Establish bike/ped connection over existing railroad tracks and light rail to Tacoma station area. (TSAP NMIA Plan) | Olsen St & Kelvin St | Mailwell Dr | \$4,000 |
| AL | Med | C | Improved Connection from Springwater Trail to McLoughlin Blvd | Construct stairs or other facility to connect Springwater Trail to west side of McLoughlin Blvd. (TSAP NMIA Plan) | Location-specific | Location-specific | \$500 |
| AM | Med | C | Bicycle/Pedestrian Connection over Johnson Creek | Construct bike/ped bridge over Johnson Creek along Clatsop St at 23 rd Ave to connect Tacoma station area with adjacent neighborhood. (TSAP NMIA Plan) | Location-specific | Location-specific | \$400 |
| AN | Med | C | Improved Bicycle/Pedestrian Connections on West Side of Tacoma Station Area | Improve bike/ped connections to adjacent neighborhood to west of Tacoma station area at Ochoco St and Milport Rd. (TSAP NMIA Plan) | Location-specific | Location-specific | \$500 |
| N/A | Med | O | Bicyclist Education | Promote bicycling through bike use and route selection education. | Citywide | Citywide | \$10 |
| N/A | Med | O | Community Bicycle Rides | Support community bike rides to encourage bike use. | Citywide | Citywide | \$5 |
| Low Priority Projects | | | | | | | |
| B | Low | C | Springwater Trail Intersection Improvements at 45 th Ave | Improve safety of crossing at intersection. | Location-specific | Location-specific | \$10 |
| C | Low | C | Intersection Improvements at Johnson Creek Blvd and Linwood Ave | Improve safety of crossing at intersection. | Location-specific | Location-specific | \$10 |
| D | Low | C | Intersection Improvements at Linwood Ave and King Rd | Improve safety of crossing at intersection. | Location-specific | Location-specific | \$10 |
| H | Low | C | Intersection Improvements at International Way and Lake Rd | Improve safety of crossing at intersection. | Location-specific | Location-specific | \$10 |
| L | Low | C | Harrison St Bike Lanes | Fill in gaps in existing bicycle network with bike lanes. | Hwy 224 | 42 nd Ave | \$10 |
| M | Low | C | 37 th Ave Bike Lanes | Fill in gaps in existing bicycle network with bike lanes. | Harrison St | Hwy 224 | \$3,200 |
| O | Low | C | 43 rd Ave Bike Lanes | Fill in gaps in existing bicycle network with bike lanes. | King Rd | Filbert St | \$1,100 |
| P | Low | C | Linwood Ave Bike Lanes (north) | Fill in gaps in existing bicycle network with bike lanes. | Queen Rd | Johnson Creek Blvd | \$1,900 |

| Map ID ⁵ | Priority | Type | Project Name | Project Description | From | To | Cost (\$1,000s ⁶) |
|----------------------------------|----------|------|---|---|----------------------|---------------------------|-------------------------------|
| Q | Low | C | Linwood Ave Bike Lanes (south) | Fill in gaps in existing bicycle network with bike lanes. | Juniper St | Harmony Rd | \$320 |
| R | Low | C | Rusk Rd Bike Lanes | Fill in gaps in existing bicycle network with bike lanes. | Lake Rd | North Clackamas Park | \$1,000 |
| X | Low | C | Kellogg Creek Trail Improvements | Resurface trail and provide wayfinding signage to/from trail. | Milwaukie Riverfront | Treatment Plant | \$680 |
| AH | Low | C | Improved Connection from Springwater Trail to Pendleton Site (Tunnel) | Construct tunnel under Springwater Trail to improve connection to Pendleton site at Clatsop St. (TSAP NMIA Plan) | Location-specific | Location-specific | \$1,200 |
| AO | Low | C | Bike/Ped Path on Sparrow St | Establish a dedicated bicycle and pedestrian connection on Sparrow St, connecting River Rd to Trolley Trail | River Rd | Trolley Trail | \$350 |
| AP | Low | C | Bike/Ped Overpass over McLoughlin Blvd at River Rd | Establish a dedicated bicycle and pedestrian connection across McLoughlin Blvd. | Kronberg Park | River Rd | \$2,500 |
| AQ | Low | C | Crossing Improvements for McLoughlin Blvd at Ochoco St and Milport Rd | Construct improvements at Ochoco St and Milport Rd to improve bike/ped crossing of McLoughlin Blvd (per ODOT, this will require full intersection improvements). (TSAP NMIA Plan) | Location-specific | Location-specific | \$8,320 |
| AR | Low | C | Bicycle/Pedestrian Connection between McLoughlin Blvd and Stubb St | Establish bike/ped connection to McLoughlin Blvd sidewalk at west end of Stubb St. (TSAP NMIA Plan) | Location-specific | Location-specific | \$20 |
| N/A | Low | O | Milwaukie Bike Map | Produce a Milwaukie Bike Map. | Citywide | Citywide | \$60 |
| N/A | Low | O | Police Enforcement on Drivers | Enforce laws related to bike lanes and bicycle safety. | Citywide | Citywide | \$10 |
| N/A | Low | O | Bike Lane Striping | Restripe existing bike lanes and stripe bike lanes on streets where buses and bicyclists share the road. | Citywide | Citywide | \$20 |
| N/A | Low | C | Springwater Trail Signage | Install wayfinding signage for Springwater Trail. | Citywide | Citywide | \$20 |
| N/A | Low | O | North Clackamas Greenway Corridor Study | Study feasibility of corridor for multiuse path construction (possibly along Kellogg Creek). | Downtown | Clackamas Regional Center | \$50 |
| Priority to be Determined | | | | | | | |
| AS | - | C | Oak St/34 th Ave Connection | Provide pedestrian/bicycle connection between Monroe St and 34 th Ave (nearby residential neighborhood) | Location-specific | Location-specific | - |
| AT | - | C | Northern Bike Connection | Provide a bicycle connection through the Murphy site north to 29 th Ave | Location-specific | Location-specific | - |
| AU | - | C | Crossing at Harrison St/31 st Ave | Provide bicycle crossing across Harrison St between Campbell St and 31 st Ave | Location-specific | Location-specific | - |

| Map ID ⁵ | Priority | Type | Project Name | Project Description | From | To | Cost (\$1,000s ⁶) |
|---------------------|----------|----------|---|--|--------------------------|--------------------------|-------------------------------|
| AV | - | C | Campbell St and Railroad Ave upgrades | Provide pedestrian/bicycle treatments on Campbell St and Railroad Ave between Monroe St and Harrison St | Location-specific | Location-specific | - |
| AW | - | C | Connection through Union Pacific Railroad property and McFarland site | Provide pedestrian/bicycle connection on Union Pacific Railroad land located in the triangle formed by the rail line, Railroad Ave and Monroe St; continues through McFarland site | Location-specific | Location-specific | - |
| AS | - | C | Oak St/34 th Ave Connection | Provide pedestrian/bicycle connection between Monroe St and 34 th Ave (nearby residential neighborhood) | Location-specific | Location-specific | - |
| AT | - | C | Northern Bike Connection | Provide a bicycle connection through the Murphy site north to 29 th Ave | Location-specific | Location-specific | - |
| <u>BA</u> | - | <u>C</u> | <u>NMIA Bike-Ped Connections – Ochoco St</u> | <u>Provide pedestrian/bicycle connection along Ochoco St to Roswell St across the railroad tracks to improve connectivity and circulation to/from the NMIA.</u> | <u>Location-specific</u> | <u>Location-specific</u> | - |
| <u>BB</u> | - | <u>C</u> | <u>NMIA multi-use path extension</u> | <u>Extend the Main St multi-use path from Beta St to the Tacoma light rail station</u> | <u>Location-specific</u> | <u>Location-specific</u> | - |
| <u>BC</u> | - | <u>C</u> | <u>McBrod Ave green street</u> | <u>Develop McBrod Ave as a demonstration project that integrates green street/shared facility approaches to treat both the right-of-way and adjacent development.</u> | <u>Location-specific</u> | <u>Location-specific</u> | - |
| <u>BD</u> | - | <u>C</u> | <u>NMIA sidewalk improvements</u> | <u>Provide sidewalks along Milport Rd, Ochoco St and new local streets. This includes filling gaps in the sidewalk network.</u> | <u>Location-specific</u> | <u>Location-specific</u> | - |
| <u>BE</u> | - | <u>C</u> | <u>NMIA McLoughlin Blvd green street demonstration</u> | <u>Partner with ODOT to develop a green street demonstration project for McLoughlin Boulevard between Downtown Milwaukie and the Springwater Corridor Pedestrian Bridge.</u> | <u>Location-specific</u> | <u>Location-specific</u> | - |

Notes:

C = Capital Project

O = Operational Project

P = Policy Project

High = High priority

Med = Medium priority

Low = Low priority

TSAP NMIA Plan = North Milwaukie Industrial Area Plan ~~Tacoma Station Area Plan~~

Table 8-10 Street Network Master Plan Projects

| Map ID ⁷ | Priority | Type | Project Name | Project Description | From | To | Cost (\$1,000s) ⁸ |
|---------------------------------|----------|------|---|---|---|--|------------------------------|
| High Priority Projects | | | | | | | |
| C | High | C | Hwy 224 & Hwy 99E Refinement Plan | Conduct refinement study to establish alternative mobility targets for Hwy 224 and McLoughlin Blvd for locations not meeting applicable State targets, and explore ways to minimize barrier effect and improve auto and freight mobility. | Hwy 99E Project Limits: Tacoma St to River Rd | Hwy 224 Project Limits: Hwy 99E to Lake Rd Interchange | \$270 |
| D | High | C | Intersection Improvements at Hwy 224 and 37 th Ave | Consolidate the two northern legs of 37 th Ave and International Way into one leg at Hwy 224. | Location-specific | Location-specific | \$2,100 |
| H | High | C | Linwood Ave Capacity Improvements (north) | Widen to standard three lane cross section. Widen bridge over Johnson Creek. | Johnson Creek Blvd | King Rd | \$9,300 |
| H | High | C | Linwood Ave Capacity Improvements (south) | Widen to standard three lane cross section. | King Rd | Harmony Rd | \$12,500 |
| P | High | C | Intersection Improvements at Hwy 224 and Oak St | Add left-turn-lanes and protected signal phasing on Oak St approaches. | Location-specific | Location-specific | \$20 |
| R | High | C | Stanley Ave Connectivity at King Rd | Enhance connection along Stanley Ave at King Rd. | Location-specific | Location-specific | \$60 |
| S | High | C | Stanley Ave Connectivity at Monroe St | Enhance connection along Stanley Ave at Monroe St. | Location-specific | Location-specific | \$60 |
| V | High | C | Intersection Improvements at McLoughlin Blvd and 22 nd Ave | Improve safety of Trolley Trail crossing at 22 nd Ave. | Location-specific | Location-specific | \$200 |
| Medium Priority Projects | | | | | | | |
| A | Med | C | Intersection Improvements at McLoughlin Blvd and 17 th Ave | Prohibit left-turn movement from 17 th Ave to northbound McLoughlin Blvd and include in Hwy 224 & Hwy 99E Refinement Plan. | Location-specific | Location-specific | \$20 |

⁷ See Figure 8-4.

⁸ Project costs are order-of-magnitude estimates and are in 2012 dollars. Future costs may be more due to inflation. In the case of operational projects, estimated costs are for the entire 22-year planning period.

| Map ID ⁷ | Priority | Type | Project Name | Project Description | From | To | Cost (\$1,000s) ⁸ |
|------------------------------|----------|------|---|---|----------------------|----------------------|------------------------------|
| E | Med | C | Intersection Improvements at Johnson Creek Blvd and Linwood Ave | Add eastbound right-turn lane and westbound right-turn lane. | Location-specific | Location-specific | \$880 |
| G | Med | C | Intersection Improvements at Linwood Ave and King Rd | Implement protected/permissive left-turn phasing for northbound and southbound approaches. | Location-specific | Location-specific | \$20 |
| J | Med | C | Intersection Improvements at McLoughlin Blvd and River Rd | Consolidate a single access point for the area at Bluebird St with full intersection treatment and signalization or add second northbound left-turn lane at River Rd. | Location-specific | Location-specific | \$980 |
| K | Med | C | Harrison St Capacity Improvements | Widen to standard three lane cross section. | 32 nd Ave | 42 nd Ave | \$2,800 |
| L | Med | C | Intersection Improvements at Harrison St and Hwy 224 | Add left-turn-lanes and protected signal phasing on Harrison St approaches. | Location-specific | Location-specific | \$20 |
| O | Med | C | Harrison St and King Rd Connection | Enhance connection between King Rd and Harrison St | King Rd | Harrison St | \$60 |
| Low Priority Projects | | | | | | | |
| B | Low | C | Intersection Improvements at 42 nd Ave and Harrison St | Signalize intersection to facilitate dominant traffic flow. | Location-specific | Location-specific | \$280 |
| I | Low | C | Railroad Ave Capacity Improvements | Widen to standard three lane cross section. | 37 th Ave | Linwood Ave | \$14,200 |
| M | Low | C | Lake Rd Capacity Improvements | Widen to standard three lane cross section. | 21 st Ave | Oatfield Rd | \$8,100 |
| N | Low | C | Johnson Creek Blvd and 42 nd Ave Signalization | Replace 3-way stop with signal when warranted. | Location-specific | Location-specific | \$270 |
| Q | Low | C | Hwy 224 Access Modifications at Freeman Way | Modify access at Freeman Way to improve intersection functioning. | Location-specific | Location-specific | \$1,400 |
| W | Low | C | Intersection Improvements at 42 nd Ave and King Rd | Realignment of intersection to improve traffic movements between 42 nd Ave and King Rd east of 42 nd Ave. | Location-specific | Location-specific | \$200 |

| Map ID ⁷ | Priority | Type | Project Name | Project Description | From | To | Cost (\$1,000s) ⁸ |
|---------------------|----------|----------|--|---|--------------------------|--------------------------|------------------------------|
| X | Low | C | Local Street Connections in Tacoma Station Area | Connect local streets within Tacoma station area: 24 th Ave between Ochoco St/Moores St & Clatsop St; Omark St between Mailwell Dr & Beta St (w/midblock connection from Main St); and Mailwell Dr to Harrison St via 26 th Ave. (TSAP NMIA Plan) | Location-specific | Location-specific | \$8,120 |
| Y | Low | C | Local Street Improvements in Tacoma Station Area | Construct street improvements on Stubb St, Beta St, Ochoco St, Hanna Harvester Dr, and Mailwell Dr. (TSAP-NMIA Plan) | Location-specific | Location-specific | \$5,280 |
| <u>AA</u> | - | <u>C</u> | <u>McBrod Ave green street</u> | <u>Develop McBrod Ave as a demonstration project that integrates green street/shared facility approaches to treat both the right-of-way and adjacent development.</u> | <u>Location-specific</u> | <u>Location-specific</u> | - |
| <u>AB</u> | - | <u>C</u> | <u>NMIA intersection redesign</u> | <u>Based on the outcomes, redesign the Ochoco St and Milport Rd intersections to improve wayfinding, circulation and pedestrian safety. Improvements should include geometric and wayfinding/signage improvements.</u> | <u>Location-specific</u> | <u>Location-specific</u> | - |
| <u>AC</u> | - | <u>C</u> | <u>NMIA McLoughlin Blvd green street demonstration</u> | <u>Partner with ODOT to develop a green street demonstration project for McLoughlin Boulevard between Downtown Milwaukie and the Springwater Corridor Pedestrian Bridge.</u> | <u>Location-specific</u> | <u>Location-specific</u> | - |
| <u>AD</u> | - | <u>C</u> | <u>NMIA navigability reconfiguration</u> | <u>Reconfigure the Moores St/Ochoco St/23rd Ave area to be more navigable and easier to develop adjacent properties.</u> | <u>Location-specific</u> | <u>Location-specific</u> | - |
| <u>AE</u> | - | <u>C</u> | <u>NMIA right-of-way road design</u> | <u>Create a public right-of-way from Mailwell Dr through the existing loading docks to 26th Ave. Road design should restrict large trucks from entering the adjacent neighborhoods south of the project area.</u> | <u>Location-specific</u> | <u>Location-specific</u> | - |
| <u>AF</u> | - | <u>C</u> | <u>NMIA street grid development</u> | <u>Develop a street grid that provides options for transit, vehicles, pedestrians and bicyclists to connect to and through the District, where appropriate.</u> | <u>NMIA</u> | <u>NMIA</u> | - |

Notes:

C = Capital Project High = High priority TSAP NMIA Plan = North Milwaukie Industrial Area Plan ~~Tacoma Station Area Plan~~
O = Operational Project Med = Medium priority
P = Policy Project Low = Low priority



Transportation System Plan

FIGURE 1-2

PEDESTRIAN MASTER PLAN

April 2015

LEGEND

| | | | |
|---------------------------|---------------------|-----------------------------|--|
| Existing Sidewalks | | Proposed Improvement | |
| | < 5 ft width | | Pedestrian Intersection Safety Improvement |
| | 5 ft - 10 ft width | | Pedestrian Facilities |
| | Kellogg Creek Trail | | Springwater Trail |
| | Trolley Trail | | Central Milwaukie 2015 TSP Amendments |
| | Schools | | County Line |
| | Major Roads | | 10' Contours |
| | Streets | | Water |
| | Railroad | | Parks |
| | City Limits | | Light Rail Transit |
| | Light Rail Station | | |

PROPOSED PROJECTS

Improve Intersection to Increase Pedestrian Safety

- A** Freeman Way/HWY 224
- B** 37th Ave/HWY 224
- C** Oak St/HWY 224
- D** Monroe St/HWY 224
- E** Harrison St/HWY 224
- F** King Rd improvements
- G** Olsen St/42nd Ave
- H** Railroad Ave/37th Ave
- K** Stanley Ave/Logus Rd
- AV** McLoughlin Blvd and 22nd Ave
- BG** All McLoughlin crossings
- BJ** McLoughlin and Ochoco/Milport

Provide Pedestrian Facilities Where Not Currently Present

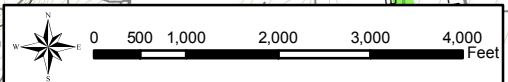
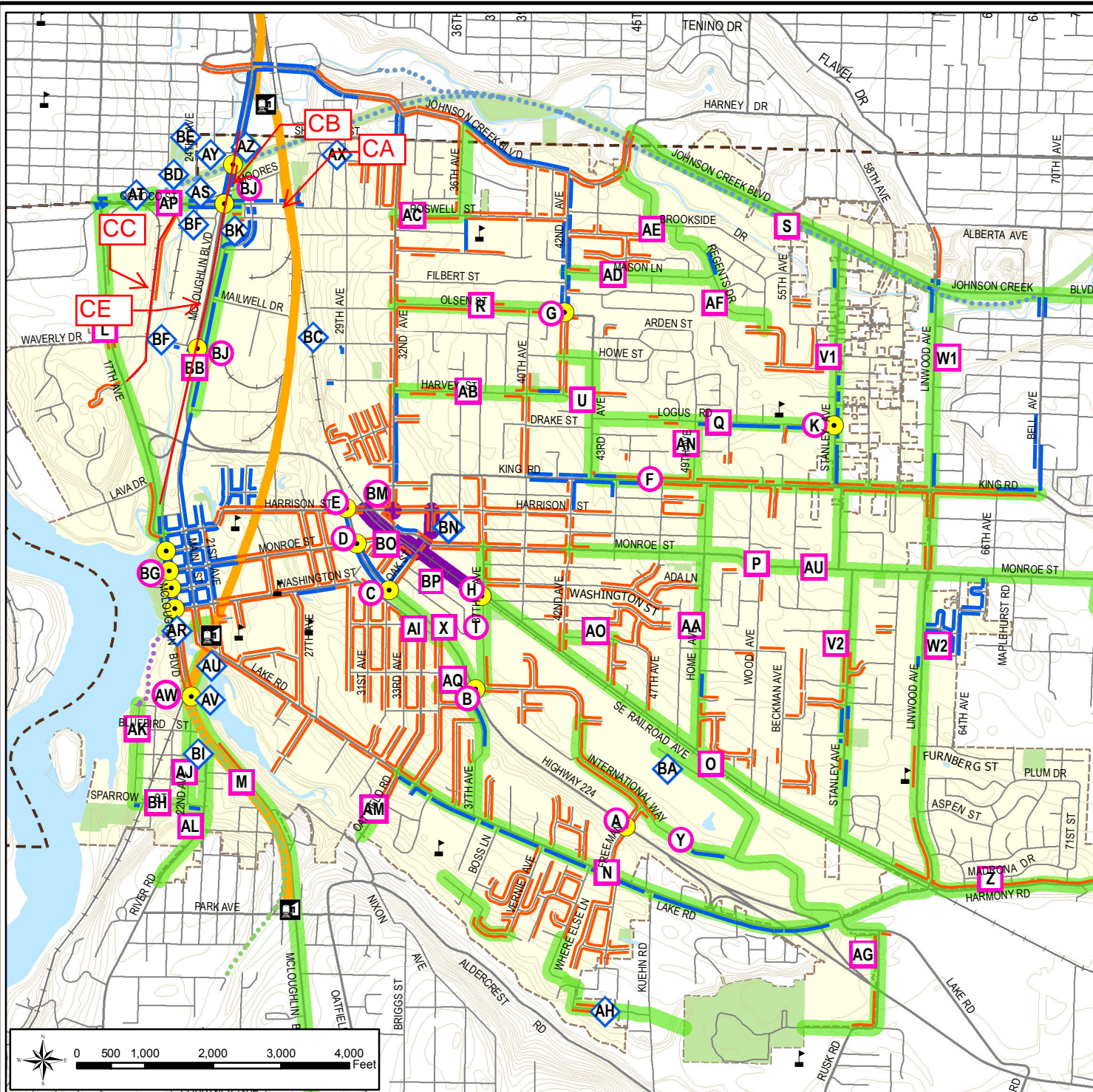
See Table 5-1 for project descriptions L-AG, AI-AQ, BB, BH

Enhance Existing Pedestrian Connection

- AI** Create ped connection from Rowe Middle School to North Clackamas Park
- AR** Construct pedestrian underpass under HWY 99E at Kellogg Creek
- AT** Complete Springwater Trail along Ochoco St
- AU** Construct bike-ped overpass over Kellogg Creek
- AV** Construct Kronberg Park Trail
- AX** Pave connection to Springwater Trail at 29th Ave and Sherrett
- AY** Improve connection from Springwater Corridor to Pendleton Site
- AZ** Construct stairs to connect Springwater Corridor to LRT Station
- BA** Establish bike-ped connection across Railroad Ave and tracks
- BC** Establish bike-ped connection over railroad tracks and LRT
- BD** Construct stairs from Springwater Corridor to McLoughlin Blvd
- BE** Construct bike-ped bridge over Johnson Creek along Clatsop St at 23rd Ave to connect to LRT station
- BF** Improve bike-ped connection to neighborhoods west of station
- BI** Establish bike-ped connection over McLoughlin at River Rd
- BK** Establish bike-ped connection to McLoughlin at Stubb St

Provide Improved Pedestrian Facilities in Central Milwaukie

See Table 5-1 for project descriptions BM, BN, BO, and BP



Original Map Created by DKS Associates in 2007, Amended by the City of Milwaukie in 2013 and 2015



Transportation System Plan

FIGURE 1-3

BICYCLE MASTER PLAN

April 2015

LEGEND

Existing Bicycle Facilities

- Shared Lane
- Bicycle Lane
- Kellogg Creek Trail
- Springwater Trail
- Trolley Trail

Proposed Improvements

- Bicycle Intersection Safety Improvement
- Bicycle Lanes
- Neighborhood Greenway
- Central Milwaukee 2015 TSP Amendments

- 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
- AP** McLoughlin/Ochoco/Milport

Provide Bicycle Lanes Where Not Currently Present

See Table 6-2 for project descriptions B-R, AI, and AJ **BD**

Enhance Existing Bicycle Connection

- U1** 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 existing 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

Provide Improved Bicycle Facilities in Central Milwaukee

See Table 6-2 for project descriptions AS, AT, AU, AV, and AW



Original Map Created by DKS Associates in 2007, Amended by the City of Milwaukee in 2013 and 2015



Transportation System Plan

FIGURE 1-5

STREET NETWORK MASTER PLAN

November 2013

LEGEND

Proposed Street Network Improvements

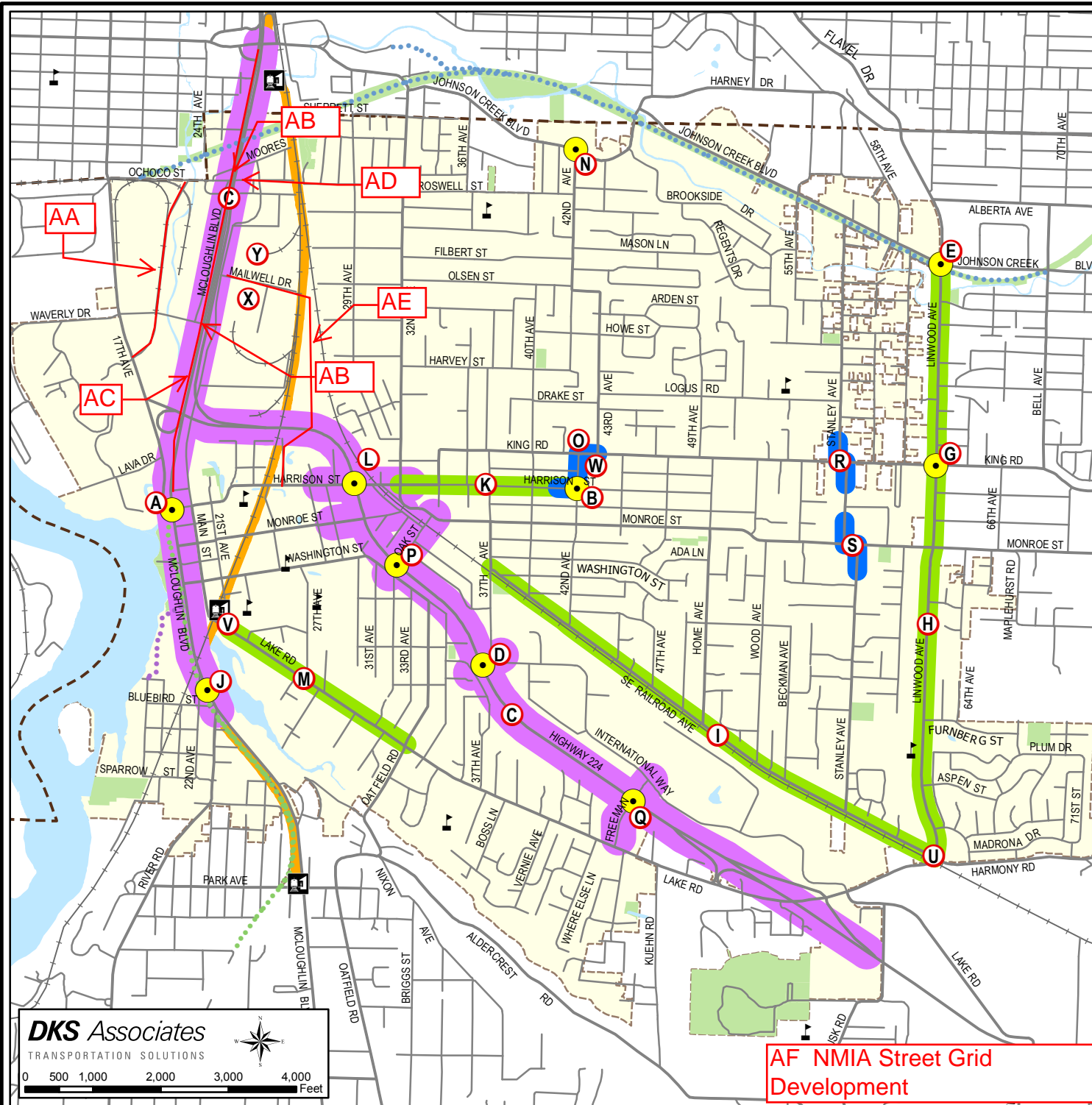
- Travel Route Improvement (Blue line)
- Roadway Widening Project (Green line)
- Corridor Refinement Plan (Purple shaded area)
- Intersection (Yellow circle)

Other Features:

- Schools (Black square with 'S')
- Kellogg Creek Trail (Purple dotted line)
- Springwater Trail (Blue dotted line)
- Trolley Trail (Green dotted line)
- Light Rail Station (Black square with 'L')
- Light Rail Transit (Orange line)
- Major Roads (Thick grey line)
- Streets (Thin grey line)
- Railroad (Black line with cross-ticks)
- County Line (Dashed brown line)
- Water (Blue area)
- Parks (Green area)
- City Limits (Dashed brown line)

PROPOSED PROJECTS

- A** Prohibit left turn movement at 17th Ave/McLoughlin Blvd and include in Refinement Plan
- B** Signalize Harrison St/42nd Ave
- C** Conduct Refinement Plan for HWY 99E/HWY 224 focused on motor vehicle and freight mobility.
 - HWY 99E Project Limits: Tacoma St to 17th Ave
 - HWY 224 Project Limits: HWY 99E to Lake Rd Interchange
- D** Reconfigure intersection to consolidate 37th Ave/Industrial Way
- E** Add eastbound/westbound right turn lanes and integrate the trail crossing
- G** Implement protected/permitted phasing for northbound and southbound left turns
- H** Widen Linwood Ave to standard three lane cross section
- I** Widen Railroad Ave to standard three lane cross section
- J** Redesign intersections of River Rd and 22nd Ave to consolidate intersections; or
Add northbound left turn pocket on River Rd
- K** Widen Harrison St to standard three-lane cross section
- L** Add left turn-lanes and protected signal phasing on Harrison St approaches
- M** Widen Lake Rd to standard three-lane cross section
- N** Replace 3-way stop with signal when warranted and appropriate. (Coordinate with the City of Portland)
- O** Enhance connection between King Rd and Harrison St
- P** Add protected signal phasing on Oak St approaches
- Q** Improve intersection/modify access at HWY 224 and Freeman Way
- R** Enhance connection along Stanley Ave at King Rd
- S** Enhance connection along Stanley Ave at Monroe St
- V** Improve safety of Trolley Trail crossing at 22nd Ave
- W** Realign intersection to improve traffic between 42nd Ave and King Rd east of 42nd Ave
- X** Connect local streets within Tacoma Station Area (see Fig 8-4)
- Y** Construct street improvements on Stubb St, Beta St, Ochoco St, Hanna Harvester Dr and Mailwell Dr (TSAP)



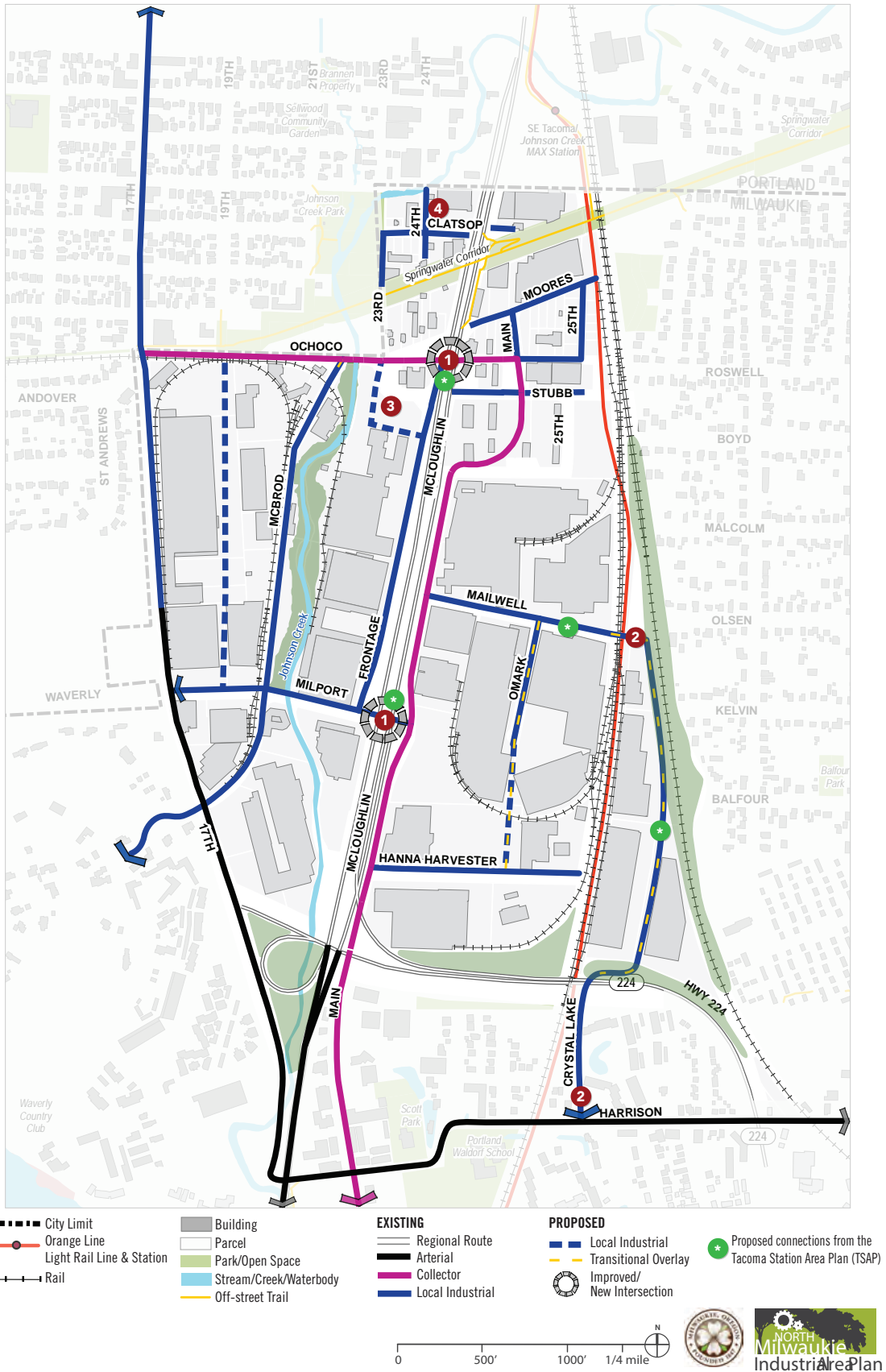
AF NMIA Street Grid Development

For NMIA projects please refer to Table 8-10; AB - AF

DKS Associates
TRANSPORTATION SOLUTIONS

0 500 1,000 2,000 3,000 4,000 Feet

FIGURE 4: FUTURE STREET NETWORK





Transportation System Plan

FIGURE 5-1a

PEDESTRIAN MASTER PLAN

April 2015

LEGEND

| Existing Sidewalks | | Proposed Improvement | |
|--------------------|---------------------|----------------------|--|
| | < 5 ft width | | Pedestrian Intersection Safety Improvement |
| | 5 ft - 10 ft width | | Pedestrian Facilities |
| | Kellogg Creek Trail | | Central Milwaukee 2015 TSP Amendments |
| | Springwater Trail | | |
| | Trolley Trail | | |
| | Schools | | County Line |
| | Major Roads | | 10' Contours |
| | Streets | | Water |
| | Railroad | | Parks |
| | | | City Limits |
| | | | Light Rail Transit |
| | | | Light Rail Station |

PROPOSED PROJECTS

Improve Intersection to Increase Pedestrian Safety

- A** Freeman Way/HWY 224
- B** 37th Ave/HWY 224
- C** Oak St/HWY 224
- D** Monroe St/HWY 224
- E** Harrison St/HWY 224
- F** King Rd improvements
- G** Olsen St/42nd Ave
- H** Railroad Ave/37th Ave
- K** Stanley Ave/Logus Rd
- AV** McLoughlin Blvd and 22nd Ave
- BG** All McLoughlin crossings
- BJ** McLoughlin and Ochoco/Milport

Provide Pedestrian Facilities Where Not Currently Present

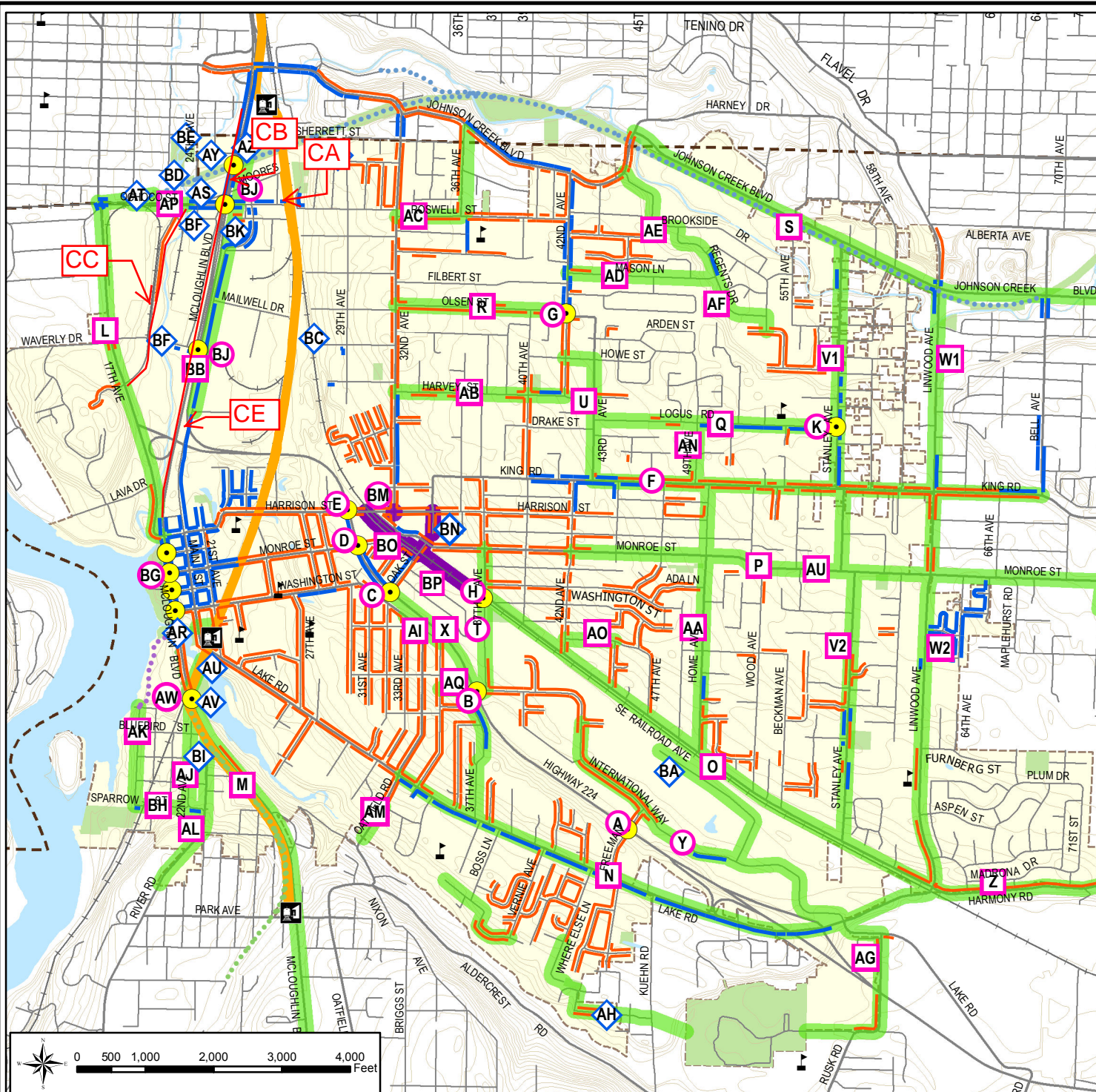
See Table 5-1 for project descriptions L-AG, AI-AQ, BB, BH

Enhance Existing Pedestrian Connection

- AI** Create ped connection from Rowe Middle School to North Clackamas Park
- AR** Construct pedestrian underpass under HWY 99E at Kellogg Creek
- AT** Complete Springwater Trail along Ochoco St
- AU** Construct bike-ped overpass over Kellogg Creek
- AV** Construct Kronberg Park Trail
- AX** Pave connection to Springwater Trail at 29th Ave and Sherrett
- AY** Improve connection from Springwater Corridor to Pendleton Site
- AZ** Construct stairs to connect Springwater Corridor to LRT Station
- BA** Establish bike-ped connection across Railroad Ave and tracks
- BC** Establish bike-ped connection over railroad tracks and LRT
- BD** Construct stairs from Springwater Corridor to McLoughlin Blvd
- BE** Construct bike-ped bridge over Johnson Creek along Clatsop St at 23rd Ave to connect to LRT station
- BF** Improve bike-ped connection to neighborhoods west of station
- BI** Establish bike-ped connection over McLoughlin at River Rd
- BK** Establish bike-ped connection to McLoughlin at Stubb St

Provide Improved Pedestrian Facilities in Central Milwaukee

See Table 5-1 for project descriptions BM, BN, BO, and BP





Transportation System Plan

FIGURE 6-8a

BICYCLE MASTER PLAN

April 2015

LEGEND

Existing Bicycle Facilities

- Shared Lane
- Bicycle Lane
- Kellogg Creek Trail
- Springwater Trail
- Trolley Trail

Proposed Improvements

- Bicycle Intersection Safety Improvement
- Bicycle Lanes
- Neighborhood Greenway
- Central Milwaukee 2015 TSP Amendments

- 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
- I** McLaughlin and 22nd
- J** McLaughlin/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

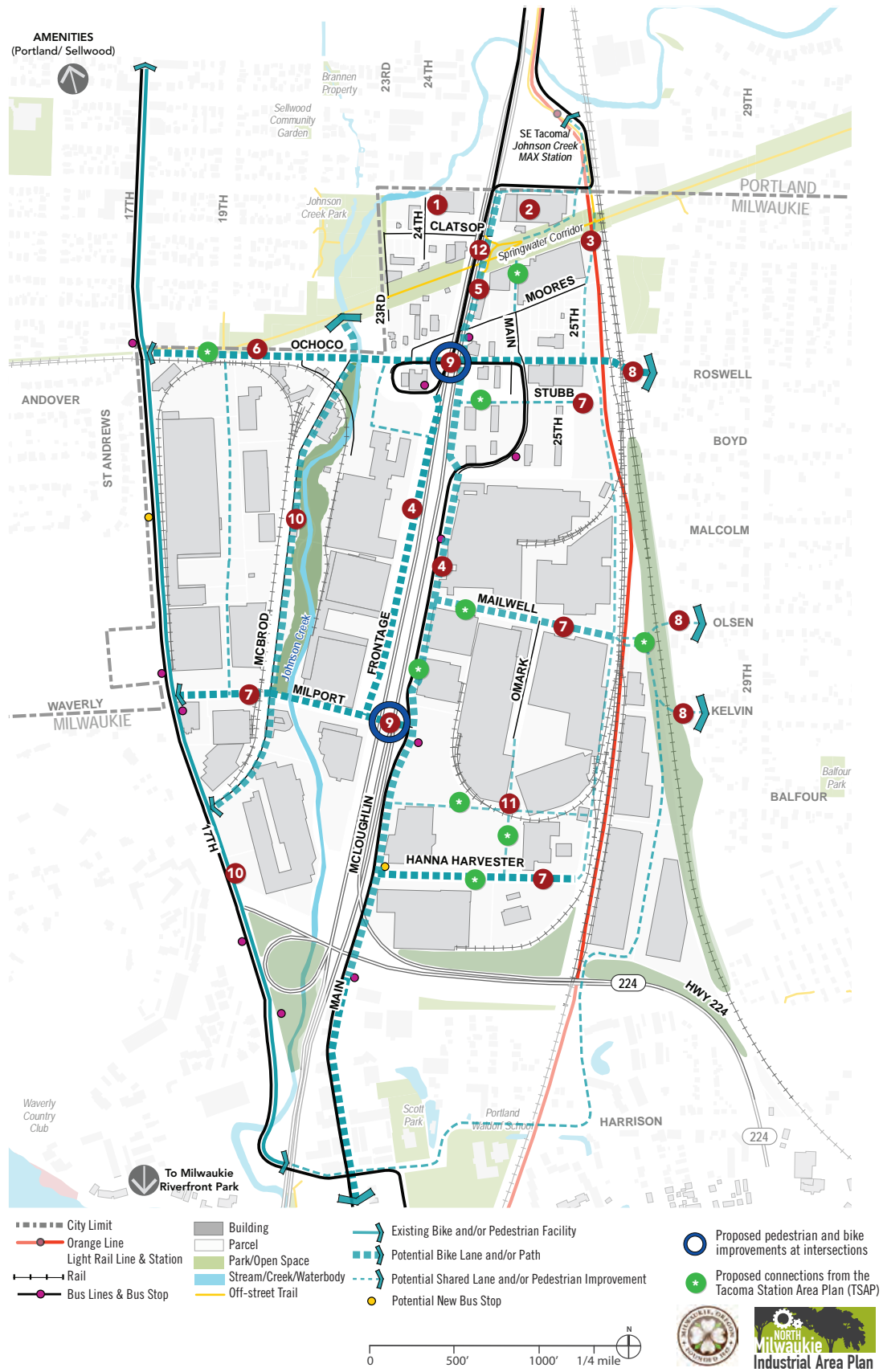
- U1** Install Neighborhood Greenway treatments at various locations
- V** Construct bicycle overpass from Railroad Ave to International Way
- W** Improve Springwater Trail paving
- X** Improve Kellogg Creek Trail
- Y** Install Trolley Trail signage
- Z** Fill in gaps in existing bike network with bike 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 McLaughlin 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 McLaughlin at River Rd
- AR** Establish bike-ped connection to McLaughlin at Stubb St

Provide Improved Bicycle Facilities in Central Milwaukee

See Table 6-2 for project descriptions AS, AT, AU, AV, and AW



FIGURE 7: NON-MOTORIZED STREET NETWORK





Transportation System Plan

FIGURE 8-5

STREET NETWORK MASTER PLAN

November 2013

LEGEND

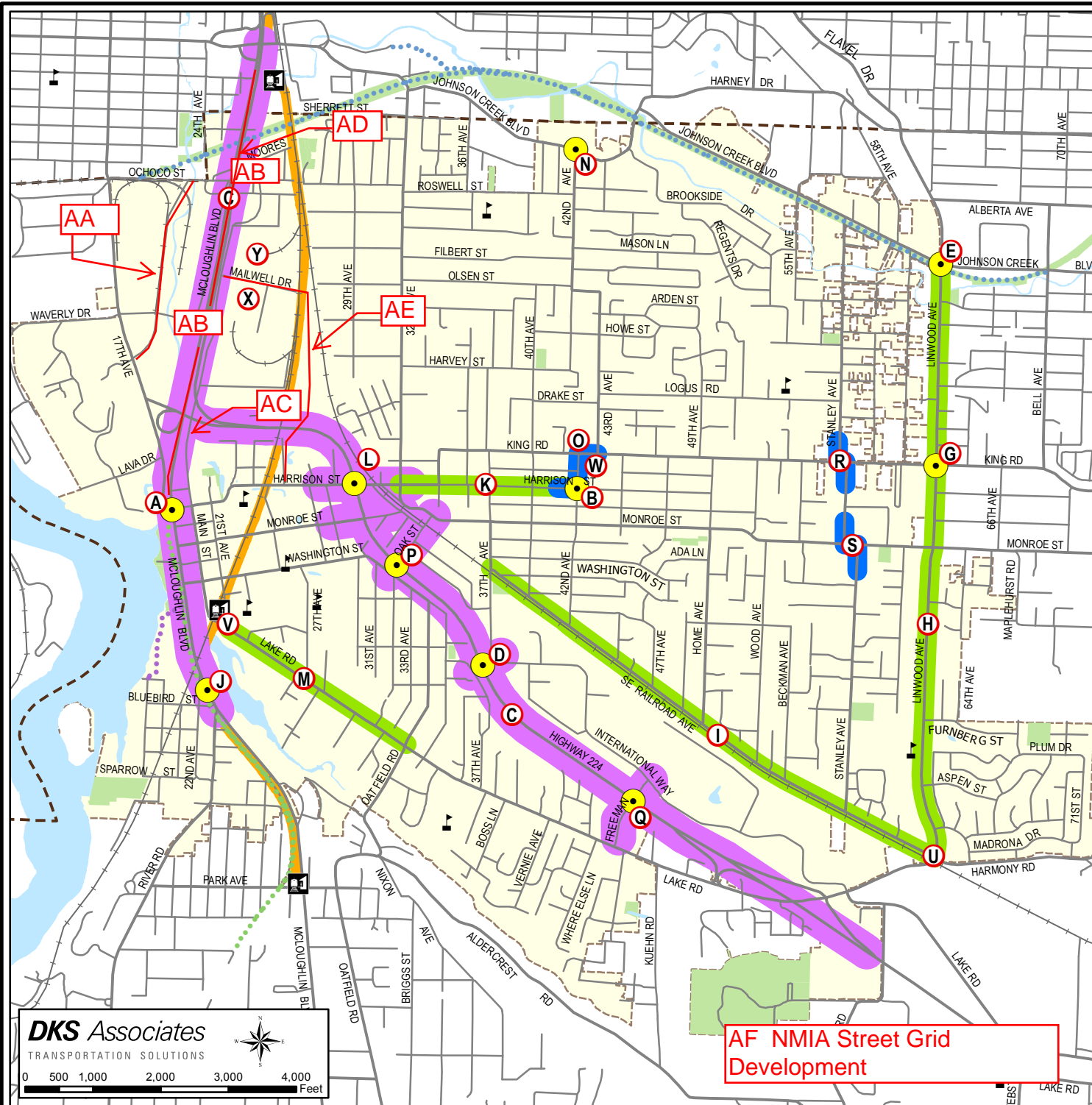
Proposed Street Network Improvements

| | | | |
|--|--------------------------|--|--------------------------|
| | Travel Route Improvement | | Corridor Refinement Plan |
| | Roadway Widening Project | | Intersection |

| | | | |
|--|---------------------|--|-------------|
| | Schools | | Major Roads |
| | Kellogg Creek Trail | | Streets |
| | Springwater Trail | | Railroad |
| | Trolley Trail | | County Line |
| | Light Rail Station | | Water |
| | Light Rail Transit | | Parks |
| | | | City Limits |

PROPOSED PROJECTS

- A** Prohibit left turn movement at 17th Ave/McLoughlin Blvd and include in Refinement Plan
- B** Signalize Harrison St/42nd Ave
- C** Conduct Refinement Plan for HWY 99E/HWY 224 focused on motor vehicle and freight mobility.
 - HWY 99E Project Limits: Tacoma St to 17th Ave
 - HWY 224 Project Limits: HWY 99E to Lake Rd Interchange
- D** Reconfigure intersection to consolidate 37th Ave/Industrial Way
- E** Add eastbound/westbound right turn lanes and integrate the trail crossing
- G** Implement protected/permitted phasing for northbound and southbound left turns
- H** Widen Linwood Ave to standard three lane cross section
- I** Widen Railroad Ave to standard three lane cross section
- J** Redesign intersections of River Rd and 22nd Ave to consolidate intersections; or
Add northbound left turn pocket on River Rd
- K** Widen Harrison St to standard three-lane cross section
- L** Add left turn-lanes and protected signal phasing on Harrison St approaches
- M** Widen Lake Rd to standard three-lane cross section
- N** Replace 3-way stop with signal when warranted and appropriate. (Coordinate with the City of Portland)
- O** Enhance connection between King Rd and Harrison St
- P** Add protected signal phasing on Oak St approaches
- Q** Improve intersection/modify access at HWY 224 and Freeman Way
- R** Enhance connection along Stanley Ave at King Rd
- S** Enhance connection along Stanley Ave at Monroe St
- V** Improve safety of Trolley Trail crossing at 22nd Ave
- W** Realign intersection to improve traffic between 42nd Ave and King Rd east of 42nd Ave
- X** Connect local streets within Tacoma Station Area (see Fig 8-4)
- Y** Construct street improvements on Stubb St, Beta St, Ochoco St, Hanna Harvester Dr and Mailwell Dr (TSAP)



AF NMIA Street Grid Development

DKS Associates
TRANSPORTATION SOLUTIONS

0 500 1,000 2,000 3,000 4,000 Feet

For NMIA projects please refer to Table 8-10; AB - AF



Transportation System Plan

FIGURE A-1

PEDESTRIAN MASTER PLAN

November 2013

LEGEND

| Existing Sidewalks | Proposed Improvement |
|---------------------|--|
| < 5 ft width | Pedestrian Intersection Safety Improvement |
| 5 ft - 10 ft width | Pedestrian Facilities |
| Kellogg Creek Trail | Schools |
| Springwater Trail | Water |
| Trolley Trail | Parks |
| Schools | Light Rail Transit |
| Major Roads | Light Rail Station |
| Streets | |
| Railroad | |
| County Line | |

PROPOSED PROJECTS

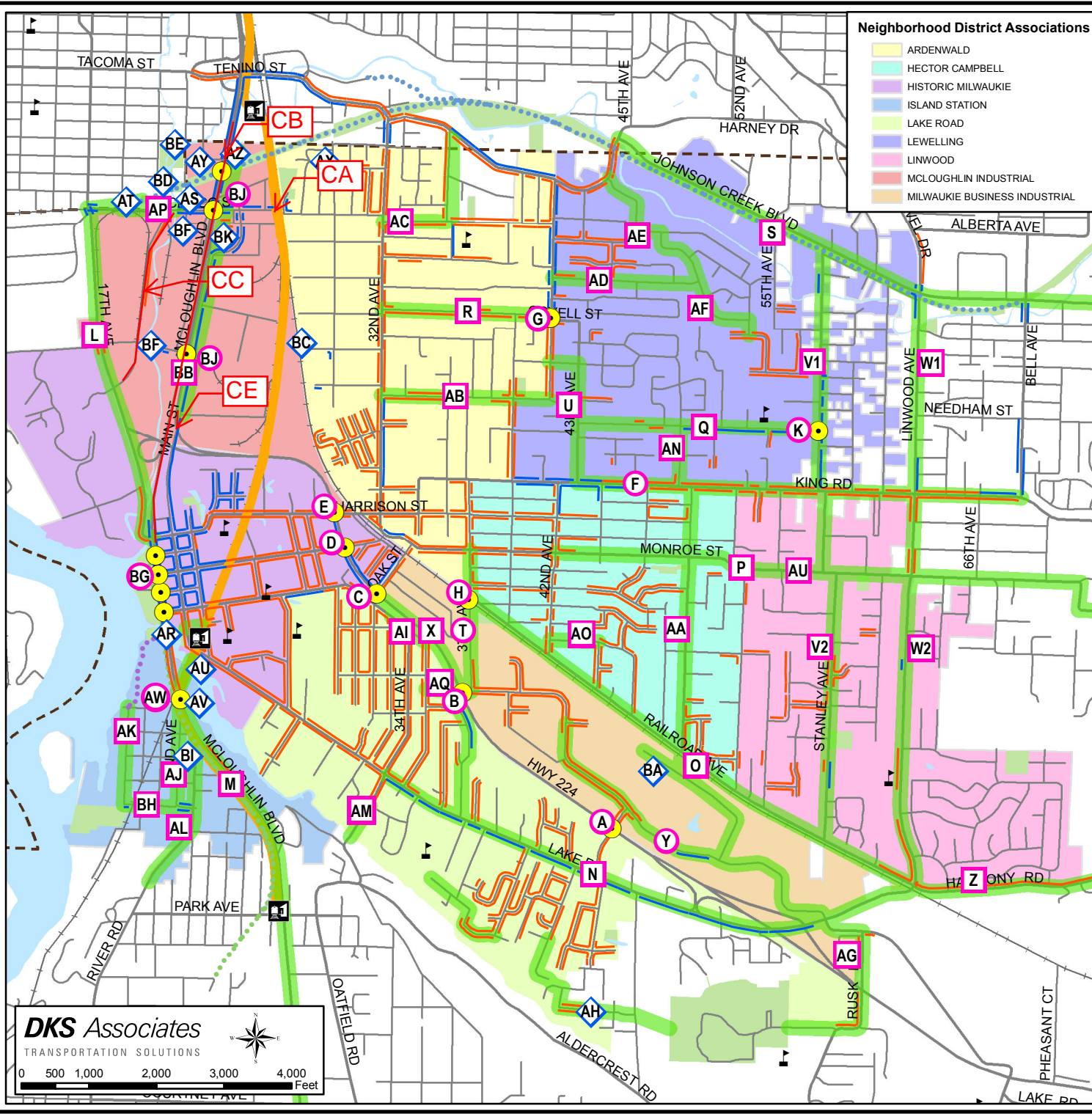
- Improve Intersection to Increase Pedestrian Safety**
- A** Freeman Way/HWY 224
 - B** 37th Ave/HWY 224
 - C** Oak St/HWY 224
 - D** Monroe St/HWY 224
 - E** Harrison St/HWY 224
 - F** King Rd improvements
 - G** Olsen St/42nd Ave
 - H** Railroad Ave/37th Ave
 - K** Stanley Ave/Logus Rd
 - AW** McLoughlin Blvd and 22nd Ave
 - BG** All McLoughlin crossings
 - BJ** McLoughlin and Ochoco/Milport

- Provide Pedestrian Facilities Where Not Currently Present**
See Table 5-1 for project descriptions L-AG, AI-AQ, BB, BH

- Enhance Existing Pedestrian Connection**
- AI** Create ped connection from Rowe Middle School to North Clackamas Park
 - AR** Construct pedestrian underpass under HWY 99E at Kellogg Creek
 - AS** Improve ramp at Springwater Trail/HWY 99E
 - AT** Complete Springwater Trail along Ochoco St
 - AU** Construct bike-ped overpass over Kellogg Creek
 - AV** Construct Kronberg Park Trail
 - AX** Pave connection to Springwater Trail at 29th Ave and Sharrett
 - AY** Improve connection from Springwater Corridor to Pendleton Site
 - AZ** Construct stairs to connect Springwater Corridor to LRT Station
 - BA** Establish bike-ped connection across Railroad Ave and tracks
 - BC** Establish bike-ped connection over railroad tracks and LRT
 - BD** Construct stairs to connect Springwater Corridor to McLoughlin
 - BE** Construct bike-ped bridge over Johnson Creek along Clatsop at 23rd Ave to connect to LRT station
 - BF** Improve bike-ped connection to neighborhoods west of station
 - BI** Establish bike-ped connection over McLoughlin at River Rd
 - BK** Establish bike-ped connection to McLoughlin at Stubb St

Neighborhood District Associations

| | |
|--|-------------------------------|
| | ARDENWALD |
| | HECTOR CAMPBELL |
| | HISTORIC MILWAUKIE |
| | ISLAND STATION |
| | LAKE ROAD |
| | LEWELLING |
| | LINWOOD |
| | MCCLOUGHLIN INDUSTRIAL |
| | MILWAUKIE BUSINESS INDUSTRIAL |



DKS Associates
TRANSPORTATION SOLUTIONS

0 500 1,000 2,000 3,000 4,000 Feet



Transportation System Plan

FIGURE A-2

BICYCLE MASTER PLAN

November 2013

LEGEND

Existing Bicycle Facilities

- Shared Lane
- Bicycle Lane
- Kellogg Creek Trail
- Springwater Trail
- Trolley Trail

Proposed Improvements

- Bicycle Intersection Safety Improvement
- Bicycle Lanes
- Neighborhood Greenway

- Schools
- Major Roads
- Streets
- Railroad
- 10' Contours
- County Line
- Water
- Parks
- 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
- AP McLoughlin/Ochoco/Milport

Provide Bicycle Lanes Where not Currently Present

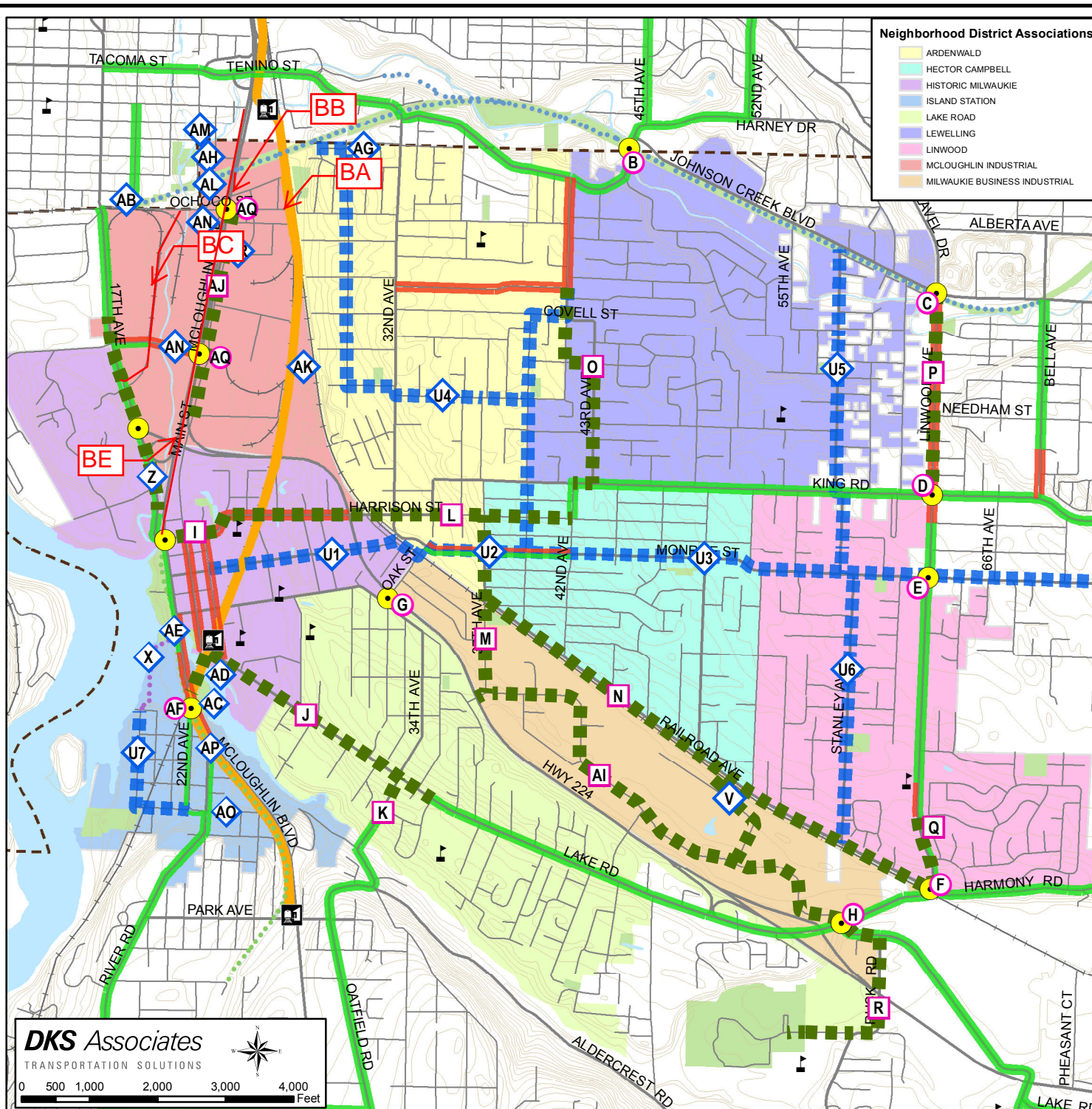
See Table 6-2 for Project descriptions B-R, AI, and AJ

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 existing bike network with bike lanes or multiuse path.
- AA Improve intersection safety on 17th Ave at HWY 224 and at 99E.
- AB Improve ramp at Springwater Trail/HWY 99E
- AC Complete Springwater Trail along Ochoco St
- AD 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 Sharrett
- 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
- AM Construct bike-ped bridge over Johnson Creek along Clatsop 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

Neighborhood District Associations

- ARDENWALD
- HECTOR CAMPBELL
- HISTORIC MILWAUKIE
- ISLAND STATION
- LAKE ROAD
- LEWELLING
- LINWOOD
- McLOUGHLIN INDUSTRIAL
- MILWAUKIE BUSINESS INDUSTRIAL



DKS Associates

TRANSPORTATION SOLUTIONS



0 500 1,000 2,000 3,000 4,000 Feet



Transportation System Plan

FIGURE A-4

STREET NETWORK MASTER PLAN

November 2013

LEGEND

Proposed Street Network Improvements

| | | | |
|--|--------------------------|--|--------------------------|
| | Travel Route Improvement | | Corridor Refinement Plan |
| | Roadway Widening Project | | Intersection Improvement |

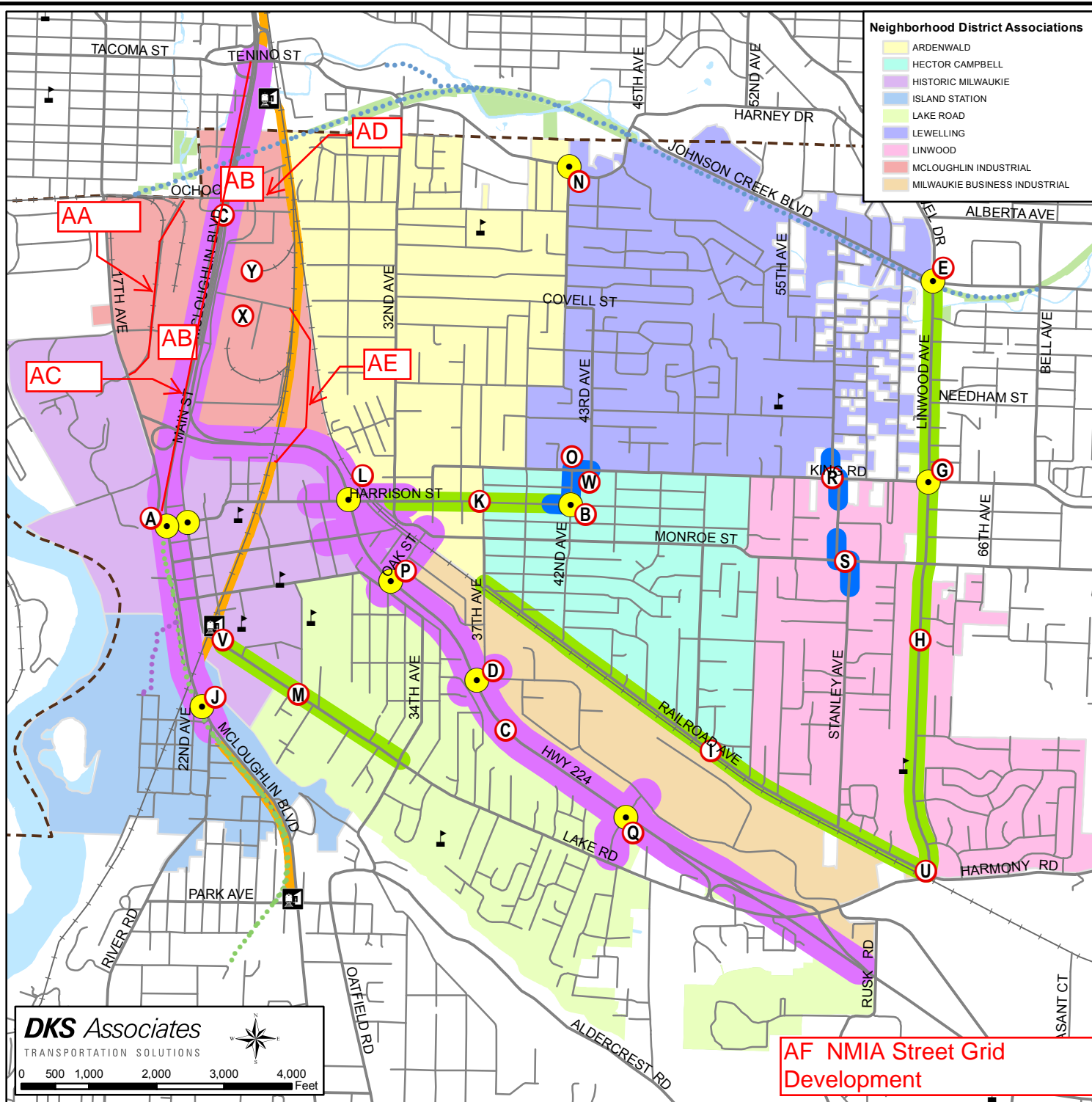
| | | | |
|--|--------------------------|--|-------------|
| | Schools | | Major Roads |
| | Light Rail Station | | Streets |
| | Light Rail Rapid Transit | | Railroad |
| | Kellogg Creek Trail | | County Line |
| | Springwater Trail | | Water |
| | Trolley Trail | | Parks |

PROPOSED PROJECTS

- A** Prohibit left turn movement at 17th Ave/McLoughlin Blvd and include in Refinement Plan
- B** Signalize Harrison St/42nd Ave
- C** Conduct Refinement Plan for HWY 99E/HWY 224 focused on motor vehicle and freight mobility.
 - HWY 99E Project Limits: Tacoma St to 17th Ave
 - HWY 224 Project Limits: HWY 99E to Lake Rd Interchange
- D** Reconfigure intersection to consolidate 37th Ave/Industrial Way
- E** Add eastbound/westbound right turn lanes and integrate the trail crossing
- F** Create westbound shared through/right lane; or Add eastbound right turn pocket
- G** Implement protected/permitted phasing for northbound and southbound left turns
- H** Widen Linwood Ave to standard three lane cross section
- I** Widen Railroad Ave to standard three lane cross section
- J** Redesign intersections of River Rd and 22nd Ave to consolidate intersections; or Add northbound left turn pocket on River Rd
- K** Widen Harrison St to standard three-lane cross section
- L** Add left turn-lanes and protected signal phasing on Harrison St approaches
- M** Widen Lake Rd to standard three-lane cross section
- N** Replace 3-way stop with signal when warranted and appropriate. (Coordinate with the City of Portland)
- O** Enhance connection between King Rd and Harrison St
- P** Add protected signal phasing on Oak St approaches
- Q** Improve intersection/modify access at HWY 224 and Freeman Way
- R** Enhance connection along Stanley Ave at King Rd
- S** Enhance connection along Stanley Ave at Monroe St
- V** Improve safety of Trolley Trail crossing at 22nd Ave
- W** Realign intersection to improve traffic between 42nd Ave and King Rd east of 42nd Ave
- X** Connect local streets within Tacoma Station Area (see Fig 8-4)
- Y** Construct street improvements on Stubb St, Beta St, Ochoco St, Hanna Harvester Dr and Mailwell Dr (TSAP)

Neighborhood District Associations

- ARDENWALD
- HECTOR CAMPBELL
- HISTORIC MILWAUKIE
- ISLAND STATION
- LAKE ROAD
- LEWELLING
- LINWOOD
- MCLOUGHLIN INDUSTRIAL
- MILWAUKIE BUSINESS INDUSTRIAL



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TRANSPORTATION SOLUTIONS

0 500 1,000 2,000 3,000 4,000 Feet

For NMIA projects please refer to Table 8-10; AB - AF