

Volume V, Appendix D

# Transportation

City of Spokane Comprehensive Plan

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# **Part I:**

# **Transportation Policy**

# **Advisory Group**

# **Membership**

City of Spokane Comprehensive Plan

| Member       |          | Business/Position                                                                                   |
|--------------|----------|-----------------------------------------------------------------------------------------------------|
| Callary      | Raychel  | Lilac Services for the Blind                                                                        |
| Carroll      | Tom      | Catholic Charities                                                                                  |
| Cathcart     | Michael  | Homebuilders - Director of Government Affairs                                                       |
| Clements     | Sara     | Hospitals - Providence                                                                              |
| Darlene      | Deanne   | Centennial Real Estate Investments                                                                  |
| Dewey        | Heleen   | Spokane Regional Health District                                                                    |
| Dice         | Sarah    | Greater Spokane Incorporated - Economic Development                                                 |
| Dietzman     | John     | Planning Commission                                                                                 |
| Ewers        | Matt     | Inland Empire Distribution Services Inc.                                                            |
| Francis      | Greg     | Rockwood CA Dist 2 CA Plan Commission Rep                                                           |
| Haught       | Lunell   | Gonzaga                                                                                             |
| Hawkins      | Dallas   | Public Works Committee                                                                              |
| Hill         | Latisha  | Avista                                                                                              |
| Hoffman      | Carlie   | Emerson/Garfield CA District 3 (N Monroe) and PeTT Rep (Pedestrian, Transportation, & Traffic Comm) |
| Jackson      | Joe      | West Plains Chamber of Commerce                                                                     |
| Jones        | Margaret | College of Nursing, WSU                                                                             |
| Joplin       | Amber    | Access for All Spokane                                                                              |
| Kay          | Char     | WSDOT                                                                                               |
| Kehr         | Garry    | Bicycle Advisory Board                                                                              |
| Kelley       | Bill     | EWU                                                                                                 |
| Key          | Lisa     | City of Spokane Planning Director                                                                   |
| Kilday       | Cheryl   | Visit Spokane                                                                                       |
| Klitzky      | Kitty    | Futurewise                                                                                          |
| Kropp        | Paul     | Neighborhood Alliance/SRTC TAC                                                                      |
| Mansfield    | Mark     | U-District Development                                                                              |
| Mansfield    | Amanda   | SRTC                                                                                                |
| McFaul       | Loreen   | Friends of the Centennial Trail                                                                     |
| McIntyre     | Jamie    | Aging and Long Term Care Eastern Washington                                                         |
| McLellan     | Rhonda   | Spokane Schools                                                                                     |
| Minder Jones | Margaret | Land Use Committee                                                                                  |
| Otterstrom   | Karl     | STA                                                                                                 |
| Prosser      | Gail     | Planning Commission                                                                                 |
| Reynolds     | Dave     | The Arc of Spokane                                                                                  |
| Richard      | Mark     | Downtown Spokane Partnership                                                                        |
| Schad        | Jon      | WSU Spokane                                                                                         |
| Schoelen     | Lena     | Dept of Services for the Blind                                                                      |
| Scranton     | Steve    | Washington Trust Bank                                                                               |
| Stewart      | Cheryl   | Associated General Contractors                                                                      |
| Tolley       | Luke     | Hillyard Comm Assem Dist 1 (N/S Corridor Econ Devel)                                                |
| Tortorelli   | Joe      | Spokane Area Good Roads Association                                                                 |
| Warrington   | Steven   | Centennial Real Estate Investments                                                                  |
| Weinand      | Kathleen | STA                                                                                                 |

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# **Part II:**

# **Planning Documents**

# **Reviewed**

City of Spokane Comprehensive Plan

## City of Spokane Plans/Studies

- The City of Spokane's Comprehensive Plan
- Spokane Master Bike Plan
- The Downtown Plan: Fast Forward Spokane (2008)
- University District / Downtown Spokane Transportation Improvement Study (2009)
- Downtown Parking Study (2005 & 2010 reports)
- University District Strategic Master Plan (2004)
- University District Parking Study (2007)
- Division Street Gateway Study (2015)
- Pedestrian Plan (2015)
- Davenport Arts and Entertainment District Plan (2002)
- West Plains Transportation Subarea Plan (2014)
- ADA Transition Plan (2015)
- Growth and Transportation Efficiency Center Plan (GTEC) (2008)

## Neighborhood Plans

- Browne's Addition: Master Plan for Coeur d'Alene Park - Spokane Park Board Approval
- East Central: City Council resolution number: RES 2006-0032
- Emerson-Garfield: City Council resolution number: RES 2014-0086
- Five Mile: City Council resolution number: RES 2012-0007
- Grandview/Thorpe: City Council resolution number: underway
- Logan: City Council resolution number: RES 2006-0069
- Logan Neighborhood Identity Plan and Model Form-Based Code for Hamilton Corridor: RES 2014-0053
- Nevada Lidgerwood: City Council resolution number: RES 2012-0009
- North Hill: City Council resolution number: underway
- Peaceful Valley: City Council resolution number : underway
- Southgate: City Council resolution number: RES 2012-0008
- South Hill Coalition: City Council resolution number: RES 2014-0067
- West Central: City Council resolution number: RES 2013-0012

## Spokane Regional Transportation Council (SRTC)

- SRTC HORIZON 2040: The Metropolitan Transportation Plan
- Spokane Unified Regional Transportation Vision and Implementation Strategy (2011)
- Spokane Regional Transportation Council (SRTC) 2011-2035 Metropolitan Transportation Plan
- Regional Commute Trip Reduction Plan Update (2015)
- Spokane Regional Commute Trip Reduction Plan (2008)
- Spokane Region ITS Systems Plan (2013)

- Spokane Regional Pedestrian Plan (2009)
- Spokane Regional Bike Plan (2008)

## **Spokane Transit Authority (STA)**

- STA Moving Forward (2016)
- Connect Spokane (2015)
- Transit Development Plan (2016)
- Central City Line Strategic Overlay Plan (2016)
- Ft. George Wright Drive Station and Corridor Plan (2016) – move to neighborhood section?

## **Washington State Department of Transportation (WSDOT)**

- WSDOT North Spokane Corridor Project (underway)
- WSDOT – Washington Transportation Plan (WTP 2035)
- WSDOT 2007-2026 Washington Transportation Plan (2006)

## **MISC**

- 2016 to 2024 6 Year Capital Improvement Program
- Previous “Unfunded” Capital Projects List
- City Transportation Funding History: Capital and Maintenance
- Health District Assessment of Spokane’s Street Design Standards
- Impact Fee Ordinance and projects
- City draft policy on pedestrian crossings? – Crosswalk Ordinance?
- Residential Traffic Calming Guide
- City Unified Development Code
- Street Design Standards
- Spokane Riverpoint Campus Academic & Master Plan Update (2009)

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# **Part III:**

# **Integrated Capital Projects**

# **Matrix Scoring Summary**

City of Spokane Comprehensive Plan



# ***Integrated Streets Matrix Scoring Summary***

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# LINK Spokane Project Selection Criteria

# Evaluation Categories

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- Transportation Choices
- Access to Daily Needs
- Economic Opportunity
- Natural & Neighborhood Assets
- Enhance Public Health & Safety
- Fiscal Responsibility

# Sources for Project List

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- Existing Comprehensive Plan
- Neighborhood Plans
- Downtown Plan & U-District Plan
- Bicycle and Pedestrian Plan
- Existing Impact Fee List
- West Plains Transportation Study
- Arterial and Utility Conditions

# Matrix Types

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- Reconstruction
  - Projects of Significance
- Maintenance / Overlays
- Non-Motorized
- Transportation Impact Fee List

# Transportation Choices

## Person Capacity

1 pt - < 5k ADT

2 pts – < 5k ADT + HPTN *or* 5k-10k ADT

3 pts – 5k-10k ADT + HPTN *or* 10k-20k ADT

4 pts – 10k-20k ADT + HPTN *or* > 20k ADT

5 pts – > 20k ADT+ HPTN



# Transportation Choices

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## Network Connectivity

0 pts - none

2 pt – adds one mode

3 pts – adds two modes

4 pts – adds three modes

5 pts – adds four modes



# Access to daily needs

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## Neighborhood Accessibility

- 1 pts – score 1-5
- 2 pts – score 6 -10
- 3 pts – score 11 - 15
- 4 pts – score 16-20
- 5 pts – score 21-25



# Access to daily needs

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## Regional Accessibility

0 pts - none

2 pt – 1-2 destinations near project limits

3 pts – 3-4 destinations near project limits

4 pts – 5-6 destinations near project limits

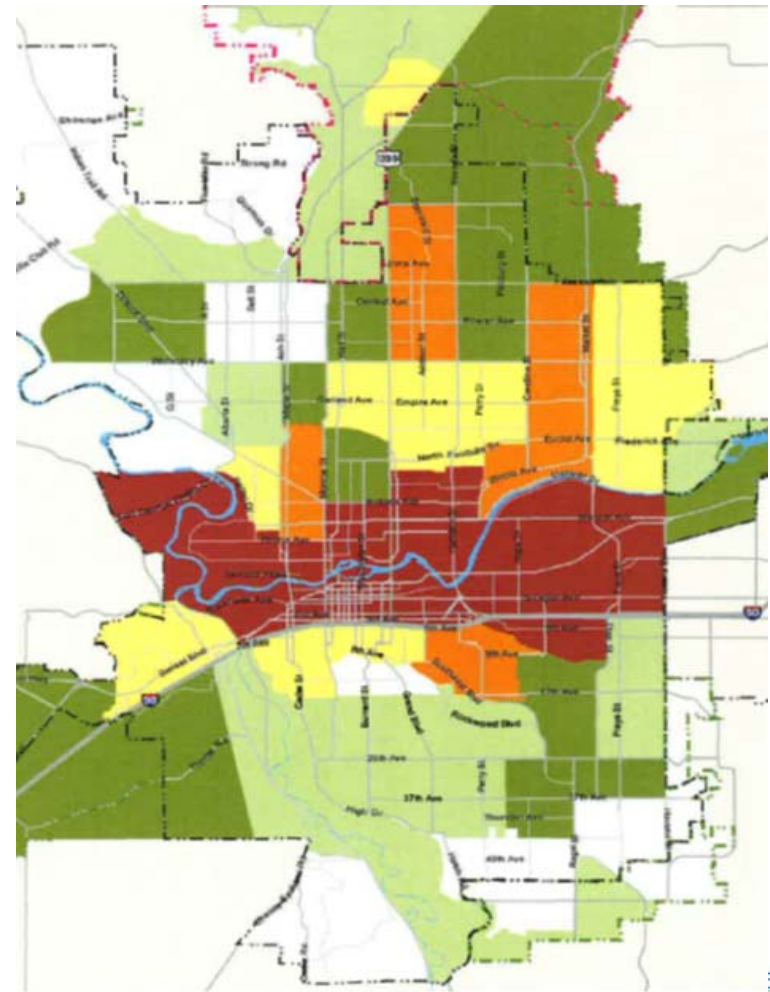
5 pts – downtown core



# Access to daily needs

## Disadvantaged Accessibility

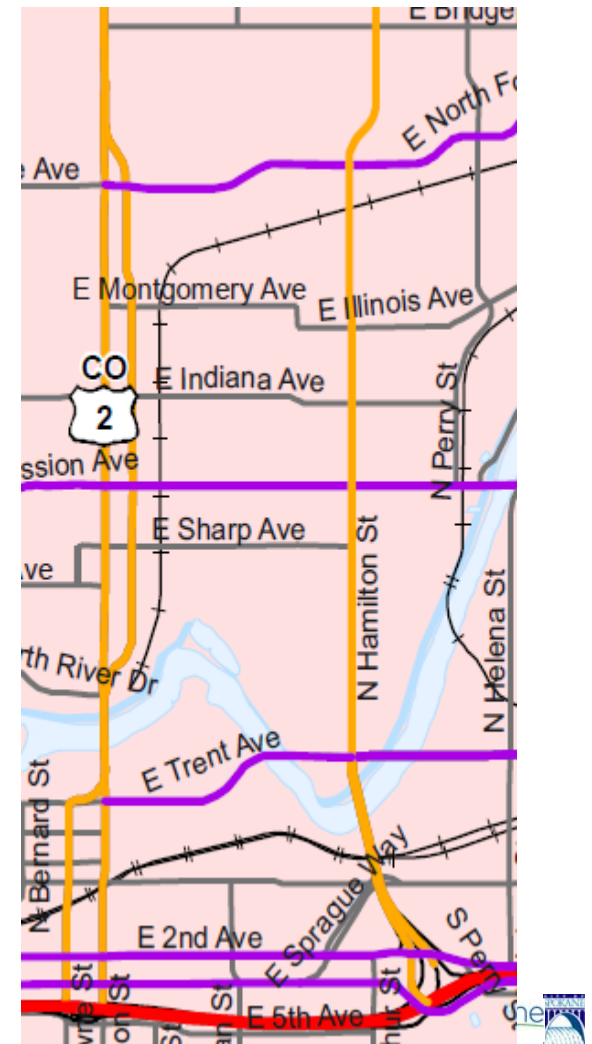
|       |   |                 |
|-------|---|-----------------|
| 0 pts | - | 0% - 6.92%      |
| 1 pts | - | 6.93% - 11.43%  |
| 2 pts | - | 11.43% - 19.36% |
| 3 pts | - | 19.37% - 26.4%  |
| 4 pts | - | 26.45% - 32.9%  |
| 5 pts | - | 32.91%          |



# Economic Opportunity

## Freight & Goods Movement

- 0 pts - not classified
- 1 pt - T5 (20-100 tons)
- 2 pts - T4 (100-300 tons)
- 3 pts - T3 (300-4,000 tons)
- 4 pts - T2 (4,000-10,000 tons)
- 5 pts - T1 (over 10,000 tons)



# Economic Opportunity

## Development/Redevelopment Potential

0 pts - none

1 pt – within ½ mile

3 pts – within ¼ mile

5 pts – within project limits



**Target Areas**



**Centers and Corridors**



**The YARD**

# Natural & Neighborhood Assets

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## Air Quality

- 0 pts - adds VMT
- 2 pt – neutral
- 3 pts – decreases idling
- 5 pts – reduces VMT



# Natural & Neighborhood Assets

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## Water Quality



- 0 pts - negative
- 2 pts - neutral
- 5 pts – includes new or updated stormwater facilities

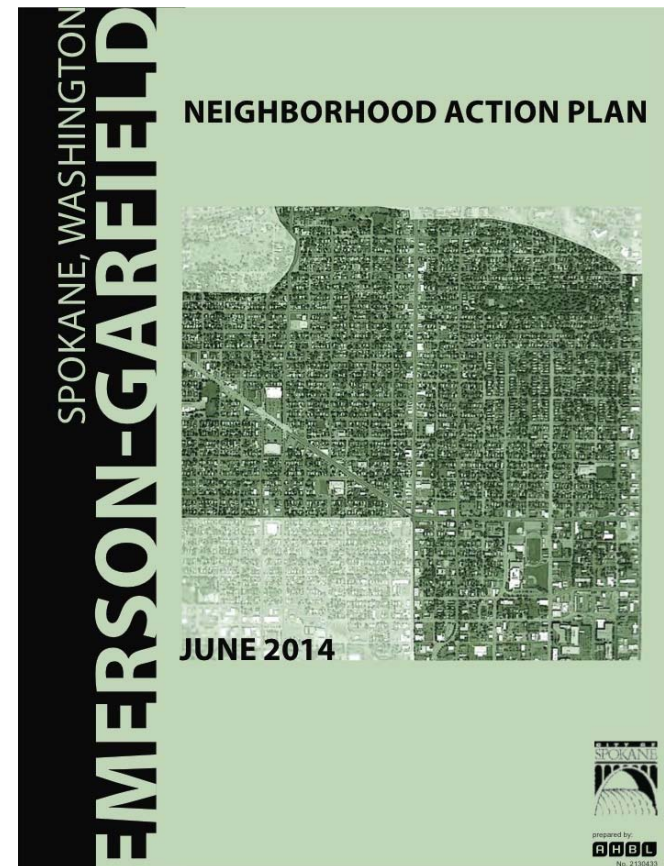


# Natural & Neighborhood Assets

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## Neighborhood/District Impact

- 0 pts -  
not in neighborhood plan
- 2 pt – consistent with plan  
concepts
- 5 pts – project listed in  
neighborhood plan



# Enhance Public Health & Safety

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## Vehicle Safety

0 pts - none

3 pts – clear safety benefit

5 pts – corrects documented collision pattern



# Enhance Public Health & Safety

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## Bike Safety

- 0 pts - none
- 2 pts – signing, marking
- 3 pts – bike lane
- 4 pts – buffered lane, greenway, controlled xing
- 5 pts - separated path, grade separated xing



# Enhance Public Health & Safety

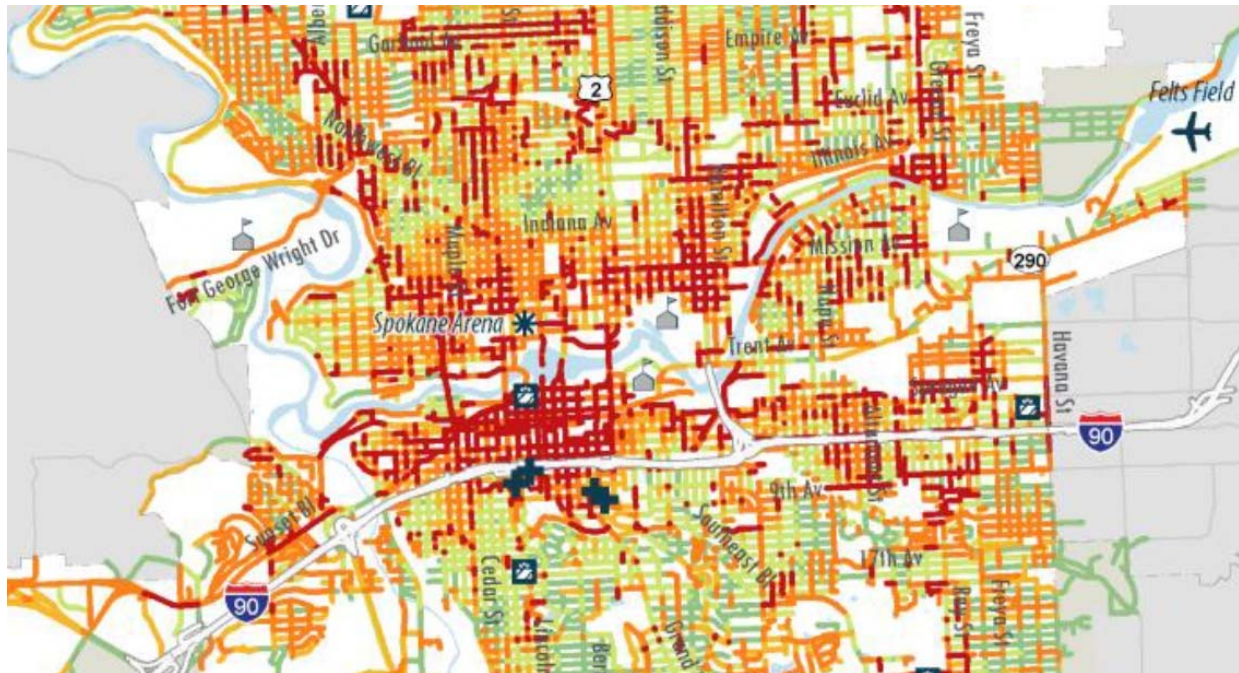
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## Pedestrian Priority Area

0 pts – none

2 pts – vicinity of ped priority area

5 pts – in ped priority area



# Enhance Public Health & Safety

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## Pedestrian Safety

0 pts - none

2 pt – sidewalk ramps or leveling

3 pts – adds sidewalk or crosswalk

4 pts – adds controlled crossing

5 pts – adds separated path or xing



2 pts – curb ramps

# Fiscal Responsibility

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## CSO Integration

- 0 pts - none
- 1 pts – Low Priority
- 3 pts – Medium Priority
- 5 pts – High Priority



# Fiscal Responsibility

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## Water Integration

- 0 pts - none
- 1 pts – 1995 – present
- 2 pts – 1975 - 1994
- 3 pts – 1956 - 1974
- 4 pts – 1931-1955
- 5 pts – 1850-1930



# Fiscal Responsibility

## Maintenance and Facility Condition

0 pts - PCI 80-100

2 pts – PCI 60-80

3 pts – PCI 40-60

4 pts – PCI 20-40

5 pts – PCI 0-20



# Fiscal Responsibility

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## Leveraged Financing

- 0 pts - limited
- 1 pt – grant eligible
- 2 pts – on impact fee list
- 4 pts – <50% funded
- 5 pts - >50% funded

*(excludes levy funds)*



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# **Part IV:**

# **Transportation Project**

# **Lists**

City of Spokane Comprehensive Plan

Integrated Streets Evaluation Matrix

|    |                     |                       |                                                                                                                        |                                                                     | Provide Transportation Choices |                      |              | Access to Daily Needs and Regional Destinations |                            |                        |   | Promote Economic Opportunity         |   |               | Respect Natural and Neighborhood Assets |                                       |    |       | Enhance Public Health and Safety |               |   |                              |   | Maximize Public Benefits and Fiscal Responsibility with Integration |                |                               |                        |      |            |                  |                          |                      |                               |                              |                     |                                     |        |        |             |                                              |           |            |                |                |   |      |      |           |            |
|----|---------------------|-----------------------|------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|--------------------------------|----------------------|--------------|-------------------------------------------------|----------------------------|------------------------|---|--------------------------------------|---|---------------|-----------------------------------------|---------------------------------------|----|-------|----------------------------------|---------------|---|------------------------------|---|---------------------------------------------------------------------|----------------|-------------------------------|------------------------|------|------------|------------------|--------------------------|----------------------|-------------------------------|------------------------------|---------------------|-------------------------------------|--------|--------|-------------|----------------------------------------------|-----------|------------|----------------|----------------|---|------|------|-----------|------------|
| ID | Project Name        | Project Location      | Project Description                                                                                                    | Integration                                                         | Person Capacity                | Network Connectivity |              | Score                                           | Neighborhood Accessibility | Regional Accessibility |   | Disadvantaged Accessibility          |   | Score         | Freight/ Goods movement                 | Development & Redevelopment Potential |    | Score | Air Quality                      | Water Quality |   | Neighborhood/District Impact |   | Score                                                               | Vehicle Safety | Bike Safety                   | Ped Plan Priority Area |      | Ped Safety | Score            | CSO Integration          | Water Integration    |                               | Maint and Facility Condition |                     | Leveraged Financing (excludes levy) |        | Score  | Total Score | Total Estimated Planning Cost with Inflation |           |            |                |                |   |      |      |           |            |
| 1  | Main Avenue         | Monroe to Wall        | Full depth reconstruction, SW repair, structural sidewalk mitigation, stripe bike lanes, redo lighting (parking funds) | replace CI distribution main, storm separation                      | 5k-10k ADT                     | 2                    | Adds 1 mode  | 2                                               | 4                          | score 6-10             | 2 | downtown core                        | 5 | 32.91% +      | 5                                       | 8                                     | T4 | 2     | adjacent                         | 5             | 7 | No change                    | 2 | Neutral                                                             | 2              | Project listed in plan        | 5                      | 6    | None       | 0                | buffered lane, greenway, | 4                    | In Ped Priority Zone          | 5                            | add sw and/or xwalk | 3                                   | 6      | Medium | 3           | 1850-1930                                    | 5         | PCI 60-80  | 2              | grant eligible | 1 | 6    | 36.5 | \$        | 2,380,000  |
| 2  | Sprague             | Howard to Browne      | Full depth reconstruction, SW repair, structural sidewalk, stripe bike lanes, redo lighting (parking funds)            | replace waterline                                                   | 10k-20k ADT                    | 3                    | Adds 1 mode  | 2                                               | 5                          | score 6-10             | 2 | downtown core                        | 5 | 32.91% +      | 5                                       | 8                                     | T4 | 2     | adjacent                         | 5             | 7 | No change                    | 2 | Neutral                                                             | 2              | Consistent with plan concepts | 2                      | 4    | None       | 0                | bike lane                | 3                    | In Ped Priority Zone          | 5                            | sw ramps or repair  | 2                                   | 5      | Medium | 3           | 1850-1930                                    | 5         | PCI 40-60  | 3              | grant eligible | 1 | 6    | 35.0 | \$        | 4,200,000  |
| 3  | Spokane Falls Blvd. | Post to Division      | Full depth reconstruction, SW repair, structural sidewalk, redo lighting (parking funds)                               | replace waterline                                                   | 5k-10k ADT + HPTN              | 3                    | None         | 0                                               | 3                          | score 6-10             | 2 | downtown core                        | 5 | 32.91% +      | 5                                       | 8                                     | T4 | 2     | adjacent                         | 5             | 7 | No change                    | 2 | New or updated facilities                                           | 5              | Consistent with plan concepts | 2                      | 6    | None       | 0                | bike lane                | 3                    | In Ped Priority Zone          | 5                            | sw ramps or repair  | 2                                   | 5      | Low    | 1           | 1850-1930                                    | 5         | PCI 60-80  | 2              | grant eligible | 1 | 5    | 33.5 | \$        | 5,180,000  |
| 4  | 1st Ave             | Wall to Bernard       | Full depth reconstruction, SW repair, structural sidewalk, redo lighting (parking funds)                               | replace CI distribution main (Madison to Howard), storm separation? | < 5k ADT                       | 1                    | Adds 1 mode  | 2                                               | 3                          | score 6-10             | 2 | downtown core                        | 5 | 32.91% +      | 5                                       | 8                                     | T4 | 2     | adjacent                         | 5             | 7 | No change                    | 2 | Neutral                                                             | 2              | Consistent with plan concepts | 2                      | 4    | None       | 0                | bike lane                | 3                    | In Ped Priority Zone          | 5                            | sw ramps or repair  | 2                                   | 5      | Medium | 3           | 1850-1930                                    | 5         | PCI 40-60  | 3              | grant eligible | 1 | 6    | 33.0 | \$        | 2,660,000  |
| 5  | 27th Avenue         | SE Blvd to Ray        | Full depth reconstruction, SW repair                                                                                   |                                                                     | < 5k ADT                       | 1                    | Adds 2 modes | 3                                               | 4                          | score 6-10             | 2 | none                                 | 0 | 11.43%-19.36% | 2                                       | 3                                     | T5 | 1     | adjacent                         | 5             | 6 | Decreases id                 | 3 | New or updated facilities                                           | 5              | Project listed in plan        | 5                      | 9    | None       | 0                | bike lane                | 3                    | vicinity of Ped Priority Zone | 2                            | add sw and/or xwalk | 3                                   | 4      | High   | 5           | 1956-1974                                    | 3         | PCI 0-20   | 5              | grant eligible | 1 | 7    | 32.3 | \$        | 2,100,000  |
| 6  | Howard Street       | SFB to Riverside      | Full depth reconstruction, SW repair, structural sidewalk, redo lighting (parking funds)                               | storm separation?                                                   | < 5k ADT                       | 1                    | None         | 0                                               | 1                          | score 6-10             | 2 | downtown core                        | 5 | 32.91% +      | 5                                       | 8                                     | T4 | 2     | adjacent                         | 5             | 7 | No change                    | 2 | New or updated facilities                                           | 5              | Not in plan                   | 0                      | 5    | None       | 0                | bike lane                | 3                    | In Ped Priority Zone          | 5                            | sw ramps or repair  | 2                                   | 5      | Medium | 3           | 1850-1930                                    | 5         | PCI 60-80  | 2              | grant eligible | 1 | 6    | 31.2 | \$        | 1,260,000  |
| 7  | Howard Street       | Sprague to 4th        | Full depth reconstruction, SW repair, structural sidewalk, redo lighting (parking funds)                               | replace CI distribution main (1st to 4th), storm separation?        | < 5k ADT                       | 1                    | None         | 0                                               | 1                          | score 6-10             | 2 | downtown core                        | 5 | 32.91% +      | 5                                       | 8                                     | T4 | 2     | adjacent                         | 5             | 7 | No change                    | 2 | New or updated facilities                                           | 5              | Not in plan                   | 0                      | 5    | None       | 0                | bike lane                | 3                    | In Ped Priority Zone          | 5                            | sw ramps or repair  | 2                                   | 5      | Medium | 3           | 1850-1930                                    | 5         | PCI 60-80  | 2              | grant eligible | 1 | 6    | 31.2 | \$        | 2,940,000  |
| 8  | Washington          | SFB to 4th            | Full depth reconstruction, SW repair, structural sidewalk, redo lighting (parking funds)                               | replace CI distribution main (SFB to 3rd), storm separation?        | 10k-20k ADT                    | 3                    | None         | 0                                               | 3                          | score 6-10             | 2 | downtown core                        | 5 | 32.91% +      | 5                                       | 8                                     | T4 | 2     | adjacent                         | 5             | 7 | No change                    | 2 | New or updated facilities                                           | 5              | Not in plan                   | 0                      | 5    | None       | 0                | signing, marking         | 2                    | none                          | 0                            | add sw and/or xwalk | 3                                   | 3      | Medium | 3           | 1850-1930                                    | 5         | PCI 60-80  | 2              | grant eligible | 1 | 6    | 30.7 | \$        | 4,900,000  |
| 9  | Main Avenue         | Cedar to Monroe       | Full depth reconstruction, SW repair, structural sidewalk                                                              | CSO separation work (2017)                                          | < 5k ADT                       | 1                    | None         | 0                                               | 1                          | score 11-15            | 3 | downtown core                        | 5 | 32.91% +      | 5                                       | 9                                     | T4 | 2     | adjacent                         | 5             | 7 | No change                    | 2 | Neutral                                                             | 2              | Consistent with plan concepts | 2                      | 4    | None       | 0                | none                     | 0                    | In Ped Priority Zone          | 5                            | sw ramps or repair  | 2                                   | 4      | High   | 5           | 1931-1955                                    | 4         | PCI 40-60  | 3              | limited        | 0 | 6    | 30.2 | \$        | 1,960,000  |
| 10 | Maxwell             | Maple to Monroe       | Full depth reconstruction, SW repair                                                                                   | replace CI distribution main from Adams To Monroe                   | 5k-10k ADT                     | 2                    | None         | 0                                               | 2                          | score 6-10             | 2 | 1-2 destinations near project limits | 2 | 32.91% +      | 5                                       | 6                                     | T3 | 3     | within 1/4 mile                  | 3             | 6 | No change                    | 2 | New or updated facilities                                           | 5              | Not in plan                   | 0                      | 5    | None       | 0                | bike lane                | 3                    | In Ped Priority Zone          | 5                            | sw ramps or repair  | 2                                   | 5      | Medium | 3           | 1850-1930                                    | 5         | PCI 20-40  | 4              | limited        | 0 | 6    | 29.7 | \$        | 1,960,000  |
| 11 | 4th Avenue          | Jefferson to Division | Full depth reconstruction, SW repair                                                                                   | replace CI distribution main, storm separation?                     | < 5k ADT                       | 1                    | None         | 0                                               | 1                          | score 1-5              | 1 | downtown core                        | 5 | 19.37%-26.4%  | 3                                       | 6                                     | T5 | 1     | adjacent                         | 5             | 6 | No change                    | 2 | New or updated facilities                                           | 5              | Not in plan                   | 0                      | 5    | None       | 0                | bike lane                | 3                    | In Ped Priority Zone          | 5                            | sw ramps or repair  | 2                                   | 5      | Medium | 3           | 1850-1930                                    | 5         | PCI 40-60  | 3              | grant eligible | 1 | 6    | 28.7 | \$        | 3,360,000  |
| 12 | Mallon              | Monroe to Howard      | Full depth reconstruction, SW repair                                                                                   | replace CI distribution main, possible storm separation             | < 5k ADT                       | 1                    | Adds 1 mode  | 2                                               | 3                          | score 6-10             | 2 | 3-4 destinations near project limits | 3 | 32.91% +      | 5                                       | 7                                     | T4 | 2     | adjacent                         | 5             | 7 | No change                    | 2 | Neutral                                                             | 2              | Not in plan                   | 0                      | 3    | None       | 0                | bike lane                | 3                    | In Ped Priority Zone          | 5                            | sw ramps or repair  | 2                                   | 5      | None   | 0           | 1850-1930                                    | 5         | PCI 40-60  | 3              | limited        | 0 | 4    | 28.3 | \$        | 1,120,000  |
| 13 | Monroe              | Maxwell to Indiana    | Full depth reconstruction, SW repair                                                                                   | replace CI transmission main, storm separation?                     | 10k-20k ADT + HPTN             | 4                    | None         | 0                                               | 4                          | score 6-10             | 2 | none                                 | 0 | 32.91% +      | 5                                       | 5                                     | T4 | 2     | adjacent                         | 5             | 7 | No change                    | 2 | New or updated facilities                                           | 5              | Not in plan                   | 0                      | 5    | None       | 0                | none                     | 0                    | In Ped Priority Zone          | 5                            | sw ramps or repair  | 2                                   | 4      | Medium | 3           | 1850-1930                                    | 5         | PCI 80-100 | 0              | grant eligible | 1 | 5    | 28.3 | \$        | 10,500,000 |
| 14 | Post St.            | Main to 3rd           | Full depth reconstruction, SW repair, structural sidewalk, redo lighting                                               | replace CI transmission main, storm separation?                     | < 5k ADT                       | 1                    | None         | 0                                               | 1                          | score 6-10             | 2 | downtown core                        | 5 | 32.91% +      | 5                                       | 8                                     | T4 | 2     | adjacent                         | 5             | 7 | No change                    | 2 | Neutral                                                             | 2              | Not in plan                   | 0                      | 3    | None       | 0                | none                     | 0                    | In Ped Priority Zone          | 5                            | sw ramps or repair  | 2                                   | 4      | High   | 5           | 1850-1930                                    | 5         | PCI 60-80  | 2              | limited        | 0 | 6    | 28.2 | \$        | 3,360,000  |
| 15 | Belt                | Garland to Rowan      | Full depth reconstruction, new sidewalk, SW repair, crosswalks, bike lane                                              | storm separation                                                    | 5k-10k ADT                     | 2                    | Adds 2 modes | 3                                               | 5                          | score 11-15            | 3 | 1-2 destinations near project limits | 2 | 6.93%-11.43%  | 1                                       | 4                                     | T4 | 2     | adjacent                         | 5             | 7 | No change                    | 2 | Neutral                                                             | 2              | Not in plan                   | 0                      | 3    | None       | 0                | bike lane                | 3                    | vicinity of Ped Priority Zone | 2                            | add sw and/or xwalk | 3                                   | 4      | Medium | 3           | 1931-1955                                    | 4         | PCI 60-80  | 2              | limited        | 0 | 5    | 27.2 | \$        | 3,360,000  |
| 16 | Stevens             | SFB to 4th            | Full depth reconstruction, SW repair, structural sidewalk, redo lighting                                               | replace waterline (SFB to Main)                                     | < 5k ADT                       | 1                    | None         | 0                                               | 1                          | score 6-10             | 2 | downtown core                        | 5 | 32.91% +      | 5                                       | 8                                     | T4 | 2     | adjacent                         | 5             | 7 | No change                    | 2 | New or updated facilities                                           | 5              | Not in plan                   | 0                      | None | 0          | signing, marking | 2                        | In Ped Priority Zone | 5                             | sw ramps or repair           | 2                   | 5                                   | Medium | 3      | 1931-1955   | 4                                            | PCI 60-80 | 2          | grant eligible | 1              | 5 | 25.5 | \$   | 4,760,000 |            |

Integrated Streets Evaluation Matrix

|    |                       |                        |                                                    |                                           | Provide Transportation Choices |                      |             | Access to Daily Needs and Regional Destinations |                            |                        |           | Promote Economic Opportunity         |                             |               | Respect Natural and Neighborhood Assets |                         |                                       |       | Enhance Public Health and Safety |               |                              |           |           | Maximize Public Benefits and Fiscal Responsibility with Integration |             |                               |             |       |                 |                   |                              |                                     |                               |                               |                                              |                    |   |        |      |              |           |            |           |                |         |   |      |      |           |
|----|-----------------------|------------------------|----------------------------------------------------|-------------------------------------------|--------------------------------|----------------------|-------------|-------------------------------------------------|----------------------------|------------------------|-----------|--------------------------------------|-----------------------------|---------------|-----------------------------------------|-------------------------|---------------------------------------|-------|----------------------------------|---------------|------------------------------|-----------|-----------|---------------------------------------------------------------------|-------------|-------------------------------|-------------|-------|-----------------|-------------------|------------------------------|-------------------------------------|-------------------------------|-------------------------------|----------------------------------------------|--------------------|---|--------|------|--------------|-----------|------------|-----------|----------------|---------|---|------|------|-----------|
| ID | Project Name          | Project Location       | Project Description                                | Integration                               | Person Capacity                | Network Connectivity |             |                                                 | Neighborhood Accessibility | Regional Accessibility |           |                                      | Disadvantaged Accessibility |               | Score                                   | Freight/ Goods movement | Development & Redevelopment Potential | Score | Air Quality                      | Water Quality | Neighborhood/District Impact |           | Score     | Vehicle Safety                                                      | Bike Safety | Ped Plan Priority Area        | Ped Safety  | Score | CSO Integration | Water Integration | Maint and Facility Condition | Leveraged Financing (excludes levy) | Score                         | Total Score                   | Total Estimated Planning Cost with Inflation |                    |   |        |      |              |           |            |           |                |         |   |      |      |           |
| 17 | Cedar                 | 11th to 15th           | Full depth reconstruction, SW repair, bike lane    | replace waterline (14th - 15th), CSO work | 10k-20k ADT                    | 3                    | Adds 1 mode | 2                                               | 5                          | score 1-5              | 1         | none                                 | 0                           | 19.37%-26.4%  | 3                                       | 3                       | T3                                    | 3     | None                             | 0             | 3                            | No change | 2         | New or updated facilities                                           | 5           | Not in plan                   | 0           | 5     | None            | 0                 | bike lane                    | 3                                   | vicinity of Ped Priority Zone | 2                             | sw ramps or repair                           | 2                  | 4 | High   | 5    | 1931-1955    | 4         | PCI 60-80  | 2         | grant eligible | 1       | 6 | 24.8 | \$   | 980,000   |
| 18 | Broadway Avenue       | Cedar to Post          | Full depth reconstruction, SW repair               | replace waterline , CSO work              | < 5k ADT                       | 1                    | None        | 0                                               | 1                          | score 6-10             | 2         | 1-2 destinations near project limits | 2                           | 32.91% +      | 5                                       | 6                       | T4                                    | 2     | adjacent                         | 5             | 7                            | No change | 2         | Neutral                                                             | 2           | Not in plan                   | 0           | 3     | None            | 0                 | signing, marking             | 2                                   | In Ped Priority Zone          | 5                             | sw ramps or repair                           | 2                  | 5 | None   | 0    | 1850-1930    | 5         | PCI 60-80  | 2         | limited        | 0       | 4 | 24.7 | \$   | 1,960,000 |
| 19 |                       | Riverside Ave          | Hemlock to Maple                                   | Full depth reconstruction, SW repair      | replace waterline              | < 5k ADT             | 1           | None                                            | 0                          | 1                      | score 1-5 | 1                                    | downtown core               | 5             | 32.91% +                                | 5                       | 7                                     | T4    | 2                                | adjacent      | 5                            | 7         | No change | 2                                                                   | Neutral     | 2                             | Not in plan | 0     | 3               | None              | 0                            | signing, marking                    | 2                             | vicinity of Ped Priority Zone | 2                                            | sw ramps or repair | 2 | 3      | None | 0            | 1850-1930 | 5          | PCI 60-80 | 2              | limited | 0 | 4    | 24.5 | \$        |
| 20 | Cowley St.            | 4th to Rockwood        | Full depth reconstruction, SW repair, add sidewalk | replace waterline, CSO work               | < 5k ADT                       | 1                    | Adds 1 mode | 2                                               | 3                          | score 6-10             | 2         | 1-2 destinations near project limits | 2                           | 19.37%-26.4%  | 3                                       | 5                       | T4                                    | 2     | within 1/4 mile                  | 3             | 5                            | No change | 2         | Neutral                                                             | 2           | Not in plan                   | 0           | 3     | None            | 0                 | signing, marking             | 2                                   | vicinity of Ped Priority Zone | 2                             | add sw and/or xwalk                          | 3                  | 4 | Medium | 3    | 1850-1930    | 5         | PCI 40-60  | 3         | limited        | 0       | 6 | 24.3 | \$   | 1,680,000 |
| 21 | Summit Blvd - Mission | A St. to Pettit        | Full depth reconstruction, SW repair               | replace waterline (A to Lindeke)          | < 5k ADT                       | 1                    | None        | 0                                               | 1                          | score 6-10             | 2         | none                                 | 0                           | 32.91% +      | 5                                       | 5                       | T4                                    | 2     | adjacent                         | 5             | 7                            | No change | 2         | Neutral                                                             | 2           | Not in plan                   | 0           | 3     | None            | 0                 | signing, marking             | 2                                   | vicinity of Ped Priority Zone | 2                             | sw ramps or repair                           | 2                  | 3 | High   | 5    | 1931-1955    | 4         | PCI 40-60  | 3         | limited        | 0       | 6 | 24.3 | \$   | 1,540,000 |
| 22 | Boone                 | Maple to Monroe        | Full depth reconstruction, SW repair               | replace waterline, CSO work               | 5k-10k ADT                     | 2                    | None        | 0                                               | 2                          | score 6-10             | 2         | none                                 | 0                           | 32.91% +      | 5                                       | 5                       | T4                                    | 2     | adjacent                         | 5             | 7                            | No change | 2         | Neutral                                                             | 2           | Not in plan                   | 0           | 3     | None            | 0                 | none                         | 0                                   | In Ped Priority Zone          | 5                             | sw ramps or repair                           | 2                  | 4 | Medium | 3    | 1850-1930    | 5         | PCI 80-100 | 0         | limited        | 0       | 4 | 23.8 | \$   | 1,820,000 |
| 23 | Howard Street         | Mallon to Maxwell      | Full depth reconstruction, SW repair               | replace waterline                         | < 5k ADT                       | 1                    | None        | 0                                               | 1                          | score 6-10             | 2         | 3-4 destinations near project limits | 3                           | 32.91% +      | 5                                       | 7                       | T4                                    | 2     | within 1/4 mile                  | 3             | 5                            | No change | 2         | Neutral                                                             | 2           | Not in plan                   | 0           | 3     | None            | 0                 | bike lane                    | 3                                   | In Ped Priority Zone          | 5                             | sw ramps or repair                           | 2                  | 5 | None   | 0    | 1850-1930    | 5         | PCI 60-80  | 2         | limited        | 0       | 4 | 23.8 | \$   | 1,820,000 |
| 24 | Indiana Avenue        | Ash to Monroe          | Full depth reconstruction, SW repair, bike lanes   | replace waterline, CSO work               | < 5k ADT                       | 1                    | Adds 1 mode | 2                                               | 3                          | score 6-10             | 2         | none                                 | 0                           | 32.91% +      | 5                                       | 5                       | T4                                    | 2     | within 1/2 mile                  | 1             | 3                            | No change | 2         | New or updated facilities                                           | 5           | Not in plan                   | 0           | 5     | None            | 0                 | bike lane                    | 3                                   | none                          | 0                             | sw ramps or repair                           | 2                  | 3 | Medium | 3    | 1850-1930    | 5         | PCI 40-60  | 3         | grant eligible | 1       | 6 | 23.8 | \$   | 2,240,000 |
| 25 | Wellesley             | Division to Nevada     | Full depth reconstruction, SW repair               | replace waterline as needed?              | 10k-20k ADT + HPTN             | 4                    | None        | 0                                               | 4                          | score 1-5              | 1         | 1-2 destinations near project limits | 2                           | 26.45%-32.9%  | 4                                       | 5                       | T3                                    | 3     | within 1/4 mile                  | 3             | 6                            | No change | 2         | Neutral                                                             | 2           | Not in plan                   | 0           | 3     | None            | 0                 | none                         | 0                                   | vicinity of Ped Priority Zone | 2                             | sw ramps or repair                           | 2                  | 2 | None   | 0    | 1931-1955    | 4         | PCI 20-40  | 4         | grant eligible | 1       | 5 | 23.8 | \$   | 4,200,000 |
| 26 | Boone                 | Summit Blvd to Ash     | Full depth reconstruction, SW repair               | replace waterline, CSO work               | < 5k ADT                       | 1                    | None        | 0                                               | 1                          | score 6-10             | 2         | none                                 | 0                           | 32.91% +      | 5                                       | 5                       | T4                                    | 2     | within 1/4 mile                  | 3             | 5                            | No change | 2         | Neutral                                                             | 2           | Not in plan                   | 0           | 3     | None            | 0                 | none                         | 0                                   | In Ped Priority Zone          | 5                             | sw ramps or repair                           | 2                  | 4 | High   | 5    | 1850-1930    | 5         | PCI 40-60  | 3         | limited        | 0       | 7 | 23.3 | \$   | 3,640,000 |
| 27 | Maple-Walnut          | 5th to 11th            | Full depth reconstruction, SW repair               | replace waterline, CSO work               | 10k-20k ADT                    | 3                    | Adds 1 mode | 2                                               | 5                          | score 1-5              | 1         | none                                 | 0                           | 19.37%-26.4%  | 3                                       | 3                       | T3                                    | 3     | None                             | 0             | 3                            | No change | 2         | New or updated facilities                                           | 5           | Not in plan                   | 0           | 5     | None            | 0                 | bike lane                    | 3                                   | vicinity of Ped Priority Zone | 2                             | sw ramps or repair                           | 2                  | 4 | None   | 0    | 1850-1930    | 5         | PCI 40-60  | 3         | grant eligible | 1       | 5 | 23.3 | \$   | 1,540,000 |
| 28 | Rowan                 | Division to Nevada     | Full depth reconstruction, SW repair               | replace waterline, CSO work               | < 5k ADT                       | 1                    | None        | 0                                               | 1                          | score 6-10             | 2         | 1-2 destinations near project limits | 2                           | 26.45%-32.9%  | 4                                       | 5                       | T4                                    | 2     | adjacent                         | 5             | 7                            | No change | 2         | Neutral                                                             | 2           | Not in plan                   | 0           | 3     | None            | 0                 | signing, marking             | 2                                   | none                          | 0                             | sw ramps or repair                           | 2                  | 2 | None   | 0    | 1850-1930    | 5         | PCI 20-40  | 4         | limited        | 0       | 5 | 22.5 | \$   | 2,380,000 |
| 29 | SE Blvd               | 29th to 31st           | Full depth reconstruction, SW repair               |                                           | 10k-20k ADT + HPTN             | 4                    | None        | 0                                               | 4                          | score 6-10             | 2         | none                                 | 0                           | 11.43%-19.36% | 2                                       | 3                       | T4                                    | 2     | adjacent                         | 5             | 7                            | No change | 2         | Neutral                                                             | 2           | Not in plan                   | 0           | 3     | None            | 0                 | bike lane                    | 3                                   | none                          | 0                             | sw ramps or repair                           | 2                  | 3 | None   | 0    | 1975-1994    | 2         | PCI 20-40  | 4         | grant eligible | 1       | 4 | 22.3 | \$   | 560,000   |
| 30 | Monroe                | Garland to Wellesley   | Full depth reconstruction, SW repair               | some utility work                         | 10k-20k ADT + HPTN             | 4                    | None        | 0                                               | 4                          | score 1-5              | 1         | none                                 | 0                           | 19.37%-26.4%  | 3                                       | 3                       | T4                                    | 2     | within 1/4 mile                  | 3             | 5                            | No change | 2         | Neutral                                                             | 2           | Consistent with plan concepts | 2           | 4     | None            | 0                 | none                         | 0                                   | vicinity of Ped Priority Zone | 2                             | sw ramps or repair                           | 2                  | 2 | None   | 0    | 1931-1955    | 4         | PCI 20-40  | 4         | grant eligible | 1       | 5 | 22.2 | \$   | 1,960,000 |
| 31 | Havana                | Broadway to Sprague    | Full depth reconstruction, SW repair               |                                           | 5k-10k ADT                     | 2                    | Adds 1 mode | 2                                               | 4                          | score 1-5              | 1         | 1-2 destinations near project limits | 2                           | 26.45%-32.9%  | 4                                       | 5                       | T2                                    | 4     | None                             | 0             | 4                            | No change | 2         | Neutral                                                             | 2           | Not in plan                   | 0           | 3     | None            | 0                 | none                         | 0                                   | none                          | 0                             | add sw and/or xwalk                          | 3                  | 2 | High   | 5    | 1995-present | 1         | PCI 40-60  | 3         | grant eligible | 1       | 5 | 21.8 | \$   | 2,100,000 |
| 32 | Freya (Phase 1)       | Wellesley to Francis   | Full depth reconstruction, SW repair               |                                           | 5k-10k ADT                     | 2                    | None        | 0                                               | 2                          | score 1-5              | 1         | 1-2 destinations near project limits | 2                           | 19.37%-26.4%  | 3                                       | 4                       | T4                                    | 2     | within 1/4 mile                  | 3             | 5                            | No change | 2         | Neutral                                                             | 2           | Project listed in plan        | 5           | 6     | None            | 0                 | none                         | 0                                   | none                          | 0                             | sw ramps or repair                           | 2                  | 1 | None   | 0    | 1956-1974    | 3         | PCI 40-60  | 3         | limited        | 0       | 3 | 21.0 | \$   | 2,380,000 |
| 33 | Rowan                 | Crestline to Market    | Full depth reconstruction, SW repair               | replace waterline, CSO work               | < 5k ADT                       | 1                    | Adds 1 mode | 2                                               | 3                          | score 1-5              | 1         | none                                 | 0                           | 26.45%-32.9%  | 4                                       | 3                       | T4                                    | 2     | within 1/4 mile                  | 3             | 5                            | No change | 2         | Neutral                                                             | 2           | Not in plan                   | 0           | 3     | None            | 0                 | signing, marking             | 2                                   | vicinity of Ped Priority Zone | 2                             | add sw and/or xwalk                          | 3                  | 4 | None   | 0    | 1850-1930    | 5         | PCI 60-80  | 2         | limited        | 0       | 4 | 21.0 | \$   | 2,100,000 |
| 34 | 17th Avenue           | Grand to Upper Terrace | Full depth reconstruction, SW repair               | replace waterline, CSO work               | < 5k ADT                       | 1                    | Adds 1 mode | 2                                               | 3                          | score 1-5              | 1         | 1-2 destinations near project limits | 2                           | 6.93%-11.43%  | 1                                       | 3                       | T5                                    | 1     | within 1/2 mile                  | 1             | 2                            | No change | 2         | Neutral                                                             | 2           | Not in plan                   | 0           | 3     | None            | 0                 | buffered lane, greenway.     | 4                                   | none                          | 0                             | add sw and/or xwalk                          | 3                  | 4 | High   | 5    | 1850-1930    | 5         | PCI 20-40  | 4         | limited        | 0       | 7 | 20.8 | \$   | 840,000   |
| 35 | Boone                 | Washington to Division | Full depth reconstruction, SW repair               | replace waterline, CSO work               | 5k-10k ADT                     | 2                    | None        | 0                                               | 2                          | score 6-10             | 2         | 1-2 destinations near project limits | 2                           | 32.91% +      | 5                                       | 6                       | T4                                    | 2     | None                             | 0             | 2                            | No change | 2         | Neutral                                                             | 2           | Not in plan                   | 0           | 3     | None            | 0                 | signing, marking             | 2                                   | In Ped Priority Zone          | 5                             | sw ramps or repair                           | 2                  | 5 | None   | 0    | 1850-1930    | 5         | PCI 60-80  | 2         | limited        | 0       | 4 | 20.7 | \$   | 1,400,000 |

Integrated Streets Evaluation Matrix

|    |                               |                      |                                      |                             | Provide Transportation Choices |                      |              | Access to Daily Needs and Regional Destinations |                            |                        |                                      | Promote Economic Opportunity |               |       | Respect Natural and Neighborhood Assets |                                       |                 |       | Enhance Public Health and Safety |               |                              |       |                | Maximize Public Benefits and Fiscal Responsibility with Integration |                        |            |                  |                 |                               |                              |                                     |       |             |                                              |              |   |            |   |                |     |      |    |           |
|----|-------------------------------|----------------------|--------------------------------------|-----------------------------|--------------------------------|----------------------|--------------|-------------------------------------------------|----------------------------|------------------------|--------------------------------------|------------------------------|---------------|-------|-----------------------------------------|---------------------------------------|-----------------|-------|----------------------------------|---------------|------------------------------|-------|----------------|---------------------------------------------------------------------|------------------------|------------|------------------|-----------------|-------------------------------|------------------------------|-------------------------------------|-------|-------------|----------------------------------------------|--------------|---|------------|---|----------------|-----|------|----|-----------|
| ID | Project Name                  | Project Location     | Project Description                  | Integration                 | Person Capacity                | Network Connectivity |              | Score                                           | Neighborhood Accessibility | Regional Accessibility |                                      | Disadvantaged Accessibility  |               | Score | Freight/ Goods movement                 | Development & Redevelopment Potential |                 | Score | Air Quality                      | Water Quality | Neighborhood/District Impact | Score | Vehicle Safety | Bike Safety                                                         | Ped Plan Priority Area | Ped Safety | Score            | CSO Integration | Water Integration             | Maint and Facility Condition | Leveraged Financing (excludes levy) | Score | Total Score | Total Estimated Planning Cost with Inflation |              |   |            |   |                |     |      |    |           |
| 36 | Howard Street                 | Maxwell to Buckeye   | Full depth reconstruction, SW repair | replace waterline, CSO work | < 5k ADT                       | 1                    | None         | 0 1                                             | score 1-5                  | 1                      | 1-2 destinations near project limits | 2                            | 32.91% +      | 5 5   | T4                                      | 2                                     | within 1/4 mile | 3 5   | No change                        | 2             | Neutral                      | 2     | Not in plan    | 0 3                                                                 | None                   | 0          | bike lane        | 3               | none                          | 0                            | sw ramps or repair                  | 2 3   | None        | 0                                            | 1850-1930    | 5 | PCI 40-60  | 3 | limited        | 0 4 | 20.5 | \$ | 3,640,000 |
| 37 | Havana                        | 3rd to Hartson       | Full depth reconstruction, SW repair |                             | 5k-10k ADT                     | 2                    | Adds 2 modes | 3 5                                             | score 1-5                  | 1                      | 1-2 destinations near project limits | 2                            | 6.93%-11.43%  | 1 3   | T4                                      | 2                                     | None            | 0 2   | No change                        | 2             | Neutral                      | 2     | Not in plan    | 0 3                                                                 | None                   | 0          | bike lane        | 3               | none                          | 0                            | add sw and/or xwalk                 | 3 3   | High        | 5                                            | 1995-present | 1 | PCI 20-40  | 4 | limited        | 0 5 | 20.3 | \$ | 980,000   |
| 38 | Nevada                        | Magnesium to Holland | Full depth reconstruction, SW repair |                             | >20k ADT                       | 4                    | None         | 0 4                                             | score 1-5                  | 1                      | none                                 | 0                            | 19.37%-26.4%  | 3 3   | T2                                      | 4                                     | None            | 0 4   | No change                        | 2             | Neutral                      | 2     | Not in plan    | 0 3                                                                 | None                   | 0          | none             | 0               | In Ped Priority Zone          | 5                            | sw ramps or repair                  | 2 4   | None        | 0                                            | 1975-1994    | 2 | PCI 20-40  | 4 | grant eligible | 1 4 | 20.3 | \$ | 3,080,000 |
| 39 | Havana                        | Sprague to 3rd       | Full depth reconstruction, SW repair |                             | 5k-10k ADT                     | 2                    | Adds 1 mode  | 2 4                                             | score 1-5                  | 1                      | none                                 | 0                            | 11.43%-19.36% | 2 2   | T3                                      | 3                                     | None            | 0 3   | No change                        | 2             | Neutral                      | 2     | Not in plan    | 0 3                                                                 | None                   | 0          | bike lane        | 3               | vicinity of Ped Priority Zone | 2                            | add sw and/or xwalk                 | 3 4   | High        | 5                                            | 1995-present | 1 | PCI 40-60  | 3 | limited        | 0 5 | 20.2 | \$ | 1,260,000 |
| 40 | 14th Avenue                   | Bernard to Grand     | Full depth reconstruction, SW repair | some utility work           | < 5k ADT                       | 1                    | None         | 0 1                                             | score 6-10                 | 2                      | none                                 | 0                            | 0%-6.92%      | 0 1   | T5                                      | 1                                     | adjacent        | 5 6   | No change                        | 2             | Neutral                      | 2     | Not in plan    | 0 3                                                                 | None                   | 0          | signing, marking | 2               | none                          | 0                            | sw ramps or repair                  | 2 2   | High        | 5                                            | 1931-1955    | 4 | PCI 20-40  | 4 | grant eligible | 1 7 | 20.0 | \$ | 700,000   |
| 41 | Frederick                     | Freya to Havana      | Full depth reconstruction, SW repair | some utility work           | 5k-10k ADT                     | 2                    | Adds 2 modes | 3 5                                             | score 1-5                  | 1                      | none                                 | 0                            | 19.37%-26.4%  | 3 3   | T3                                      | 3                                     | None            | 0 3   | No change                        | 2             | Neutral                      | 2     | Not in plan    | 0 3                                                                 | None                   | 0          | bike lane        | 3               | none                          | 0                            | add sw and/or xwalk                 | 3 3   | None        | 0                                            | 1931-1955    | 4 | PCI 40-60  | 3 | limited        | 0 4 | 19.8 | \$ | 1,540,000 |
| 42 | Bernard - Ben Garrett - Grove | 9th to 14th          | Full depth reconstruction, SW repair | some utility work           | 10k-20k ADT                    | 3                    | None         | 0 3                                             | score 6-10                 | 2                      | none                                 | 0                            | 6.93%-11.43%  | 1 2   | T4                                      | 2                                     | within 1/2 mile | 1 3   | No change                        | 2             | Neutral                      | 2     | Not in plan    | 0 3                                                                 | None                   | 0          | signing, marking | 2               | vicinity of Ped Priority Zone | 2                            | sw ramps or repair                  | 2 3   | High        | 5                                            | 1931-1955    | 4 | PCI 60-80  | 2 | grant eligible | 1 6 | 19.7 | \$ | 1,960,000 |
| 43 | Freya paving                  | 37th to 42nd         | Full depth reconstruction, SW repair |                             | 5k-10k ADT                     | 2                    | Adds 1 mode  | 2 4                                             | none                       | 0                      | 1-2 destinations near project limits | 2                            | 6.93%-11.43%  | 1 2   | T4                                      | 2                                     | within 1/2 mile | 1 3   | No change                        | 2             | Neutral                      | 2     | Not in plan    | 0 3                                                                 | None                   | 0          | bike lane        | 3               | none                          | 0                            | sw ramps or repair                  | 2 3   | High        | 5                                            | 1975-1994    | 2 | PCI 40-60  | 3 | grant eligible | 1 6 | 19.7 | \$ | 1,540,000 |
| 44 | Hartson                       | Freya to Havana      | Full depth reconstruction, SW repair |                             | < 5k ADT                       | 1                    | Adds 1 mode  | 2 3                                             | score 1-5                  | 1                      | none                                 | 0                            | 32.91% +      | 5 4   | T4                                      | 2                                     | None            | 0 2   | No change                        | 2             | Neutral                      | 2     | Not in plan    | 0 3                                                                 | None                   | 0          | signing, marking | 2               | none                          | 0                            | add sw and/or xwalk                 | 3 3   | High        | 5                                            | 1956-1974    | 3 | PCI 40-60  | 3 | limited        | 0 6 | 19.7 | \$ | 1,960,000 |
| 45 | Wellesley                     | Crestline to Haven   | Full depth reconstruction, SW repair | replace waterline, CSO work | 10k-20k ADT                    | 3                    | None         | 0 3                                             | score 6-10                 | 2                      | none                                 | 0                            | 26.45%-32.9%  | 4 4   | T3                                      | 3                                     | within 1/2 mile | 1 4   | No change                        | 2             | Neutral                      | 2     | Not in plan    | 0 3                                                                 | None                   | 0          | none             | 0               | vicinity of Ped Priority Zone | 2                            | sw ramps or repair                  | 2 2   | None        | 0                                            | 1850-1930    | 5 | PCI 60-80  | 2 | grant eligible | 1 4 | 19.7 | \$ | 2,660,000 |
| 46 | Freya paving                  | 17th to 29th         | Full depth reconstruction, SW repair | replace waterline, CSO work | 10k-20k ADT                    | 3                    | None         | 0 3                                             | score 1-5                  | 1                      | none                                 | 0                            | 6.93%-11.43%  | 1 1   | T3                                      | 3                                     | within 1/2 mile | 1 4   | No change                        | 2             | Neutral                      | 2     | Not in plan    | 0 3                                                                 | None                   | 0          | signing, marking | 2               | none                          | 0                            | sw ramps or repair                  | 2 2   | High        | 5                                            | 1850-1930    | 5 | PCI 60-80  | 2 | grant eligible | 1 7 | 19.5 | \$ | 2,240,000 |
| 47 | Wellesley                     | Driscoll to A St.    | Full depth reconstruction, SW repair |                             | 5k-10k ADT                     | 2                    | Adds 1 mode  | 2 4                                             | score 1-5                  | 1                      | 1-2 destinations near project limits | 2                            | 6.93%-11.43%  | 1 3   | T3                                      | 3                                     | None            | 0 3   | No change                        | 2             | New or updated facilities    | 5     | Not in plan    | 0 5                                                                 | None                   | 0          | bike lane        | 3               | none                          | 0                            | sw ramps or repair                  | 2 3   | None        | 0                                            | 1995-present | 1 | PCI 40-60  | 3 | grant eligible | 1 3 | 19.3 | \$ | 980,000   |
| 48 | Freya                         | Upriver to Euclid    | Full depth reconstruction, SW repair | some utility work           | 5k-10k ADT                     | 2                    | Adds 2 modes | 3 5                                             | none                       | 0                      | none                                 | 0                            | 19.37%-26.4%  | 3 2   | T4                                      | 2                                     | None            | 0 2   | No change                        | 2             | Neutral                      | 2     | Not in plan    | 0 3                                                                 | None                   | 0          | bike lane        | 3               | vicinity of Ped Priority Zone | 2                            | sw ramps or repair                  | 2 4   | None        | 0                                            | 1931-1955    | 4 | PCI 40-60  | 3 | grant eligible | 1 4 | 19.2 | \$ | 2,380,000 |
| 49 | Sharp-Atlantic                | Boone to Pearl       | Full depth reconstruction, SW repair | replace waterline, CSO work | 5k-10k ADT                     | 2                    | None         | 0 2                                             | score 6-10                 | 2                      | 1-2 destinations near project limits | 2                            | 32.91% +      | 5 6   | T4                                      | 2                                     | None            | 0 2   | No change                        | 2             | Neutral                      | 2     | Not in plan    | 0 3                                                                 | None                   | 0          | signing, marking | 2               | vicinity of Ped Priority Zone | 2                            | sw ramps or repair                  | 2 3   | None        | 0                                            | 1850-1930    | 5 | PCI 60-80  | 2 | limited        | 0 4 | 19.2 | \$ | 1,680,000 |
| 50 | Empire / Garland              | Crestline to Market  | Full depth reconstruction, SW repair |                             | 5k-10k ADT                     | 2                    | None         | 0 2                                             | score 6-10                 | 2                      | 1-2 destinations near project limits | 2                            | 26.45%-32.9%  | 4 5   | T3                                      | 3                                     | None            | 0 3   | No change                        | 2             | Neutral                      | 2     | Not in plan    | 0 3                                                                 | None                   | 0          | signing, marking | 2               | vicinity of Ped Priority Zone | 2                            | sw ramps or repair                  | 2 3   | None        | 0                                            | 1956-1974    | 3 | PCI 40-60  | 3 | limited        | 0 3 | 19.0 | \$ | 2,520,000 |
| 51 | Summit Blvd                   | Boone to Broadway    | Full depth reconstruction, SW repair | replace waterline, CSO work | < 5k ADT                       | 1                    | None         | 0 1                                             | score 1-5                  | 1                      | 1-2 destinations near project limits | 2                            | 32.91% +      | 5 5   | T4                                      | 2                                     | None            | 0 2   | No change                        | 2             | Neutral                      | 2     | Not in plan    | 0 3                                                                 | None                   | 0          | signing, marking | 2               | none                          | 0                            | sw ramps or repair                  | 2 2   | High        | 5                                            | 1850-1930    | 5 | PCI 60-80  | 2 | limited        | 0 6 | 19.0 | \$ | 1,120,000 |
| 52 | Rowan                         | Assembly to Driscoll | Full depth reconstruction, SW repair | some utility work           | < 5k ADT                       | 1                    | Adds 1 mode  | 2 3                                             | score 6-10                 | 2                      | none                                 | 0                            | 11.43%-19.36% | 2 3   | T4                                      | 2                                     | None            | 0 2   | No change                        | 2             | New or updated facilities    | 5     | Not in plan    | 0 5                                                                 | None                   | 0          | signing, marking | 2               | none                          | 0                            | sw ramps or repair                  | 2 2   | None        | 0                                            | 1931-1955    | 4 | PCI 20-40  | 4 | grant eligible | 1 5 | 18.8 | \$ | 980,000   |
| 53 | Cedar - High Drive            | 15th to 29th         | Full depth reconstruction, SW repair | some utility work           | 10k-20k ADT                    | 3                    | None         | 0 3                                             | score 1-5                  | 1                      | none                                 | 0                            | 6.93%-11.43%  | 1 1   | T3                                      | 3                                     | None            | 0 3   | No change                        | 2             | Neutral                      | 2     | Not in plan    | 0 3                                                                 | None                   | 0          | bike lane        | 3               | none                          | 0                            | sw ramps or repair                  | 2 3   | High        | 5                                            | 1931-1955    | 4 | PCI 60-80  | 2 | grant eligible | 1 6 | 18.5 | \$ | 4,200,000 |
| 54 | Central Ave                   | Wall to Division     | Full depth reconstruction, SW repair | some utility work           | < 5k ADT                       | 1                    | Adds 1 mode  | 2 3                                             | score 6-10                 | 2                      | none                                 | 0                            | 19.37%-26.4%  | 3 3   | T4                                      | 2                                     | within 1/2 mile | 1 3   | No change                        | 2             | Neutral                      | 2     | Not in plan    | 0 3                                                                 | None                   | 0          | signing, marking | 2               | vicinity of Ped Priority Zone | 2                            | add sw and/or xwalk                 | 3 4   | None        | 0                                            | 1931-1955    | 4 | PCI 60-80  | 2 | limited        | 0 3 | 18.5 | \$ | 1,540,000 |
| 55 | Summit Blvd                   | A St. to Boone       | Full depth reconstruction, SW repair | some utility work           | < 5k ADT                       | 1                    | None         | 0 1                                             | score 1-5                  | 1                      | 1-2 destinations near project limits | 2                            | 32.91% +      | 5 5   | T4                                      | 2                                     | None            | 0 2   | No change                        | 2             | Neutral                      | 2     | Not in plan    | 0 3                                                                 | None                   | 0          | signing, marking | 2               | none                          | 0                            | sw ramps or repair                  | 2 2   | High        | 5                                            | 1931-1955    | 4 | PCI 60-80  | 2 | limited        | 0 6 | 18.5 | \$ | 1,120,000 |
| 56 | 14th Avenue                   | Monroe to Grand      | Full depth reconstruction, SW repair | replace waterline, CSO work | < 5k ADT                       | 1                    | None         | 0 1                                             | score 6-10                 | 2                      | 1-2 destinations near project limits | 2                            | 0%-6.92%      | 0 3   | T4                                      | 2                                     | within 1/4 mile | 3 5   | No change                        | 2             | Neutral                      | 2     | Not in plan    | 0 3                                                                 | None                   | 0          | signing, marking | 2               | none                          | 0                            | sw ramps or repair                  | 2 2   | High        | 5                                            | 1850-1930    | 5 | PCI 80-100 | 0 | limited        | 0 5 | 18.3 | \$ | 2,100,000 |
| 57 | Freya                         | Wellesley to Euclid  | Full depth reconstruction, SW repair |                             | 5k-10k ADT                     | 2                    | Adds 2 modes | 3 5                                             | none                       | 0                      | none                                 | 0                            | 19.37%-26.4%  | 3 2   | T4                                      | 2                                     | within 1/2 mile | 1 3   | No change                        | 2             | Neutral                      | 2     | Not in plan    | 0 3                                                                 | None                   | 0          | bike lane        | 3               | none                          | 0                            | add sw and/or xwalk                 | 3 3   | None        | 0                                            | 1995-present | 1 | PCI 40-60  | 3 | grant eligible | 1 3 | 18.2 | \$ | 2,940,000 |

Integrated Streets Evaluation Matrix

|    |                       |                                       |                                      |                             | Provide Transportation Choices |                      |              | Access to Daily Needs and Regional Destinations |                            |                        |                                      |                             | Promote Economic Opportunity |       |                         | Respect Natural and Neighborhood Assets |                 |       |             |               | Enhance Public Health and Safety |                              |                               |       |                      | Maximize Public Benefits and Fiscal Responsibility with Integration |                        |            |                               |                 |                     |                              |                                     | Total Estimated Planning Cost with Inflation |           |             |            |   |                |     |      |    |           |
|----|-----------------------|---------------------------------------|--------------------------------------|-----------------------------|--------------------------------|----------------------|--------------|-------------------------------------------------|----------------------------|------------------------|--------------------------------------|-----------------------------|------------------------------|-------|-------------------------|-----------------------------------------|-----------------|-------|-------------|---------------|----------------------------------|------------------------------|-------------------------------|-------|----------------------|---------------------------------------------------------------------|------------------------|------------|-------------------------------|-----------------|---------------------|------------------------------|-------------------------------------|----------------------------------------------|-----------|-------------|------------|---|----------------|-----|------|----|-----------|
| ID | Project Name          | Project Location                      | Project Description                  | Integration                 | Person Capacity                | Network Connectivity |              | Score                                           | Neighborhood Accessibility | Regional Accessibility |                                      | Disadvantaged Accessibility |                              | Score | Freight/ Goods movement | Development & Redevelopment Potential   |                 | Score | Air Quality | Water Quality |                                  | Neighborhood/District Impact |                               | Score | Vehicle Safety       | Bike Safety                                                         | Ped Plan Priority Area | Ped Safety | Score                         | CSO Integration | Water Integration   | Maint and Facility Condition | Leveraged Financing (excludes levy) |                                              | Score     | Total Score |            |   |                |     |      |    |           |
| 58 | Indiana Avenue        | Monroe to Division                    | Full depth reconstruction, SW repair | replace waterline, CSO work | 10k-20k ADT                    | 3                    | None         | 0 3                                             | score 6-10                 | 2                      | none                                 | 0                           | 26.45%-32.9%                 | 4 4   | T5                      | 1                                       | None            | 0 1   | No change   | 2             | Neutral                          | 2                            | Not in plan                   | 0 3   | None                 | 0                                                                   | none                   | 0          | vicinity of Ped Priority Zone | 2               | sw ramps or repair  | 2 2                          | None                                | 0                                            | 1850-1930 | 5           | PCI 20-40  | 4 | grant eligible | 1 5 | 17.7 | \$ | 3,920,000 |
| 59 | Bernard               | 29th to High Drive                    | Full depth reconstruction, SW repair |                             | < 5k ADT                       | 1                    | Adds 1 mode  | 2 3                                             | score 1-5                  | 1                      | none                                 | 0                           | 6.93%-11.43%                 | 1 1   | T4                      | 2                                       | None            | 0 2   | No change   | 2             | Neutral                          | 2                            | Not in plan                   | 0 3   | None                 | 0                                                                   | signing, marking       | 2          | none                          | 0               | add sw and/or xwalk | 3 3                          | High                                | 5                                            | 1956-1974 | 3           | PCI 40-60  | 3 | grant eligible | 1 6 | 17.5 | \$ | 2,380,000 |
| 60 | Sunset Blvd           | Hwy 2 to Rustle                       | Full depth reconstruction, SW repair |                             | 5k-10k ADT + HPTN              | 3                    | Adds 1 mode  | 2 5                                             | score 1-5                  | 1                      | 1-2 destinations near project limits | 2                           | 11.43%-19.36%                | 2 3   | T3                      | 3                                       | None            | 0 3   | No change   | 2             | New or updated facilities        | 5                            | Consistent with plan concepts | 2     | Clear safety benefit | 3                                                                   | bike lane              | 3          | none                          | 0               | sw ramps or repair  | 2 4                          | None                                | 0                                            | None      | 0           | PCI 40-60  | 3 | grant eligible | 1 2 | 17.3 | \$ | 8,820,000 |
| 61 | 14th Avenue           | Cedar to Monroe                       | Full depth reconstruction, SW repair | replace waterline, CSO work | < 5k ADT                       | 1                    | None         | 0 1                                             | score 1-5                  | 1                      | none                                 | 0                           | 19.37%-26.4%                 | 3 3   | T4                      | 2                                       | None            | 0 2   | No change   | 2             | Neutral                          | 2                            | Not in plan                   | 0 3   | None                 | 0                                                                   | signing, marking       | 2          | none                          | 0               | sw ramps or repair  | 2 2                          | High                                | 5                                            | 1850-1930 | 5           | PCI 20-40  | 4 | limited        | 0 7 | 17.3 | \$ | 700,000   |
| 62 | Illinois              | Perry to Market                       | Full depth reconstruction, SW repair | replace waterline, CSO work | 5k-10k ADT                     | 2                    | None         | 0 2                                             | score 1-5                  | 1                      | none                                 | 0                           | 19.37%-26.4%                 | 3 3   | T4                      | 2                                       | None            | 0 2   | No change   | 2             | Neutral                          | 2                            | Not in plan                   | 0 3   | None                 | 0                                                                   | bike lane              | 3          | vicinity of Ped Priority Zone | 2               | sw ramps or repair  | 2 4                          | None                                | 0                                            | 1850-1930 | 5           | PCI 40-60  | 3 | grant eligible | 1 5 | 17.3 | \$ | 5,320,000 |
| 63 | Lincoln               | Division to Nevada                    | Full depth reconstruction, SW repair |                             | 5k-10k ADT                     | 2                    | None         | 0 2                                             | score 1-5                  | 1                      | none                                 | 0                           | 19.37%-26.4%                 | 3 3   | T4                      | 2                                       | within 1/4 mile | 3 5   | No change   | 2             | Neutral                          | 2                            | Not in plan                   | 0 3   | None                 | 0                                                                   | signing, marking       | 2          | none                          | 0               | sw ramps or repair  | 2 2                          | None                                | 0                                            | 1975-1994 | 2           | PCI 20-40  | 4 | limited        | 0 3 | 17.3 | \$ | 3,220,000 |
| 64 | Belt                  | NW Blvd to Montgomery                 | Full depth reconstruction, SW repair | some utility work           | < 5k ADT                       | 1                    | None         | 0 1                                             | score 6-10                 | 2                      | none                                 | 0                           | 19.37%-26.4%                 | 3 3   | T4                      | 2                                       | within 1/2 mile | 1 3   | No change   | 2             | Neutral                          | 2                            | Not in plan                   | 0 3   | None                 | 0                                                                   | signing, marking       | 2          | vicinity of Ped Priority Zone | 2               | sw ramps or repair  | 2 3                          | Low                                 | 1                                            | 1931-1955 | 4           | PCI 40-60  | 3 | limited        | 0 4 | 17.0 | \$ | 840,000   |
| 65 | 25th Avenue           | Bernard to Grand                      | Full depth reconstruction, SW repair | some utility work           | < 5k ADT                       | 1                    | None         | 0 1                                             | score 1-5                  | 1                      | 1-2 destinations near project limits | 2                           | 6.93%-11.43%                 | 1 3   | T5                      | 1                                       | within 1/2 mile | 1 2   | No change   | 2             | Neutral                          | 2                            | Not in plan                   | 0 3   | None                 | 0                                                                   | signing, marking       | 2          | none                          | 0               | sw ramps or repair  | 2 2                          | High                                | 5                                            | 1931-1955 | 4           | PCI 20-40  | 4 | limited        | 0 7 | 16.8 | \$ | 1,400,000 |
| 66 | Empire                | Nevada to Crestline                   | Full depth reconstruction, SW repair | some utility work           | 5k-10k ADT                     | 2                    | None         | 0 2                                             | score 1-5                  | 1                      | none                                 | 0                           | 19.37%-26.4%                 | 3 3   | T3                      | 3                                       | None            | 0 3   | No change   | 2             | Neutral                          | 2                            | Not in plan                   | 0 3   | None                 | 0                                                                   | signing, marking       | 2          | vicinity of Ped Priority Zone | 2               | sw ramps or repair  | 2 3                          | None                                | 0                                            | 1931-1955 | 4           | PCI 40-60  | 3 | limited        | 0 4 | 16.8 | \$ | 2,940,000 |
| 67 | Milton-14th           | 16th to Lindeke                       | Full depth reconstruction, SW repair |                             | < 5k ADT                       | 1                    | Adds 1 mode  | 2 3                                             | score 1-5                  | 1                      | none                                 | 0                           | 6.93%-11.43%                 | 1 1   | T5                      | 1                                       | None            | 0 1   | No change   | 2             | Neutral                          | 2                            | Project listed in plan        | 5 6   | None                 | 0                                                                   | signing, marking       | 2          | none                          | 0               | add sw and/or xwalk | 3 3                          | None                                | 0                                            | 1956-1974 | 3           | PCI 40-60  | 3 | limited        | 0 3 | 16.8 | \$ | 560,000   |
| 68 | Rockwood Blvd         | Grand to Cowley                       | Full depth reconstruction, SW repair |                             | < 5k ADT                       | 1                    | None         | 0 1                                             | score 1-5                  | 1                      | none                                 | 0                           | 19.37%-26.4%                 | 3 3   | T5                      | 1                                       | within 1/2 mile | 1 2   | No change   | 2             | Neutral                          | 2                            | Not in plan                   | 0 3   | None                 | 0                                                                   | signing, marking       | 2          | vicinity of Ped Priority Zone | 2               | add sw and/or xwalk | 3 4                          | Medium                              | 3                                            | 1956-1974 | 3           | PCI 20-40  | 4 | limited        | 0 5 | 16.8 | \$ | 1,400,000 |
| 69 | Wellesley             | Nevada to Crestline                   | Full depth reconstruction, SW repair | replace waterline, CSO work | 10k-20k ADT                    | 3                    | None         | 0 3                                             | score 1-5                  | 1                      | none                                 | 0                           | 19.37%-26.4%                 | 3 3   | T3                      | 3                                       | None            | 0 3   | No change   | 2             | Neutral                          | 2                            | Not in plan                   | 0 3   | None                 | 0                                                                   | none                   | 0          | none                          | 0               | sw ramps or repair  | 2 1                          | None                                | 0                                            | 1850-1930 | 5           | PCI 40-60  | 3 | grant eligible | 1 5 | 16.8 | \$ | 3,220,000 |
| 70 | Rowan                 | Nevada to Crestline                   | Full depth reconstruction, SW repair | replace waterline, CSO work | 5k-10k ADT                     | 2                    | Adds 1 mode  | 2 4                                             | score 1-5                  | 1                      | none                                 | 0                           | 11.43%-19.36%                | 2 2   | T4                      | 2                                       | within 1/2 mile | 1 3   | No change   | 2             | Neutral                          | 2                            | Not in plan                   | 0 3   | None                 | 0                                                                   | signing, marking       | 2          | none                          | 0               | add sw and/or xwalk | 3 3                          | None                                | 0                                            | 1850-1930 | 5           | PCI 80-100 | 0 | limited        | 0 3 | 16.7 | \$ | 3,080,000 |
| 71 | 6th-7th Avenue        | Inland Empire to Walnut St.           | Full depth reconstruction, SW repair | some utility work           | < 5k ADT                       | 1                    | None         | 0 1                                             | score 1-5                  | 1                      | none                                 | 0                           | 19.37%-26.4%                 | 3 3   | T4                      | 2                                       | within 1/2 mile | 1 3   | No change   | 2             | New or updated facilities        | 5                            | Not in plan                   | 0 5   | None                 | 0                                                                   | signing, marking       | 2          | none                          | 0               | sw ramps or repair  | 2 2                          | None                                | 0                                            | 1931-1955 | 4           | PCI 60-80  | 2 | limited        | 0 3 | 16.3 | \$ | 1,680,000 |
| 72 | Perry                 | Wellesley to Euclid                   | Full depth reconstruction, SW repair | replace waterline, CSO work | < 5k ADT                       | 1                    | Adds 1 mode  | 2 3                                             | score 1-5                  | 1                      | none                                 | 0                           | 11.43%-19.36%                | 2 2   | T4                      | 2                                       | None            | 0 2   | No change   | 2             | Neutral                          | 2                            | Not in plan                   | 0 3   | None                 | 0                                                                   | signing, marking       | 2          | none                          | 0               | add sw and/or xwalk | 3 3                          | None                                | 0                                            | 1850-1930 | 5           | PCI 40-60  | 3 | limited        | 0 4 | 16.2 | \$ | 2,940,000 |
| 73 | Empire                | Division to Nevada                    | Full depth reconstruction, SW repair | some utility work           | 5k-10k ADT                     | 2                    | None         | 0 2                                             | score 1-5                  | 1                      | none                                 | 0                           | 19.37%-26.4%                 | 3 3   | T4                      | 2                                       | None            | 0 2   | No change   | 2             | Neutral                          | 2                            | Not in plan                   | 0 3   | None                 | 0                                                                   | signing, marking       | 2          | vicinity of Ped Priority Zone | 2               | sw ramps or repair  | 2 3                          | None                                | 0                                            | 1931-1955 | 4           | PCI 40-60  | 3 | limited        | 0 4 | 15.8 | \$ | 2,940,000 |
| 74 | Wellesley             | Freya to Havana                       | Full depth reconstruction, SW repair |                             | < 5k ADT                       | 1                    | None         | 0 1                                             | none                       | 0                      | none                                 | 0                           | 19.37%-26.4%                 | 3 2   | T4                      | 2                                       | within 1/4 mile | 3 5   | No change   | 2             | Neutral                          | 2                            | Not in plan                   | 0 3   | None                 | 0                                                                   | none                   | 0          | none                          | 0               | sw ramps or repair  | 2 1                          | None                                | 0                                            | 1956-1974 | 3           | PCI 20-40  | 4 | grant eligible | 1 4 | 15.7 | \$ | 980,000   |
| 75 | Strong Road           | Five Mile to Cedar                    | Full depth reconstruction, SW repair |                             | < 5k ADT                       | 1                    | Adds 2 modes | 3 4                                             | none                       | 0                      | none                                 | 0                           | 0%-6.92%                     | 0 0   | T5                      | 1                                       | None            | 0 1   | No change   | 2             | Neutral                          | 2                            | Consistent with plan concepts | 2 4   | None                 | 0                                                                   | bike lane              | 3          | none                          | 0               | add sw and/or xwalk | 3 3                          | None                                | 0                                            | 1975-1994 | 2           | PCI 20-40  | 4 | grant eligible | 1 4 | 15.5 | \$ | 2,660,000 |
| 76 | Cozza Drive           | Division to Nevada                    | Full depth reconstruction, SW repair |                             | < 5k ADT                       | 1                    | None         | 0 1                                             | score 1-5                  | 1                      | none                                 | 0                           | 26.45%-32.9%                 | 4 3   | T4                      | 2                                       | within 1/2 mile | 1 3   | No change   | 2             | Neutral                          | 2                            | Not in plan                   | 0 3   | None                 | 0                                                                   | none                   | 0          | none                          | 0               | sw ramps or repair  | 2 1                          | None                                | 0                                            | 1956-1974 | 3           | PCI 20-40  | 4 | limited        | 0 4 | 14.5 | \$ | 3,500,000 |
| 77 | Lindeke Street - 16th | Sunset Blvd to 195                    | Full depth reconstruction, SW repair | some utility work           | < 5k ADT                       | 1                    | Adds 1 mode  | 2 3                                             | score 1-5                  | 1                      | none                                 | 0                           | 6.93%-11.43%                 | 1 1   | T5                      | 1                                       | None            | 0 1   | No change   | 2             | Neutral                          | 2                            | Not in plan                   | 0 3   | None                 | 0                                                                   | signing, marking       | 2          | none                          | 0               | sw ramps or repair  | 2 2                          | None                                | 0                                            | 1931-1955 | 4           | PCI 20-40  | 4 | limited        | 0 4 | 14.0 | \$ | 2,380,000 |
| 78 | Qualchan Dr           | Cheney Spokane to 195                 | Full depth reconstruction, SW repair |                             | 5k-10k ADT                     | 2                    | Adds 1 mode  | 2 4                                             | none                       | 0                      | none                                 | 0                           | 0%-6.92%                     | 0 0   | T5                      | 1                                       | None            | 0 1   | No change   | 2             | Neutral                          | 2                            | Not in plan                   | 0 3   | None                 | 0                                                                   | signing, marking       | 2          | none                          | 0               | add sw and/or xwalk | 3 3                          | None                                | 0                                            | 1975-1994 | 2           | PCI 40-60  | 3 | grant eligible | 1 3 | 13.2 | \$ | 1,540,000 |
| 79 | Rustle-Garden Springs | Sunset to City limits (near Assembly) | Full depth reconstruction, SW repair |                             | < 5k ADT                       | 1                    | None         | 0 1                                             | score 1-5                  | 1                      | none                                 | 0                           | 11.43%-19.36%                | 2 2   | T5                      | 1                                       | None            | 0 1   | No change   | 2             | Neutral                          | 2                            | Not in plan                   | 0 3   | None                 | 0                                                                   | signing, marking       | 2          | none                          | 0               | none                | 0 1                          | None                                | 0                                            | 1956-1974 | 3           | PCI 20-40  | 4 | limited        | 0 4 | 11.2 | \$ | 840,000   |

# Arterial Street Maintenance List

|    | Project Name                  | Project Location                  | Planning-Level Cost Estimates |
|----|-------------------------------|-----------------------------------|-------------------------------|
| 1  | 27th                          | SE Blvd to Ray                    | \$770,000                     |
| 2  | 29th Ave                      | Freya to Havana                   | \$550,000                     |
| 3  | 2nd Avenue                    | Thor to fiske                     | \$330,000                     |
| 4  | Conklin St. - 17th Ave        | SE Blvd to Rockwood               | \$220,000                     |
| 5  | 17th Ave                      | SE Blvd to Ray                    | \$1,320,000                   |
| 6  | 23rd Avenue - Thorpe Rd       | 195 to Inland Empire Way          | \$220,000                     |
| 7  | 3rd Avenue                    | Arthur to Magnolia                | \$660,000                     |
| 8  | 49th Ave                      | Perry to Crestline                | \$550,000                     |
| 9  | Addison                       | Wellesley to Rowan                | \$660,000                     |
| 10 | Belt                          | Maxwell to Boone                  | \$220,000                     |
| 11 | Carlisle / Ralph              | Upriver to Upriver                | \$330,000                     |
| 12 | Garland                       | Washington to Division            | \$220,000                     |
| 13 | Grandview Avenue              | Garden Springs to 17th            | \$550,000                     |
| 14 | Indiana / North Center Street | Perry to Upriver Dr               | \$110,000                     |
| 15 | Wellesley                     | Freya - Havana                    | \$330,000                     |
| 16 | 13th-Rosamund                 | Lindeke to West Drive             | \$1,760,000                   |
| 17 | 17th Ave                      | Ray to Havana                     | \$770,000                     |
| 18 | 2nd Ave                       | Freya to Havana                   | \$660,000                     |
| 19 | 2nd Avenue                    | Fiske to Arthur                   | \$1,760,000                   |
| 20 | A Street                      | Driscoll to Francis               | \$1,650,000                   |
| 21 | Addison                       | Bridgeport to Wellesley           | \$1,210,000                   |
| 22 | Colton                        | Standard to Magnesium             | \$220,000                     |
| 23 | Garland                       | NW Blvd to Ash                    | \$1,760,000                   |
| 24 | Hawthorne                     | Division to Nevada                | \$550,000                     |
| 25 | Hayford Road                  | 48th to McFarlane                 | \$1,100,000                   |
| 26 | Helena St                     | Trent to 2nd                      | \$1,760,000                   |
| 27 | Holland                       | Division to Nevada                | \$3,300,000                   |
| 28 | Lidgerwood                    | Lyons to Francis                  | \$330,000                     |
| 29 | Lincoln                       | Nevada to Crestline               | \$990,000                     |
| 30 | Lincoln / Post                | river to Mission                  | \$880,000                     |
| 31 | Lincoln                       | Main to SFB                       | \$110,000                     |
| 32 | Lyons                         | Division (Atlantic) to Lidgerwood | \$440,000                     |
| 33 | Magnesium                     | Nevada to Crestline               | \$660,000                     |
| 34 | Montgomery                    | Division to Astor                 | \$440,000                     |
| 35 | Napa                          | Sprague to Trent                  | \$330,000                     |
| 36 | Nevada                        | Lincoln to Magnesium              | \$990,000                     |
| 37 | Nevada                        | Francis to Lincoln                | \$1,980,000                   |
| 38 | North River Dr.               | Washington to Division            | \$440,000                     |
| 39 | Pacific Park Dr               | Indian Trail to Pamela            | \$440,000                     |
| 40 | Perry St.                     | Wellesley to Empire               | \$550,000                     |
| 41 | Pittsburg                     | Lyons to Francis                  | \$330,000                     |

# Arterial Street Maintenance List

|    | Project Name           | Project Location               | Planning-Level Cost Estimates |
|----|------------------------|--------------------------------|-------------------------------|
| 42 | Queen Ave              | Wall to Lidgerwood             | \$990,000                     |
| 43 | Sharp                  | Division to Pearl              | \$330,000                     |
| 44 | Shawnee                | Indian Trail to Sundance Dr    | \$550,000                     |
| 45 | Thor                   | Sprague - 3rd                  | \$330,000                     |
| 46 | Valley Springs Road    | Havana to city limits          | \$440,000                     |
| 47 | 16th                   | 17th to Milton                 | \$440,000                     |
| 48 | 29th Ave               | Grand to SE Blvd               | \$1,760,000                   |
| 49 | 3rd Avenue             | Freya to Havana                | \$550,000                     |
| 50 | 44th Ave               | Crestline to Ray               | \$880,000                     |
| 51 | 5th Ave                | Monroe to Division             | \$990,000                     |
| 52 | 8th/Stevens/Washington | McClellan to 3rd               | \$1,430,000                   |
| 53 | Altamont               | Hartson - 9th                  | \$220,000                     |
| 54 | Ash Street             | Broadway to turnaround         | \$220,000                     |
| 55 | Assembly               | Wellesley to Rowan             | \$770,000                     |
| 56 | Aubrey White Pkwy      | Rifle Club Rd to Downriver Dr  | \$2,420,000                   |
| 57 | Belt                   | Rowan to Francis               | \$550,000                     |
| 58 | Belt                   | Francis to 5-Mile              | \$220,000                     |
| 59 | Bernard                | SFB to 1st                     | \$440,000                     |
| 60 | Broadway               | Summit Blvd to Cedar           | \$1,430,000                   |
| 61 | Cedar Road             | Cheney-Spokane to city limits  | \$990,000                     |
| 62 | Central Avenue         | Division to Lidgerwood         | \$330,000                     |
| 63 | Downriver Dr           | Aubrey White Pkwy to Pettet Dr | \$880,000                     |
| 64 | Eagle Ridge            | Meadow Lane to Cedar           | \$1,650,000                   |
| 65 | Flint Rd               | Hwy 2 to airport drive         | \$1,760,000                   |
| 66 | Freya                  | Sprague - Hartson              | \$660,000                     |
| 67 | Garland                | Ash to Washington              | \$1,100,000                   |
| 68 | Geiger Blvd            | Hwy 2 to Assembly              | \$2,310,000                   |
| 69 | Geiger Blvd            | Assembly to Electric Ave       | \$880,000                     |
| 70 | Hamilton               | Trent to Ermina                | \$1,870,000                   |
| 71 | Inland Empire Way      | 23rd to 9th                    | \$11,220,000                  |
| 72 | Inland Empire Way      | 23rd to 195                    | \$770,000                     |
| 73 | Lidgerwood             | Wellesley to Rowan             | \$660,000                     |
| 74 | Magnesium              | Division to Nevada             | \$990,000                     |
| 75 | Mission                | Division to Hamilton           | \$550,000                     |
| 76 | Monroe                 | Wellesley to Francis           | \$1,430,000                   |
| 77 | Monroe                 | Spokane River to Maxwell       | \$1,100,000                   |
| 78 | Napa                   | Trent to Mission               | \$660,000                     |
| 79 | Nevada                 | Holland to Hawthorne           | \$3,300,000                   |
| 80 | NW Blvd                | Maple to Lincoln               | \$1,210,000                   |
| 81 | Perry St.              | Empire to Foothills            | \$660,000                     |
| 82 | Post St.               | Cleveland to Garland           | \$880,000                     |
| 83 | Shawnee                | Indian Trail to east end       | \$990,000                     |

# Arterial Street Maintenance List

|     | Project Name             | Project Location           | Planning-Level Cost Estimates |
|-----|--------------------------|----------------------------|-------------------------------|
| 84  | Sherman                  | Sprague to 3rd             | \$440,000                     |
| 85  | Thorpe Road              | RR tunnel to 195           | \$110,000                     |
| 86  | Upriver                  | Mission to Greene          | \$1,760,000                   |
| 87  | Wall Street              | Garland to Princeton       | \$330,000                     |
| 88  | 29th Ave                 | High to Bernard            | \$770,000                     |
| 89  | 29th Ave                 | Bernard to Grand           | \$1,100,000                   |
| 90  | 29th Ave                 | SE Blvd to Freya           | \$1,210,000                   |
| 91  | 2nd Ave                  | Thor to Freya              | \$110,000                     |
| 92  | 2nd Ave                  | Division to Arthur         | \$1,210,000                   |
| 93  | 2nd Ave                  | Sunset to Division         | \$1,980,000                   |
| 94  | 37th Ave                 | Perry to Regal             | \$880,000                     |
| 95  | 37th Ave                 | Grand to Perry             | \$550,000                     |
| 96  | 37th Ave                 | Bernard to Grand           | \$880,000                     |
| 97  | 37th Avenue              | Regal to E city limits     | \$1,540,000                   |
| 98  | 3rd Ave                  | Division to Arthur         | \$1,100,000                   |
| 99  | 3rd Avenue               | Magnolia to Altamont       | \$440,000                     |
| 100 | 3rd Avenue               | Altamont to Freya          | \$990,000                     |
| 101 | 44th Ave                 | Ray to Freya               | \$220,000                     |
| 102 | 4th-5th                  | Division to Arthur         | \$990,000                     |
| 103 | 5-mile Road              | Austin to Lincoln          | \$1,870,000                   |
| 104 | 5-mile Road              | Austin to Maple            | \$220,000                     |
| 105 | 5th Ave                  | Ray to Freya               | \$330,000                     |
| 106 | 5th Ave                  | Pittsburg to Ray           | \$1,210,000                   |
| 107 | 9th Ave                  | Perry to Altamont          | \$550,000                     |
| 108 | Addison                  | Rowan to Columbia          | \$220,000                     |
| 109 | Addison                  | Columbia to Francis        | \$440,000                     |
| 110 | Addison-Standard         | Francis to Colton          | \$1,870,000                   |
| 111 | Alberta                  | Cascade Way to 5-Mile      | \$330,000                     |
| 112 | Alberta/Cochran          | NW to Francis              | \$2,750,000                   |
| 113 | Arthur St.               | I-90 to 2nd Ave            | \$220,000                     |
| 114 | Arthur st.               | I-90 to Newark (Perry)     | \$330,000                     |
| 115 | Ash/Maple                | NW to Wellesley            | \$3,190,000                   |
| 116 | Ash/Maple                | Wellesley to Country Homes | \$2,970,000                   |
| 117 | Ash-Maple                | Bridge to NW Blvd          | \$2,200,000                   |
| 118 | Barnes Road              | west end to Phoebe         | \$1,430,000                   |
| 119 | Belt                     | Nora to Montgomery         | \$330,000                     |
| 120 | Bernard                  | 29th to 14th               | \$1,320,000                   |
| 121 | Boone                    | Monroe to Washington       | \$880,000                     |
| 122 | Bridgeport               | Division to Crestline      | \$1,650,000                   |
| 123 | Broadway - Alki Avenue   | Freya to Havana            | \$1,320,000                   |
| 124 | Browne - 7th - McClellan | 3rd to 9th                 | \$660,000                     |
| 125 | Buckeye                  | Post to Division           | \$880,000                     |
| 126 | Cedar Road               | Country Homes to Strong    | \$880,000                     |
| 127 | Cheney-Spokane           | 195 to city limits         | \$1,980,000                   |
| 128 | Crestline                | Wellesley to Francis       | \$1,540,000                   |

Arterial Street Maintenance List

|     | Project Name                     | Project Location            | Planning-Level Cost Estimates |
|-----|----------------------------------|-----------------------------|-------------------------------|
| 129 | Crestline                        | Illinois to Wellesley       | \$2,200,000                   |
| 130 | Crestline                        | Francis to Lincoln          | \$1,430,000                   |
| 131 | Crestline                        | Lincoln to Magnesium        | \$440,000                     |
| 132 | Crestline                        | 44th to 53rd                | \$440,000                     |
| 133 | Crestline                        | 44th to Thurston            | \$330,000                     |
| 134 | Crestline                        | Thurston to 37th            | \$330,000                     |
| 135 | Crestline                        | 37th to Thurston            | \$330,000                     |
| 136 | Division                         | 3rd to 7th                  | \$440,000                     |
| 137 | Driscoll                         | Assembly to Wellesley       | \$1,870,000                   |
| 138 | Driscoll                         | Wellesley to Alberta        | \$1,430,000                   |
| 139 | Electric Ave                     | west city limits to Geiger  | \$2,200,000                   |
| 140 | Euclid                           | Crestline to Market         | \$880,000                     |
| 141 | Foothills                        | Division to Crestline       | \$550,000                     |
| 142 | Francis                          | Crestline to Market         | \$990,000                     |
| 143 | Francis                          | Freya to city limits        | \$1,100,000                   |
| 144 | Francis                          | Division to Crestline       | \$2,310,000                   |
| 145 | Freya                            | 42nd to Palouse Highway     | \$550,000                     |
| 146 | G Street                         | NW to Wellesley             | \$880,000                     |
| 147 | Grand                            | 43rd to 29th                | \$1,320,000                   |
| 148 | Grand Blvd                       | 14th to 29th                | \$1,430,000                   |
| 149 | Grand Blvd/McClellan             | 14th to 18th                | \$0                           |
| 150 | Grand Blvd-9th                   | McClellan to 14th           | \$660,000                     |
| 151 | Greene                           | Market to Mission           | \$1,430,000                   |
| 152 | Greene-Freya                     | Mission to Sprague          | \$2,200,000                   |
| 153 | Grove                            | 14th to Sumner              | \$330,000                     |
| 154 | Gvmt Way                         | Hartson to Greenwood        | \$880,000                     |
| 155 | Gvmt Way                         | Sunset to Hartson           | \$220,000                     |
| 156 | Hamilton                         | Ermina to Foothills         | \$880,000                     |
| 157 | Hatch Road (phase 1)             | Highland Park Drive to 57th | \$660,000                     |
| 158 | Hatch                            | 57th to 43rd                | \$770,000                     |
| 159 | Havana St                        | Broadway to Mission         | \$440,000                     |
| 160 | Havana St                        | 37th to Glenrose            | \$770,000                     |
| 161 | Haven                            | Market to Market            | \$1,320,000                   |
| 162 | Helena Street                    | Lincoln to Sharpsburg       | \$880,000                     |
| 163 | High Drive                       | 29th to Scott               | \$2,090,000                   |
| 164 | High Drive                       | Bernard to Grand            | \$880,000                     |
| 165 | Illinois                         | Hamilton to Perry           | \$990,000                     |
| 166 | Indiana                          | Dakota to Perry             | \$770,000                     |
| 167 | Indiana                          | Division to Dakota          | \$880,000                     |
| 168 | Indiana                          | Belt to Ash                 | \$550,000                     |
| 169 | Inland Empire Way - Sunset Blvd. | 9th to 2nd                  | \$880,000                     |
| 170 | Jefferson St                     | Riverside to 4th            | \$660,000                     |
| 171 | Liberty Park Place - Media - 4th | Perry to Pittsburg          | \$220,000                     |

Arterial Street Maintenance List

|     | Project Name           | Project Location        | Planning-Level Cost Estimates |
|-----|------------------------|-------------------------|-------------------------------|
| 172 | Lidgerwood             | Rowan to Francis        | \$660,000                     |
| 173 | Lincoln                | 29th to 14th            | \$1,100,000                   |
| 174 | Lyons                  | Lidgerwood to Addison   | \$220,000                     |
| 175 | Maple-Walnut           | 5th to river            | \$1,540,000                   |
| 176 | Market                 | Garland to Francis      | \$2,200,000                   |
| 177 | Market                 | Greene to Empire        | \$1,430,000                   |
| 178 | Mission                | Hamilton to Greene      | \$1,870,000                   |
| 179 | Mission Ave            | Washington to Division  | \$440,000                     |
| 180 | MLK                    | Division to Sherman     | \$660,000                     |
| 181 | MLK (2017 build)       | Sherman to Trent        | \$0                           |
| 182 | Monroe-Lincoln         | 8th to 17th             | \$660,000                     |
| 183 | Monroe-Lincoln         | 2nd to 8th              | \$990,000                     |
| 184 | Monroe-Lincoln         | Main to 2nd             | \$990,000                     |
| 185 | Montgomery/Illinois    | Astor to Hamilton       | \$660,000                     |
| 186 | Nevada                 | Broad to Decatur        | \$1,210,000                   |
| 187 | Nevada                 | Foothills to Broad      | \$1,650,000                   |
| 188 | NW Blvd                | Alberta to Ash          | \$1,540,000                   |
| 189 | NW Blvd                | C Street to Lindeke     | \$660,000                     |
| 190 | NW Blvd                | Wellesley to Audbon     | \$1,980,000                   |
| 191 | Parkidge - Lincoln Way | Qualchan to Eagle Ridge | \$2,970,000                   |
| 192 | Perry St               | Mission to Illinois     | \$660,000                     |
| 193 | Perry St               | 45th to Thurston        | \$330,000                     |
| 194 | Perry St.              | 29th to Thurston        | \$880,000                     |
| 195 | Perry St.              | 45th to 53rd            | \$770,000                     |
| 196 | Perry ST.              | Arthur to SE Blvd.      | \$1,320,000                   |
| 197 | Pittsburg              | 4th to 5th              | \$110,000                     |
| 198 | Post St.               | Maxwell to Cleveland    | \$1,430,000                   |
| 199 | Ray ST                 | 37th to 29th            | \$770,000                     |
| 200 | Ray Street             | 29th to 17th            | \$1,320,000                   |
| 201 | Regal St               | Palouse Hwy to 55th     | \$660,000                     |
| 202 | Regal St               | 39th to Palouse Highway | \$990,000                     |
| 203 | Rifle Club Road        | west end to 9-Mile Road | \$550,000                     |
| 204 | Riverside              | Clarke to Hemlock       | \$330,000                     |
| 205 | Riverside              | Gvmt Way to Clark       | \$440,000                     |
| 206 | Rockwood               | Cowley to Southeast     | \$2,640,000                   |
| 207 | Rowan                  | Driscoll to Alberta     | \$1,100,000                   |
| 208 | Rowan                  | Alberta to Wall         | \$1,430,000                   |
| 209 | S. Riverton            | Lacey to Ermina         | \$550,000                     |
| 210 | S. Riverton            | Mission to Lacey        | \$990,000                     |
| 211 | SE Blvd                | 29th to perry           | \$1,540,000                   |
| 212 | SE/Sherman             | Perry to 3rd            | \$1,760,000                   |
| 213 | Sharpsburg             | Nevada to Pittsburg     | \$660,000                     |
| 214 | Sherman                | MLK - SFB               | \$220,000                     |
| 215 | Spokane Falls Blvd     | Division to Hamilton    | \$1,320,000                   |
| 216 | Sprague                | Hatch to Helena         | \$990,000                     |

# Arterial Street Maintenance List

|     | Project Name                   | Project Location      | Planning-Level Cost Estimates |
|-----|--------------------------------|-----------------------|-------------------------------|
| 217 | Sprague                        | Helena to Stone       | \$880,000                     |
| 218 | Sprague                        | Stone to Freya        | \$1,430,000                   |
| 219 | Sprague                        | Freya to Havana       | \$990,000                     |
| 220 | Stevens                        | 4th to 9th            | \$550,000                     |
| 221 | Summit Parkway                 | College to Monroe     | \$2,420,000                   |
| 222 | Summit Parkway (Bridge)        | Monroe to Lincoln     | \$110,000                     |
| 223 | Thurston                       | Hatch to Perry        | \$440,000                     |
| 224 | Thurston                       | Perry to Crestline    | \$550,000                     |
| 225 | Upper Terrace                  | 17th to Rockwood      | \$110,000                     |
| 226 | Upriver                        | Greene to city limits | \$2,860,000                   |
| 227 | Wall Street                    | SFB to 4th            | \$660,000                     |
| 228 | Wall Street                    | 4th to 5th            | \$110,000                     |
| 229 | Wall Street                    | Princeton to Francis  | \$990,000                     |
| 230 | Washington                     | Boone to Buckeye      | \$1,650,000                   |
| 231 | Washington St                  | 4th to 9th            | \$440,000                     |
| 232 | Wellesley                      | Assembly to C Street  | \$1,100,000                   |
| 233 | Wellesley                      | A to Ash              | \$1,100,000                   |
| 234 | Wellesley                      | Maple to Divison      | \$1,650,000                   |
| 235 | West Drive - Westcliff - Deska | Rosamund to Assembly  | \$990,000                     |
| 236 | 3rd Avenue                     | Sunset - Division     | \$2,090,000                   |
| 237 | Francis                        | Market - Freya        | \$440,000                     |

## 2017 DRAFT Capacity Improvement Project List

| Project                                            | Description                                                                                                                                                       | Estimated Cost | Region |
|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------|
| 5th Ave / Sherman St                               | Intersection - Install new traffic signal                                                                                                                         | \$700,000      | D      |
| Trent / Hamilton intersection                      | modifications due to new traffic patterns with NSC                                                                                                                | \$1,000,000    | D      |
| Downtown Bike Share                                | Paid bike share program                                                                                                                                           | \$200,000      | D      |
| D Bicycle Improvements                             | stripe bike facilities on arterials                                                                                                                               | \$500,000      | D      |
| D Pedestrian Improvements                          | install pedestrian facilities on arterials                                                                                                                        | \$250,000      | D      |
| Ash Street 2-way from Broadway to Dean             | Convert Ash Street to a 2-way street to allow access to Maple Street Bridge SB.                                                                                   | \$250,000      | D      |
| Assembly St / Francis Ave (SR291)                  | Intersection - Construct Roundabout                                                                                                                               | \$3,000,000    | NW     |
| Indian Trail Rd - Kathleen to Barnes               | Widening - Construct to 5-lane section                                                                                                                            | \$4,100,000    | NW     |
| Francis/Alberta                                    | modify NB and SB lanes to allow protected phasing                                                                                                                 | \$500,000      | NW     |
| Francis/Maple                                      | add WBR lane                                                                                                                                                      | \$500,000      | NW     |
| NW Bicycle Improvements                            | stripe bike facilities on arterials                                                                                                                               | \$250,000      | NW     |
| NW Pedestrian Improvements                         | install pedestrian facilities on arterials                                                                                                                        | \$250,000      | NW     |
| 29th Ave / Freya St                                | Stripe EBL and WBL turn lanes, and widen for NB and SB left turn lane. Keep 4-way stop.                                                                           | \$1,500,000    | S      |
| 29th Ave TWLTL                                     | between Martin and Strong                                                                                                                                         | \$300,000      | S      |
| 37th Ave / Freya st                                | Construct traffic signal                                                                                                                                          | \$250,000      | S      |
| 37th Ave / Ray St                                  | Construct traffic signal and WBR channelization                                                                                                                   | \$250,000      | S      |
| Ray-Freya Crossover                                | Segment - construct road project                                                                                                                                  | \$4,056,000    | S      |
| 44th Ave from Crestline to Altamont                | new collector road section                                                                                                                                        | \$500,000      | S      |
| 44th/Regal                                         | Widen northbound approach to 2 lanes                                                                                                                              | \$150,000      | S      |
| Freya / Palouse Hwy                                | roundabout (or turn lanes)                                                                                                                                        | \$1,000,000    | S      |
| S Bicycle Improvements                             | stripe bike facilities on arterials                                                                                                                               | \$250,000      | S      |
| S Pedestrian Improvements                          | install pedestrian facilities on arterials                                                                                                                        | \$250,000      | S      |
| Lincoln Rd / Nevada St                             | Intersection Improvements - Construct separate eastbound and westbound left-turn lanes; include west leg widening and construction of 5-lane east of Nevada 1000' | \$1,000,000    | NE     |
| Hamilton St Corridor - Desmet Ave to Foothills Ave | Segment Improvements - Construct traffic signal modifications to accommodate protected or protected/permitted signal phasing. New signal at Desmet.               | \$0            | NE     |
| Mission/Havana                                     | signal                                                                                                                                                            | \$800,000      | NE     |
| Nevada / Magnesium                                 | left turn phasing, additional lanes                                                                                                                               | \$1,000,000    | NE     |
| Greene/Ermina                                      | New signal to accommodate SCC access for transit and future NSC (mostly funded by STA)                                                                            | \$200,000      | NE     |
| NE Bicycle Improvements                            | stripe bike facilities on arterials                                                                                                                               | \$250,000      | NE     |
| NE Pedestrian Improvements                         | install pedestrian facilities on arterials                                                                                                                        | \$250,000      | NE     |
| US 2 / Deer Heights Signal                         | new signal                                                                                                                                                        | \$1,200,000    | W      |
| 21st Avenue: Deer Heights to Flint/Granite         | segment - construct new 3-lane arterial                                                                                                                           | \$2,583,000    | W      |
| Deer Heights Road: south end to 18th/21st          | segment - construct new 2-lane arterial                                                                                                                           | \$610,000      | W      |
| 12th Avenue: Deer Heights to Flint/Granite         | segment - construct new 2-lane arterial                                                                                                                           | \$1,865,000    | W      |
| US 2 Bike Path                                     | bike path from Deer Heights to Sunset Hill                                                                                                                        | \$0            | W      |
| W Bicycle Improvements                             | stripe bike facilities on arterials                                                                                                                               | \$100,000      | W      |
| W Pedestrian Improvements                          | install pedestrian facilities on arterials                                                                                                                        | \$100,000      | W      |

|                   |                     |
|-------------------|---------------------|
| Total Downtown =  | \$2,650,000         |
| Total Northwest = | \$8,600,000         |
| Total South =     | \$8,506,000         |
| Total Northeast = | \$3,500,000         |
| West Plains =     | \$6,458,000         |
| Grand Total =     | <b>\$29,714,000</b> |

Volume V, Appendix D

# **Part V:**

# **Transportation Demand**

# **Management (TDM)**

# **Toolkit**

*By: Nelson\Nygaard*

City of Spokane Comprehensive Plan

## MEMORANDUM

To: Louis Mueller, Mike Tresidder, City of Spokane  
From: Paul Moore, Roger Pardo, Nelson\Nygaard  
Date: December 14, 2016  
Subject: Transportation Demand Management Toolkit - Update

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### EXPLORING TDM MEASURES

TDM measures collectively work to change how, when, where, and why people travel. TDM efforts help to increase efficiency within the transportation system. Supporting alternative modes - cycling, walking, transit, and carpooling - gives employees, residents, and visitor's incentives to reduce reliance on the single-occupant vehicles. TDM approaches can be an important, cost-effective solution to overall transportation challenges, both reducing vehicular impact and parking demand, while improving the accessibility and success of a new development. A successful TDM approach typically includes a variety of strategies. These strategies work together to achieve a more sustainable transportation system by making the most of the existing infrastructure.

Incorporating TDM strategies in a new development serves not only to make better use of transportation infrastructure, but also to reduce the demand for new roadway capacity. It can also result in better place-making and community building; TDM can help make developments and neighborhoods more attractive places to live, work, and visit. Workplaces and developments that have a vested interest in making places more accessible to employees and residents often emerge as vibrant, walkable neighborhoods with desirable amenities.

Many of the transportation demand management strategies listed below have synergistic effects (i.e., a combination of strategies will be more effective together than individually). Results, such as mode split changes or reductions in traffic or parking demand, vary depending not only on the context, but also on how strategies are implemented in relation to one another.

The City should continue to improve upon TDM strategies that are already being used in the region and continue to explore implementation of other TDM strategies covered in this TDM toolkit.

- Commute Trip Reduction Plan / Growth and Transportation Efficiency Center Plan
- Shared Parking Codes and Incentives
- Bicycle, Pedestrian, and Transit System improvements
  - o Bicycle Share Program
- Transit Supportive policies and programs
  - o Park and Ride Facilities
  - o Car and Van Pool Support
  - o Ride Share / Guaranteed Ride Home program

## PARKING CASH-OUT

A parking cash-out program is one in which people (typically commuters, sometimes residents of multi-family housing) are offered the opportunity to choose either a parking space or the cash equivalent of the space, based on the out-of-pocket costs to the employer. The employee or resident can determine whether to use the cash for alternative modes of transportation or keep the funds. Offering the option of “cashing out” their subsidized parking space can incentivize employees to ride transit, bike, walk, or carpool to work, thereby reducing vehicle commute trips and emissions.

This program can benefit commuters, employers, taxpayers, and the environment.

- Employees/residents get freedom of choice and additional income, and appreciate the fairness of the program;
- Employers can reduce the need for parking spaces;
- Because vehicle miles traveled are reduced, auto emissions drop, leading to better air quality;
- The community benefits from reduced traffic congestion.

**Steps for Implementation:** The City may implement a policy supporting employers that provide employees with subsidized parking to offer a cash allowance instead of a parking space. The intent of such a program is to encourage employees to seek out alternative modes of transportation for their commutes, reducing congestion and minimizing the demand for parking. Alternatively, a cash-out program could be a key feature of a transportation management association (TMA), typically a partnership of major employers in a region collaborating to improve transportation options and air quality.

## UNBUNDLING PARKING COSTS

Separating the cost of parking from building cost is a strategy used to 1) increase housing affordability and housing choice, and 2) reveal the true cost of parking to employers and their employees. By requiring payment for parking every day or month as opposed to receiving it for free or bundled in with rents, residents and employees are more likely to become conscious of this cost and utilize alternative transportation modes. Charging separately for parking is the single most effective strategy to encourage households to own fewer cars, and rely more on walking, cycling, and transit.

Parking costs are often part of the sale, lease or rental price of housing and commercial space for the sake of simplicity. Although the cost of parking is often hidden in this way, parking is never free. “Unbundling” the cost of parking is a valuable change to status quo parking provision. We have learned that providing parking – or, for that matter, anything – for free or at highly subsidized rates to users encourages its use and means that more parking spaces have to be provided to achieve the same rate of availability.

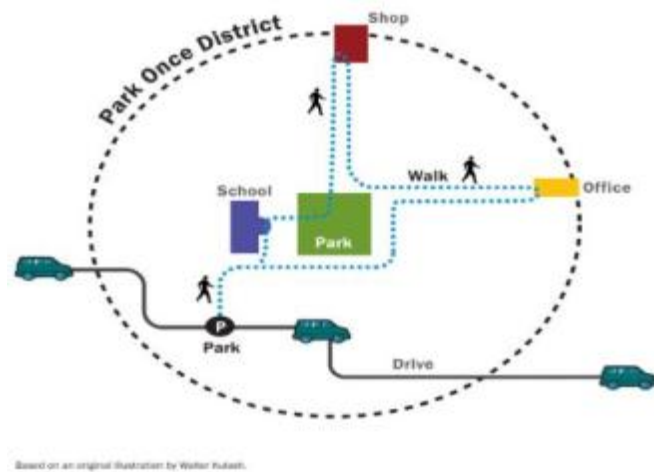
Residential unbundling provides a financial reward to households who would like to reduce the number of their vehicles, changing parking from a required purchase to an optional amenity. This provides additional choice and a market of residents who wish to live in a walkable, transit-oriented neighborhood where it is possible to live well with a single car, or even no car, in the household.

Unbundling for commercial uses provides strategies that make it easier for businesses to save money by reducing employee parking demand. Strategies include providing an option for commercial tenants to either minimize or not include the parking in a commercial space lease. Parking could be leased to tenants or employees separately, with employers having the option of changing their supply as needed or at a minimum when the lease is renewed. Progressive parking policy moves towards the separation of parking costs, as it is continually shown to be the primary factor guiding employers to incentivize alternatives to expense of needing an automobile.

**Steps for Implementation:** Spokane may consider adopting an unbundled parking policy. This would decouple the cost of rent and parking, which will make housing more affordable for some, and financially incentive some residents to utilize alternative modes of transportation. Such a policy is particularly effective in walkable areas with access to alternative modes of transportation.

## SHARED PARKING

Mixed-use developments offer the opportunity to share parking spaces between various uses, thereby reducing the total number of spaces required compared to the same uses in stand-alone developments. This is a primary benefit in mixed-use development contexts of moderate-to-high density. Shared parking operations offer many localized benefits to the surrounding community, including a more efficient use of land resources and reduced traffic congestion.



Often compact and walkable environments allows for parking to be shared. Visitors can park once and walk to multiple destinations; employees can park once for the day and walk to complete errands before, after, or during their workday. Each land use does not need its own dedicated supply of parking, yet that is often what standard parking generation analysis and zoning code parking requirements create. In reality, different uses have different peak demands throughout the day. For example, an office may have a high demand until 5pm, and a restaurant open for dinner may have a high demand only after 5pm.

Shared parking encourages use of large centralized parking facilities and discourages the development of many small facilities. This results in more efficient traffic flow because there are fewer curb cuts and turning opportunities on main thoroughfares. This has the added benefits of reducing accidents and reducing emissions from idling vehicles stuck in traffic.

**Steps for Implementation:** In areas where there is a diverse mix of land uses, the City of Spokane may consider expansion of shared parking policy. A shared parking policy reduces the amount of total parking developed by maximizing the utility of each space and sharing it amongst multiple land use types. In areas identified as viable locations for a shared parking strategy, developers may be allowed to pay into a fund for development and/or maintenance of off-site

municipal parking facilities, or to lease underutilized parking spaces from a nearby private facility, rather than build new, unnecessary supply. This provides developers an alternative to the hefty cost of providing parking and allows the City to use pricing or regulation tools to manage parking supply and demand in shared parking districts.

## BIKE INFRASTRUCTURE

### Bike System Improvements

Bicycle system improvements can help reduce peak-hour vehicle trips by making commuting by bike easier and more convenient for more people. Bike facilities can serve direct door-to-door trips, especially those trips that are “too far to walk but not far enough to drive” (e.g. trips of between one and two miles are too long to walk for most people, but are a short bicycle ride). In addition, improved bicycle facilities can increase access to and from transit hubs, thereby expanding the “catchment area”<sup>1</sup> of the transit stop or station and increasing ridership. Bicycle access can also reduce parking pressure on heavily-used and/or heavily-subsidized feeder bus lines and auto-oriented park-and-ride facilities.



Bike Lane in Philadelphia, PA

Safe accommodation of cyclists should be made within travel ways of the street in either mixed flow or within designated bicycle lanes.

**Steps for Implementation:** The principal step in bringing bicycle infrastructure to the City of Spokane is the adoption of the Bicycle Master Plan, something the City has accomplished, and updated in recent years. The plan has identified specific routes where bicycle facilities should go. The City should ensure that the installation of bicycle facilities is conducted efficiently and as part of other roadway maintenance projects as necessary.

Spokane should prioritize the elimination of system gaps and introduce facilities where high use is expected. In addition, bicycle facilities may be proposed to developers as a condition for development.

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<sup>1</sup> A transit catchment area is the geographic area from which a transit station draws riders.

## Bike Depot (with Bus Rapid Transit Station)

A high level of bicycle access suggests that a transit station may be suitable for a “bicycle station.” Bicycle stations offer sheltered and secure bicycle storage facilities that provide safe and accessible locations for riders looking to bridge their “first mile/ last mile barrier” with a transit connection. Bicycle storage facilities are often membership based and sometimes staffed, meaning cyclists do not have to reserve space in advance. If designed well, they have been shown to dramatically expand the “catchment area” of a transit station by removing a key obstacle to increased bicycle use – the fear of having a bike damaged by weather or vandalism, or stolen. Some bike depot facilities even provide tool and repair stations, showers, and bathrooms, as well as valet parking during staff hours.

Bicycle stations operate at rail stations throughout the US, including the Palo Alto Caltrain Station, Embarcadero and Berkeley BART stations, Long Beach Blue Line station in California; Pioneer Square Tunnel Station in Seattle; Millennium Park in Chicago, and Union Station in Washington, DC.



BikeStation in Washington, DC  
Source: Bikestation

**Steps for Implementation:** The City of Spokane should identify high ridership stops with the assistance of the Spokane Transit Authority. These stops could be considered as potential locations for a bike depot where transit riders may accomplish their first mile to or from transit. Such a strategy would require significant level of transit ridership, as well as adequate bicycle facilities to encourage individuals to ride a bicycle to connect to transit. Funding may be a collaborative effort between the city and transit agency.

## Sheltered and Secure Bicycle Parking

Providing sheltered or indoor bicycle parking for long-term parkers, such as residents and employees – as well as many convenient short-term racks on-street and near entries – helps treat bicycling as a serious alternative to the automobile by providing the same level of access, security and amenity that a car gets.

Covered or sheltered bicycle parking should be located in areas suitable for longer-term stays. The bicycle parking should:

- Be able to be accessed 24 hours a day
- Be identified via clear signage
- Have convenient access to/from surrounding streets
- Be safe and secure



Bike Shelter

All long-term spaces will be designed to accommodate bicycles with a length of 6-feet and a minimum width of 2-feet.

The proportion of short and long term spaces provided varies depending on the type of building use (e.g. retail uses have predominantly short-term spaces, whereas office and residential buildings need more long-term parking).

## On-Site Bike Repair Facilities

Installing a bicycle repair facility with air compressors for tires is a minimal investment to support infrastructure that can keep bicycles in circulation and reduce parking demand that might otherwise be created by frustrated former bike commuters.

A simple do-it-yourself bicycle stand is an inexpensive investment that provides essential support for cyclists, including tire gauges, air pumps, and wrenches and other tools for minor repairs. A bicycle stand can fit in a small space in a parking garage or on the ground floor of a building.

A full-service, staffed bicycle repair facility could add professional repair services as well as bike rentals, valet bike parking, and bike share registration.

## On-Site Changing Facilities for Bicyclists

For many commuters, arriving at work covered in sweat is a bike-commuting deal breaker. An increasingly popular means for avoiding this green-commute barrier is to provide employee facilities for showering and changing into fresh clothes.

End of trip and support facilities are key parts of a complete bicycle trip. Shower, changing, and locker facilities promote bicycle commuting by providing a convenient place for bicyclists to shower, change, and/or store their clothes if they arrive in sweat, mud, or rain. Simple secure facilities are an easy addition to on-site bathrooms.

**Steps for Implementation:** Spokane should establish a policy that requires developers to create secured bicycle parking when developing parking. Such facilities should also be paired with on-site changing facilities and on-site repair stations outfitted with basic tools for bicyclists. Providing such amenities provides a visual cue for people to consider bicycling to work. The City of Spokane could establish such amenities for City employees to establish a precedent.

## BIKE SHARE

Bike share programs bring the convenience and speed of biking in an urban/downtown setting without the hassle of owning, maintaining, and finding parking for your own bike, which can allow residents and employees to commute and do errands without needing to transfer bus lines, find parking, or get stuck in traffic. Bike sharing is a form of bike rental where anyone can have access to a shared fleet of bicycles on an as-needed basis. Bike share programs provide safe and convenient access to bicycles for short trips, such as running errands during lunch or for accessing the transit system by helping to bridge “first mile/last mile” barriers.

Bicycle sharing programs work in a similar fashion to car-sharing programs in that they provide people with an on-demand mobility option without the operation and maintenance costs that come along with ownership. These programs also attempt to increase physical activity and health of users, and reduce traffic congestion and air pollution in urban areas.

These programs have been implemented in various forms for the past 40 years. Until recently, bike share programs worldwide have experienced low to moderate success. However, in the last 5 years, innovations in technology have given rise to a new (third) generation of technology-driven bike share programs. These new bike share programs can dramatically lower the barrier to use by allowing reservations and/or payment via smart card, credit card, or even cell phone. In addition, damage or theft of bicycles is minimized by linking accounts to a user’s credit card.

The most common operational models for third generation bike sharing programs are:

- The first and most common model is a privately-operated program, where contracts for exclusive rights to outdoor advertising space (bus stops, billboards, etc.) include a provision that requires the advertising company to install, operate, and maintain a bike sharing system. The Vélib system in Paris is an example of this first model.
- The second model is a publicly-operated program run by a government agency as part of a larger transit access or TDM/parking management strategy. Montreal's Bixi and Long Beach's employee-based program are examples of this second model. Some cities sell advertising rights at the bike stations and on the bikes themselves to help defray program costs, but the program is not operated by an advertising company.



Hubway Bike Share, Boston, MA

**Steps for Implementation:** In order to bring a bike share system to Spokane, the City should undergo an analysis to determine the demand for such a service, and identify locations where stations would be successful. Such a program would be helpful for reducing the use of personal vehicles to accomplish short trips, and would likely find success in Downtown.

## PEDESTRIAN INFRASTRUCTURE IMPROVEMENTS

A walkable environment gives people more transportation choices and improves quality of life. A well-designed network of streets and pedestrian ways is key to pedestrian accessibility, and includes streets, alleys, trails, midblock crossings and pedestrian pass-throughs.

Demand for parking can be reduced by providing pedestrian and bicycle amenities that make it easier and more pleasant for people to walk or bicycle rather than drive. These amenities and design changes can help alleviate traffic congestion. In particular, improving the walkability and pedestrian orientation of mixed use neighborhoods encourage an increase in physical activity and health of users.

Promoting bicycle and pedestrian transport modes can also be accomplished through simple design changes, some of which can be implemented at no additional cost. Instead of locating parking between the street and the buildings, requiring pedestrians and bicyclists to navigate through parking lots, parking should be set back behind or to the side of buildings. Simple low cost pedestrian infrastructure improvements include

- Creating continuous sidewalks and installing visible crosswalks at intersections
- Landscaping and buffers between sidewalks and the roadway
- Handicapped accessible curb ramp design
- Highly visible pavement markings
- Reducing intersection crossing distance
- Pedestrian-scaled lighting



Vancouver, BC

**Steps for Implementation:** Spokane faces a challenge in regards to maintaining sidewalks, as the owners of adjacent property are responsible for maintenance. However, improving walkability makes a community significantly more accessible, and is particularly important in locations where there is a mix of land uses and destinations, where walking is a viable alternative for getting between destinations. The City of Spokane can work with local businesses to establish a business improvement district (BID). BID's bring together private organizations and businesses to improve a local district to attract visitors, and as such, could guide sidewalk development and design.

## DISTRICT- BASED SHUTTLE

Shuttle services are a form of public transit that utilizes smaller buses or vans to bring passengers to their destinations. Some employers provide or contract transit providers to operate direct shuttles between employment sites and transit or parking facilities. Employer shuttles pick up employees at a parking lot, regional bus stop, or commuter rail station, and drive them to their workplace. Some employers also operate daytime shuttles, allowing employees to leave their jobsite for lunch or running errands, making it unnecessary for them to drive. Shuttles can be operated by a local transit system, an employer, a municipality, a nonprofit, or a partnership of a combination of these entities.



Atlantic Station Free Shuttle

Source: CBS Atlanta

**Steps for Implementation:** Spokane would need to identify significant trip patterns that could potentially benefit from a shuttle. Once identified, survey data could be collected to gauge the willingness of individuals to use such a service between key destinations. Spokane Transit Authority would likely be a leading partner in the development of these kinds of systems.

## CAR-SHARING

Car-sharing programs allow people to have on-demand access to a shared fleet of vehicles on an as-needed basis. Usage charges are assessed at an hourly and/or mileage rate, in addition to a refundable deposit and/or a annual membership fee. Car-sharing is similar to conventional car rental programs with a few key differences:

- System users must be members of a car-sharing organization.
- Fee structures typically emphasize short-term rentals rather than daily or weekly rentals.
- Vehicle reservations and access is “self-service.”
- Vehicle locations are widely distributed rather than concentrated.

Car-sharing programs reduce the need for businesses or households to own vehicles, and reduce personal transportation costs and vehicle miles traveled (VMT).

Through car-sharing, individuals



Car2Go Car Share, Calgary, AB

Source: Calgarysun.com

gain access to vehicles by joining an organization that maintains a fleet of cars and light trucks in a network of locations.

Car-sharing has sometimes been referred to as the “missing link” in the package of alternatives to the private automobile ownership. For example, vehicles available near a person’s workplace or school can enable them to commute to work via transit or other means, knowing that they’ll have a car-share vehicle available during the day only if needed for work or personal trips. It has proven successful in reducing both household vehicle ownership and the percentage of employees who drive alone because of the need to have a car for errands during the workday. As a result, car sharing can be an important tool to reduce parking demand.

For residents, car sharing reduces the need to own a vehicle, particularly a second or third vehicle. Recent surveys have shown that more than half of car-share users have sold at least one vehicle since joining the program in the San Francisco Bay Area (source: survey by Nelson\Nygaard Consulting Associates for City CarShare). For employees, car sharing allows them to take transit to work, since they will have a vehicle available for errands during the day.

### SUBSIDIZED/ UNIVERSAL TRANSIT PASSES

Reduced price passes have been shown to increase transit ridership and provide an incentive to reduce vehicle ownership. Similar programs have been successfully created for a wide range of residential developments. In recent years, growing numbers of transit agencies have teamed with cities, employers, operators of multi-family residential complexes and even with entire residential neighborhoods to provide transit pass programs.



Calgary Transit Pass, Calgary, AB  
Source: Calgary Transit

The principle of reduced transit passes is similar to that of group insurance plans – transit agencies can offer deep bulk discounts when selling passes to a large group with universal enrollment on the basis that not all those offered the pass will actually use them regularly.

Private employers may provide transit subsidies to their employees. The type and amount of subsidy varies by employer. Some employers cover a percentage of the cost that an employee spends on transit, others give a set dollar amount, and some provide employees with free transit passes. In addition, some cities require developers to provide subsidized transit passes to employees and/or residents of a development as a condition of approving project entitlements.

Studies have shown that reduced cost transit passes have led to reductions in car mode share of 4 to 22-percent, with an average reduction of 11-percent. Many of these reductions have occurred in areas with very limited transit service.

**Steps for Implementation:** Spokane may adopt a policy that provides developers of multi-family housing in areas with transit access with the option of reducing the amount of parking constructed if subsidized transit passes are provided to residents. Similar strategies may be used by employers, and could be part of a package of strategies led by a TMA.

## TRANSIT STOP AMENITIES

To transit riders, travel time, frequency and cost are the most important factors in determining satisfaction in transit service. Apart from capital improvements impacting these factors, stop level amenities, specifically transit shelters and real-time information availability, are the most important improvements impacting transit rider satisfaction according to a 2016 study completed by the Transit Center.

These are relatively simple and low-cost improvements when compared to the capital costs associated with travel time, frequency and cost. Transit shelters provide an enhanced experience for riders by providing a shield from the elements, be it rain, snow, or the warm sun. In addition, real-time information takes away the uncertainty previously associated with transit service, allowing riders to maximize their time by limiting wait times. Real-time information can be displayed on transit shelters as well as be made accessible on mobile devices.

**Steps for Implementation:** Spokane and Spokane Transit Authority should collaborate to identify what transit stop amenities could feasibly be introduced to the system and to identify financing.

## TRANSPORTATION DEMAND MANAGEMENT COORDINATOR

Mobility coordinators or ambassadors have been used to great success throughout the United States to help administer transportation demand management programs at specific businesses, individual developments, or a group of organizations under a Transportation Management Association (TMA), which often collaborates with the city to meet transportation management goals. The tailored individual perspective of an on-site resource greatly improves the efficiency of getting travelers to use alternative modes. One of the greatest cost benefits of a TDM Coordinator is the ability to appoint or assign this role to an assisting staff member, and incorporates the details of this position within their job responsibilities.



Commuter Challenge Award Ceremony  
Boulder, Colorado

Mobility Coordinators administer and actively market demand management programs. They may also serve as a facility-wide concierge, providing personalized information on transit routes and schedules, ridesharing information, bicycle routes and facilities, and other transportation options available to residents, employees and customers. The Coordinator also negotiates with transit agencies for low cost transit passes.

Typical responsibilities of Mobility/TMA Coordinators include:

- Providing information about monthly transit passes
- Marketing, including distribution of new employee/tenant orientation materials
- Distribution of transportation news and commuter alerts
- Assisting with rideshare matching
- Providing Guaranteed Ride Home vouchers

- Audit and review corporate/building transportation needs
- Consultation regarding pre-tax transportation fringe benefits, setting-up commute programs, and compliance with regulatory requirements

**Steps for Implementation:** The City of Spokane should continue to explore opportunities to enhance TDM strategies particularly within Downtown. Supporting efforts like the Growth and Transportation Efficiencies Center (GTEC) plan can support many of the goals of TDM. The position should also coordinate with relevant departments and agencies, such as STA, Planning and Public Works to ensure the City has a cohesive approach to improving transportation and parking options.

## CARPOOLING/ VANPOOLING

Carpooling is the shared use of a car by the driver—usually the owner of the vehicle—and one or more passengers. When carpooling, people either get a ride or offer a ride to others instead of each driving separately. Carpooling programs involve varying degrees of formality and regularity. Although carpools are typically formed voluntarily, institutions, employers, developers and property owners can encourage and accommodate them through the establishment and reservation of preferred parking spaces and free or reduced parking costs for designated and registered carpools.

Vanpools serve longer-distance commutes along corridors with very limited or no existing transit service. They consist of a group of five to 15 commuters who rideshare to and from work in vans either leased from an outside operator or transit agency who owns and maintains the vehicles and provides insurance and other support, or self-supporting, where operating costs are divided among individual riders. In some cases, vans can be provided by an employer or can be owned by an individual. One of the vanpool participants serves as the primary driver and another as a backup driver. (Volunteer drivers usually ride free in exchange for their additional driving and coordination responsibilities.) The cost for participants depends on the size of the van, the length of the commute trip, the number of participants, and the availability of employer or government subsidies.



Employee Vanpool

## Rideshare and Ride Matching

One of the greatest impediments to carpool and vanpool formation can be finding suitable partners with similar work schedules, origins, and destinations. Facilitated rideshare matching can overcome this obstacle by enabling commuters who are interested in ridesharing to enter their travel preferences into a database and receive a list of potential rideshare partners. The success of these programs is largely determined by the number of participants and, in turn, the

number of potential matches that can be made. Rideshare programs may be administered through individual employers, but are often most effective when coordinated through a transportation management association or other larger scale program. The home, workplace, or local TMA coordinator often obtains the responsibility of overseeing this program.

**Steps for Implementation:** The city could partner with other agencies or launch its own web-based rideshare tool to assist residents in finding a carpool, and could also provide incentives such as priority parking spaces and parking discounts in City-managed facilities. This strategy could be accomplished by a TMA that collaborates with local employers to market such opportunities to employees.

## GUARANTEED RIDE HOME

A long-standing but effective TDM strategy, Guaranteed Ride Home programs provide transportation when typical means are not available to residents or employees returning home outside of their normal schedule. An employer or association provided benefit allows for a set amount of free taxi rides or car-share usage for unplanned trips home that cannot be accommodated by the employee's normal commute mode (e.g., working late past last scheduled bus, carpool passenger with sick child at school). Statistics on such programs indicate that although they tend to have relatively low employee utilization rates, they have very high satisfaction rates from participants, providing a high benefit for a low cost to employers.

A recent Nelson\Nygaard study evaluating the effectiveness of a regional GRH program in Alameda California found that 95% of program participants felt that the GRH program did encourage alternative mode use. Another study found that 15-25% of program enrollees would otherwise drive to work if the GRH program did not exist.

**Steps for Implementation:** With the rise of services such as Uber and Lyft, the taxi industry has had to identify operational niches. Spokane may establish a GRH program in partnership with local taxi service providers, that provide employees with a trip home as necessary. Such a program assumes that employers, likely those participating in a TMA to reduce transportation demands, will provide employees with a set amount of rides for such trips. This strategy provides taxis with a service niche, while providing employees that opt not to drive with a guaranteed trip home.

## TDM MEASURES MATRIX

This section provides a matrix of the previously described TDM measures with high level information regarding the effectiveness, planning level costs, and associated traffic, parking, or mode split benefits of each strategy. The planning level costs associated with these measures provide a general range of prices associated with each strategy, which can vary depending on the depth and details of each program, but provide a good starting point for consideration. Similarly, the percentages provided in the traffic, parking, and mode split benefits column are based on observed impacts and help quantify each measure's effectiveness. While it is difficult to pinpoint the precise impact each measure may provide, the impact ranges provide a basis for discussions of measures. While evidence from published literature about the effectiveness of some strategies can be limited, or difficult to untangle from the effects of other transportation strategies that were implemented at the same time, most strategies work best in tandem with a combination of TDM programs.

**APPENDIX D OF VOLUME V / PART V: TRANSPORTATION DEMAND MANAGEMENT TOOLKIT**  
City of Spokane

**Figure 1: TDM Measure Cost/Benefit Summary**

| TDM Measure                                | Cost Estimates- Planning Level                                                                                                                                                                                                     | Traffic/ Parking / Mode Split Benefit                                                                                                                            | Impact per cost |
|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| <b>Parking Cash-Out</b>                    | <b>Varies on depending on location and parking supply factors.</b><br>Effective cash out for employees/ residents ranges around \$30-\$150/ month, but requires less parking to be built (cost of parking ranges \$5,000-\$40,000) | Reduces automobile commuting by 10-30%<br>Reduces parking demand and saves cost of providing parking<br>Reduce employee VMT by 12% for those choosing cash-out   | High            |
| <b>Unbundling Parking</b>                  | <b>None</b><br>Reduces rent/lease costs as parking is not subsidized                                                                                                                                                               | Reduces vehicle ownership and parking demand 10-20%                                                                                                              | High            |
| <b>Shared Parking</b>                      | Staff/ management costs to administer                                                                                                                                                                                              | Reduction of 10-30% of parking required                                                                                                                          | High            |
| <b>Bicycle Infrastructure</b>              | Average cost of \$130,000 per mile with a range of \$5,000 to \$535,000 per mile depending on the condition of the pavement, the need to remove and repaint the lane lines, and other project specifications.                      | In U.S. cities with more than 250,000 residents, each additional mile of bike lanes per square mile is associated with a 1% increase bicycle commute mode share. | Medium          |
| <b>Bike Share*</b>                         | <b>Capital Cost per station*:</b> Approximately \$55,000<br><b>Annual Operational Costs*:</b> \$2,500 per bike<br><b>Yearly Memberships-</b> \$85-144 (a majority provide bulk discounts)                                          | Increase in mode share of bicyclists 1-2%<br>Reduction in automobile usage by 5%-30%                                                                             | Medium          |
| <b>Bike Depot</b>                          | <b>Construction Costs:</b> \$500,000- \$1,000,000 (depending on size and amenities)<br><b>Operating Costs:</b> \$100,000- \$150,000<br><b>Membership:</b> \$80-\$100/ year                                                         | Reduces parking and traffic by 5-15%                                                                                                                             | Low-Medium      |
| <b>On-Site Secure Bicycle Parking</b>      | <b>Varies with number of bicycle parking and type of storage</b><br>Ranges: \$200-\$600                                                                                                                                            | Reduces parking and traffic by 5-15%                                                                                                                             | High            |
| <b>Bike Rack</b>                           | \$150-300 (for a two bicycle rack)                                                                                                                                                                                                 | Reduces parking and traffic by 1-5%                                                                                                                              | Medium          |
| <b>On-Site Bicycle Changing Facilities</b> | <b>Construction costs associated with development.</b>                                                                                                                                                                             | Reduces parking and traffic by 5-15%                                                                                                                             | Medium          |
| <b>On-Site Bicycle</b>                     | \$100-\$300 (basic bicycle repair tools)                                                                                                                                                                                           | Reduces parking and traffic by 1-5%                                                                                                                              | Medium          |

**APPENDIX D OF VOLUME V / PART V: TRANSPORTATION DEMAND MANAGEMENT TOOLKIT**  
City of Spokane

| TDM Measure                                   | Cost Estimates- Planning Level                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Traffic/ Parking / Mode Split Benefit                                                                                                                                                            | Impact per cost |
|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| <b>Repair</b>                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                  |                 |
| <b>Pedestrian Infrastructure Improvements</b> | <p><b>Varies by type of improvement</b><br/> <b>Sidewalks:</b> \$5-\$10 per square foot<br/> <b>Handicap accessible curb ramp:</b> \$800-\$1,000<br/> <b>Crosswalk:</b> \$100-\$400 (one leg)<br/> <b>Curb Extensions:</b> \$3,000-7,000)<br/> <b>Planting Tree:</b> (\$150-\$300)</p>                                                                                                                                                                                                                                                         | Increase walking mode split by 0.27% per 1% increase in sidewalk coverage.                                                                                                                       | Medium-High     |
| <b>District- Based Shuttle</b>                | <p><b>Service Operation:</b> \$80-\$100 / hour<br/> <b>Purchase of shuttle/ bus:</b> \$30,000 (10-14 passenger) -\$100,000 (30-passenger)</p>                                                                                                                                                                                                                                                                                                                                                                                                  | <p>Reduces up to 40% of vehicle trips to shuttle trips<br/> <i>This percentage varies dramatically depending on type of service, frequency, location/ geography, origin/destination etc.</i></p> | Medium-High     |
| <b>Car Share (Car2Go/Zip Car)**</b>           | <p><b>Designating Car Share Spaces in Development:</b> No cost associated with designating Car2Go parking locations within development, however surface lots must be accessible 24/7 to public users and on-street parking near the development must be within the "Home Area" zone.<br/> <b>Purchasing Corporate/ Bulk Memberships:</b> There is often a bulk discount associated with purchasing bulk memberships for employees or residents. Generally a membership for Car2Go is a one-time \$35 fee, and members pay for their usage.</p> | Each car share vehicle eliminates demand for 15-20 private vehicles and each car share member reduces their driving between 27%-69%                                                              | High            |
| <b>TMA Coordinator</b>                        | <b>Varies- based on staffing from part time responsibilities to full time coordinator</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Reduce requirements 10-40% at worksites with effective parking and mobility management programs. (Cannot combine reduction effects with the Coordinator's TMA implementation strategies.)        | High            |
| <b>Carpool/ Vanpool</b>                       | <p><b>Carpool:</b> None<br/> <b>Vanpool:</b> \$30,000-\$40,000 (purchase of 10-14-person shuttle/ bus)<br/> <b>Operating costs</b> can be offset by charging participants- average \$100/ month</p>                                                                                                                                                                                                                                                                                                                                            | Reduces parking and traffic by 5-10%                                                                                                                                                             | Low-Medium      |

**APPENDIX D OF VOLUME V / PART V: TRANSPORTATION DEMAND MANAGEMENT TOOLKIT**  
City of Spokane

| <b>TDM Measure</b>             | <b>Cost Estimates- Planning Level</b>                                                                                                     | <b>Traffic/ Parking / Mode Split Benefit</b>                               | <b>Impact per cost</b> |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|------------------------|
| <b>Rideshare</b>               | None                                                                                                                                      | Reduces parking and traffic by 1-5%                                        | Medium-High            |
| <b>Guaranteed Ride Home</b>    | Varies depending on the number of rides designated to employee/ resident and form of transportation                                       | Reduces automobile commuting by 15-25%                                     | Medium-High            |
| <b>Discount Transit Passes</b> | \$50-\$120/ month<br>(depending on subsidy discount rate, generally 50%-60% of a full price monthly transit pass for full time employees) | Reduces automobile commuting by 4% to 22% with an average reduction of 11% | Medium                 |

\*Costs derived from Regional Bike Share Implementation Plan for Los Angeles County [http://clkrep.lacity.org/online/docs/2015/15-0985\\_misc\\_f\\_08-20-15.pdf](http://clkrep.lacity.org/online/docs/2015/15-0985_misc_f_08-20-15.pdf)

\*\*Information derived from Car2Go Seattle Website: <https://www.car2go.com/en/seattle>

Volume V, Appendix D

# **Part VI: Spokane Bicycle Master Plan**

City of Spokane Comprehensive Plan



# SPOKANE BICYCLE MASTER PLAN

MAY 2017



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# EXECUTIVE SUMMARY

The Spokane Master Bicycle Plan creates a vision for enhancing bicycling opportunities for all residents of Spokane. Its policies and actions are intended to make Spokane a more bicycle-friendly city. Communities that embrace active living principles provide healthy environments for its citizenry and are more economically vital.

Although Spokane has performed bicycle facility planning for more than thirty years, the current Bicycle Facilities Network is disconnected and signed bicycle routes are sporadic. There are numerous barriers (hills, high traffic volume streets, the Spokane River, etc.) that make cycling difficult and inconvenient. Additionally, end-of-trip facilities such as bicycle parking and lockers are inadequate. This plan proposes to address these issues by creating a bicycle network that guides cyclists of all ages and abilities safely throughout Spokane and its unique geography. Importantly, the Spokane Master Bicycle Plan includes recommendations and actions that will ensure that bicycling becomes a more viable alternative mode of transportation for all.

Research has consistently shown that enhanced bicycle facilities provide safe options for those individuals who may not bicycle regularly. Therefore, Spokane supports bicycling because it is a cost-effective mode of transportation that promotes health, the environment, and community development.

This commitment to improving bicycle transportation includes facility maintenance, devotion of adequate staff resources to implementing the Plan, and providing sustained funding for projects and programs.

## Vision

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

## Objective and Policies

### Objective

The objective of the Bicycle Master Plan is to meet and support the goals established in the Transportation Chapter, shown below.



## Policies

The policies in this section support all of the goals in the Transportation Chapter while maintaining a focus on the needs of bicyclists within the City of Spokane.

**Policy: BMP 1: Continually increase the bicycle mode share for all trips.**

**Policy: BMP 2: Complete and maintain connected bikeways that provide safe transportation for Spokane cyclists throughout the City.**

**Policy BMP 3: Provide convenient and secure short-term and long-term bike parking to connect people to popular destinations and transit throughout Spokane and encourage employers to provide shower and locker facilities.**

**Policy BMP 4: Increase bicycling by educating people using all transportation modes about the benefits of bicycling to the entire community. Enhance the safety of people riding bicycles through effective law enforcement, education and detailed crash analysis.**

**Policy BMP 5: Develop a collaborative program between a variety of city departments and agencies and several outside organizations to secure funding and implement the Bike Master Plan through capital project delivery as well as community planning processes.**

Spokane's Bicycle Master Plan uses these policies to establish a broad vision for cycling in Spokane. Implementing this plan will be a challenge. However, if the enormous public support for this plan is any indication, the citizens of Spokane are ready to move towards more sustainable transportation options.

# INTRODUCTION

We have reached a point where working towards creating attractive, sustainable communities is an essential part of maintaining our quality of life. Transportation networks are an important part of this sustainability and developing a system that relies less on unsustainable motorized modes of transport and more on sustainable non-motorized transportation, is crucial. Riding a bicycle is the most efficient form of personal transport. The city recognizes this fact and recent planning efforts have focused on finding a way to make cycling, “safe, accessible, convenient, and attractive.” (*Spokane Comprehensive Plan Ch. 4, p. 7*) Spokane is in need of a bicycle network that meets all of these requirements while continuing to accommodate a variety of transportation options. With the vision of creating such a system, citizens, city staff and community leaders created this Bicycle Master Plan, a living document that will provide guidance and serve as a reference as this vision becomes reality.

Currently, there are over 1000 miles of paved streets within the city limits of Spokane; less than 300 miles of those streets are designated as bicycle facilities. Although these lanes provide a starting point for a bicycle network, many are disconnected and not adequately maintained. According to the 2010 census, Spokane has a higher percentage of cyclists than the national average, but there is still room for a significant improvement. 0.9 % of working-age people in Spokane chose to ride their bicycles over other modes of transportation as a means of transportation to work.

Over the next twenty years, we would like to see 5% of all trips in Spokane taken on a bicycle. Fortunately, a number of recent studies have shown that the addition of bicycle facilities and an enhancement of existing facilities can substantially increase the number of riders. If Spokane implements the recommendations contained in this Plan, the results will positively affect the city’s economy, transportation systems, environment and health of its citizens.

## HISTORY

The City’s initial *Bikeways Plan* was adopted by the City Council in October, 1976 and integrated into the Comprehensive Plan in 1980. The 1980 plan was minimally updated in 1987. In 1996, the City Council adopted the *Spokane Regional Pedestrian/Bikeway Plan* that was prepared by the Spokane Regional Transportation Council. This detailed plan outlined a regional network of trails and other related recommendations. In 2001, Spokane adopted a comprehensive plan with updated bicycle-related policies and goals. The adoption also included a revised map of Spokane’s planned regional bikeway network. This marks the most recent occasion of significant changes to Spokane’s bikeway network and bicycle related policies.

In 2006, the Bicycle Advisory Board (BAB) encouraged the Spokane City Council to adopt an amendment to the City of Spokane’s Comprehensive Plan that would require the City of Spokane to adopt a Master Bike Plan. The BAB requested the plan be integrated into the comprehensive plan. On January 17, 2007, Spokane’s City Council adopted a comprehensive plan amendment that included language supporting this request. Shortly thereafter, city staff was assigned to begin work on the plan.

After conducting an extensive public process, on June 8, 2009, the Spokane City Council passed an ordinance adopting an emergency amendment to the City of Spokane Comprehensive Plan including amendments to Chapter 4 Transportation, and adopted a Bike Master Plan including changes to the text of the Transportation Chapter of the Comprehensive Plan and a new planned bikeway network map (map TR 2). The bicycle plan was updated again in 2015.

## 2017 BICYCLE MASTER PLAN UPDATE

This 2017 update of the 2009 Bicycle Master Plan reflects changes made to the system since 2009. This update reflects the current state of bicycle system planning and facility design. Implementing bicycle systems and facility design is evolving quickly across the country as efforts to create safe and attractive systems for a wider range of cyclists has resulted in ever changing strategies and techniques to facilitate the implementation.

The Spokane Bicycle Master Plan is incorporated into the Spokane Comprehensive Plan. The purpose of the Bicycle Master Plan is to improve the environment for bicycling and provide more opportunities for multimodal transportation. The plan focuses on developing a connected bikeway network and support facilities.

The Spokane Bicycle Master Plan contains a list of specific actions that delineate activities or programs to be undertaken by the city or other appropriate agencies to assure successful implementation. In summary these include: Continued institutional commitments to improving bicycle transportation; devote adequate staff resources to implementing the Plan; provide sustained funding for projects and programs; and learn from implementing projects and adjust approaches as necessary.

**Bicycle Master Plan Part 1** contains citywide bicycling policies and action items that will be used to encourage construction of bicycle projects, support facilities, maintenance, education, funding, evaluation, coordination and other critical issues.

**Bicycle Master Plan Part 2** contains facility identification and definitions, and the Existing and Future Bikeway Network maps.

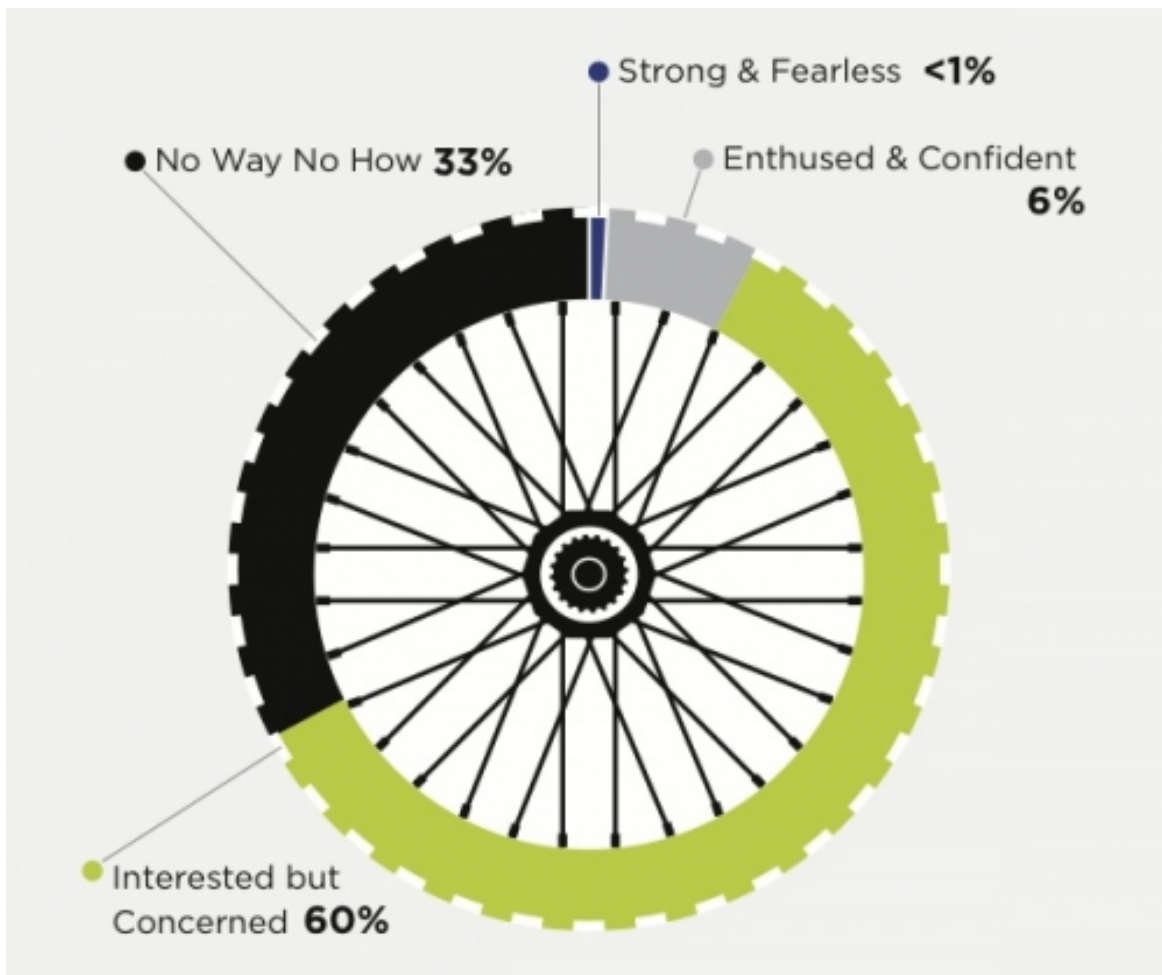
### Bicycle Master Plan Purpose

This update to the Master Bicycle Plan is designed around a bicycle network that is more appealing to the “interested but concerned” category as the target market for increasing cycling for transportation. The type of facilities to support the “interested but concerned” riders are typically in lower traffic speed environments, and where the separation between bicycles and motor vehicles can be increased, such as in buffered bicycle lanes on arterials, cycle tracks, neighborhood greenways, or on lower-speed, non-arterial streets.

Through research done by the City of Portland in 2005, four categories were proposed to help identify and understand the needs of cyclists and non-cyclists. The “*Four Types of Transportation Cyclists*” categorizes cyclists based on the conditions in which they are willing to ride a bicycle:

- **Strong & Fearless:** Representing the smallest portion of the population, this group is willing to ride on roads regardless of the speed and volume of traffic or the facilities provided.
- **Enthusied & Confident:** Representing a larger portion of the population than the Strong & Fearless category, this group is comfortable riding in the road next to cars, but appreciates designated bicycle facilities.
- **Interested but Concerned:** Representing the largest segment of the population. This group likes to ride bicycles, but do not ride regularly due to safety concerns. They generally will not ride on higher volume and higher speed roads such as arterials without facilities that buffer them from automobile traffic. These riders perceive traffic, safety, and other issues as significant barriers to bicycling.
- **No Way No How:** This category typically represents about a third of the population. This group does not bicycle due to a lack of interest or ability.

**Figure 1. The Four Types of Transportation Cyclists**



# BICYCLE MASTER PLAN: PART 1 - CITYWIDE BICYCLING VISION, POLICIES AND ACTIONS

## VISION STATEMENT

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

## POLICIES / ACTIONS

**Policy BMP1: Continually increase the bicycle mode share for all trips.**

### Actions

*Action 1.1: Use the performance goals, measurements and targets identified in Table 1.*

**Table 1. Bicycle Master Plan Performance Measures**

| Goal                                    | Performance Measure                                          | Baseline Measurement                                                                                            | Performance Target                              |
|-----------------------------------------|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-------------------------------------------------|
| Increase bicycle trips year after year  | Number of bicyclists counted at locations throughout Spokane | 2016 citywide counts and daily counts at permanent counter locations, using first year installation as baseline | Quadruple ridership between 2016 and 2036       |
| Increase bicycle share of commute trips | Commute mode share                                           | 2010-2014 American Community Survey 0.9%                                                                        | Triple commute mode share between 2016 and 2036 |

*Action 1.2: Encourage and support land uses that make bicycling more attractive than driving for trips of 3 miles or less.*

**Policy BMP 2: Complete and maintain connected bikeways that provide safe transportation for Spokane cyclists throughout the City.**

### Actions

*Action 2.1: Design bicycle facilities and the network for all ages and abilities to attract the “interested but concerned” riders. This category represents the largest segment of the community.*

The following is a list of general implementation and design measures that will need to be made by the city to support Action 2.1:

- Provide a high degree of separation between people riding bicycles and people driving cars on high traffic streets
- Incorporate separated bicycle facilities where potential users will be of a variety of ages and

abilities

- Consider a variety of methods to reduce speed differential between motorists and bicyclists where separated bicycle facilities are not possible
- Develop a system of Neighborhood Greenways on low volume and low speed streets, utilizing context appropriate design and traffic calming techniques
- Design bicycle facilities with safety and comfort as basic requirements to attract riders of all ages and abilities

*Action 2.2: Continually monitor best practices in bicycle facility design and update the City's design guidance as necessary to reflect current best practices. National best practice guides such as the NACTO Urban Bikeway Design Guide should be used as reference guides for bicycle system planning and facility design.*

*Action 2.3: Provide bicycle facilities on designated arterial streets.*

Spokane's arterial streets offer the most direct routes to workplaces, shopping areas, schools, transit park-and-ride lots, and other destinations. A lack of a bicycle network and facilities on critical portions of the city's arterial street system prevents more people from making trips by bicycle and makes conditions less comfortable for bicyclists. This plan allows for flexibility in the implementation of the network to take advantage of opportunities to improve upon what is shown the Planned Bicycle Facility Map when the opportunity arises.

*Action 2.4: Complete the Bikeway Network.*

Continue to allocate funds and seek additional funding to complete the bicycle network and finish 100% of the bicycle network by 2037. Continue to meet the bicycle level-of-service standards established in the transportation element of the Comprehensive Plan.

The Bikeway Network provides a backbone of high-quality bicycle facilities to connect to high priority destinations within the city. These facilities include protected bike lanes, bike lanes, on-street markings, signed routes, neighborhood greenways, or pathways. Select bicycle facility types that provide increasing separation on higher speed and volume roads, where feasible. Important pathway projects include completing the Centennial Trail missing links, the Ben Burr Trail, Fish Lake Trail, and connections to other trails within the greater Spokane area.

Tools for completing the bikeway network include:

- Right size roadways or reduce lane widths to accommodate bicycle facilities on streets with excessive capacity
- Reviewing on-street parking utilization rates to determine the best use of the public right-of-way

*Action 2.5: Improve bicycle safety and access at arterial roadway crossings.*

Improvements are needed at arterial roadway crossings in the Bikeway Network to provide bicyclists

with continuous, safe routes between destinations. Spokane has a number of streets that carry high-speed and high-volume traffic (e.g. Francis, Monroe, Maple/Ash, Wellesley and 29<sup>th</sup> Ave). Many other arterial streets are also challenging to cross, particularly during peak travel periods. In order to make it possible for bicyclists to travel throughout the city, there needs to be opportunities to cross major streets without disrupting the traffic flow of these important corridors.

Recommended improvements include treatments such as traffic signals, median crossing islands, curb extensions combined with signs, and/or markings. These crossings must also be safe and accessible for pedestrians. While the recommended Bikeway Network map identifies many critical needs, it does not represent a complete inventory of the city's intersections. The city should evaluate the Bikeway Network for other potential bicycle crossing improvements. The first priority will be to improve intersections where existing bicycle facilities cross arterial roadways. Other key crossings should be considered as each new segment of the Bikeway Network is implemented. In addition, all future roadway improvement projects should address bicycle crossing needs as a routine part of the design process when feasible.

*Action 2.6: Make key operational improvements to complete connections in the Bikeway Network.*

There are many spot locations in the Bikeway Network where bicycle access should be improved by making changes to roadway operations. The following is a list of general operational improvements that will need to be made by the city to complete bicycle connections:

- Provide bicycle turn pockets at key intersections. Left-turn pockets allow bicyclists to wait in a designated space for a gap in traffic before turning left. These pockets are particularly beneficial on roadways with relatively high traffic volumes and significant bicycle turning movements. Locations with raised medians may provide good opportunities to add pockets.
- Traffic signal timing should consider all modes including bicycling. Therefore, all traffic signals should facilitate safe bicycle crossings. This includes providing a minimum green time and a minimum yellow time to ensure that bicyclists are able to clear intersections, per the *AASHTO Guide for the Development of Bicycle Facilities* (1999 or latest edition). Explore new technologies to detect bicyclists at traffic signals. In the future, explore new detection technologies such as infrared or video sensors that can tell the difference between bicycles and motor vehicles. This can help improve bicycle detection at actuated signalized intersections and make it possible to detect bicyclists at pedestrian crosswalk signals.
- Explore innovative designs for bicycles at intersections. This includes modifying pedestrian crosswalk signals to have separate push-buttons or sensors to detect bicyclists, pedestrians, and motor vehicles. This allows the traffic signal to stop arterial traffic for a shorter amount of time for bicyclist crossings than for pedestrian crossings. Separate crossing signals are provided for bicycles and pedestrians at these intersections. The City of Tucson, AZ has successfully used this signal design. Bicycle boxes should also be considered at signalized locations with high numbers of left turning bicyclists. The design of all types of traffic signals should not confuse pedestrians and should comply with the Americans with Disabilities Act.
- Improve bicycle accommodations on bridges. Bicycle accommodations on bridges need to be

improved as well as on their approaches and access ramps. In the short-term, bicycle access should be improved using signage, marking, maintenance, and other spot improvements. In the long-term, as bridges are repaired or replaced, they should be studied to determine the demand for bicycle facilities. If needed, the bridge project should include new facilities or retrofitted with facilities that provide appropriate bicycle access (e.g., bicycle lanes or wide sidewalks - minimum 10 feet wide). Bridges are critical for providing bicycle connectivity throughout Spokane.

- Additional locations for pedestrian pathways with bicycles permitted (e.g., potential pathways through parks, bike channel improvements to stairs).

*Action 2.7: Provide wayfinding guidance through the Bikeway Network.*

Wayfinding signs and pavement markings should be provided to help bicyclists navigate through the Bikeway Network. The city should begin by signing the regional trail routes, then work on the entire system within close proximity to downtown, and slowly expand outwards. There are a number of locations in the city where it may be necessary to use non-arterial streets, alleys, or sidewalks to connect between existing or proposed bicycle facilities. While many of these complicated connections are shown on the Bikeway Network Map, there are currently no signs or markings along the actual connection to facilitate wayfinding. The city should install a combination of signs and markings to guide bicyclists through these connections.

*Action 2.8: Explore a paid bike share program.*

Many cities with size comparable to Spokane are investing in paid bike sharing programs. These systems provide an alternative travel method to driving or taking transit for short-distance trips (2 miles or less). The City would first need to prepare a feasibility study and financial plan for such a system. Studies have shown that having more cyclists on the road is a big factor in driver awareness of cyclists, with a positive correlation to safety. A paid bike share program would be one method of increasing the overall number of cyclists.

*Action 2.9: Improve the quality and quantity of bicycle facility maintenance.*

Bicycle facility maintenance will be improved by establishing clear maintenance responsibilities and by involving the public in identifying maintenance needs. Maintenance agreements between city agencies should be negotiated to take advantage of the strengths of each agency. In addition, there are also opportunities to utilize volunteers to assist with some maintenance tasks. These actions will improve the efficiency and quality of bicycle maintenance in the city.

- Encourage bicycle organizations and other community groups to assist with minor maintenance activities. The city will work with bicycle organizations, community groups, civic organizations, and businesses to provide periodic upkeep along trail corridors. This will help improve bicycle facility safety, reduce maintenance costs, and build goodwill with neighborhood residents.
- Continue to respond to citizen complaints and maintenance requests. Use these requests to make short term improvements and to set maintenance priorities.
- Educate roadway maintenance crews on the impact to the bicycle facility of abrupt transitions

from new to old surfacing material on street resurfacings and chip sealing and the impact of on the usability of adjacent bicycle facilities.

- Consider different types of weather and road conditions when developing and maintaining bicycle facilities. Weather and seasonal issues will be considered in the development and maintenance of bicycle facilities within reasonable limits. For example, slip-resistance will be a factor considered in the selection of pavement markings for bicycle facilities. Also on-street bicycle facilities and off-street paths should be swept more frequently to ensure the safety of cyclists. Drainage will also be addressed in the design of all roadways and paths. Snow removal and storage is an important consideration especially on more urban corridors.
- Ensure all bicycle legends and markings, including shared lane markings (sharrows), are included in the city's street maintenance program. Coordinate new installations while securing maintenance funds.

*Action 2.10: Prioritize bicycle facility development to maximize the use and safety benefits of these investments.*

Bicycle improvements will often occur as a result of other project investments, such as the reconstruction or repaving of an arterial street as provided by the Street Levy. Other active transportation projects may be the result of specific funding opportunities and/or how well a particular project scores against others in a competitive process. While pursuing those opportunities, improvements will be considered on those facilities that serve high volumes of users, improve safety, are cost-effective, and improve geographic equity.

### **Policy BMP 3: Provide convenient and secure short-term and long-term bike parking to connect people to popular destinations and transit throughout Spokane and encourage employers to provide shower and locker facilities.**

#### **Actions**

*Action 3.1: Require compliance with the City of Spokane Bicycle Parking Design Guidelines*

Working with Planning and Business Development, ensure that any bicycle parking installed in the city follows the City of Spokane Bicycle Parking Design Guidelines with respect to both rack type as well as placement in relation to buildings and other obstacles so that the bicycle racks/lockers/corrals are usable by all bicyclists.

*Action 3.2: Improve bicycle storage facilities at transit facilities.*

Partner with STA to identify and provide bicycle parking improvements at transit facilities including park and ride lots. This includes providing bicycle racks and lockers and reserving adequate space during transit station construction to provide future bicycle racks and lockers. The following actions are recommended:

- Provide sufficient space for bicycle storage at transit stations and multimodal hubs.

- Provide sufficient space for bicycle storage at future transit stations and park and ride lots. As transit systems develop in the future, bicycle parking demand should be evaluated to determine the amount of space that is needed for bicycle racks and lockers. Space for bicycle parking should be included in station designs from the onset of a project.
- Work with the Spokane Transit Authority (STA) to develop a safe bicycle storage facility at the downtown transit center. By funding and promoting a staffed bicycle facility at the downtown transit center, Spokane will be showing support for bicycling as a viable form of transportation. This facility will provide a safe place for commuters to store their bicycle. In addition to parking, this facility could provide resources for bicycle repair, maps and other information.

*Action 3.3: Increase the availability of bicycle parking throughout the city.*

Secure bicycle parking (short-term: appropriate style bike rack, long-term: covered in access restricted location) located in close proximity to building entrances and transit entry points is essential in order to accommodate bicycling. Secure bicycle parking helps to reduce the risk of bicycle damage and/or theft. Update the bicycle parking requirements for new developments in Spokane as necessary.

- Establish a proactive bicycle rack installation program. A proactive bicycle rack installation program should be established to provide additional bicycle parking in urban areas, particularly on commercial and high-density residential blocks. Schools, libraries, and community centers should also be targeted for bicycle rack installation. It will be important to work closely with adjacent property owners to make sure that racks are properly located and do not interfere with loading zones and other business related activities.
- Strengthen city code to ensure properly-installed bicycle racks and lockers are a part of new developments.
- Consider installing covered, on-demand, longer-term bicycle parking. The City of Spokane will work with local agencies and the Spokane Parks and Recreation Department to examine the possibility of installing covered, on-demand, longer-term bicycle parking. Unlike locker facilities, this type of bicycle parking facility also has the advantages of not needing to be rented, not requiring keys, and not being a potential receptacle for trash. Certain types of covered, on-demand bicycle parking facilities can be locked with a padlock provided by the bicyclist.
- Provide incentives for operators of private parking facilities to add secure, high quality bike parking. It will be important for the city and transit agencies to maintain bicycle racks and lockers and use enforcement to deter misuse of these facilities. Abandoned bikes and locks can make existing racks unusable. Other racks can be obstructed by planters, news boxes and other street furniture.
- Develop standard plans and policy for bike corrals. Bike corrals provide a high-capacity option for bicycle parking by replacing one vehicular parking space with up to 24 bicycle parking spaces. Bicycle corrals may also be located in unused/underutilized areas of the street, although they are better utilized when placed directly in front of a business. This option keeps the sidewalk clear for pedestrian use.
- Pursue dedicated funding for bicycle parking

*Action 3.4: Encourage office development and redevelopment projects to include shower and locker facilities.*

The city should amend its development ordinance to strengthen existing requirements for shower and locker facilities based on employment densities. For employees who are considering bicycling to work, such facilities make it possible to shower and change into work clothes after the commute.

**Policy BMP 4: Increase bicycling by educating people using all transportation modes about the benefits of bicycling. Enhance the safety of people riding bicycles through effective law enforcement, education and detailed crash analysis.**

**Actions**

*Action 4.1: Educate Spokane's transportation system users about all bicycle facilities, including new elements. Additionally, perform community-wide efforts to increase public awareness of the rights and responsibilities of cyclists on the road.*

The city will provide Spokane residents with information about the purpose of new bicycle facility treatments (e.g., neighborhood greenways, shared lane markings, etc.) and safe behaviors for using these facilities. The city will work with the Spokane Police Department (SPD) to educate users about the new facilities, including the following strategies:

- Develop web pages and disseminate information about each treatment.
- Install temporary orange warning flags, or signage at locations where new facilities are installed, where appropriate.
- Increase police patrols for a period of time as roadway users adjust their behavior after a new facility is installed.

*Action 4.2: Promote bicycle education and encouragement in Spokane through city actions and through partnerships with community organizations, school, and private businesses.*

It's not just enough to develop a program or build a facility – the city must develop appropriate promotional events and materials to let the residents and employees of Spokane know about their travel options. Examples include:

- Work with the Spokane Bicycle Club, Washington Bikes and others to disseminate information regarding bicycling programs and tours in and around Spokane.
- Designate bicycle friendly districts and local service bikeways to encourage bicycling
- Promote business based bicycling programs and incentives
- Participate in Bike to Work Day and other bike events and contests to promote bicycling
- Participate in Sunday Parkways or other Open Streets type events regularly
- Support an individualized marketing campaign to people receptive to replacing automobile trips with bicycling

*Action 4.3: Increase enforcement of bicyclist and motorist behavior to reduce bicycle and motor vehicle crashes.*

The City of Spokane will work with the Spokane Police Department (SPD) to enforce laws that reduce bicycle/motor vehicle crashes and increase mutual respect between all roadway users. This enforcement program will take a balanced approach to improving behaviors of both bicyclists and motorists.

Motorist behaviors that will be targeted include:

- Turning left and right in front of bicyclists.
- Passing too close to bicyclists.
- Parking in bicycle lanes.
- Opening doors of parked vehicles in front of bicyclists.
- Rolling through stop signs or disobeying traffic signals.
- Harassment or assault of bicyclists.

Bicyclist behaviors that will be targeted include:

- Riding the wrong way on a street.
- Riding with no lights at night.
- Riding recklessly near pedestrians on sidewalks.
- Disobeying traffic laws.

Bicyclist safety is a shared responsibility between all roadway users. Enforcement priorities should be established through a collaborative process involving the Bicycle Advisory Board and the Spokane Police Department.

*Action 4.4: Support efforts to obtain funding for bicycle education and enforcement programs.*

Efforts might include working with partner agencies in establishing a mini-grant program to support community bicycle related encouragement efforts

*Action 4.5: Work with local and regional partners, and private corporations, to develop incentive programs to encourage bicycling and other non-single occupancy vehicle use.*

Work with the Spokane County Commute Trip Reduction program (<http://www.mycommute.org/>) to promote and further develop incentives promoting bicycling as an active form of transportation. Types of incentives identified include:

- Including bicycle incentives in travel demand management programs
- Creating incentives to promote active transportation to employment centers, commercial districts, transit, schools, public institutions and recreational destinations
- Providing incentives for bicycle use and incorporate bicycle travel in all reimbursable travel expenses

**Policy BMP 5: Develop a collaborative program between a variety of city departments and agencies and outside organizations to implement the Bike Master Plan through capital project delivery as well as community planning processes.**

Implementation of this Plan will be a collaborative effort between a variety of city departments, agencies and outside organizations. Bicycle and pedestrian coordination efforts will ensure that the Plan recommendations are implemented as a part of these departments regular work. The Street Department will provide technical expertise on issues related to bicycling and ensure that implementation of the Plan moves forward.

Key departments within the city for planning and implementing bicycle improvements include:

- Street Department
- Integrated Capital Management
- Planning and Development Services
- Police Department

Progress on implementing the Plan will be monitored on an annual basis, and every transportation project offers an opportunity to implement a piece of this Master Bike Plan.

Therefore, institutionalizing bicycle improvements will be essential for successful implementation of this Plan. As stated in Action item 5.1, bicyclists' needs should be considered in the planning, design, construction, and maintenance of all transportation projects in the city.

**Actions**

*Action 5.1: Provide bicycle facilities as a part of all transportation planning and capital projects to all possible extents.*

Incorporate requirements for bicycle facilities in the city Engineering Standards Manual, standard specifications, and standard plans.

- Actively seek opportunities to provide protected bicycle lanes, bicycle lanes, shared lane markings, and other on-road bicycle facilities as a part of repaving projects. (This includes roadways in the Comprehensive Plan Planned Bikeway Network as well as viable alternatives to the routes proposed, if necessary.)
- Provide higher quality facilities (i.e. add a buffered bike lane instead of a bike lane) than the Planned Bikeway Network calls for when the opportunity exists.
- Develop trails in conjunction with the installation of underground cable, water, sewer, electrical, and other public or private efforts that utilize or create linear corridors. If possible, develop new trails along these utility corridors.
- Continue to develop trails in railroad corridors no longer needed for railroad purposes. Where appropriate, develop trails adjacent to rails.

- Leverage other types of projects that could potentially include bicycle facilities.
- Integrate bicycle planning into neighborhood and commercial planning efforts
- Encourage and support the transformation of auto-oriented commercial areas into compact mixed-use centers that are equally conducive to pedestrian, bicycle, transit and motor vehicle activity.
- Fix potholes, surface hazards, sight distance obstructions, and other maintenance problems on a regular basis.

*Action 5.2: Dedicate funding for bicycle project planning and implementation using a portion of currently available transportation dollars to implement the bicycle network.*

*Action 5.3: A Bicycle Program should provide the necessary staff expertise and commitment to implement the Bikeway Network within 20 years.*

*Action 5.4: Continue to make minor improvements for bicycling.*

Spokane should continue to make the following types of improvements:

- Surface improvements (patch potholes, fill seams between concrete panels in the street, replace drain grates, etc.).
- Signing and striping (bicycle lane striping and stenciling, motor vehicle warning signs at trail crossings, etc.).
- Access improvements (adjust electronic detection for bicyclists at traffic signals, traffic island modification, etc.).
- Bicycle rack installation in public rights-of-way (sidewalks, parking spaces, etc).
- Other low cost bicycle improvements as appropriate.

*Action 5.5: Continue to receive regular input and guidance from the Bicycle Advisory Board.*

The Bicycle Advisory Board should continue to provide regular input and guidance regarding bicycle issues. This will include monitoring the progress of implementation. Work with the Bicycle Advisory Board to develop and distribute an annual report card describing progress on Master Bike Plan implementation and key performance measures such as system mileage and use.

*Action 5.6: Provide bicycle planning and facility design training for appropriate project-level staff and consultants, and encourage staff from other agencies to attend.*

Staff and consultants working on projects that affect bicycle access, directly or indirectly, should be strongly encouraged to attend training sessions on bicycle planning and facility design.

*Action 5.7: All divisions of the City of Spokane should consult the Bike Master Plan when working on projects.*

All divisions should consult this Plan to ensure that the recommended facilities and maintenance practices are implemented in accordance with this Plan. For roadway repaving and reconstruction

projects, the Bike Master Plan recommendation represents the best option. As conditions change, better alternatives to the proposed bicycle network may form. Further study, additional public involvement and consultation with the Bicycle Advisory Board may ultimately result in an even better strategy to provide bicycle access.

*Action 5.8: Integrate the recommendations of the Bike Master Plan into other city ordinances, plans, and guidelines.*

This action includes, but is not exclusive, to the following actions:

- Require compliance with bike plan policies and standards for new development
- Review and strengthen subdivision ordinances to ensure a connected street network
- Require long-term parking, bike rooms, showers or other amenities in large commercial and residential projects
- Require bicycle parking to be located close to building entrances and no further away than the closest car parking space
- Disconnect the amount of bicycle parking from the amount of car parking, particularly in downtown and designated centers and corridors

*Action 5.9: Coordinate within the city and between the agencies and organizations where necessary to implement the Master Bike Plan.*

*Action 5.10: Update the Bike Master Plan on a regular basis.*

*Action 5.11: Develop, implement, and enforce a written bicycle access policy and guidance for use at public and private construction projects that impact the public right-of-way*

## POTENTIAL FUNDING SOURCES

The Bicycle Master Plan should be used as a guide to identify bicycle improvement projects and decide which to fund. The evaluation of bicycle improvement needs should be considered as a part of all projects when city controlled sources of funding are eligible.

### Investment Approach

Other top cycling cities have shown that a broad-based approach to bicycle investment that funds bicycle infrastructure, marketing, education, maintenance, and transit access improvements can simultaneously realize marked increases in bicycle use and bicycling safety. A balanced investment approach will be important.

Spokane should employ a funding allocation strategy that is flexible and allows for opportunistic spending. The funding approach should be multi-pronged, covering investments not just in constructing new bicycle facilities, but also in offering bicycle parking, encouraging people to use facilities and bicycles in general, educating people about the rules of the road, maintaining bicycle facilities, and tracking the success of bicycle projects and programs. Several examples of funding sources are listed within the Transportation Chapter and many of the sources are available for financing bicycle improvement projects. A few newer funding sources that could be used for bicycle facilities are listed below.

### Local

#### Transportation Impact Fees

The city intends to expand the Transportation Impact Fee program to allow use of the funds on infill type bicycle and pedestrian projects. Bicycle project funding will be set aside in each of the districts.

#### Automated Traffic Safety Cameras funding allocation

On September 30, 2013 the City Council passed Resolution No. 2013-0070 related to allocation of funds from infractions issued with automated traffic safety cameras. Among the items to be allocated funding, the resolution provides a flexible matching fund for neighborhood traffic calming projects, neighborhood business districts, streetscape improvement or community development projects related to public safety.

### State

#### Paths and Trails Reserve

A portion of the State gasoline tax revenue which, by Washington State Law, is returned to local government to be used for the development and maintenance of paths and trails. One half of one percent (0.5%) of the tax is returned to the City. Presently the City receives approximately \$14,000 per year from this funding source. Both pedestrian and bike facilities can utilize these funds, however historically these funds have been extremely limited.

## **Federal**

The Federal Fixing America's Surface Transportation (FAST) Act was signed into law in 2015. The FAST Act is a five-year bill that will slightly increase funding and slightly change some policy. The biggest change is that it will create long-term certainty for states, local governments and transportation stakeholders.

### **Surface Transportation Block Grant (STBG) Program**

The FAST Act eliminates the MAP-21 Transportation Alternatives Program (TAP) and replaces it with a set-aside of Surface Transportation Block Grant (STBG) program funding for transportation alternatives (TA). These set-aside funds include all projects and activities that were previously eligible under TAP, encompassing a variety of smaller-scale transportation projects such as pedestrian and bicycle facilities, recreational trails, safe routes to school projects, community improvements such as historic preservation and vegetation management, and environmental mitigation related to stormwater and habitat connectivity.

TAP funding was set at 2% of all the core highway programs and yielded approximately \$820 million in FY 2015. Funding levels in the new STBG Set-aside Program are set at \$835 million for FY2016 and FY2017, rising to \$850 million in FY2018-FY2020. Within that, funding for the Recreational Trails Program is preserved at the 2009 level and is effectively a set-aside of the STBG.

### **TIFIA and TIGER**

In 1998, Congress created the Transportation Infrastructure Finance and Innovation Act (TIFIA) to provide credit assistance to large-scale surface transportation projects. The threshold for project eligibility was set at a minimum cost of \$50 million (\$25 million for rural infrastructure projects). The FAST Act lowers this threshold to \$10 million for projects involving local governments, and allows the bundling of projects to meet this lower threshold. This should make it easier for active transportation projects to use these credit and innovative financing mechanisms. The Transportation Investment Generating Economic Recovery (TIGER) grant program was created in 2009 and has included many bicycling and walking projects and programs in the seven rounds of funding awarded since then. While the program is administered by the US Department of Transportation, funding is provided by an annual appropriation rather than a periodic transportation bill such as the FAST Act.

### **Community Development Block Grant Program**

This funding comes from the Housing and Community Development Act of 1974 and authorizes the Department of Housing and Urban Development to distribute funds to local governments for the purpose of improving their community. The Community Development Block Grant (CDBG) program primarily addresses capital construction needs in low-to-moderate income neighborhoods. Funds for pedestrian and bicycle facilities are included.

## **Congestion Management Air Quality**

CMAQ funding has been available to the Spokane region for several years. It can be used on projects that reduce vehicular travel and therefore reduce emissions. A certain percentage of the regional funding is typically set aside for bicycle and pedestrian projects. In recent years that funding has been allocated to a neighborhood greenway and a shared-use path.

## **Other Sources**

Another potential resource is the partnering with other agencies, foundations and the private sector for future awareness and education campaigns. The City should continue partnering with other agencies like the Spokane Regional Health District that have a considerable interest in improving bicyclist safety. Strengthening these partnerships and forming new ones will provide additional opportunities to increase awareness of active transportation safety issues.

# BICYCLE MASTER PLAN PART 2 – BIKEWAY NETWORK

## FACILITY DEFINITIONS AND MAPS

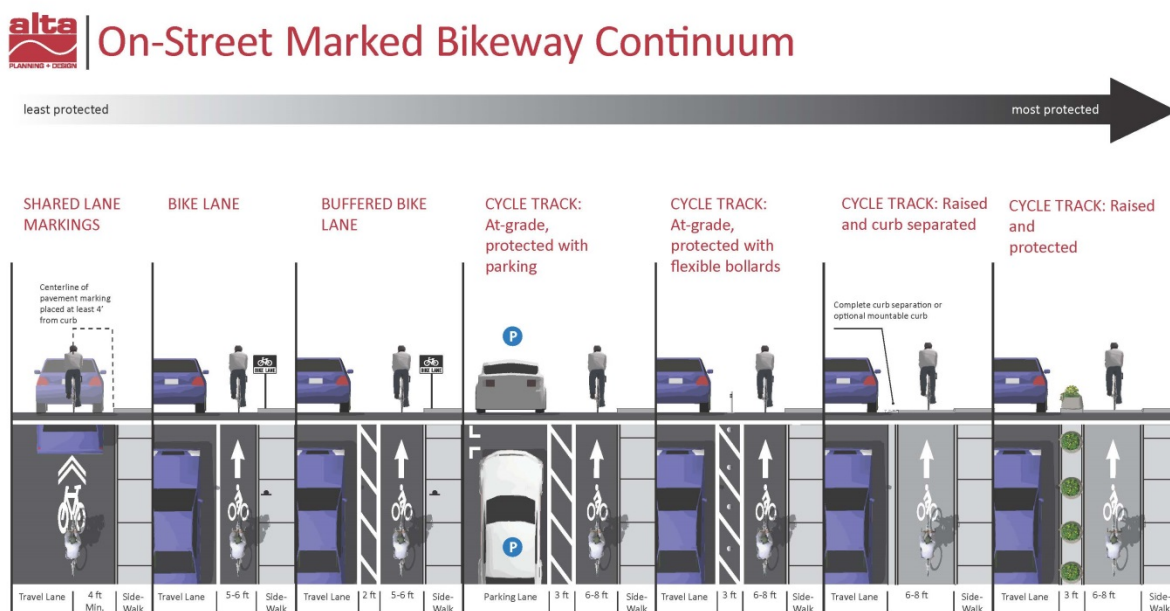
Providing a network of bicycle facilities throughout Spokane is fundamental to achieving the goals of this Plan. Additional bike lanes, roadway crossing improvements, multi-use trails, and other facilities are needed in order to encourage more Spokane residents to bicycle.

### BIKEWAY NETWORK DEFINITION

Implementation of this Plan will establish roughly a 400 -mile network of bikeways throughout the city of Spokane. This Bikeway Network is composed of all of the locations throughout the city where specific improvements have either already been made or are proposed in the future to accommodate bicycles.

Almost all Bikeway Network segments will have some type of visible cue (i.e. a bike lane, a bike route sign, a pavement marking, a trail, etc.) to indicate that accommodations have been made for bicyclists. While the network will provide primary routes for bicycling, it is important to note that, by law, bicyclists are permitted to use *all* roadways in Spokane (except limited access freeways or where bicycles are otherwise prohibited). Therefore, the Bikeway Network will serve as a core system of major routes that can be used to safely access all parts of the city and other parts of the transportation system.

Figure 1. On-Street Marked Bikeway Continuum

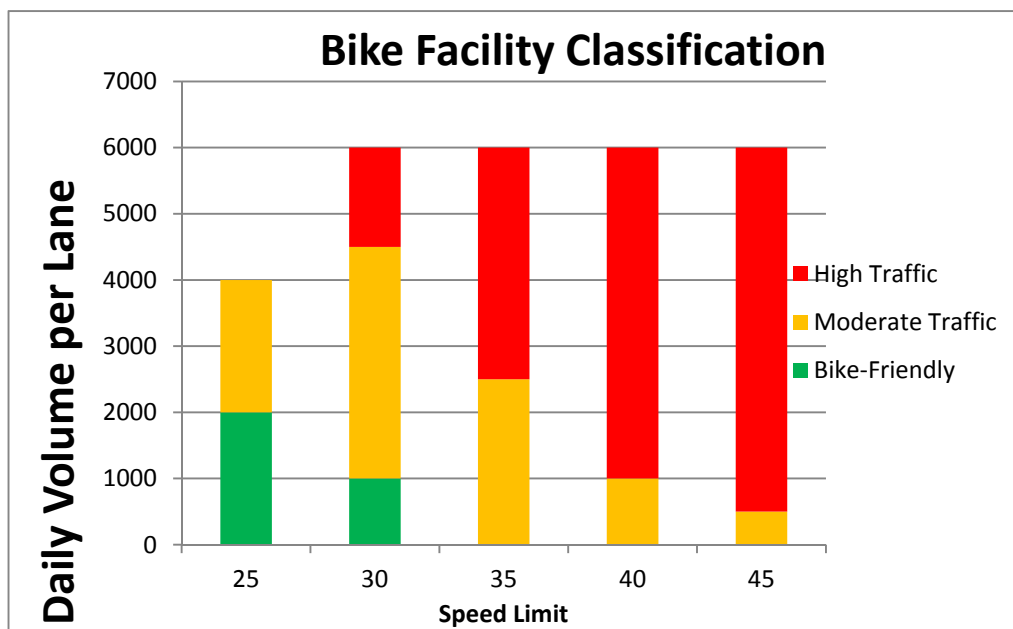


With this update the city has changed the bikeway classifications. The goal of this change is to provide better information to users of the bike routes while moving facility design to the right on the continuum in Figure 1 whenever possible. The classification system now factors in the traffic volume on each facility. The new classifications are listed below and are summarized in greater detail in the following pages:

- High Traffic (Bike Lane)
- High Traffic (Shared)
- Moderate Traffic (Bike Lane)
- Moderate Traffic (Shared)
- Bike Friendly Route
- Neighborhood Greenway
- Shared Use Path
- Soft Surface Path

Figure 2 provides a matrix of daily traffic volumes that can be expected with each bike facility classification.

**Figure 2. Bike Route Classification based on traffic volume and speed**



## High or Moderate Traffic (Shared):

A Shared Roadway designation is typically found on important roadways where bicycle lanes may not be feasible. The High and Moderate designation provides an indication of the level of traffic and/or conflict the cyclist can expect to experience. See figure 1 above for Bike Route Classification based on traffic volume and speed. A Shared Roadway may use on-street markings and signs to alert motorists and cyclists to the designation. Shared Lane Markings (aka Sharrows) are used to remind all roadway users that bicyclists may be present and are allowed to use the full lane while directing cyclists out of the “door zone”. In cases of steep terrain, a “climbing lane” should be used on the uphill side of the roadway and sharrows should be used to guide cyclists in the downhill lane.

Figure 3. Examples of Shared Roadway treatments



## High or Moderate Traffic (Bike Lane):

A bike lane is identified by on-street striping. Buffered bike lanes and cycle tracks are also included in this category. The High and Moderate designation provides an indication of the level of traffic and/or conflict the cyclist can expect to experience. The actual design will depend on the roadway width and traffic conditions. A 5 foot bike lane with a 3 foot buffer is preferred. As an alternative, a bike lane width of 6 feet is desirable. An on-street marking of a bicyclist and/or street signs identifying the bike lane may accompany the striping.

### High traffic bike lane

- A collector, minor, or principal arterial
- Traffic lanes are striped
- Higher volume and/or speed as shown in Figure 2.
- Greater chance of conflicts between cyclists and vehicular traffic
- Attractive to advanced cyclists comfortable with taking the lane, or those who can keep up with traffic

### Moderate traffic bike lane

- Typically a collector, minor, or principal arterial, but may include some local streets
- Centerline and/or traffic lanes are striped
- Attractive to advanced and intermediate level riders - including typical commuter cyclists
- Any facility that doesn't fit the High traffic route or Bike-Friendly categories

Figure 4. Examples of potential bike lane designs



## Protected Bike Lanes

A protected bike lane is an exclusive bike facility that combines the user experience of a separated path with the on-street infrastructure of a conventional bike lane. A protected bike lane is physically separated from motor traffic and distinct from the sidewalk. Protected bike lanes have different forms but all share common elements—they provide space that is intended to be exclusively or primarily used for bicycles, and are separated from motor vehicle travel lanes, parking lanes, and sidewalks. In situations where on-street parking is allowed protected bike lanes are located to the curb-side of the parking (in contrast to bike lanes).

Protected bike lanes may be one-way or two-way, and may be at street level, at sidewalk level, or at an intermediate level. If at sidewalk level, a curb or median separates them from motor traffic, while different pavement color/texture separates the protected bike lanes from the sidewalk. If at street level, they can be separated from motor traffic by raised medians, on-street parking, or bollards. These design features do raise different considerations – such as driveway conflicts, driver expectations, and maintenance issues that need to be addressed. By separating cyclists from motor traffic, cycle tracks can offer a higher level of security than bike lanes and are attractive to a wider spectrum of the public. Routes classified as future bike lanes in this plan may be considered for protected bike lane designs following additional assessment and review. Further network-level planning will be required to identify a system of routes best suited to these designs.

**Figure 5. Examples of potential protected bike lane designs**



## **Bike Friendly Routes:**

A bike-friendly route is a low-volume route marked by bicycle signage and/or the use of shared lane markings. These routes are attractive to beginning and intermediate level riders. Other features include:

- Primarily local streets with a few collector arterials
- No centerline stripe except in CBD
- Cyclists can comfortably ride mixed with traffic - bike lane not needed, but a few have them such as in the CBD.
- Low vehicle volumes, low vehicle speeds
- Posted speed 30 mph and less than 1,000 volume (ADT) per lane
- Posted speed 25 mph and less than 2,000 volume (ADT) per lane

**Figure 6.      Bike Friendly Route**



## Neighborhood Greenways:

Neighborhood Greenways are low-volume and low-speed streets that have been optimized for bicycle and pedestrian travel. Neighborhood Greenway treatments can be applied at several different intensities, which should be identified in detail during project design. Wayfinding signs, pavement markings, traffic calming and intersection treatments are potential elements of these facilities. Neighborhood Greenways are designed to attract bicyclists of all ages and abilities, especially those in the Interested but Concerned category. The design of the neighborhood greenway is flexible and will be tailored to meet the specific needs of the roadway. Below are examples of possible neighborhood greenway treatments.

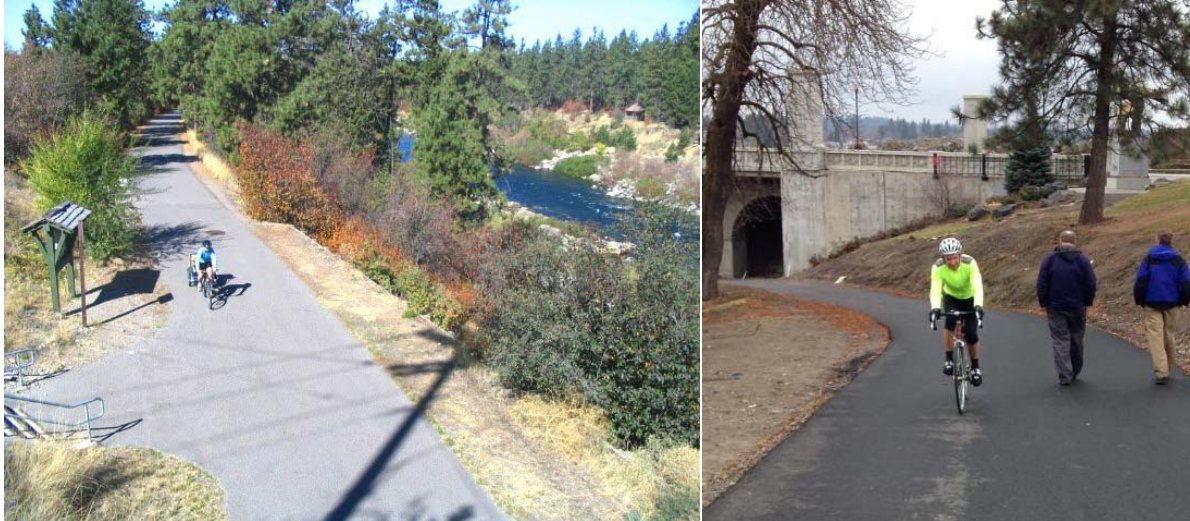
**Figure 7.** Examples of Neighborhood Greenway treatments



## Shared Use or Multiuse Path:

A shared use or multiuse path is an off-street facility designed for certain non-motorized uses. These paths have a minimum width of ten feet to accommodate two-way traffic. These paths are often identified by signs and barriers preventing auto-traffic from using the path. Examples include the Centennial Trail and the Fish Lake Trail.

**Figure 8.** Shared Use Paths



## Soft Surface Path:

A soft surface path is an off-street facility allowing non-motorized uses. These paths are unpaved and have a minimum width of 5 feet. Surfacing may be gravel or dirt. They often form a key connection in the bicycle network and may be designated for paving in the future.



**Figure 9.** Soft Surface Path

## State of the Practice:

The City of Spokane endorsed the NACTO (National Association of City Transportation Officials) Urban Street Design Guide and Urban Bikeway Design Guide in November 2014. In an overview, the NACTO Urban Bikeway Design Guide states: “The purpose of the NACTO Urban Bikeway Design Guide (part of the Cities for Cycling initiative) is to provide cities with state-of-the-practice solutions that can help create complete streets that are safe and enjoyable for bicyclists.

The NACTO Urban Bikeway Design Guide is based on the experience of the best cycling cities in the world. The designs in this document were developed by cities for cities, since unique urban streets require innovative solutions. Most of these treatments are not directly referenced in the current version of the AASHTO Guide to Bikeway Facilities, although they are virtually all (with two exceptions) permitted under the Manual on Uniform Traffic Control Devices (MUTCD). The Federal Highway Administration has posted information regarding MUTCD approval status of all of the bicycle related treatments in this guide and in August 2013 issued a memorandum officially supporting use of the document. All of the NACTO Urban Bikeway Design Guide treatments are in use internationally and in many cities around the US.”

Examples of bike facilities / techniques found in the NACTO guide that may be implemented in Spokane are provided below. There are numerous other suggested designs.

## Colored Bicycle Facilities:

Colored pavement within a bicycle lane increases the visibility of the facility, identifies potential areas of conflict, and reinforces priority to bicyclists in conflict areas and in areas with pressure for illegal parking. Colored pavement can be utilized either as a corridor treatment along the length of a bike lane or cycle track, or as a spot treatment, such as a bike box, conflict area, or intersection crossing marking. Color can be applied along the entire length of bike lane or cycle track to increase the overall visibility of the facility. Consistent application of color across a bikeway corridor is important to promote clear understanding for all users.



### Intersection Crossing Markings:

Intersection crossing markings indicate the intended path of bicyclists. They guide bicyclists on a safe and direct path through intersections, including driveways and ramps. They provide a clear boundary between the paths of through bicyclists and either through or crossing motor vehicles in the adjacent lane.



### Bike Box at Intersection:

A bike box is a designated area at the head of a traffic lane at a signalized intersection that provides bicyclists with a safe and visible way to get ahead of queuing traffic during the red signal phase.



### Protected Intersections:

A protected intersection is an at-grade road junction in which cyclists and pedestrians are separated from cars. Vehicles turning right (in countries driving on the right, or left in countries driving on the left) are separated by a car length from crossing cyclists and pedestrians, providing increased reaction times and visibility. Drivers looking to turn right have better visibility to cyclists and pedestrians as they can look to the side for conflicts instead of over their shoulders.



### BIKEWAY NETWORK MAPS

Spokane's bicycle facilities network includes protected bicycle lanes, bike lanes, shared-use paths, neighborhood greenways, shared roadways, and bike-friendly routes. The development of bicycle facilities is expected to take place over the course of the next 20 years. A number of unforeseen circumstances may affect the way that Spokane's bike network will develop. The Bicycle Facility Network Development Maps are not intended to define a specific time frame for the development of bike facilities within the city. These maps represent how the network may develop over time recognizing that the network cannot be created immediately. If an opportunity to develop any of the facilities on the map arises, that opportunity should be pursued. The bikeway network is shown in Map TR-5 in Comprehensive Plan Chapter 4: Transportation.

## **FURTHER EVALUATION OF BICYCLE FACILITY RECOMMENDATIONS**

The projects that are shown on the maps will require additional evaluation during the implementation process to determine if there are other factors that may either help or hinder their development.

Additional traffic analysis will be needed in some cases to determine the optimum design for specific locations and transportation capacity impacts, with the understanding that the network is a flexible tool that can and should be modified as circumstances dictate. Like other public projects, neighborhood involvement will also be an important part of the evaluation process. Some locations shown on the map may be determined, after more detailed analysis, to require different or more costly improvements and, therefore, may become longer-term projects. However, for every project, the first assumption will be that the bicycle facilities, as shown in the Bicycle Master Plan, will be implemented. If the city decides not to proceed with implementing the Bicycle Master Plan recommendation on a particular roadway an explanation shall be provided to clarify why it is not implementing a recommendation in the Plan.

Volume V, Appendix D

# **Part VII: Prior Transportation Chapter - Excerpt**

City of Spokane Comprehensive Plan



# Transportation

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## 4.1 INTRODUCTION

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### Transportation: Shaping Spokane's Future

In planning for Spokane's transportation future, citizens discussed the many components of Spokane's transportation system, from driving to bicycling, from walking to taking the bus. Citizens also recognized that transportation has key relationships to other planning topics such as land use, urban design, neighborhoods, and social health. Citizens realized that transportation needs to be viewed not just as a way for people to move about the city but also as something that shapes the city and the lives of its residents.

This transportation plan is planning for Spokane's future—not just for the people or conditions of today but for those 20 years in the future. The plan considers the changing demographics, transportation needs and desires, and lifestyles expected in the future. It recognizes the need to look to the future and not limit tomorrow's transportation options by what is done today.



### Key Transportation Themes that Shaped the Plan

Several themes or issues greatly influenced the planning for Spokane's transportation future. These are the themes about which citizens were consistently vocal. These themes arose early in the planning process and continued to surface throughout the development of the plan. Consequently, they greatly influenced the plan's content—the transportation vision, values, goals, and policies. It is imperative to understand these key themes in order to understand properly the rest of the plan.

The key transportation themes are:

- ◆ Citizens want viable transportation choices.
- ◆ Transportation has a key relationship to community quality of life.
- ◆ Transportation and land use are closely connected.
- ◆ The true costs of driving are complex and high.
- ◆ Design is important to transportation.

### Wanted: Viable Transportation Choices

A primary theme of this plan is that citizens should have a variety of viable transportation choices. To be viable, a transportation choice needs to be safe, accessible, convenient, and attractive. The desire is to make it as easy for people to walk, take the bus, and bicycle as it is to drive. The reasons this plan focuses on providing citizens with transportation options and reducing dependency on driving include:

- ◆ The transportation desires and needs of all people should be respected. All citizens, including those who cannot or choose not to drive, should have viable transportation options.
- ◆ In the future increasing numbers of people may not physically or financially be able to drive.
- ◆ All people are pedestrians at some point—if nothing else people must walk to get to their automobiles.
- ◆ Continued dependency on driving may not be sustainable in the future, either economically or environmentally.
- ◆ Designing Spokane around the automobile decreases people-friendly environments and erodes the quality of community.



The focus is to increase transportation choices and reduce dependency on driving. *The intent, however, is not to eliminate automobile use but to provide people with viable options to driving.* The desire is to serve all people's transportation needs by providing transportation choices, including driving, for all. Furthermore, enhancing transportation options benefits those who drive by reducing congestion.

If alternatives to driving are to be used, however, they must be truly viable. All transportation options must be safe, accessible, convenient, and attractive. For instance, people might be more likely to use public

transportation if service is frequent, routes to transit stops are pedestrian friendly, and shops and services are clustered near stops in pleasant walking and social environments. Safety alone is a crucial factor. People will not choose transportation options they perceive to be unsafe.

### **The Relationship Between Transportation and Quality of Life**

Transportation greatly impacts Spokane's quality of life, ranging from impacts on neighborhoods and air quality to the way people experience the city and each other. Spokane's neighborhoods, which are a major source of both pride and concern for city residents, are especially vulnerable to transportation impacts. Increasing amounts of traffic and speeding traffic are significant threats to the livability of city neighborhoods. Environmental impacts are also important. Many of the attractions that draw people to Spokane, such as great parks and easy access to recreational opportunities, are related to the environment. Finally, transportation also has a key role in fostering a community's sense of place. A city's character is often derived in large part from its transportation system—think of New York's active sidewalks, Seattle's ferries, and Portland's light rail system. Spokanites want to have an enjoyable experience as they travel in the city—and a more enjoyable experience once they get where they are going.

### **Recognize the True Cost of Driving (It's More than a Gallon of Gas)**

Citizens spoke a great deal about the need to recognize the true cost of driving. It is important to recognize the true financial costs but also the environmental costs and costs to Spokane's quality of life. There are not only the costs to individuals but to the community as a whole. There are also the costs of being an auto-dependent society—a society where those without automobiles lack needed access to workplaces, grocery stores, and other essentials.

The desire for transportation choices and the need to protect Spokane's quality of life arise in part from recognition of these costs. One example of this issue's complexity and specific concerns that arise from it is that people living outside the city who drive on city streets contribute to congestion and to the deterioration of streets and city neighborhoods, yet they do not pay for street maintenance or improvements through city property taxes or bond issues. This problem increases with sprawl, as more people live outside the city and are dependent on driving for transportation.

It is especially important in this age of limited resources and fragile environments to recognize the true costs of driving.

## The Land Use and Transportation Connection

There is a close, essential relationship between land use and transportation. How land is used affects what transportation choices are available or likely to be used. For example, the density of development impacts transportation, with lower densities decreasing the ability to provide mass transit or efficient bus service. The more spread out the city becomes and the more segregated land uses are, the farther people have to travel from home to work and play and the less likely they will be able to take the bus, bicycle, or walk.

Conversely, people's transportation choices, in turn, affect the use and enjoyment of land. For example, older neighborhoods close to the center of the city suffer from an increasing number of vehicles driving through them to outlying areas. As another example, the amount of land that must be devoted to moving or storing automobiles in an auto-dependent society is substantial.

But significantly, transportation facilities greatly affect how land is used or, in other words, transportation facilities are primary "drivers" of the urban pattern. For example, street improvements can induce greater use of automobiles and, thus, the need for even more land for moving and storing automobiles. But in addition, by facilitating development at the urban edge and beyond, street improvements can be a cause of the sprawling land use pattern that GMA is intended, in part, to reduce.

## The Importance of Design

Design is an important issue in several respects. First, the large-scale design of Spokane's street system largely determines how—and how well—people get about the city. Street system design features such as the location and size of arterials, whether streets are one-way or two-way, and whether there is a transportation network for bicycles ~~or~~ and pedestrians all profoundly impact transportation. Second, concerns about the higher densities and mixed land uses needed to support alternative transportation modes often have to do with design. Citizens are concerned about how higher densities and mixed-uses will "fit" with surrounding areas. Finally, individual design features such as pedestrian buffer strips, bicycle paths and lanes, and bus shelters influence the availability, appeal, and use of transportation choices. Individual design features can also be used to direct traffic and calm traffic speed.

## Current Trends

This plan's key transportation themes and its focus on the future are especially relevant given the increasing amount of driving that is occurring, including an increasing number of automobile trips, the increasing length of these trips, and increasing amounts of time spent driving. These trends are projected to continue in the future. The following table indicates these trends for Spokane County.

| TABLE TR 1 CURRENT TRANSPORTATION TRENDS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |              |               |                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---------------|---------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1996         | 1998          | 2010<br>(projected) |
| Number of Trips Taken In One Day in a Vehicle                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1,548,952    | 1,547,069*    | 2,250,475           |
| Average Number of Vehicle Miles Traveled in a Day                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 6,313,806    | 6,603,756     | 9,500,475           |
| Average Peak Hour Commute Time (5:00-6:00 pm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 9.73 minutes | 12.54 minutes | 15.02 minutes*      |
| *The drop in number of trips from 1996 to 1998 is due to a change in land use forecast methods used in 1998 as a result of GMA.<br>**2010 commute time assumes: (1) All transportation projects intended to improve capacity in SRTC's Regional Transportation Plan (RTP) are built and operational by 2010; (2) People's travel behavior will change in the future due to congestion (people will make shorter trips).<br>Data Source: Spokane Regional Transportation Council. Data applies to the federal non-attainment area of Spokane County (areas where air quality standards are exceeded), which is essentially the urbanized area of the county. |              |               |                     |

These current transportation trends are deeply connected to the plan's primary themes or issues. The following table identifies some of these connections.

| <b>TABLE TR 2 CONNECTIONS BETWEEN TRANSPORTATION TRENDS AND THEMES</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Transportation Theme</b>                                            | <b>Connection to Increased Automobile Use</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Wanted: Viable Transportation Choices</b>                           | <ul style="list-style-type: none"> <li>◆ Currently, Spokane is auto-dependent and lacks viable alternatives to driving.</li> <li>◆ People drive because driving has been made easy and convenient; alternatives to driving must also be easy and convenient if they are to be viable and used.</li> <li>◆ Auto-oriented environments encourage automobile use but are not friendly to pedestrians, bicyclists, and transit users.</li> </ul>                                                                                                                                                               |
| <b>The Relationship Between Transportation and Quality of Life</b>     | <ul style="list-style-type: none"> <li>◆ Congestion degrades the efficient and safe mobility of people and goods.</li> <li>◆ Increasing amounts of traffic and speeding traffic are a growing concern of neighborhood residents.</li> <li>◆ Spokane's quality of life is threatened by congestion, more and faster traffic, and the inability to safely walk or bicycle.</li> </ul>                                                                                                                                                                                                                        |
| <b>Recognize the True Costs of Driving</b>                             | <ul style="list-style-type: none"> <li>◆ An auto-dependent society does not provide everyone with access to workplaces and other essentials of life.</li> <li>◆ As individuals drive more, the community's financial, environmental, and quality of life costs increase.</li> <li>◆ When people lack the options of not driving or not driving as frequently or as far as they currently do, they lack those options for reducing their transportation expenses.</li> </ul>                                                                                                                                |
| <b>The Land Use/Transportation Connection</b>                          | <ul style="list-style-type: none"> <li>◆ Recent driving trends are partly the result of sprawl, a land use pattern made possible by the automobile and which has now made it difficult to live without one.</li> <li>◆ Higher land use densities and a mixture of land uses are needed in some areas of the city to support walking, bicycling, and transit as viable transportation alternatives.</li> <li>◆ More driving leads to more land devoted to moving and storing automobiles.</li> <li>◆ The increased traffic that threatens Spokane's neighborhoods affects neighborhood land use.</li> </ul> |
| <b>The Importance of Design</b>                                        | <ul style="list-style-type: none"> <li>◆ Design features can be used to ease congestion and mitigate other negative effects of increased traffic.</li> <li>◆ Design features can make driving, walking, bicycling, and taking the bus safer, more enjoyable, and more viable.</li> <li>◆ People are concerned about the design of the higher density and mixed-use buildings that are needed to support alternatives to driving.</li> </ul>                                                                                                                                                                |

## 4.2 GMA GOAL AND REQUIREMENTS AND COUNTYWIDE PLANNING POLICIES

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### **GMA Transportation Planning Goal (RCW 36.70A.020)**

The Washington State Growth Management Act (GMA) includes 13 goals, which were adopted to guide the development and adoption of comprehensive plans and development regulations. The following is the GMA goal for transportation:

“Encourage efficient multimodal transportation systems that are based on regional priorities and coordinated with county and city comprehensive plans.”

### **GMA Requirements for Transportation Planning (RCW 36.70A.070)**

The GMA requires that comprehensive plans include a transportation element. Although the GMA includes specific requirements for the transportation element, flexibility is written into the GMA so that jurisdictions can tailor their transportation plans to their own visions, goals, and needs. Key aspects of the GMA regarding transportation include:

- ◆ Considering many types of transportation, including walking, bicycling, driving, transit, rail, and air.
- ◆ Ensuring that all elements in the comprehensive plan are consistent, particularly the land use and transportation elements.
- ◆ Coordinating planning between jurisdictions and ensuring consistency between city, county, and regional plans.
- ◆ Establishing regionally coordinated level of service standards for arterials and transit routes.
- ◆ Ensuring that level of service standards adopted in the transportation element are maintained.
- ◆ Identifying transportation facility and service needs, including actions and requirements to maintain levels of service standards.
- ◆ Ensuring that adequate transportation service is provided concurrent with (or within six years of) development.

### **Countywide Planning Policies**

The Countywide Planning Policies and Environmental Analysis for Spokane County (CWPPs), adopted by the Spokane Board of County Commissioners in 1994, include transportation as one of the ~~nine~~ policy topics. The CWPPs overview of the GMA’s requirements for transportation planning states:

“Regional transportation systems include major highways, airports and railroads, as well as bikeways, trails and pedestrian systems. The Growth Management Act (GMA) encourages a variety of efficient transportation systems in order to reduce sprawl while improving the efficient movement of people, goods and services. Therefore, close coordination is necessary between transportation planning and the land use element of each jurisdiction’s comprehensive plan. The Growth Management Act (GMA), as well as other state and federal legislation, requires transportation planning to be conducted on a regional basis.

According to RCW 36.70A, local jurisdictions must adopt and enforce ordinances which prohibit development approval if the development causes the level of service on the transportation facility to decline below the standards adopted in the transportation element of the comprehensive plan unless transportation improvements or strategies to accommodate the impacts of development are made concurrent with the development. The strategies could include increased public transportation services, ride-sharing programs, demand management strategies, and other transportation system management strategies.”

Twenty-one CWPPs for transportation were adopted. The document’s overview of the transportation policies states:

“The Countywide Planning Policies (CWPPs) propose that transportation planning in Spokane County be carried out by the Spokane Regional Transportation Council. Consequently, each jurisdiction’s land use plan should be consistent with the regional transportation system.

The policies recognize the need to preserve corridors capable of providing for high-capacity transportation such as commuter lanes, rail, or dedicated busways. Through their comprehensive plans, local jurisdictions will be responsible for planning for developments along these corridors that would support public transportation services.

The Countywide Planning Policies also recognize the need to preserve our existing regional transportation system. New land developments would not be allowed to lower the adopted level of service of the existing transportation system. To accomplish this, developments would be required to pay for transportation improvements at the time of construction or to identify other transportation strategies to offset the impacts. These strategies could include increased public transportation services, ride-sharing programs and other alternative programs.”

For the text of the 21 policies, consult the Countywide Planning Policies and Environmental Analysis for Spokane County, adopted December 22, 1994.

## 4.3 VISION AND VALUES

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Spokane Horizons volunteers identified important themes in relation to Spokane’s current and future growth. A series of visions and values was crafted for each element of the Comprehensive Plan that describes specific performance objectives. From the Visions and Values document, adopted in 1996 by the City Council, the Comprehensive Plan’s goals and policies were generated.

Transportation refers to the circulation and network patterns for automobiles, pedestrians, bicycles, transit, rail, air, and freight that support land uses.

### Vision

“Citizens of Spokane will have a variety of transportation choices that allow easy access and mobility throughout the region and that respect property and the environment.”

### Values

“The things that are important to Spokane’s future include:

- ◆ Ensuring mobility and access within the city.
- ◆ Maintaining the ability to access quickly the outdoors from the city.
- ◆ Decreasing north-south congestion.
- ◆ Increasing the variety and public awareness of transportation choices.
- ◆ Developing and maintaining good public transit.
- ◆ Maintaining roads.
- ◆ Developing and maintaining pedestrian-oriented neighborhoods.
- ◆ Developing convenient access to the downtown area, increasing parking, bus service, light rail, and satellite parking with shuttles, and improving the pedestrian environment.”

## 4.4 GOALS AND POLICIES

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Goals and policies provide specificity for planning and decision-making. Overall, they indicate desired directions, accomplishments, or aims in relation to the growth and development of Spokane. Additional background and technical materials for this chapter are located in the Draft Comprehensive Plan/EIS, Volume 2, Chapter 18, Transportation.

### TR 1 OVERALL TRANSPORTATION

Goal: Develop and implement a transportation system and a healthy balance of transportation choices that improve the mobility and quality of life of all residents.

#### Policies

##### TR 1.1 Transportation Priorities

*Make transportation decisions based upon prioritizing the needs of people as follows:*

- ◆ *Design transportation systems that protect and serve the pedestrian first;*
- ◆ *Next, consider the needs of those who use public transportation and non-motorized transportation modes;*
- ◆ *Then consider the needs of automobile users after the two groups above.*

**Discussion:** This fundamental transportation policy is a statement of how the City of Spokane prioritizes people's transportation needs. It indicates a general priority of how the needs of people are considered. Applying this policy on a case-by-case basis will not mean that in all cases bicycles or pedestrians come first and automobiles last. The intent of the policy is not meant to be anti-automobile, but rather the intent is to accomplish the following:

First, following these priorities leads to the development of the type of community described in the adopted "Citywide Vision" statement and Transportation Vision and Values statements. Second, it increases the transportation choices available to people. Third, it lessens the negative impacts of automobiles, such as noise and air pollution, traffic through neighborhoods, and the need for additional parking. Fourth, it helps prepare Spokane for the future when more people may need alternatives to driving and the negative impacts of automobiles increase as Spokane's population increases. Fifth, it makes driving in Spokane quicker, more convenient, and safer by reducing vehicle congestion and, in some cases, by providing separate facilities for bicycles, pedestrians and transit.

Sixth, these priorities recognize that we are all pedestrians. Seventh, they also recognize that pedestrians, babies in strollers, people in wheelchairs, and people on bicycles can't compete with automobiles or trucks, yet they should be able to travel safely and comfortably. Those least able to cope with the physical and psychological stresses of the built environment should receive equal consideration. Finally, this policy recognizes that the city and region are auto-dominated without the variety of transportation choices desired by the community.

### TR 2 TRANSPORTATION OPTIONS

Goal: Provide a variety of transportation options, including walking, bicycling, taking the bus, car pooling, and driving private automobiles, to ensure that all citizens have viable travel options and reduce dependency on automobiles.

## **Policies**

### **TR 2.1 Physical Features**

*Incorporate site design and other physical features into developments that encourage alternatives to driving.*

**Discussion:** Development that is oriented toward driving leads to people driving. Examples of such development include buildings set back far from the street and large parking lots in front of buildings. Development that includes physical features that encourage walking, bicycling, or taking the bus will foster use of those transportation alternatives. Physical features that encourage walking include sidewalks, street trees, street lights, benches, pedestrian islands, clearly marked pedestrian pathways in parking lots, water fountains, rest-rooms, and display windows on the street in commercial areas. Physical features that encourage bicycling include bicycle paths, lanes, boulevards, and routes, bicycle racks and lockers, and showers and lockers at work sites. Improvements for transit riders include seating, shelters, and walkways.



### **TR 2.2 TDM Strategies**

*Use Transportation Demand Management strategies to reduce the demand for automobile travel.*

**Discussion:** Transportation Demand Management (TDM) is an approach to solving transportation problems that focuses on reducing the demand for automobile travel rather than increasing the system capacity (supply) for automobile travel. TDM strategies should be particularly aimed at reducing the volume of single occupancy vehicles. TDM is a valuable tool with which to address transportation problems because it generally avoids the high environmental, financial, and human costs associated with capacity-oriented solutions, such as road construction. The Commute Trip Reduction Program provides TDM techniques locally.

TDM involves two types of strategies. One strategy reduces the demand for single-occupant automobiles. This is accomplished through programs, such as:

- ◆ Employer-subsidized bus passes and other financial incentives for transit use.
- ◆ Infrastructure changes, such as providing safe and convenient bicycle parking and safe and convenient bikeways from residential to work, school, and shopping locations, to increase the use of non-motorized modes of transportation.
- ◆ Parking management that reduces the amount of easy and cheap parking for employees provided this does not lead to an unacceptable reduction in available parking for residents in adjacent areas.
- ◆ Preferential parking for car pools and vanpools.
- ◆ The building of lockers, change rooms, and shower facilities for bicyclists.
- ◆ Ride match services.

The other TDM strategy reduces the overall need for travel by any means. This is accomplished through programs, such as:

- ◆ Flexible work schedules, including four-day work week.
- ◆ Teleworking (using telecommunications and computer technology to work from home to another location).

TDM techniques should be used to reduce the demand for both work-related travel and non-work related travel, such as shopping and errands.

## TR 2.3 Pedestrian / Bicycle Coordination

*Provide adequate City of Spokane staff dedicated to pedestrian/bicycle planning and coordination to ensure that projects are developed that meets the safety, access, and transportation needs of pedestrians, bicyclists, and other non-motorized transportation users.*

**Discussion:** One of the main themes of this plan is that citizens should have viable transportation options. Accomplishing this requires the attention of City of Spokane staff from a variety of departments and disciplines. Some staff time, however, should be entirely devoted to the needs of pedestrians, bicyclists, and other non-motorized transportation users. This staff will work to accomplish the goals and carry out the policies of the City of Spokane's plans as they relate to non-motorized transportation users. Projects for the coordinator could include:

- ◆ Coordinating with City of Spokane departments and other agencies to efficiently provide for transportation alternatives and facilitate the accomplishment of the city's transportation priorities.
- ◆ Incorporating bicycle/pedestrian facilities as early as possible into plans to reduce costs and take advantage of cooperative opportunities.
- ◆ Serving as a resource for city departments for facility standards (such as Americans with Disabilities Act (ADA) requirements) so issues can be efficiently addressed.
- ◆ Seeking funding sources for transportation alternatives.
- ◆ Developing and implementing design guidelines to ensure that public and private developments meet a variety of transportation needs.
- ◆ Developing transportation-related educational programs for both non-motorized and motorized transportation users.
- ◆ Encouraging promotional events for transportation alternatives.
- ◆ Supporting efforts to increase the number of combined bicycle/transit trips.
- ◆ Developing and implementing specific plans for non-motorized transportation users.
- ◆ Incorporating bicycle facilities into design standards for new development.
- ◆ Assisting Spokane to achieve higher bicycle friendly city ratings.
- ◆ Promoting Spokane as a bicycle friendly city.

Providing adequate City of Spokane staff dedicated to pedestrian and bicycle planning and coordination is the best way to ensure that the interests of the pedestrian and bicycling community will be incorporated in the formation of public transportation policy, the development of transportation facilities, and in the fair disbursement of public funds for this important and currently under-served community.

## TR 2.4 Parking Requirements

*Develop and maintain parking requirements for vehicles that adequately meet the demand for parking yet discourages dependence on driving.*

**Discussion:** Parking standards should aim to meet the need for parking, not to provide large amounts or an abundant supply of parking. Parking standards should achieve a balance between providing enough parking to adequately meet the needs of customers and employees. Reducing parking requirements has other benefits, including decreasing the amount of space businesses must devote to parking, reducing parking lot size (and thus making them pedestrian-friendly), and freeing-up space to more easily enable sensitive parking lot design (see TR 2.5, "Parking Facility Design"), and that removing/re-striping of on-street parking may encourage/enable safer cycling.

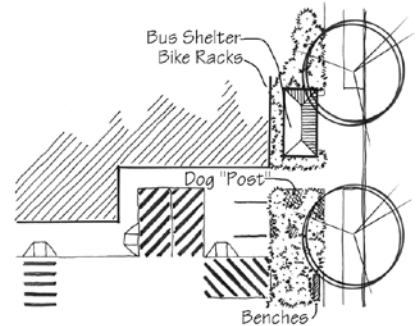
One concern is to ensure that commercial parking is not displaced onto adjacent residential areas. Parking requirements should correspond to land uses. For example, there are some land uses that have a lower parking demand rate, such as college campuses.

Possible ways to revise parking standards include reducing parking requirements, prescribing maximum as well as minimum parking requirements, increasing car pool preference parking spaces, and allowing on-street parking for mixed-use development that is oriented to transit users and pedestrians. This policy has a strong link to policy TR 2.2, “TDM Strategies.”

## TR 2.5 Parking Facility Design

*Design parking facilities to enhance mobility for all transportation users (including those not driving) and to mitigate impacts on surrounding areas.*

**Discussion:** Residents are frequently concerned about how parking facilities impact surrounding areas. For example, residents want parking lots to be visually attractive, unobtrusive, and accessible to all users, not just those in automobiles. The negative impacts of parking lots, which include noise, light, and their general visual impact, should be minimized. Such impacts can be mitigated through site design and design features, which include landscaping and fencing.



Clearly marked pedestrian pathways through parking lots create a safer environment for pedestrians than having to walk behind parked automobiles. The availability of design features, such as bicycle racks, bike lockers, bicycle shelters, bus shelters, benches, and places to secure dogs influence the ability of non-drivers to access the places served by parking lots. The siting of parking lots, whether they are in front of buildings or to the rear or underground, affects mobility and impacts on surrounding areas. Parking lots should be user-friendly to pedestrians, bicyclists, and transit users, as well as drivers.

## TR 2.6 Viable Walking Alternative

*Promote and provide for walking as a viable alternative to driving.*

**Discussion:** People should be able to walk safely and conveniently, particularly within a city. Walking should be a viable option for those who desire or need to walk for transportation. In addition, at some point, everyone is a pedestrian since people must walk to get to their automobile, bicycle, or bus. Pedestrian activity, however, also contributes to the health and vitality of cities. An active street life makes places appealing and increases a feeling of safety. Walking, however, also adds to the public interaction and community socialization that is key to healthy community life.

## TR 2.7 Safe Sidewalks

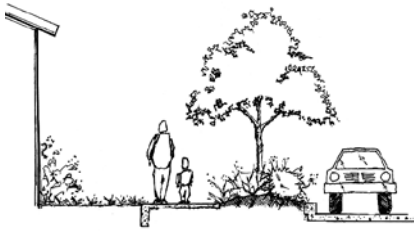
*Provide for safe pedestrian circulation within the city; wherever possible, this should be in the form of sidewalks with a pedestrian buffer strip or other separation from the street.*

**Discussion:** It is essential that pedestrians be able to walk safely and easily within the city. Besides being safe, the pedestrian environment should feel safe.



Providing a separation between streets and sidewalks has many benefits for creating safe, usable sidewalks. Separation creates a buffer for a feeling of safety from automobiles, reduces the amount of water and gravel and other debris thrown on sidewalks from passing automobiles, and prevents curbcuts and driveway aprons from protruding onto sidewalks. A separation also provides a place for fire hydrants, poles, signs, trashcans, recycling bins, and other obstacles. A separation additionally provides places to store snow, plant trees, and absorb runoff.

The preferred separation is a pedestrian buffer strip. Pedestrian buffer strips, also known as planting strips, can be landscaped with a variety of treatments, not just grass (see policy TR 7.4, “Pedestrian Buffer Strips”).



In some cases, some other type of pedestrian pathway, such as a trail or staircase, may be preferred to the separated sidewalk. The type of pedestrian circulation provided may differ according to the type of street, topography, or unique circumstances.

In situations where a separation from the street is constrained, such as by topography or existing development, deviations from this policy can be granted by the Design

Review Committee upon a finding that an alternative design is necessary to achieve the spirit and intent of the Comprehensive Plan. The potential additional cost to achieve separation is not, in itself, justification for a policy deviation. The separation between sidewalks and streets is the preferred, *expected* form of sidewalk design. Deviations from the separation design are to be for truly exceptional cases—the exception, not the rule.

## TR 2.8 Sidewalk Repair and Replacement

*Repair and replace broken and uneven sidewalks to improve safety and to encourage use by pedestrians.*

**Discussion:** Traditionally in Spokane, the repair of sidewalks has been the responsibility of the adjacent property owner. Within some Community Development neighborhoods, some federal funding has been allocated towards sidewalks. One potential way to accomplish this policy on a citywide basis is for the City of Spokane to conduct a citywide assessment of the current condition of existing sidewalks. At the same time potential alternatives for funding resources should be identified. A sidewalk repair and replacement program should be developed based on identified needs and funding alternatives. This is an example of a needed program that should be developed by city staff dedicated to pedestrian/bicycle coordination (see policy TR 2.3, “Pedestrian/Bicycle Coordination”).

## TR 2.9 Crosswalks

*Establish and maintain crosswalks at key locations used by pedestrians.*

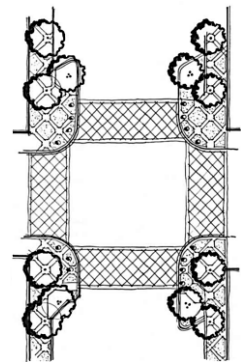
**Discussion:** Key locations for crosswalks include heavily traveled street crossings, transit stops, parks, and school sites. Crosswalk types include the traditional crosswalk formed by painted lines or distinctive crosswalks, such as those surfaced with scoured or colored concrete or brick pavers.

## TR 2.10 Pedestrian and Bicycle Linkages Across Barriers

*Provide pedestrian and bicycle linkages between major activity areas where features that act as barriers prevent safe and convenient access.*

**Discussion:** Due to geographic or man-made features such as steep hillsides or freeways, special linkages may be needed to provide safe and convenient pedestrian and bicycle access. Existing examples of such linkages include the staircases with bike wheel channels linking Peaceful Valley with Browne’s Addition and the pedestrian bridge spanning I-90 in the East Central neighborhood.

Pedestrian and bicycle bridges or skywalks should not be developed where pedestrians can be safely accommodated at the ground level through other techniques, such as crosswalks, pedestrian islands, and traffic calming devices.



### TR 2.11 Pedestrian and Bicycle Access on Bridges

*Provide safe pedestrian and bicycle access and an aesthetically pleasing environment on bridges.*

**Discussion:** Bridges serve as important links within the community. As part of the city's transportation network, bridges should provide safe pedestrian and bicycle access. Since by their nature bridges present sensitive design issues and there is no one answer for how to provide pedestrian and bicycle access for all bridges. The type of pedestrian and bicycle access can vary between bridges to be appropriate to the particular bridge and the opportunities and limitations the bridge and its site present. Access on bridges might vary from both sides of the bridge, to just one side, to perhaps access beneath or above the vehicle deck area. What is essential is that access be available and safe. Pedestrian and bicycle facilities on bridges should also be aesthetically pleasing.

### TR 2.12 Pedestrian and Bicyclist Access to Schools

*Enhance the pedestrian and bicycle environment along routes to schools to provide a safe walking environment for children.*

**Discussion:** Providing a safe walking and bicycling environment for children on their way to school increases their safety and encourages them to develop the habit of walking and bicycling. The GMA requires the Transportation Element of the Comprehensive Plan to "include a pedestrian and bicycle component to include collaborative efforts to identify and designate planned improvements for pedestrian and bicycle facilities and corridors that address and encourage enhanced community access and promote healthy lifestyles" [RCW 36.70A.070(6)(a)(7)]. Simply stated, a bicycle and pedestrian component is now specifically required in a community's comprehensive plan. This supports goal 3 of the GMA, to encourage efficient multimodal transportation systems.

Ways to accomplish this include:

- ◆ Encouraging school routes not to cross arterials.
- ◆ Having user-activated lights at intersections where arterials must be crossed.
- ◆ Implementing safety patrols with traffic-control signs at busy street crossings.
- ◆ Working with schools to promote walking and bicycling groups.
- ◆ Strengthening and enforcing pedestrian right-of-way laws.

### TR 2.13 Viable Bicycling

*Promote and provide for bicycling as a viable alternative to driving.*

**Discussion:** Bicycling should be a viable transportation option so that the community has a full spectrum of transportation choices. Viable transportation for bicycling includes being safe, efficient, and quick. While bicycling can also serve recreational purposes it needs to be respected and accommodated as a mode of transportation.



### TR 2.14 Bikeways

*Provide safe, convenient, continuous bikeways between activity centers and through the city.*

**Discussion:** Some city streets are more bicycle friendly than others due to hills, traffic flow, speed, and the access they provide for bicyclists. Providing bicycle facilities that link city centers and the downtown core through identified corridors will encourage utilitarian cycling. This will serve to decrease traffic and its intrinsic problems (e.g. air and noise pollution). Bikeways should be designed and maintained that are clearly marked, safe, and that serve the needs of bicyclists for both thru-routes and destinations.

## TR 2.15 Bicycles on Streets

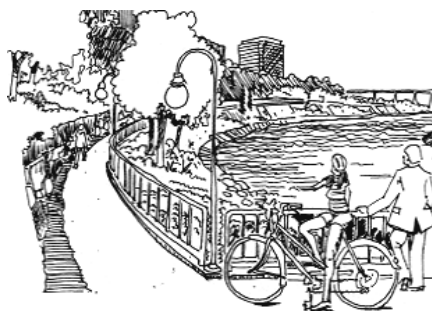
*Provide safe accommodations for bicyclists on the street system, which will continue to be the primary route system for bicyclists.*

**Discussion:** The street system serves to connect citizens throughout the city. City of Spokane staff should coordinate with designers, engineers, law enforcement, “citizen advisory boards” such as the Bicycle Advisory Board, Department of Licensing, and educators to ensure that the street environment is safe and practical for bicyclists. All street users should be taught to understand and respect the rights of other street users to ensure safe and pleasant travel. Bicycles are legal on all public roadways unless specifically prohibited. Drivers Education classes could include detailed information about bicycling and the need for cooperation among road users while laws pertaining to bicyclists should be strictly enforced.

## TR 2.16 Bicycle Lanes, Boulevards and Paths (Bicycle Facilities)

*Use marked on-street bicycle lanes, bike routes and off-street bicycle paths in addition to the street system to provide for bicycle transportation within the city.*

**Discussion:** Marked bicycle facilities will form the backbone of the bicycling transportation network. (See policy TR 2.14, “Bikeways”) Bicycle facilities with marked on-street bicycle lanes or off-street bicycle paths are often desirable to accommodate the differences in ages, abilities, and purposes of bicycle riding.



Because narrowing travel lanes has the positive effect of calming traffic speeds to within legal limits, adding bicycle lanes to arterials has the dual effect of traffic calming as well as encouraging the use of bicycles. A fully separate, off-street bicycle system is costly and often impractical, particularly in existing neighborhoods. However, the city’s off-street bicycle path system could be expanded into a safer and more widespread connecting system. The following elements could help accomplish this: (1) occasional scenic bicycle paths with few intersections, (2) additional bicycle paths in new subdivisions, and (3) an expanded system in older neighborhoods. Such paths, however, are often not favored by commuting and utilitarian cyclists. Rather, connection with neighborhoods can be facilitated through the creation of other options, to include bicycle boulevards or thoroughfares. These routes make use of appropriate automobile traffic calming measures to create a safe travel environment for bicycles and pedestrians. Auto traffic and parking along both sides of the street may be allowed where appropriate. Additionally, bicycle-activated crossings should be placed at busy intersections.

## TR 2.17 Facilities to Support Bicycling

*Provide facilities that support bicycling to make it more feasible for transportation and recreation.*

**Discussion:** Physical features are needed to enable the use of bicycles, just as physical features, such as parking, enable the use of automobiles. Such features for bicycles include short and long-term bicycle parking and locker rooms or other facilities for changing clothes and showering. They should be provided at a variety of locations where bicycles can be used for transportation or recreation, such as workplaces, schools, parks, transit facilities, and park-and-ride lots.

## TR 2.18 Viable Transit

*Provide transit services and facilities, including bicycle facilities, that make transit a viable transportation option for all segments of the community; the City of Spokane will work with Spokane Transit Authority to accomplish this.*

**Discussion:** To accomplish this plan’s goal of providing a variety of transportation options and reducing dependency on automobiles, transit will need to appeal to those currently not using transit as well as to those currently using and relying on it.

Making transit a viable transportation option for all segments entails balancing the variety of transportation needs of citizens. For example, people who use transit for much of their transportation have different needs in comparison to people who use transit less frequently, while people who live further away from the center of the city have different needs from those who live closer to the center. Disabled people also have their own needs. People attending special events, such as Bloomsday, or large events, such as those at the Convention Center or Spokane Arena, have other transit needs.

Providing for and balancing these different transit needs may require different types of transit or transit service. For example, for outlying parts of the city, transit routes that run only on arterials may be preferred so that service is fast and direct. For neighborhoods closer to the center of the city, transit routes on both arterial and non-arterial streets may be preferred, allowing service to be closer to users. Van transit might serve neighborhoods with fewer riders or riders who have physical mobility challenges. Additional or flexible transit service could serve the needs of those attending special or large events.

## **TR 2.19 Service and Facility Support**

*Ensure that street standards, land uses, and building placement support the facilities and services needed along transit routes to make transit viable.*

**Discussion:** The City of Spokane and STA need to work together to implement this policy, which is essential to making transit a viable transportation option. For example, it is essential that street and site plan standards support transit and should be followed consistently.

## **TR 2.20 Transit Shelters and Other Features**

*Provide transit shelters, bus benches, and other features that support transit use in key locations, such as where transit use is especially wanted.*

**Discussion:** Physical features can enhance the experience of being a transit user. Such features include transit shelters, bicycle racks and lockers, and good pedestrian pathways to and from transit stops. These features are needed at both ends of the transit trip when the transit rider becomes a pedestrian, bicycle rider, or driver and should be attractive as well as functional. Such features can be identified and their design facilitated during neighborhood planning stages to reflect individual neighborhood needs and character (see TR 5.3, “Neighborhood Traffic Issues”).



## **TR 2.21 Transit Level Of Service (LOS)**

*Establish and measure transit levels of service to meet concurrency requirements and assure that transit can compete with other transportation modes within 20 years as outlined in the Regional Transportation Plan.*

**Discussion:** The GMA requires that level of service (LOS) standards be concurrent with growth. Since the City of Spokane is not a provider of transit, it must work with the STA to implement the transit LOS standards identified in the Regional Transportation Plan (RTP). Additional transit service will be provided as density and, therefore, need evolves. In areas where roadway level of service allows more congestion in order to balance the needs of pedestrians and automobiles, such as high-density residential corridors, the goal is to maintain efficient transit schedules by using the least costly method possible. This might include converting parking lanes

or general traffic lanes into high occupancy vehicle (HOV) lanes or transit-only lanes during commute hours, building intersection queue-jumper lanes, and allowing signal priority devices for transit.

LOS is established and measured to support the transportation and land use goals established for the city and region and to meet concurrency requirements. When LOS falls below or congestion exceeds the standard, mitigation should be considered that takes into account the City of Spokane's transportation and land use goals.

The downtown area Super Accessibility Zone should include downtown Spokane and areas adjacent to the downtown area with housing or uses, such as hospitals, that could benefit by the increased transit service. The downtown zone could be bordered on the south by 14th Avenue, on the east by Hamilton, on the north by Indiana, and on the west by Hangman Valley. A couple of service arms might be extended to Sprague and Division. Within the zone, buses might run on both arterials and neighborhood streets.

A document known as The Concurrency Management System for the Spokane Region was adopted by the Spokane Regional Transportation Council on September 10, 1999 and published on April 24, 2001.

## TR 2.22 High Capacity Mass Transit

*Provide high capacity mass transit along corridors to connect to and from downtown Spokane to serve the city and the region's growing populations and activity centers.*

**Discussion:** High capacity mass transit provides citizens with another transportation option and is a tool to facilitate development in desired areas. Transportation Policy 7 of the Countywide Planning Policies states, "In the long-term, growth and change will necessitate the designation of specific transportation corridors which can support high capacity transportation." SRTC has studied the possibility of light rail transit as part of its Major Investment Study (MIS) of the South Valley Corridor. One alternative of the study is light rail transit that connects downtown Spokane and Liberty Lake. Stops at the Spokane Interstate Fairgrounds, University City Shopping Center, and about a dozen other locations would be included. In the future the route has the potential of being expanded in either direction. To the west it might expand to reach the Spokane International Airport while to the east it could go to Coeur d'Alene.



This policy supports the development of some type of high capacity mass transit. SRTC's South Valley Corridor study indicates that the east-west corridor is the most likely place for mass transit to be feasible. The North Spokane Corridor (north-south freeway) provides another opportunity, however, since it is being planned with sufficient right-of-way to allow for the addition of high capacity mass transit in the future.



## TR 3 TRANSPORTATION AND LAND USE

Goal: Recognize the key relationship between the places where people live, work, and shop and their need to have access to these places; use this relationship to promote land use patterns, transportation facilities, and other urban features that advance Spokane's quality of life.

## **Policies**

### **TR 3.1 Transportation and Development Patterns**

*Use the city's transportation system and infrastructure to support desired land uses and development patterns, especially to reduce sprawl and encourage development in urban areas.*

**Discussion:** Transportation and land use planning must be coordinated for the city to function smoothly, efficiently, and healthily. Investments in new transportation infrastructure can have both positive and negative impacts on the city. For example, while it may be relatively easy to build new streets or expand existing streets at the edge of the city to add transportation capacity, that can lead to sprawling development that, in the long run, is costly to the city.

This policy is particularly important given two goals of the GMA, which state:

- ◆ “Encourage development in urban areas where adequate public facilities and services exist or can be provided in an efficient manner.”
- ◆ “Reduce the inappropriate conversion of undeveloped land into sprawling, low density development.”

### **TR 3.2 Reduced Distances to Neighborhood Services**

*Provide a variety of services within neighborhoods that are convenient to and meet the needs of neighborhood residents, decreasing the need for driving.*

**Discussion:** Providing a variety of services within neighborhoods decreases the distances needed to travel to meet daily needs, making opportunities for walking and bicycling more feasible. The services are intended to serve the daily needs of neighborhood residents, not to draw people from outside the neighborhood. Furthermore, the design of the buildings housing these services must be compatible with the neighborhood.

### **TR 3.3 Walking and Bicycling-Oriented Neighborhood Centers**



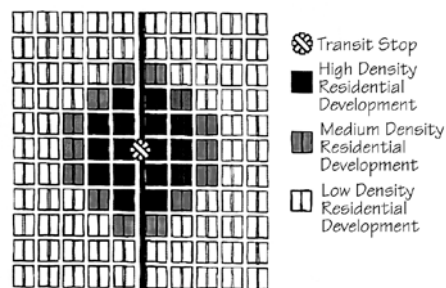
*Incorporate physical features in neighborhood centers to promote walking, bicycling, and other non-motorized modes of transportation to and within the centers, reducing the need for driving.*

**Discussion:** This policy, though similar to TR 2.1, “Physical Features,” is included to ensure that the neighborhood services desired in TR 3.2, “Reduced Distances to Neighborhood Services,” are walking and bicycling oriented. Development that requires driving to the development and from place to place within the development should be avoided.

### **TR 3.4 Increased Residential Densities**

*Increase residential densities, as indicated in the land use element of the City of Spokane's Comprehensive Plan, to support the efficient functioning of transit and mass transit.*

**Discussion:** Residential densities relate strongly to transportation options. Lower densities decrease the ability to provide efficient alternative transportation modes while higher densities increase the ability. Furthermore, sprawling growth increases the stress on the transportation system in that the more spread out the city becomes, the farther people have to travel and the less likely they will be to walk, bicycle, or take the bus. This policy does not mean that there will be no single-family residential areas in the city. This policy has an essential link to policy TR 3.6, “Use of Design.”



### **TR 3.5 Healthy Commercial Centers**

*Maintain healthy commercial centers within the city that satisfy the shopping and service needs of residents to reduce the amount of driving, utilize existing transportation infrastructure and services, and maintain the city's commercial tax base.*

**Discussion:** Maintaining healthy commercial centers within the city has several advantages for city residents:

- ◆ They can choose to travel shorter distances.
- ◆ They have more options for how to travel.
- ◆ Existing transportation services and infrastructure can be utilized.
- ◆ Profitable commercial centers contribute to the city's tax base.
- ◆ It increases community pride.

Ideas for creating such centers include:

- ◆ Incorporating housing as part of the center.
- ◆ Providing housing in a variety of forms, such as in second and third stories of buildings, loft-style housing, and townhouses.
- ◆ Reducing costs of some City of Spokane services and utilities, such as trash pick-up.
- ◆ Pursuing public/private partnerships to save historic buildings and adapt to new uses.

### TR 3.6 Use of Design

*Facilitate the acceptance of densities that support alternative modes of transportation and businesses within neighborhoods by ensuring compatible design of mixed-use and non-single family residential buildings to protect neighborhood character.*

**Discussion:** Design that is sensitive to the community and its character is crucial to the successful implementation of this transportation plan. Sensitive design is important to accomplish key transportation goals. For example, while mixed-uses are needed in some areas to support alternative transportation options (or at least make it feasible to drive shorter distances), the design of the mixed-use buildings needs to be compatible with the surrounding neighborhood to be acceptable to neighborhood residents. This policy supports and has a strong link to policies TR 3.2, "Reduced Distances to Neighborhood Services" and TR 3.4, "Increased Residential Densities."



## TR 4 EFFICIENT AND SAFE MOBILITY

Goal: Design and maintain Spokane's transportation system to have efficient and safe movement of people and goods within the city and region.

### Policies

#### TR 4.1 Street Design and Traffic Flow

*Use street design to manage traffic flow and reduce the need for street expansions.*

**Discussion:** Street design can affect the amount and speed of traffic. This concept applies to both arterials and local access streets, which have different purposes for both the amount and speed of traffic (see policy TR 4.2, "Self-Enforcing Street Design"). Street design elements can also be used in place of street expansions, or "capacity improvements," to manage congestion, primarily along arterials. Such design elements, also known as "traffic engineering techniques," include limiting access along arterials to improve traffic flow, prohibiting parking along arterials, using left-hand turning channels, and providing space for bicycles on arterials to keep all traffic

flowing smoothly and to increase the viability of bicycling. This policy applies to the design of both arterials and local access streets.

## TR 4.2 Self-Enforcing Street Design

*Design streets to discourage drivers from speeding and increase the safety of pedestrians, bicyclists, other drivers, and every person and animal in the city.*

**Discussion:** Speeding traffic is a major concern to city residents. Faster traffic speeds shorten the time drivers have to react, make drivers less able to yield to pedestrians, create noise pollution, and contribute to road rage. Within neighborhoods, cut-through traffic results in inappropriate, excessive traffic through neighborhoods and also *speeding* traffic through neighborhoods, resulting in decreased safety and declining neighborhood quality of life. Streets can be designed through their width and use of traffic calming devices to discourage speeding and increase safety. While the intent of this policy is to discourage speeding traffic and not to stop traffic altogether, this policy needs to be balanced with the need to design streets to reduce traffic congestion and idling time (see TR 6.5, “Traffic Congestion”).

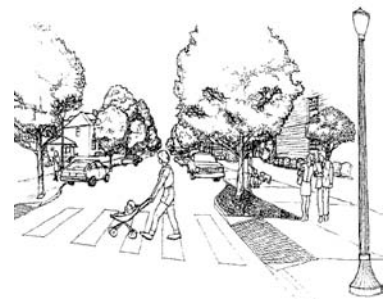
## TR 4.3 Narrow Streets

*Build streets with the minimum amount of street width needed to serve the street’s purpose and calm traffic.*

**Discussion:** Streets should be constructed as narrow as possible. Narrow streets are less costly to build, require less maintenance, reduce storm water runoff, help reduce the speed of traffic, conserve land for other uses, and are safer for pedestrians.

Narrow streets also serve as an effective traffic calming measure. Calming traffic is important to Spokane neighborhoods (see TR 5.4, “Traffic Calming Measures”).

This does not mean, however, that all streets will be narrow since street widths vary according to the street’s function. For example, arterials are wider than streets serving only neighborhood traffic. Street width also needs to take into account the need for bicycle lanes.



The City of Spokane’s street standards have been developed with the intent of implementing this narrow streets policy. Another technique to implement this policy is to carefully provide for the location of on street parking, which serves to reduce the width of travel lanes. The use of chicanes (design features that change a street’s path from straight to serpentine) at appropriate locations can also serve to reduce the travel lane width of streets. Finally, this policy also has a strong link to policy TR 4.6, “Internal Connections,” since providing greater connectivity and access addresses some of the access concerns raised by narrow streets.

## TR 4.4 Arterial Location and Design

*Assure that both the location and design of arterials are compatible with existing and proposed land uses in the areas through which they pass.*

**Discussion:** The integrity of the areas through which arterials pass should be protected while meeting the citywide interests that arterials serve. Both the location and design of arterials are important to minimize negative impacts on adjacent areas. For example, new arterials that divide neighborhoods should be avoided. Existing arterials that pass through neighborhoods should be designed to allow people to cross the arterial safely. Arterials that pass through commercial areas should be designed to provide safe and convenient access to those areas for pedestrians and bicyclists, as well as drivers. Streets in commercial areas need to be commercially friendly. Examples

of specific design issues include the use of couplets and one-way versus two-way streets. This policy has strong links to policies TR 4.10, “Downtown Street Network” and TR 7.2, “Street Life.”

#### TR 4.5 External Connections

*Design subdivisions and planned unit developments to be well-connected to adjacent properties and streets on all sides.*

**Discussion:** It is important that subdivisions and planned unit developments (PUDs) be connected to their surrounding areas and the larger community and not be physically isolated because of poor transportation connections. With good connections for pedestrians, bicyclists, and automobiles, traffic is spread more evenly, reducing congestion and impacts on adjacent land uses. One intent of this policy is to stop the development of gated communities that are isolated and disconnected from their surroundings. Subdivisions and PUDs should have multiple ingress and egress points to enable good transportation connections. The connections should not, however, result in inappropriate cut-through traffic through neighborhoods; connections should direct traffic onto appropriate streets. Connections are needed for all transportation users and can take the form of both streets and paths.

#### TR 4.6 Internal Connections

*Design communities to have open, well-connected internal transportation connections.*

**Discussion:** Internal transportation connections are important for neighborhoods, subdivisions, and PUDs to promote ease of access. Long, confusing routes should be avoided to create greater efficiency. Shorter block lengths, which result in more frequent intersections than longer block lengths, provide greater opportunities for connection, make it easier for people to find their way around the city, and have the additional significant benefit of helping to keep vehicle speeds low. Block lengths could be tied to lot sizes and the number of lots in a block, instead of purely a block length measurement figure. Other ways to help accomplish a more open, well-connected network is by connecting streets and avoiding cul-de-sacs and vacating streets. Where cul-de-sacs or vacating streets cannot be avoided, pedestrian pathways, bikeways, and bike routes that link areas should be provided.



#### TR 4.7 Holistic Plans

*Require a transportation master plan as part of any subdivision, PUD, institutional master plan, or other major land use decision process.*

**Discussion:** The intent of this policy is to ensure that new communities that are planned within the city relate to and connect with the larger community. Developments should not be planned piecemeal. The plan should identify transportation features such as the external and internal connections, connecting streets, arterials, public paths for pedestrians and bicyclists, transit stops, and major transportation generators, such as schools, parks, and commercial areas.

#### TR 4.8 Freight and Commercial Goods

*Accommodate moving freight and commercial goods in ways that are safe, cost efficient, energy efficient, and environmentally friendly.*

**Discussion:** Freight and commercial goods are crucial to supporting the daily needs of people within the city. The movement of goods is also important to businesses for retaining existing business and providing for expansion. While planning for the movement of goods, it is also

important to maximize safety and quality of life in neighborhoods, the city, and the surrounding region. Ways to accomplish this include:

- ◆ Designating truck freight routes through the city that provide appropriate access without compromising neighborhood safety and livability. Concerns include noise, pollution, and congestion.
- ◆ Allowing small commercial trucks to travel on neighborhood streets to deliver supplies to home businesses.
- ◆ Giving priority and incentives to environmentally friendly and energy efficient modes of freight movement including rail, non-polluting vehicles, and alternative fuels.
- ◆ Supporting intermodal freight transfer facilities (land to air, rail to street, interstate trucking to local delivery).

#### **TR 4.9 Downtown Accessibility**

*Ensure that downtown Spokane is accessible and friendly to all types of transportation users.*

**Discussion:** It is especially important that the downtown area, as Spokane's heart and center, is accessible to everyone. Pedestrians, people in wheelchairs, bicyclists, and drivers should be welcome and able to travel safely and efficiently downtown.



#### **TR 4.10 Downtown Street Network**

*Redesign and construct the downtown street network to encourage people to come to downtown Spokane and not to speed through it.*

**Discussion:** While downtown traffic should flow smoothly, it should not be so fast that it is dangerous or uncomfortable to pedestrians or bicyclists and degrades street activity or otherwise detracts from commercial activity. Traffic moving rapidly through downtown is detrimental to pedestrian and bicyclist safety and comfort and does not encourage drivers to stop and use downtown; instead, downtown is perceived as a place through which to drive.

Traffic calming devices can be one way to implement this policy. Center islands, medians, and angled parking may be especially appropriate in downtown Spokane. Converting one-way streets to two-way streets can also slow the speed of traffic while making it easier to move around downtown.

This policy is directed to the speed of traffic through downtown, intending to avoid excessive speed. Traffic needs to flow smoothly, however, to avoid unwanted congestion and achieve air quality goals.

#### **TR 4.11 Consistency of Rules**

*Strive for consistency in setting speed limits, designating and locating arterials, and developing other transportation rules.*

**Discussion:** Inconsistencies or inequities in transportation rules lead to increased confusion and violations, both intentional and unintentional. Consistency of rules supports a greater common understanding, awareness, and acceptance. Speed limits, for example, that vary from street to street or from one section of an arterial to another are confusing and unclear. Examples of rules include speed limits, designation and location of arterials, and location of traffic calming devices.

#### **TR 4.12 Law Enforcement**

*Enforce traffic laws for all modes of transportation rigorously to protect the public health and safety.*

**Discussion:** Enforcing traffic laws for all transportation users is needed. This includes:

- ◆ Enforcing speed limits.
- ◆ Promoting respect for crosswalks, such as automobiles (whether parked or moving) not blocking crosswalks.
- ◆ Increasing drivers' knowledge of pedestrian and bicyclists' rights through education.
- ◆ Enforcing laws that pedestrians and bicyclists must obey to include preventing bicycles on sidewalks in the downtown business center.
- ◆ Enforcing laws against driving while under the influence of alcohol or drugs.

### TR 4.13 Traffic Signals

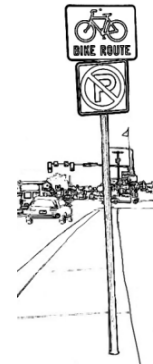
*Place and time traffic signals to ensure coordinated, smooth, and safe movement of traffic.*

**Discussion:** Traffic signals should be placed and their timing adjusted to encourage smooth, safe traffic flow, both pedestrian and vehicular. Using traffic signals to control left turns can assist with traffic flow, as can altering traffic signals to accommodate periods of heavy traffic, such as morning and evening commute times. Adding cycling-specific/aware traffic signals along bike routes and bikeways would encourage bicycling and potentially add bicycle safety and awareness to vehicular commuters. Pedestrians need enough time to cross streets; providing pedestrian-activated traffic signals assists with this.

### TR 4.14 Signs

*Use signs to achieve transportation goals.*

**Discussion:** Signs can help achieve Spokane's transportation goals. For example, signs can enhance mobility by facilitating efficient flow of traffic, improve the safety of pedestrians and bicyclists, and add to a sense of place. Signs should be clear, readable, and placed with care. Signs should not be hazardous to pedestrians or block their paths.



### TR 4.15 Lighting

*Provide different degrees of lighting for safety and convenience based on the use of streets and sidewalks and the needs of residents.*

**Discussion:** Lighting enhances the safety of transportation users, especially pedestrians and transit users. Lighting is especially needed at bus stops, crosswalks, bicycle rack, and bicycle shelter areas. The hours and intensity of effective lighting varies according to the location. The placement, color, and intensity of lighting should all be addressed so that the lighting does not detract from surrounding areas while improving safety. The lighting should fit the character of the place it is illuminating.

### TR 4.16 Safety Campaigns

*Implement public safety campaigns aimed at driver, pedestrian, and bicyclist awareness of and respect for each other.*

**Discussion:** Public safety campaigns can increase the safety of all transportation users, particularly pedestrians and bicyclists. These safety campaigns, which can be sponsored through schools, service clubs, public health, and other organizations, should include the need to respect all transportation users and the need for all transportation users to travel responsibly.

### TR 4.17 Street Maintenance

*Keep streets well maintained and clean for the benefit of drivers, bicyclists, and pedestrians.*

**Discussion:** Well-maintained and clean streets have many benefits: improved conditions for driving and bicycling, increased city pride, and improved air quality. Well-maintained streets include the removal of debris, gravel, glass, and snow and the prompt filling of potholes. Poorly

maintained streets are especially hazardous to bicyclists. Better maintenance can be accomplished by placing a high priority on public spending for maintenance and cleaning.

#### **TR 4.18 Sidewalk Maintenance**

*Keep sidewalks clean and well maintained.*

**Discussion:** Gravel, snow, over-hanging vegetation, and cracks all present obstacles for pedestrians. Better maintenance by private property owners eliminates many of these problems. Neighborhood groups could also be used to address concerns.

#### **TR 4.19 Awareness of ROW Streetscape Elements**

*Increase the understanding and awareness of the essential importance of pedestrian buffer strips, medians, traffic circles and other right-of-way streetscape elements in protecting public safety and enhancing community.*

**Discussion:** Right-of-way (ROW) streetscape elements are key tools to help accomplish Spokane's transportation goals. Their design, placement, and maintenance greatly influence many transportation goals, including efficient and safe mobility, transportation options, sense of place, neighborhood protection, and environmental protection. An increased understanding and awareness of the importance of ROW streetscape elements and how they relate to Spokane's goals and desired future is essential. Only through increased understanding and awareness can they be intelligently planned for and the variety of issues related to them (such as design, maintenance, and placement) addressed.

#### **TR 4.20 Design and Maintenance of ROW Streetscape Elements**

*Design pedestrian buffer strips, medians, traffic circles and other right-of-way streetscape elements so that they enhance public safety and Spokane's visual and environmental quality and can be effectively maintained.*

**Discussion:** This policy is first directed towards ensuring that ROW elements are maintained in a way to achieve two purposes: (1) to enhance public safety and welfare and (2) to enhance Spokane's visual and environmental quality. This policy is also intended, however, to recognize and effectively utilize the key relationship between the *design* of right-of-way elements and their *maintenance*. For in addition to addressing the functional use and aesthetic appearance of ROW streetscape elements, design can also influence the type and level of maintenance that is required to maintain them.

The design of elements can and should vary according to the surrounding area (see policies TR 7.4, "Pedestrian Buffer Strips" and TR 5.3, "Neighborhood Traffic Issues"). One factor that may vary according to area is maintenance options. Some areas may be willing to support fairly maintenance-intensive design options, such as turf grass, annuals, and non-native ornamental shrubs. Other areas may favor more low-maintenance options, such as native and drought-tolerant groundcovers, perennials, or hardscape landscape treatments. Hardscape treatments, however, should be used with caution, both in their location and design. For example, policy TR 7.4, "Pedestrian Buffer Strips," states, "complete coverage of the pedestrian buffer strip with an impervious surface and no trees or ground over is discouraged." In addition, policy TR 7.3, "Street Trees," specifies that street trees should be planted "wherever possible to enhance the transportation environment." Thus, street trees should be a part of the streetscape, wherever possible.

Proper design that incorporates maintenance along with other issues identified in the plan can do much to address maintenance concerns regarding ROW streetscape elements. The City of Spokane could assist in recommending designs appropriate to the maintenance capabilities of the neighborhood or individual project.

## TR 4.21 Maintenance Responsibility for ROW Streetscape Elements

*The maintenance of pedestrian buffer strips, medians, traffic circles and other right of way streetscape elements is the responsibility of the adjacent property owner and/or neighborhood except for those elements specifically assumed by the City of Spokane.*

**Discussion:** The City of Spokane assumes responsibility for only those ROW streetscape elements listed on the City of Spokane’s maintenance responsibility list identified in the City of Spokane’s Street Tree Ordinance. All other ROW streetscape elements are the responsibility of the adjacent property owner and/or neighborhood. The elements the city assumes responsibility for can change through time, as additional resources are identified and/or community priorities change.

Traditionally, the City of Spokane’s Parks and Recreation Department has only maintained certain ROW streetscape elements along a very limited number of streets. Such streets have traditionally been limited to those of exceptional scenic or community interest, such as Mission Avenue, Manito Boulevard, Rockwood Boulevard, and High Drive. As the Comprehensive Plan is being adopted (spring of 2001) a multi-departmental team is working to identify maintenance issues and options.

Policy TR 4.20, “Design and Maintenance of ROW Streetscape Elements,” addresses the key link between the design and maintenance of ROW streetscape elements, including how the design of elements should vary according to the surrounding area. This concept can greatly influence maintenance responsibility issues, particularly for those elements within the curblane of the right-of-way, such as traffic islands and medians. As two examples: neighborhoods that desire higher intensive landscaping of such features must be willing to assume the higher degree of maintenance they require. Also, the design of such elements will vary greatly depending on whether they are on arterials or local access streets, due to access and safety issues.

The Parks and Recreation Department has direct maintenance responsibilities for developed and undeveloped properties that are under direct control of the Spokane Park Board. Ownership of public lands for Park purposes is defined by the City Charter, the portion that describes the Spokane Park Board’s duties and responsibilities. Simply put, for the Parks and Recreation Department to assume responsibility for additional ROW streetscape elements, the Spokane Park Board would have to formally decide on acceptance of ROW property as Park Board controlled land and have approval of design, as it would relate to long-term maintenance. Maintenance obligations would include any horticultural development, support of facilities that support the established plant material and future revision/replacement of the landscape development.

Another potential implementation strategy to address maintenance is for the City of Spokane to reinstate the leaf pick-up program for all leaves. Currently, the program only covers those leaves on the street.

## TR 4.22 Awareness of Maintenance Responsibility for ROW Streetscape Elements

*Increase the understanding and awareness of whose responsibility it is to maintain pedestrian buffer strips, medians, traffic circles and other streetscape right of way elements to improve the maintenance of these elements.*

**Discussion:** Maintenance of ROW streetscape elements is a key concern. Poorly maintained ROW streetscape elements degrade Spokane’s quality of life. One important aspect to address of this challenging issue of ensuring that ROW elements are appropriately maintained is to ensure that it is clear whose responsibility it is to maintain the various elements. Ignorance in this area leads to nonexistent or inappropriate maintenance.

Potential implementation strategies to increase understanding and awareness of maintenance responsibility include the use of Channel 5 television programs, utility bill inserts, and announcements by the Mayor or City Councilpersons. Such education strategies could also include the awareness needs behind policy TR 4.19, “Awareness of ROW Streetscape Elements.”

### **TR 4.23 Transportation LOS**

*Set and maintain transportation level of service standards that support desired focused growth patterns and choices of transportation modes.*

**Discussion:** The City of Spokane’s transportation level of service standards differ between (1) areas targeted for growth and where transportation mode choices are available and (2) areas not targeted for growth and that have fewer transportation mode choices. These level of service standards apply to all modes—vehicle, transit, and pedestrian.

In order to encourage development where it is desired, reduced level of service for vehicles is permitted in center and corridor areas where growth is being encouraged and where adequate choice of non-vehicle transportation modes (such as transit, pedestrian) exist. Reducing level of service in these areas has several benefits. First, lowering the vehicle level of service in these areas reduces the cost of the infrastructure required to serve these areas and allows higher density development without costly mitigation measures. Another benefit is that it will lower vehicle speeds, which is compatible with the concept of these focused growth areas. In addition, higher availability of non-vehicle modes of transportation in these areas is expected to balance overall transportation needs.

It should be noted that level of service standards for pedestrians are expressed in the varying street design standards in the four area classifications (see section 4.6, “Street Standards”) and with the greater pedestrian amenities expected in the focused growth areas.

To further help focus growth where it is desired, higher vehicle level of service standards are required in areas where intense development is not desired, such as on the edge of the urban area. Raising the vehicle level of service in these areas increases the infrastructure costs in these areas and requires mitigation measures when intensity of development exceeds provided capacity. Furthermore, these higher vehicle level of service environments are generally more typical of low-intensity, suburban development on the edge of the urban area.

The level of service standards for the arterial street network are based on the Highway Capacity Manual capacity techniques.

Further information about the City of Spokane’s transportation LOS and its concurrency management program can be found in the Draft Comprehensive Plan/EIS, Volume 2. Section 18.4, “Transportation LOS—Executive Summary,” of the draft provides a summary of the City of Spokane’s preliminary program for the LOS and concurrency management. Section 18.1, “Major Transportation Planning Issues” includes a more general discussion of LOS issues.

### **TR 4.24 Transportation LOS Coordination and Consistency**

*Coordinate the setting and maintaining of transportation level of service standards with other agencies and private providers of transportation so that they are consistent.*

**Discussion:** The transportation system provides the structure for Spokane to interact with the rest of the world. A number of public agencies and private companies provide transportation services in, to, and through Spokane. The standards and goals established by these groups need to be considered in establishing transportation level of service standards.

The Spokane Regional Transportation Council is tasked in the adopted countywide planning policies with establishing level of service standards for the regional street network. SRTC establishes travel time standards in the principal travel corridors.

The Washington State Transportation Commission sets the level of service standards for highways of statewide significance. The Commission coordinates with the Spokane Regional Transportation Council to establish level of service standards for state routes not on the highways of statewide significance system. Transportation Facilities and Services of Statewide Significance (TFSSS), as designated by the Washington State Transportation Commission, are listed in section 4.5, “Existing and Proposed Transportation Systems.”

Other agencies and private transportation providers of statewide significance establish level of service standards for their respective jurisdiction. The City of Spokane coordinates with these agencies where appropriate.

#### **TR 4.25 Pedestrian and Bicyclist Access to Parks**

*Develop safe pedestrian access and bike ways/routes to city parks from surrounding neighborhoods.*

**Discussion:** The city shall analyze the existing safety of pedestrian and bicycle access within a quarter mile walking distance of each park. Based on that analysis city departments shall implement projects that improve the pedestrian circulation safety.



### **TR 5 NEIGHBORHOOD PROTECTION**

Goal: Protect neighborhoods from the impacts of the transportation system, including the impacts of increased and faster moving traffic.

#### **Policies**

#### **TR 5.1 Neighborhoods for Pedestrians**

*Orient, design, and maintain neighborhoods for pedestrians.*

**Discussion:** The quality of life of neighborhoods is greatly affected by the city’s transportation system. In the past, the focus of transportation has been on moving a greater volume of automobile traffic at a faster rate. The results have not always been good for city neighborhoods or the people who live in them. Establishing pedestrians as the focus for neighborhoods is a clear statement of the City of Spokane’s transportation priorities and its commitment to healthy neighborhoods.

#### **TR 5.2 Neighborhood Transportation Options**

*Promote a variety of transportation options within neighborhoods.*

**Discussion:** Providing for walking, bicycling, and transit use as viable transportation options gives residents more transportation choices and reduces the amount of traffic in neighborhoods. Transportation choices that are environmentally, culturally, and historically connected to neighborhoods produce healthy and cohesive neighborhoods.



One way to accomplish this is to provide paths for pedestrians and bicyclists in neighborhoods. Streets being considered for vacation could instead be made into paths to connect streets. These paths could be enhanced with trees and other features to encourage walking and bicycling and to strengthen a sense of place.

#### **TR 5.3 Neighborhood Traffic Issues**

*Work with neighborhoods to identify, assess, and respond to the unique traffic issues and needs in each neighborhood.*

**Discussion:** Working with neighborhoods provides the opportunity to apply the broad, citywide direction of the transportation element to the neighborhood level and to do so in a way that is responsive to the needs and character of individual neighborhoods while also following the citywide interests reflected in the element. A challenge in working with neighborhoods on traffic issues is the need to recognize that individual neighborhoods form a part of the larger city and have a relationship to it. The entire city's transportation needs must be considered as well as the neighborhood's. It is also important to assess the entire neighborhood and not react to just a small group of vocal people. Areas of transportation planning that are particularly dependent on neighborhood involvement include design issues (such as the selection of street tree types and landscaping choices for pedestrian buffer strips) and the location and type of traffic calming measures and traffic control.

#### TR 5.4 Traffic Calming Measures

*Use traffic calming measures in neighborhoods to discourage speeding, reduce non-neighborhood traffic, and improve neighborhood safety.*

**Discussion:** Traffic calming measures create safer and quieter streets. They help reduce traffic speed and discourage the inappropriate use of neighborhood streets by non-neighborhood residents as shortcuts to bypass arterials. They make neighborhoods healthier and more appealing places to live. Examples of traffic calming measures include narrowed streets, curved streets, roundabouts (traffic circles), pedestrian islands, textured crosswalks, and large street trees with overhanging canopies, and speed bumps and dips.



#### TR 5.5 Arterials and Neighborhoods

*Locate and design arterials to minimize impacts on neighborhoods.*

**Discussion:** The impacts of arterials on neighborhoods should be minimized. Arterials that through poor design or location divide neighborhoods should be avoided. Arterials do not have to be vast stretches of asphalt that separate and isolate neighborhoods. By directing that arterials should usually not pass through neighborhoods but instead form neighborhood boundaries, this policy identifies an ideal situation for most cases. In some cases, existing arterials already pass through neighborhoods. If carefully designed and appropriate to a particular neighborhood, an arterial might provide a focus for creating a neighborhood center. New neighborhoods might be centered on an arterial with the arterial and adjacent land uses forming the heart of the neighborhood.

#### TR 5.6 Neighborhood Traffic Speed

*Ensure that neighborhood streets have a significantly lower traffic speed than arterial streets.*

**Discussion:** Speeding traffic and thru-traffic seriously degrade neighborhood quality of life. There should be a distinct difference between the speeds of traffic moving on neighborhood streets versus arterial streets. Arterial streets should be established as a route of choice for non-neighborhood traffic.

Without a distinct difference between the speeds of traffic on neighborhood streets versus arterial streets, little incentive to use arterials exists. Some drivers shortcut through neighborhoods to avoid delays on arterials, which can be caused by traffic lights, buses that slow down the curb lane, and zones that slow automobiles, such as school crossings. This results in increased traffic and speeding traffic through neighborhoods. This poses significant safety hazards, especially for children and pets, and detracts from neighborhood livability.

Maintaining a speed difference will come from a number of different strategies, including speed limit enforcement, street design, and education.

## **TR 5.7 Neighborhood Parking**

*Preserve neighborhood on-street parking for neighborhood residents.*

**Discussion:** Neighborhood residents and their guests need places to park. On-street parking also acts as an effective traffic calming measure, while re-stripping of on-street parking may help to encourage and enable safer bicycling. On-street parking is not intended, however, to be for long-term storage of vehicles; street sweeping and snow plowing require vehicles to be moved.

Methods to control on-street parking include establishing neighborhood-parking districts near large traffic generators, such as shopping centers, universities, and hospitals, where parking permits are needed. Furthermore, parking lanes can be marked with striping on wide streets so that drivers don't attempt to create another driving lane. Since this policy is directed towards neighborhood parking, it is intended to apply primarily to local access streets and residential collector arterials. Other types of arterials may have the competing need of potentially re-moving parking to facilitate traffic flow (see policy TR 4.1, "Street Design and Traffic Flow"). It should be noted that while the Comprehensive Plan identifies bicycle facilities, many remain non-designated and on-street parking that is slated for removal to accommodate the bicycle facilities continues to exist. As a part of development of bicycle facilities, it needs to be acknowledged that on-street parking may need to be removed to accommodate bicycle facilities.



## **TR 6 ENVIRONMENTAL PROTECTION**

Goal: Minimize the impacts of the transportation system on the environment, including the region's air quality and environmental features, such as nature corridors.

### **Policies**

#### **TR 6.1 Pollution**

*Design, build, and operate transportation improvements to minimize air, water, and noise pollution and the disruption of natural surface water drainage and natural areas.*

**Discussion:** To reach the City of Spokane's Transportation Vision and achieve the transportation goals, protection of the environment is essential. Protection should address the specific impacts transportation has on air and water quality and noise pollution, as well as transportation's more general impacts on Spokane's quality of life and sense of place.

Vegetation, especially street trees, has an important role to play in minimizing the negative environmental impacts of transportation. For example, large street trees that provide an overhanging canopy improve air quality, calm traffic, and act as buffers between people and automobiles. Motor oil disposal, however, remains as one transportation-related threat to the aquifer, making the aquifer the focus of special environmental concern.

#### **TR 6.2 Land Respect**

*Plan and construct transportation improvements with care, considering natural land forms, geography, and nature corridors.*

**Discussion:** Features such as the type and abundance of trees, rock formations, and the overall land form help define who we are as a community. The City of Spokane's policy is to consider such important environmental features in its transportation planning and development.

### **TR 6.3 Transportation Alternatives and the Environment**

*Promote the use of alternatives to driving alone, such as walking, bicycling, use of transit, and carpooling to reduce transportation impacts on the environment.*

### **TR 6.4 Street Cleaning**

*Clean streets to protect air quality and make for a cleaner, safer Spokane.*

### **TR 6.5 Traffic Congestion**

*Design streets and time traffic signals to reduce traffic congestion and vehicle idling time.*

**Discussion:** Traffic signals can be used to benefit the environment by reducing congestion. This policy needs to be balanced, however, with other goals and policies pertaining to the dangers of speeding traffic and protection of neighborhoods.

### **TR 6.6 Vehicle-Related Air Pollution**

*Develop transportation control measures to reduce vehicle-related air pollution.*

**Discussion:** Transportation control measures are measures contained in the State Implementation Plan (SIP) that are designed to reduce vehicle-related air pollution. Any agency, however, may implement other transportation control measures that are not included in the SIP.

The City of Spokane should work with the SCAPCA, SRTC, the State Department of Transportation, STA, and other jurisdictions and agencies to develop appropriate transportation control measures. Current measures include vehicle emission testing programs and use of oxygenated fuels. Potential new transportation control measures include:

- ◆ Promoting the purchase of fuel-efficient vehicles, alternative fuel vehicles, and new technology vehicles.
- ◆ Offering incentives for reducing miles traveled and using vehicles with high fuel efficiency.

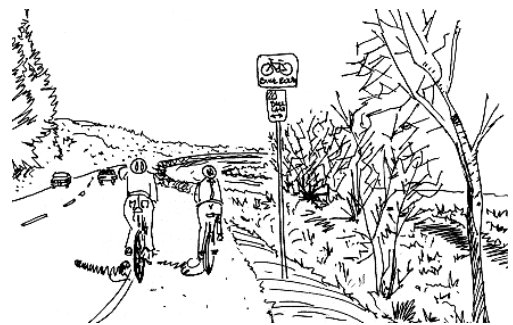
### **TR 6.7 Street Paving**

*Place a high priority on public spending for paving dirt and gravel streets to reduce air pollution.*

### **TR 6.8 City Hall Goes Green**

*Conduct City of Spokane business in a way that reduces the environmental impacts resulting from its transportation-related decisions.*

**Discussion:** The City of Spokane should provide leadership and demonstrate to the community the environmental responsibility it expects from others. It should do this with the decisions it makes as to how it conducts its business. For true success and viability, a community's practices must be sustainable.



The City of Spokane should continue to provide employees with shower facilities and lockers, reduced-cost bus passes, and safe bicycle storage and should also consider additional strategies, such as:

- ◆ Providing employee parking only for carpools or vanpools.
- ◆ Replacing fleet vehicles with vehicles that meet zero emission standards.
- ◆ Using quieter, perhaps smaller garbage trucks.
- ◆ Using alternatives to automobiles to deliver city services.

- ◆ Pursuing alternative fuel options for vehicles.
- ◆ Planting street trees to mitigate exhaust of fossil fuel for transportation uses.



## TR 7 SENSE OF PLACE

Goal: Foster a sense of community and identity through the availability of transportation choices and transportation design features, recognizing that both profoundly affect the way people interact and experience the city.

### Policies

#### TR 7.1 Character and Pride

*Create transportation improvements that promote Spokane's character, enhance the character of its neighborhoods, and foster community pride.*

**Discussion:** Protecting Spokane from transportation impacts that infringe on the community's character or sense of place is important. Transportation elements to consider include street design, sidewalk design and materials, streetlights, large street trees, bus stops, transit stops and buildings, public squares, and traffic calming devices.

City of Spokane departments devoted to the arts, youth, parks, planning, and transportation can play a key role in promoting a sense of place through creating transportation improvements that are sensitive to local character. Communication and cooperation between city departments and neighborhoods is essential. Neighborhood councils and steering committees are key participants. One specific option for carrying out this policy is to create a process through which neighborhoods, including those downtown, participate in the process to identify and/or apply design standards and participate in the design review process.

#### TR 7.2 Street Life



*Promote a healthy street life in commercial areas, especially downtown, through transportation facilities that are designed with care to enhance both their use and the surrounding street environment.*

**Discussion:** A healthy street life is essential to creating healthy cities. A vital, active street life makes areas more appealing places to be, improves a sense of safety, and increases the public interaction essential to healthy community life.

Design features can either promote or hinder street life. For example, sidewalks that feature pedestrian buffer strips and are free from barriers promote walking by creating a safe pedestrian environment. Transit stops or centers that include shelter, seating, and schedule information create a more appealing environment than those that don't. Other design features such as landscaping, public art, and fountains can help establish spaces as public gathering places that attract people as well as provide relief from harsher built environments. Design details matter. For example, sidewalks that adjoin buildings with plenty of windows and entrances are more people-friendly than sidewalks that run along buildings with blank walls.

#### TR 7.3 Street Trees

*Plant street trees wherever possible to enhance the transportation environment.*

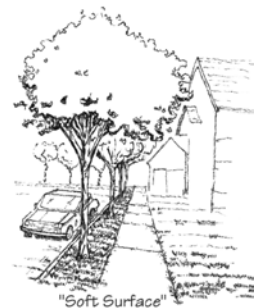
**Discussion:** A healthy "urban forest" is one of the greatest assets a city can have. It is also one of the few infrastructure elements that appreciate in value with age. For transportation purposes, street trees have many benefits; they provide a traffic calming effect, help orient motorists,

provide shade and habitat, reduce glare, noise, erosion, and wind, and absorb carbon monoxide. Large trees with overhanging canopies of branches are especially desirable. Streets with a cathedral of trees overhead are an important aesthetic element that fosters community pride and identity.

One concern in planning for street trees is to ensure that public safety is protected by preventing sidewalks and curbs from being damaged by tree roots. This problem can be addressed through the design of the pedestrian buffer strip and the selection of the appropriate tree type for the planting site. In addition, planting techniques such as root barriers, “structural soil,” and irrigation practices are helpful mechanisms in preventing tree roots from damaging sidewalks and curbs.

Poorly selected or poorly maintained trees can present other problems, including interfering with overhead utility lines, underground utilities, neighboring properties, and other plants and minimizing sight distances. Due to these potential problems, it is important that the appropriate type of tree be selected for each location and that trees be properly maintained. This is particularly true since trees are living organisms that grow larger each year, increasing in height, canopy width, and size of root system. It is important to consider what the size and shape of trees will be when they are mature. The Parks and Recreation Department’s urban forestry program maintains a list of appropriate trees for planting in different environments. A permit is required to plant a tree in the right-of-way.

The potential problems caused by street trees should not be used to override their fundamental importance and overall value. It is imperative to remember that a city without trees isn’t fit for a dog.



## TR 7.4 Pedestrian Buffer Strips

*Develop pedestrian buffer strips in a way that is appropriate to the surrounding area and desired outcomes.*

**Discussion:** Treatments of pedestrian buffer strips, also known as planting strips, vary greatly, from completely covered with hard surfaces to completely landscaped with soft surfaces and street trees. “Hard surfaces” include concrete, bricks, and other pavers; “soft surfaces” include sod, drought tolerant grass, and ground covers. Street trees can vary from small ornamental trees to large trees that provide overhanging canopies for streets.

How the pedestrian buffer strip is treated should relate to the surrounding environment and desired outcomes for that area. For example, grass should continue to be used in historic areas where grass is the traditional treatment.

Where traffic calming is desired, large street trees are preferred. In commercial areas, street trees with a hardscape treatment or tree grates may be appropriate. Sand-set pavers, cobbles, “grassblocks,” and similar pervious materials are encouraged wherever hardscape is incorporated. Complete coverage of the pedestrian buffer strip with an impervious surface and no trees or ground cover is discouraged.

Pedestrian buffer strips are crucial to creating safe, useable sidewalks (see policy TR 2.7, “Safe Sidewalks”). They should be designed with care to enhance the pedestrian environment, relate to the surrounding environment, and achieve desired outcomes. For example, in planning for pedestrian buffer strip width, one factor that should be considered is whether or not on-street parking is provided. Areas without on-street parking and the associated buffering it provides should feature a wider pedestrian buffer strip than areas with on-street parking. The ultimate driver in designing pedestrian buffer strips for particular locations is to ensure that the pedestrian

buffer strip provides for safe pedestrian circulation while also being appropriate to the surrounding area.

## TR 7.5 Building Setbacks

*Reduce building setbacks from the street and distances between buildings in neighborhood commercial areas to improve pedestrian access and develop an urban form.*

**Discussion:** Reducing building setbacks and distances between buildings reduces the distance pedestrians must walk to enter buildings. Buildings that are a considerable distance from the street or from each other are not inviting to pedestrians. Such settings can be intimidating to pedestrians, especially if they must cross large parking lots. Establishing maximum setbacks can help create a more pedestrian-friendly environment. Reducing the width of buildings or storefronts has the same effect. Finally, reducing setbacks and distances between buildings creates an urban form, as opposed to a suburban or rural form.

## TR 7.6 Sidewalk Use

*Allow businesses to utilize available sidewalks as long as pedestrian travel is not unreasonably impacted and the sidewalk's use and design is in character with the neighborhood.*

**Discussion:** The use of sidewalks for sidewalk cafes or outdoor seating for coffee shops can add to the appeal and vitality of street life. Similarly, stores that bring their wares to the sidewalk in front of their shops can also add appeal. When using sidewalks for business purposes, however, it is imperative to maintain adequate and efficient pedestrian movement. Also, occupancy of sidewalk space should be limited to non-permanent structures and seasonal use.



## TR 8 REGIONAL PLANNING

Goal: Plan for transportation on a regional basis.

### Policies

### TR 8.1 Plan Collaboratively

*Work together to achieve a regional transportation plan that meets the goals and requirements of the GMA but also reflects the visions, values, and interests of the City of Spokane.*

**Discussion:** The Countywide Planning Policies for Spokane County include a policy that states, “Regional transportation planning shall be conducted by the Spokane Regional Transportation Council (SRTC). The SRTC shall coordinate with local jurisdictions and the Spokane Transit Authority (STA) to ensure that the regional transportation plan and local jurisdiction’s land use plans are compatible and consistent with one another.”



The City of Spokane is dedicated to working with SRTC in its role of conducting and coordinating regional transportation planning, while also working to ensure that the City of Spokane’s visions, values, and interests are reflected in the regional plan.

The City of Spokane, as a partner in planning for transportation regionally, recognizes that part of SRTC’s role is to establish travel time-based level of service standards for the regional arterial network and determine the regional arterial network following appropriate federal and state requirements.

In addition, there are statewide transportation facilities within the city that impact the city while serving statewide needs and interests. Therefore, collaboration between the City of Spokane and

the appropriate state agency is imperative to ensure that both the City of Spokane and Washington State's interests are met. At the current time, two major collaborative study efforts, US 195 and the North Spokane Corridor, are underway.

## **TR 8.2 Efficient Regional Transportation**

*Coordinate with SRTC to ensure efficient, multimode transportation of people and goods between communities regionally.*

## **TR 8.3 Countywide Planning Policies**

*Use the adopted Countywide Planning Policies (Capps) as additional guidance for transportation planning.*

## **TR 8.4 Airfields**

*Protect the operations of Fairchild Air Force Base, Spokane International Airport and Felts Field with compatible land use regulations and ensure planning is coordinated and consistent with the airfields' respective Master Plans.*

## **TR 8.5 Sharing Information**

*Share information between all transportation entities on a regular basis; planning information shall be shared during all phases of projects.*

**Discussion:** Many transportation entities affect transportation in the area, such as SRTC, the Washington State Department of Transportation (WSDOT), STA, SCAPCA, and transportation and planning departments of local jurisdictions. Early and continuous communication between these entities is key for effective community planning.



# **TR 9 EQUITABLE FUNDING**

Goal: Finance a balanced, multimode transportation system using resources efficiently and equitably.

### **Policies**

## **TR 9.1 Cost Information for Citizens**

*Promote alternatives to private automobile use by informing citizens of the total economic costs and publicly financed subsidies to motor vehicle use.*

## **TR 9.2 Environmental Impact Information**

*Provide information on the environmental impacts of motor vehicle use.*

## **TR 9.3 Dedicated Funds for Retrofitting**

*The City of Spokane shall dedicate some amount of its annual transportation capital budget to retrofitting the street system to meet the city's pedestrian design standards.*

**Discussion:** As noted in the "Street Standards" (section 4.6, see subsection titled "General Considerations"), the City of Spokane's street standards apply to *newly constructed* public and private streets. The standards are also applied in certain situations as land development occurs (such as where level of service is impacted or where development abuts an existing arterial). The standards, however, are not intended to apply to the resurfacing, restoration, or rehabilitation of existing arterials. Without this policy, little would be done to retrofit the City of Spokane's existing street system to meet the new pedestrian design standards and thus achieve the intent of the transportation element. (The Transportation Capital Facilities Program does include a program to construct sidewalks along arterials where they are missing, but no other such retrofitting program was planned as part of the comprehensive planning process.) This policy is a

practical, direct way to implement the City of Spokane's pedestrian standards and create Spokane's desired transportation future. The fundamental pedestrian standard to be implemented is the policy to provide for safe pedestrian circulation, primarily in the form of sidewalks with a pedestrian buffer strip (TR 2.7, "Safe Sidewalks").

This policy creates a project type of its own in the Transportation Capital Facilities Program (section 4.7), called "Pedestrian Facilities Retrofitting Program." To identify the funds to allocate to this program and thus implement this policy, each year City of Spokane staff will develop a proposal for an amount of the transportation capital budget to devote to fulfilling this policy. The city will develop a program to identify where and how to apply these funds (a task for, at least in part, the Pedestrian/Bicycle Coordination staff, policy TR 2.3).



## TR 10 THE FUTURE

Goal: Prepare for the future and changing transportation needs resulting from changing populations, technology, and trends.

### Policies

#### TR 10.1 Planning Integration

*Integrate planning for transportation needs and facilities into project design, including for Pods, individual projects, and neighborhoods.*

#### TR 10.2 Innovation to Meet Spirit

*Review proposals for development projects in a way that allows innovative design and for solutions that meet the spirit and intent of the law, if not the letter of the law.*

**Discussion:** Spokane has a wide variety of environments and conditions. Specific development proposals have their own limitations as well as opportunities for development. The variety of environments within the city and variety of development proposals makes it difficult if not impossible to have a detailed list of very specific rules, such as policies or design standards that must be followed in all cases. Though there are general rules that work in most cases, some room for discretion in applying them and allowing for deviations from them is needed.

This opportunity for discretion or deviation is needed for two reasons: first, to allow for opportunities for creative solutions to meet the goal or intent behind the rule, and second, to allow for exceptions to the rules where an exception is clearly necessary, such as where topographic features make them impossible to follow.

If a rule is not to be followed, however, the proponent needs to make it clear why it should not be followed as well as how the alternative being proposed in its place meets the intent of the rule. It is also important to recognize that while this provides for an opportunity to deviate from rules, such situations should indeed be exceptions to the rule and not the rule. In other words, it is expected that rules will be followed, except in necessary situations, as noted above.

Further information about how street standards will be implemented can be found in section 4.6, "Street Standards," under "Implementing the Standards."

#### TR 10.3 Education

*Provide education on the transportation needs of the entire community, the benefits of transportation alternatives, and the rights and responsibilities of sharing the road.*

**Discussion:** Education is the foundation of understanding, respect, and acceptance. A better understanding of the true costs of driving, respect for other users of our streets, and acceptance of

choices different than our own will make our streets safer and more enjoyable. Since people currently are so auto-dependent, knowledge of the impacts of driving is essential. This knowledge must also be balanced with a sense of responsibility connected with use of an automobile.

Dependence on the automobile has social, financial, and environmental impacts. These impacts have been well documented but are not generally known, acknowledged, or included in any education curriculum. This gap in the school curriculum and the general media should be addressed by educational programs.