LINK SPOKANE

INTEGRATING TRANSPORTATION & CITY UTILITY INFRASTRUCTURE PLANNING

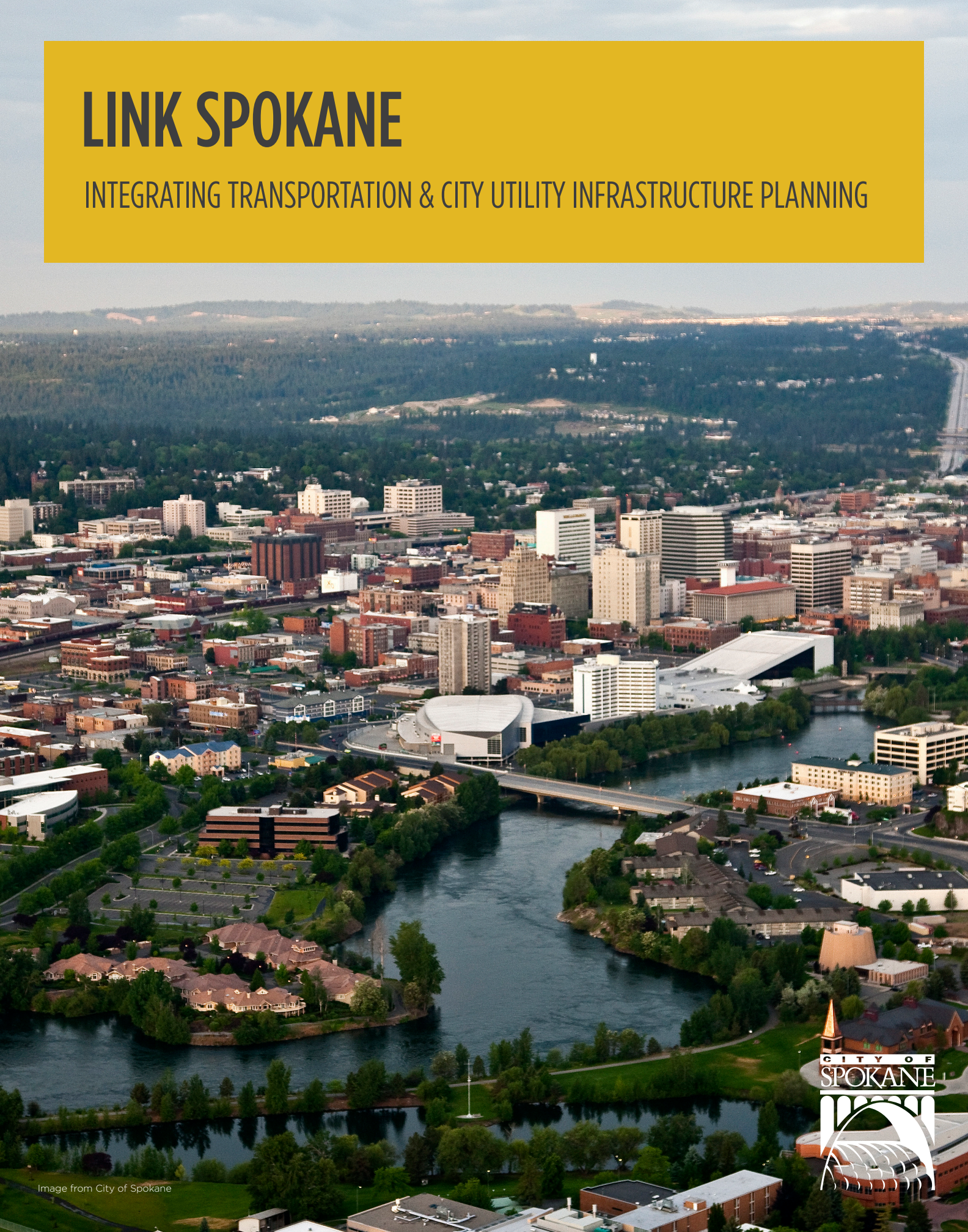


Image from City of Spokane

CITY OF SPOKANE

A MESSAGE FROM MAYOR CONDON

Source: City of Spokane

Maintaining the public infrastructure—from streets to sewer lines—that serves as our community backbone is one of the most important responsibilities of City government.

Probably for the first time, we have a real handle on the overall City infrastructure needs. We have developed a new Citywide Capital Improvement Program that identifies needs the City intends to address over the next six years from all our service areas. We've included transportation, utilities, parks, libraries, and public safety, for example.

From this base, we are already making decisions to identify ways to pay for our needs that are sustainable and affordable for citizens. To keep the Program current and useful for the future, we need to inform our decision making with long-term policies and a Comprehensive Plan that addresses maintenance needs, environmental regulations, and strategies to accommodate growth and economic development.

That's why we've embarked on this major update to our Comprehensive Plan chapter that deals with transportation and why we are expanding that chapter to include utility infrastructure. Streets are three-dimensional, and we must evaluate them and plan that way.

When I talk priorities with citizens, maintaining our street system is always near the top. Our citizens want safe, smooth streets that: provide seamless connections to the places they want to go; accommodate trips by car, bike, bus, or on foot; and enhance our neighborhoods and business districts.

As a City, we agree with those goals, but we also want to challenge our community to consider all the ways streets are used. Ultimately, we want to broaden the traditional definition of streets from one that just considers the variety of mobility uses to a three-dimensional view that also includes below-ground connectivity for fiber and power lines as well as public utilities like water, wastewater, and importantly, stormwater.

We have spent much of the year reevaluating our work to reduce overflows from combined wastewater and stormwater sewers to the Spokane River. We are on track to cut about $100 million in spending out of that program, in part by treating stormwater on site whenever we improve street infrastructure.

We are also planning to better meet public safety capital needs. In our 2014 budget process, we allocated the standard property tax increase of about $6 per $100,000 of assessed home value to start a much-needed replacement fund for police and fire vehicles. The approach will allow us to avoid asking citizens to fund an expensive bond for vehicles, which have a relatively short life compared to buildings or other public assets.

Taking this kind of "integrated" approach to our infrastructure investment just makes sense. Tear up the street one time, do all the work that's needed—above and below ground—once, and look for opportunities to create additional benefits. Improve parks, create safe routes to schools and community centers, establish an environment that encourages private investment and improved neighborhoods and alternative forms of transportation.

We'll get better results for fewer dollars. That's the kind of value our citizens deserve from their government. And one we intend to deliver.

LET'S LINK SPOKANE.

INTEGRATING TRANSPORTATION AND CITY UTILITY INFRASTRUCTURE PLANNING

ONE VISION, ONE PLAN

The Spokane Comprehensive Plan – The Plan of Spokane – ("The Plan") is the one unified document that coordinates and guides all the City's departments in terms of future growth and development. The Plan charts 20-years of coordinated efforts that link transportation, sewer, stormwater, economic development, and land use planning for our neighborhoods and business districts. It is our community roadmap.

As part of the larger planning process, Link Spokane (the integrated transportation and utility component of the Comprehensive Plan) will address the future needs of all transportation users, including autos, freight, transit, bicyclists, and pedestrians while identifying opportunities to leverage coordinated infrastructure improvements. This process will establish a single unified vision to ensure every public dollar supports our broader community goals. It will build upon recent successful efforts to leverage and coordinate all public investments.

THIS IS WHERE YOU COME IN.

We need your input, ideas, and priorities (see opportunities to get involved on the back cover) to help shape the Link Spokane vision. Once adopted, Link Spokane will be directly implemented by the City through coordinated and prioritized utility and transportation investments, engineering Design Standards (e.g. vehicle lane widths, sidewalks, bike lanes, landscaping, stormwater facilities), and day-to-day functions of the City. This brochure provides an introduction to Link Spokane's key opportunities, challenges, and draft goals. We invite you to look and see how you can get involved in this exciting process.

Source: Flickr.com/galleria_de_fan_bus


Image from City of Spokane

Innovative and cost-effective transportation options may provide Spokane with more options to safely move around the city.

WHAT'S LINK SPOKANE ABOUT?

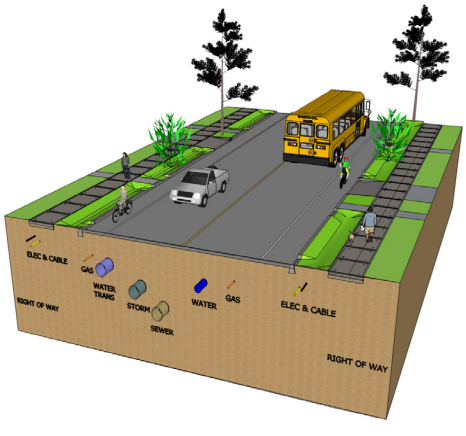
To guide and direct the process, the City has developed the following draft transportation goals for Link Spokane for public comment and input (integrated infrastructure and utility goals will follow in 2014):

- **Provide Transportation Choices**
- **Accommodate Access to Daily Needs & Regional Destinations**
- **Maximize Benefits with Integrated Public Investments**
- **Promote Economic Opportunity & Fiscal Responsibility**
- **Enhance Public Health & Safety**
- **Respect Natural & Neighborhood Assets**

IT'S ABOUT "MAKING SPOKANE THE CITY OF TRANSPORTATION CHOICE"

Draft Goal 1: Provide Transportation Options
Draft Goal 2: Accommodate Access to Daily Needs & Regional Destinations

Economically competitive cities across the country have come to realize that attractive and viable transportation options can help ease congestion, reduce the capital and maintenance costs of streets, attract new creative businesses and workers, and promote human health through active transportation. At the household level, families can save money at the gas pump and, potentially, shed their second or third vehicle by driving less.



IT'S ABOUT INTEGRATION

Draft Goal 3: Maximize Benefits with Integrated Public Investments

City streets provide connectivity for vehicles, goods, public transportation, people on bicycles, and pedestrians. Link Spokane provides an opportunity to think more broadly about how we can leverage our streets and transportation infrastructure with other City functions and projects to gain better results.

Consider a three-dimensional view of a street. Included in that view are the traditional surface transportation uses (sidewalks, bike lanes, car lanes), along with belowground connectivity for private utilities including natural gas, electricity, telecommunications, and public utilities including water, wastewater, and stormwater. In this view, streets serve multiple functions, both on the surface and below, and link the infrastructure that sustains our way of life.

With this more expansive view of the function of City streets, Link Spokane will take a holistic approach to infrastructure planning to identify opportunities to leverage coordinated investments, match those investments to the City's overall growth strategies, and to provide citizens the greatest value for their tax dollars.

The City already incorporated an integrated approach in recent projects (see Crestline Case Study). Projects have been developed that combine street rehabilitation with the addition of curbs, better bicycling facilities, water and sewer facility main replacement, and stormwater management features. The overall cost for such work is significantly lower than if the City had built these improvements separately. And, citizens are inconvenienced only once by construction.

"We are taking a commonsense approach to making lasting change for our community," says Rick Romero, the City's Utilities Division Director. "Streets and utilities go together, and it's time we started thinking about them universally." On the utility side, needs could include water and sewer main replacement, upgrades to pump stations and water storage tanks, bioretention areas and other facilities to manage stormwater, and work to improve the health of the Spokane River.

BEST PRACTICE: Low Impact Development

A bioswale is incorporated into a bike lane, removing only one parking spot, improving visibility for all road users, and managing water runoff.

The Street Edge Alternative pilot project in Seattle incorporates vegetated "soft edges," permeable parking strips, and street trees to manage runoff and calm traffic speeds.

Image from Nelson\Nygaard and Google Maps

Image from City of Spokane

Stormwater management on City streets keeps runoff and pollutants from entering the river.

LINK SPOKANE: A River Runs Through It

The Spokane River is one of our most treasured natural assets. To improve and protect the health of the River, City of Spokane will spend about $300 million over the next decade. This endeavor represents the largest infrastructure investment in the City's history.

The City is developing what's called the Integrated Clean Water Plan to manage stormwater and wastewater that affects the Spokane River. The Integrated Plan will prioritize projects based on their positive environmental impact to the river and help us achieve Clean Water Act requirements.

In particular, the plan will include work to improve treatment at the City's Riverside Park Water Reclamation Facility and reduce the amount of stormwater and wastewater entering the River without treatment. Today, some 54 million gallons of combined wastewater and stormwater enters the river through 20 discharge points from our combined sewer system annually. Another 1 billion gallons of untreated stormwater enters the river through separated storm drains, primarily located on the North Side.

Projects to reduce untreated discharges to the river from both separated storm sewers and combined sanitary and stormwater sewers are a big part of the effort. The work will include new green technologies for managing stormwater on site as well as more traditional "gray" storage tanks.

The Integrated Clean Water Plan includes three primary goals:

- We want a cleaner river, faster. Prioritize work with the greatest potential to reduce phosphorus, PCBs, heavy metals, bacteria from sewage, and other pollution going into the River.
- We want to implement cost-effective and innovative approaches. Spend dollars wisely and include "green" technologies like rain gardens, pervious pavement, and street trees as they make sense.
- We want holistic integration with the City's other critical infrastructure. The City is working to solve multiple problems when possible, leveraging the dollars spent to give citizens additional benefits, like improved streets, new water mains, and park improvements.

Before considering an integrated strategy, the City had expected to spend about $500 million on improvements at the Water Reclamation Plant and to reduce combined sewer overflows. Under this scenario, other sources of pollution to the river, including stormwater, wouldn't have been addressed.

The City was able to reduce the size of the program, in part, with a commitment to manage stormwater on site when reconstructing streets or making other infrastructure improvements—one of the ways that we will benefit from joint transportation and utility planning efforts. The stormwater can be managed using new cost-effective, green technologies.

The storm gardens on South Lincoln Street and the stormwater planters and pervious pavement on West Broadway Avenue are some examples of these strategies. Strategies that integrate transportation improvements and stormwater management technologies are being incorporated into Link Spokane.


Images from City of Spokane

IT'S ABOUT "FIXING IT FIRST"

Draft Goal 4: Promote Economic Opportunity & Fiscal Responsibility

Over the course of the 20th century, Spokane invested heavily in new transportation infrastructure to accommodate significant population growth and economic expansion. Many of these investments were structured around streetcar transit, a dense grid of streets, and providing access to former routes with a few bridges spanning the Spokane River. To this day, this network of streets, crossings and smaller blocks offers superior connectivity and circulation for cars, pedestrians, and bicycles alike.

To protect Spokane's investments in transportation and infrastructure, capital projects require regular maintenance and repair. Due to significant limitations in funding, many of Spokane's immediate and longer-term transportation maintenance needs are deferred. As a result, there is an estimated **backlog of $150 million** in deferred maintenance projects that continues to increase with each passing year. Even if these backlogged projects were to be completed, it is estimated that the City would still need to invest **$40 million annually** to properly maintain the system without creating future backlogs. The City currently has only $5 million per year available to invest in maintenance, meeting just over 10% of the total need.

To help overcome this imbalance and to better optimize the City's existing transportation investments, Link Spokane will take a stewardship approach to transportation investment where we "fix it first." Taking care of what we already have means prioritizing preventive maintenance, repair, and enhancement of existing roads, bridges, trails and other facilities.

Crestline construction demonstrates the City's integrated approach to projects, combining water main, stormwater management, and transportation aspects.

Image from City of Spokane

CASE STUDY: Crestline

Last summer, the City of Spokane put its new integrated approach to infrastructure investment to work on a 20-block section of Crestline Street on the South Hill.

The City needed to replace one of the 36-inch water mains that fill big water tanks serving a large portion of the citizens on the South Hill. There were a number of options, but the City selected Crestline because of the poor pavement condition of the street and the potential to create even more benefits for neighbors, commuters, and others who use this street.

The City took a three-dimensional, complete street approach to addressing Crestline. Elements that were visible and others that were located underground were considered.

Ultimately, the project was designed to include:

- Replacement of a 60-year-old, 36-inch steel water main from 37th to 57th avenues.
- Curb-to-curb rehabilitation of the street from 44th to 53rd avenues.
- Addition of shared bike facilities, sidewalks, and bioretention swales to manage stormwater along the 44th to 53rd avenue stretch.

"Crestline is the example of what we can achieve when we look at our projects holistically to provide multiple benefits," says Jan Quintrall, the City's Director of Business & Development Services. "Dollars are tight, and we must make sure we are using each one wisely to achieve the greatest result."

- Replacement of large-species trees that were planted under power lines with trees appropriate for the location.
- Participation by Spokane County to repair Crestline from 53rd to 57th avenues, outside the City limits.
- Coordination with private utilities to add or replace infrastructure.

The $4 million project was built with funding from a variety of sources. In the end, the City disrupted neighbors only once to provide the community with a superior project that provides multiple benefits at a significantly lower cost than if the projects had been done separately. The City saved taxpayers $1.2 million by combining the work into a single project.

IT'S ABOUT HEALTH & SAFETY

Draft Goal 5: Enhance Public Health and Safety

The City of Spokane is committed to the safety and security of every person and good that moves through its transportation system. Link Spokane will integrate national best policy and street design practices ensuring any investment leads to safer facilities.

Link Spokane will play a role in improving public health by expanding the viability of active forms of transportation. The connection between the built environment and physical activity is now well documented. People are better able to incorporate exercise (walk, bike, or take transit) in their daily lives if their routes are safe, convenient, and enjoyable. Link Spokane will provide the policy framework so that streets best suited for multimodal transportation improvements and integrated utility enhancements will be targeted for investments.

IT'S ABOUT LIVABLE STREETS

Draft Goal 6: Respect Natural and Neighborhood Assets

Choices...Integration...Fixing it First... Health & Safety...Water Quality... All of the opportunities and challenges listed above converge on one simple but powerful concept: Livable Streets. For the purposes of Link Spokane, Livable Streets represents an opportunity to protect, preserve and enhance our natural (e.g. water resources, open spaces) and social assets (e.g. neighborhood character, business district vitality) through an integrated approach to transportation and infrastructure planning. Offering viable transportation options will help reduce neighborhood traffic and encourage active means of getting around. A focus on integrated infrastructure projects and maintenance will limit disruptions to residents, take advantage of what we have already built, improve water quality, and save public dollars in the long-term. Updated standards for how we design streets will address all of these objectives while continuing to incorporate the needs of drivers, transit, emergency vehicles, retail and commercial businesses, neighborhood residents, freight, bicyclists, pedestrians, and utilities including stormwater facilities.

BEST PRACTICE: Road Diets

A road diet is a street improvement that reduces the width or number of travel lanes in order to accommodate other facilities such as stormwater drainage or other non-automobile streets uses. Road diets are often achieved by converting a 4-lane street into 2- or 3-lanes plus bike lane and/or a center turn lane. This reduces crossing distances, vehicle speeds, and the number of travel lanes pedestrians must negotiate when crossing.

Fourth Plain Blvd in Vancouver was recently converted from four general travel lanes to two travel lanes, a left-turn lane, and bike lanes. The road diet dramatically improved safety, bicycle and pedestrian conditions, and traffic efficiency.

Images from City of Vancouver, Washington via FHWA

South Perry Neighborhood Center Revitalization

Beginning in the early 2000s, the South Perry streetscape project was initiated by the neighborhood to improve the historic Perry Street Business Center. The neighborhood, working with the City, designed a streetscape revitalization program that included new sidewalks, transit shelters, street trees, pedestrian lighting, and seating. The streetscape improvement and traffic revisions have helped to create an inviting and safe environment for shoppers and residents that has balanced all transportation modes, for automobiles, transit riders, bicyclists, and pedestrians.

This reinvigorated neighborhood business area offers services within walking distance for many residences. New specialty shops have helped South Perry become a destination for customers citywide. Events such as the South Perry Street Fair celebration continue to build upon the momentum started by the new streetscape improvements.

9th and Perry Street Business District revitalization was a joint effort between the City, residents, and business owners. The result: safer streets, improved access to businesses, and increased vibrancy.

Image from City of Spokane

GETTING AROUND SPOKANE TODAY

Spokane has a population of over 209,000 people and some 120,000 employees living and working on just less than 60 square miles. Spokane remains an important transfer and shipping point for the region's natural resource economy including mining, logging, wood products, and agricultural industries. Increasingly, health care, high-tech, and biotech companies are locating in the city, diversifying and bolstering the economy.

Bisected by the Spokane River and buffered by bluffs, geography has shaped the City. Whereas the outskirts of the city have larger lots and streets with limited connectivity, the core of the city features a street grid with a mix of residential and commercial uses.

MANY PARTS, ONE TRANSPORTATION SYSTEM

Spokane's transportation system is comprised of a diverse array of investments; together they represent one of the City's greatest assets in public infrastructure. The system allows us to get to work, run errands, access daily needs, locate utilities, and move goods and materials through the region. Take a minute to think about how the transportation system benefits you.

Our transportation infrastructure includes sidewalks; bicycle trails, lanes and paths; local streets and state highways; the Spokane Transit Authority bus routes, transit stops, park and rides, the Plaza bus terminal; freight facilities for trucks and rail and designated freight routes; Spokane International Airport; and the Amtrak and Greyhound station.

BEST PRACTICE: Multimodal Safety Improvements

A pedestrian-friendly "porkchop" islands along a major arterial near Denver instructs drivers to yield to pedestrians and people on bicycles and allows safer crossing (left photo).

An excess travel lane was removed from this bridge to allow room for people on bicycles and on foot without building new and expensive sidewalks (right photo).

Images from Nelson\Nygaard and flickr.com/citymaus

SPOKANE BY CAR

For many, getting around Spokane by car isn't difficult or stressful. It's an everyday occurrence and things move pretty smoothly, even during rush hour. There are some slow-downs on I-90, along some major roads and bottlenecks at bridges, but generally speaking, Spokane has been referred to as a "20 minute city". That is, one can often get to where he or she wants to go in less than 20 minutes.

SPOKANE BY TRANSIT

Spokane Transit Authority (STA) is a critical component of the region's transportation system. STA connects the region with 34 bus routes, 128 buses, and 1,752 bus stops. In 2012, STA provided more than 11 million trips in the region. If this service were not available, imagine 11 million additional trips being made by car every year!

Routes radiate throughout the city and region. The most popular routes, like Sprague and Division, have buses available every 15 minutes throughout the day while others run every 60 minutes or less. If a bus stop is not within walking distance, you can ride your bike to the nearest stop or drive to one of 12 park and ride locations. STA offers a range of transit stop amenities, but only six percent are currently sheltered.

Spokane's major frequent routes make "hub and spoke" connections to other bus routes throughout the city. Travelers that aren't on these frequent corridors may face longer travel times, and have less flexibility in how and when they travel by transit.

Making Transit a Viable and Attractive Choice

Today, less than three percent of region commutes to work by transit. This may change as STA, the City, and SRTC plan to expand the high performance transit network.

Because transit operates on City streets, the City of Spokane plays a vital role in keeping transit operating fast and reliably.

FREIGHT MOVEMENT IN SPOKANE

The movement of goods by freight trucks, trains, and planes is vital to the economic success of Spokane. It is also important to balance this movement of freight with the needs of a safe, livable community.

More than half of Spokane's freight is moved by truck, about 40% is moved by rail, and the remainder moves by airfreight. Freight moving through the city and local deliveries are vital

BEST PRACTICE: Roundabout

Roundabouts, especially one-lane roundabouts, have been shown to increase safety because they 1) reduce conflicts compared to a typical four-leg intersection 2) encourage lower and more consistent speeds, since drivers are not rushing to beat the light and 3) have splitter islands allowing pedestrians to cross one direction of traffic at a time. Since there are no traffic signals to maintain, roundabouts can reduce operations costs by $5,000-$10,000 per year.

Image from Wikipedia

BEST PRACTICE: Transit Innovations

Cities around the country are employing innovative forms of transit to efficiently and cost-effectively move people. Bus rapid transit (BRT) offers most of the services of rail service while being significantly less expensive. The EmX BRT runs along the median of major arterials in Eugene and Springfield, OR, offering faster, higher-quality service for commuters, students, and visitors.

A multimodal transit node in Minneapolis includes rapid bus service stations and a bike share station.

Images from Nelson\Nygaard

BEST PRACTICE: Pedestrian Connections

Cul-de-sacs and other dead end streets can be improved by designing small cut-throughs for cyclists and pedestrians.

The City of Olympia's Neighborhood Pathways Program links neighborhoods through bicycle and pedestrian paths.

Image from City of Olympia

BEST PRACTICE: Neighborhood Greenways

Neighborhood greenways are intentionally designed as pleasant streets for people to walk and bike along. They include features that manage auto speeds and limit auto cut-through traffic (a popular feature for residents), while expanding stormwater runoff capacity for cities with major or prolonged rain events.

Images from Nelson\Nygaard

components of our local and regional economy. For freight passing through Spokane, major freight corridors are necessary to expedite the movement of goods and to concentrate heavy vehicle circulation on urban streets. In Spokane, the major freight corridors are North Market Street, North Greene Street, North Freya Street, and I-90. We need to balance local freight streets in such a way that respects the needs of goods movement, while maintaining safety and comfort for other users.

SPOKANE BY FOOT

Most of the trips we make involve some walking even if it is just walking from a parking space to the office. We walk for exercise, to access local services, and to get from point A to B. To that end, we all need a safe, comfortable, and accessible pedestrian network.

The pedestrian experience is not the same in all parts of our city. Downtown, the University District, and many other Spokane neighborhoods already support a comfortable walking experience. In these areas, there are destinations within walking distance, short blocks, wide sidewalks, traffic buffers, and shade trees. In other parts of the city, such as parts of North Division, sidewalks exist but they are narrow, adjacent to high speed traffic, and don't provide buffers from moving traffic. Some parts of the city have few or no sidewalks. Conflicts arise where there are no sidewalks, automobile speeds are high, streets have more than two lanes, and distance between marked crosswalks are long.

What's in the Pedestrian Network?

Sidewalks, crosswalks, buffer areas between sidewalks and roads, wayfinding, and pedestrian crossing signals all contribute to the pedestrian network and frame the walking experience (i.e., whether you feel safe, comfortable, and welcomed).

By the numbers, we need some work. Only one-third of Spokane's streets have sidewalks, many of which are in poor condition. The need to expand the sidewalk network is great, and the City has prioritized sidewalk construction and rehabilitation.

SPOKANE BY BIKE

Bicycle commuting is gaining popularity in Spokane; in 2010, 125% more people were commuting by bicycle than in 2000. While an impressive gain, commute trips are just a small part of people's daily travel needs.

What does Spokane's bicycle network offer? Components of a bicycle transportation network include well-maintained bike lanes, off-street shared use paths, signed shared roadways, wayfinding signs, and calmer low-speed residential streets parallel to busy streets, supported by convenient bike parking and other end-of-trip amenities. Spokane's current bicycle network is limited and lacks some important connections, but it is growing! Only 2.5% of the 1,000 miles of paved streets within the city limits have designated bike lanes. Throughout Spokane County there are about 190 miles of paved bike lanes and paths, including the 37-mile Centennial Trail. Neighborhood bike routes, like the Addison Street bicycle route, provide parallel, alternative connections to riding on busy arterial streets.

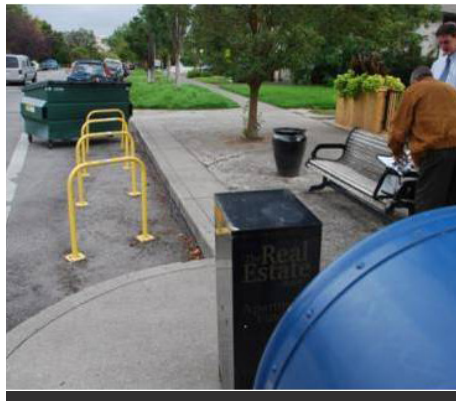
Image from City of Spokane

WHY IS A BALANCED MULTIMODAL TRANSPORTATION SYSTEM APPROACH IMPORTANT?


Image from Nelson\Nygaard

Spokane's historic investment strategy has led to streets designed primarily for automobiles and an excess of paved area. This has become a financial burden for the City to maintain and meet current and future storm-water regulations. One question Link Spokane will address is how we can use an integrated approach to build or repurpose our streets. The City is examining opportunities to "right size" streets based on their local land use and transportation context. The City seeks to balance the needs of different users along its streets, while carefully studying whether major traffic streets like Hamilton and Grand can be efficiently turned into integrated Livable Streets.

Garland is an excellent local example of a street that balances mobility choice while supporting economic and social use. Providing mobility options should not diminish the ability of streets to support the social, economic, environmental, and recreational functions of the public realm. This more balanced approach can safely move all users of the transportation system, while demonstrating fiscally responsible use of resources and adding lasting value to Spokane's neighborhoods, adjacent land uses and open spaces, and the broader transportation system. **Please see the back cover to learn more about how you can become involved.**



Streets should ensure the choice to navigate Spokane by car, transit, bike, or on foot, while providing space for storage, repose, greenspace, and CSO facilities.

Image fom Studio Cascade

HOW CAN YOU GET INVOLVED IN LINK SPOKANE?

Find out the latest news on the project website:
www.spokaneplanning.org/link.html

Like us on Facebook **www.facebook.com/spokanecity**

Follow us on Twitter **@SpokaneCity**

Stop by a drop-in workshop			Watch and call-in
Tuesday February 4th 4:00 to 6:30 PM NorthTown Mall Division St. Entrance Level 1	Wednesday February 5th 12:00 to 6:30 PM Southside Christian Church 2934 E 27th Ave	Friday February 7th 11:30AM to 6:30 PM River Park Square Street Level	Council Connection on City Cable 5 Thursday February 6th 6:00-7:00 PM

More details on the website or by calling **509-625-6146**.

CITY OF SPOKANE

Image from City of Spokane