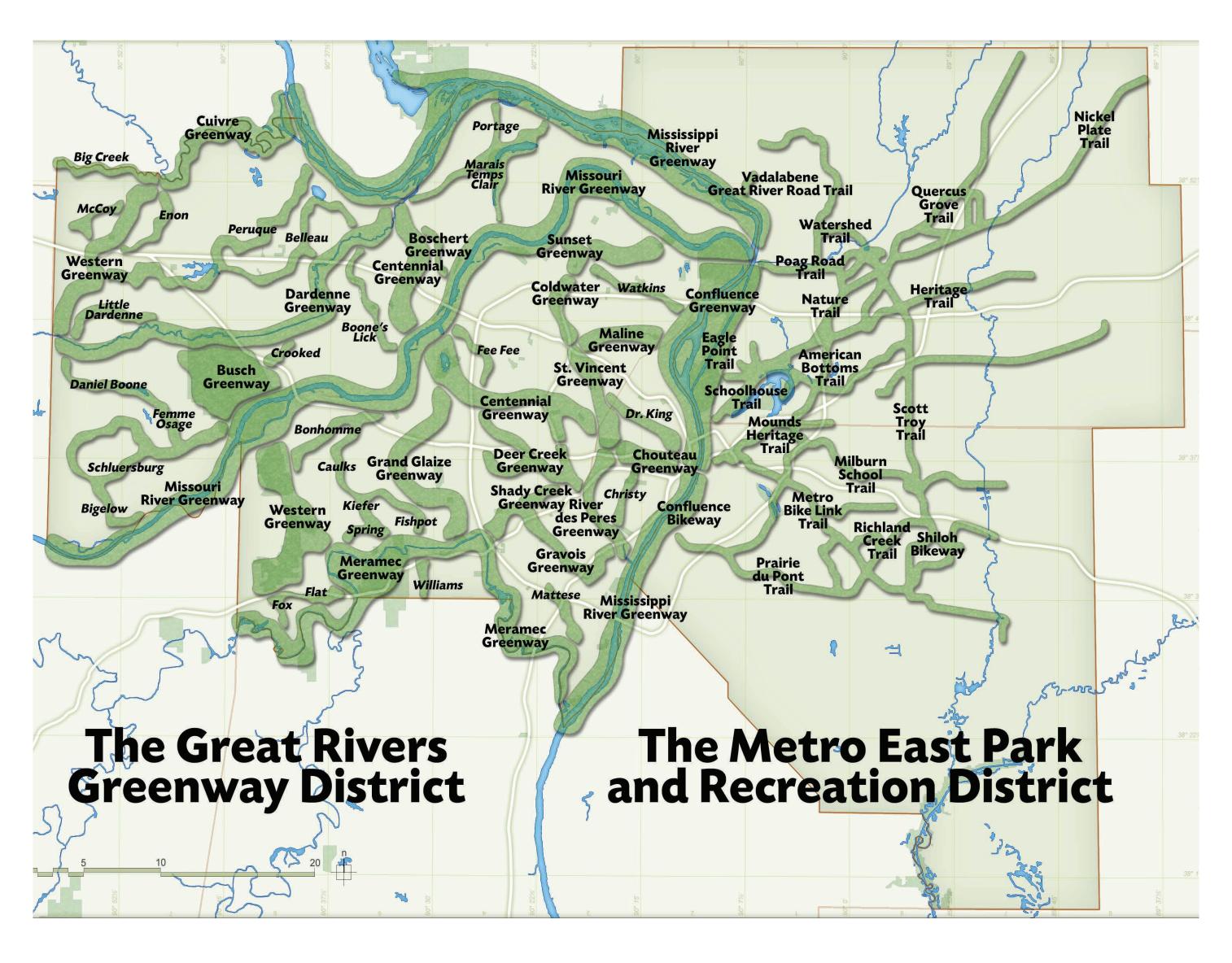


# GREAT RIVERS GREENWAY

The Great Rivers Greenway District was created in November 2000 with the passage of the Clean Water, Safe Parks, and Community Trails Initiative ("Proposition C") in St. Louis City, St. Louis County, and St. Charles County. The District is working to create a clean, green and connected St. Louis Region through the development of the River Ring: an interconnected system of parks, trails, and greenways that link communities and provide economic, social, and environmental benefits for the region. The District is funded by a 1/10th of 1 cent sales tax approved in 2000 as well as Proposition P, approved in 2013 with a 3/16th of 1 cent tax increase, in St. Louis City and County.



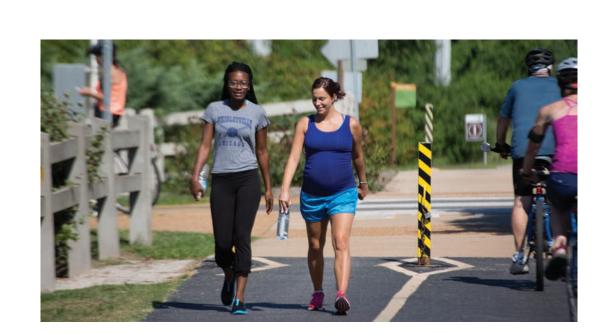
Since 2004, the District has been guided by its original framework plan, Building the River Ring. The conceptual plan proposed an interconnected web of 45 greenways, encompassing over 600 miles of trails that will encircle the Missouri portion of the region. Great Rivers Greenway coordinates with the Metro East Park and Recreation District to improve connections over the Mississippi River, to promote a unified trail network, and symbolically connect communities and residents to strengthen the St. Louis region.

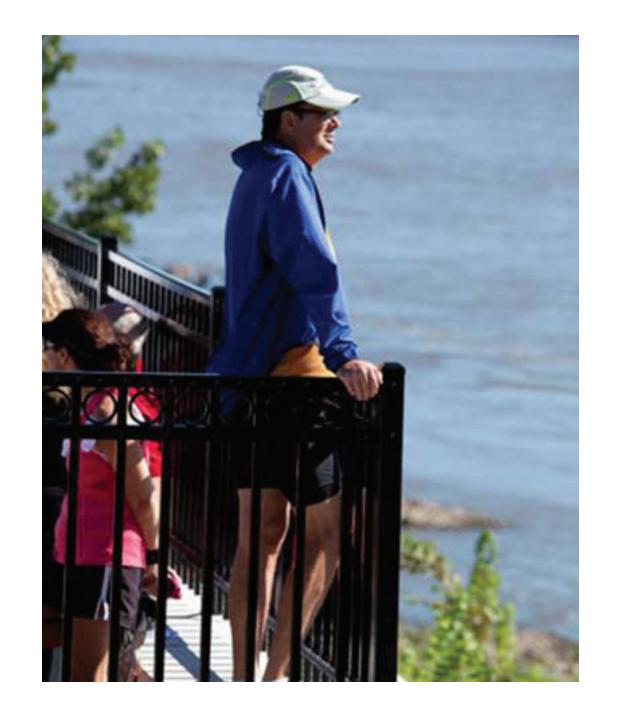
#### **Great Rivers Greenway is making** the St. Louis Region a better place to live by:

- 1. Connecting Communities and Neighborhoods
- 2. Promoting Good Health
- 3. Preserving and Connecting People to Nature
- 4. Providing Transportation **Alternatives**
- 5. Promoting Regional Economic **Vitality**

















# BENEFITS OF BICYCLING



#### **HEALTH BENEFITS**

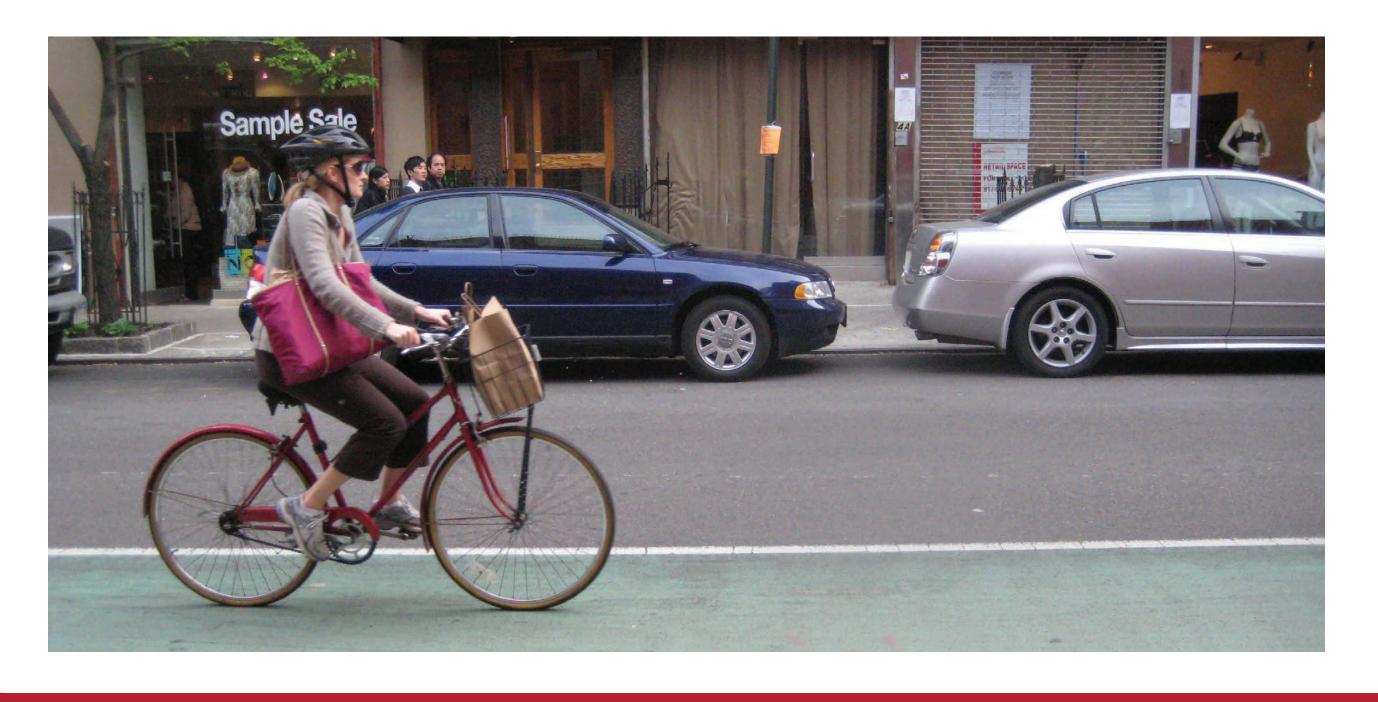
- An increase in bicycling can reduce the risk of coronary heart disease, heart attacks, diabetes and associated complications, obesity, and osteoporosis.
- Bicycle commuting provides similar health benefits to gym-based exercise, but studies have shown that bicycle commuting is easier to sustain over the long-term than gym-based exercise programs.
- Bike commuters miss less work due to illness each year than their counterparts.
- Cities with higher bicycling rates generally show a much lower risk of fatal crashes for ALL road users, including motorists and pedestrians, when compared to other cities.

#### **ECONOMIC BENEFITS**

- The 400,000 visitors to the KATY Trail have a total economic impact of over \$18 million per year, which supports 367 jobs with a total payroll of more than \$5 million.
- Bicyclists and pedestrians spend more money in downtowns and local business districts than those who drive.
- Replacing a car trip with a bike saves individuals and society an estimated \$2.73 per mile.
- Adding 30 minutes of daily cycling can save individuals \$544 in annual medical costs.
- The average annual cost of operating a sedan is \$9,122, compared to just \$120 to operate a bicycle.
- Improved walking and cycling conditions can increase local property values and support local development, an indication of the value that residents and customers place on these qualities.







# www.pedbikeimages.org / Adam Darin

#### **ENVIRONMENTAL BENEFITS**

- The transportation sector accounts for nearly 30% of all energy consumed in the United States. A 1% shift from automobile to active travel can reduce fuel consumption by 2-4%.
- Transportation is responsible for nearly one third of carbon dioxide and 80% of carbon monoxide emissions in the United States. Replacing short trips with bicycling and walking can help reduce these figures.
- •60 percent of the pollution created by automobile emissions happens in the first few minutes of operation, before pollution control devices can work effectively. Since "cold starts" create high levels of emissions, shorter car trips are more polluting on a per-mile basis than longer trips.
- A short, four-mile round trip by bicycle keeps 15 pounds of pollutants out of the air we breathe.











# BIKE ST LOUIS PHASE 3 GOALS



# 

Update existing Bike St. Louis facilities to meet current standards and best practices for bicycle facility design.



# 

Where feasible, upgrade existing Bike St. Louis facilities to provide a greater level of safety, comfort, and service.



# 

Expand the Bike St. Louis network to improve access and connectivity to destinations throughout the City.



# 

Improve safety for all roadway users by identifying and addressing high-crash intersections and corridors.









# BIKE ST LOUIS PHASE 3 PROCESS



# PROJECT START

- Review bicycling network in St. Louis
- Review Gateway Bike Plan
- Assess current cycling needs



## EVALUATION

- Evaluate current condition of existing Bike St. Louis routes
- Determine design-related issues and opportunities



# CREATE ADVISORY COMMITTEE

- Invite citizens and officials representing key stakeholder groups, including commuters, recreational cyclists, businesses, SLMPD, MoDOT, Streets Department, and other relevant agencies
- Convene this group to provide feedback and input on current routes, proposed routes, and design changes



# GATHER PUBLIC INPUT

- Develop public survey
- Host open house
- Provide project information on the Great Rivers Greenway and Bike St. Louis web sites



### FINALIZE DESIGN

- Finalize design details
- Develop cost estimates
- Develop contract specifications



# IMPLEMENT DESIGN

- Implement design plans
- Construction management, oversight, and documentation

# 







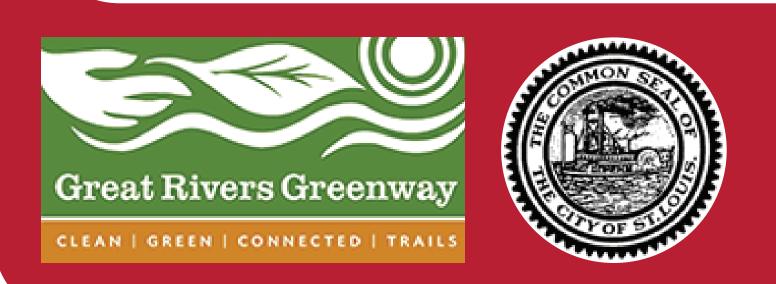






2013

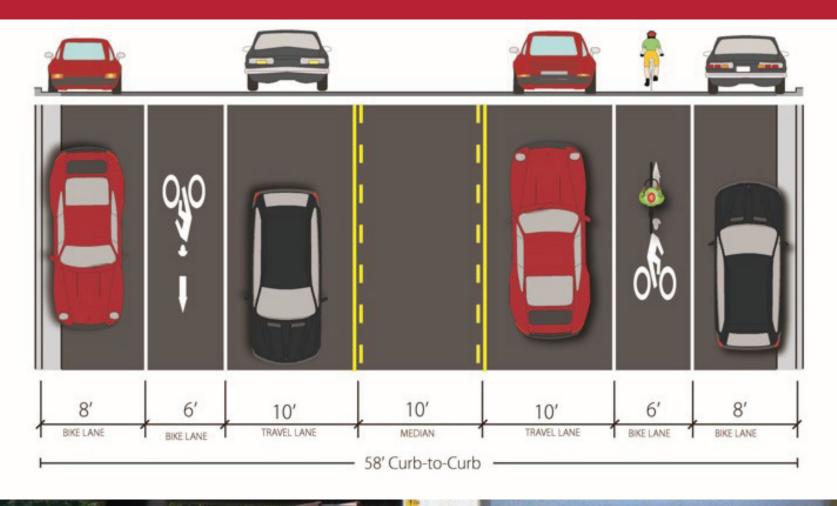
2014





#### **BIKE LANE**

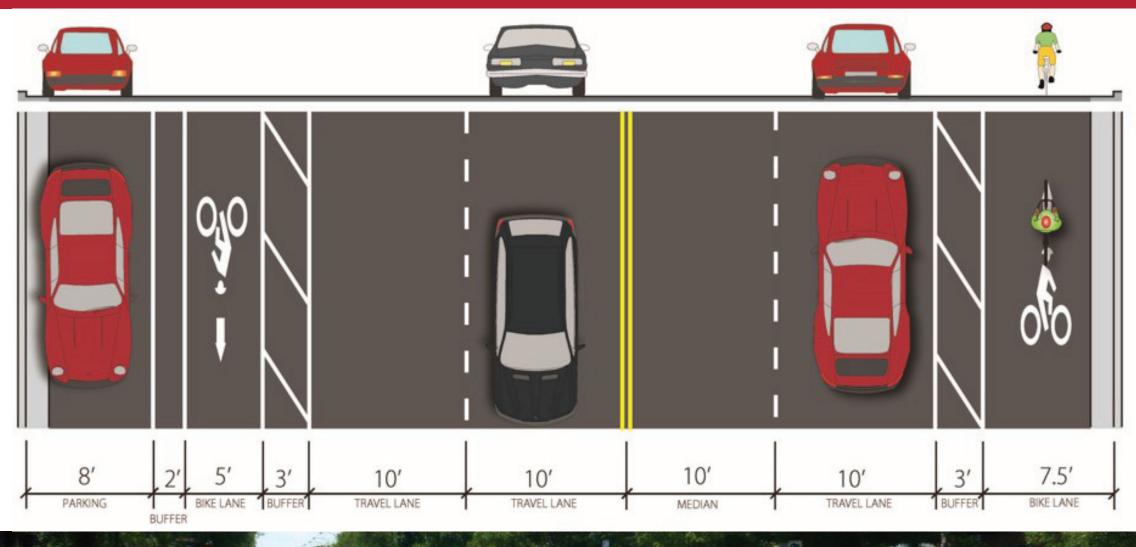
Designated exclusively for bicycle travel, bike lanes are separated from vehicle travel lanes with striping and pavement stencils. Bike lanes are most appropriate on arterial and collector streets where higher traffic volumes and speeds warrant greater separation. Bike lanes also increase safety and reduce wrong-way riding.





#### **BUFFERED BIKE LANE**

Bike lanes on high-volume or high-speed roadways can be dangerous or uncomfortable for cyclists, as automobiles pass or are parked too close to bicyclists. Buffered bike lanes are designed to increase the space between the bike lanes and the travel lane, parked cars, or both.





#### CYCLE TRACK / PARKING PROTECTED BIKE LANE

Protected cycle tracks are on-street bikeway facilities that provide the safety and comfort of multi-use paths within the road right-of-way. This is accomplished by combining a painted buffer with a physical barrier such as flexible bollards, a landscaped buffer, or a parking lane. The added protection further separates motor vehicles and bicyclists where travel speeds and/or motor vehicle traffic volumes are high. This type of facility appeals to a wider range of bicycle users than a conventional bike lane.



#### SHARED LANE MARKINGS

Shared lane markings (SLMs), also known as "sharrows", are often used on streets where bicycle facilities are desirable but motor vehicle speeds and volumes do not necessitate a seprated bikeway. Such markings delineate specifically where bicyclists should operate within a shared vehicle/bicycle travel lane. They must never be used as a replacement for bike lanes on high-speed or high-volume roadways.



#### **NEIGHBORHOOD GREENWAY**

Neighborhood greenways are low-volume, low-speed streets modified to enhance bicyclist by using treatments such as signage, pavement markings, traffic calming and/or traffic reduction, and intersection modifications. These treatments allow through movements of bicyclists while discouraging similar through-trips by non-local motorized traffic.





# BIKEWAY FACILITY TYPES





#### **NEIGHBORHOOD GREENWAY**

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#### **BIKE LANE**

Designated exclusively for bicycle travel, bike lanes are separated from vehicle travel lanes with striping and pavement stencils. Bike lanes are most appropriate on arterial and collector streets where higher traffic volumes and speeds warrant greater separation. Bike lanes also increase safety and reduce wrong-way riding.





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#### CYCLE TRACK / PARKING PROTECTED BIKE LANE

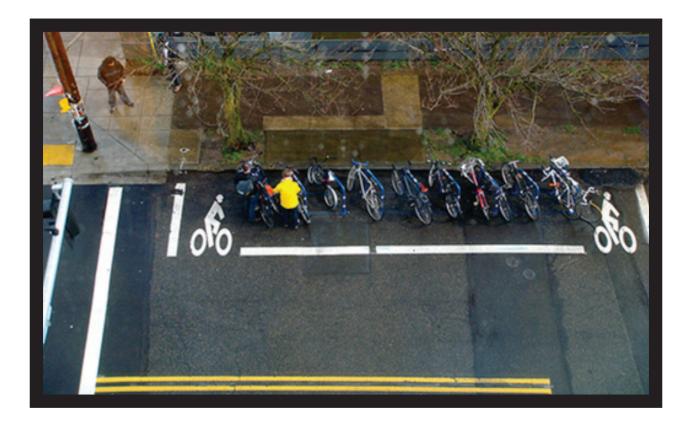
Parking protected bike lanes and cycle tracks are on-street bikeway facilities that provide the safety and comfort of multi-use paths within the road right-of-way. This is accomplished by combining a painted buffer with a physical barrier such as flexible bollards, a landscaped buffer, or a parking lane. The added protection further separates motor vehicles and bicyclists where travel speeds and/ or motor vehicle traffic volumes are high. This type of facility appeals to a wider range of bicycle users than a conventional bike lane.





#### **ROAD DIET**

Most major streets are characterized by conditions (e.g., high vehicle speeds and/or volumes) for which dedicated bike lanes are the most appropriate facility to accommodate safe and comfortable riding. Although opportunities to add bike lanes through roadway widening may exist in some locations, many major streets have physical and other constraints that would require street retrofit measures within existing curb-to-curb widths. These so-called "road diets" can involve narrowing travel lanes, reconfiguring lanes, and/or reducing on-street parking to accommodate bicycle facilities



#### **BIKE CORRALS**

Bicycle corrals (also known as on-street bicycle parking) consist of bicycle racks grouped together in a common area within the street traditionally used for automobile parking. Bicycle corrals are reserved exclusively for bicycle parking and provide a relatively inexpensive solution to providing high-volume bicycle parking. Bicycle corrals can be implemented by converting one or two on-street motor vehicle parking spaces into on-street bicycle parking. Each motor vehicle parking space can be replaced with approximately 6-10 bicycle parking spaces.







|PLANNING + DESIGN

# BICYCLE FACILITY TYPES



#### BIKE ST LOUIS - PHASE 3 OLIVE BLVD VERNON AVE CLEMENS AVE DELMAR BLVD WASHINGTON FORSYTH BLVD PORTLAND PL FORSYTH WESTMORELAND PL WYDOWN BLVD HOWARD WYDOWN CLAYTON RD LOCUST LACLEDE CLAYTON DALE AVE E BERTHOLD AVE DALE WADE AVE AVE WELL DALE AVE PLATEAU AVE BLAINE AVE MC REE AVE LAFAYETTE AVE SHAW BLVD SHAW WILSON AVE RUSSELL BLVD DUGAN AVE FLORA PL RUSSELL BOTANICAL A FLAD AVE MANCHESTER RD ODELL ST HOFFMAN AVE MAGNOLIA ARSENAL JUNIATA ST KEMPER AVE JUNIATA ST W BRADLEY AVE ARTHUR AVE JUNIATA ST MAURICE AVE CONNECTICUT ST HANCOCK AVE ARTHUR AVE HANCOCK AVE WYOMING ST FYLER AVE UTAH ST POTOMAC ST THOLOZAN AVE OLEATHA AVE FAIRVIEW AVE MIAMI ST MIAMI ST POTOMAC ST CHEROKEE LINDENWOOD CT OLEATHA AVE O MIAMI ST WINONA AVE THOLOZAN AVE WINONA AVE BECK AVE WINNEBAGO ST BANCROFT AVE LANSDOWNE MURDOCH AVE PHILLIPS AVE DUNNICA AVE KEOKUK ST ALBERTA ST DELOR ST EICHELBERGER ARSENAL ISLAND **LEGEND** Existing Bike St. Louis On-Street Bicycle Network Proposed Bike St. Louis Phase 3 **Existing Multi-Use Trail GRG** Great Rivers Greenway CLEAN | GREEN | CONNECTED | TRAILS PLANNING + DESIGN



### BIKESHARING

#### HAVE YOUR SAY ON BIKE SHARING IN ST LOUIS!

Cycling in St. Louis is on the rise. The number of bicycle facilities has increased and bicycles are an increasingly convenient way to get around town. In the last ten years, more than 80 miles of on-street bikeways have been installed in the City of St. Louis. Bike St. Louis Phase 3 will add an additional 40 miles of new, interconnected bikeways, while also updating and upgrading more than 60 miles of existing bikeways. Great Rivers Greenway and the City of St. Louis are continually working to make bicycling a safe, comfortable, and convenient transportation choice in St. Louis. A bike share system may help make bicycling even easier, but such a big investment will require careful research to determine if bike sharing can be successful in St. Louis.



Bike share bikes look different from other bikes for a number of reasons. Their sturdy frame and upright handlebar position provide a comfortable ride for a variety of users. Most bikes come equipped with a basket for groceries, a bag, a purse, or other items. Many bikes are built with unique components that are not compatible with other bikes, which helps deter theft.





#### WHAT IS BIKE SHARE?

Bike share is a network of hundreds of bicycles docked at self-service kiosks that allow short, one-way trips from one location to another. Riders can purchase a daily, weekly, or yearly membership then check out a bike, ride to their destination, and return the bike to any other kiosk. This makes bike share a convenient transportation mode, especially for short daily trips.





