# STATE OF THE INFRASTRUCTURE

JANUARY 2025

# Acknowledgements

Would like to extend a sincere appreciation to the dedicated City staff, whose commitment and expertise once again have been instrumental in the development of this State of the Infrastructure report. Their insights, data collection efforts, and collaborative spirit have greatly enriched the accuracy and comprehensiveness of the report's findings. Their contributions reflect a shared commitment to the betterment of our city's infrastructure and the quality of life for those who live, work, and play here.

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*"Fort Collins is widely recognized as an innovative city, building new and exciting projects for our community. It's equally important that we prioritize taking care of the assets that we build for years to come. The annual State of the Infrastructure Report helps us keep our focus on maintenance prioritization."*

– Drew Brooks
Deputy Director of PDT

# Executive Summary

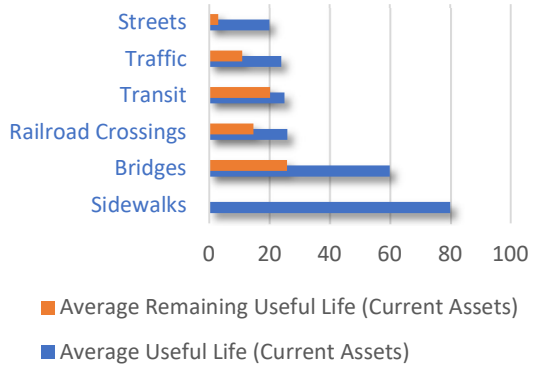
This Planning, Development, and Transportation State of the Infrastructure report provides an overview of the transportation infrastructure in our local government, focusing on replacement value, condition, and financial needs. To continue to meet expected levels of service, it is important to understand the current state of the assets.

The asset management plans define more detail around risk management and future demand management.

## This Year's Highlights

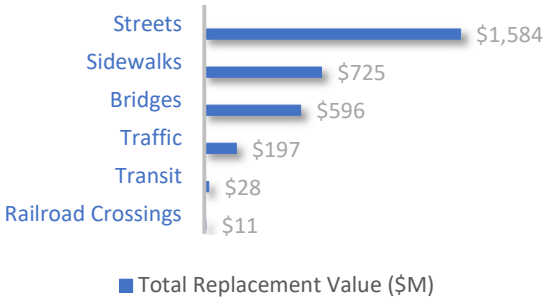
- Bridge good ratings decreased by 1%.
- Railroad crossings poor and very poor ratings increased significantly.
- % of missing sidewalks in low-income census tracts decreased.
- Streets good rating decreased by 2%.
- Traffic good ratings increased by 2%
- Bus Stop very good ratings increased by 1%.

The key asset indicators of replacement value, remaining useful life, condition, and financial need provide a high-level overview to help decision makers better understand the overall health of our transportation assets.



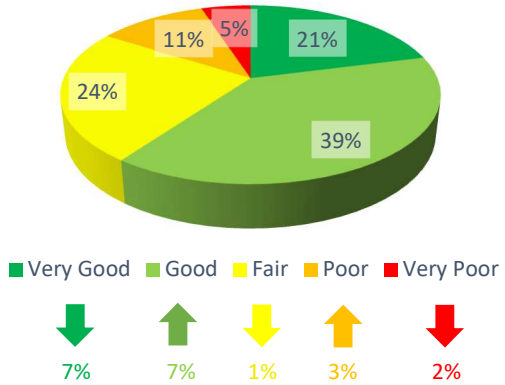

The replacement value analysis reveals the estimated cost of replacing existing transportation assets with equivalent infrastructure. It serves as a benchmark to gauge the value of our transportation system and its importance to our community's economic vitality and quality of life. The report presents the replacement value figures for bridges, railroad crossings, sidewalks, streets, traffic operations, and transit elements.

## $3.1 BILLION




Assessing the condition of our transportation infrastructure is essential for effective planning and decision-making. The report provides an evaluation of the condition of the various transportation assets. The assessment helps prioritize maintenance and repair efforts to ensure the safety, reliability, and efficiency of our transportation networks.

## Infrastructure Assets Average Condition State



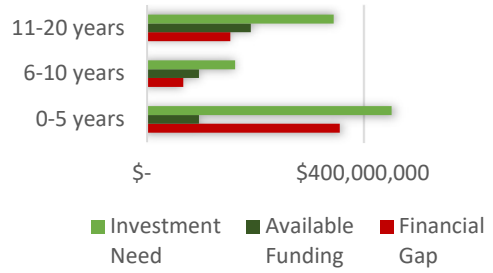

Understanding the financial needs of our transportation infrastructure is crucial for budgeting and securing adequate funding. It

highlights the funding gaps and emphasizes the importance of sustainable revenue streams to ensure the long-term viability of our transportation system.

By analyzing replacement value, condition, and financial needs, this report underscores the importance of strategic investment in our transportation infrastructure. It serves as a call to action for increased funding, efficient resource allocation, proactive planning to address the challenges and opportunities ahead, and improve the overall quality of life for our residents.

To effectively meet the transportation needs of our community, it is vital to prioritize maintenance and repairs, leverage innovative technologies and design practices, and foster

## Investment Summary ($M)




collaboration among stakeholders. By adopting a comprehensive and forward-thinking approach, our local government can ensure a resilient, efficient, and sustainable transportation system that meets the needs of our evolving community for years to come.


**Condition State**

Very Good Good Fair Poor Very Poor

# Introduction

## 1.1 Purpose

Transportation services are a vital part of daily life and business for the Planning, Development, and Transportation division for the City of Fort Collins. The purpose of the report is to assess and communicate the current condition, performance, and needs of the City's transportation network.

This report serves several important purposes:

**Evaluation:** It provides an evaluation of the state of transportation assets, including bridges, railroad crossings, sidewalks, streets, traffic, and transit infrastructure. This review helps identify areas of concern, such as deteriorating infrastructure, life expectancy, or financial constraints.

**Planning:** The report aids in strategic planning by informing decision-makers about the current and projected needs of the transportation system. It helps prioritize investments, maintenance efforts, and capacity expansions based on the assessed condition and performance of the assets.

**Prioritization:** By highlighting the state of the assets, the report will support prioritization of limited resources. It assists in allocating budgets effectively, focusing on critical repairs or replacements, and ensuring that investments address the most pressing issues impacting the transportation system.

**Funding and Investment:** The report provides a review of the financial sustainability of the transportation infrastructure. It identifies the funding gaps and the potential need for additional revenue sources.

- What assets does PDT own?
- What is the replacement value of those assets?
- What is the remaining useful life of the assets?
- What is the condition of the assets?
- What funding is needed to maintain level of service?

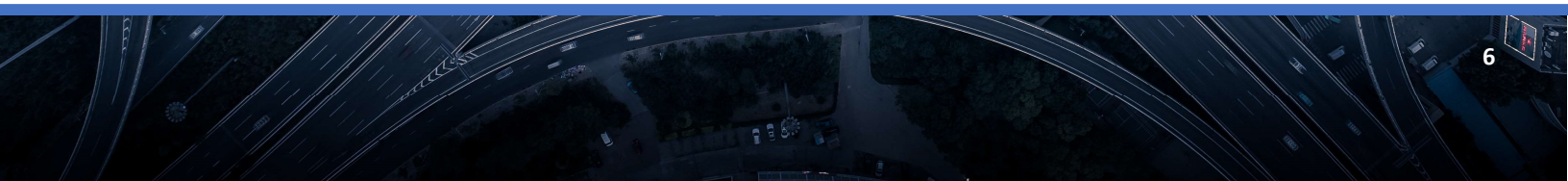
**Public Awareness:** Sharing the state of transportation assets with the public raises awareness about the condition and performance of the infrastructure that directly impacts their daily lives. It helps citizens understand the challenges faced, the need for investment, and the potential consequences of neglecting infrastructure maintenance and improvements.

**Accountability and Transparency:** The report promotes accountability by providing a comprehensive and transparent assessment of the transportation system. It holds responsible parties accountable for maintaining and improving infrastructure while allowing stakeholders to track progress over time.

Overall, the purpose of a transportation asset State of the Infrastructure report is to provide a clear and comprehensive picture of the transportation system's condition, identify areas for improvement, inform decision-making, advocate for funding, and ensure the efficient and sustainable operation of the infrastructure.

## 1.2 Scope

This report focuses on the six primary transportation asset categories and their associated data. Please note this report does not include assets managed by other City service areas or other transportation assets managed by City partners (i.e., Downtown Development Authority (DDA), CDOT).



# State of the Assets

## 2.1 What We Own

The PDT division manages numerous amounts of transportation assets* which support stakeholder's levels of service. The following is a highlight of the transportation assets:

**BRIDGE NETWORK**
- 93 Major Bridges
- 135 Minor Bridges
- 91 Less than 4' Bridges

**STREET NETWORK**
- 122 miles of arterial roads
- 93 miles of collector roads
- 388 miles of local roads

**RAILROAD NETWORK**
- 28 Arterial Crossings
- 6 Collector Crossings
- 11 Local Crossings

**TRAFFIC NETWORK**
- 171 Signalized Intersections
- 21 Rapid Flashing Beacons
- 34,000+ Signs

**SIDEWALK NETWORK**
- 917 miles of Sidewalk
- 24,863 Pedestrian Ramps
- 248 Bike Racks

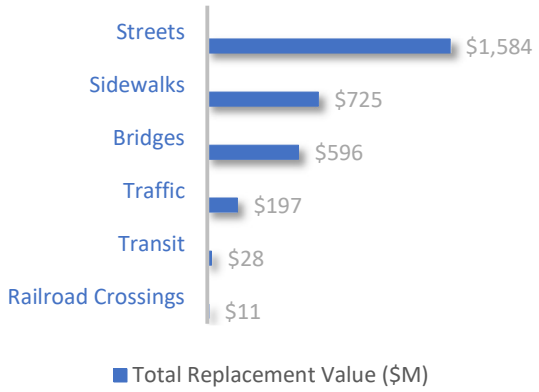
**TRANSIT NETWORK**
- 416 Bus Stops
- 150 have Shelters
- 5 Miles of BRT

**Not all transportation assets have been included in the asset registers at this time.*

## 2.2 Replacement Value

As of December 31st, 2024 the replacement value of the transportation infrastructure assets is estimated at $3.1 billion. Replacement value is defined as the cost to replace an asset of like capacity and function in today's dollars. The replacement value does not include operations and maintenance of an asset – this information can be found in the asset management plans.

The chart demonstrates the breakdown of replacement value by asset class.

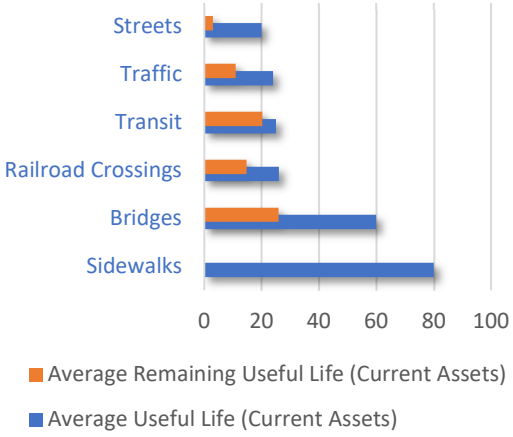


## 2.3 Remaining Useful Life

Useful life is how long an asset is expected to provide value before needing replacement. Remaining useful life can be calculated by subtracting an assets current age from its expected useful life. An assets life expectancy depends on several factors, including installation practices, maintenance practice, treatment timing, climate, and asset usage.

This indicator along with asset condition can provide valuable insight to a service areas health. However, not all assets are created equal and a longer or shorter remining useful life doesn't mean an asset is in need of being replaced or is in good condition.

Reviewing the remaining useful life of infrastructure assets is essential for effective asset management, cost-efficiency, public safety, regulatory compliance, financial planning, and sustainability. By understanding the remaining life of assets, stakeholders can make informed decisions that optimize performance, extend asset life, and ensure the continued functionality of critical infrastructure systems.

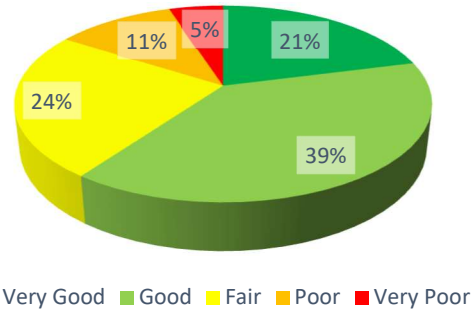



## 2.4 Asset Condition

Asset condition is a pivotal component of transportation infrastructure as it serves as a key determinant of the overall health and performance of the transportation system. Evaluating the condition of the transportation assets provides critical insights into their current state and identifies areas that may require immediate attention.

Understanding asset condition aids in prioritizing maintenance efforts, allocating resources effectively, and making informed decisions about repairs and replacements. By assessing asset condition, we can accurately gauge the safety, reliability, and efficiency of the transportation system, ensuring that necessary measures are taken to address any vulnerabilities that may impact level of service.

Asset condition is based on a typical 5-value scale (Very Good, Good, Fair, Poor, Very Poor) that is utilized both nationally and internationally as a universal standard for comparing assets. This report focuses on physical condition of the assets. Function and capacity of assets are identified in the asset management plans.




Overall, **84%** of the reported PDT transportation assets are in very good to fair physical condition. 16% that are in poor or very poor may not be meeting expected levels of service and will need renewal in the near future.

## 2.5 Financial Need

The investment or financial need is the current level at which the City should be investing in its assets to be sustainable long-term. Financial needs are based on asset lifecycle costs of new acquisitions, current operations and maintenance, asset renewals (replacements), and disposals over a 20-year planning period.

### Demand Drivers

- What is the investment needed to enhance level of service?
- What impact does projected growth have on the investment need to manage the assets?
- Is additional funding needed to manage regulatory requirements?

A 10-year Lifecycle Financial Ratio is used to compare the planned budget with the forecasted lifecycle costs. The target range is between 90%-110%. A low ratio may indicate that assets are not being funded at the rate that would meet the organization's risk and service level commitments. A high ratio may mean that there's a surplus funding or some "catch-up" going on to address a reported "funding gap."

10-year Lifecycle Financial Ratio

**46.8%**

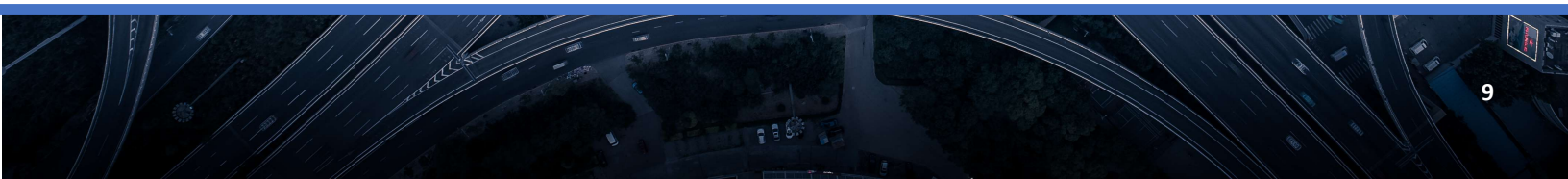
Target ranges is between 90% - 110%

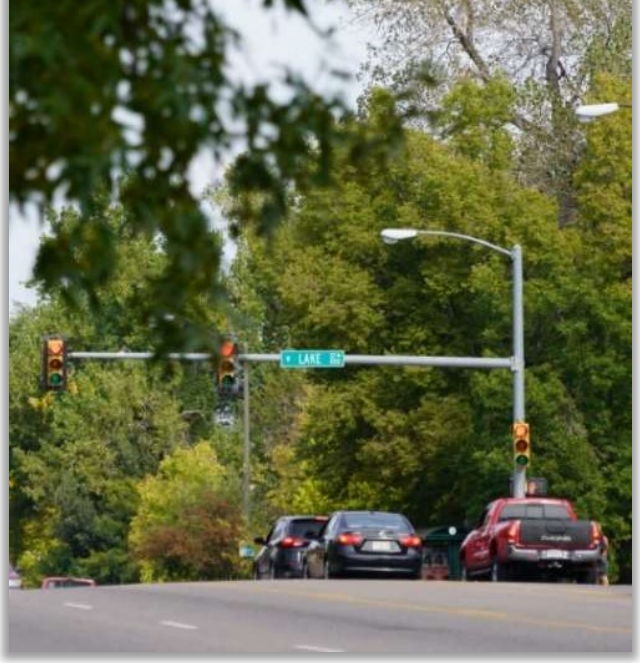
Additional investment needs for demand management can be found within the asset management plans. Typically, demand drivers will have some form of impact on lifecycle activities – such as "projected growth" will impact operation costs for additional inspections as well as future maintenance costs for those new assets.

## 2.6 Projected Funding Gap

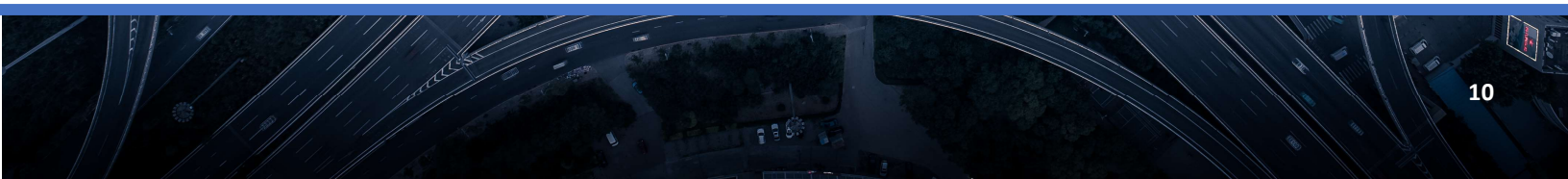
The City's 20-year projected infrastructure gap is **$577.9 million**. The funding gap is the difference between anticipated future funding and the projected investment needs in each of the service areas. The financial gap is what's estimated to meet current levels of service. The next section will provide additional information in greater detail pertaining to the short (0-5 years), medium (6-10 years), and long-term (11-20 years) investment needs. ***Investment Need will include assets that have surpassed useful life, but still may be in good condition**.

| 20-Year Investment Gap Summary by Asset Class ($M) | | | |
|---|---|---|---|
| **Asset Group** | **Investment Need*** | **Available Funding** | **Financial Gap** |
| Bridges | $260.0 | $56.0 | $204 |
| Railroad Crossings | $7.6 | $2.6 | $4.9 |
| Sidewalks (TBD) | $0 | $0 | $0 |
| Streets | $641.1 | $289.0 | $352.1 |
| Traffic | $40.9 | $34.3 | $6.6 |
| Transit | $12.2 | $2.0 | $10.2 |
| **Grand Total** | **$961.8** | **$383.9** | **$577.9** |



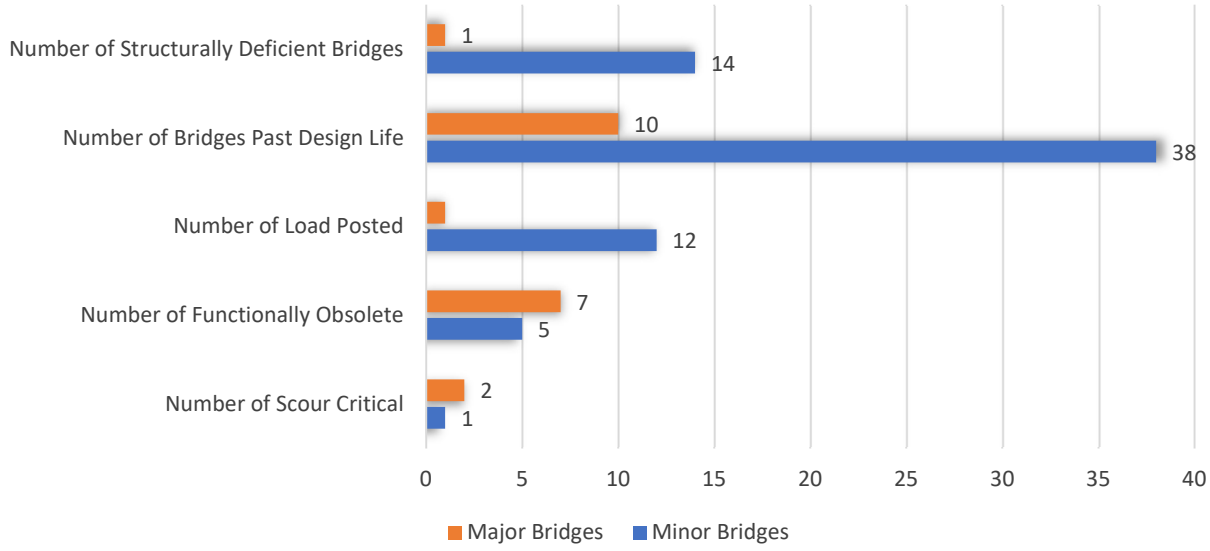



# State of the Assets by Asset Class

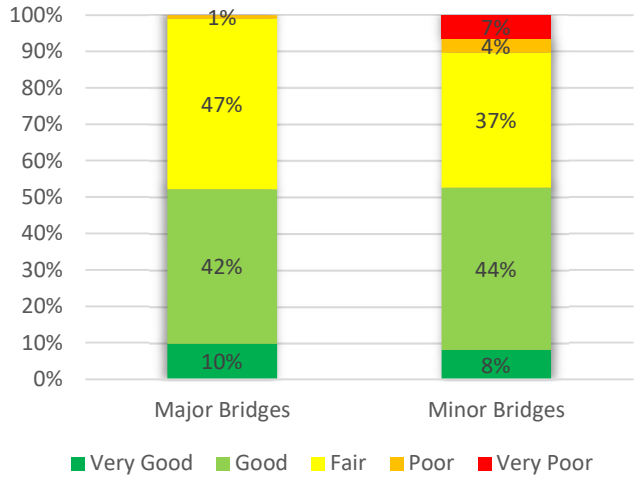



# BRIDGES

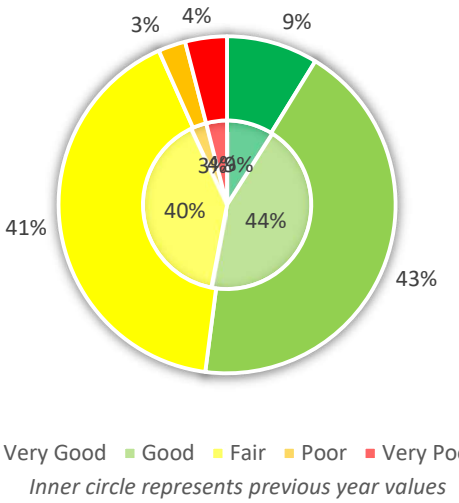
| Asset Category | Quantity | Unit | Replacement Value ($M) | Useful Life (Yrs) |
|---|---|---|---|---|
| Major Bridges (over 20') | 93 | each | $307.1 | 50-75 |
| Minor Bridges (4'-20') | 135 | each | $228.6 | 50-75 |
| Less 4' Bridges (small drainage structures) | 80 | each | $60.6 | 50-75 |
| **Bridge Total** | **308** | **each** | **$596.3** | |



## Asset Category Condition State

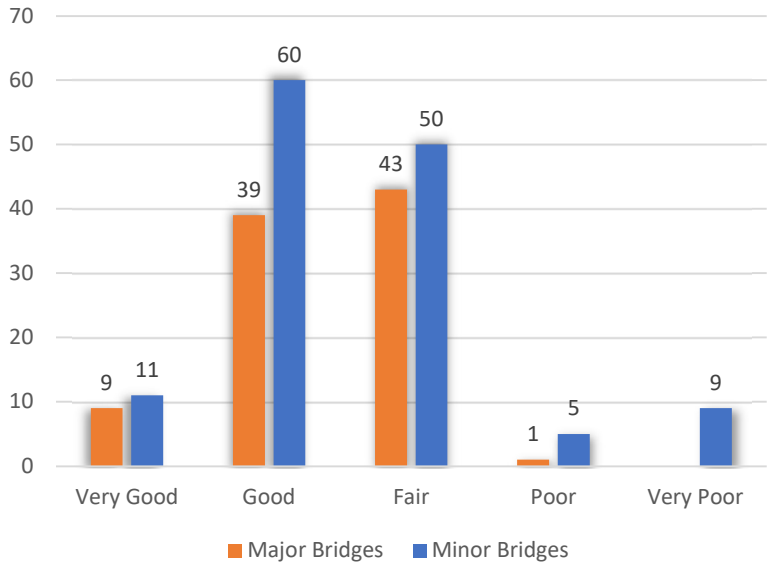



## Overall Condition State

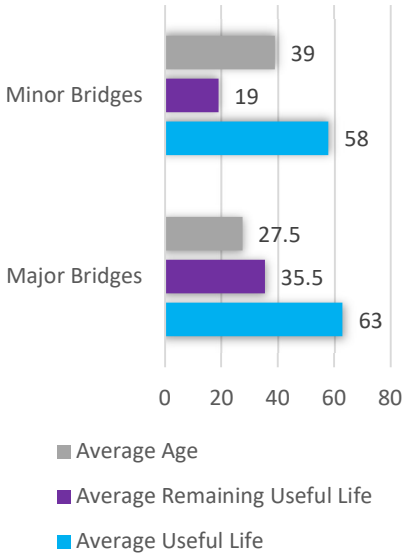



*Inner circle represents previous year values*

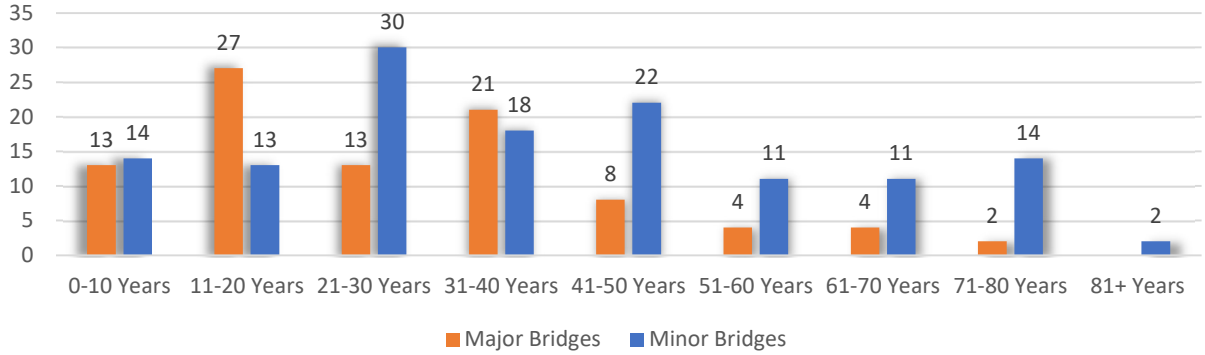
## Number of Bridges by Condition State




## Average Useful Life




## Number of Bridges by Age



## Bridge Location by Condition State


**Condition State**

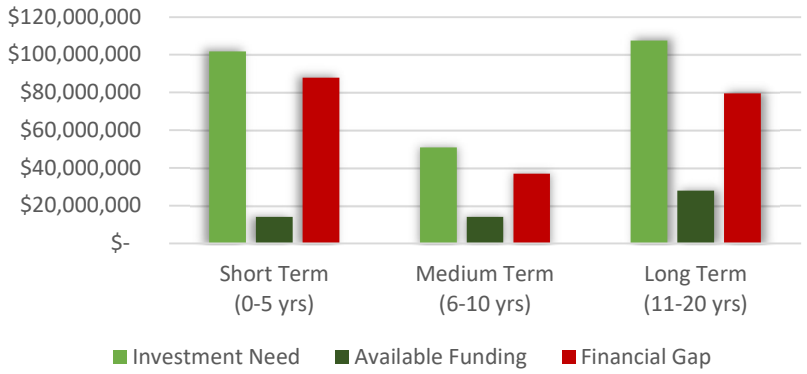
Very Good | Good | Fair | Poor | Very Poor

## 10-Year Lifecycle Financial Ratio

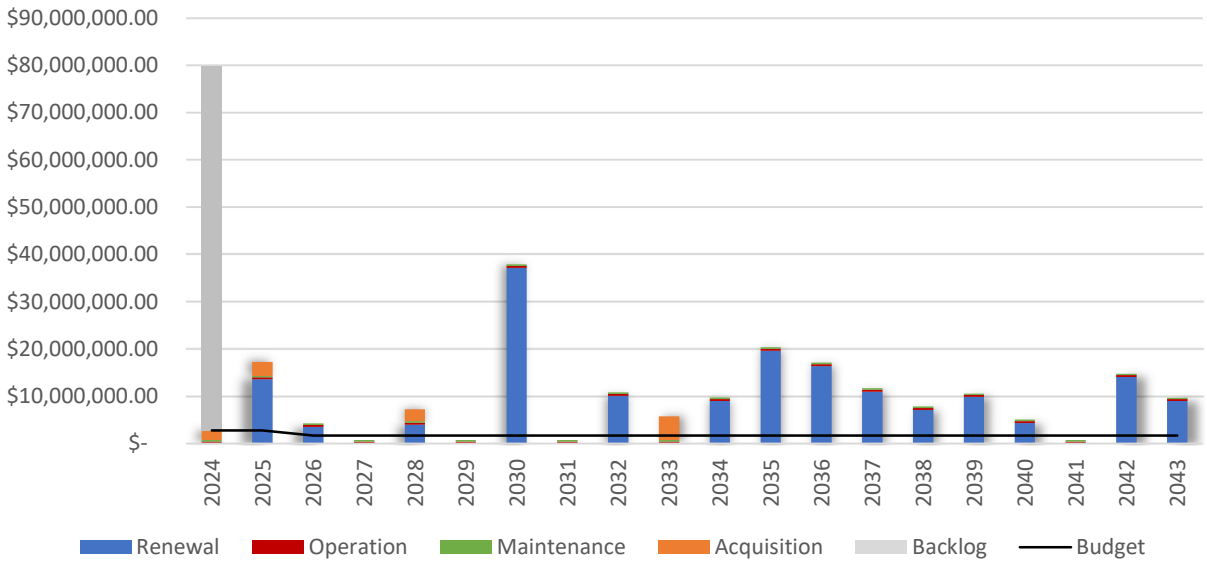
17%

Target ranges is between 90% - 110%

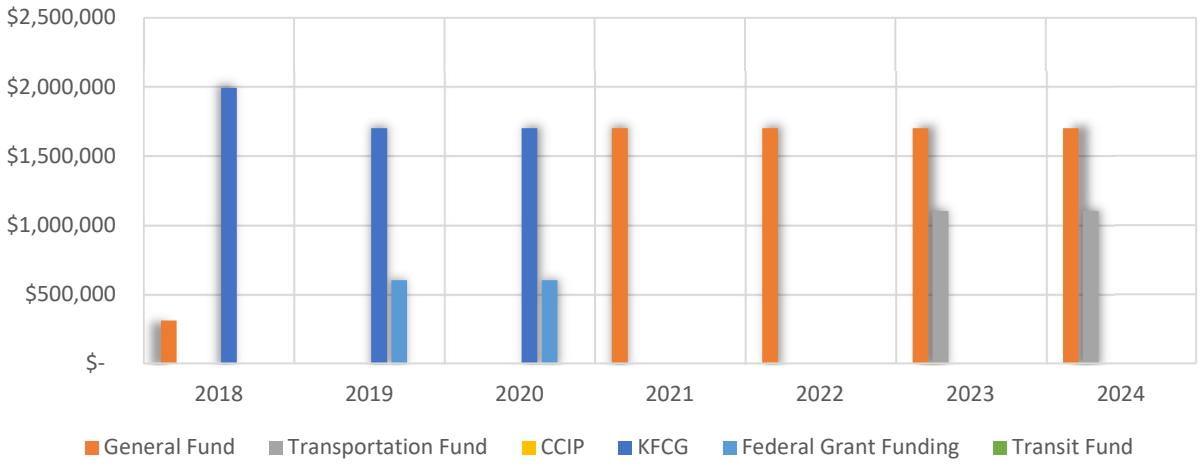
## Investment Summary




## 20-Year Lifecycle Summary




## Funding Source Summary



# HIGH-PRIORITY BRIDGES

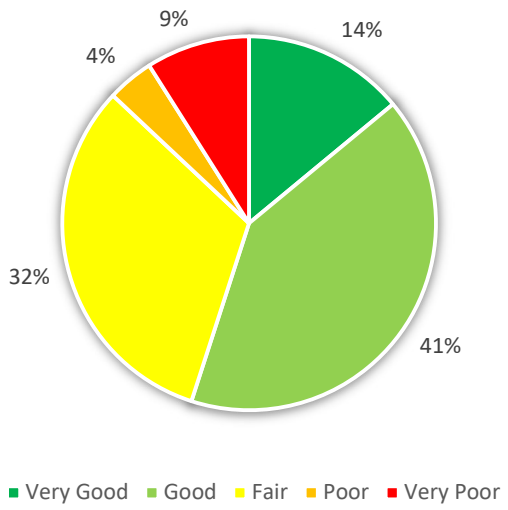
## Infrastructure Assets That Cannot Fail

Within the asset categories the following are defined as high-priority assets and may require additional operations and maintenance to ensure a safe and reliable transportation network.

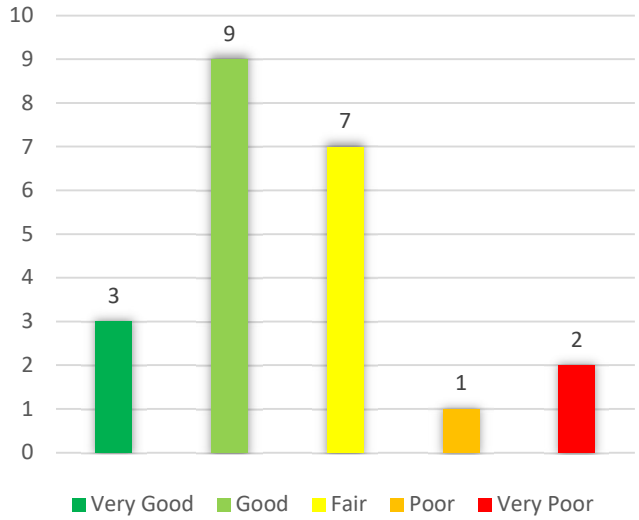
- Bridges along what would be considered evacuation routes such as Hwy 287/College Ave., Hwy 14/Mulberry Street, Prospect Road, and Harmony Road.
- Structurally deficient, weight restricted, and scour critical bridges along arterial roadways.

| Customer Value | Customer Level of Service (Measures) | Customer Level of Service (Performance) |
|---|---|---|
| **Quality** Is the Service of sufficient quality? | % of driving surface in good or fair condition. | 95% |
| | % of bridges are in good or better condition. | 55% |
| **Legislative** Does the service meet legal requirements? | % compliance with CDOT inspection frequencies. | 100% |
| **Reliability/Functionality** How predictable is the service? How operational is the service? | % of bridges with vertical clearance. | 100% |
| | % of bridges with adequate ADT width. | 87% |
| | % of bridges with load posting. | 9% |
| **Accessibility** Can the service be easily accessed and used? | % of bridges with safe approach alignment. | 100% |
| **Health and Safety** Does the service pose a risk to health and safety? | % of bridges aligned with current design standards. | 100% |

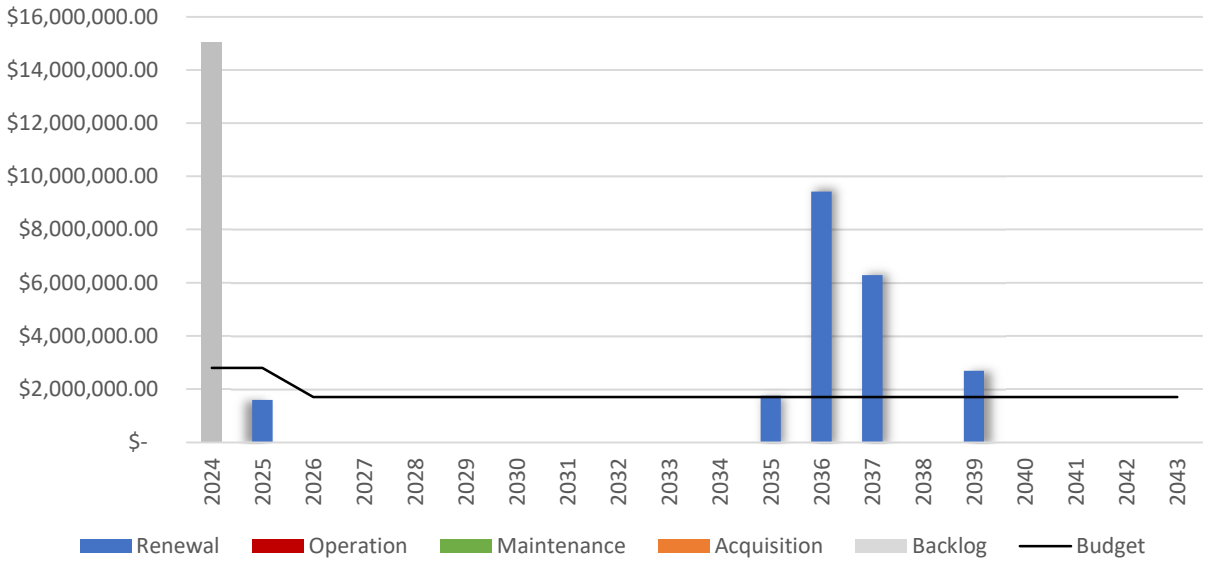
## High-Priority Bridges Overall Condition State



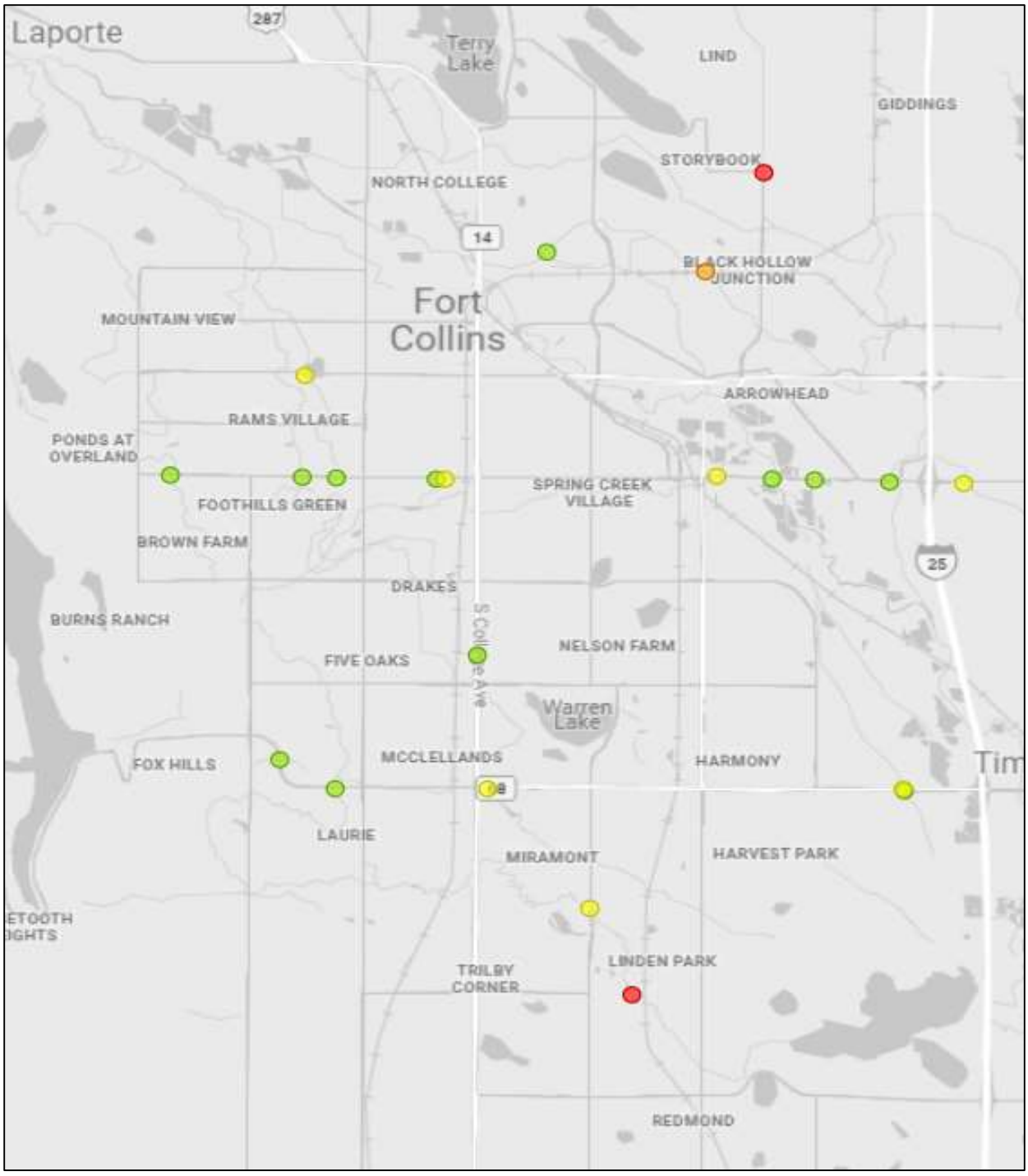

## Number of High-Priority Bridges by Condition State




## High-Priority Bridge 20-Year Renewal Summary



## High-Priority Bridge Location by Condition State



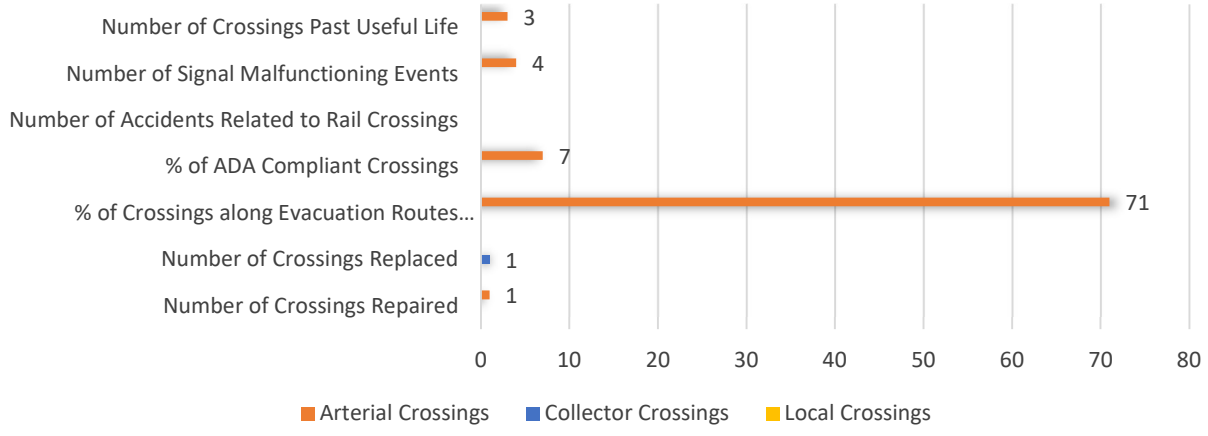

**Condition State**

Very Good Good Fair Poor Very Poor

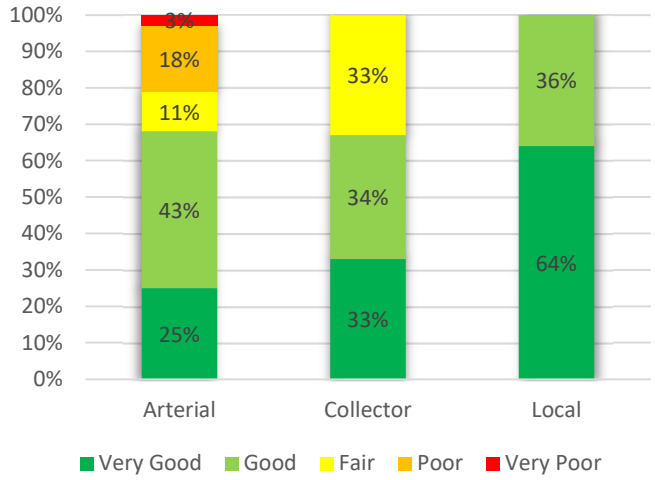

# RAILROADS

| Asset Category | Quantity | Unit | Replacement Value ($M) | Useful Life (Yrs) |
|---|---|---|---|---|
| Arterial Crossings | 28 | each | $7.2 | 15-20 |
| Collector Crossings | 6 | each | $1.0 | 20-35 |
| Local Crossings | 11 | each | $2.6 | 35+ |
| Overhead Crossing | 1 | each | n/a | n/a |
| Trolley Crossings | 34 | each | n/a* | n/a |
| **Railroad Total** | **45** | **each** | **$10.8** | |

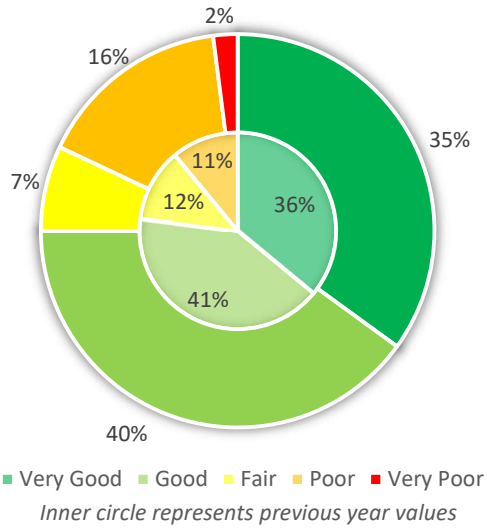
**Trolley Crossings replacement value incorporated into Streets values*



## Asset Category Condition State

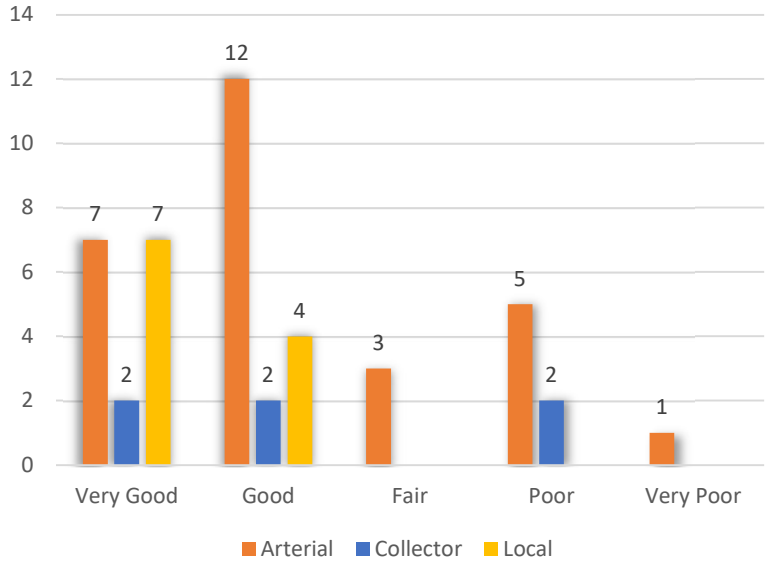



## Overall Condition State

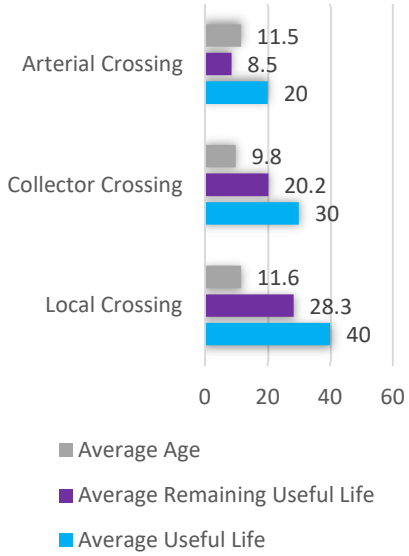



*Inner circle represents previous year values*

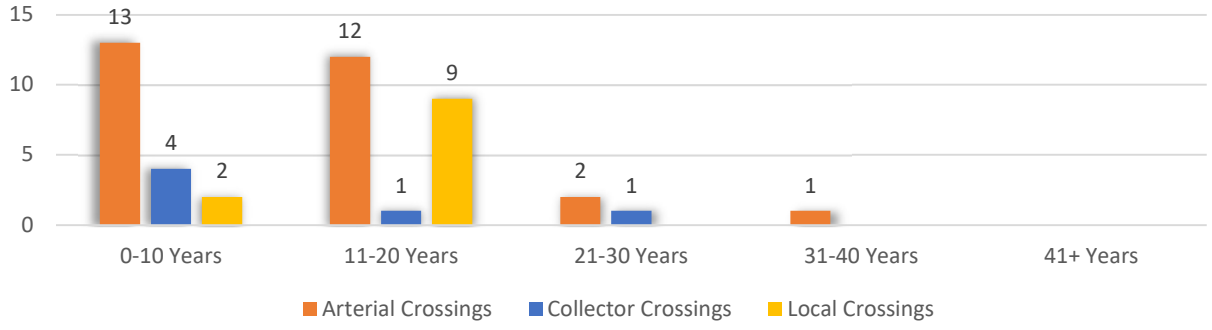
## Number of Crossings by Condition State




## Average Useful Life




## Number of Crossings by Age



## Crossing Location by Condition State


**Condition State**

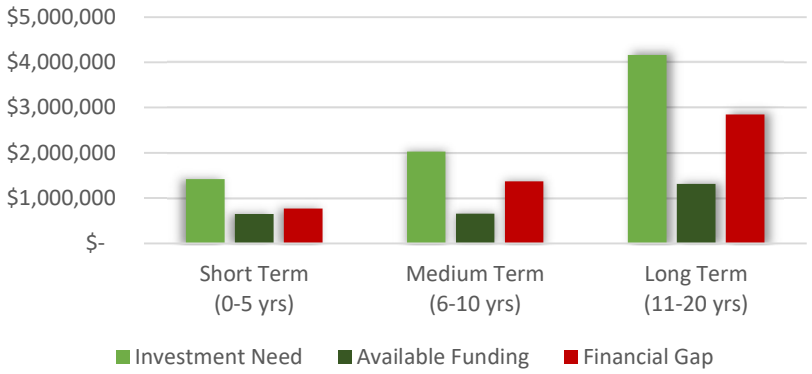
Very Good | Good | Fair | Poor | Very Poor

## 10-Year Lifecycle Financial Ratio

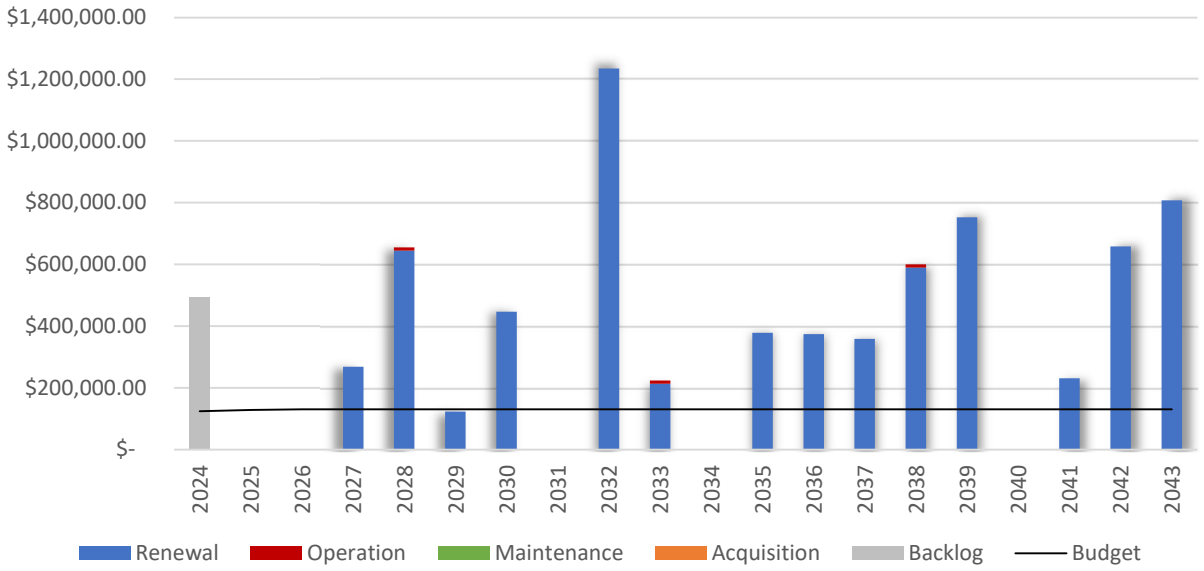
38%

Target ranges is between 90% - 110%

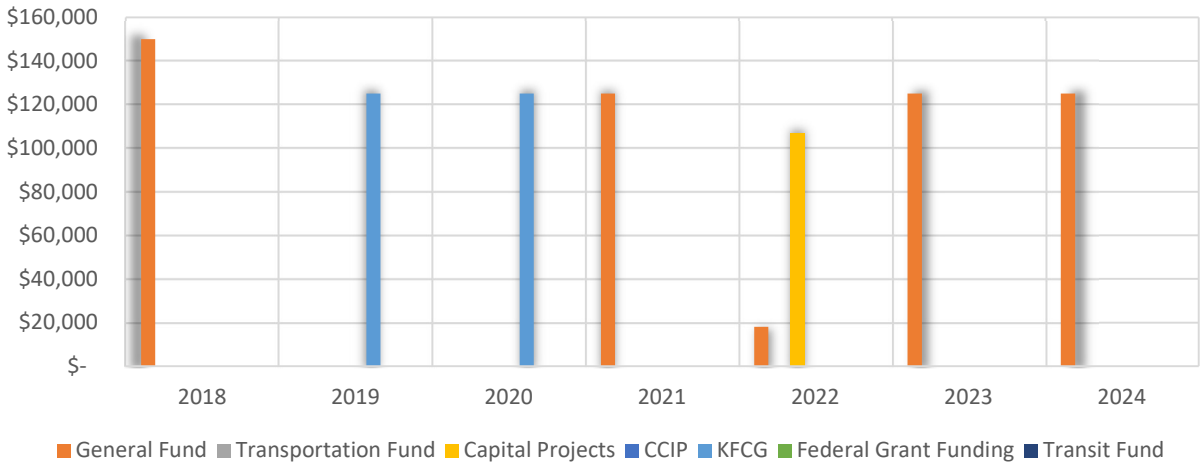
## Investment Summary




## 20-Year Lifecycle Summary




## Funding Source Summary



# HIGH-PRIORITY RAILROADS

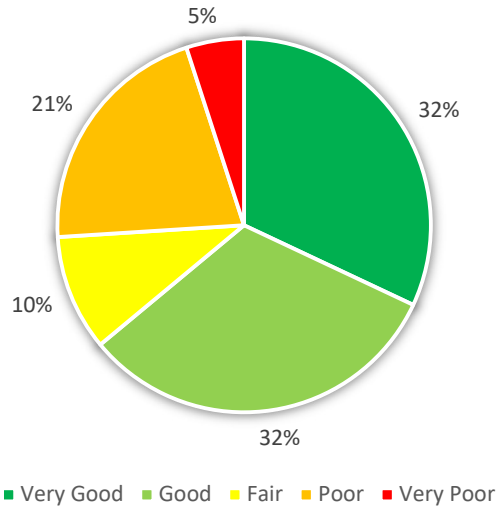
## Infrastructure Assets That Cannot Fail

Within the asset categories the following are defined as high-priority assets and may require additional operations and maintenance to ensure a safe and reliable transportation network.

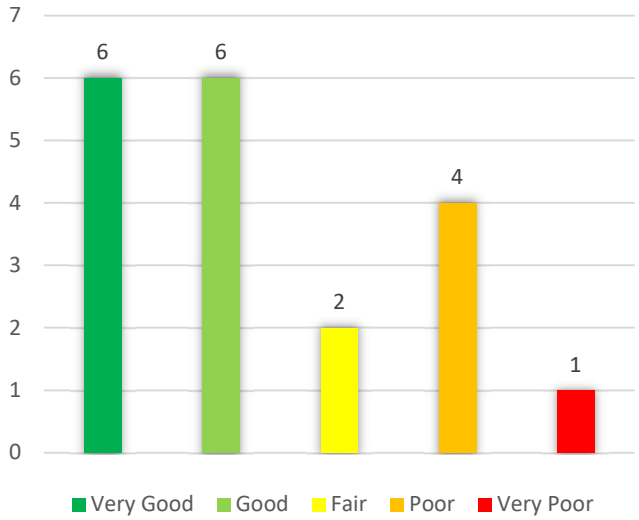
- Railroad crossings along arterial roadways with average daily traffic greater than 20,000.
- Railroad crossings along what would be considered evacuation routes such as Hwy 287/College Ave., Hwy 14/Mulberry Street, Prospect Road, and Harmony Road.
- Railroad crossings that have a condition rating of poor along arterial roadways.

| Customer Value | Customer Level of Service (Measures) | Customer Level of Service (Performance) |
|---|---|---|
| **Quality**<br>Is the Service of sufficient quality? | % of rail crossings with condition rating of fair or better. | 74% |
| **Legislative**<br>Does the service meet legal requirements? | Feedback from staff/auditors. | 100% |
| **Reliability/Functionality**<br>How predictable is the service? How operational is the service? | % of rail crossing signal malfunctioning events causing vehicle delay. | 0.05% |
| **Accessibility**<br>Can service be easily accessed and used? | % of rail crossings fully compliant with ADA regulations. | 33% |
| **Health and Safety**<br>Does the service pose a risk to health and safety? | # accidents related to rail crossings. | 0 |

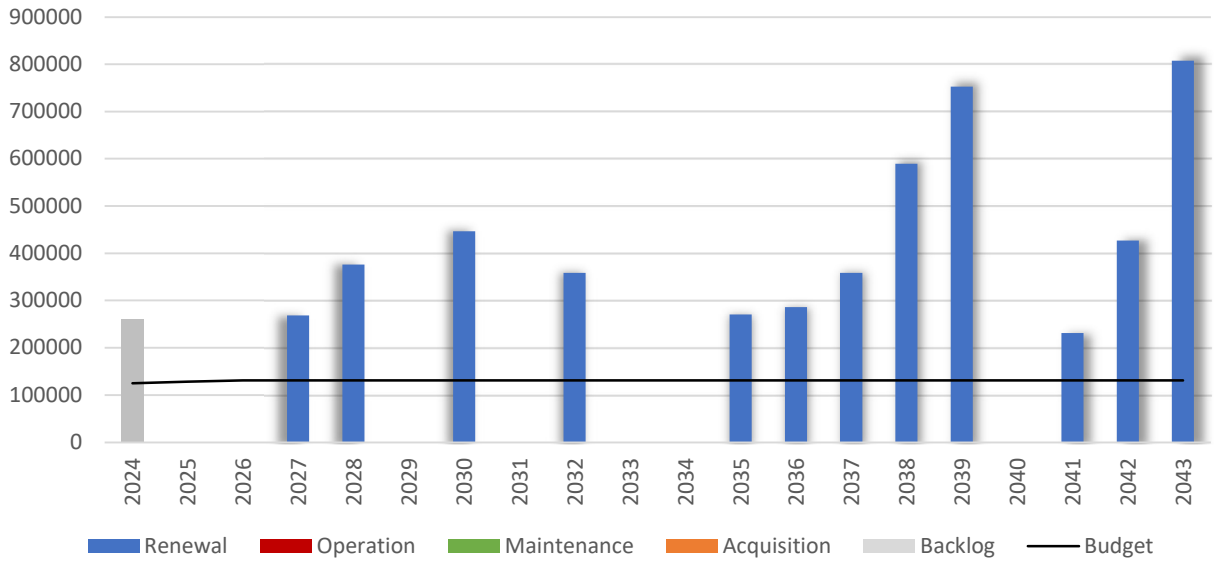
## High-Priority Crossings Overall Condition State




## Number of High-Priority Crossings by Condition State




## High-Priority Crossings 20-Year Renewal Summary



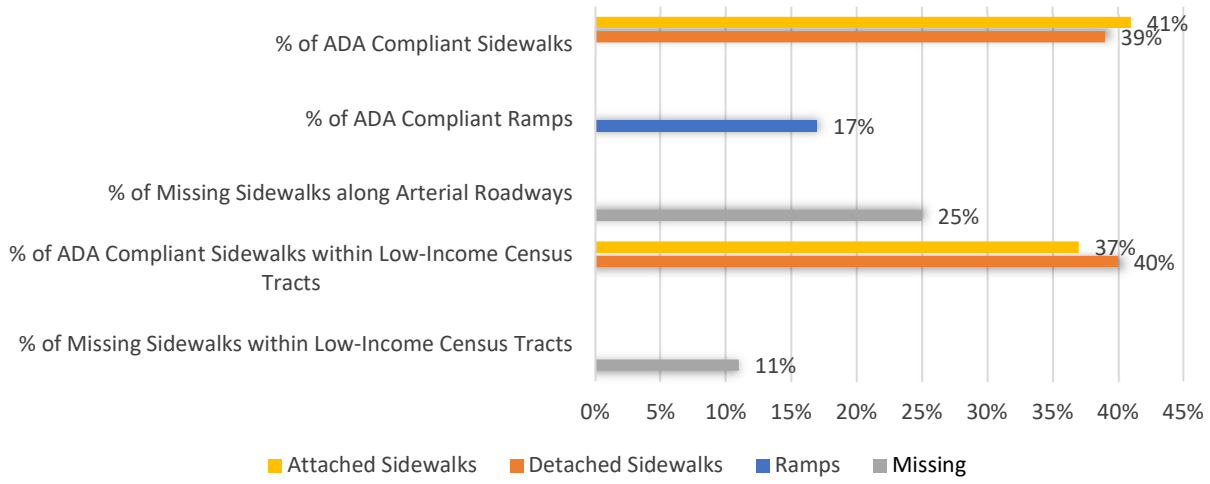
## High-Priority Crossing Location by Condition State


**Condition State**

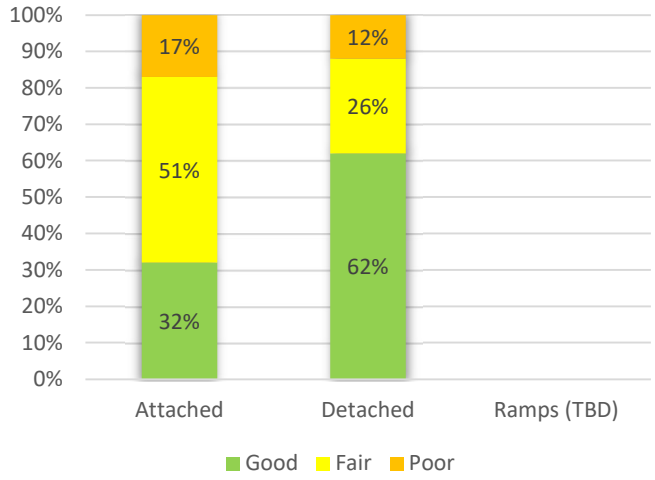
Very Good Good Fair Poor Very Poor


# SIDEWALKS

| Asset Category | Quantity (Centerline Miles) | Quantity | Unit | Replacement Value ($M) | Useful Life (Yrs) |
|---|---|---|---|---|---|
| Attached Sidewalks | 520 | 13,339,835 | square feet | $333.4 | 80 |
| Detached Sidewalks | 397 | 10,692,081 | square feet | $267.3 | 80 |
| Bike Racks | | 248 | each | $0.1 | 10-12 |
| **Sidewalk Total** | **917** | **24,031,916** | **square feet** | **$600.8** | |
| Ramps | | 24,863 | each | $124.3 | 80 |
| **Total** | | | | **$725.1** | |

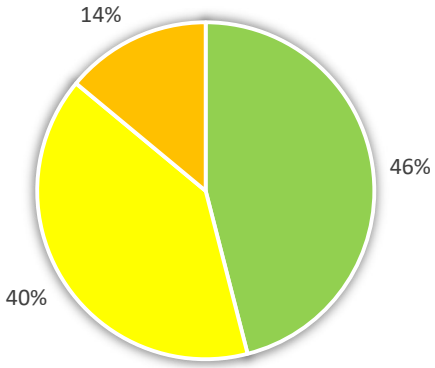


## Asset Category Condition State



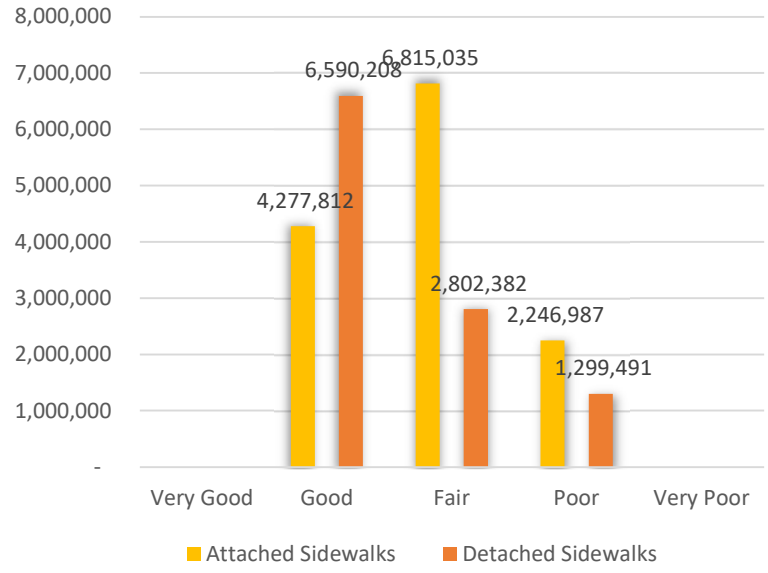

*Sidewalk conditions are currently in a three scale*

## Overall Condition State

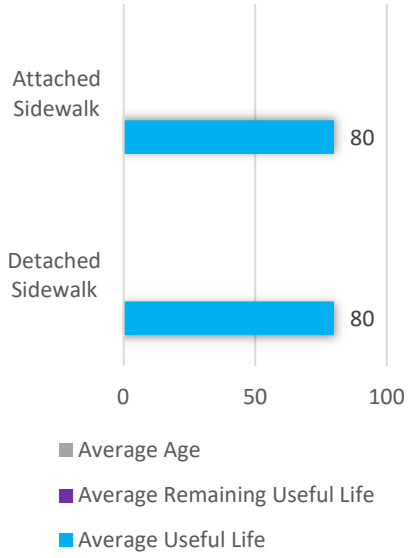



*Sidewalk conditions are currently in a three scale*

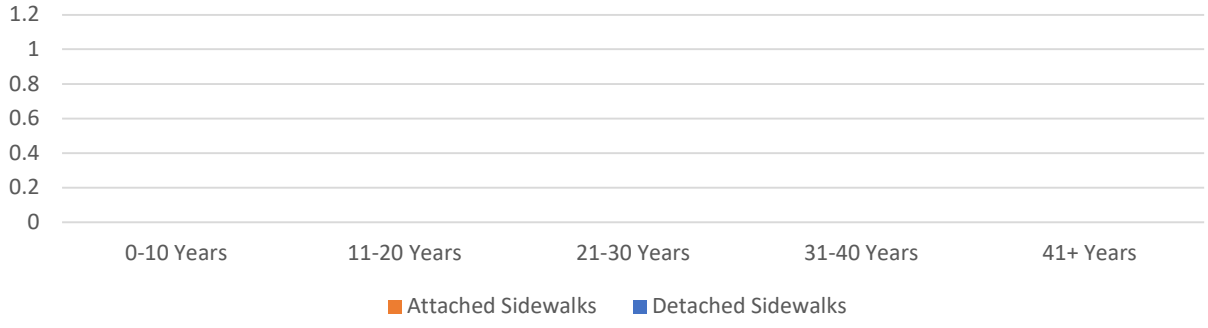
## SF of Sidewalks by Condition State



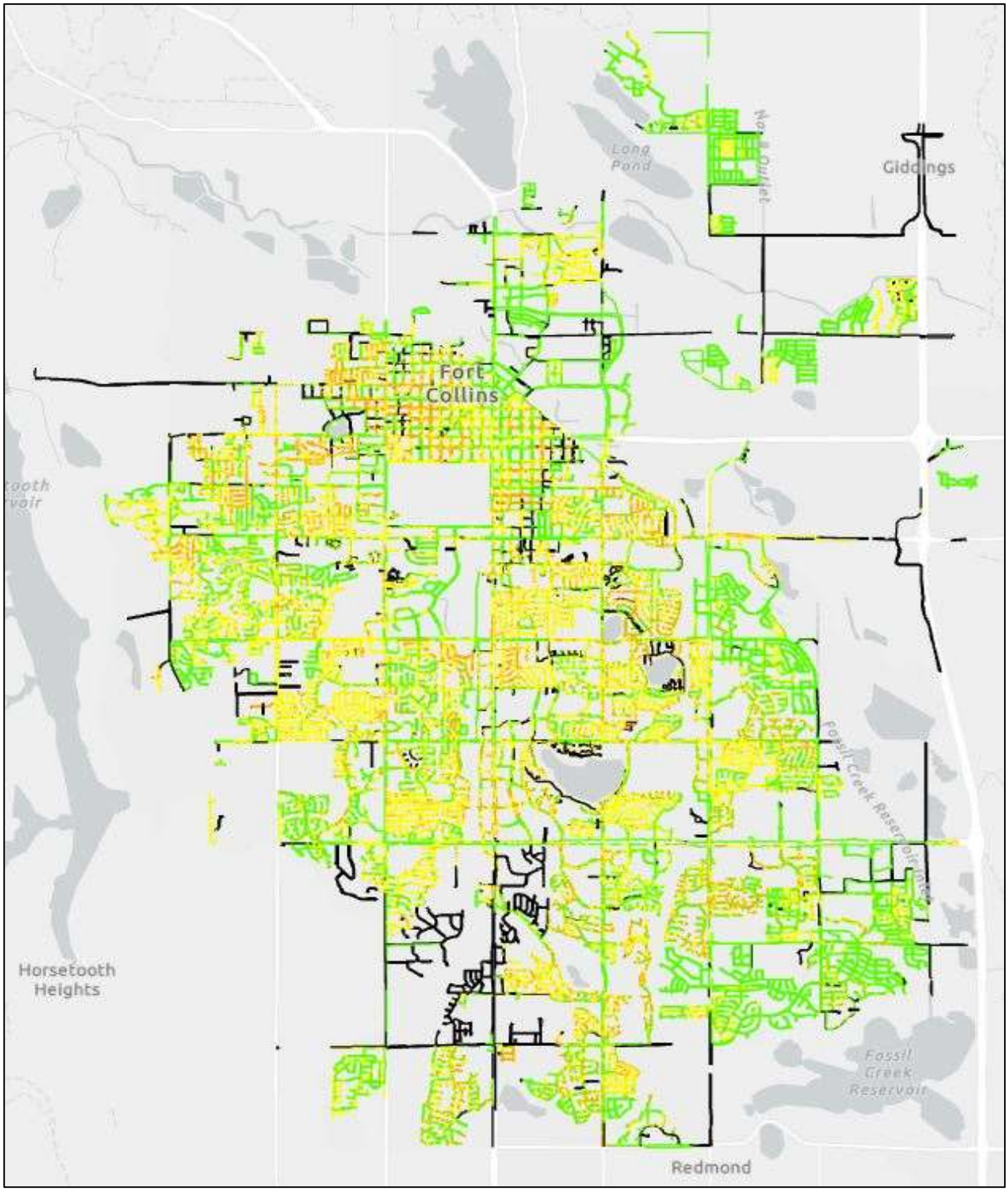

## Average Useful Life




## SF of Sidewalks by Age



## Sidewalk Location by Condition State




**Condition State**

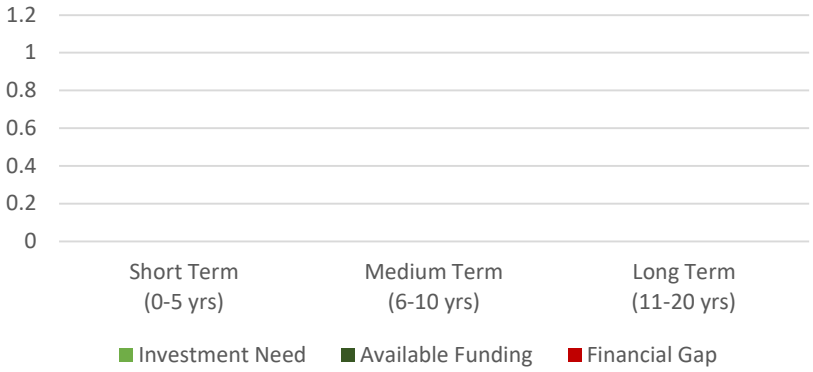
Very Good | Good | Fair | Poor | Very Poor | Missing

## 10-Year Lifecycle Financial Ratio

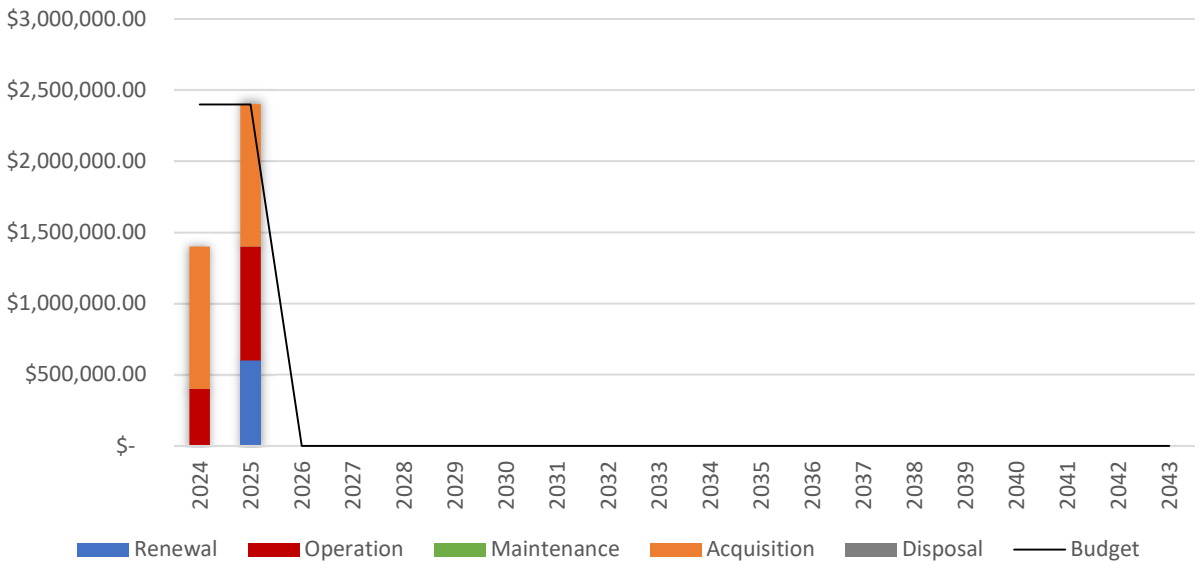
0%

Target ranges is between 90% - 110%

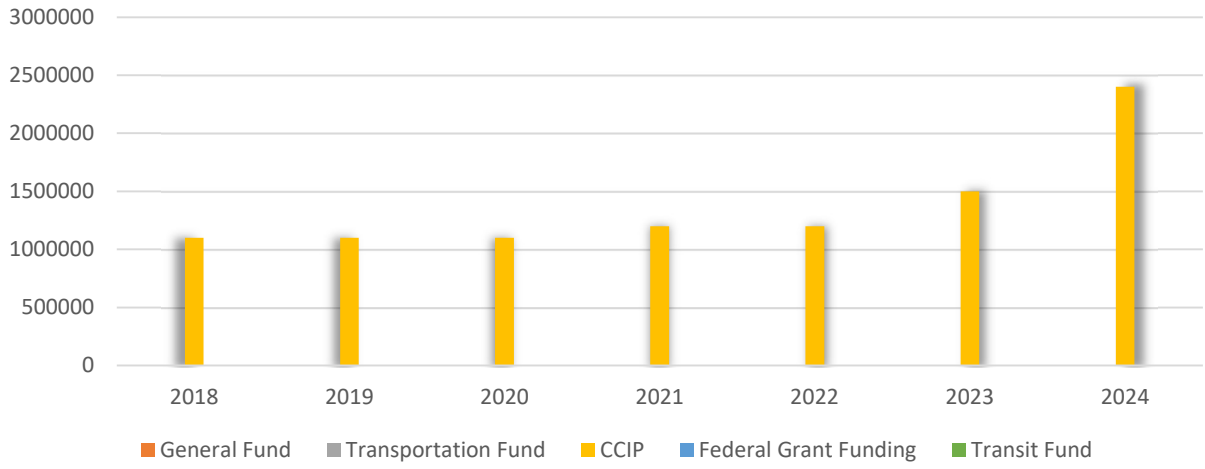
## Investment Summary




## 20-Year Lifecycle Summary




## Funding Source Summary



# HIGH-PRIORITY SIDEWALKS

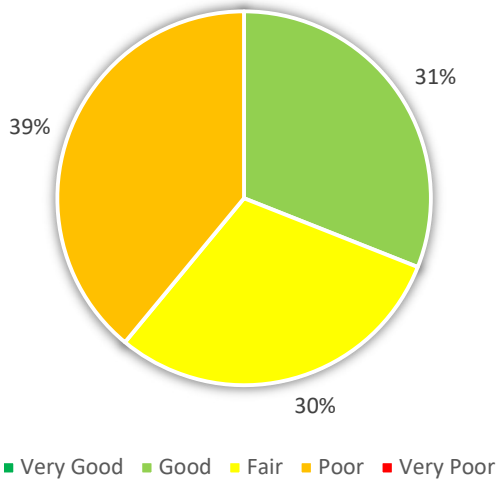
## Infrastructure Assets That Cannot Fail

Within the asset categories the following are defined as high-priority assets and may require additional operations and maintenance to ensure a safe and reliable transportation network.

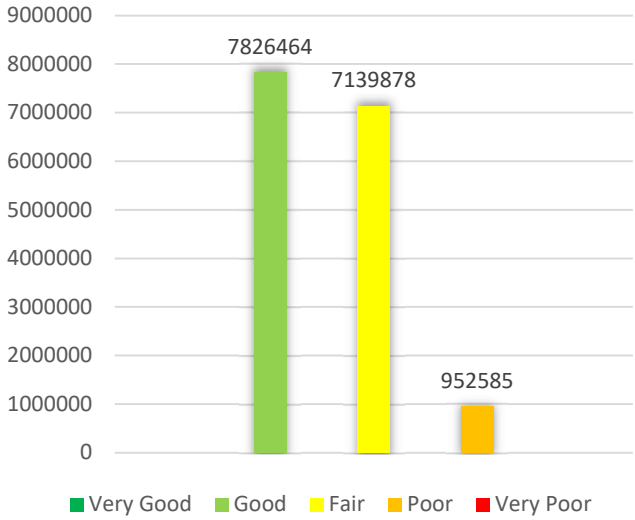
- Non-ADA compliant sidewalks or missing sidewalk gaps along arterial roadways.
- Sidewalks providing access to schools, transit stops, grocery stores, and healthcare facilities.
- Non-ADA compliant sidewalks or missing sidewalk gaps located within low-income Census tracts.

| Customer Value | Customer Level of Service (Measures) | Customer Level of Service (Performance) |
|---|---|---|
| **Quality**<br>Is the Service of sufficient quality? | Network average condition. | Fair - Low-income<br>Fair - Arterials |
| **Legislative**<br>Does the service meet legal requirements? | Compliance with ADA and PROWAG standard. | 100% |
| **Reliability/Functionality**<br>How predictable is the service?<br>How operational is the service? | # unplanned sidewalk/ramp closures. | 0 |
| | Length of pedestrian detours. | 120 feet |
| **Accessibility**<br>Can the service be easily accessed and used? | % sidewalk/ramp network compliant with ADA and PROWAG standards. | 75% - Low-income<br>72% - Arterials<br>63%- School and Bus Stops |
| **Health and Safety**<br>Does the service pose a risk to health and safety? | Time to remedy horizontal/vertical inconsistencies in sidewalk/ramp network. | 48 hours |
| | Time to clear sidewalk/ramp network of snow. | 24 hours after storm event |

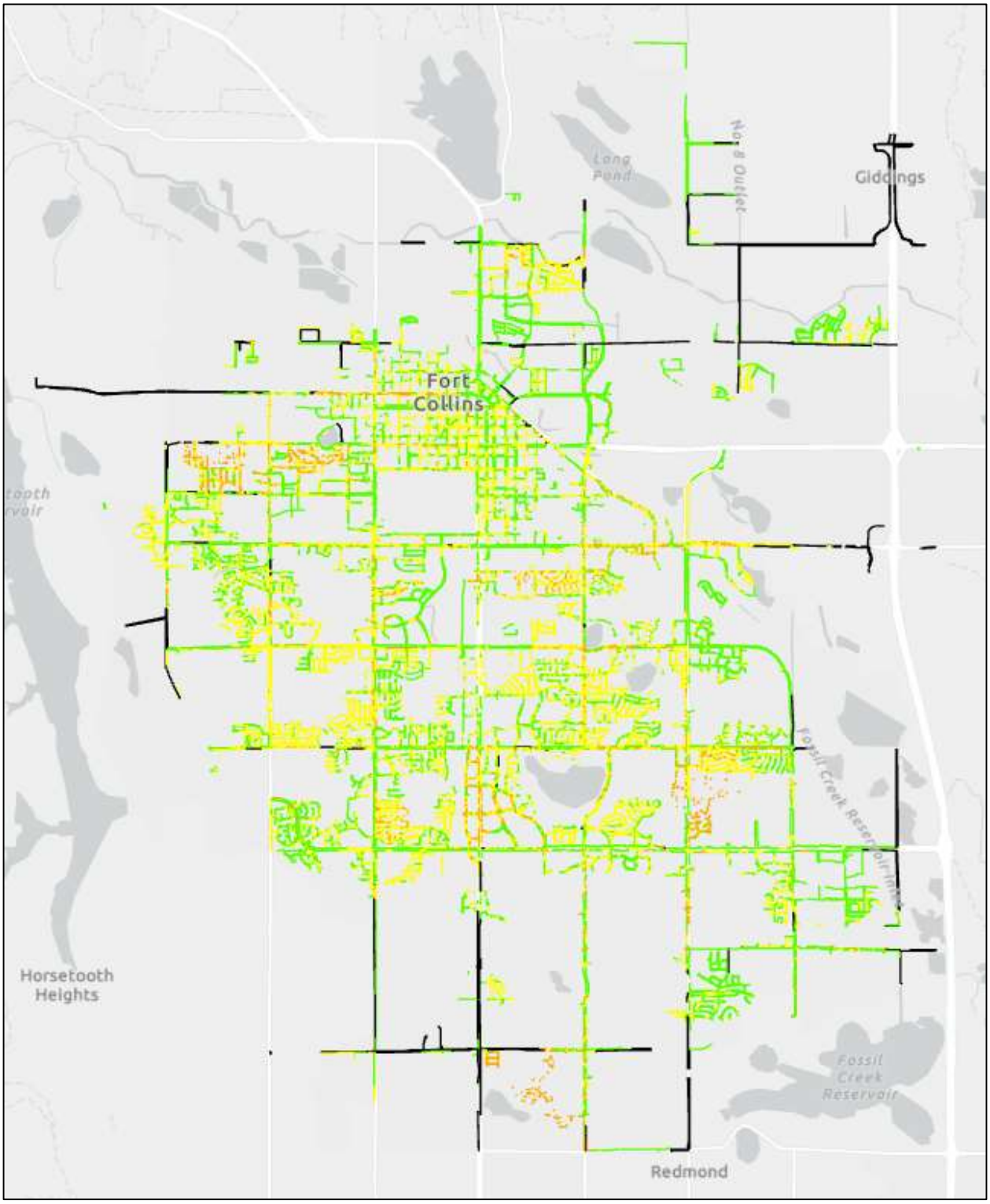
## High-Priority Sidewalks Overall Condition State




## SF of High-Priority Sidewalks by Condition State



## High-Priority Sidewalk Location by Condition State



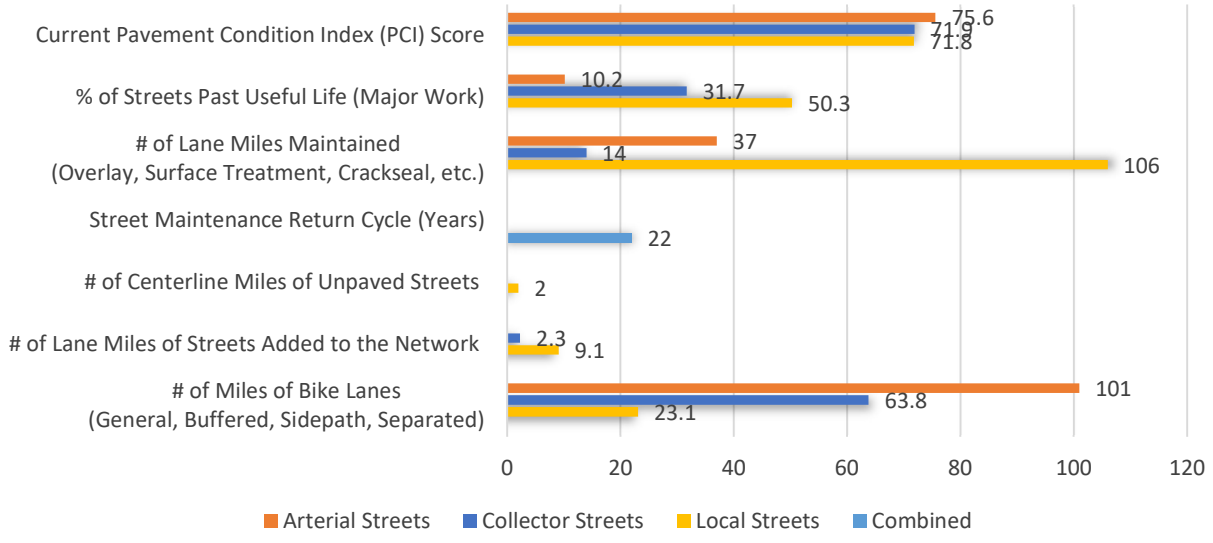

**Condition State**

Very Good Good Fair Poor Very Poor Missing

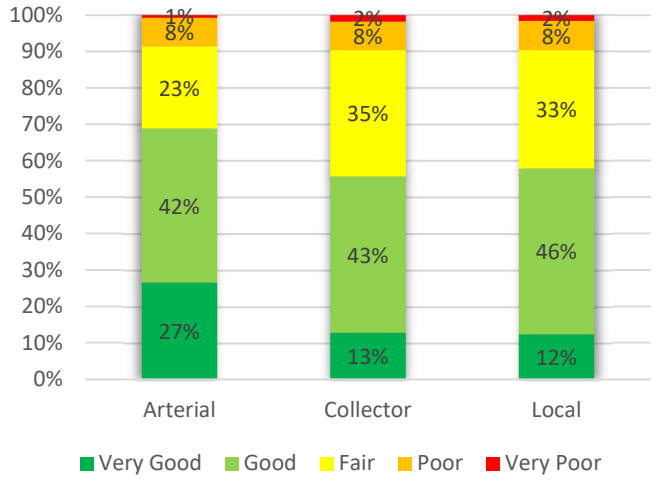
# STREETS

| Asset Category | Quantity (Centerline Miles) | Quantity (Lane Miles)* | Unit | Replacement Value ($M) | Useful Life (Yrs) |
|---|---|---|---|---|---|
| Arterial Streets | 122 | 495 | miles | $508.5 | 20 |
| Collector Streets | 93 | 324 | miles | $264.0 | 20 |
| Local Streets | 389 | 1185 | miles | $794.5 | 20 |
| Alleys (AC, PCC, Unpaved) | 27 | 45 | miles | $17.7 | 15-20 |
| **Streets Total** | **631** | **2049** | **miles** | **$1,584.7** | |

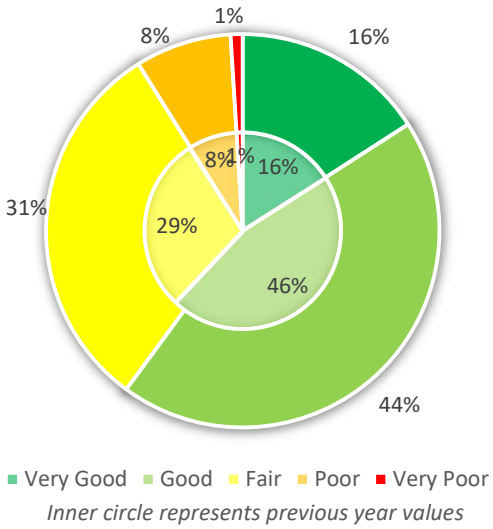
*Lane Mile is equal to 12' x 5,280' = 63,360 sf (7,040 sy) of maintained road area.



## Asset Category Condition State

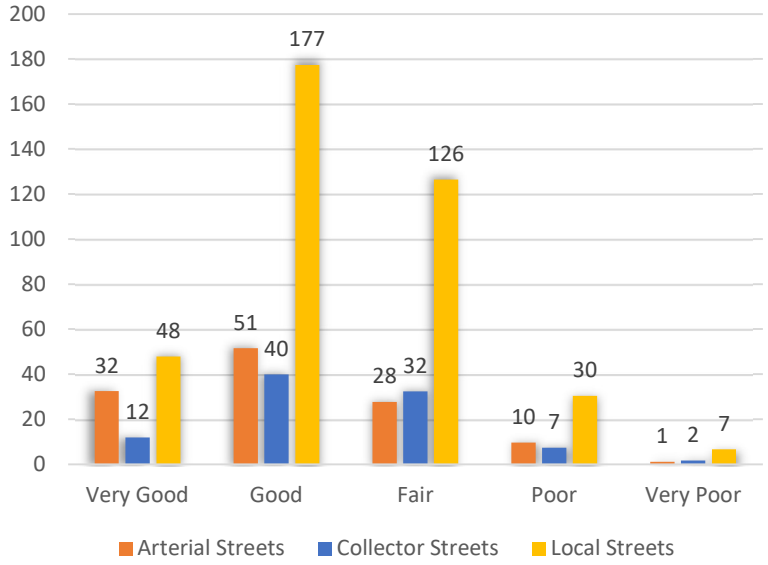



## Overall Condition State

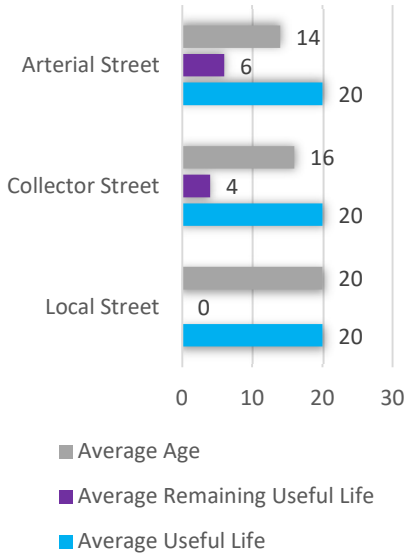



*Inner circle represents previous year values*

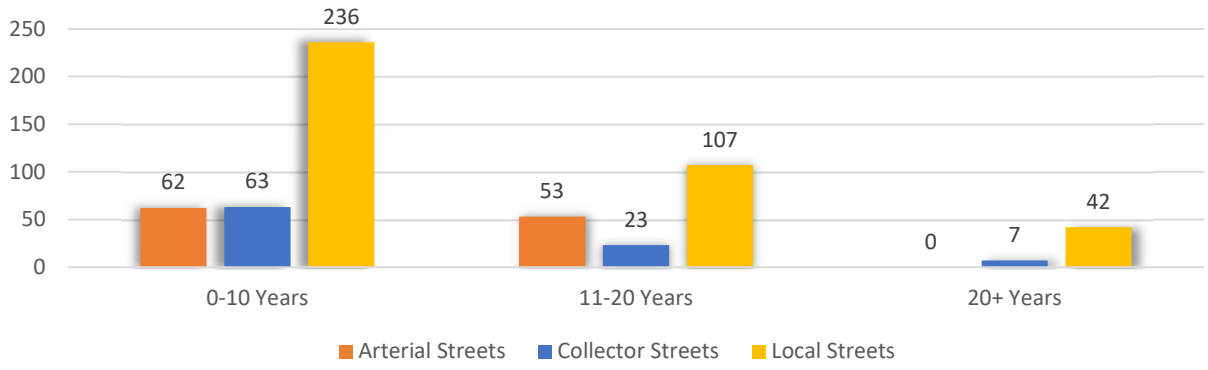
## Miles of Streets by Condition State



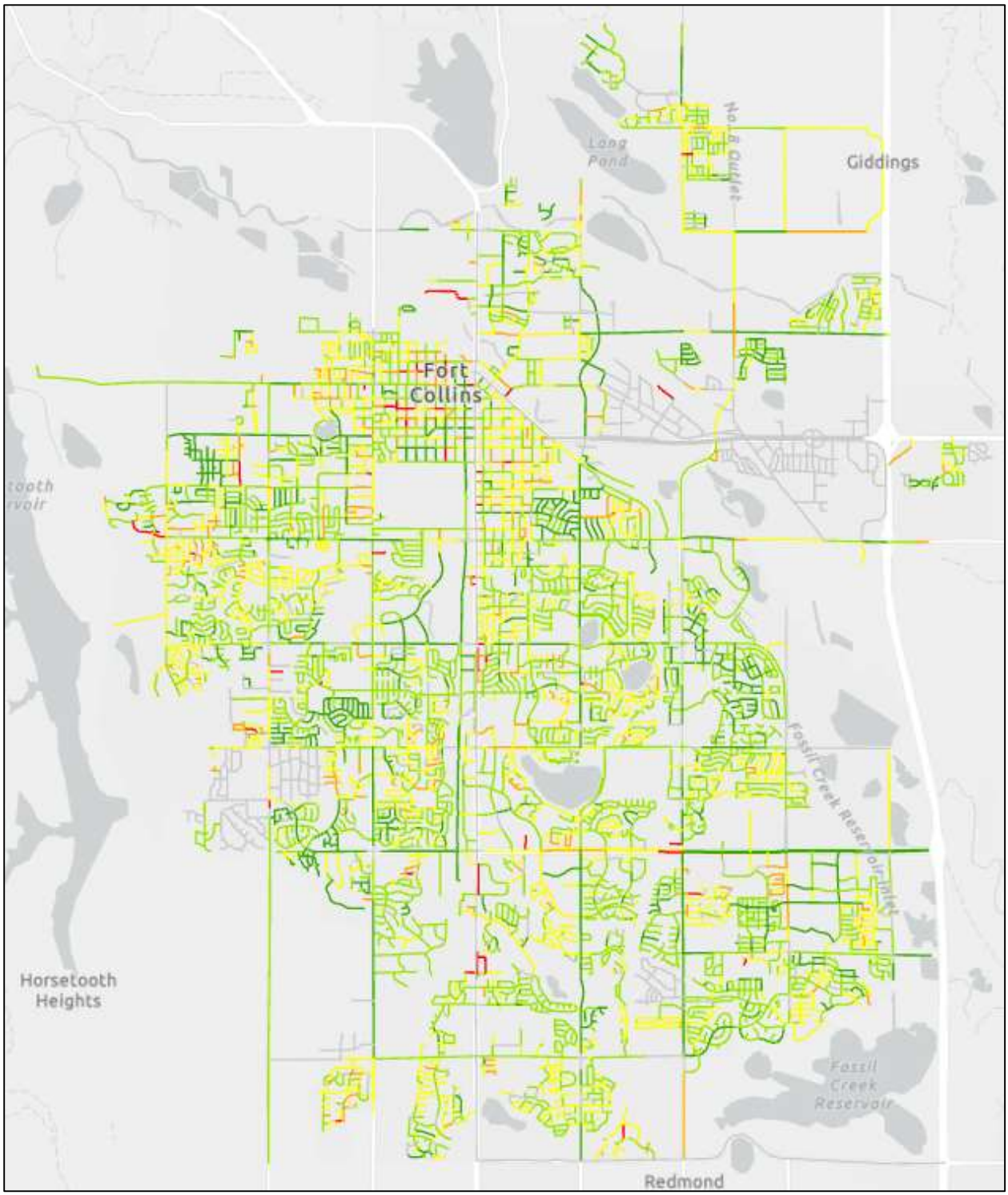

## Average Useful Life




## Miles of Streets by Age



## Street Location by Condition State




**Condition State**

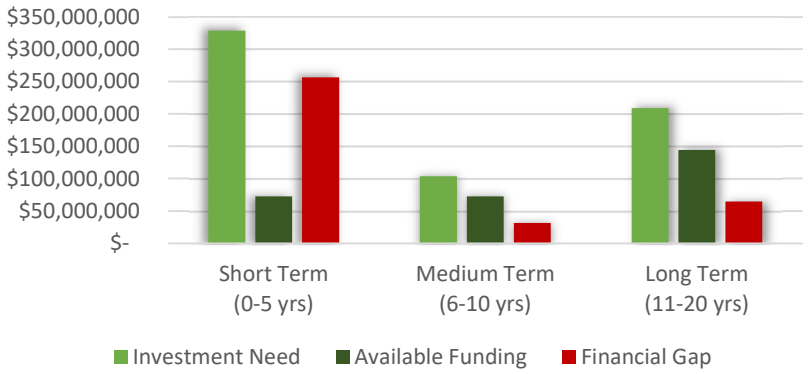
Very Good Good Fair Poor Very Poor

## 10-Year Lifecycle Financial Ratio

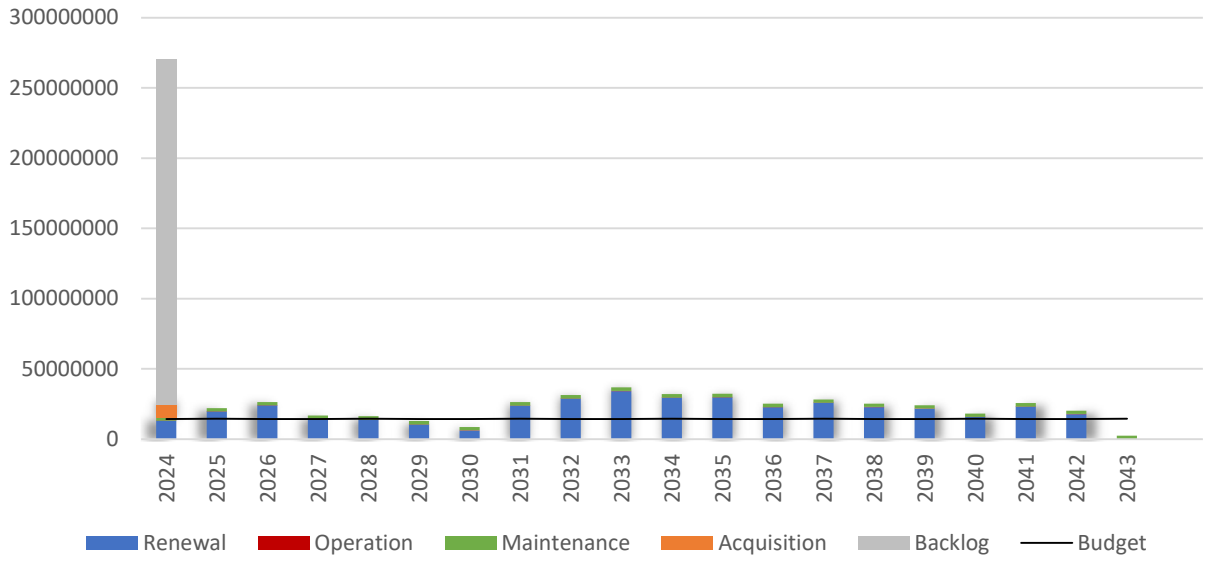
31%

Target ranges is between 90% - 110%

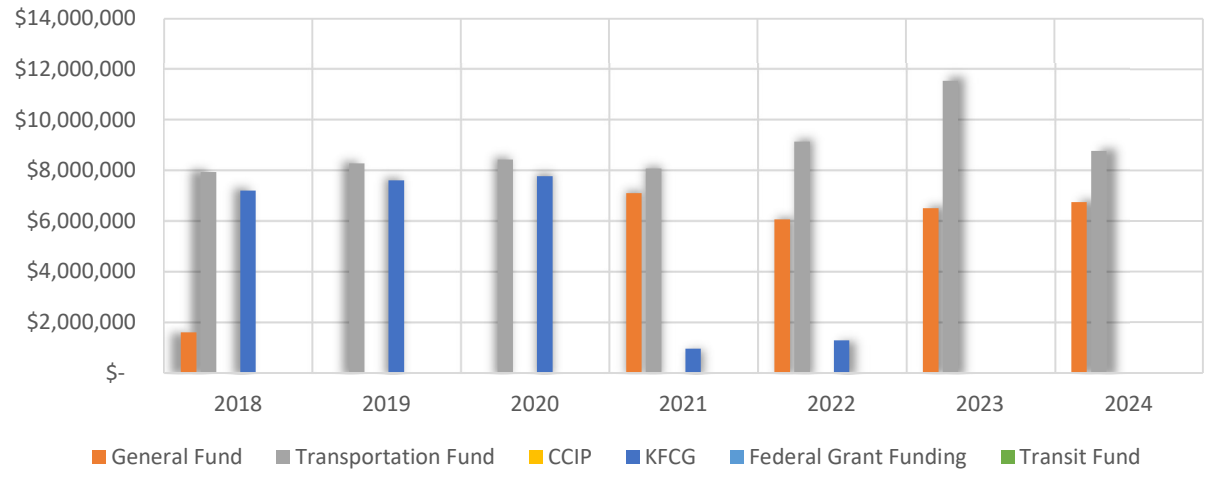
## Investment Summary




## 20-Year Lifecycle Summary




## Funding Source Summary



# HIGH-PRIORITY STREETS

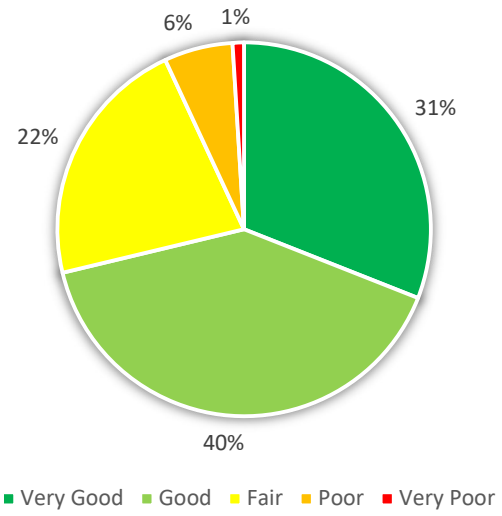
## Infrastructure Assets That Cannot Fail

Within the asset categories the following are defined as high-priority assets and may require additional operations and maintenance to ensure a safe and reliable transportation network.

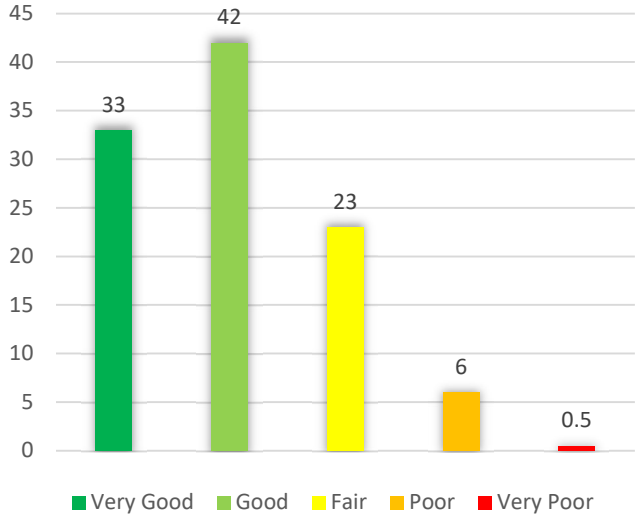
- Arterial roadways.
- Roadways that would be considered evacuation routes such as Hwy 287/College Ave., Hwy 14/Mulberry Street, Prospect Road, and Harmony Road.
- Retaining walls, guardrails, and bridge approaches along arterial and collector roadways.

| Customer Value | Customer Level of Service (Measures) | Customer Level of Service (Performance) |
|---|---|---|
| **Quality** Is the Service of sufficient quality? | PCI Network Average. | B |
| **Legislative** Does the service meet legal requirements? | Maintaining roads, sidewalks, and bike lanes to meet safety codes. | 100% |
| **Reliability/Functionality** How predictable is the service? How operational is the service? | Notice provided for non-emergency street closures. | 100% of the time |
| | # of street closures due to condition failure. | 0 |
| **Accessibility** Can the service be easily accessed and used? | Crosswalks are ADA compliant (<2% cross slope). | TBD |
| **Health and Safety** Does the service pose a risk to health and safety? | PCI Network Average. | B |
| | Snow removal services are provided. | Yes |
| | % of arterial streets with bike lanes. | 41.4% |

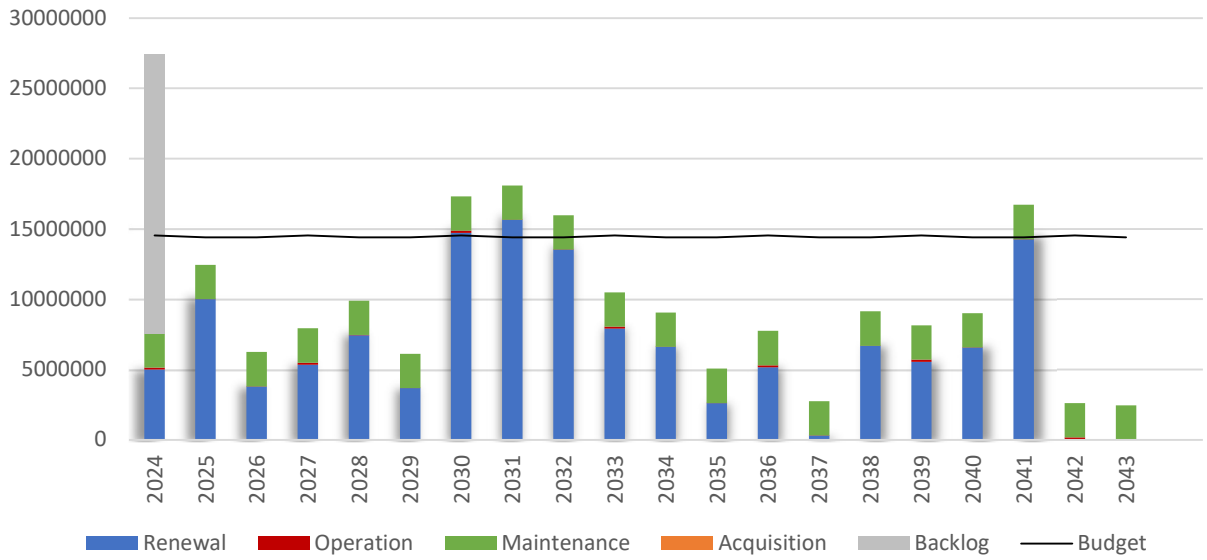
## High-Priority Streets Overall Condition State



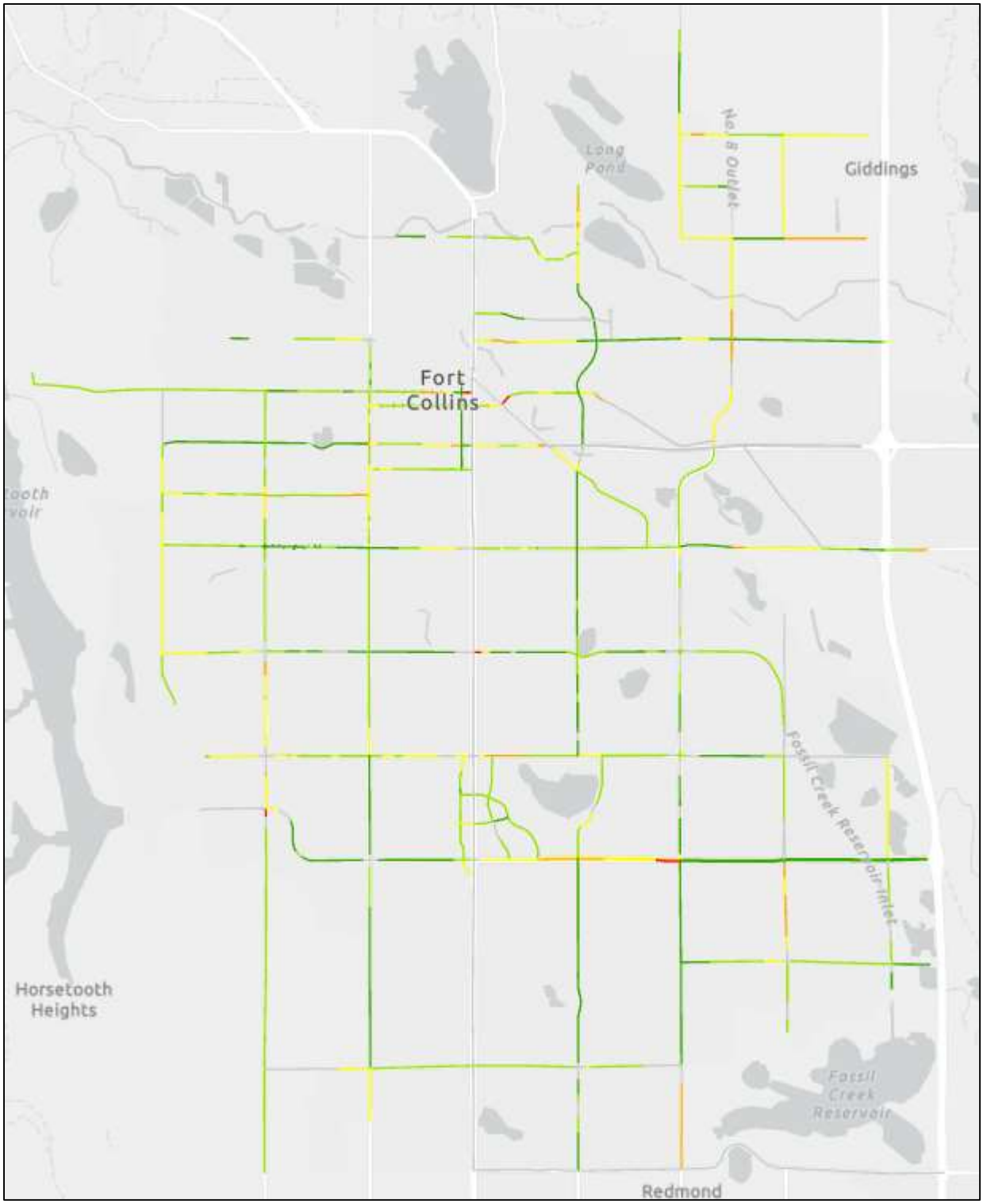

## Miles of High-Priority Streets by Condition State




## High-Priority Streets 20-Year Lifecycle Summary



## High-Priority Streets Location by Condition State

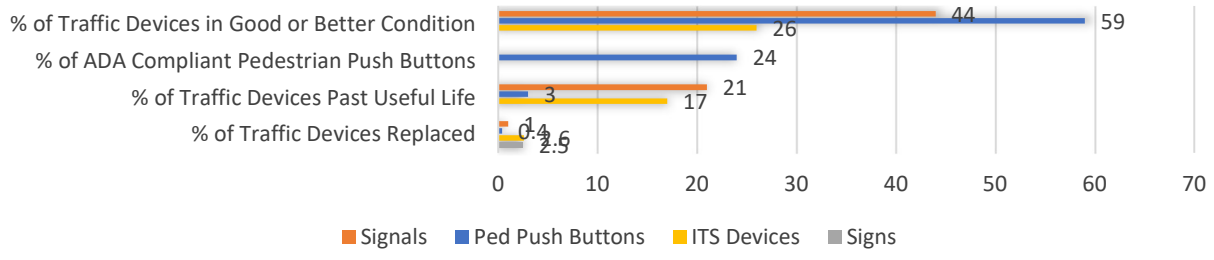



**Condition State**

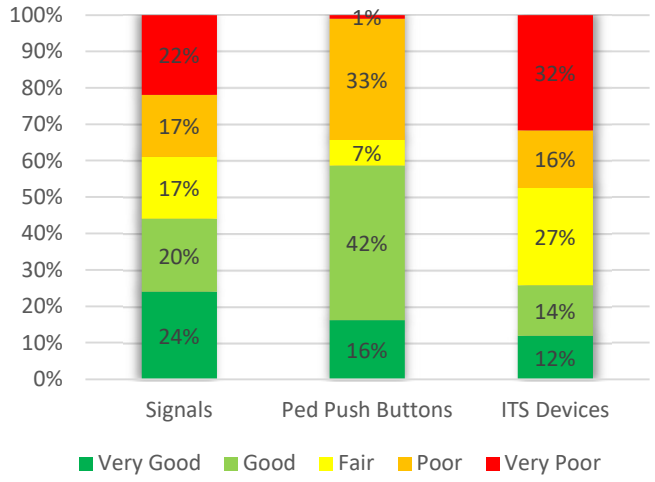
Very Good | Good | Fair | Poor | Very Poor


# TRAFFIC

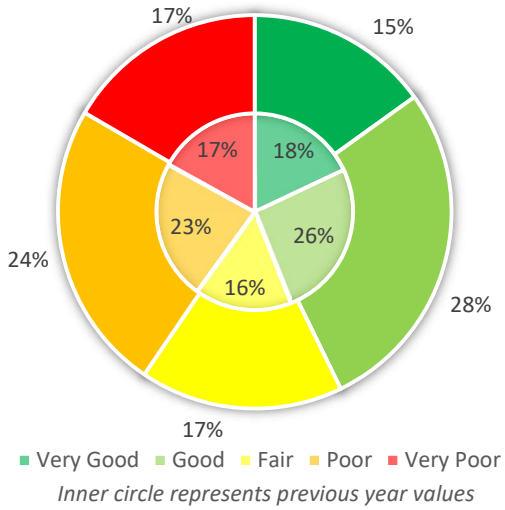
| Asset Category | Quantity | Unit | Replacement Value ($M) | Useful Life (Yrs) |
|---|---|---|---|---|
| Traffic Signals | 247 | each | $153.8 | 40 |
| ITS Devices | 900 | each | $8.1 | 15 |
| Pedestrian Push Buttons | 1,122 | each | $2.5 | 12 |
| Traffic/School Cabinets | 184/116 | each | $3.8 | 15-20 |
| Fiber | 66 | miles | $21.0 | 25 |
| Signs | 34,000 | each | $5.1 | 15-30 |
| Lane Markings | 934 | miles | $0.5 | .5-1 |
| Pavement Stencils | 10,144 | each | $2.2 | 2-10 |
| Delineators | 900 | each | $0.04 | 5-10 |
| **Traffic Total** | | | **$197.0** | |



## Asset Category Condition State

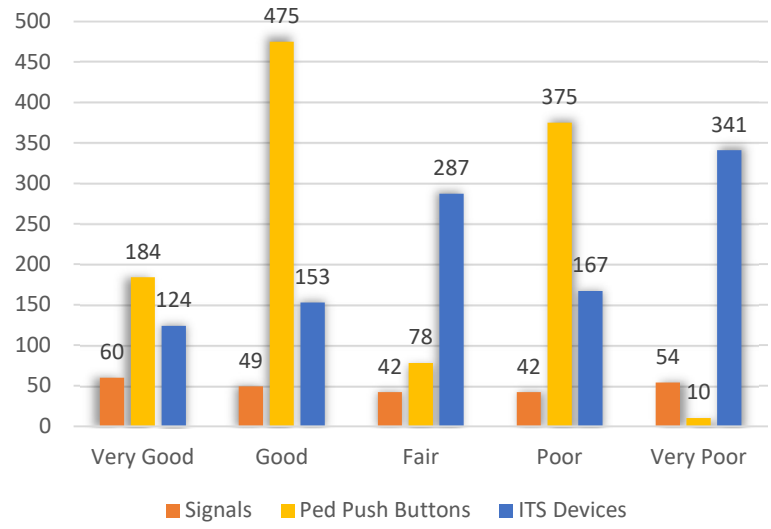



## Overall Condition State

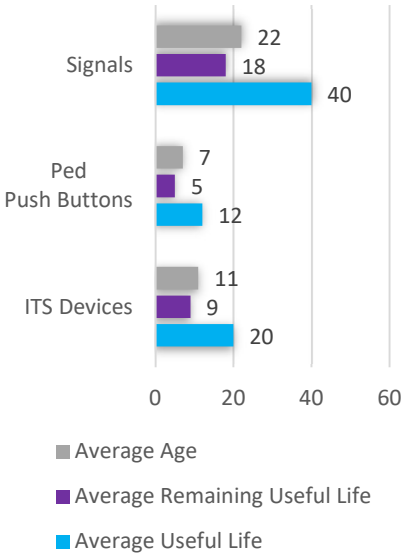



*Inner circle represents previous year values*

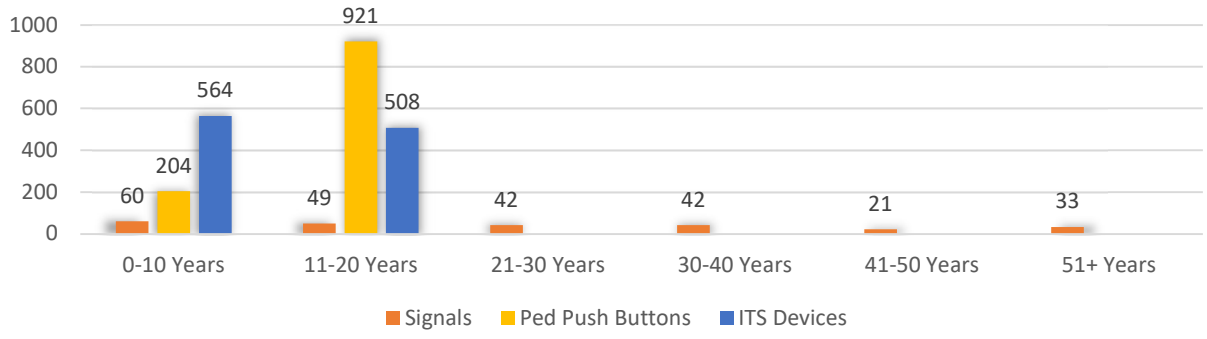
## Number of Traffic Devices by Condition State



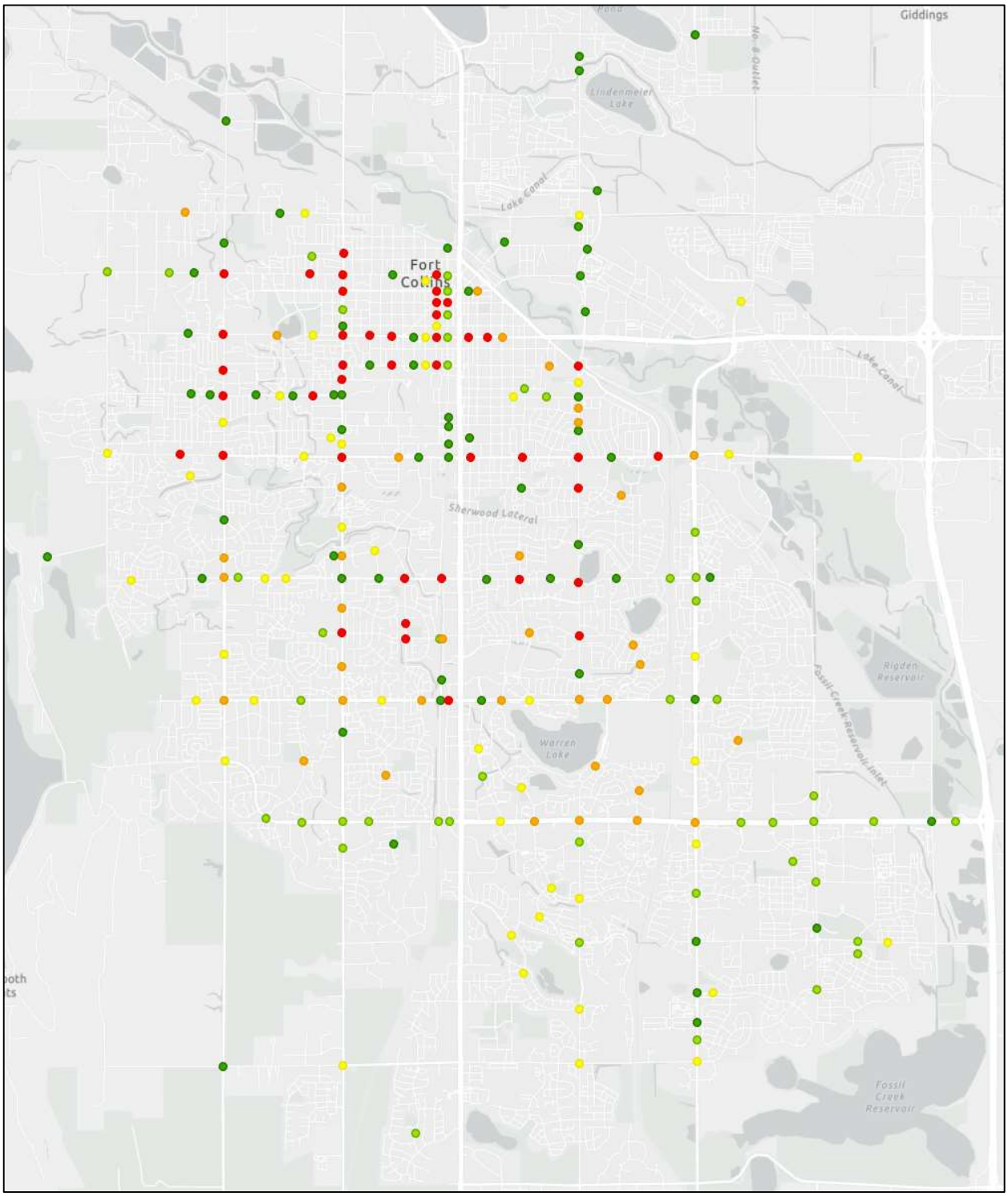

## Average Useful Life




## Number of Traffic Devices by Age



## Traffic Signal Location by Condition State




**Condition State**

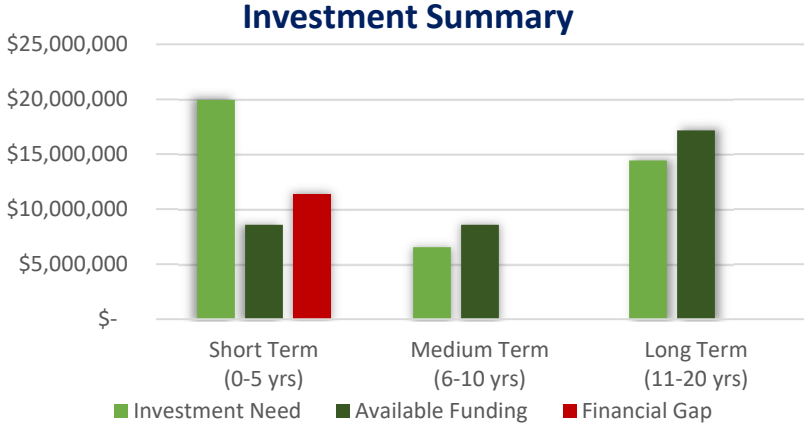
Very Good Good Fair Poor Very Poor

## 10-Year Lifecycle Financial Ratio

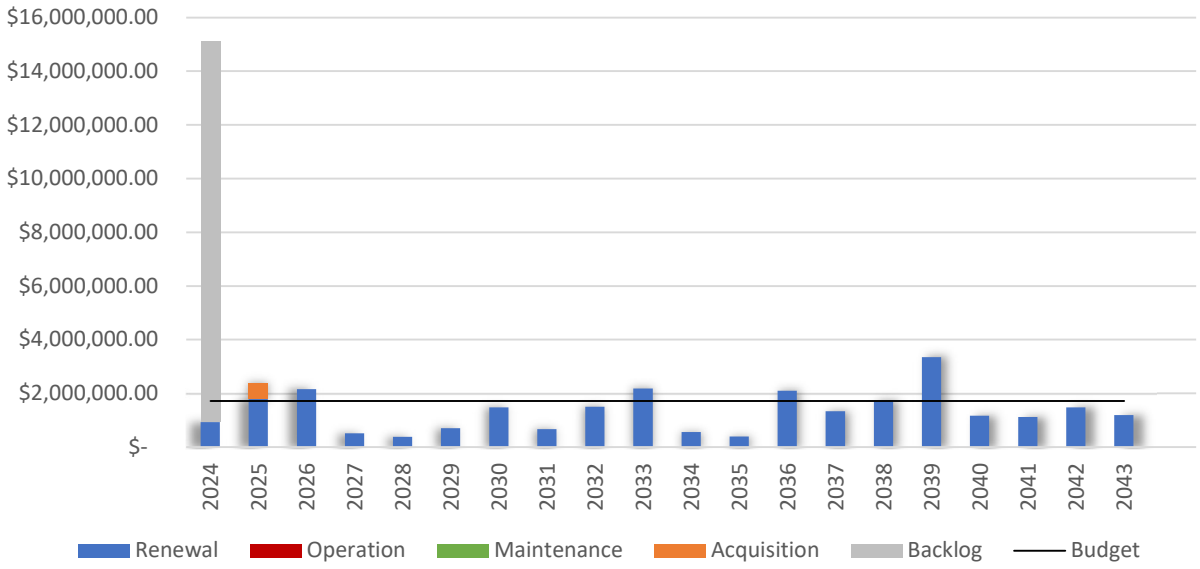
65%

Target ranges is between 90% - 110%

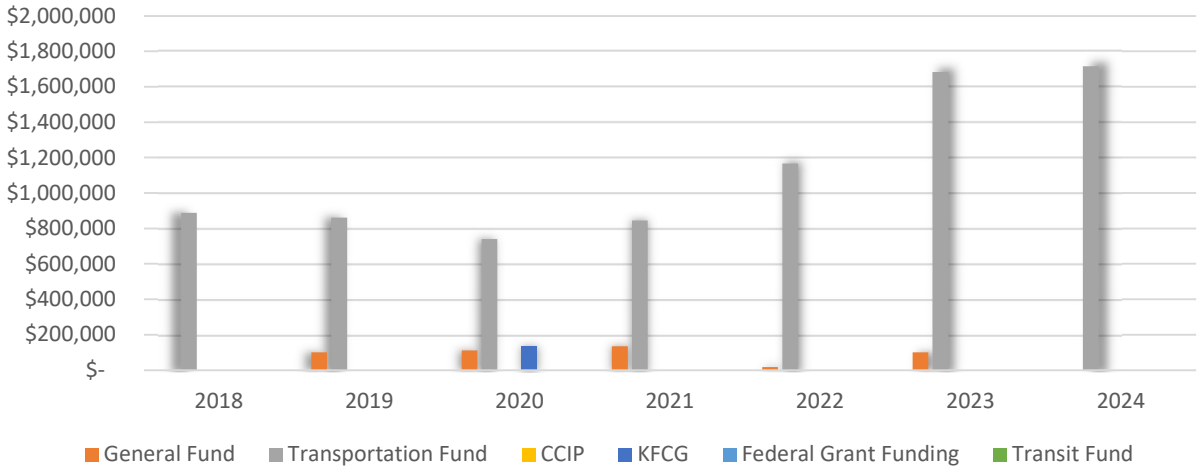
## Investment Summary




## 20-Year Lifecycle Summary




## Funding Source Summary



# HIGH-PRIORITY TRAFFIC

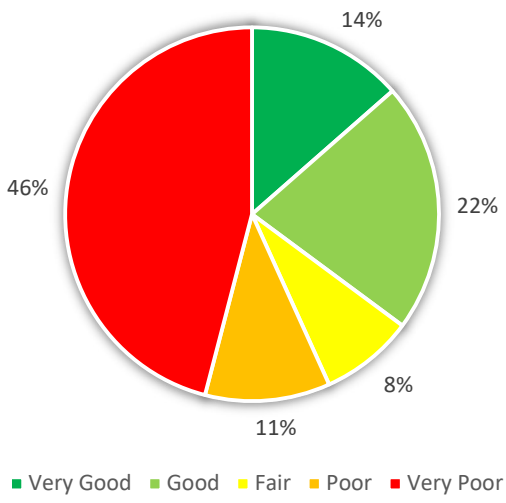
## Infrastructure Assets That Cannot Fail

Within the asset categories the following are defined as high-priority assets and may require additional operations and maintenance to ensure a safe and reliable transportation network.

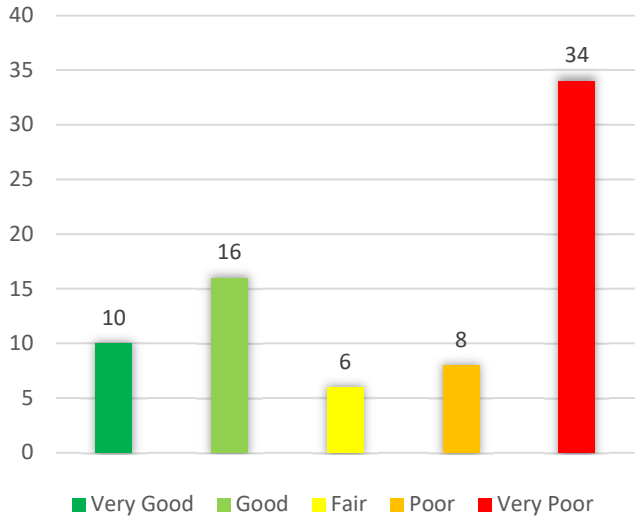
- Signals along what would be considered evacuation routes such as Prospect Road and Harmony Road.
- Structures and/or equipment that are past their useful life along arterial roadways.
- Traffic signals at railroad crossings

| Customer Value | Customer Level of Service (Measures) | Customer Level of Service (Performance) |
|---|---|---|
| **Quality** Is the Service of sufficient quality? | # signal poles with failed condition rating. | 34 (2 are in critical condition) |
| | % regulatory and warning traffic signs meeting retro reflectivity standard. | TBD |
| **Legislative** Does the service meet legal requirements? | % intersections meeting MUTCD and PROWAG standards. | 6% |
| **Reliability/Functionality** How predictable is the service? How operational is the service? | % arterial intersections with UPS. | 49% |
| | % intersections with operable CCTV cameras. | 82% |
| **Accessibility** Can the service be easily accessed and used? | % signalized intersections meeting ADA compliance for PBB. | 30% |
| **Health and Safety** Does the service pose a risk to health and safety? | % traffic signals grounded to current standard. | 70% +/- |

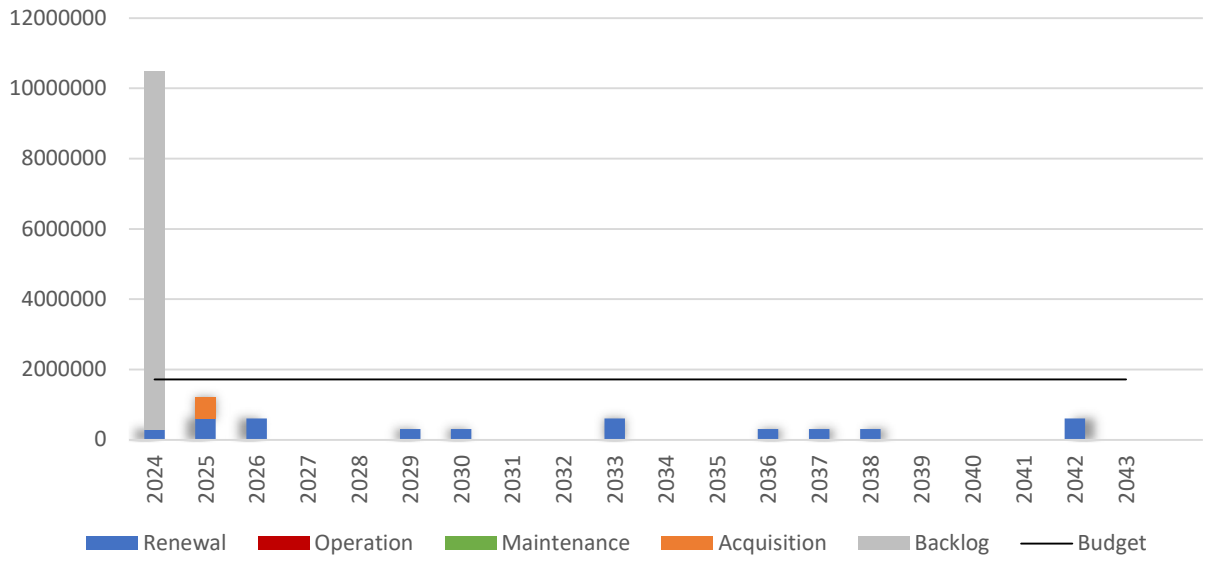
## High-Priority Traffic Signals Overall Condition State



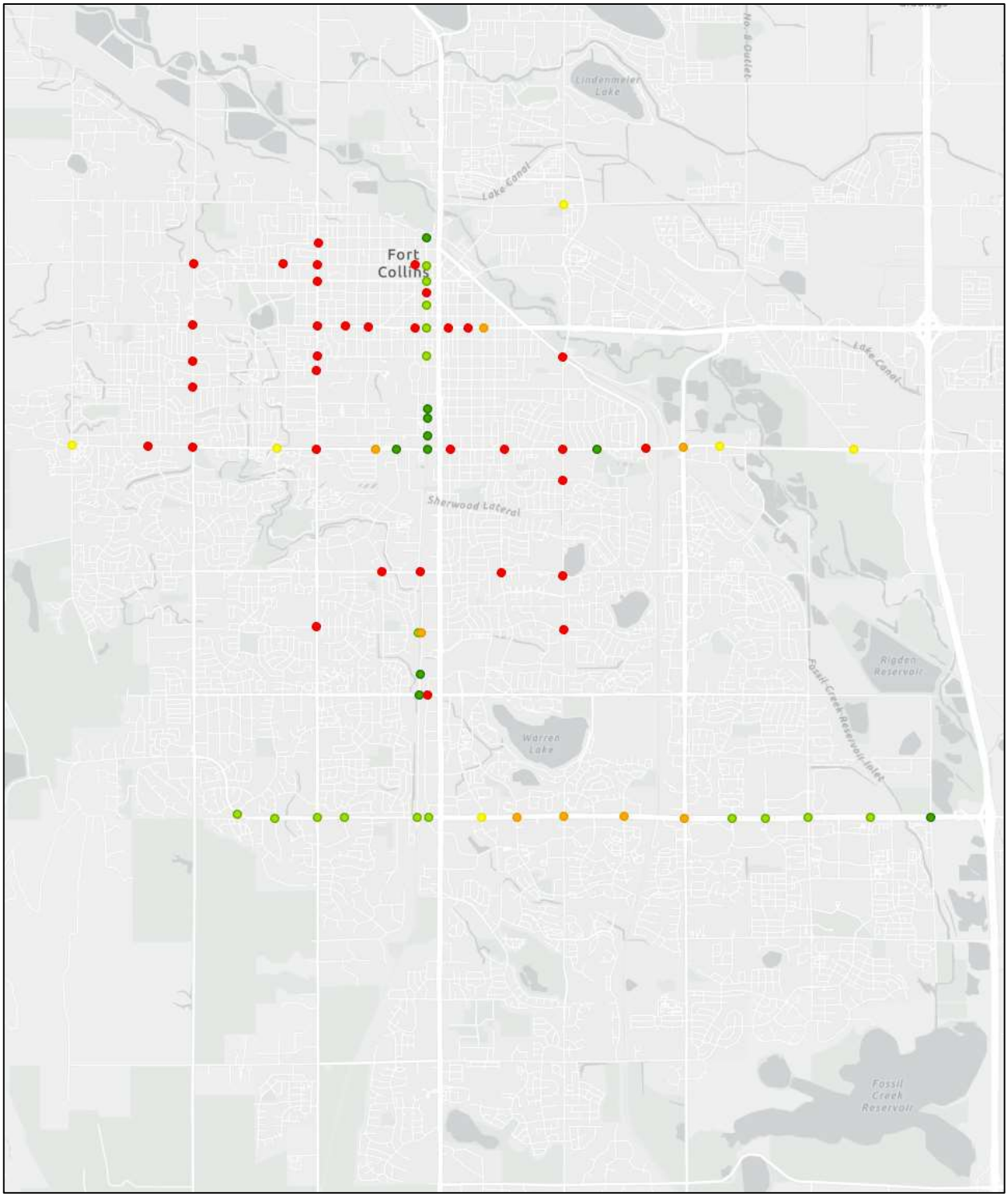

## Number of High-Priority Traffic Signals by Condition State




## High-Priority Traffic Signals 20-Year Lifecycle Summary



## High-Priority Traffic Signal Location by Condition State

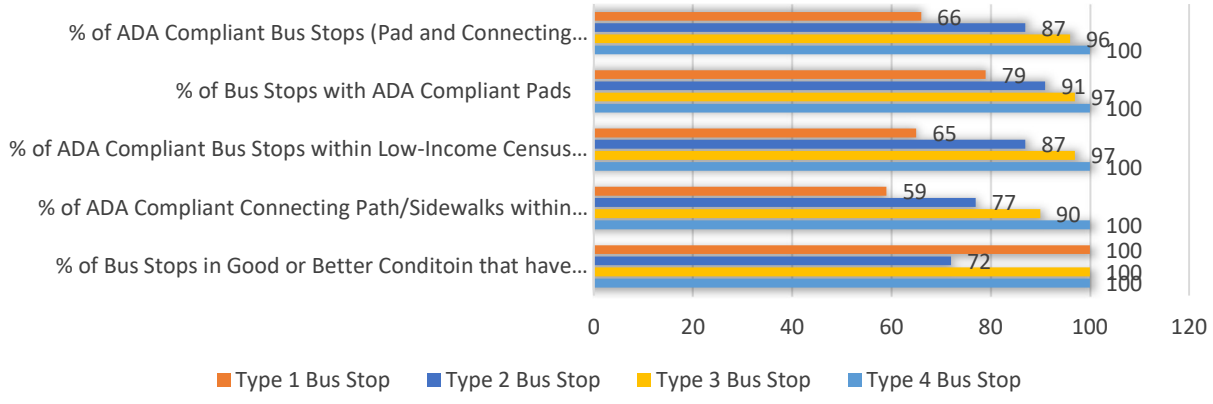



**Condition State**

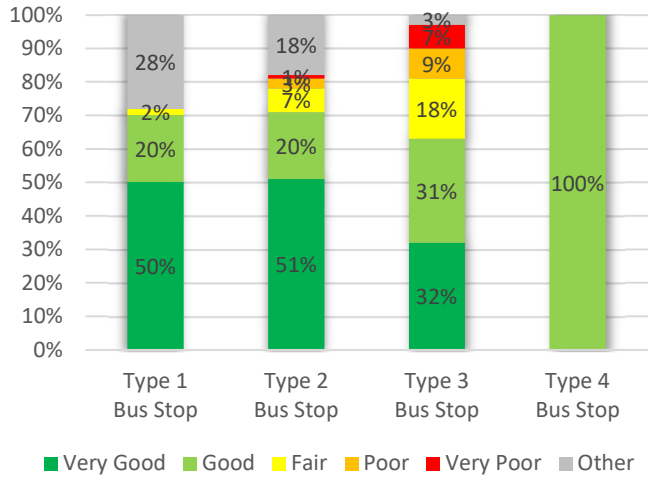
Very Good Good Fair Poor Very Poor


# TRANSIT

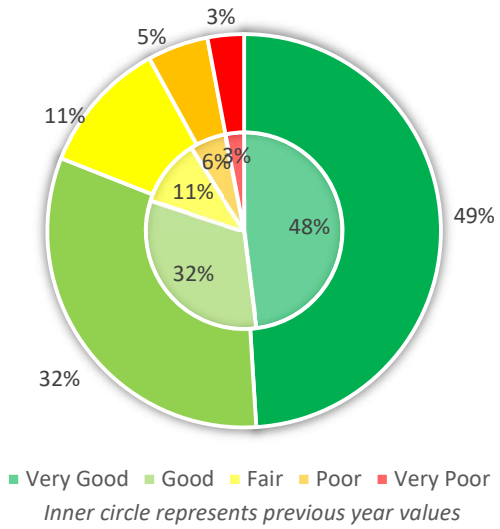
| Asset Category | Quantity | Unit | Replacement Value ($M) | Useful Life (Yrs) |
|---|---|---|---|---|
| Type 1 Bus Stop (Sign Only) | 82 | each | $1.3 | 20-30 |
| Type 2 Bus Stop (Bench) | 166 | each | $4.3 | 20-30 |
| Type 3 Bus Stop (Shelter) | 150 | each | $15.7 | 20-30 |
| Type 4 Bus Stop (MAX BRT Station) | 18 | each | $7.0 | 20-30 |
| **Transit Total** | **416** | **each** | **$28.3** | |



## Asset Category Condition State

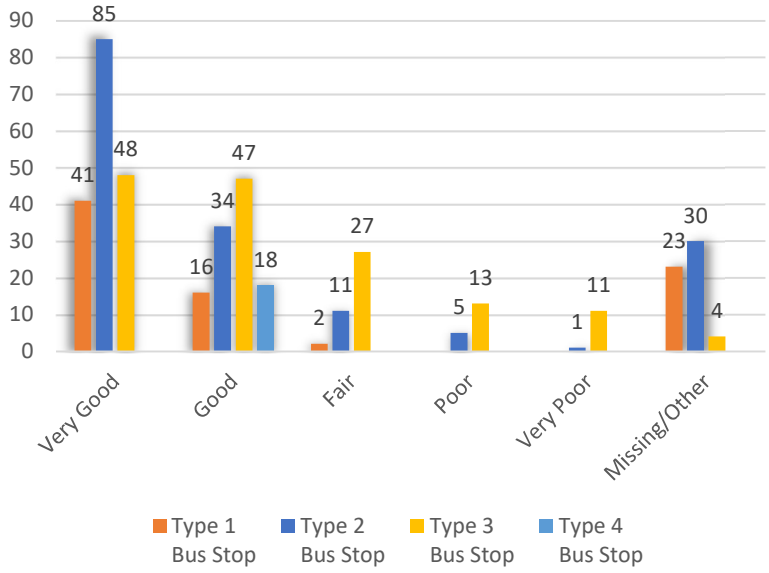



## Overall Condition State

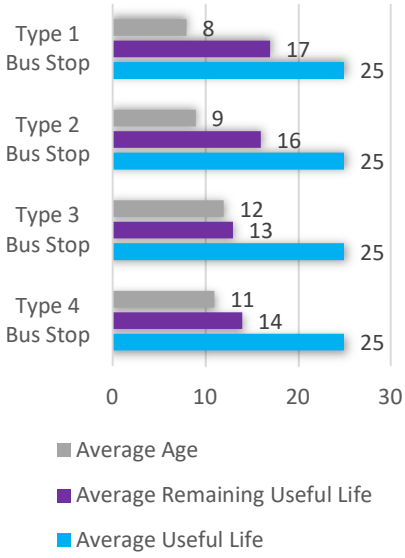



*Inner circle represents previous year values*

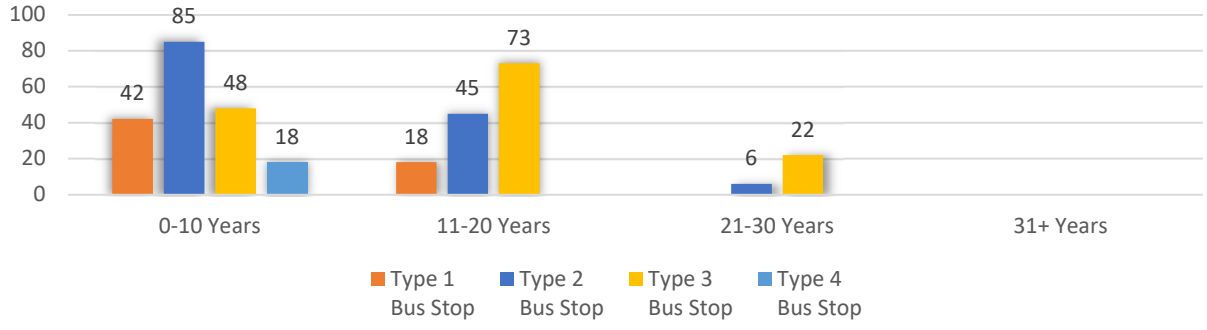
## Number of Bus Stops by Condition State



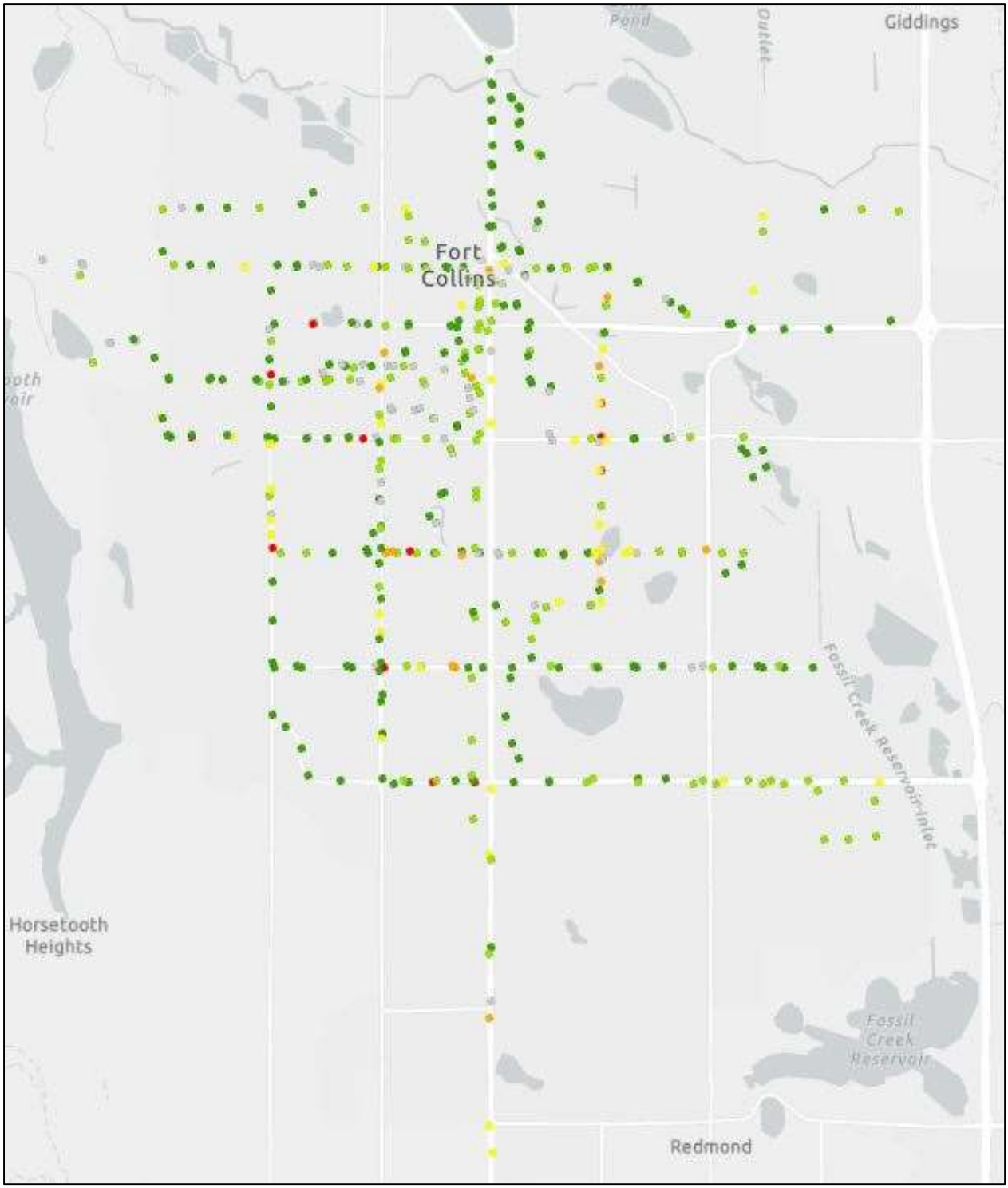

## Average Useful Life




## Number of Bus Stops by Age



## Bus Stop Location by Condition State




**Condition State**

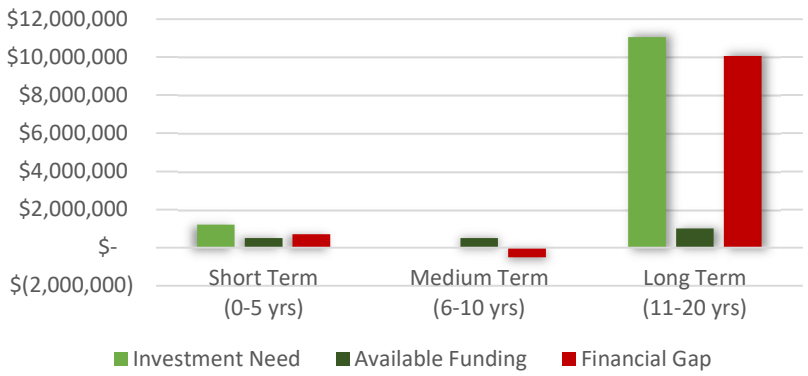
Very Good Good Fair Poor Very Poor

## 10-Year Lifecycle Financial Ratio

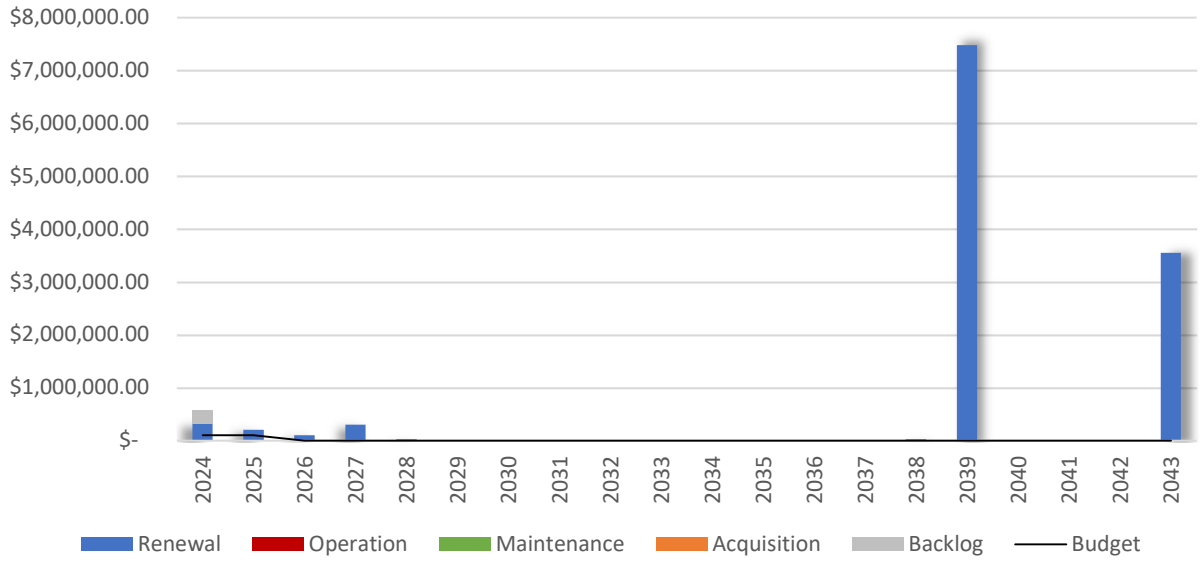
83%

Target ranges is between 90% - 110%

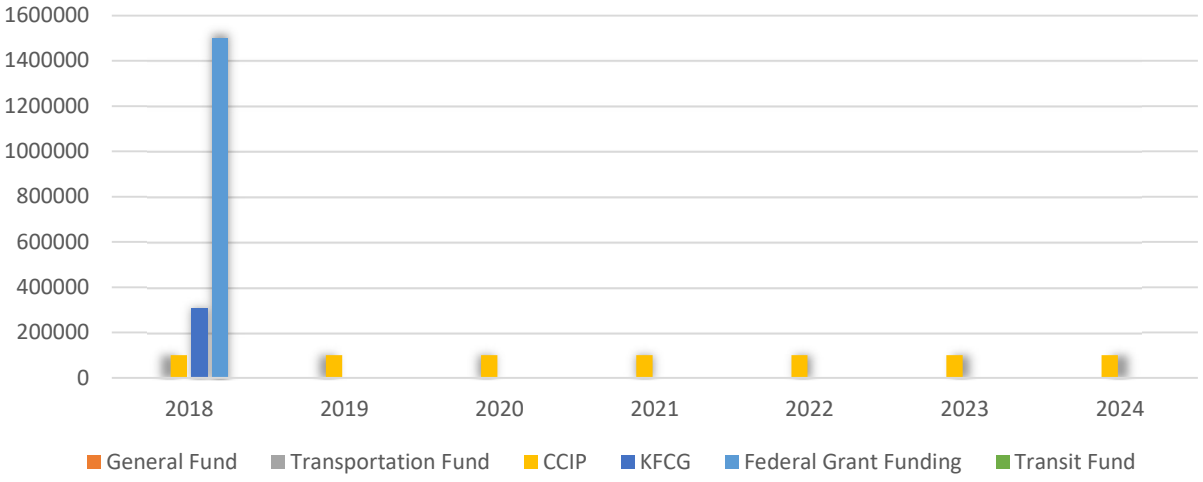
## Investment Summary




## 20-Year Lifecycle Summary




## Funding Source Summary



# HIGH-PRIORITY TRANSIT

## Infrastructure Assets that Cannot Fail

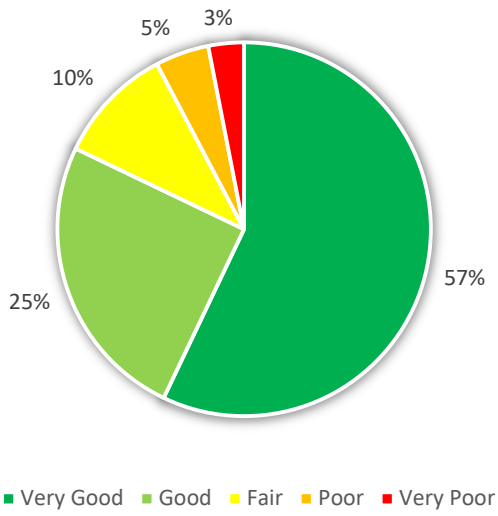
Within the asset categories the following are defined as high-priority assets and may require additional operations and maintenance to ensure a safe and reliable transportation network.

- Transit stops providing access to schools, grocery stores, and healthcare facilities.
- Transit stops along priority routing plans and continuity of service(s).
- Transit stops that have high volume ridership levels and those along high demand or transit emphasized corridors such as Bus Rapid Transit (BRT).
- Non-ADA compliant transit stops, and transit stops located within low-income Census tracts.

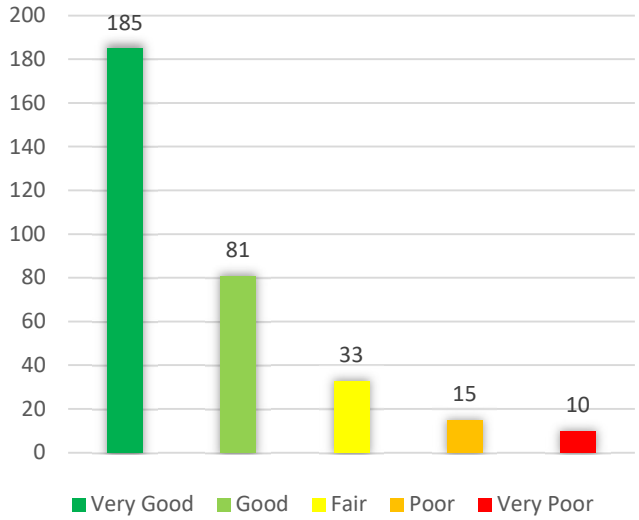
| Customer Value | Customer Level of Service (Measures) | Customer Level of Service (Performance) |
|---|---|---|
| **Quality**<br>Is the Service of sufficient quality? | GIS Inventory Transit Assets average overall grade. | A |
| | Customer feedback through complaints/satisfaction surveys. Onboard Survey Question 12, Cleanliness of bus sub-category with "Very Satisfied" & "Somewhat Satisfied" responses. | TBD |
| **Legislative**<br>Does the service meet legal requirements? | Findings for deficiencies based on FTA review. | TBD |
| **Reliability/Functionality**<br>How predictable is the service?<br>How operational is the service? | Customer feedback through complaints/satisfaction surveys. Onboard Survey Question 10: average of Buses do not arrive on time, Buses do not run early enough, & Buses do not run late enough. | TBD |

| | | |
|---|---|---|
| | Customer feedback through complaints/satisfaction surveys. Onboard Survey Question 12: average of Reliability and On Time, Ease of Transfer, & Ability to get Information sub-categories with "Very Satisfied" & "Somewhat Satisfied" responses. | TBD |
| **Accessibility**<br>Can the service be easily accessed and used? | Customer feedback through complaints/satisfaction surveys. Paratransit Question 8: Making reservations "Needs Improvement". | TBD |
| **Health and Safety**<br>Does the service pose a risk to health and safety? | Customer feedback through complaints/satisfaction surveys. Onboard Survey Question 12, friendliness of bus drivers sub category with "Very Satisfied" & "Somewhat Satisfied" responses. | TBD |
| | Customer feedback through complaints/satisfaction surveys. Onboard Survey Questions 13e and 13f average. | TBD |

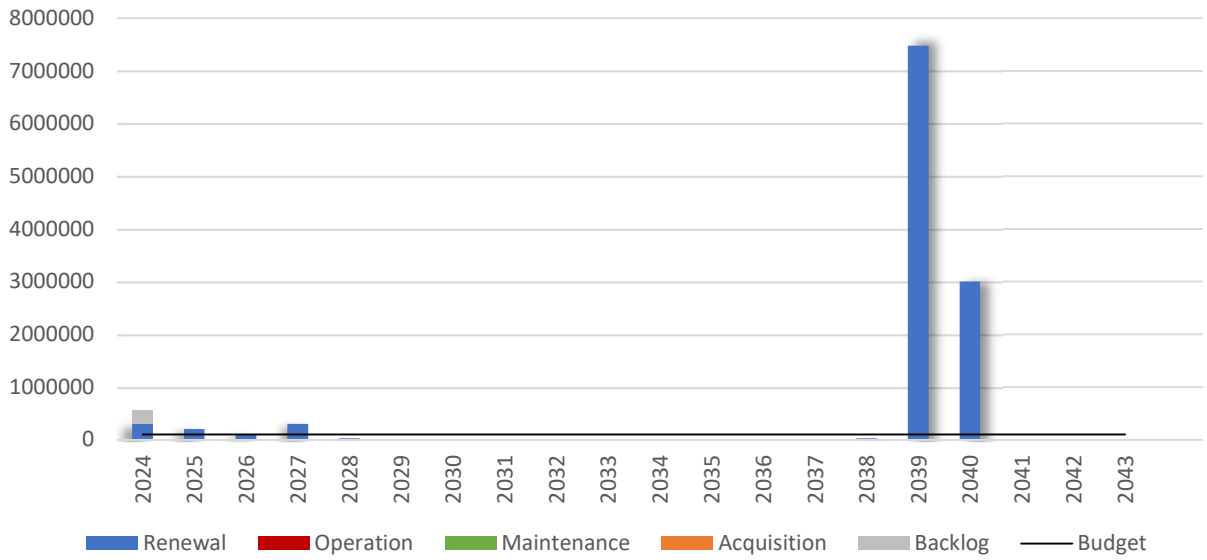
## High-Priority Bus Stops Overall Condition State



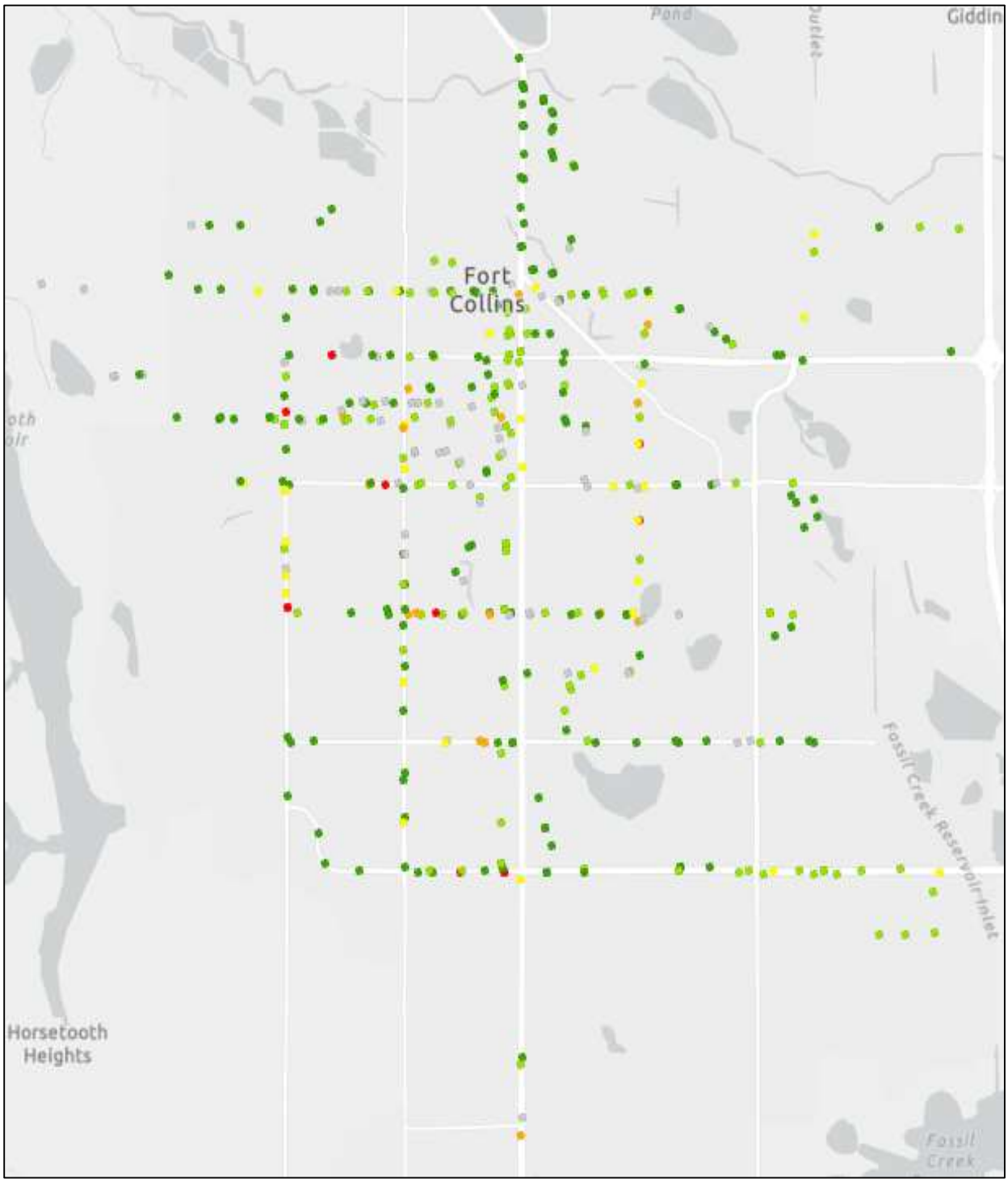

## Number of High-Priority Bus Stops by Condition State




## High-Priority Bus Stops 20-Year Lifecycle Summary



## High-Priority Bus Stop Location by Condition State




**Condition State**

Very Good Good Fair Poor Very Poor

# Definitions

**Asset** – an item or thing that has potential or actual value or benefit to an organization, council, or community.

**Asset Class** – a collection of assets which share similar construction, maintenance, condition, and availability standards. Roadways, sidewalks, and street signs are all examples of asset classes.

**Asset Management (AM)** – provide effective control and governance to infrastructure assets to realize value through managing risk and opportunity, in order to achieve the desired balance of cost, risk & performance.

**Capital Infrastructure Asset** – infrastructure assets are long-lived capital assets that normally are stationary in nature and normally can be preserved for a significantly greater number of years than most capital assets. Examples of infrastructure assets include roads, sidewalks, bridges, tunnels, drainages systems, water and sewer systems, dams, and lighting systems.

**High-Priority Asset** – is a key component of transportation systems that is essential for the movement of goods, services, and people. Its functionality is crucial for a safe and reliable transportation network.

**Financial Strategy** – a strategy for budgeting available resources to provide the defined level of service across the full life cycle of all managed assets, typically through the funding and implementation of a long-range plan that emphasizes cost-effective periodic maintenance activities.

**Function** – the asset(s) are able to meet the intended service demand.

**Investment Gap** – the difference between the investment need and the available funding projected over a period of time.

**Investment Need** – the level the city should be investing in its assets to meet the rate of renewals to continue to meet levels of service.

**Level of Service** – A quantifiable measure of a combination of parameters that reflect social, economic, and environmental outcomes that the organization delivers. Levels of service statements describe the outputs or objectives an organization or activity intends to deliver to customers. Parameters can be aspects or characteristics of a service such as accessibility, affordability/cost, efficiency, quality, quantity, reliability, responsiveness, and safety.

**Lifecycle Cost** – means the total cost of an asset throughout its life including planning, design, construction, acquisition, operation, maintenance, depreciation, rehabilitation, and disposal costs.

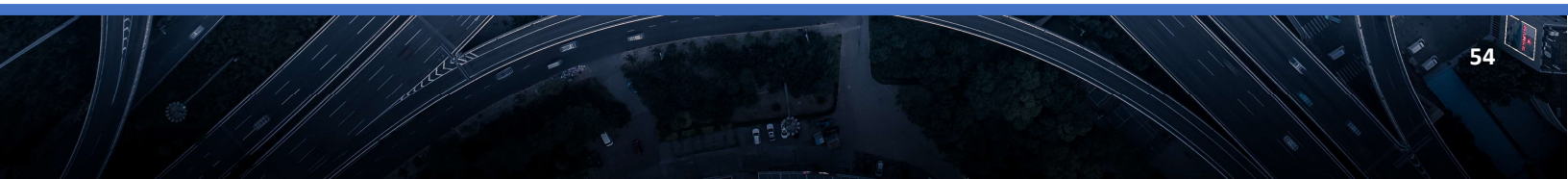
**Remaining Useful Life** – the difference between current age of an asset and the anticipated service life of the asset.

**Replacement Value** – the cost of replacing an existing asset with a like asset in today's dollars.

**Sustainability –** infrastructure that meets the needs of the present without compromising the ability of future generations to meet their own needs. In the context of AM, it is about meeting the needs of the future by balancing social, economic, cultural, and environmental outcomes or needs when making decisions today.

**Useful Life** – the expected period of time which an asset provides value to the community.

**Value** – assets exist to provide tangible, non-tangible, financial or non-financial benefits to council and community in accordance with council objectives.

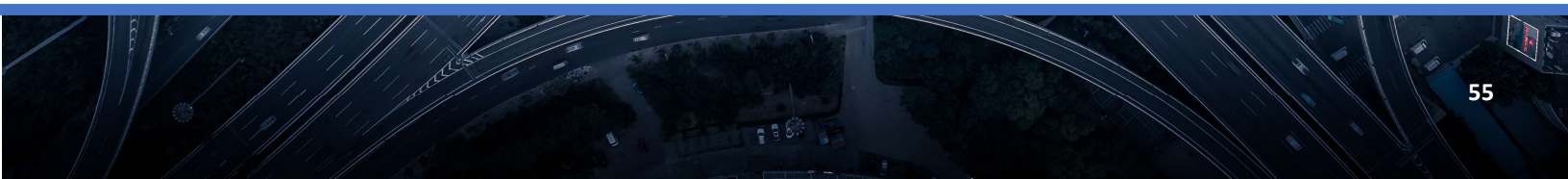


# Asset Condition Ratings

Asset condition is based on a typical 5-value scale (Very Good, Good, Fair, Poor, Very Poor) that is utilized both nationally and internationally as a universal standard for comparing assets. This report focuses on the physical condition of the assets.

| Grade | Rating | Estimated Remaining Useful Life | Definition |
|---|---|---|---|
| 1 | Very Good | (80-100%) | **Fit for Future**<br>The infrastructure in the system or network is generally in excellent condition, typically new or recently rehabilitated, and meets capacity needs for the future. A few elements show signs of general deterioration that require attention. Facilities meet modern standards for functionality and are resilient to withstand most disasters and sever weather events. |
| 2 | Good | (60-80%) | **Adequate for Now**<br>The infrastructure in the system or network is in good to excellent condition, some elements show signs of general deterioration that require attention. A few elements exhibit significant deficiencies. Safe and reliable with minimal capacity issues and minimal risk. |
| 3 | Fair | (40-60%) | **Requires Attention**<br>The infrastructure in the system or network is in fair to good condition, shows signs of deterioration and requires attention. Some elements exhibit significant deficiencies in conditions and functionality, increasing vulnerability to risk. |
| 4 | Poor | (20-40%) | **At Risk**<br>The infrastructure is in fair to poor condition and mostly below standard, with many elements approaching the end of their service life. A large portion of the system exhibits significant deterioration. Condition and capacity are of serious concern with strong risk of failure. |
| 5 | Very Poor | (0-20%) | **Failing/Critical, Unfit for Sustained Service**<br>The infrastructure in the system is in unacceptable condition with widespread, advanced signs of deterioration. Many of the components of the system exhibit signs of imminent failure. |

If condition data has not been collected, ratings can be estimated and translated from the remaining useful life of the asset(s) to represent the condition grade.



# Gaps and Assumptions

## BRIDGES

**Gaps:**

- Inventory of less than 4' bridges owned by Engineering. *(in progress)*

**Assumptions:**

- Replacement values are extrapolated based on deck area.
- Condition ratings are based on visual inspections and expert opinions.

## RAILROADS

**Gaps**:

-

**Assumptions:**

- Replacement values are based on historic projects.
- Useful life based on expert opinion of staff.
- Condition ratings were based on visual inspections and expert opinions.

## SIDEWALKS

**Gaps**:

- Age data for all sidewalk segments.
- Collect condition data in 5-value scale.
- Age data required to perform lifecycle summary.

**Assumptions:**

- % of ADA compliant ramps based on estimated number of improved ramps.

## STREETS

**Gaps**:

- Complete inventory of local road area. *(in progress)*

**Assumptions:**

- Bike lane numbers decreased due to last year's numbers included GMA.
- Utilizing historic local road area data to calculate road replacement values.

## TRAFFIC

**Gaps**:

- Utilizing only signal pole, ITS (Intelligent Transportation System), and Push Button condition data.
- Capture underground and signal head condition data.

**Assumptions:**

- Condition ratings are based on age, visual inspections, and staff opinions.
- Replacement values are based on contracted prices. Cost savings if work completed by City staff.
- Useful life based on expert opinion of FHWA and CDOT.

## TRANSIT

**Gaps**:

- Type 4 bus stop condition/compliance data. *(in progress)*
- Age data for all bus stop assets.
- Spatial relationships for condition data within GIS. *(in progress)*
- Utilizing only pad condition data.
- Update connecting path within GIS data.

**Assumptions:**

- Replacement values are extrapolated based on bus stop type.
- Lifecycle summary age information for renewals is based on condition data.
- Useful life average age information is based on condition data.

# Data Assurance

Each asset class was qualitatively assessed by City staff for data assurance using the following measures:

| Asset Class | Accuracy | Completeness |
|---|---|---|
| Bridges | Very High | Medium |
| Railroad Crossings | Very High | High |
| Sidewalks | High | High |
| Streets | Very High | Very High |
| Traffic | Medium | High |
| Transit | Very High | High |

| | |
|---|---|
| Accuracy | Refers to the degree to which collected information reflects the true and precise values of the measured attributes. It involves minimizing errors, biases, and variations during the data gathering process to ensure that the collected data faithfully represents the real-world assets and its attributes. |
| Completeness | Refers to the extent to which all relevant and necessary information about each asset is captured and included in the dataset. It ensures that no critical details or attributes are omitted, allowing for a comprehensive understanding of the asset's characteristics, condition, and context. |

| Accuracy | Description |
|---|---|
| Very High | Dataset is current. Estimated to be accurate +/-2%. |
| High | Dataset is estimated to be accurate +/- 10%. |
| Medium | Dataset is substantially complete but up to 50% is extrapolated data and accurate +/- 25%. |
| Low | Dataset is not documented or entered into asset register. Most data is estimated or extrapolated and accurate +/- 40%. |
| Very Low | None or very little data has been collected for the asset. |

| Completeness | Description |
|---|---|
| Very High | Dataset is complete and covers the entire set of assets and attributes. Estimated to be >98%. |
| High | Dataset is primarily complete and covers most of the assets and attributes. Estimated to be >90%. |
| Medium | Most critical assets captured, but there may be some gaps. Portions of non-major assets are missing information. Estimated to be >50%. |
| Low | Significant gaps within the dataset. Estimated to be <50%. |
| Very Low | None or very little data has been collected for the asset. |

City of Fort Collins