Agenda Item No: 17.A

STAFF REPORT

Report To: Board of Supervisors **Meeting Date:** February 16, 2023

Staff Contact: Darren Schulz, Public Works Director

Agenda Title: For Possible Action: Discussion and possible action regarding a presentation of the Carson City Roads Funding: Local Funding Options Technical Report ("Report") and potential mechanisms to increase funding for the construction and maintenance of Carson City's roads and road-related transportation infrastructure projects. (Chris Martinovich, cmartinovich@carson.org and Dan Stucky, dstucky@carson.org)

Staff Summary: The condition of Carson City's roadway pavement and transportation infrastructure is declining, particularly on local, neighborhood streets which represent 71% of the City's roadway network. Without additional funding sources, the condition of the City's roadway pavement and roads-related transportation infrastructure will continue to decline. Staff, with consultant support, will present the Report. The Report describes road-related functions that are the City's responsibility, quantifies the gap between current funding and the funding needed to maintain existing roads in their current condition and provides a detailed evaluation of four potential funding mechanisms. The Report also summarizes each mechanism's ability to shrink the identified funding gap for roadway construction and maintenance.

Agenda Action: Formal Action / Motion **Time Requested:** 45 minutes

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Proposed Motion

I move to direct staff to proceed with further analysis of the preferred transportation funding options as discussed on the record.

Board's Strategic Goal

Sustainable Infrastructure

Previous Action

November 9, 2022 (Item 5A): The Report was presented to the Carson City Regional Transportation Commission ("RTC"). Discussion focused on concerns that Local Improvements Special Districts ("SIDs") may be too administratively burdensome and explored the relative benefits of the General Improvement District ("GID") and Transportation Sales Tax options.

August 5, 2021 (Item 17A): The Carson City Board of Supervisors ("Board") discussed eight potential roadway funding mechanisms and narrowed down the list of potential funding mechanisms to four items for staff to further research and explore: GID, SIDs, Special Purposes (Transportation) Sales Tax and Infrastructure Sales Tax.

June 9, 2021 (Item 5A): A presentation was made to the RTC on the City's current pavement conditions, transportation funding needs, and potential options to generate additional long-term funding to fill the transportation funding gap. Commissioners' discussion followed, though no formal action was taken. Generally,

the commissioners were interested in pursuing and researching potential roadway funding mechanisms further and generally agreed that additional roadway funding is necessary to adequately maintain the roadway infrastructure to an acceptable level of service. Discussion of potential options largely focused on the Program of Local Improvements, GID and Transportation Sales Tax options. Discussion also focused on the importance of engaging and communicating with the public, providing a clear and transparent implementation plan and ensuring that a substantial portion of funding would address the needs of local, neighborhood streets.

Background/Issues & Analysis

Carson City maintains approximately 284 centerline miles of paved roadways. Regional roads, such as those classified as "arterials" and "collectors", make up about 29% of the City's roadway network. The remaining roads, classified as "local", represent the majority, or 71%, of the network and mainly consist of residential and neighborhood streets. While the condition of the regional roads has improved slightly over the past few years, the condition of Carson City's local/neighborhood roads is declining at a rapid rate. Carson City's neighborhood streets are currently in fair condition, with a Pavement Condition Index ("PCI") score of 56 out of a possible 100. If additional funding is not allocated towards Carson City's paved roadway assets, pavement conditions of neighborhood streets are projected to be in very poor condition, with a network average PCI score of 36, by 2030.

Current annual funding for roadway construction and maintenance projects is approximately $4.5 million. As noted in the Carson City Pavement Condition Analysis Final Report dated August 2022, annual funding in the amount of $25.5 million is estimated to be needed to maintain the overall roadway network in its current condition.

As directed by the Board at the 2020 Annual Board Retreat, City staff partnered with a consultant to research and evaluate eight potential roadway funding mechanisms. These options were presented to both the RTC in June 2021 and the Board in August 2021. At the August 2021 meeting, the Board narrowed down the list of potential funding mechanisms and directed staff to explore and further research four potential funding mechanisms. The four mechanisms are listed below.

1. GID - NRS Chapter 318
2. SIDs - NRS Chapter 271
3. Special Purposes (Transportation) Sales Tax - NRS Chapter 377A
4. Infrastructure Sales Tax - NRS Chapter 377B

Working with the City's consultant, additional research and analysis on the four mechanisms has been completed and documented in the Report. Specifically, the Report:

- Describes the roads and road-related functions that are the responsibility of Carson City Public Works,
- Discusses the funding gap to maintain existing roads in their current condition,
- Presents the benefits and limitations of each of the four potential financing mechanisms,
- Presents the broad steps and timeline for implementation of each of the funding mechanisms, and
- Provides observations and findings of the research presented, and outlines steps in the path forward to fund roadway construction, preventative maintenance and preservation.

The Report was presented at the November 9, 2022 RTC meeting. The commissioners expressed interest in proceeding with further analysis of a citywide GID and further exploring both Transportation Sales Tax options, namely extending and reallocating V&T Infrastructure Sales Tax (NRS Chapter 377B) to be used for roadway funding and considering a new Special Purposes (Transportation) Sales Tax option under NRS Chapter 277A. Discussion also included the importance of public outreach and transparency as this process moves forward.

The Report, the associated supporting material and input received by RTC, will be presented to the Board for their consideration.

Additional funding would allow Carson City to be proactive in addressing roadway construction and maintenance needs utilizing the established pavement management process. Being proactive would extend the

lifecycle of roadway assets and reduce long-term costs associated with neglected infrastructure. Similar to a 1970's oil-filter slogan - pay now or pay more later - pavement management aims to reduce long-term taxpayer costs for having a safe, reliable and efficient transportation network available for public use 24 hours a day, 365 days a year.

Applicable Statute, Code, Policy, Rule or Regulation
N/A

Financial Information
Is there a fiscal impact? No

If yes, account name/number: N/A

Is it currently budgeted? No

Explanation of Fiscal Impact: N/A

Alternatives
N/A

Attachments:
1_HEC Presentation CC Roads Funding.pdf

2_HEC Technical Report CC Roads Oct2022.pdf

3_Funding Options Summary Matrix.pdf

4_LocalFunding_2022 Carson City PAVER Scenarios Final Report V3.pdf

5_Initial Public Survey Results.pdf

6_11092022 Minutes RTC.pdf

Board Action Taken:

Motion: _____	1) _____	Aye/Nay
	2) _____	_____
		_____
		_____
		_____
		_____

_____
(Vote Recorded By)

Local Roads Funding Options

Board of Supervisors Meeting – February 16, 2023

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Purpose

Examine four local roads funding mechanisms

Determine the best mechanism(s) to close the funding gap

Provide a financing strategy and path forward

Create project identity & obtain community input (logo, website, outreach)

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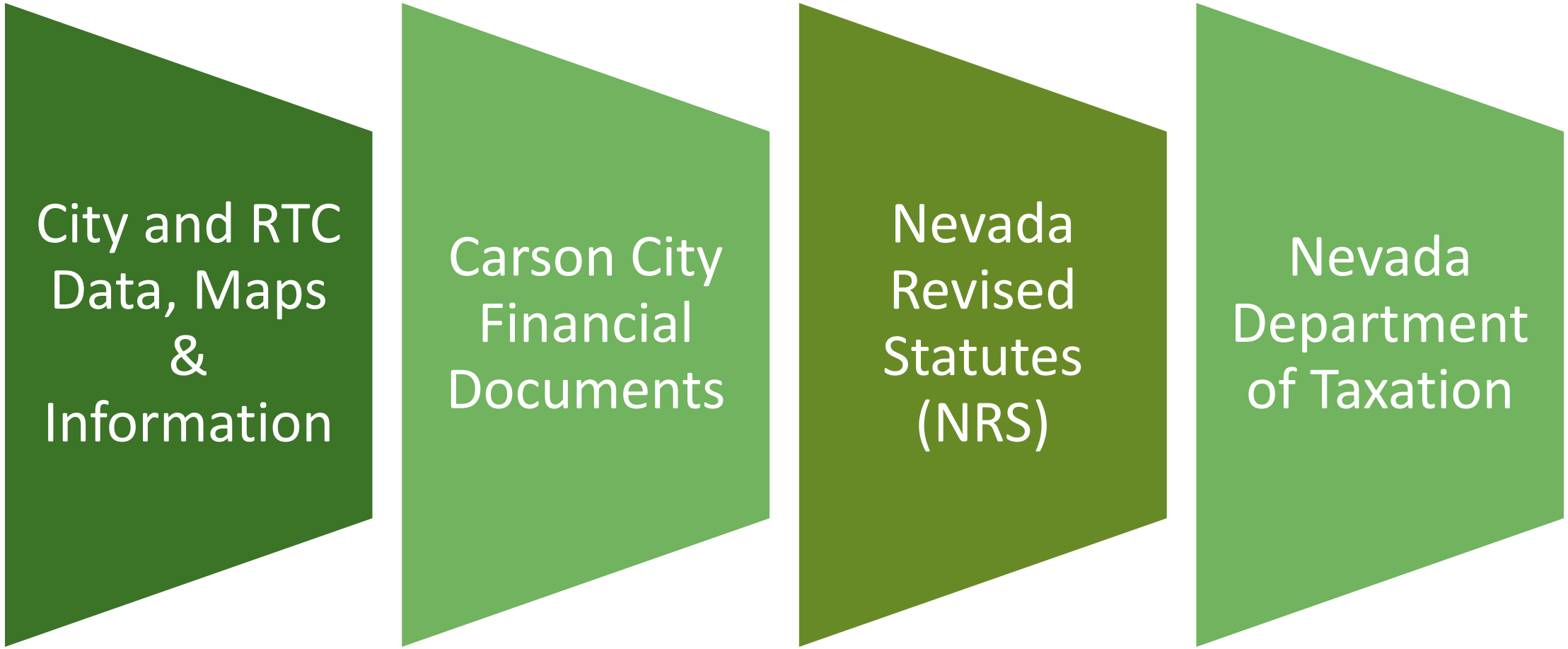
Data Sources



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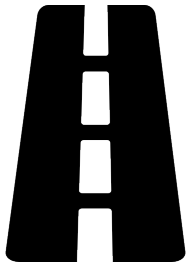
Road and Road-Related Functions

Pavement Maintenance

Actions to preserve and prolong pavement life through routine maintenance and preservation

- Pothole sealing, crack filling, slurry sealing



Road Reconstruction

Design and construction of failed roadways

Right-of-Way

Sweeping, sanding, snow removal

Access, Mobility and Safety

Pedestrian crossings, bike lanes, ADA sidewalks and ramps

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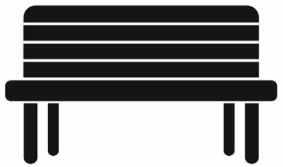
Road and Road-Related Functions

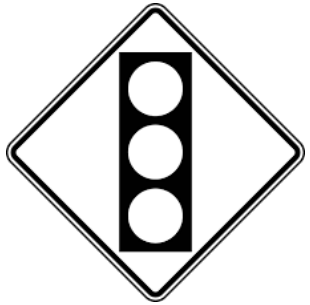
Landscape and Public Spaces

Weed control, right-of-way maintenance, maintenance of landscaping and public spaces adjacent to roads



Traffic Operations

Signage, pavement markings, street lights, traffic lights



Sidewalk Management

Inspections and repairs

Transit

Buses, shelters, operations

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Pavement Condition Index (PCI)

Condition Category	
Good	PCI: 86 - 100
Satisfactory	PCI: 71 - 85
Fair	PCI: 56 - 70
Poor	PCI: 41 - 55
Very Poor	PCI: 26 - 40
Serious	PCI: 11 - 25
Failed	PCI: 0 - 10

Regional Roads

Satisfactory

PCI is 74

Local Roads

Fair/Poor *

PCI is 56

* In 2021, the Local Roads PCI was assessed Poor. In 2022, the Local Roads PCI was assessed Fair approaching Poor.

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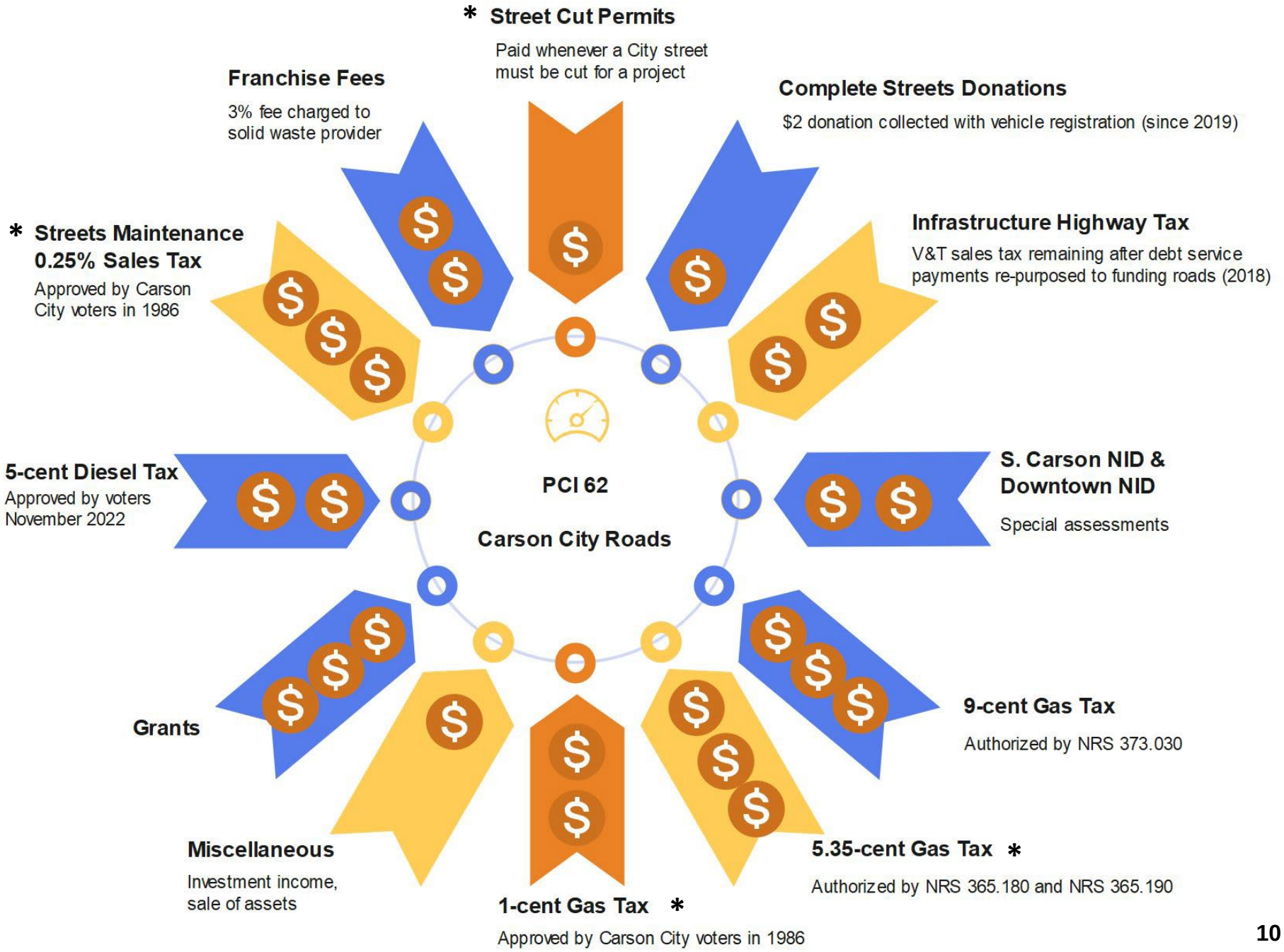
All Roads Current Funding Sources

* Revenues spent on both regional and local roads



$ *tens of thousands*

$ $ *hundreds of thousands*

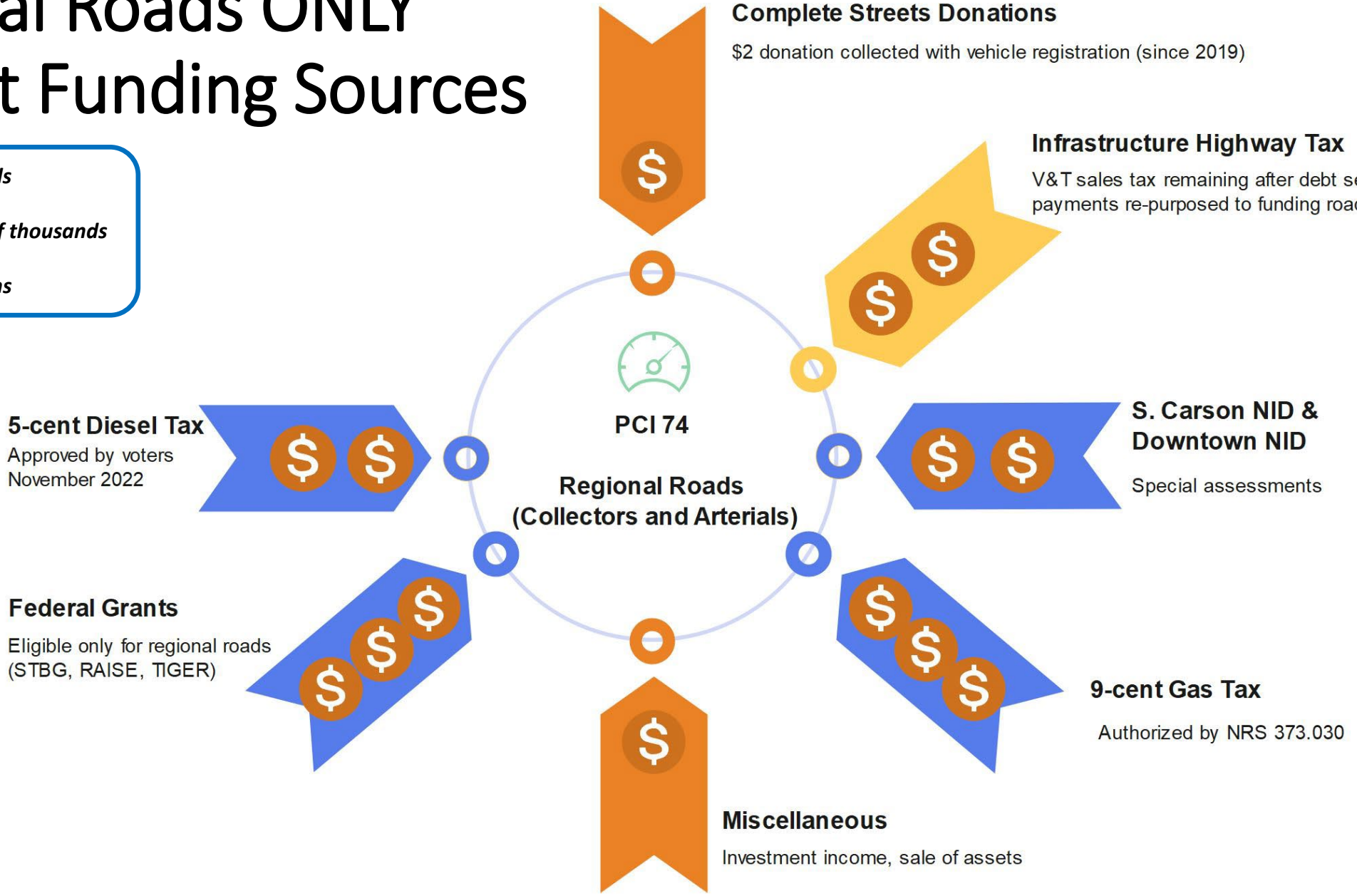
$ $ $ *millions*

Regional Roads ONLY Current Funding Sources

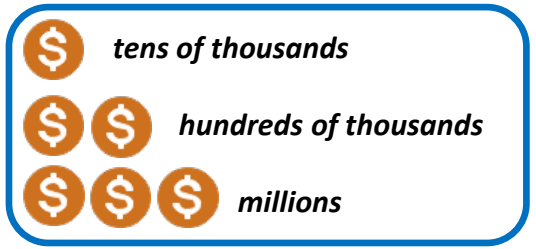
$ *tens of thousands*

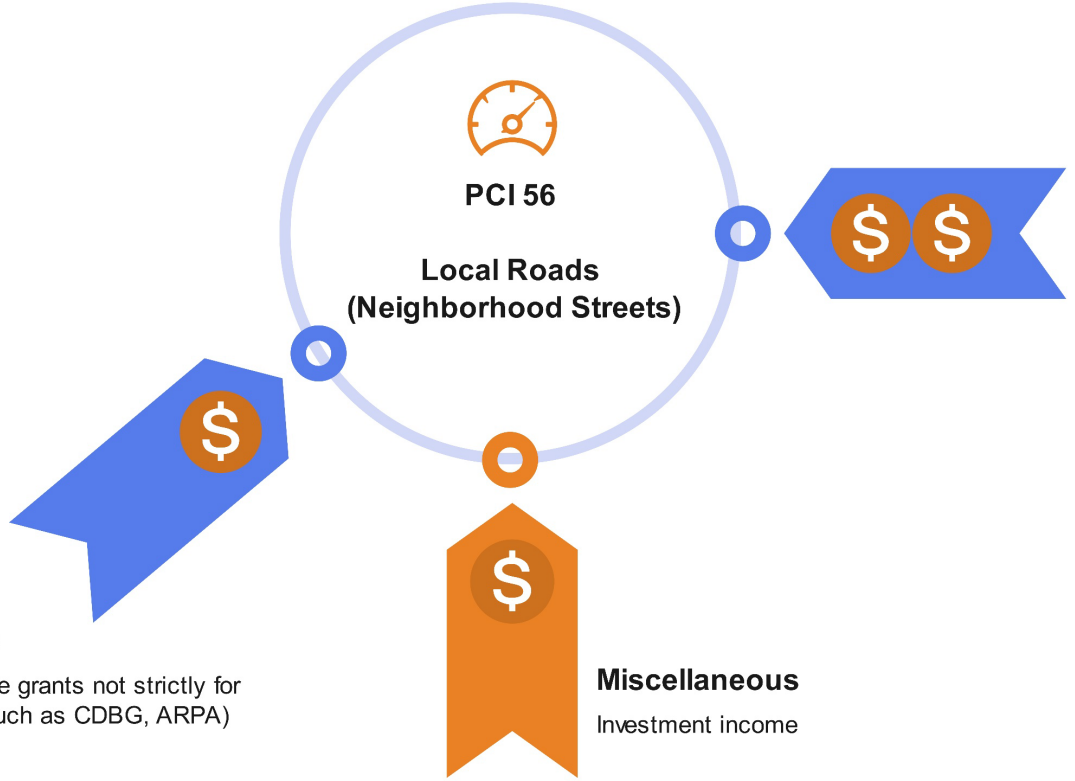
$ $ *hundreds of thousands*

$ $ $ *millions*



Local Roads ONLY
Current Funding Sources





The Funding Gap

	Annual Funding	
Revenue	$10.0 Million	Excludes grants for regional roads and revenue for debt service
Operating Expenses	$5.5 Million	Staffing, fleet, services and supplies
Capital Projects	**$4.5 Million**	**Remaining revenue for roads preservation projects**
Pavement Upkeep	$25.5 Million	Estimated annual cost to keep Local Roads in Fair (approaching Poor) Condition and Regional Roads in Satisfactory Condition
Funding Gap	**$21.0 Million**	

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Funding Options

Local Improvements Special Districts (SID)s	General Improvement District (GID)	Special Purposes (Transportation) Sales Tax	Infrastructure Sales Tax
NRS 271 NEW	NRS 318 NEW	NRS 377A NEW	NRS 377B EXISTING
Improvement Districts formed for discrete projects in defined geographies. Two types: (1) Infrastructure SID (2) Maintenance NID	Roads GID responsible for streets and alleys; could include curbs, gutter, and sidewalks, street lighting and snow removal in authorized powers	Up to an additional 0.25% sales tax applicable to all taxable transactions within the City specifically dedicated to roads funding	**Continued** collection of 0.125% sales tax applicable to all taxable transactions within the City that is **currently used for V&T bond repayment**

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October 2022 Technical Report

- Describes the 4 Funding Options by Key Comparison Attributes
- Presents Potential Revenue Generation from each Funding Source
- Illustrates for each Road and Road-Related Function if the Revenue Sources can legally fund that Function
- Provides Overarching Observations / Findings for RTC and BOS deliberation

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Comparison Attributes

Authority to Issue Debt Securities	Flexibility of Service Provision	Revenue Sources & Collection
Formation Steps	Method of Apportionment	Legal Autonomy & Accountability
Boundaries	Dissolution / Removal	

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Boundaries

Local Improvements Special Districts (SID)s *NRS 271*	General Improvement District (GID) *NRS 318*
Can be noncontiguous; Infrastructure SID no provision for annexation; Maintenance NID can be expanded	Can be Citywide or not, can be noncontiguous; procedure for annexation described in NRS
Special Purpose (Transportation) Sales Tax *NRS 377A*	**Infrastructure Sales Tax** *NRS 377B*
City boundaries; annexation not applicable	City boundaries; annexation not applicable

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Formation Steps

Local Improvements Special Districts (SID)s *NRS 271*	General Improvement District (GID) *NRS 318*
Provisional Order Method initiated by BOS; if >50% of est. cost is borne by customers and a majority of customers object in writing, an SID cannot be formed; administratively burdensome	BOS resolution adopted by ordinance; can be stopped by voter protest. More administratively burdensome than the sales tax options initially
Special Purpose (Transportation) Sales Tax *NRS 377A*	**Infrastructure Sales Tax** *NRS 377B*
City resolution upon voter approval. Requires a public information campaign	Hold at least one public hearing and adopt by two-thirds majority of the BOS. Adopt a new plan for expenditure of tax proceeds once V&T railroad bonds are repaid. Low administrative effort

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Legal Autonomy and Accountability

Local Improvements Special Districts (SID)s *NRS 271*	General Improvement District (GID) *NRS 318*
City Board of Supervisors.	Separate Legal Entity - BOS is the ex officio Board of Trustees; local district managing board can be appointed by the BOS. Has eminent domain power. Annual filings with Dep't of Taxation

Special Purpose (Transportation) Sales Tax *NRS 377A*	Infrastructure Sales Tax *NRS 377B*
City Board of Supervisors. Requires voter approval	City Board of Supervisors

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Flexibility of Service Provision

Local Improvements Special Districts (SID)s *NRS 271*	General Improvement District (GID) *NRS 318*
Rigid; districts are formed for specific expenditures; however, an SID can include other infrastructure improvements (e.g. sewer, water)	Flexible provided the service is included in the GID powers at formation; a GID can also form SIDs/NIDs as needed

Special Purpose (Transportation) Sales Tax *NRS 377A*	Infrastructure Sales Tax *NRS 377B*
Activities authorized by voters (can include roads and public transit systems)	Activities authorized by BOS

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Revenues Sources & Collection

Local Improvements Special Districts (SID)s *NRS 377A*	General Improvement District (GID) *NRS 318*
Special assessments placed on the property tax roll. Annual administration costs for each SID (could outsource annual billings); annual report and public hearing required for NIDs	Special assessments and parcel charges. Customers could be billed with City utility bills or with property taxes

Special Purpose (Transportation) Sales Tax *NRS 377A*	Infrastructure Sales Tax *NRS 377B*
Can be included in agreement between Carson and the State for revenue collection and distribution. State takes 1.75% of the revenue.	Can be included in agreement between Carson and the State for revenue collection and distribution. State takes 1.75% of the revenue.

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Method of Apportionment

Local Improvements Special Districts (SID)s *NRS 271*	General Improvement District (GID) *NRS 318*
Special assessment by any equitable basis. Federal properties are exempt. School district properties must consent; Carson City may only be levied up to 15% of total assessments	Parcel charges - no prescribed methodology. Special assessments paid by land and premises benefited by the improvements apportioned on an equitable basis. School district properties must consent
Special Purpose (Transportation) Sales Tax *NRS 377A*	**Infrastructure Sales Tax** *NRS 377B*
Sales tax up to 0.25% on all taxable transactions as included in the City's ordinance	Continuation of the 0.125% Infrastructure Tax originally levied for V&T Railroad bonds on all taxable transactions as included in the City's ordinance

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Authority to Issue Debt Securities

Local Improvements Special Districts (SID)s *NRS 377A*	General Improvement District (GID) *NRS 318*
Yes - special assessment bonds are not a debt of the municipality, but of the district; can issue for SIDs and NIDs	Yes - can issue revenue bonds and special assessment bonds (special obligations, not debts)

Special Purpose (Transportation) Sales Tax *NRS 377A*	Infrastructure Sales Tax *NRS 377B*
Yes (general or special obligation of the City)	Yes (general or special obligation of the City)

Dissolution / Removal

Local Improvements Special Districts (SID)s *NRS 377A*	General Improvement District (GID) *NRS 318*
SID is in place until project cost is paid; a NID can be dissolved upon petition of property owners holding >50% of assessed value	Resolution of the BOS, by majority of the BOS
Special Purpose (Transportation) Sales Tax *NRS 377A*	**Infrastructure Sales Tax** *NRS 377B*
Per voter-approved term; can be in perpetuity	Can be removed by BOS action; must be repealed if no longer needed for uses in the Plan of Expenditure

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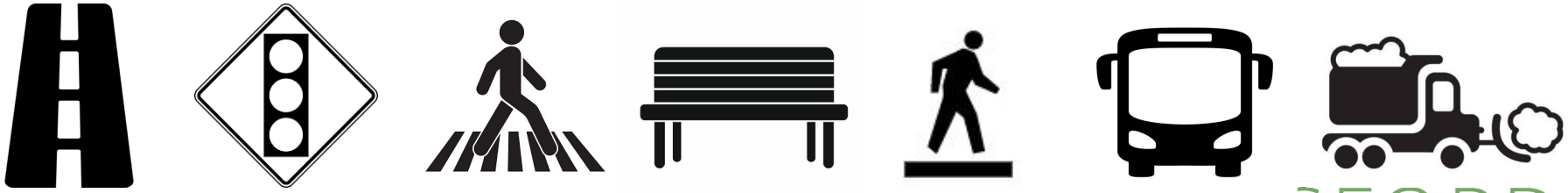
Road Functions --- Maintenance

Revenue Source	Pavement Maintenance	Traffic Operations	Access, Mobility & Safety	Landscape & Public Spaces	Sidewalks	Transit	Right of Way
Special Purposes Sales Tax (NRS 377A)	YES	YES	YES	YES	YES	YES	YES
Infrastructure Sales Tax (NRS 377B)	YES	YES	YES	YES	YES	LIMITED	YES
General Improvement District (NRS 318)	YES	YES	LIMITED	LIMITED	YES	**NO**	YES
Local Improvements Special District (NRS 271)	LIMITED (SID)	LIMITED (NID)	LIMITED (SID)	YES (NID)	YES (NID)	YES (SID)	**NO**



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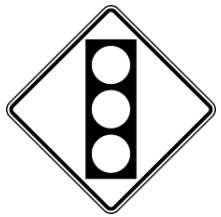
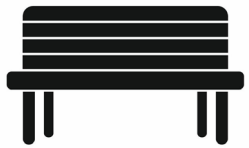
Road Functions --- Construction

Revenue Source	Road Reconstruction	Traffic Operations	Access, Mobility & Safety	Landscape & Public Spaces	Sidewalks	Transit
Special Purposes Sales Tax (NRS 377A)	YES	YES	YES	YES	YES	YES
Infrastructure Sales Tax (NRS 377B)	YES	YES	YES	YES	YES	LIMITED
General Improvement District (NRS 318)	YES	YES	LIMITED	LIMITED	YES	**NO**
Local Improvements Special District (NRS 271)	YES	YES	LIMITED	**NO**	YES	YES



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Residents, Businesses, and Visitors can provide the sources of money for roads preventative maintenance and repair AND other roads-related functions.

- Combination of new funding sources for roads is needed to fill the funding gap, **particularly for local roads which are not eligible for Federal transportation grants**.

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Potential Revenue Generation

Illustrative example
not a proposal

	Est. Annual Funding
Total Funding Gap	**$21,000,000**
Less – Special Purposes Sales Tax (New) @ 0.25%	-$4,000,000
Less – Infrastructure Sales Tax Continuation	-$1,000,000
Less – GID Special Assessments for Local Roads	-$12,200,000
Less – GID Parcel Charges for Local & Regional Roads	-$800,000
Remaining Funding Gap *	**$3,000,000**

* Could be filled with Federal grants and SIDs for regional roads.

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Typical Homeowner Monthly Cost

Funding Option	Monthly	
Special Purpose Sales Tax @ 0.25% [1]	$11.50	pavement maintenance regional & local roads
Infrastructure Sales Tax Continuation	$0.00	$3.00 per month currently paid – NOT A NEW TAX
GID Special Assessment [2]	$35.00	pavement maintenance **local roads only**
GID Parcel Charge	$3.50	snow removal & street lighting - regional & local roads
Total	**$50.00**	

[1] Calculation divides estimated tax revenue by number of Carson City households; assumes 20% of sales tax is generated by visitors (actual percentage could be higher, in which case homeowner cost could be lower).

[2] Amount of assessment depends on the method of apportionment.

- $35 per month is estimated to generate about $12.2 M per year per previous slide.
- A monthly assessment of about $15 per month could raise @ $5M.
- A monthly assessment of about $30 per month could raise @ $10M.

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Findings

The City has a lot of flexibility under existing legal authority

- Can change policy to re-allocate funds among road functions as part of overall financing strategy
- No restriction on application of new funding sources between local and regional roads

A Roads GID holds potential for flexibility, accountability, and creativity

- Process allows for public input and City creativity
- Several roads-related functions can be included in basic powers, can phase in provided functions

Findings

A new Special Purposes sales tax could help fund the gap, but it decreases potential funding for other City infrastructure

- City also needs to evaluate other infrastructure funding needs
- This source needs voter approval, timing is critical

One funding source does not require formation of a new entity or mechanism

- The V&T Infrastructure and Highways Tax is already in place

Findings

SIDs and NIDs are excellent for funding specific projects

- An administratively burdensome program, but can work very well for specific projects with public support

Some funding mechanisms are well-suited to fund transit

- Special Purposes sales taxes can be applied to transit
- SIDs are excellent for transit because they can fund the systems in perpetuity (they cannot for roads)

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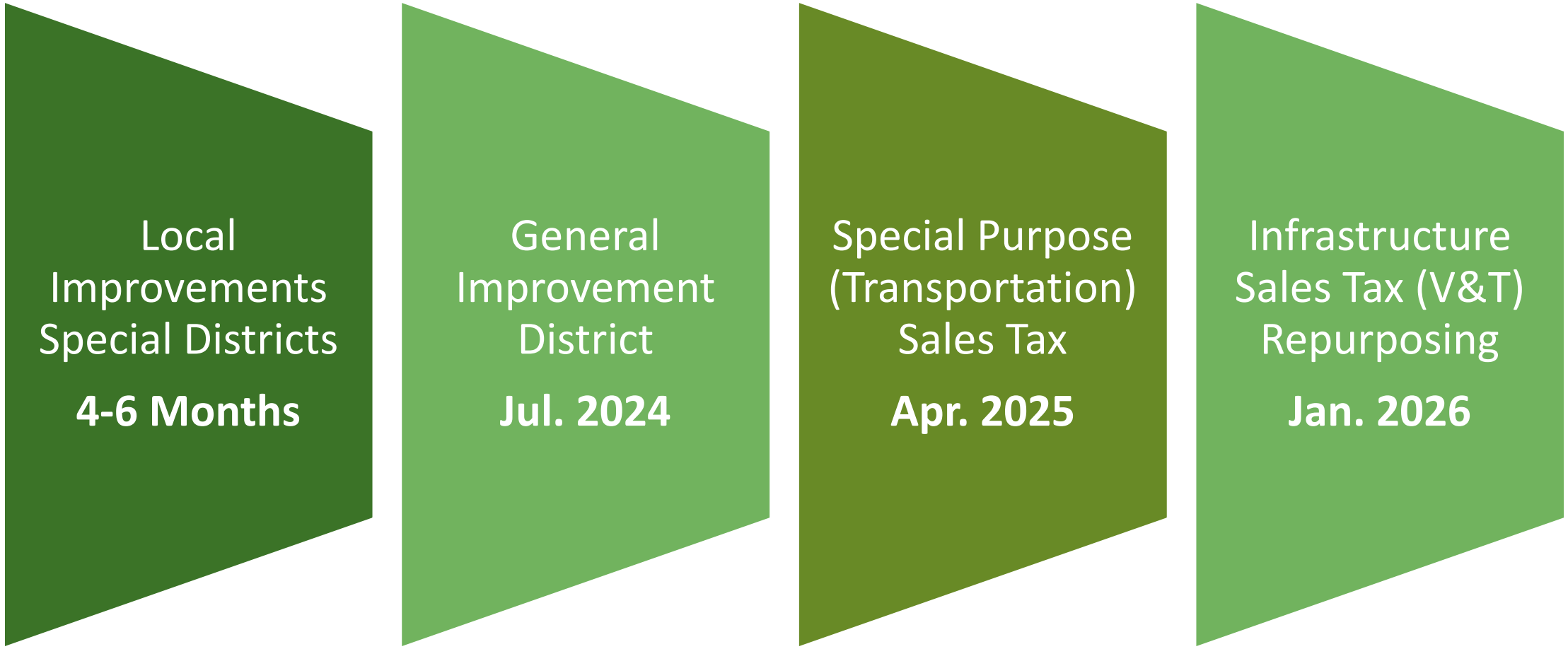
Earliest Implementation Timeline by Funding Source



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TECHNICAL REPORT

Carson City Roads Funding

Local Funding Options

October 2022

Acknowledgements and Limitations

This technical report was prepared for Carson City, Nevada by Hansford Economic Consulting LLC.

The analyses and findings contained within this report are based on primary and secondary data available as of the date of this report. Updates to information used in this report could change or invalidate the findings contained herein. While it is believed that the primary and secondary sources of information are accurate, this is not guaranteed.

Every reasonable effort has been made in order that the data presented herein reflects the most accurate and timely information possible. No responsibility is assumed for inaccuracies in reporting by Carson City, its consultants and representatives, or any other data source used in the preparation of this study. No warranty or representation is made that any projected values or results contained herein would actually be achieved. Changes in economic and social conditions that may impact the findings of this report include, but are not limited to, national and local economic recessions, climate change, major environmental problems and natural disasters.

The reported analyses, opinions, and conclusions are HEC's own unbiased professional analyses, opinions and conclusions. This technical report was prepared for a specific use and no other use is authorized,

Catherine Hansford
Hansford Economic Consulting LLC

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Table of Content

01. Background

Carson City (City), the capital of Nevada, is a consolidated municipality that, among its many services, provides transportation, transit operations, and associated maintenance activities to its residents, businesses, and visitors. The City plans for, constructs, maintains, and replaces roads and road-related improvements, plans and provides local transit services, and coordinates in the provision of regional transit services. Carson City, like many governments in Nevada, has seen a decline in revenues for the preservation of roads. In 2021, the Nevada Department of Transportation (NDOT) convened an Advisory Working Group to study transportation needs of the state as the demands on Nevada's transportation system have outpaced the resources available.[i]

There are three functional road classifications in Nevada: local, collector and arterial roads. Local roads are interchangeably termed 'neighborhood streets' in this technical report. Collector and arterial roads are collectively termed 'regional roads'. All road capital monetary resources currently are spent on collector and arterial roads. Since 2018, the City has not budgeted any local funding for neighborhood street preservation based on direction received from the Carson City Regional Transportation Commission (RTC), limitations regarding fund expenditures, and the results of project prioritization tools used to select annual projects through the City's Pavement Management Plan. The City has made some recent efforts to direct some additional funding towards local roads, including recently allocating $2.5M in one-time, federal American Rescue Plan Act (ARPA) funds to be used to preserve and rehabilitate a collection of neighborhood streets. Unfortunately, despite these efforts, the need still far outweighs the available funding.

In 2022, the City examined the state of all local and regional roads and projected the needed funding to halt the deterioration of the Pavement Condition Index (PCI)[ii] on roadways. In particular, neighborhood streets are of great concern, as the PCI on these streets has declined by 9% over the last five years. The Carson City Board of Supervisors (BOS) directed staff to explore four local roads funding options to halt deterioration of the PCI. All of the described funding mechanisms are currently authorized by Nevada Legislature. The funding options are:

1. General Improvement District (GID) - NRS 318
2. Local Improvements Special Districts (SID)s - NRS 271
3. Special Purposes (Transportation) Sales Tax - NRS 377A
4. Infrastructure Sales Tax - NRS 377B

Specifically, this technical report:

- Describes the roads and road-related functions that are the responsibility of Carson City Public Works,
- Discusses the funding gap to maintain existing roads in their current condition,
- Presents the attributes of each of the four potential financing options to fill the roads preservation funding gap,
- Estimates the potential revenue generation from the four revenue sources, and
- Provides findings of the research presented, and

- Outlines steps in the path forward to fund roads preventative maintenance and preservation.

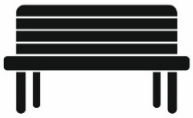
While this technical report focuses primarily on funding of roads, the ability of each of the funding options to support transit programs and services is also included.

Roads and Road-Related Functions

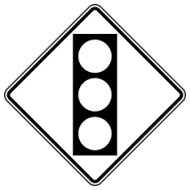
The following roads and road-related functions are performed by Carson City Public Works.

Pavement Maintenance
Actions to preserve and prolong pavement life through routine maintenance and preservation

Access, Mobility and Safety
Pedestrian crossings, bike lanes, ADA sidewalks and ramps



Landscape and Public Spaces
Weed control, right-of-way maintenance, maintenance of landscaping and public spaces adjacent to roads



Traffic Operations
Signage, striping, street lights, traffic lights

Right-of-Way
Sweeping, sanding, snow removal

Road Reconstruction
Design and construction of failed roadways

Sidewalk Management
Inspections and repairs

Transit
Buses, shelters, operations

Road and road-related functions performed by Carson City Public works are further described below.

Pavement Maintenance: Proper management of the largest City roads asset, the pavement, by maintaining or improving the PCI on the City's existing roads. Carson City owns 34,620,300 square feet of local road pavement, and 17,645,500 square feet of regional road pavement.

Road Reconstruction: Reconstructing failed roads or reconstructing roads with new layouts, for example, for traffic calming projects or changing the functionality of an existing road (such as changing the number of lanes or creating Complete Streets).

Traffic Operations: The City maintains and replaces traffic measures such as striping, signage, traffic lights, signal controllers, and street lights; all of the ancillary assets that provide for a safe, functioning road system.

Right-of-Way: Maintenance of right-of-way includes street sweeping, sanding, and removal of snow, ensuring safe passage of travel.

Access, Mobility and Safety: The City is working to improve pedestrian and bicycle accessibility and safety; projects may include striping and marking on existing roadways, creating separated spaces for non-vehicular traffic, upgrading pedestrian crossings, and similar.

Sidewalk Management: Most public sidewalks are the responsibility of the adjacent property owners to maintain and repair. The City inspects sidewalks, advises property owners of necessary corrections, and may complete repairs and/or replacement when the City is performing roadway maintenance activities.

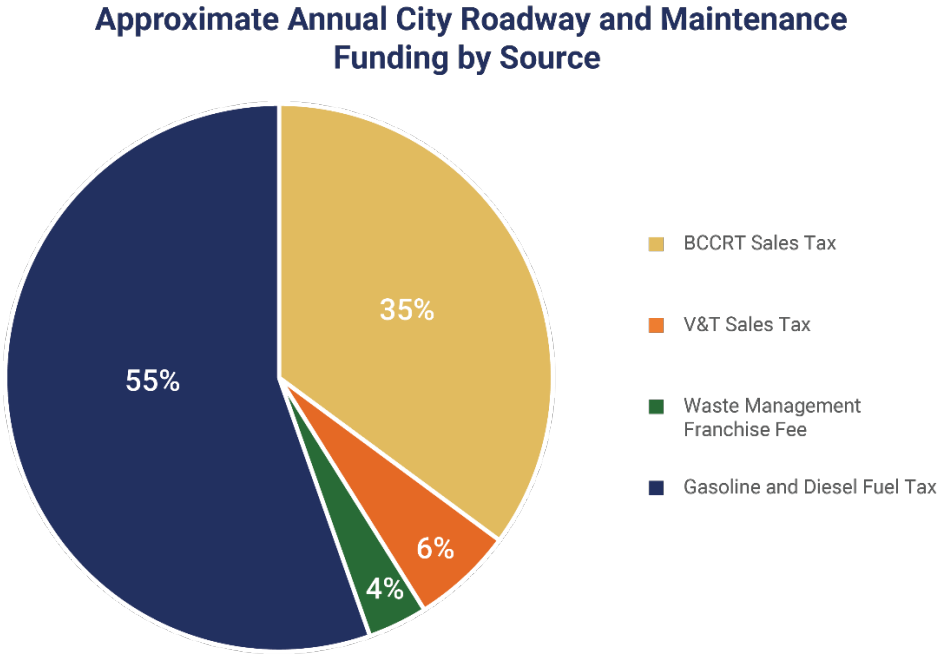
Landscape and Public Spaces: Aside from hardscaping and landscaping with shrubs, grasses, and trees, some roadways (and parking areas) provide access to community gathering areas such as plazas. Facilities in public spaces may be funded with roads funds, depending on the source; therefore, items such as benches, fountains, signage, and other public space facilities are included as a road-related function.

Transit: Transit can include many types of transportation such as train, light-rail, bus, ride-share, and on-demand door-to-door services and programs that encourage and provide opportunity for people to move without vehicle ownership.

The Road Funding Gap

Today, the City has annual revenue of approximately $10.0 million for roads and road-related functions, excluding Federal and local grants for regional road projects and transfers out for road-related projects debt service. Figure 1 shows 55% of revenues for roads is from gasoline and diesel taxes, about 40% is from sales taxes, and the remaining revenues are from the City solid waste disposal franchise fees.

Figure 1



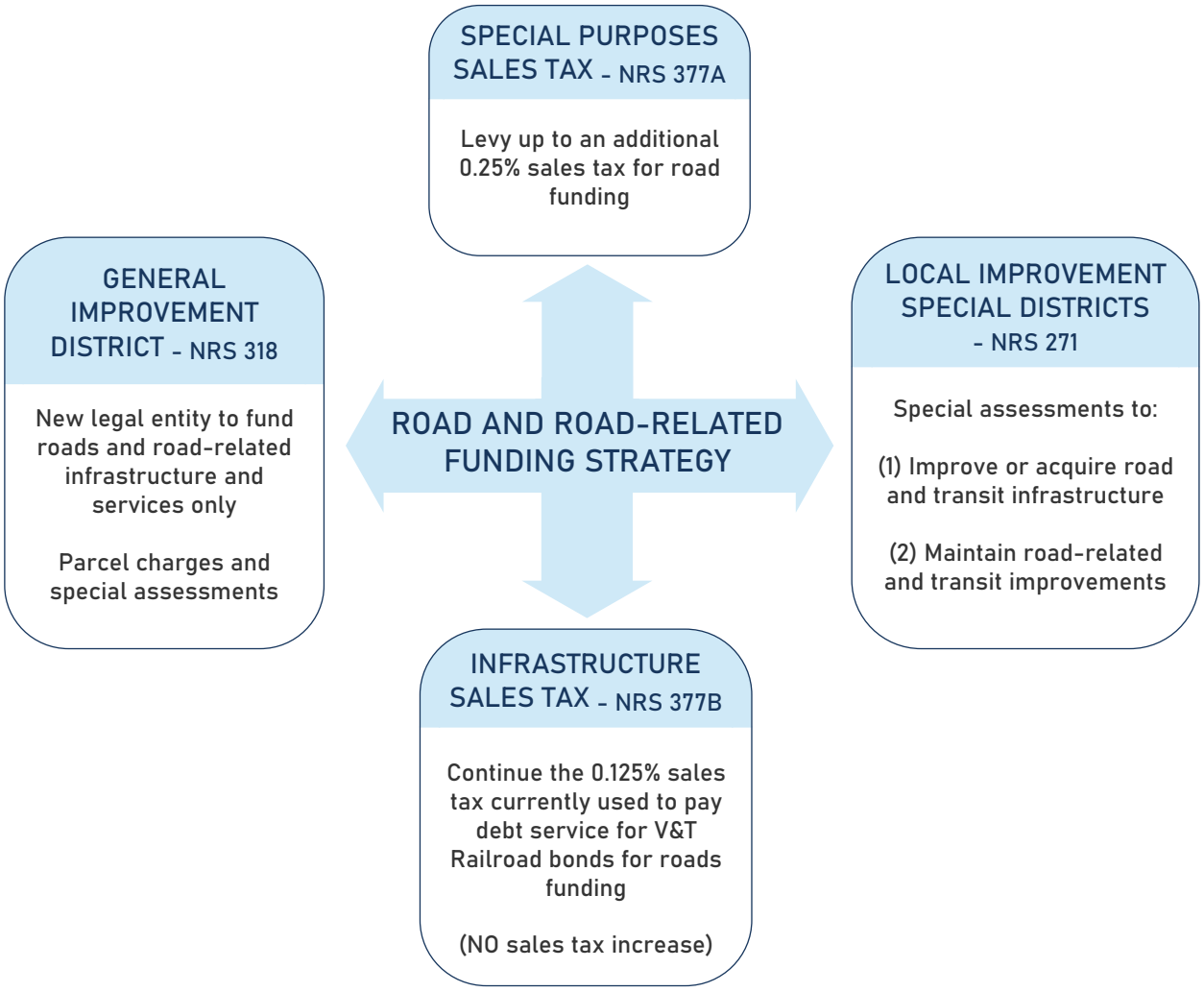
Typical annual operations and maintenance costs include staffing, services and supplies, which total about $5.5 million per year, leaving approximately $4.5 million per year for maintenance projects. In 2022, City consultants reported that the funding requirement for Carson City to maintain the PCIs of existing local and regional roads until 2050 is at least $25.5 million per year[iii]. At this level of funding, local roads would average a PCI of 56, which is considered a Fair-to-Poor Condition (described by moderate- and high-severity cracking, notable low- and moderate-severity fatigue cracking, patching, and rutting), and regional roads would average a PCI of 74, which is considered a Satisfactory Condition (described as mostly low-severity distress, little to no fatigue cracking, and minor rutting).

The City has a funding gap of at least $21.0 million per year to maintain current local and regional road conditions. The gap will grow the longer it takes to secure dedicated funding, and with increased asset quantities as the City grows.

02. Potential Funding Mechanisms

The four funding mechanisms being considered to close the funding gap to keep existing roads in their current conditions, while adequately providing all road-related services, transit, and mobility options, are illustrated in Figure 2.

Figure 2
Funding Options

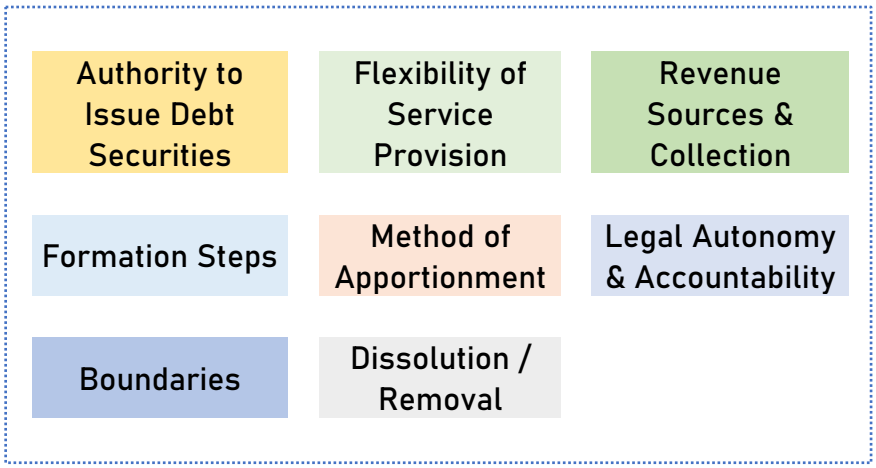


Each of these potential revenue sources has its pros and cons for funding roads and road-related functions. Some are good at funding particular types of roads and transit projects, some cannot fund certain road and transit projects, and some can fund everything. Ultimately, the City's roads funding strategy may use one or a combination of the four funding tools to fill the funding gap. Three of the funding mechanisms would be new; sales tax under NRS 377B would not be a new tax, rather, it would continue an existing tax beyond its currently authorized term and redirect the tax revenue to road funding.

Sales taxes are familiar to most people; we pay sales tax on certain goods at a rate that is partially determined by the State, and partially by the local government(s) of an area. Sales taxes are indiscriminate; all must pay in equal proportion to the value of the good being purchased. Less familiar to most are special assessments and parcel charges that can be levied by General and Special Improvement Districts.

The remainder of this section describes each of the potential funding sources in detail. To be able to compare the merits of each funding option, the same attributes are described for each. Figure 3 summarizes the attributes that are considered.

Figure 3
Attributes to Describe and Compare the Funding Options



Legal autonomy and accountability. This helps to compare who manages the funding mechanism and the level of accountability decision-makers have on spending of the revenues to the people of Carson City.

Flexibility of service provision is compared to understand what exactly can be funded by the revenues generated.

Potential physical geographic boundaries where revenues can be collected from are described.

Formation steps to create the new funding streams are described to offer insight to the complexity and administrative effort of securing the new funding source.

Description of the revenue sources (sales tax, special assessments and parcel charges), and how the revenues can or must be collected allow for comparison of complexity and administrative procedure to manage the revenues.

The method of apportionment refers to the way in which collection of revenue can be tailored according to local perception of equity among road users. The method of apportionment is the same for both sales tax revenue sources, and there is no flexibility in how sales tax is levied, except that a sales tax under NRS 377A could levy a rate up to 0.25%, whereas continuation of the sales tax under NRS 377B would be at a rate of 0.125%. There is choice in how special assessments and parcel charges can be collected. This is described for the two pertinent funding sources for comparison.

The authority to issue debt securities is included for comparison because some debt instruments (special assessment and revenue bonds) are special obligations, and are therefore not counted as debts of the City.

The final attribute considered is the ease or difficulty to discontinue the revenue stream (which may include dissolution of a legal entity).

General Improvement District (GID) - NRS 318

General Improvement Districts (GIDs) are commonly used to provide public infrastructure and services. Use of a GID varies widely, from television provision, water and sewer provision, to roads provision, mosquito abatement, rodent control, and several other services. Carson City and Esmeralda County are the only counties in Nevada without a GID[iv].

Legal Autonomy and Accountability. GIDs are authorized by the Nevada Legislature as codified in the Nevada Revised Statutes (NRS) Chapter 318. A GID is a separate legal entity (with eminent domain power and right to own and sell real property) - a governmental subdivision of the State of Nevada, a body corporate and politic and a quasi-municipal corporation (NRS 318.075).

The Carson City Board of Supervisors (BOS) must be the initial Board of Trustees (BOT) (except however one of the 5 initial trustees can be the DA or Deputy DA); after it has established the accounting practices, auditing practices, a budget and management standards, the BOS can continue as the ex officio BOT but the secretary and treasurer must not be members of the BOS (could be the City Clerk and City Treasurer, or RTC members) – NRS 318.09533. The BOS, as the ex officio BOT, can appoint a local district managing board (NRS 318.09535) of between 5 and 12 members to manage the affairs of the district but this board cannot tax or sell bonds. The powers and duties of a local district managing board must be stated in the ordinance creating the board. BOS members may not receive additional compensation per NRS 318.09533. The BOT must meet regularly at least once each year.

As a separate legal entity, a GID may also form Improvement Districts pursuant to NRS 271.

Flexibility of Service Provision. Basic powers of a GID include the ability to furnish streets and alleys (NRS 318.120) and remove snow from them (NRS 318.145); furnish curbs, gutters, and sidewalks (NRS 318.125), furnish sidewalks (NRS 318.130), and furnish facilities for lighting streets (NRS 318.141). GID powers are described in the formation procedure; the intent would be to form a Roads and Roads-Related (streets and alleys, curbs, gutters, sidewalks, and optionally, snow removal and street lighting) only GID. Specifically, the following facilities activities would be authorized:

> Grading and re-grading, surfacing and re-surfacing of streets, alleys and public highways, gravel, oiling, macadamizing, paving, crosswalks, driveway inlets, curb cuts, curbs, sidewalks, gutters, valley gutters, catch basins, culverts, drains, sewers, manholes, inlets, outlets, retaining walls, bridges, overpasses, tunnels, underpasses, approaches, artificial lights and lighting equipment, grade separators, traffic separators, traffic-control equipment, off-street parking facilities and structures, parkways, canals and other water type streets, and to construct, reconstruct, replace or extend sidewalks. Facilities for lighting public streets, ways and places may be acquired, constructed, reconstructed, improved, extended, or bettered.

And, the GID can operate, maintain and repair the district's improvements (projects), including, without limitation, the maintenance and repair of dedicated streets and alleys and the removal of snow therefrom, and all facilities of the district relating to any basic power which the district is authorized to exercise (NRS 318.145 and 318.175). A project or improvement means any structure, facility, undertaking or system which a GID is authorized by its basic powers established at formation to acquire, improve, equip, maintain or operate.

Boundaries. A Roads and Roads-Related GID may be Citywide or consist of noncontiguous tracts or parcels of property (NRS 318.055). Parcels can be annexed into the GID.

Formation Steps. The formation of a GID would be by Provisional Order, following four steps:

STEP 1. A resolution of intention adopted by the BOS.

STEP 2. An "initiating" ordinance adopted by the BOS, which must include:

a. The name of the proposed district.
b. A statement of the basic power or powers for which the district is to be created.
c. A statement that the ordinance creating the district will be based on the BOS finding that public convenience and necessity require creation of the district, that creation of the district is economically sound and feasible, that the Service Plan includes all required elements per NRS 308.030 (see below) and that it does not contravene reasons to disapprove a Service Plan per NRS 08.060 (see below).
d. Description of the boundaries of the district such that a property owner can determine whether their property is within the district.
e. The place and time for the public hearing on creating the district.

Service Plan required elements (NRS 308.030):

- A financial survey and a preliminary engineering or architectural survey showing how the proposed services are to be provided and financed;

- A map of the proposed district boundaries, an estimate of the population and assessed valuation of the proposed district;

- Description of the facilities to be constructed, the standards of such construction, the services to be provided by the district, an estimate of costs, including the cost of acquiring land, engineering services, legal services, proposed indebtedness, including proposed maximum interest rates and any discounts, any other proposed bonds and any other securities to be issued, their type or character, annual operation and maintenance expenses, and other major expenses related to the formation and operation of the district;

- Details of a proposed agreement with Carson City Public Works for the performance of any services between the proposed GID and the City. The form of any such contract to be used, if available, shall be attached to the Service Plan.

The Service Plan must be approved by the BOS. The BOS may disapprove the Service Plan (NRS 308.060) upon satisfactory evidence that:

- There is insufficient existing and projected need for organized service in the area to be serviced by the proposed district;

- The existing service in the area to be served by the proposed district is adequate for present and projected needs;

- Adequate service is, or will be, available to the area through municipal annexation by other existing municipal or quasi-municipal corporations within a reasonable time and on a comparable basis;

- The proposed special district is incapable of providing economic and sufficient service to the area within its proposed boundaries;

- The area to be included in the proposed district does not have or will not have the financial ability to discharge the proposed indebtedness, other securities, or other obligations to be incurred on a reasonable basis;

- The facility and service standards of the proposed district are incompatible with the facility and service standards of adjacent municipalities and special districts;

- Or the proposed district is being formed for the primary purpose of financing the cost of developing private property.

STEP 3. Organizational Hearing. The City Clerk must mail written notice to all property owners within the proposed GID. The notice must include details of the purpose of the proposed GID, and information on the time and place of the organizational hearing. If at or before the hearing a protest is filed and signed by a majority of property owners, then the GID shall not be formed (NRS 318.065).

STEP 4. The BOS will adopt an ordinance determining whether or not the GID is created (NRS 318.070). Barring the initiation of any legal action opposing the district within 30 days of adopting an ordinance creating the GID, the ordinance finally and conclusively establishes the organization of the GID.

Revenue Sources and Collection. The GID can establish charges for snow removal and lighting and standby service charges/ minimum charges/ charges for the availability of service for any services or facilities authorized to be furnished by the GID (NRS 318.197); however, a GID cannot charge rates, rolls or charges other than special assessments for streets, curbs, gutters, and sidewalks (NRS 318.197). Special assessments may be charged to lands and premises abutting the street or alley improved or proposed to be improved, and any other lands that may be specially benefited by the improvement upon affirmative vote of at least two-thirds of the board. Unless a school district consents to assessment, all property owned and used by a school district is exempt (NRS 318.350).

> NRS 118A.140 "Premises" defined. "Premises" means a dwelling unit and the structure of which it is a part, facilities, furniture, utilities and appurtenances therein and grounds, areas and facilities held out for the use of tenants.
>
> NRS 118C.040 "Commercial premises" defined. "Commercial premises" means any real property other than premises as defined in NRS 118A.140.

The BOT must have affirmative vote of at least two-thirds of its members to levy proposed charges and special assessments. The BOT has the authority to create payment programs and discounted rates and assessments for customers that qualify under certain parameters such as a disability, age, or income limit.

Revenue can be collected with City utility bills (monthly) or with property taxes (quarterly). Administrative costs would be less if collected with City utility bills. If charges and special assessments are collected with property taxes, the GID must file a written report each year containing a description of each parcel of real property and amount of the charges and special assessments, and a public hearing must be held. If a majority of the property owners affected protest the manner of collection, the charges must be collected separately from the tax roll.

To minimize administrative costs, it would be better to collect charges and special assessments with utility bills. This may also be preferable for cash flow purposes as revenues would be monthly rather than quarterly.

While a GID has the authority to levy ad valorem taxes, in practicality this is not an option for a Carson City Roads and Roads-Related GID because Carson City already has authority to increase ad valorem taxes for roads purposes. Increasing ad valorem taxes for roads preservation would erode the ability of the City to raise revenue for other services because of the statutory ad valorem tax cap (NRS 361.453)[v]. The GID or City could increase funding for roads with an ad valorem property tax override for 30 years with voter approval, but this was

not identified as a funding option to pursue at this time.

Method of Apportionment. Methods of apportionment must be determined for both charges and special assessments.

(1) Charges. The GID could set charges for snow removal and lighting, and other costs (such as general management costs) that are not associated with provision of streets, curbs, gutters, and sidewalks. There is no methodology prescribed in Chapter 318 for apportioning costs among users and potential users. The BOS would have to approve a method of apportionment by resolution adopting the charges. These would be parcel charges.

(2) Special Assessments. The only guidance provided by NRS 318.350 for determining special assessment amounts is that costs may be allocated among land and premises abutting the improvement, and other lands as in the opinion of the board that may be specially benefited by the improvement. We can look to other sections of the Nevada Revised Statutes for further guidance. Chapter 271 also allows for the collection of special assessments.

> NRS 271.208 "Special benefit" defined. "Special benefit" means the increase in the market value of a tract that is directly attributable to a project for which an assessment is made as determined by the local government that made the assessment. The term may include incidental costs of the project as determined by the local government. The market value change does not have to be quantified. In addition, NRS 271.045 states that assessments shall be made on a front foot, zone, area or other equitable basis, as may be determined by the governing body.

A method(s) of apportionment for the costs to be collected by special assessments needs to be vetted by City staff and focus groups of customers. The states of Montana and Oregon have adopted charges in similar fashion and offer good case studies to learn from. Road systems function as a public utility comparable to municipal water and sewer systems. Those utilities are funded by charging users based on how much they use the systems, and roads funding can be approached in a similar way. Properties that cause more traffic by the nature of their use are responsible for a greater portion of the wear and tear on roads infrastructure, and might reasonably be expected to make larger contributions towards maintenance expenses. One common basis for such a fee is an estimated number of trip-ends attributable to each property type using the procedures found in the Trip Generation manual published by the ITE[vi]; however, fees may also be based on lineal front footage, parcel size, and other characteristics.

The GID could collect for costs of different road functions in different ways. For example, road maintenance costs (such as crack sealing and paving) might be allocated to users based on their estimated trip generation, but sidewalk repair costs might be allocated to users based on their front footage.

Authority to Issue Debt Securities. Debt limit is set at 50% of the total of the last assessed valuation of taxable property (excluding motor vehicles) situated within the district. The limitation excludes special assessment bonds (NRS 318.277) that may be issued for GID roads projects (or for SIDs or NIDs created by the GID) and revenue bonds, which are special obligations, not debts.

Short-term notes, warrants and interim debentures may be issued upon affirmative vote of four of the BOT members (NRS 318.280); in addition, the sale of revenue bonds does not require an election. Money may be borrowed from State and Federal government.

Removal / Dissolution. A GID can be dissolved by ordinance of the BOS with a majority of "ayes". In event of dissolution, all property of the GID would be transferred to the City and funds would be transferred to the General Fund of the City.

Local Improvements Special Districts (SID)s - NRS 271

Local improvements special districts provide a funding mechanism for discrete projects that may be deemed necessary by the local government, by property owners, or by developers to pay for public improvements. This technical report only describes a program created by the local government (Carson City).

Flexibility of Service Provision. Two types of improvement districts may be formed, (1) A Special Improvement District (SID), and (2) a Neighborhood Improvement District (NID).

(1) A SID can finance the acquisition or construction of many types of improvements (sewer, water, energy, drainage for example) and more than one type of improvement in one SID. In particular, a SID can finance infrastructure costs – and all the soft costs associated with planning activities, appraisals, and other associated costs – for the following street projects:

Curbs and gutters, off-street parking, overpasses and underpasses, sidewalks and lighting, and streets projects (any street, avenue, boulevard, alley, highway or other public right-of-way used for any vehicular traffic). A street project can include grading, regrading, gravel, oiling, surfacing, macadamizing, paving, crosswalks, sidewalks, driveway approaches, curb cuts, curbs, gutters, culverts, drains, sewers, manholes, inlets, outlets, retaining walls, bridges, overpasses, tunnels, underpasses, approaches, artificial lights and lighting equipment, parkways, grade separators, traffic separators and traffic control equipment, and all appurtenances and incidentals, including real property.

Per NRS 271.265, the SID can acquire, improve, equip, operate and maintain the above-described street projects, but it does not provide a perpetual revenue source for maintenance.

A SID can also pay for works, systems and facilities for transporting persons, rolling stock, equipment, terminals, stations, platform and other necessary transportation

facilities (NRS 271.237), and the costs to maintain, operate, improve and repair the transit project in perpetuity (NRS 271.369).

(2) A NID can pay for the beautification and improvement of the public portions of any area, such as public restrooms, fountains, landscaping, ramps, sidewalks and plazas, facilities for outdoor lighting and heating, and decorations. Furthermore, a NID can pay for beautification of any street, including median strips, water distribution and irrigation systems, retaining walls, shrubbery, fountains, waterfalls, information booths, signs and so forth (inconclusive list).

Legal Autonomy and Accountability. SIDs and NIDs are creations of the BOS and are accounted for by the City's standard accounting practices. Improvements may be performed by Carson City crews or by independent contract. Competitive bids are required for any work performed by independent contract. If the work is performed by the City, supplies and materials shall be competitively bid (but may be rejected for various reasons).

If a district sells bonds, it shall submit to the Director of the Legislative Counsel Bureau a copy of the annual financial information that is submitted to the Municipal Securities Rulemaking Board.

Boundaries. The boundaries of the SID or NID are set during the formation process. Properties (parcels of land) may be added to NIDs after formation. The improvement districts may include noncontiguous areas.

Formation Steps. The City would form SIDs or NIDs using the Provisional Order Method described in NRS 271.280. The method includes the following four steps.

STEP 1. A City engineer would file preliminary plans and cost of the project and an assessment plat with the City Clerk. The plat would show the area to be assessed and quantification of maximum benefits to be assessed to each parcel (not applicable for an NID since maintenance costs will fluctuate over time).

STEP 2. The engineer would prepare a document stating what portion of the project cost is of special benefit (to be collected with assessments) and what portion is to be funded by other source(s), and further would describe the method of apportionment for the assessments to be levied. If the method of apportionment is NOT by frontage feet, state that the assessment is to be made upon all the tracts benefited by the project proportionately to the benefits received. If more than one project type is included (such as road and sewer), the costs of each project must be kept separate, and the assessments for each levied separately.

STEP 3. The BOS sets a public hearing, and provides mailed notice at least 20 days prior to such hearing, to all affected property owners and mobile home tenants (for a SID), and to all affected property owners and tenants owning a business (for an NID). The notice must include a description of the project, the estimated cost and source(s) of revenue for the project, the method of apportionment, a map or other description of the affected area, the number of installments of assessments, maximum interest rate that may be charged, the time and place

of the hearing, how to object to the proposed assessment, how to obtain more information, and the property owner's rights to representation.

- For an SID, if a majority of property owners object, the district may not be formed unless the City provides more than 50% of the funding for the district, or the project is no longer than 2,640 feet.

- For an NID, if more than one-third of the property owners object, the district may not be formed.

STEP 4. Upon conclusion of the public hearing, the BOS may by resolution of ordinance continue or discontinue the formation process. If the resolution is to continue, the BOS will direct staff to prepare a revised and detailed estimate of the total cost, full and detailed plans and specifications, a revised map and assessment plat.

With the updated information, the BOS will create the district by ordinance and order that the project be improved or acquired.

Revenue Sources and Collection. Revenues may only be assessments[vii]. A property owner may elect to pay the entire cost of the assessment to their parcel within 30 days of passage of the ordinance creating the district, before the City sells bonds. At future points in time, a property owner may pay the remaining principal and accrued interest with or without penalties, as determined by the City (NRS 271.405). Assessments against the State are due in cash within 90 days of the effective date of the assessment ordinance, or in installments with interest.

If the district does not sell bonds to finance the improvements, the City may advance money from the General Fund if the cost does not exceed $300,000, or from a proprietary fund, if the City has established a proprietary fund for that purpose (NRS 271.536) – for example, for water or sewer. The City does not have a proprietary fund for streets.

Special assessments are determined each year and are placed on the property tax roll. The City could contract with a third party to manage the annual administration of the special assessments, similar to several local governments in Nevada.

For an SID, City staff (or contracted party) prepare the tax roll and file it with the City Clerk each year. For an NID, City staff (or contracted party) prepare the tax roll and documentation of the costs to be apportioned to property owners. A registered or certified mailed notice must be provided and a public hearing held each year for NID assessments, which adds an annual administrative effort and cost.

A procedure must be established by the BOS to allow a person to file a Hardship Determination. A Hardship Determination entitles the person to only pay interest on the unpaid balance of the assessment. The principal is not paid until the property is sold or transferred to a person who does not qualify for a hardship determination, or the term of the bonds expires, or a renewal application is denied, or the property owner fails to pay the

interest in a timely manner, or the property owner pays all previous and current assessments.

There isn't a provision for a hardship determination when assessments do not include interest (when a district does not sell bonds).

Method of Apportionment. The BOS may approve any method of apportionment that is on an equitable basis so long as the assessment does not exceed the estimated maximum special benefits to the properties assessed (NRS 271.045 and NRS 271.365). Clark County makes a blanket statement that tracts receive special benefits (corresponding market value increases) from the improvements. Clark County and the City of Reno provide good case studies of SIDs.

Properties owned by the Federal government are exempt from paying assessments. Properties owned by a school district are also exempt unless the school district consents to the assessments. Properties owned by Carson City must not be levied assessments greater than 15% of the total amount of assessments against all lands in the district. State and Tribal properties are not exempt.

Authority to Issue Debt Securities. The proceeds of any assessments and taxes may be pledged to the payment of special assessment bonds. Any such bonds would be the liability of the SID or NID only, not the City. In the event however that special assessments are insufficient to pay for debt service, the bonds are further secured by the General Fund, and further by ad valorem taxes.

Removal / Dissolution. SIDs are complete and discontinue when all project costs have been paid per the terms provided in formation of the SID. NIDs may be dissolved by resolution of the BOS if property owners who, combined, total more than 50-percent of the total amount of the assessments in the NID submit a written petition to the BOS requesting dissolution. Property owners may petition for dissolution 365 days after the date the NID was created, and each subsequent anniversary thereafter.

Special Purposes (Transportation) Sales Tax - NRS 377A

When approved by at least a majority of registered voters, a transportation sales tax of up to 0.50% may be imposed in any county (or Carson City) under NRS 377A. This chapter of the NRS allows Carson City to impose a tax to (a) fund public transit systems, the construction, maintenance and repair of public roads, and improvement of air quality projects, (b) promote tourism, and (c) acquire, develop, construct, equip, operate, maintain, improve and manage libraries, parks, recreational programs and facilities, and facilities and services for senior citizens, to preserve and protect agriculture or any combination of these purposes. A tax imposed for any of the items authorized under (c) may only be imposed for a maximum 30 years.

The Streets Maintenance sales tax of 0.25% is already approved for maintenance of roads; therefore, only up to 0.25% additional sales tax may be imposed for roads and road-related functions, or (b) and (c) purposes listed in the previous paragraph.

> While an up to 0.25% additional sales tax may be imposed for roads maintenance, using all the remaining tax authority would reduce the ability for the City to increase revenues for purposes of promoting tourism, and for providing library, parks and recreation, and senior citizens facilities and services.

Flexibility of Service Provision. Public road improvement and maintenance is authorized by NRS 277A – Regional Transportation Commissions Chapter, as described below:

> The acquisition, operation or use of any material, equipment or facility that is used exclusively for the construction, maintenance or repair of a public road and is necessary for the safe and efficient use of the public road, including, without limitation, grades and regrades; graveling, oiling, surfacing, macadamizing and paving; sweeping, cleaning and sanding roads and removing snow from a public road; crosswalks and sidewalks; culverts, catch basins, drains, sewers and manholes; inlets and outlets; retaining walls, bridges, overpasses, underpasses, tunnels and approaches; artificial lights and lighting equipment, parkways, control of vegetation and sprinkling facilities; rights-of-way; grade and traffic separators; fences, cattle guards and other devices to control access to a public road; signs and devices for the control of traffic; and facilities for personnel and the storage of equipment used to construct, maintain or repair a public road.

In addition to public roads infrastructure and services, the tax may fund public transit systems (including ride-share communication services, transportation for elderly and disabled persons, parking for passengers using the transit system, stations and appurtenant facilities, and several other public transit facilities and services as provided for in NRS 277A).

Legal Autonomy and Accountability. The BOS can enact an ordinance imposing a tax for a public transit system, for the construction, maintenance and repair of public roads, for the improvement of air quality or for any combination of those purposes. The ordinance may only be adopted upon approval of the majority of registered voters at a general election. In addition, any subsequent increase to the rate of the tax or change of previously approved uses of the proceeds of the tax must be put to the registered voters at a general election.

The City must maintain a separate fund to account for the revenues and expenses associated with the tax.

The Regional Transportation Commission (RTC) may appropriate money in the fund to provide a public transit system, support transportation activities for the elderly and disabled, establish public transit fares, and may adopt regulations for the operation of systems or services. The RTC may only withdraw money for (a) public transit and other activities, services and programs related to transportation which are included in the Regional

Transportation Plan, (b) construction, maintenance and repair of public roads; (c) activities, services and programs that relate to the improvement of air quality, and (d) payment of principal and interest on debt instruments.

Boundaries. The ordinance applies Citywide.

Formation Steps. The ordinance must specify the date on which the tax must first be imposed or on which an increase in the rate of the tax becomes effective, which must be the first day of the first calendar quarter that begins at least 120 days after the approval of the question by the voters.

Revenue Sources and Collection. Sales tax collected on taxable goods by merchants is reported and remitted to the State. The State distributes the sales tax revenue to Carson City. The State takes 1.75% of the sales tax as payment for its administration services.

There would be low organizational set-up costs with this funding mechanism as the collection procedure is already established with the State.

Method of Apportionment. A sales tax of up to 0.25% is added to all taxable transactions for all authorized improvements and services under NRS 377A included in the City's ordinance.

Authority to Issue Debt Securities. The City can pledge the revenue source as payment toward a special or general obligation bond. The RTC can pledge the revenue source as payment toward a special obligation bond. The sales tax may be the sole source of repayment, or it may be one of several sources of repayment on a bond series. If the RTC issues bonds or other debt securities, it must have first executed an interlocal agreement with the City to issue debt. The issuing local government may pledge and create a lien on the receipts of the tax.

Removal / Dissolution. The BOS may gradually reduce the amount of the tax. The effective date of reduction must be the first day of the first calendar quarter that begins at least 120 days after the effective date of the ordinance reducing the amount of the tax. At such time that any debt securities issued against the sales tax have been fully paid, the BOS may dissolve the RTC, if it was created solely for the purpose of activity associated with the tax.

Infrastructure Sales Tax Continuation - NRS 377B

The Virginia and Truckee (V&T) Railroad and Streets and Highway Sales Tax is already in place, imposing sales tax at the maximum allowable 0.125% (the maximum allowable under NRS 377B is 0.25%; however, 0.125% has already been imposed for street and pedestrian improvements in the downtown area, Carson Street and William Street/Highway 50 East commercial corridors, a new animal services facility, new athletic center, and upgrades of the community center (which Plan of Expenditure does not expire until June 30, 2047)).

The repurposed revenue source would be generated by the portion of sales tax that is currently used to pay for V&T Railroad bonds debt service. Once these bonds have been paid off (December 2025), the 0.125% sales tax rate imposed specifically for these bonds can no longer be collected for that purpose; however, it can be repurposed for other allowable uses, including roads.

This revenue source is not new. No new tax is created; revenues from an existing tax are repurposed.

Unlike the Transportation Sales Tax, sales tax authorized under NRS 377B is not subject to voter approval.

Flexibility of Service Provision. Sales taxes must be spent only on activities authorized under NRS 377B and described in a Plan of Expenditure, which is adopted by the BOS. Road functions that may be funded by a sales tax adopted under NRS 377B are described in NRS 373.028; specifically, they include:

> Street and highway construction, maintenance or repair, or any combination thereof, including, without limitation, the acquisition, maintenance, repair and improvement of highway truck parking or any street, avenue, boulevard, alley, highway or other public right-of-way used for any vehicular traffic, and including a sidewalk designed primarily for use by pedestrians, and also, including, without limitation, grades, regrades, gravel, oiling, surfacing, macadamizing, paving, crosswalks, sidewalks, pedestrian rights-of-way, driveway approaches, curb cuts, curbs, gutters, culverts, catch basins, drains, sewers, manholes, inlets, outlets, retaining walls, bridges, overpasses, tunnels, underpasses, approaches, sprinkling facilities, artificial lights and lighting equipment, parkways, grade separators, traffic separators, and traffic control equipment, and all appurtenances and incidentals, or any combination thereof, including, without limitation, the acquisition, maintenance, repair and improvement of all types of property therefor.

Transit construction and maintenance costs are not authorized unless they provide cultural, historical, or recreational value (such as the V&T Railroad).

Legal Autonomy and Accountability. The sales tax was most recently updated by ordinance of the BOS to account for an amended Plan of Expenditure December 2018. The amended Plan of Expenditure includes expenditures of sales tax greater than that needed to service debt payments secured by sales tax for the V&T railroad bonds on street and highway preservation and rehabilitation projects. Certain named projects in the Plan of Expenditure include the Roop Street rehabilitation and East Clearview Drive preservation projects. Un-named roads authorized to receive sales tax include regional roadways defined by NDOT's functional classification maps.

Although repurposing of the tax does not require voter approval, there are high levels of accountability for use of the tax.

The City must maintain a separate fund to account for the revenues and expenses associated with the tax.

Boundaries. The ordinance applies Citywide.

Formation Steps. The BOS may impose a sales tax for infrastructure by ordinance. The ordinance must be approved by a two-thirds majority of the BOS, and any changes to the ordinance must also be approved by a two-thirds majority of the BOS. Before enacting the ordinance, the BOS must first develop a Plan of Expenditure. The Plan of Expenditure describes what types of projects, or even specific projects, the proceeds of the tax may be spent on (note that regional projects for which two or more counties have entered into an interlocal agreement to jointly expend on a project may be included).

The Plan of Expenditure must include:

1. The date on which the plan expires.
2. Description of the proposed project(s).
3. Method of financing of each project (or project type).
4. Costs related to each project (or project type).

The formation steps are not required for this funding source because it is not new; rather, a finding of necessity to continue and repurpose the tax must be made by the BOS. There are no organizational set-up costs with this funding mechanism as it is already in place.

At least one public hearing must be held on the Plan of Expenditure (or Amended Plan of Expenditure).

Revenue Sources and Collection. Sales tax collected on taxable goods by merchants is reported and remitted to the State. The State distributes the sales tax revenue to Carson City. The State takes 1.75% of the sales tax as payment for its administration services.

Method of Apportionment. A sales tax of 0.125% would be continued after December 2025 on all taxable transactions.

Authority to Issue Debt Securities. The City can pledge the sales tax future revenue stream as payment toward a special or general obligation bond. The sales tax may be the sole source of repayment, or it may be one of several sources of repayment on a bond series.

Removal / Dissolution. On or before the expiration date stated in the Plan of Expenditure – or when the project(s) described in the Plan of Expenditure are complete, the City must make a finding of necessity to continue collection of the sales tax under the Plan of Expenditure (or Amended Plan of Expenditure). If no finding of necessity is found, the sales tax ordinance must be repealed by the BOS.

03. Use of Funding Mechanisms

Potential Revenue Generation

Potential revenues from the two sales tax funding options are based on the fiscal year 2023 budget revenues for the Streets Maintenance sales tax (which is 0.25%) and V&T Railroad sales tax (which is 0.125%).

Sales Tax Source	Rate of Tax	Estimated Annual Revenue
Special Purposes Sales Tax	Maximum 0.25%	$3,979,000
Infrastructure Sales Tax Continuation	52.5% of 0.125% *	$1,045,000

*Only the V&T Railroad debt service portion of the authorized 0.125% would be additional revenue; the remaining 47.5% is already allocated to highway expenditures.

Potential revenue from a SID or a NID is project and area specific, and cannot reasonably be estimated at this time. Revenue that could be generated by a GID with assessments to pay for neighborhood street improvements was estimated by using ranges of monthly assessments for a typical single-family home. The assessment methodology affects the cost allocation to the single-family home customer group; a methodology more heavily weighted on lineal front footage would shift more of the cost burden to residential; a methodology more heavily focused on trips would shift more of the cost burden to non-residential. The estimated annual revenue shown below is for all potential GID customers (land use types), not just single-family homes.

GID Assessments	Monthly Assessment	Estimated Annual Revenue
Typical SF Home	$10 to $18	$5,000,000
Typical SF Home	$20 to $36	$10,000,000
Typical SF Home	$30 to $58	$15,000,000

The total annual pavement funding estimate in 2022 dollars to keep roads in their current conditions (PCI 74 Regional Roads and PCI 56 Local Roads) is $25.5 million. The funding gap is $21.0 million. If the City re-purposed the V&T Railroad current debt revenue collection to roads (Infrastructure Sales Tax Continuation) and was successful in a vote to support a 0.25% sales tax for roads (Special Purposes Sales Tax), for example, the funding gap could be reduced to $16.0 million.

If, for example, a new GID generated $13.0 million per year, the funding gap could be reduced to $3.0 million per year. The GID could generate revenue from assessments for roads pavement maintenance, and parcel charges for snow removal and street lighting, which would release existing revenue sources paying for these services to pay for pavement maintenance. The remaining funding gap could possibly be filled with grants and SIDs for regional roads. An illustration of this funding example is shown on the next page. In this illustration, which is not a proposal, the majority of sales taxes are directed to regional roads, GID assessments pay for pavement maintenance of local roads only, and GID parcel charges are directed to snow removal and street lighting on both local and regional roads.

	Regional	Local	Total
Pavement Funding Need	$11,500,000	$14,000,000	$25,000,000
Funded Amount	$4,250,000	$250,000	$4,500,000
Funding Gap	$7,250,000	$13,750,000	$21,000,000
Special Purposes Sales Tax	$3,000,000	$1,000,000	$4,000,000
Infrastructure Sales Tax Continuation	$1,000,000	$0	$1,000,000
Funding Gap with Sales Taxes	$2,250,000	$13,750,000	$16,000,000
GID Assessment Revenue	$0	$12,200,000	$12,200,000
GID Parcel Charges	$250,000	$550,000	$800,000
Remaining Funding Gap (Grants / SIDs)	$3,000,000	$0	$3,000,000

Note: numbers are rounded to fifty-thousands and continuation of the diesel tax is assumed.

Funding Sources by Function

The next few pages illustrate which of the road and road-related functions each of the four funding mechanisms can be used for. The illustrations separate out construction activities from maintenance activities. Green indicates that the funding source can be used for that function; amber indicates that the funding source can be used but only under certain limitations; red indicates that the funding sources cannot be used for the function.

Reasons for the limited (amber-colored) functions include:

(1) Pavement Maintenance: SIDs can fund a road maintenance project but the district cannot provide revenues for maintenance of the asset in perpetuity. When the asset needs to be maintained again in the future, a new SID would have to be established. Note, this is not true of a SID for transit, which can provide a revenue source for operation and maintenance of the transit assets in perpetuity.

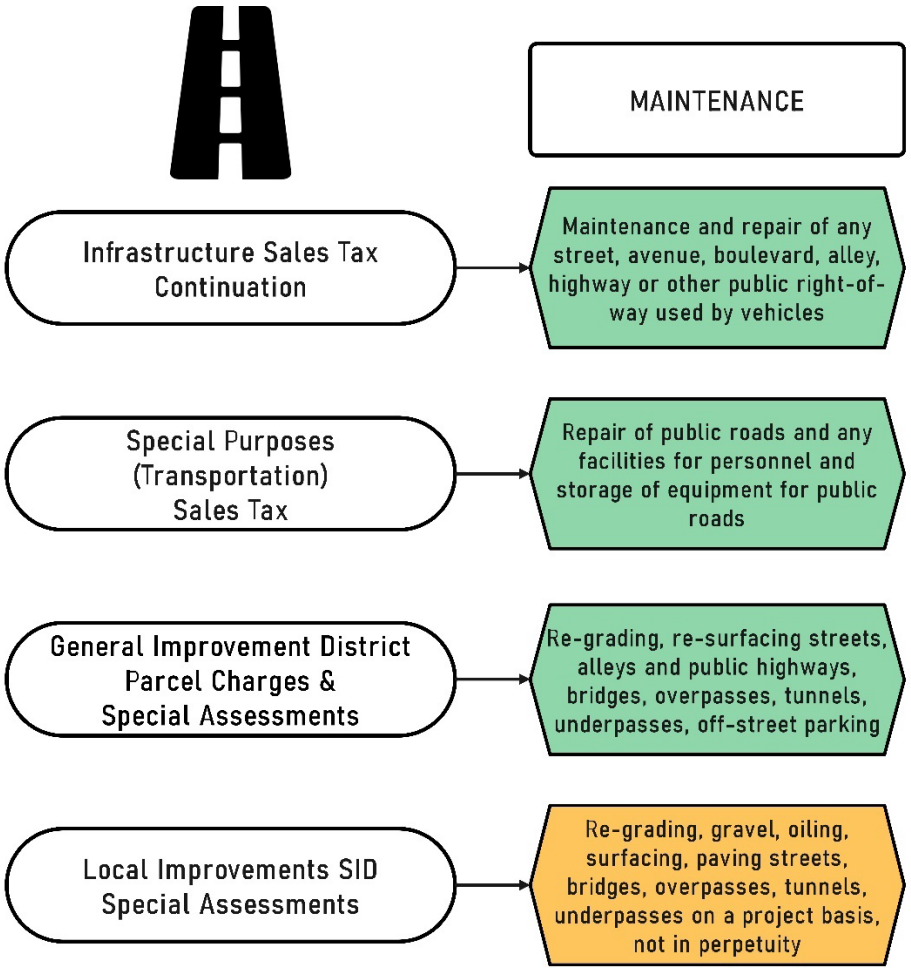
(2) Landscape and Public Spaces: GIDs can only fund facilities in sidewalks to the extent that they are "necessary and incidental unto" the sidewalk.

(3) Access, Mobility and Safety: Mobility and safety features that are incorporated into a street project are permitted uses of revenues raised through GIDs and SIDs, but such features cannot be funded if they are not explicitly part of a street project. Dedicated bike paths through City neighborhoods, for example, could not be funded with these revenue sources; except, however, a GID with recreational facilities as a basic power could fund bike- and pedestrian-only paths with the levy of parcel charges.

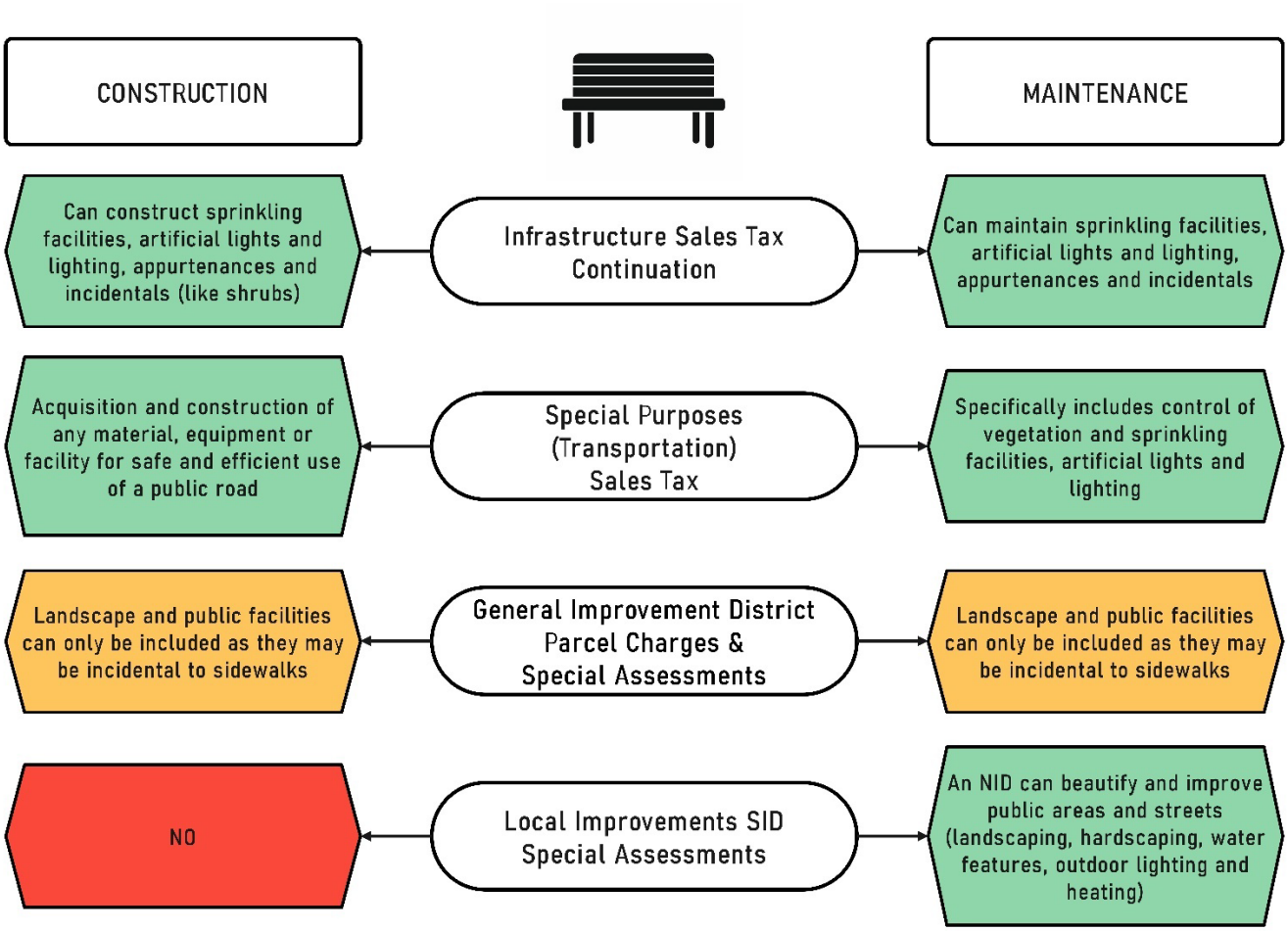
(4) Traffic Operations: Items such as traffic control equipment, lights and signs that are part of a road project can be funded with a road reconstruction or maintenance project in a SID, but just as with (1) the funding source is not in perpetuity unless it is a SID created solely for transit.

(5) Transit: The Infrastructure Sales Tax Continuation (use of sales tax authorized under NRS 377B) can only be used for transit projects that are of cultural, historical, or recreational value (such as a trolley service around the State capital buildings).

Pavement Maintenance



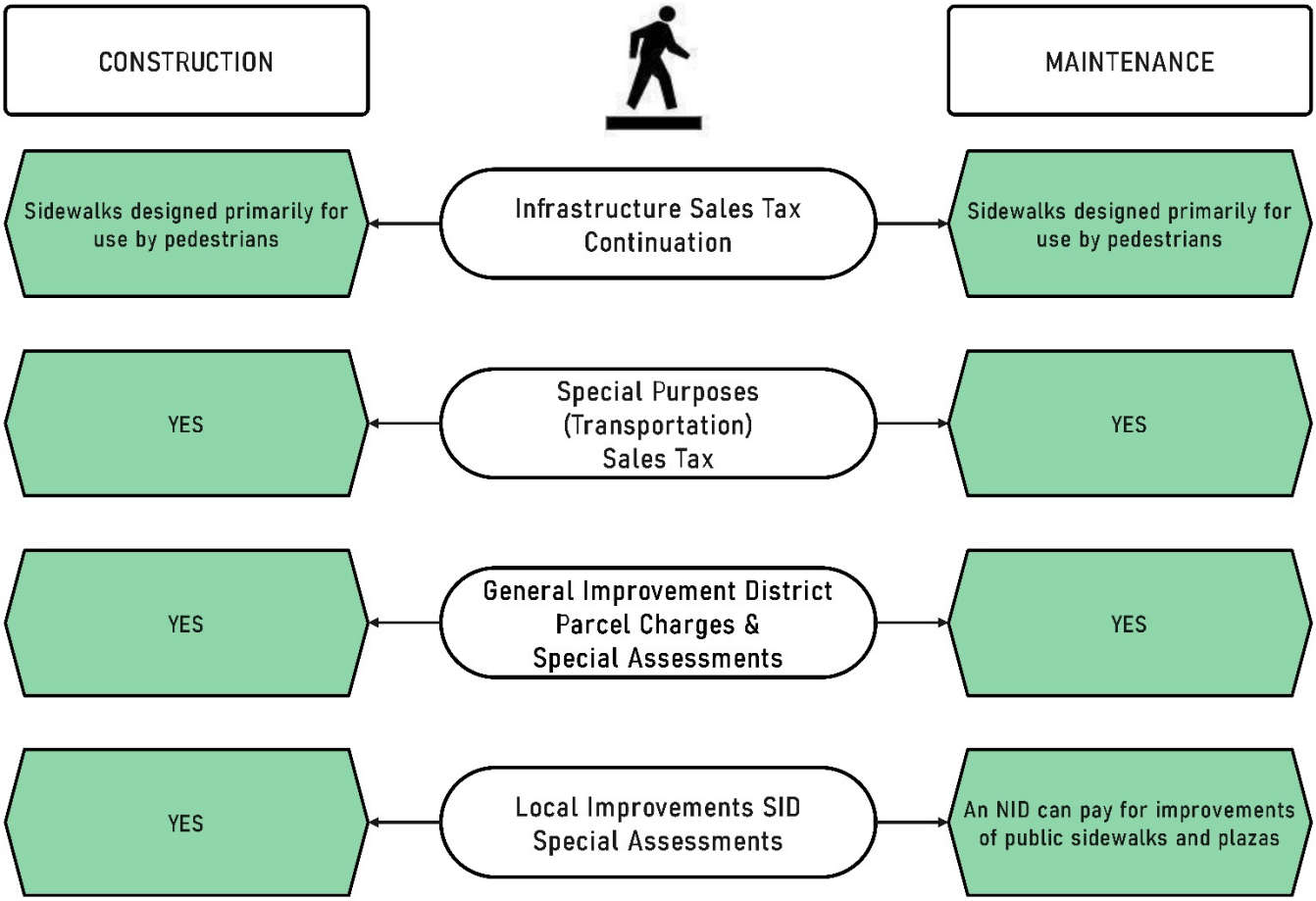
Landscape and Public Spaces



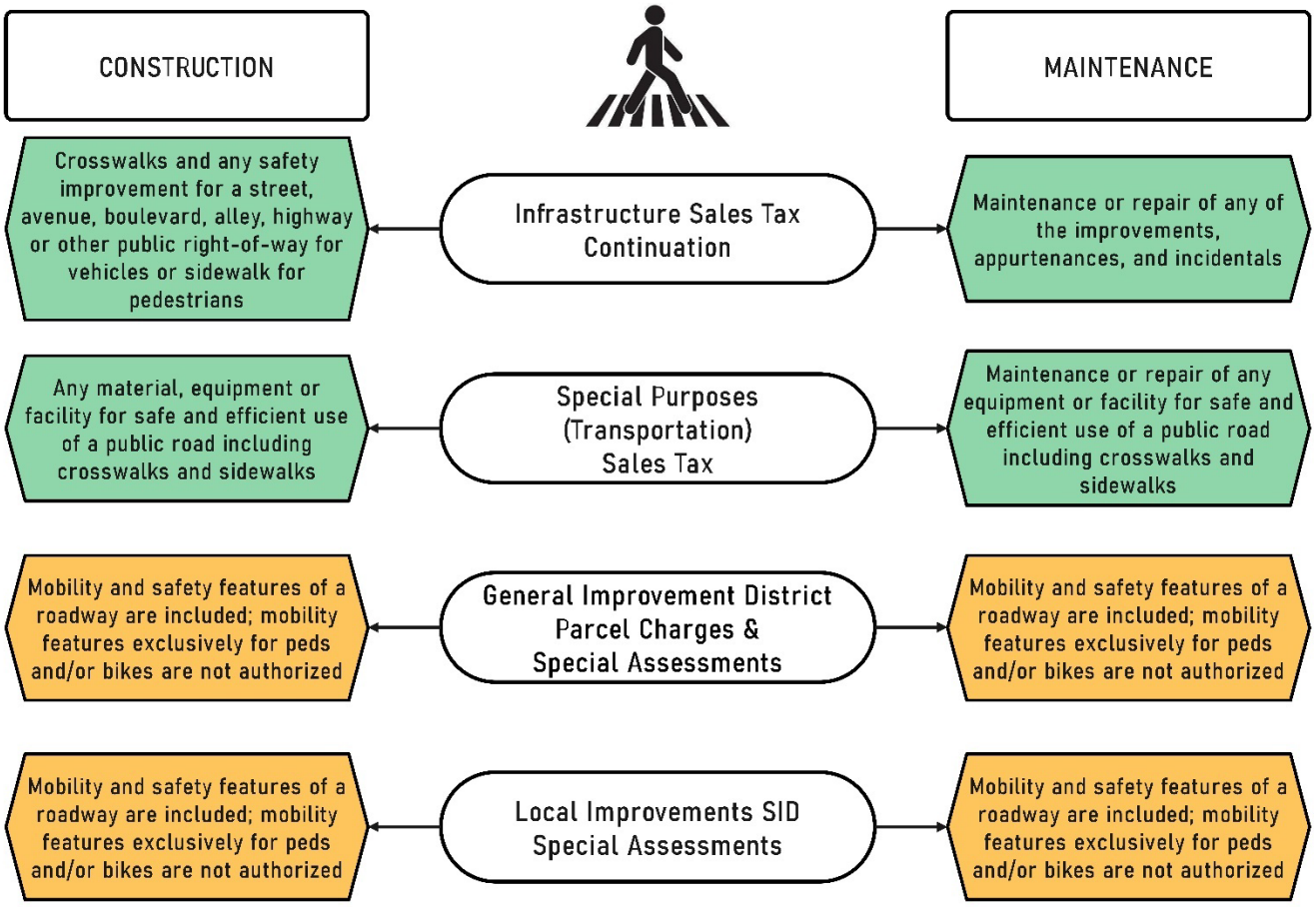
Right-of-Way

	MAINTENANCE
Infrastructure Sales Tax Continuation	Maintenance and repair of any public right-of-way used by vehicles and sidewalks primarily used by pedestrians
Special Purposes (Transportation) Sales Tax	Sweeping, cleaning, and sanding roads and removing snow are specifically authorized
General Improvement District Parcel Charges & Special Assessments	Any activities such as street sweeping, sanding and snow removal are authorized activities to maintain roads right-of-way
Local Improvements SID Special Assessments	NO

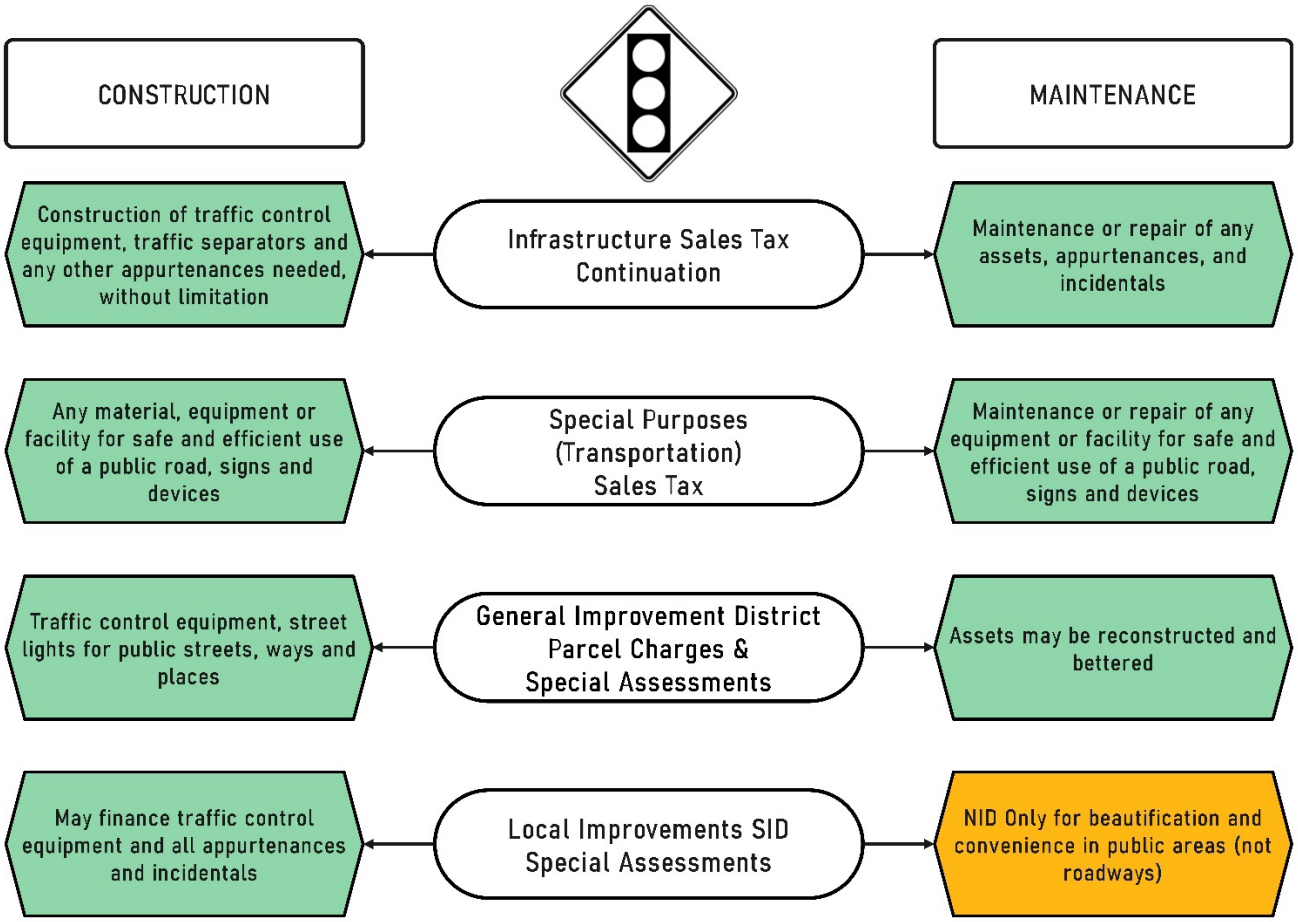
Sidewalk Management



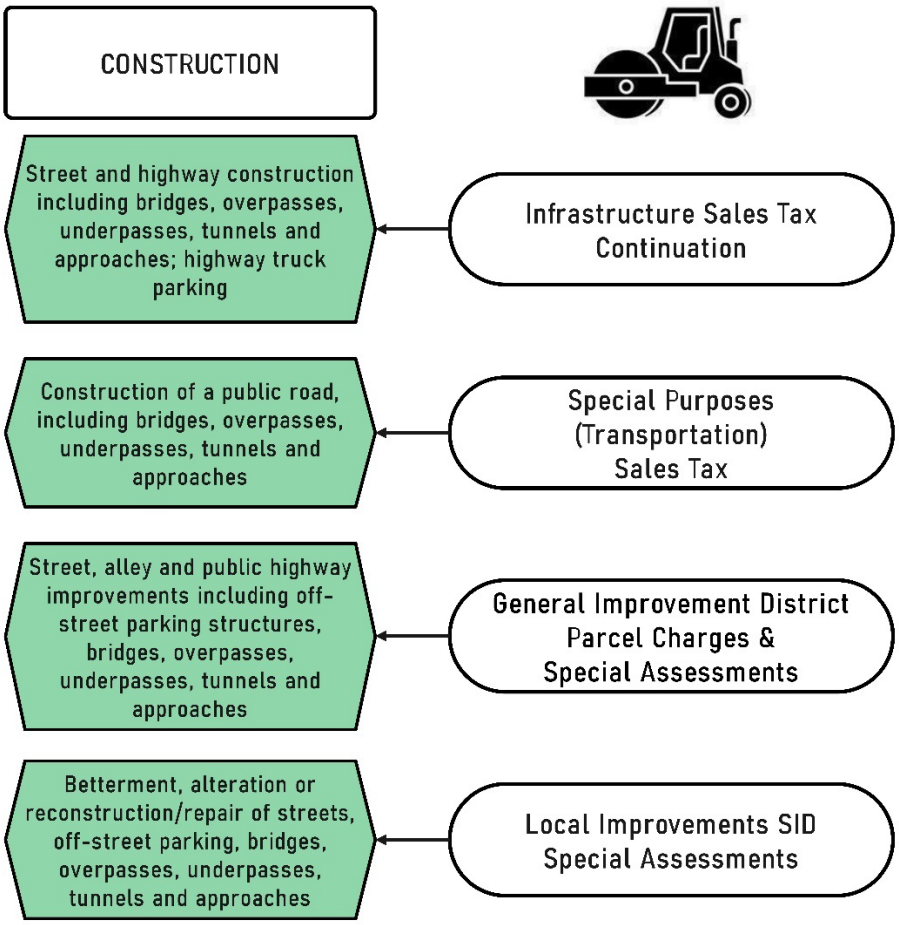
Access, Mobility and Safety



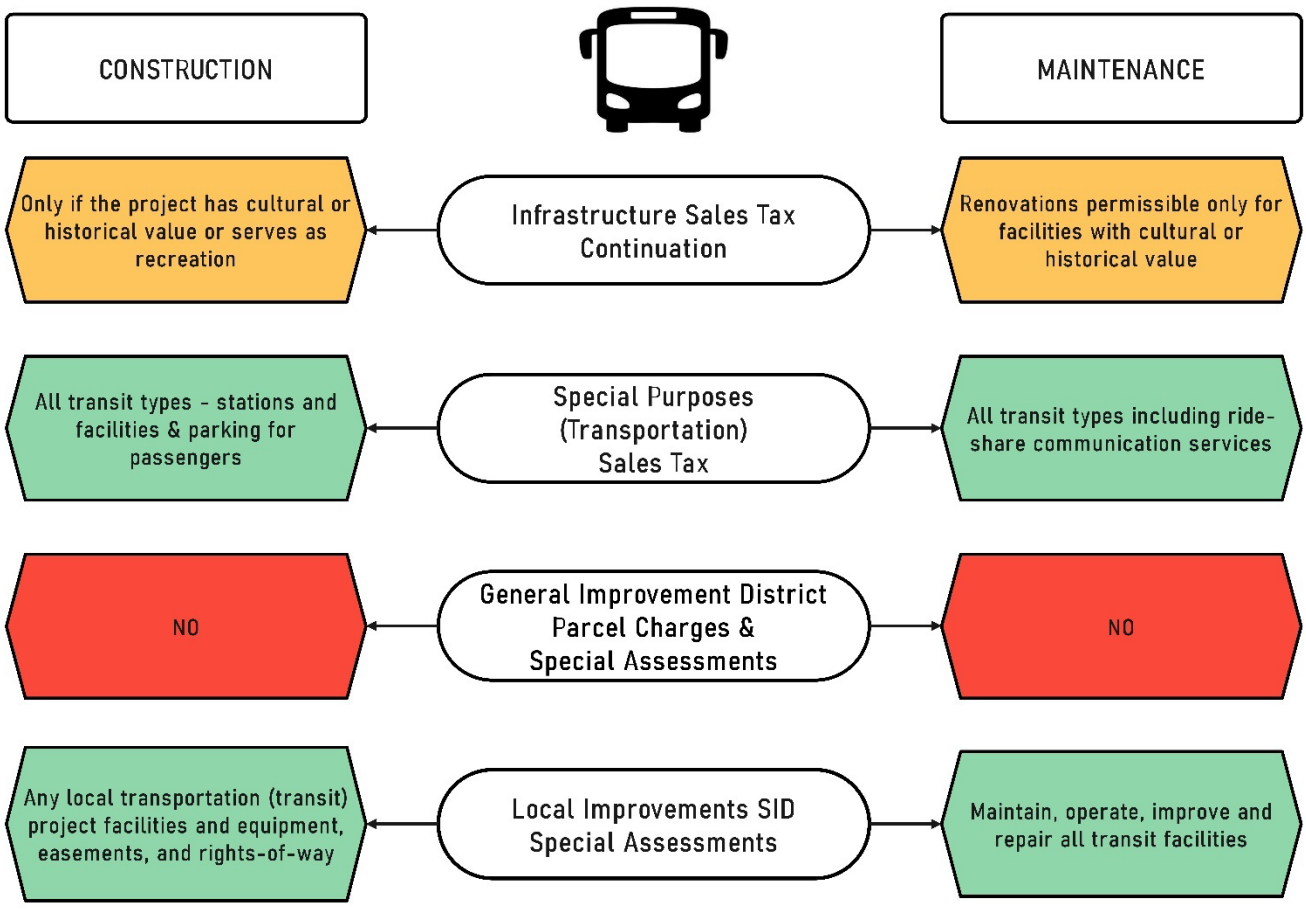
Traffic Operations



Road Reconstruction



Transit


CONSTRUCTION
MAINTENANCE
Only if the project has cultural or historical value or serves as recreation
Infrastructure Sales Tax Continuation
Renovations permissible only for facilities with cultural or historical value
All transit types - stations and facilities & parking for passengers
Special Purposes (Transportation) Sales Tax
All transit types including ride-share communication services
NO
General Improvement District Parcel Charges & Special Assessments
NO
Any local transportation (transit) project facilities and equipment, easements, and rights-of-way
Local Improvements SID Special Assessments
Maintain, operate, improve and repair all transit facilities

04. Defining the Path Forward

Having determined what each of the four potential funding sources is authorized to fund, described comparison attributes of each funding source (legal autonomy and accountability, revenue sources and collection, flexibility of service provision, authority to issue debt securities, formation steps, boundaries, and dissolution), and estimated revenue potential from each funding option, general observations and findings are summarized before defining the next steps in the path forward.

Findings

1. The City has a lot of flexibility under its existing legal authority

Current and potential roads funding sources are summarized in Figure 4 (on the next page). Current funding sources can be used for both neighborhood streets and regional roads; however, codified City policy restricts some of the revenue sources for particular uses. With BOS direction, the City has the flexibility to re-allocate existing funds among the road and road-related functions it performs as part of the overall funding strategy.

None of the potential new funding sources are restricted to just neighborhood streets or regional roads either; as such, not only does the City have a lot of flexibility with use of most of its existing roads funding mechanisms (grants are typically restricted), but it can also craft revenue collection structures that best fit Carson City's needs and values with additional revenue sources, including a GID or a SID (or NID).

2. One funding source does not include any new entity or formation process

The V&T Infrastructure and Highways Tax is already in place and it requires minimal administrative effort to keep the revenue stream. It does not require voter-approval to continue to collect the tax and repurpose it from paying V&T Railroad bond debt service to road maintenance. Repurposing the revenue requires approval by two-thirds majority of the BOS. The BOS is accountable to the public with the Plan of Expenditure which describes exactly what the tax can be spent on. There is highly visible accountability for how the revenue is spent. This revenue source is appealing to keep because of these reasons, and because revenues would be collected from both locals and visitors. Since visitors also contribute to this funding source, it is appropriate that at least some portion of the tax revenue be spent on regional roads. A portion of existing revenues could be redirected to neighborhood streets with some portion of the sales tax being put toward regional roads. Sales tax keeps up with inflation, unlike fuel taxes.

3. A new Roads GID holds a lot of potential for flexibility, accountability, and creativity

A new Roads GID allows for a lot of public input and City creativity. The GID can include limited or several basic powers related to roads (such as sidewalks, snow removal, street lighting) and it can be very flexible; it can establish a dedicated revenue source for neighborhood streets only if that is the primary objective, or it can fund all types of roads. Basic powers can also be added after the GID is created.

Figure 4
Current and Potential Road Funding Sources (Local and Regional Roads)

	LOCAL ROADS			
Road and Road-Related Functions	**Policy-Directed Existing Funding Sources**		**Additional Potential Funding Sources**	
Pavement Maintenance *Actions to maintain or improve PCI ratings (crack seals, slurry seals, resurfacing, striping)*	1-cent GAS TAX STREETS MAINT. TAX	STREET CUT PERMITS 5.35-cent GAS TAX	377B SALES TAX CONTINUATION SPECIAL PURPOSES SALES TAX GID ASSESSMENTS	 SID ASSESSMENTS
Road Reconstruction *(Failed road or part of a road redesign)*			377B SALES TAX CONTINUATION SPECIAL PURPOSES SALES TAX GID ASSESSMENTS	 SID ASSESSMENTS
Access, Mobility, and Safety *Pedestrian crossings, bike lanes, transit lanes, ADA curb ramps*	1-cent GAS TAX STREETS MAINT. TAX	MISCELLANEOUS GRANTS 5.35-cent GAS TAX	377B SALES TAX CONTINUATION SPECIAL PURPOSES SALES TAX GID ASSESSMENTS	 SID ASSESSMENTS
Sidewalk Management *Inspections, repairs*	1-cent GAS TAX STREETS MAINT. TAX	MISCELLANEOUS GRANTS 5.35-cent GAS TAX	377B SALES TAX CONTINUATION SPECIAL PURPOSES SALES TAX GID ASSESSMENTS	 SID ASSESSMENTS
Traffic Operations *Signage, traffic lights, street lighting*	1-cent GAS TAX STREETS MAINT. TAX	MISCELLANEOUS 5.35-cent GAS TAX	377B SALES TAX CONTINUATION SPECIAL PURPOSES SALES TAX GID ASSESSMENTS	GID CHARGES (street lights) SID ASSESSMENTS NID ASSESSMENTS
Landscape and Public Spaces Maintenance *Landscape (includes medians) - benches, retaining walls, fountains for example*	1-cent GAS TAX STREETS MAINT. TAX	5.35-cent GAS TAX	377B SALES TAX CONTINUATION SPECIAL PURPOSES SALES TAX	GID ASSESSMENTS NID ASSESSMENTS
Right-of-Way *Sweeping, sanding, snow removal*	1-cent GAS TAX STREETS MAINT. TAX	5.35-cent GAS TAX	377B SALES TAX CONTINUATION SPECIAL PURPOSES SALES TAX	 GID CHARGES
	ARTERIAL AND COLLECTOR (REGIONAL) ROADS			
Road and Road-Related Functions	**Policy-Directed Existing Funding Sources**		**Additional Potential Funding Sources**	
Pavement Maintenance *Actions to maintain or improve PCI ratings (crack seals, slurry seals, resurfacing, striping)*	GRANTS FRANCHISE FEES STREETS MAINT. TAX	V&T SALES TAX 9-cent GAS TAX DIESEL TAX	V&T SALES TAX CONTINUATION SPECIAL PURPOSES SALES TAX GID ASSESSMENTS	 SID ASSESSMENTS
Road Reconstruction *(Failed road or part of a road redesign)*	GRANTS V&T SALES TAX	9-cent GAS TAX DIESEL TAX	V&T SALES TAX CONTINUATION SPECIAL PURPOSES SALES TAX GID ASSESSMENTS	 SID ASSESSMENTS
Access, Mobility, and Safety *Pedestrian crossings, bike lanes, transit lanes, ADA curb ramps*	GRANTS COMPLETE STREETS 9-cent GAS TAX	MISCELLANEOUS DIESEL TAX	V&T SALES TAX CONTINUATION SPECIAL PURPOSES SALES TAX GID ASSESSMENTS	 SID ASSESSMENTS
Sidewalk Management *Inspections, repairs*	1-cent GAS TAX STREETS MAINT. TAX	MISCELLANEOUS GRANTS	V&T SALES TAX CONTINUATION SPECIAL PURPOSES SALES TAX GID ASSESSMENTS	 SID ASSESSMENTS
Traffic Operations *Signage, traffic lights, street lighting*	1-cent GAS TAX STREETS MAINT. TAX 9-cent GAS TAX	MISCELLANEOUS GRANTS	V&T SALES TAX CONTINUATION SPECIAL PURPOSES SALES TAX GID ASSESSMENTS	GID CHARGES (street lights) SID ASSESSMENTS NID ASSESSMENTS
Landscape and Public Spaces Maintenance *Landscape (includes medians) - benches, retaining walls, fountains for example*	1-cent GAS TAX STREETS MAINT. TAX 9-cent GAS TAX	S. CARSON NID DOWNTOWN NID	V&T SALES TAX CONTINUATION SPECIAL PURPOSES SALES TAX	GID ASSESSMENTS NID ASSESSMENTS
Right-of-Way *Sweeping, sanding, snow removal*	1-cent GAS TAX STREETS MAINT. TAX		V&T SALES TAX CONTINUATION SPECIAL PURPOSES SALES TAX	 GID CHARGES (snow mgmt.)

Notes:
MISCELLANEOUS may include funding such as the City's Redevelopment Authority, or other Regional Transportation Commission (RTC) safety money.
GRANTS refers to one-time sources of funding from programs such as Community Development Block Grant (CDBG), Surface Transportation Block Grant (STBG), Transportation Alternatives Program (TAP), and Federal Transit Administration (FTA).

Money collected by the GID can be spent in any part of the City on any part of the City; or alternatively, sub-improvement areas can be created to keep dollars in certain parts of the City. Included areas need not be contiguous, allowing the City to tailor the GID as best fits the needs of its constituents. The City can determine the most equitable method of apportionment by soliciting customer input in the formation steps creating the GID.

Although a new GID would be a separate legal entity from the City, it could be governed by the same BOS or by the RTC, ensuring the vision and execution of activities of the GID are in line with the City's objectives. A GID can also create SIDs for major neighborhood street capital projects if the City wanted to keep all roads special assessments under the umbrella of one entity.

4. A new sales tax could help close the funding gap, but it decreases potential funding for other City infrastructure projects

The City needs to evaluate its financial needs for other City services when considering an up to 0.25% additional sales tax under NRS 377A because this funding source can be used for other infrastructure projects in addition to roads, and the total sales tax is capped by statute at 0.5% (the City already levies 0.25% for roads maintenance). In addition, the City would need to gage public support for such a tax, and to what level, as it requires a general election vote in favor of the new tax.

The timing of a potential new sales tax can determine whether the initiative is successful or not, since it may be affected by the state of the national or statewide economy. As such, this funding tool may not be in an initial funding strategy; whether it is or not, it should be kept in the toolbox for roads and roads-related funding and it can be visited and revisited periodically. The current 0.25% sales tax for roads funding was approved by voters in 1986.

5. SIDs and NIDs are excellent for funding specific projects

A program of SIDs throughout the City (versus a GID) would be administratively very burdensome to set up (note however that annual administration can be contracted to a third party which could minimize City staff time). SIDs have to be formed for every street maintenance project each time improvements are needed (the funding cannot continue in perpetuity as it can with a GID). But for specific one-time projects, they can work very well.

SIDs and NIDs are formed by protest procedure (more than 50% required to stop formation of a SID, and more than 33.33% required to stop formation of a NID), unless the City is providing at least 50% of the total project cost. Since the goal is to create a new funding source, it is unlikely the City will have the more than matching amount, unless the match is a grant. Garnering support for one-time projects with demonstrated need can be less challenging than garnering support for multiple repetitive maintenance projects.

6. Some of the funding mechanisms are well-suited to fund transit

A new Special Purposes (Transportation) sales tax and a Local Improvements SID are excellent funding mechanisms for transit services and programs. The City could form a Transit SID that is assessed to all or only certain property owners (depending on the benefits received from the project, programs and services), and it can fund ongoing operations and maintenance (as well as programs and services) within the boundary of the SID.

7. Earliest timeline to collect each revenue differs

- The soonest the repurposed Infrastructure sales tax revenue currently collected for debt service of the V&T Railroad bonds could be repurposed to roads is January 2026.

- A new Special Purposes (Transportation) sales tax collected under NRS 377A could first be collected 120 days after an ordinance with its authorization has been adopted by the BOS. Since this new sales tax would have to be approved by the voters at a general election (November 2024), the City would most likely not be able to receive revenues from this source until April 2025.

- Formation of a GID would likely take six to nine months; if the process is started in early 2023, revenues could be received beginning January 2024.

- Formation of a SID would take four or five months. Several SIDs could be created at the same time to reap administrative efficiencies.

Next Steps

The next steps to fund road preservation and halt deterioration of the PCI are to:

- Discuss the findings of the technical report and potential revenue-raising ability of each mechanism with decision-makers (the BOS and RTC Boards) for input,

- Present the alternatives to the public for input,

- Determine the level of service the City aims to fund (expressed as an overall PCI for regional roads and an overall PCI for local roads), and

- Create a funding strategy with implementation steps and timeline.

Endnotes

[i] Nevada Sustainable Transportation Funding Advisory Work Group background information for AWG Meeting #2, August 2021.
ii Carson City Roadway Needs and Funding Report, 2021.
[iii] Applied Pavement Technology, Carson City Pavement Condition Analysis Report, August 2022.
[iv] Department of Taxation, Division of Local Government Services, Annual Local Government Indebtedness as of June 30, 2021.
[v] Understanding Nevada's Property Tax System, 2015-2016 Edition, Nevada Taxpayers Association publication.
[vi] "Prospects for Transportation Utility Fees", Journal of Transport and Land Use, Vol. 5, No. 1 (spring 2012).
[vii] In the event that special assessments and City General Fund monies are insufficient to pay for special assessment bonds debt service, ad valorem taxes shall be charged (NRS 271.495).

FUNDING OPTIONS				
	Local Improvements Special Districts (SID)s *NRS 271*	General Improvement District (GID) *NRS 318*	Special Purpose (Transportation) Sales Tax *NRS 377A*	Infrastructure Sales Tax *NRS 377B*
Description	NEW Improvement Districts formed for discrete project in defined geographies. Two types: (1) Infrastructure SID (2) Maintenance NID	NEW Roads GID responsible for streets and alleys; could include curbs, gutter, and sidewalks, street lighting and snow removal in authorized powers	NEW Up to an additional 0.25% sales tax applicable to all taxable transactions within the City specifically dedicated to roads funding	EXISTING Continued collection of 0.125% sales tax applicable to all taxable transactions within the City that is currently used for V&T bond repayment
Boundaries	Can be noncontiguous; Infrastructure SID no provision for annexation; Maintenance NID can be expanded	Can be Citywide or not, can be noncontiguous; procedure for annexation described in NRS	City Boundaries; annexation not applicable	City Boundaries; annexation not applicable
Flexibility of Service Provision	Rigid; districts are formed for specific expenditures; however, an SID can include other infrastructure improvements (e.g. water, sewer)	Flexible provided the service is included in the GID powers at formation; a GID can also form SIDs/NIDs as needed	Activities authorized by voters (can include roads and public transit systems)	Activities authorized by BOS
Legal Autonomy & Accountability	City Board of Supervisors	Separate Legal Entity - BOS is the ex officio Board of Trustees; local district managing board can be appointed by the BOS. Has eminent domain power. Annual filings with Dep't of Taxation	City Board of Supervisors. Requires voter approval	City Board of Supervisors
Formation Steps	Provisional Order Method initiated by BOS; if >50% of est. cost is borne by customers and a majority of customers object in writing, an SID cannot be formed; administratively burdensome	BOS resolution adopted by ordinance; can be stopped by voter protest. More administratively burdensome than the sales tax options initially	City resolution upon voter approval. Requires a public information campaign	Hold at least one public hearing and adopt by two-thirds majority of the BOS. Adopt a new plan for expenditure of tax proceeds once V&T railroad bonds are repaid. Low administrative effort
Method of Apportionment	Special assessment by any equitable basis. Federal properties are exempt. School district properties must consent; Carson City may only be levied up to 15% of total assessments	Parcel charges - no prescribed methodology. Special assessments paid by land and premises benefited by the improvements apportioned on an equitable basis. School district properties must consent	Sales tax up to 0.25% on all taxable transactions as included in the City's ordinance	Continuation of the 0.125% Infrastructure Tax originally levied for V&T Railroad bonds on all taxable transactions as included in the City's ordinance
Revenue Sources & Collection	Special assessments placed on the property tax roll. Annual administration costs for each SID (could outsource annual billings); annual report and public hearing required for NIDs	Special assessments and parcel charges. Customers could be billed with City utility bills or with property taxes	Can be included in agreement between Carson and the State for revenue collection and distribution. State takes 1.75% of the revenue.	Can be included in agreement between Carson and the State for revenue collection and distribution. State takes 1.75% of the revenue.
Authority to Issue Debt Securities	Yes - special assessment bonds are not a debt of the municipality, but of the district; can issue for SIDs and NIDs	Yes - can issue revenue bonds and special assessment bonds (special obligations, not debts)	Yes (general or special obligations of the City)	Yes (general or special obligations of the City)
Dissolution / Removal	SID is in place until project cost paid; a NID can be dissolved upon petition of property owners holding >50% of assessed value	Resolution of the BOS, by majority of the BOS	Per voter-approved term; can be in perpetuity	Can be removed by BOS action; must be repealed if no longer needed for uses in the Plan of Expenditure

Carson City Pavement Condition Analysis Final Report (August 2022)

Prepared For:

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CONTENTS

INTRODUCTION AND PURPOSE

Carson City Public Works (CCPW) contracted with Applied Pavement Technology, Inc. (APTech) to analyze Carson City's (City) roadway pavement assets and forecast budget needs for the next 28 years, to 2050.

This report provides a detailed description of the current condition of pavement assets, examples of different pavement conditions, a review of pavement performance in Carson City, and budget scenarios to assist Carson City's elected officials in balancing City priorities.

Carson City is the capital of the State of Nevada. It was founded in 1864, covers about 157 square miles, and has a population of about 58,640 (April 1, 2020 census). CCPW is responsible for maintaining approximately 284 centerline miles of pavement. This equates to 52,265,798 square feet or 1.87 square miles of pavement.

ROADWAY PAVEMENT INVENTORY

CCPW maintains a database of all City roadways. The database, updated annually, was used to review pavement performance and to complete budget scenario analyses. Below is a detailed summary of roadway pavement assets that CCPW maintains, preserves, and rehabilitates.

Tables 1 and 2 provide information on pavement surface area, roadway functional classification, and Pavement Performance District (see figure 1). CCPW's network is predominantly comprised of local roads.

Table 1. Pavement area by roadway functional classification.

Functional Classification	City Classification	Area (ft^2)	Percentage of Network Area
Arterials	Regional	7,752,697	15%
Collectors		9,892,797	19%
Local	Local	34,620,304	66%
Total		52,265,798	100%

Table 2. Pavement area by Performance District.

Performance District	Functional Classification	City Classification	Area (ft^2)	Percentage of District Area
1	Arterials	Regional	2,039,278	20%
	Collectors		1,337,722	13%
	Local	Local	6,780,603	67%
Performance District 1 Total			**10,157,603**	**100%**
2	Arterials	Regional	2,442,486	24%
	Collectors		1,186,034	11%
	Local	Local	6,722,014	65%
Performance District 2 Total			**10,350,534**	**100%**
3	Arterials	Regional	988,173	9%
	Collectors		2,286,552	22%
	Local	Local	7,339,450	69%
Performance District 3 Total			**10,614,176**	**100%**
4	Arterials	Regional	1,356,593	12%
	Collectors		2,439,696	22%
	Local	Local	7,083,733	65%
Performance District 4 Total			**10,880,023**	**100%**
5	Arterials	Regional	926,167	9%
	Collectors		2,642,792	26%
	Local	Local	6,694,504	65%
Performance District 5 Total			**10,263,463**	**100%**

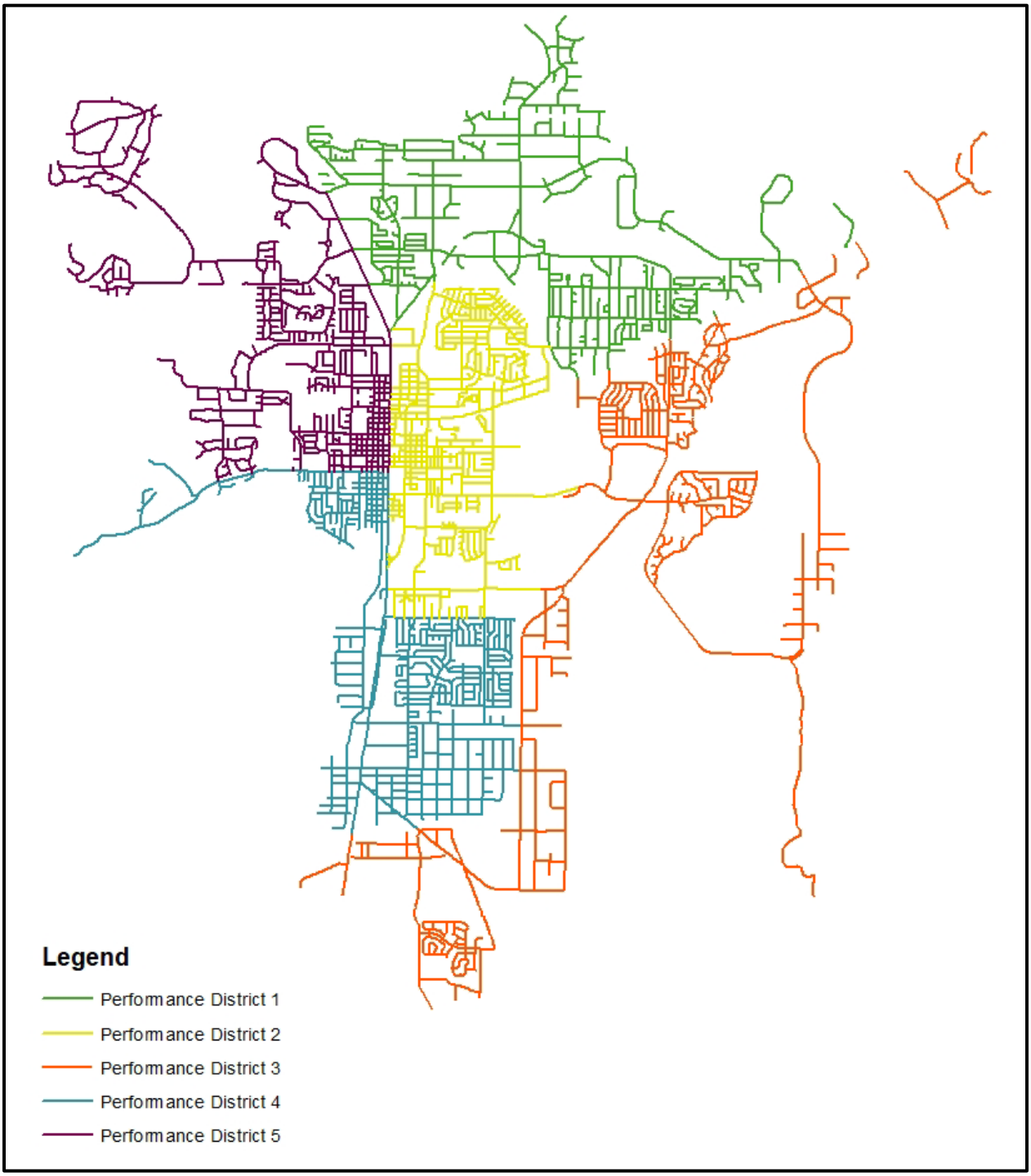


Figure 1. Carson City maintained roads by Performance District.

PAVEMENT CONDITION

Pavement Condition Index

CCPW has performed three network-wide pavement surveys in the last decade: in 2014, 2017, and 2021. The pavement surveys were carried out using automated data collection vans which drove the network and collected pavement distress data.

Distress data collected during those surveys was used to calculate a Pavement Condition Index (PCI) value for each of the 3,073 road sections in the pavement network. The PCI is a value ranging from 0 to 100, where 0 describes a severely distressed pavement and 100 describes a pavement in excellent condition. In the calculation of PCI, each distress type and severity has an associated deduct value. Structural distresses, like rutting and fatigue cracking, have much higher deduct values than others. Thus, small amounts of these distresses will lower a PCI value much faster than large amounts of other functional distresses (e.g., raveling and weathering). Table 3 provides an overview of the industry standard condition categories used by CCPW, along with typical distresses present in each category.

Table 3. PCI ranges and condition categories.

PCI Range		Condition Category		Typical Distresses Present
100	86	Good		Very little distress. Minor cracking.
85	71	Satisfactory		Mostly low-severity distress, with the possibility of some moderate-severity. Little to no fatigue cracking. Minor rutting.
70	56	Fair		Starting to see more moderate-severity distress, including some fatigue cracking. Patching and rutting are typically present.
55	41	Poor		Moderate- and high-severity cracking, including notable low- and/or moderate-severity fatigue cracking, patching, and rutting.
40	26	Very Poor		Significant amounts of cracking, including notable moderate- and high-severity fatigue cracking, raveling, and patching. Cracking is moderate- to high-severity. Rutting may approach 0.5 inches.
25	11	Serious		Significant amounts of cracking, including considerable amounts of moderate- and high-severity fatigue cracking, raveling, and patching. Majority of cracking is moderate- to high-severity. Rutting may approach 1 inch.
10	0	Failed		Significant amounts of cracking, including moderate- and high-severity fatigue cracking, raveling, patching. Cracking is generally high-severity. Possible high-severity rutting.

Figures 2 through 8 show representative images for each PCI condition category described in Table 3. There are multiple combinations of distress types, severities, and extent that may lead to the same PCI.

Figure 2, a photograph taken on Race Track Road, has no distresses visible (17% of the roads in Carson City are rated as Good).

Figure 2. Pavement in Good condition category (PCI 100-86).

Figure 3, a photograph taken on Silver Oak Drive, shows low- and moderate-severity longitudinal and transverse cracking (24% of the roads in Carson City are rated as Satisfactory).

Figure 3. Pavement in Satisfactory condition category (PCI 85-71).

Figure 4, a photograph taken on Deer Run Road, shows a combination of moderate-severity transverse cracking and low-severity alligator cracking (22% of the roads in Carson City are rated as Fair).

Figure 4. Pavement in Fair condition category (PCI 70-56).

Figure 5, a photograph taken on Fifth Street, shows a combination of low and moderate-severity longitudinal cracking and moderate-severity alligator cracking (17% of the roads in Carson City are rated as Poor).

Figure 5. Pavement in Poor condition category (PCI 55-41).

Figure 6, a photograph taken on North Lompa Lane, shows a combination of low and moderate-severity longitudinal and transverse cracking, low-severity patching, and a considerable amount of moderate-severity alligator cracking with low severity rutting (14% of the roads in Carson City are rated as Very Poor).

Figure 6. Pavement in Very Poor condition category (PCI 40-26).

Figure 7, a photograph taken on Deer Run Road, shows a combination of low and moderate-severity longitudinal and transverse cracking along with considerable amounts of moderate-severity alligator cracking with moderate-severity rutting (6% of the roads in Carson City are rated as Serious).

Figure 7. Pavement in Serious condition category (PCI 25-11).

Figure 8, a photograph taken on Brick Road, shows a combination of moderate- and high-severity alligator cracking and potholes (less than 1% of the roads in Carson City are rated as Failed).

Figure 8. Pavement in Failed condition category (PCI 10-0).

Current Network Conditions

Based on the PCI values for all the roadways, the current overall area-weighted average PCI for the City network is 62. This places the overall condition of the network near the middle of the Fair condition category (PCI 70-56). Tables 4 and 5 provide breakdowns of the average PCI values by facility type and Performance District, respectively. Note that these are average values, and that there is a distribution of condition values from very high to very low throughout the network.

Table 4. Average PCI by facility type.

City Classification	Area (ft^2)	Percentage of Network Area	Area Weighted PCI*
Regional	17,645,494	34%	74
Local	34,620,304	66%	56
All Roads	52,265,798	100%	62

*Refer to Table 3 on page 5 for condition category color legend.

Table 5. Average PCI by Performance District.

Performance District	City Classification	Area (ft^2)	Percentage of District Area	Area Weighted PCI*
1	Regional	3,377,000	33%	69
	Local	6,780,603	67%	57
	All Roads	10,157,603	100%	61
2	Regional	3,628,520	35%	80
	Local	6,722,014	65%	53
	All Roads	10,350,534	100%	63
3	Regional	3,274,725	31%	77
	Local	7,339,450	69%	58
	All Roads	10,614,176	100%	64
4	Regional	3,796,289	35%	79
	Local	7,083,733	65%	51
	All Roads	10,880,023	100%	61
5	Regional	3,568,959	35%	65
	Local	6,694,504	65%	60
	All Roads	10,263,463	100%	62

*Refer to Table 3 on page 5 for condition category color legend.

Figure 9 displays the distribution of pavement area by condition category. Approximately 41 percent of the roadway network area is in Good to Satisfactory condition with PCI values greater than 70. Roadways in Good or Satisfactory condition are typically excellent candidates for pavement preservation treatments and strategically timed pavement preservation treatments may extend the life of these roadways in a cost-effective manner, delaying the need for more costly treatments.

Approximately 39 percent of the roadways in the City are in Fair or Poor condition with a PCI between 40 and 70. Based on standard City practice, roadways in this condition category will likely require some form of rehabilitation work or pavement preservation work to restore or prolong performance. The remaining 20 percent of the City's roadways are in Very Poor, Serious, or Failed condition. Roadways in these conditions are generally candidates for more costly reconstruction or major rehabilitation.

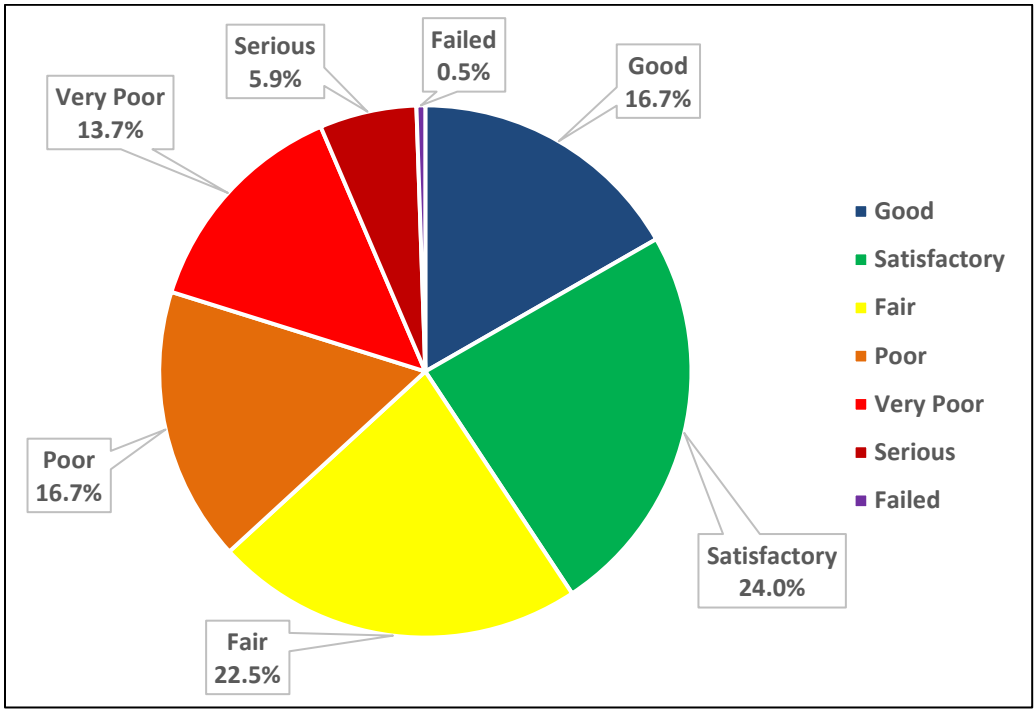


Figure 9. Distribution of network pavement area by condition category.

Figures 10 and 11 display the distribution of pavement area in the different condition categories by the functional classification of the roadway. Approximately 65 percent of the regional roads are in Good or Satisfactory condition, while only 28 percent of the local roads are in Good or Satisfactory condition.

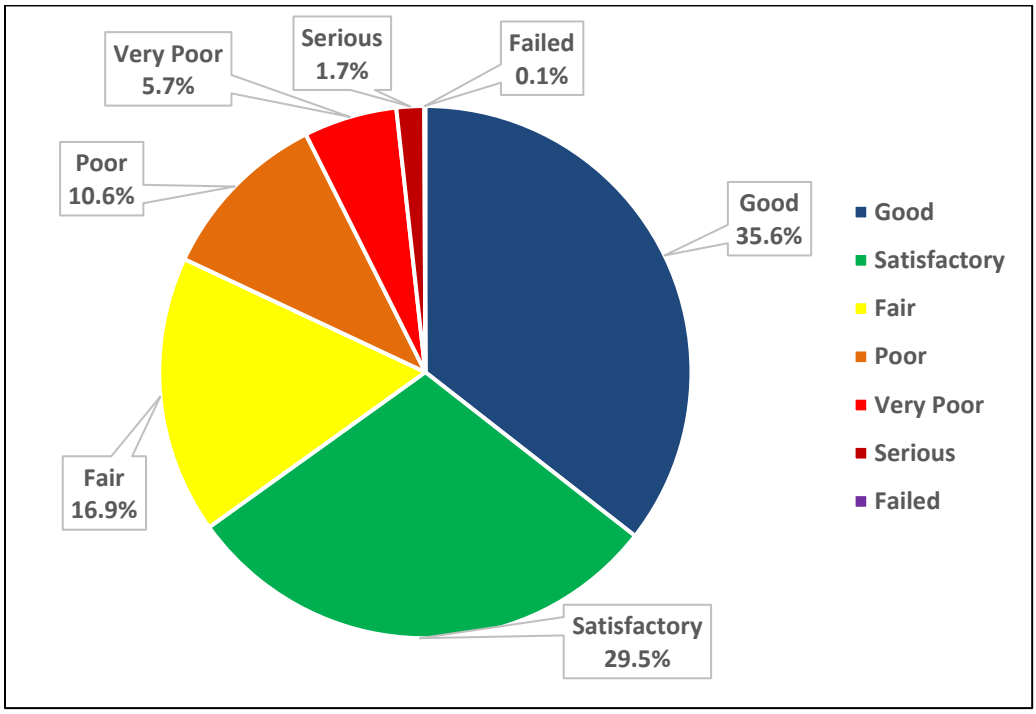


Figure 10. Regional roadways distribution of pavement area by condition category.

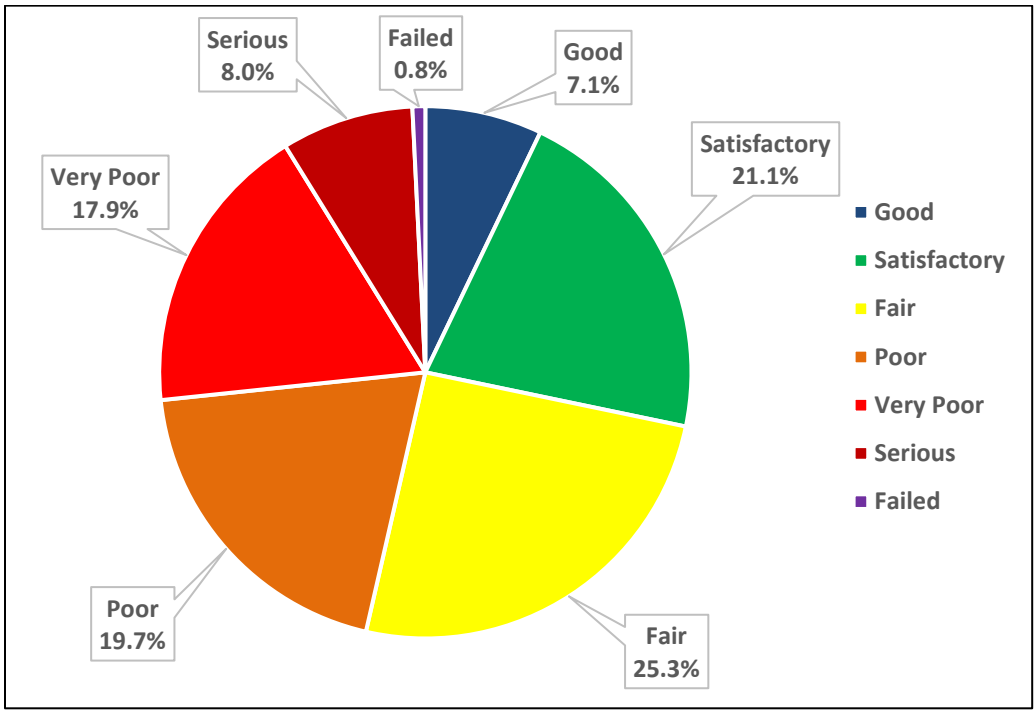


Figure 11. Local roadways distribution of pavement area by condition category.

PAVEMENT MANAGEMENT SYSTEM CONFIGURATION

Treatment Strategy

The Carson City Pavement Management Plan outlines the City's approach to maintaining, preserving, and rehabilitating the City's roadways. The plan identifies project evaluation criteria to consistently and transparently prioritize projects. The leading criteria include:

- Pavement Condition
- Preventive and Corrective Maintenance Schedule
- Roadway Functional Classification
- Traffic Volume
- Safety (high speed facilities)

The City's pavement maintenance schedule is guided by its pavement management software, which tracks pavement condition and work history, and can be used to model performance to help predict financial needs to proactively budget for roadway treatments (pavement repair, maintenance, and rehabilitation). The software assists in assigning and scheduling specific treatment strategies by condition category and calculates funding needs based on assigned unit costs. This allows the user to select the right treatment for the right pavement section at the right time.

Pavement maintenance includes routine maintenance actions that are applied to address a specific distress, such as crack sealing linear cracks, or patching a pothole. In general, pavement maintenance is divided into two approaches depending on the overall condition of the pavement: preventive and stopgap. Characteristics of each maintenance approach are provided below, along with the following definitions:

- Preventive maintenance: treatments applied to a pavement generally in good condition with the primary objective of slowing the rate of pavement deterioration.

- Stopgap maintenance: maintenance activities performed to keep a deteriorated pavement operational and safe.

The goal of preventive maintenance is to preserve the pavement system by slowing the rate of deterioration through the use of proactive treatments or by improving the surface condition. Since preventive maintenance treatments are usually very low in cost, their use is generally a cost-effective strategy for preserving network conditions. Preventive maintenance policies are established to define the type of maintenance action needed to correct each distress type observed during the pavement evaluation.

Surface treatments and thin overlays are common preventive treatments. These do not increase the pavement's structural capacity, but protect the existing structure from the elements that cause rapid aging, such as moisture intrusion and pavement oxidation that lead to structural deterioration. Additionally, surface treatments can be used to fill small surface distortions and improve skid resistance.

Stopgap maintenance is recommended when rehabilitation or reconstruction activities are warranted but funding is insufficient to perform the needed level of work. The goal of stopgap maintenance is to keep the pavement operational through the repair of distress type and severity level combinations that could create hazardous situations like the potential for tire damage, hydroplaning, or other safety concerns. Many of the treatments used in a preventive application are also used in stopgap applications. However, stopgap maintenance treatments are considered temporary and generally do not provide very many years of service.

A threshold PCI value (i.e., critical PCI) is used to distinguish between preventive and stopgap maintenance. CCPW defined this value to be 65 for regional roadways and 40 for their local roadways in their network (Pavement Management Plan). The Critical PCI identifies when major rehabilitation work should be considered. Preventive maintenance actions are only recommended for roadways above the critical PCI level. Below the critical PCI, stopgap maintenance could be applied but if funding is available the pavement is being considered for major maintenance and rehabilitation (M&R) in the near future. Major M&R is typically defined as an activity such as an overlay or reconstruction that would return the pavement to basically "new" condition and would result in a PCI of 100 (no distress) if implemented.

According to the National Center for Pavement Preservation (NCPP), it costs six to fourteen times less to use pavement preservation treatments to extend the life of pavement segments rather than waiting until the pavement reaches poor condition and repairing or replacing it. Preservation treatments have shorter expected lifespans, which causes concern among the public about more frequent applications and associated interruptions. However, research clearly shows that life-cycle costs for roadway maintenance are reduced by using pavement preservation approaches, keeping good roads in good condition while repairing those that have fallen below acceptable levels of condition for preservation. Figure 12 shows the benefit of using a pavement preservation approach.

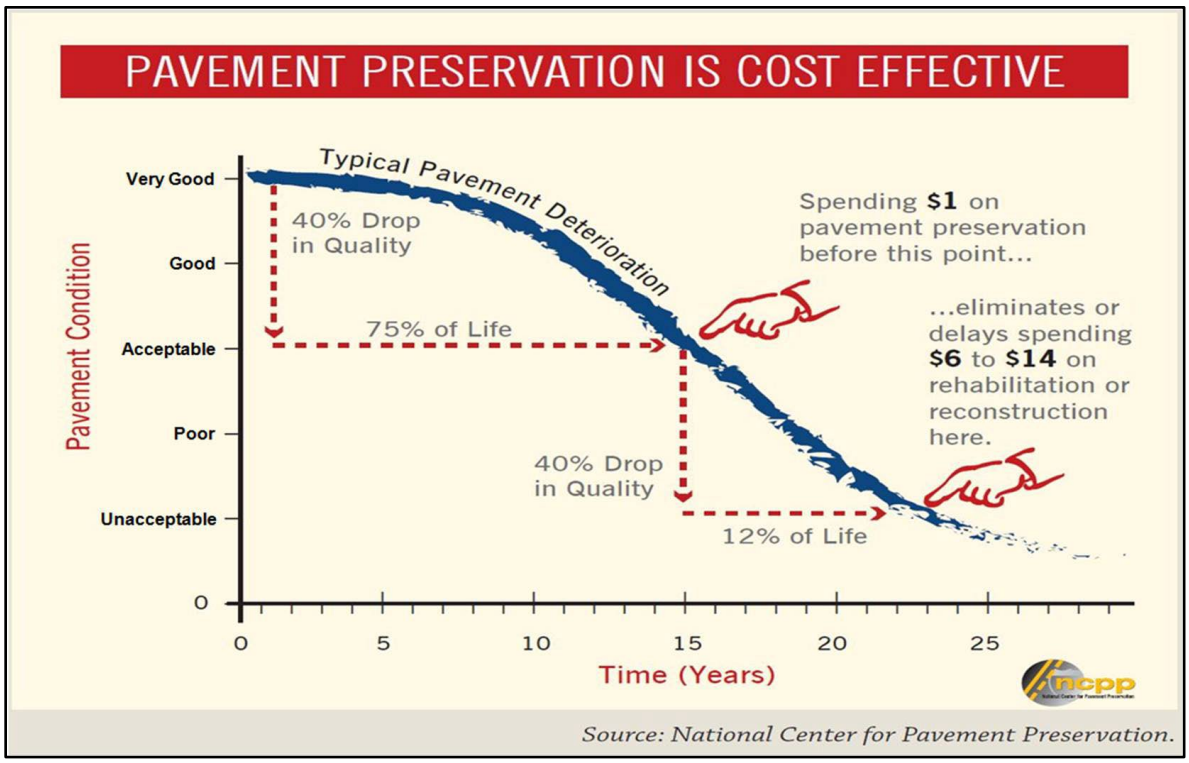


Figure 12. Pavement preservation cost vs. pavement rehabilitation cost.

Table 6 provides the list of treatment types (activity) currently considered in Carson City's pavement management software.

Table 6. CCPW Existing treatment types.

Activity	PAVER Budget Category	Cost[1]	Unit
Crack Sealing	Localized Preventive	$0.75	ft
Patching		$8.00	sq. ft
Pothole Filling		$6.00	sq. ft
Slurry Seal[2]	Surface Treatments	$0.32	sq. ft
Cape Seal[3]		$0.32	sq. ft
Cold Mill and Overlay - 2 Inches[4]	Major M&R	$3.00	sq. ft
Complete Reconstruction - AC		$4.00	sq. ft

[1] Costs do not include non-pavement incidentals (e.g., pavement marking, ADA compliance, engineering)
[2] Time to reach pre-treatment condition is 3 years and application interval is 5 years.
[3] Time to reach pre-treatment condition is 4 years and application interval is 6 years.
[4] Applies only to Regional Roads.

The pavement management software estimates preventive, stopgap, and major M&R costs based on the pavement condition of each roadway. Localized preventive treatment unit costs shown above were used to estimate maintenance costs for the entire pavement surface area, the results are summarized in Table 7. It is noteworthy to mention that the pavement management software interpolates unit costs between the PCI values shown. For example, a pavement section with a PCI of 75 will have an associated cost of \$0.025 per square foot for preventive maintenance ($0.01 + (75 - 80)\ x\ \frac{(0.01-0.04)}{(80-70)} = 0.025$).

Note that surface treatments are not recommended based on a cost by condition. These are calculated based on the unit costs shown in Table 6 and sections will only be targeted if they fall within the selected PCI range of 90 to 65 for regional roadways and 90 to 40 for local roadways, and a minimum of two years after a major M&R has been applied.

Table 7. Cost (per ft^2) by PCI range for preventive, stopgap, and major.

PCI	Preventive	Stopgap	PCI	Major M&R	
				Regional Roads	Local Roads
0	\$1.67	\$0.83	0	\$4.00	\$4.00
10	\$1.67	\$0.83	10	\$4.00	\$4.00
20	\$1.33	\$0.67	20	\$4.00	\$4.00
30	\$0.80	\$0.40	30	\$4.00	\$4.00
40	\$0.33	\$0.17	39.99	\$4.00	\$4.00
50	\$0.17	\$0.08	40	\$3.00	\$0.00
65	\$0.05	\$0.05	49.99	\$3.00	\$0.00
70	\$0.04	\$0.04	50	\$3.00	\$0.00
80	\$0.01	\$0.01	64.99	\$3.00	\$0.00
90	\$0.00	\$0.00	65	\$0.00	\$0.00
100	\$0.00	\$0.00	100	\$0.00	\$0.00

Performance Models

Performance models are used by the pavement management software to predict future condition. Based on the data obtained during the latest pavement survey completed, the models were reviewed and updated to improve their accuracy.

Currently there are two performance models within the CCPW software, one for polymer-modified, asphalt-surfaced roads and another for non-modified, asphalt-surfaced roads. Figure 13 provides a graphic showing the models .

Over time, as additional data becomes available (i.e., original construction records, new rounds of pavement inspections) performance models may be refined, and additional performance curves may be needed to better represent roadway performance. For example, the City may consider adding a separate model for regional and local roads due to prioritization of treatments. In addition, at some point consideration may be given to separate models for roads that have received different pavement preservation treatments. Periodic review of configuration items keeps a pavement management system aligned with current conditions and agency operations.

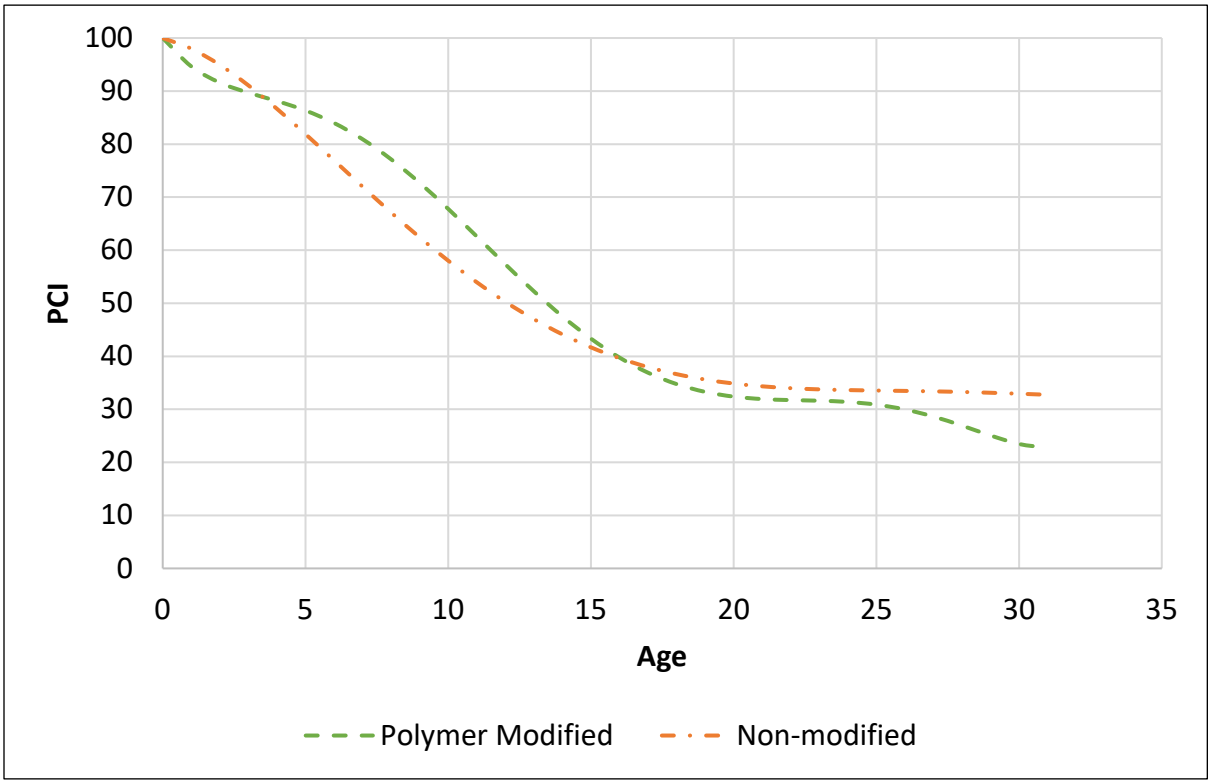


Figure 13. CCPW performance models.

BUDGET SCENARIO ANALYSES

Based on pavement conditions, treatment costs, performance models, and CCPW treatment strategies, the City's pavement management software was used to perform various budget and condition forecasting scenarios. The software uses pavement condition inspection data, pavement performance models, and treatment strategies to predict future network conditions or future budget requirements. The following discussion provides an overview of the analyses performed and results.

An analysis period up to 2050 (28 years) was selected by CCPW. Pavement management software analyses are typically carried out for shorter time periods (i.e., 5 or 10 years) because of the variability of inputs over time. Variables include accuracy of the pavement performance models (refined over time as more data becomes available); the introduction of additional performance models due to new materials, treatments, and technologies; significant changes in treatment unit costs; unforeseen environmental factors such as earthquake or flooding events; and reliability of funding. Pavement management software is capable of long-term analysis periods, but caution should be applied to long-term projections. To improve accuracy, scenario assumptions should be refined over time.

Five budget scenarios were analyzed as part of this project; two were based on constrained budgets, and three were based on target PCI conditions. Details of each scenario are summarized below:

Constrained Funding Scenarios

- **Current Revenue Levels:** CCPW estimated that it spends an average of approximately $1.4 million per year on preventive maintenance activities and $2 million on surface treatments and rehabilitation activities received from local sources (with a 0.68% increase per year over the analysis period). Additionally, there is a total of $18.7 million from a combination of the City's 1/8 cent infrastructure sales and a one-time federal transportation grant which was distributed over the first 5 years of the analysis period toward the rehabilitation of North Carson Street and William Street. This has been incorporated into the forecast to offset costs associated with the two mentioned corridors. Additionally, Carson City reasonably expects to receive $2.7 million in Transportation Formula Funding, this funding was distributed over the next 5-years for M&R on collector and arterial roads. This scenario predicts the future condition of the pavement network if current funding levels are maintained.

- **Current Revenue Levels increased by 100 percent:** CCPW wanted to analyze the impact to their network if local revenue were increased to an average of approximately $2.8 million per year on preventive maintenance activities and $4 million on surface treatments and rehabilitation activities (with a 0.68% increase per year over the analysis period). The additional $18.7 million for rehabilitation activities on North Carson Street and William Street and other $2.7 million from Federal Funding that is to be evenly distributed over the first 5 years of the analysis period was maintained since both revenue streams will conclude by 2027.

Target Pavement Condition Scenarios

The additional $18.7 million for rehabilitation activities on North Carson Street and William Street that is to be evenly distributed over the first 5 years of the analysis period was maintained for these scenarios. Additionally, the $2.7 million in Federal Funding distributed over the first 5 years for M&R on collector and arterial roads was also maintained.

- **Maintain Current Condition:** This scenario predicts the annual budget requirements to maintain the current area-weighted average network PCI of approximately 62 (Fair) over the 28-year analysis period.

- **Reach Target Conditions:** This scenario predicts the annual budget requirement to reach a specified area-weighted average PCI; the following two scenarios were analyzed:

    - Approved Pavement Management Plan scenario where regional and local roadways would reach an area-weighted average PCI of at least 75 and 70, respectively, in the initial 8 years and then maintain the target conditions over the remainder of the 28-year analysis period.

    - Modified Pavement Management Plan scenario, which is more in line with the City's current practice of roadway prioritization that focuses on roadways with higher volumes and connectivity, and addresses local roadways as funding becomes available. Regional and local roadways would reach an area-weighted average PCI of at least 70 and 50, respectively, by 2030 and then maintain target conditions over the remainder of the 28-year analysis period.

It is noteworthy to mention that when conditions are targeted, it is expected for the software to return a value that is not exactly the target. Due to the many variables that are involved in forecasting (e.g., network condition, analyses period, number of sections, budget, treatment strategy), it may not be possible for a scenario to reach the target. Therefore, multiple iterations were carried out to approximate the target values for the three target condition scenarios above, and in those cases where the software was unable to meet the target condition, if the values were greater or slightly below the targeted PCI the scenario was considered acceptable.

Assumptions

During conversations with CCPW, it was decided to account for roadway project incidentals that are typically encountered during surface treatments and rehabilitation projects. Assumed incidentals as a percentage of the total project costs are shown in table 8. The budgets for these categories were reduced accordingly for all scenarios because unit costs in the software only account for pavement-related construction. Additionally, an overall inflation rate of 2.46% was used. This value was calculated based on an average of the information from the Congressional Budget Office for 2022 (6.1%) and 2023 (3.1%), and a 2.3% assumption for the remaining years of the analysis period.

Table 8. CCPW Incidental Costs.

Category	Major M&R	Surface Treatment
ADA	20%	5%
Design/Project Management	12.5%	6.5%
Construction Management	8.5%	11.5%
Contingency	10%	10%
Striping	5%	15%
Total	**56%**	**48%**

Because the budgets for rehabilitation and surface treatments were combined, it was necessary to define a starting point that allows for a funding allocation balance between surface treatments and rehabilitation. This assumed roadways that are in good condition can be maintained in that condition while roadways that have reached the end of their service life (below the critical PCI) can be planned for rehabilitation. The initial funding allocation split between surface treatments and rehabilitation was assumed to be 30 percent for surface treatments and 70 percent for rehabilitation. Due to the length of the analysis period, there were multiple years where there was a considerable funding surplus from the 30 percent budget allocation for surface treatments. This surplus was moved to the rehabilitation treatment budget to incorporate additional rehabilitation work. Additionally, when there was surplus from localized preventive maintenance, it was used for rehabilitation and surface treatments.

While there are unit costs set up in the pavement management software for stopgap maintenance, Carson City has staff and budget dedicated to carry out routine stopgap maintenance activities throughout the network. Therefore, this maintenance category is excluded from all analyses to eliminate additional fund allocation to stopgap activities.

Tables 9 through 13 show the annual report card used by CCPW that summarizes the average area-weighted PCI for all facility types over the first 8 years of the analysis period for every budget scenario. These tables show the percentage change between the first and eighth year of the analysis period. Tables 14 through 18 show the same report card for every three years of the 28-year analysis period along with the percentage change between the first and twenty-eighth year of the analysis period.

Table 9: 8-year report card for current revenue levels.

Pavement Condition Index (PCI) - Annual Report Card											
Facility Type		Estimated PCI									Percent Change 2022 to 2030
		2022	2023	2024	2025	2026	2027	2028	2029	2030	
City-wide	Regional Roads	74	70	69	69	68	67	66	65	63	-14%
	Local Roads	56	51	48	45	43	41	39	38	36	-35%
	All Roads	62	57	55	53	52	50	48	47	46	-27%
Performance District 1	Regional Roads	69	65	65	64	65	65	66	67	65	-6%
	Local Roads	57	51	48	46	43	41	39	37	36	-37%
	All Roads	61	56	54	52	50	49	48	47	46	-25%
Performance District 2	Regional Roads	80	78	78	77	78	76	76	74	73	-8%
	Local Roads	53	48	45	43	41	39	37	36	35	-34%
	All Roads	63	58	57	55	54	52	51	49	48	-23%
Performance District 3	Regional Roads	77	74	73	70	70	68	66	64	63	-18%
	Local Roads	58	54	52	49	47	45	43	41	39	-32%
	All Roads	64	60	58	56	54	52	50	48	46	-27%
Performance District 4	Regional Roads	79	74	72	71	70	67	65	63	62	-21%
	Local Roads	51	46	44	42	40	38	37	36	35	-32%
	All Roads	61	56	54	52	50	48	47	45	44	-27%
Performance District 5	Regional Roads	65	59	57	60	58	60	58	56	53	-18%
	Local Roads	60	54	51	48	45	43	41	39	38	-37%
	All Roads	62	56	53	52	50	49	47	45	43	-31%

Table 10: 8-year report card for current revenue levels increased by 100 percent.

Pavement Condition Index (PCI) - Annual Report Card											
Facility Type		Estimated PCI									Percent Change 2022 to 2030
		2022	2023	2024	2025	2026	2027	2028	2029	2030	
City-wide	Regional Roads	74	72	73	73	73	73	73	73	74	0%
	Local Roads	56	51	48	46	43	41	40	38	37	-35%
	All Roads	62	58	56	55	53	52	51	50	49	-21%
Performance District 1	Regional Roads	69	69	76	74	74	71	73	76	75	8%
	Local Roads	57	51	48	46	43	41	39	37	36	-36%
	All Roads	61	57	57	55	53	51	50	50	49	-20%
Performance District 2	Regional Roads	80	79	78	79	82	80	81	80	81	2%
	Local Roads	53	48	45	43	41	39	38	36	35	-34%
	All Roads	63	59	57	56	55	54	53	52	51	-19%
Performance District 3	Regional Roads	77	76	76	75	74	72	75	75	74	-5%
	Local Roads	58	54	52	49	47	45	43	41	39	-32%
	All Roads	64	61	59	57	55	54	53	52	50	-22%
Performance District 4	Regional Roads	79	75	74	74	73	73	72	73	73	-8%
	Local Roads	51	46	44	42	40	38	37	36	35	-32%
	All Roads	61	56	55	53	51	51	49	49	48	-21%
Performance District 5	Regional Roads	65	62	59	63	60	65	65	64	66	2%
	Local Roads	60	54	51	48	45	43	41	39	38	-37%
	All Roads	62	57	54	53	51	51	49	48	48	-23%

Table 11: 8-year report card for maintaining current conditions.

Pavement Condition Index (PCI) - Annual Report Card											
Facility Type		Estimated PCI									Percent Change 2022 to 2030
		2022	2023	2024	2025	2026	2027	2028	2029	2030	
City-wide	Regional Roads	74	75	78	83	86	87	88	86	83	12%
	Local Roads	56	57	57	56	56	56	55	59	60	6%
	All Roads	62	63	64	65	66	66	66	68	68	9%
Performance District 1	Regional Roads	69	77	82	83	87	86	85	86	82	19%
	Local Roads	57	61	60	58	57	56	56	61	61	7%
	All Roads	61	66	67	67	67	66	66	70	68	12%
Performance District 2	Regional Roads	80	81	82	86	88	87	86	84	83	4%
	Local Roads	53	53	53	52	52	53	53	56	56	6%
	All Roads	63	63	63	64	65	65	65	65	66	4%
Performance District 3	Regional Roads	77	79	81	82	85	86	90	86	82	7%
	Local Roads	58	60	61	60	58	57	56	58	62	6%
	All Roads	64	66	67	67	67	66	66	67	68	6%
Performance District 4	Regional Roads	79	77	80	86	89	88	88	85	84	6%
	Local Roads	51	51	50	51	52	54	54	56	56	10%
	All Roads	61	60	61	63	65	66	65	66	66	8%
Performance District 5	Regional Roads	65	62	66	76	81	91	92	89	85	30%
	Local Roads	60	61	60	61	60	58	59	64	63	5%
	All Roads	62	62	62	66	67	70	70	73	70	14%

Table 12: Approved Pavement Management Plan Scenario

8-year report card for reaching target conditions of 75 and 70 for regional and local roads, respectively.

Pavement Condition Index (PCI) - Annual Report Card											
Facility Type		Estimated PCI									Percent Change 2022 to 2030
		2022	2023	2024	2025	2026	2027	2028	2029	2030	
City-wide	Regional Roads	74	76	79	83	87	87	88	86	83	12%
	Local Roads	56	59	59	58	58	57	57	63	63	12%
	All Roads	62	65	65	67	67	67	67	70	70	12%
Performance District 1	Regional Roads	69	77	82	84	87	86	85	86	82	19%
	Local Roads	57	62	62	60	59	57	57	66	65	14%
	All Roads	61	67	69	68	68	67	66	72	71	16%
Performance District 2	Regional Roads	80	81	83	87	88	86	86	84	83	4%
	Local Roads	53	55	55	55	55	55	55	61	61	14%
	All Roads	63	65	65	66	67	66	66	69	69	9%
Performance District 3	Regional Roads	77	79	81	82	86	86	90	86	82	7%
	Local Roads	58	61	62	61	60	59	57	61	64	11%
	All Roads	64	67	68	68	68	67	67	69	70	9%
Performance District 4	Regional Roads	79	78	80	86	89	87	88	85	83	6%
	Local Roads	51	53	53	53	55	56	55	60	59	16%
	All Roads	61	62	62	65	67	67	67	69	68	11%
Performance District 5	Regional Roads	65	62	67	76	82	91	92	88	84	30%
	Local Roads	60	62	61	62	61	59	59	66	64	7%
	All Roads	62	62	63	67	68	70	71	73	71	15%

Table 13: Modified Pavement Management Plan Scenario

8-year report card for reaching target conditions of 70 and 50 for regional and local roads, respectively.

Pavement Condition Index (PCI) - Annual Report Card											
Facility Type		Estimated PCI									Percent Change 2022 to 2030
		2022	2023	2024	2025	2026	2027	2028	2029	2030	
City-wide	Regional Roads	74	75	77	81	83	86	88	86	84	13%
	Local Roads	56	57	56	55	54	53	53	56	56	0%
	All Roads	62	63	63	64	64	64	65	66	65	5%
Performance District 1	Regional Roads	69	77	79	81	85	85	86	86	83	20%
	Local Roads	57	60	58	56	54	53	53	58	57	0%
	All Roads	61	65	65	64	65	63	64	67	65	7%
Performance District 2	Regional Roads	80	80	82	84	88	87	87	84	84	5%
	Local Roads	53	52	52	51	51	50	50	52	52	-1%
	All Roads	63	62	63	63	64	63	63	63	63	1%
Performance District 3	Regional Roads	77	79	80	82	82	85	90	87	83	7%
	Local Roads	58	59	60	59	57	56	54	57	60	3%
	All Roads	64	65	66	66	65	65	65	66	67	4%
Performance District 4	Regional Roads	79	77	80	84	87	87	88	86	84	6%
	Local Roads	51	50	49	49	50	51	50	52	52	2%
	All Roads	61	60	60	62	63	64	63	64	63	3%
Performance District 5	Regional Roads	65	62	64	74	75	87	93	89	85	32%
	Local Roads	60	61	60	59	57	56	56	61	59	-1%
	All Roads	62	62	61	64	64	66	68	71	68	10%

Table 14: 28-year report card for current revenue levels.

Pavement Condition Index (PCI) - Annual Report Card												
Facility Type		Estimated PCI										Percent Change 2022 to 2050
		2022	2025	2028	2031	2034	2037	2040	2043	2046	2050	
City-wide	Regional Roads	74	69	66	62	59	56	52	48	46	43	-41%
	Local Roads	56	45	39	35	33	31	31	30	29	28	-50%
	All Roads	62	53	48	44	42	40	38	36	35	33	-47%
Performance District 1	Regional Roads	69	64	66	66	64	60	55	51	50	48	-30%
	Local Roads	57	46	39	35	33	32	31	31	30	30	-48%
	All Roads	61	52	48	45	43	41	39	37	37	36	-41%
Performance District 2	Regional Roads	80	77	76	72	69	67	64	59	56	54	-33%
	Local Roads	53	43	37	34	32	31	30	29	29	27	-48%
	All Roads	63	55	51	47	45	44	42	40	38	37	-42%
Performance District 3	Regional Roads	77	70	66	61	58	54	50	46	43	41	-47%
	Local Roads	58	49	43	37	34	31	30	29	28	26	-55%
	All Roads	64	56	50	45	41	38	36	34	33	31	-52%
Performance District 4	Regional Roads	79	71	65	61	57	53	50	45	42	39	-50%
	Local Roads	51	42	37	34	32	31	30	29	29	28	-46%
	All Roads	61	52	47	43	41	39	37	35	33	32	-48%
Performance District 5	Regional Roads	65	60	58	52	48	46	41	41	38	35	-46%
	Local Roads	60	48	41	36	34	32	31	31	30	29	-52%
	All Roads	62	52	47	42	39	37	35	34	33	31	-50%

Table 15: 28-year report card for current revenue levels increased by 100 percent.

Pavement Condition Index (PCI) - Annual Report Card												
Facility Type		Estimated PCI										Percent Change 2022 to 2050
		2022	2025	2028	2031	2034	2037	2040	2043	2046	2050	
City-wide	Regional Roads	74	73	73	73	72	71	68	65	62	58	-21%
	Local Roads	56	46	40	35	33	32	31	30	29	28	-50%
	All Roads	62	55	51	48	46	45	43	42	40	38	-38%
Performance District 1	Regional Roads	69	74	73	74	76	70	71	66	66	66	-4%
	Local Roads	57	46	39	35	33	32	31	31	30	29	-48%
	All Roads	61	55	50	48	47	45	45	43	42	42	-32%
Performance District 2	Regional Roads	80	79	81	80	78	77	73	70	69	71	-12%
	Local Roads	53	43	38	34	32	31	31	30	29	28	-48%
	All Roads	63	56	53	50	48	47	46	44	43	43	-32%
Performance District 3	Regional Roads	77	75	75	72	71	74	69	65	64	57	-26%
	Local Roads	58	49	43	38	34	32	30	29	29	27	-54%
	All Roads	64	57	53	48	45	45	42	40	39	36	-43%
Performance District 4	Regional Roads	79	74	72	72	68	69	68	61	56	51	-35%
	Local Roads	51	42	37	34	32	31	30	29	29	28	-45%
	All Roads	61	53	49	47	45	44	43	40	38	36	-41%
Performance District 5	Regional Roads	65	63	65	68	65	65	58	60	55	48	-27%
	Local Roads	60	48	41	37	34	32	32	31	30	29	-51%
	All Roads	62	53	49	47	45	44	41	41	39	36	-42%

Table 16: 28-year report card for maintaining current conditions.

Pavement Condition Index (PCI) - Annual Report Card												
Facility Type		Estimated PCI										Percent Change 2022 to 2050
		2022	2025	2028	2031	2034	2037	2040	2043	2046	2050	
City-wide	Regional Roads	74	83	88	79	79	78	80	78	76	74	0%
	Local Roads	56	56	55	60	60	63	61	61	58	56	0%
	All Roads	62	65	66	66	66	68	67	67	64	62	0%
Performance District 1	Regional Roads	69	83	85	78	81	75	79	81	75	81	18%
	Local Roads	57	58	56	62	61	63	60	61	58	57	0%
	All Roads	61	67	66	67	68	67	66	68	64	65	7%
Performance District 2	Regional Roads	80	86	86	79	80	81	80	77	80	76	-5%
	Local Roads	53	52	53	57	59	63	63	61	59	57	7%
	All Roads	63	64	65	65	67	69	69	67	66	63	1%
Performance District 3	Regional Roads	77	82	90	79	80	83	78	79	79	71	-8%
	Local Roads	58	60	56	62	60	63	59	59	56	54	-7%
	All Roads	64	67	66	67	66	69	65	65	63	59	-7%
Performance District 4	Regional Roads	79	86	88	80	76	74	82	77	72	70	-12%
	Local Roads	51	51	54	56	58	61	62	60	59	55	8%
	All Roads	61	63	65	64	64	65	69	66	63	60	-1%
Performance District 5	Regional Roads	65	76	92	80	76	80	80	78	76	71	9%
	Local Roads	60	61	59	63	62	65	61	62	58	57	-5%
	All Roads	62	66	70	69	67	70	67	67	64	62	0%

Table 17: Approved Pavement Management Plan Scenario

28-year report card for reaching target conditions of 75 and 70 for regional and local roads, respectively.

Pavement Condition Index (PCI) - Annual Report Card												
Facility Type		Estimated PCI										Percent Change 2022 to 2050
		2022	2025	2028	2031	2034	2037	2040	2043	2046	2050	
City-wide	Regional Roads	74	83	88	79	79	79	81	79	77	75	1%
	Local Roads	56	58	57	63	62	67	66	70	69	70	25%
	All Roads	62	67	67	68	68	71	71	73	72	72	16%
Performance District 1	Regional Roads	69	84	85	78	81	77	80	83	77	82	19%
	Local Roads	57	60	57	65	61	66	64	68	66	70	24%
	All Roads	61	68	66	69	68	70	69	73	70	74	22%
Performance District 2	Regional Roads	80	87	86	79	79	81	80	78	81	77	-3%
	Local Roads	53	55	55	61	63	68	68	71	70	70	33%
	All Roads	63	66	66	67	69	73	72	73	74	73	16%
Performance District 3	Regional Roads	77	82	90	79	80	82	80	80	80	73	-5%
	Local Roads	58	61	57	64	61	67	64	69	70	70	20%
	All Roads	64	68	67	69	67	71	68	72	73	71	11%
Performance District 4	Regional Roads	79	86	88	80	77	75	83	78	73	70	-12%
	Local Roads	51	53	55	59	62	67	71	72	72	71	39%
	All Roads	61	65	67	66	67	70	75	74	73	71	16%
Performance District 5	Regional Roads	65	76	92	80	76	81	81	79	77	72	10%
	Local Roads	60	62	59	65	63	68	65	70	67	69	16%
	All Roads	62	67	71	70	68	72	70	73	70	70	13%

Table 18: Modified Pavement Management Plan Scenario

28-year report card for reaching target conditions of 70 and 50 for regional and local roads, respectively.

Pavement Condition Index (PCI) - Annual Report Card												
Facility Type		Estimated PCI										Percent Change 2022 to 2050
		2022	2025	2028	2031	2034	2037	2040	2043	2046	2050	
City-wide	Regional Roads	74	81	88	80	78	77	76	74	73	70	-5%
	Local Roads	56	55	53	56	55	57	55	55	52	50	-11%
	All Roads	62	64	65	64	63	64	62	61	59	57	-8%
Performance District 1	Regional Roads	69	81	86	78	81	75	75	79	73	77	12%
	Local Roads	57	56	53	58	56	59	57	57	54	53	-7%
	All Roads	61	64	64	65	64	65	63	65	60	61	0%
Performance District 2	Regional Roads	80	84	87	80	79	81	78	75	79	74	-7%
	Local Roads	53	51	50	52	53	55	53	52	49	48	-10%
	All Roads	63	63	63	62	62	64	62	60	60	57	-9%
Performance District 3	Regional Roads	77	82	90	79	79	80	75	75	73	69	-11%
	Local Roads	58	59	54	60	58	59	55	55	52	50	-14%
	All Roads	64	66	65	66	64	66	61	61	58	56	-13%
Performance District 4	Regional Roads	79	84	88	80	74	71	77	72	67	64	-19%
	Local Roads	51	49	50	52	53	53	54	52	51	48	-6%
	All Roads	61	62	63	62	60	59	62	59	57	54	-12%
Performance District 5	Regional Roads	65	74	93	81	77	77	75	73	71	66	1%
	Local Roads	60	59	56	59	57	59	56	57	53	52	-14%
	All Roads	62	64	68	67	64	65	62	62	59	57	-9%

As illustrated in Figure 14 and tables 9 through 14, the current revenue level scenario shows a decline in network condition over the analysis period, starting at a PCI of 62 and declining to a PCI of 46 in 8 years and a PCI of 33 in 28 years. Regional roads will have a slightly lower deterioration rate than local roads over the first 8 years primarily due to their higher priority; however, they will still decline considerably throughout the analysis period. This rate of decline would indicate that in a few years more and more roadway segments in the City's network will require rehabilitation work, and the agency will struggle to maintain roads in acceptable condition. This signifies that the current annual budget is insufficient to maintain network conditions given current treatment assumptions and funding. Increasing the revenue 100 percent has a relatively small impact over the entire network; a 100 percent budget increase will increase the overall network PCI 5 points at the end of the analysis period when compared to the current budget.

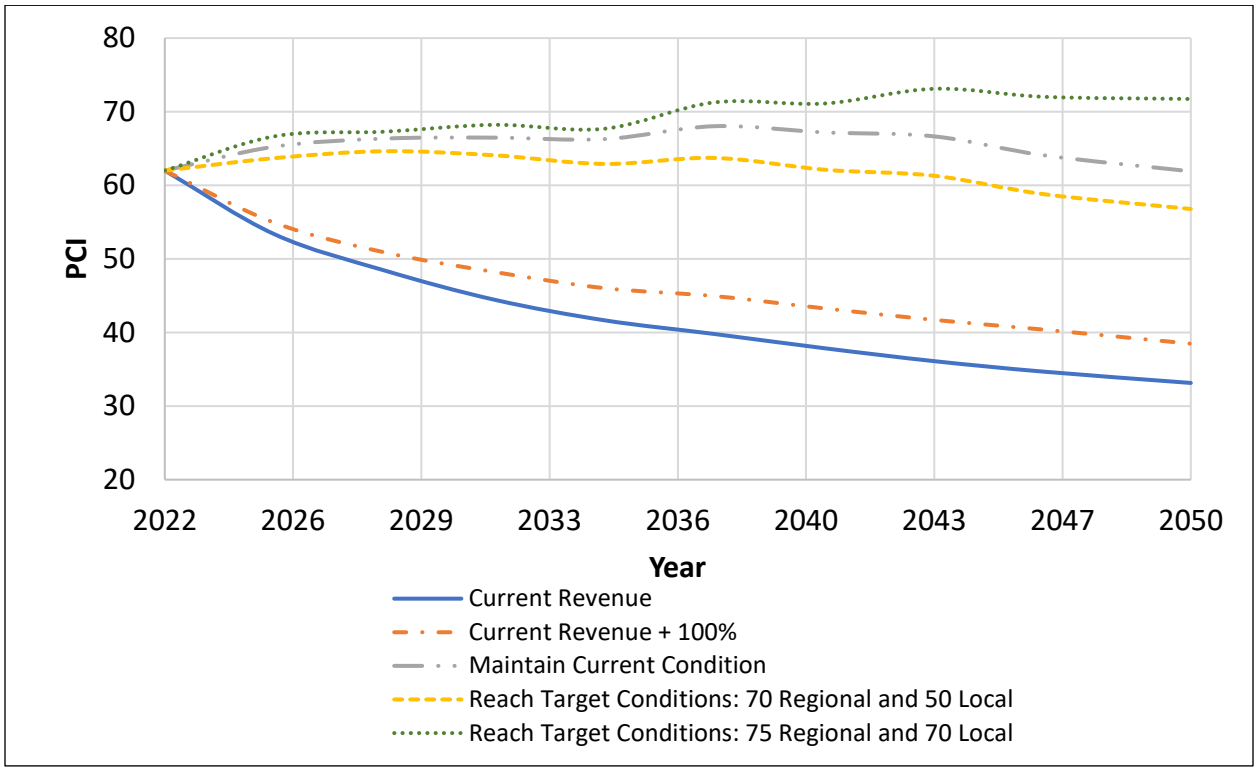


Figure 14: Chart of PCI over time for analyzed budget scenarios.

Figure 15 shows the average annual budgets for every scenario. The difference between the current annual revenue and the annual budget required to maintain the network in its current condition is approximately $21.09 million.

The difference between the current annual revenue and the annual budget required to meet the City's approved Pavement Management Plan pavement condition targets (75 for regional roads and 70 for local roads) is $25.43 million.

The difference between the current annual revenue and the annual budget required to meet the proposed modified pavement condition targets (70 for regional roads and 50 for local roads) is $17.90 million.

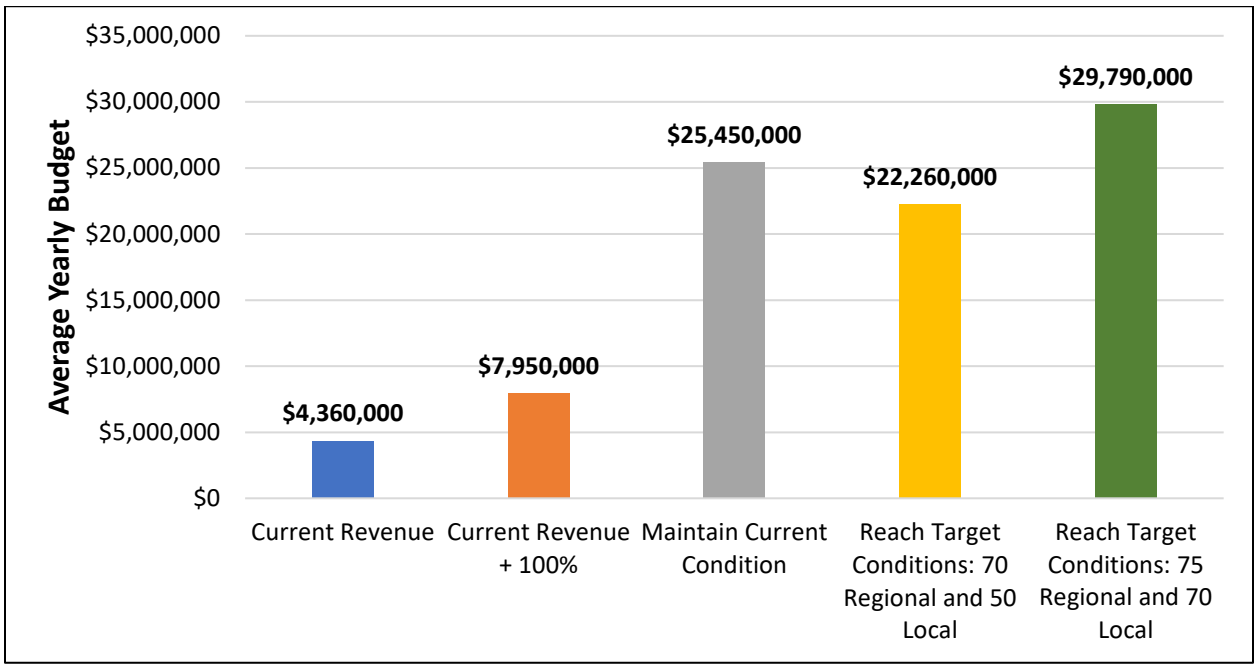


Figure 15: Average annual budget per scenario.

If the current revenue is not considerably increased, the agency will face a network in Poor condition within 8 years and a Very Poor network in 28 years. Figures 16 through 21 show the forecasted condition categories by percentage of network area for the overall network, regional roads, and local roads for 2030 and 2050 respectively.

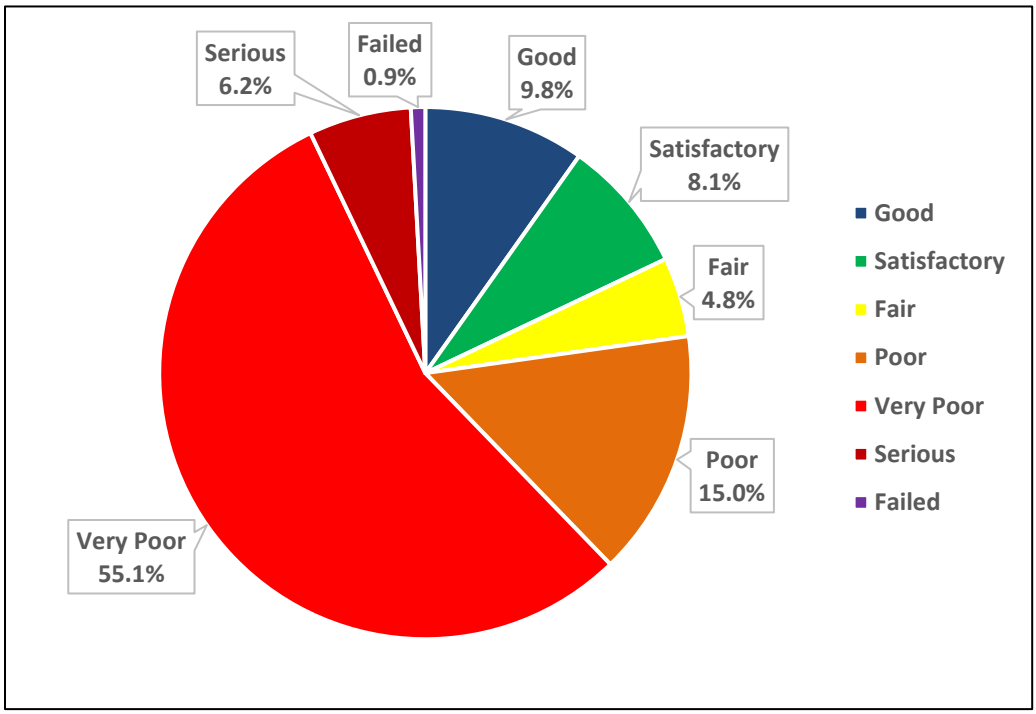


Figure 16. Forecasted Network distribution of pavement area by condition category in 2030.

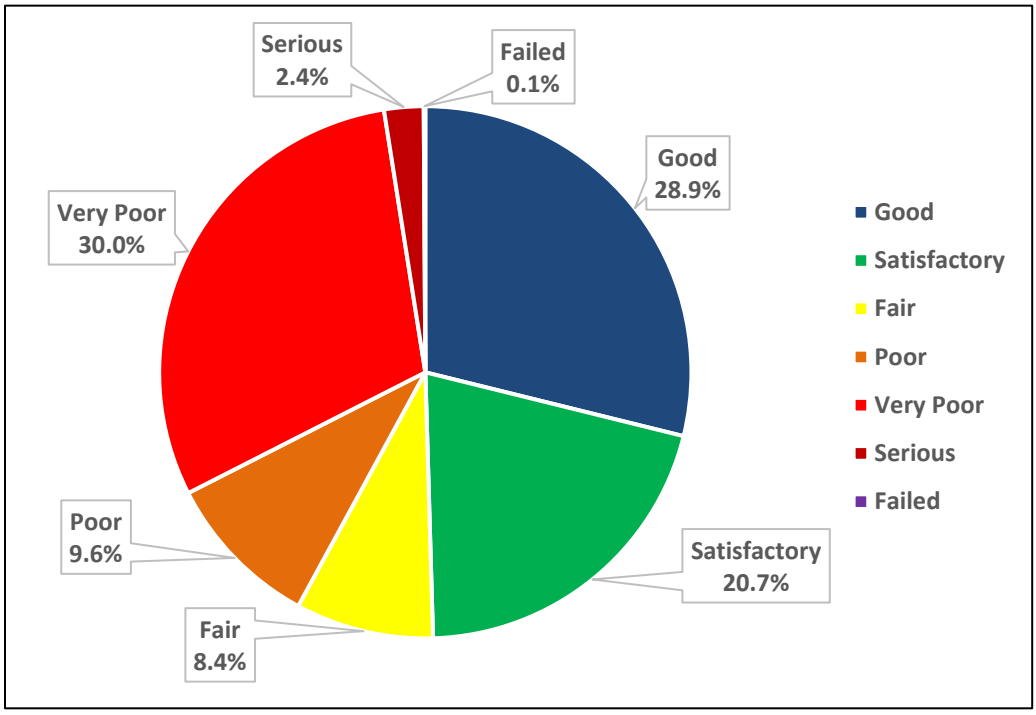


Figure 17. Forecasted Regional Roads distribution of pavement area by condition category in 2030.

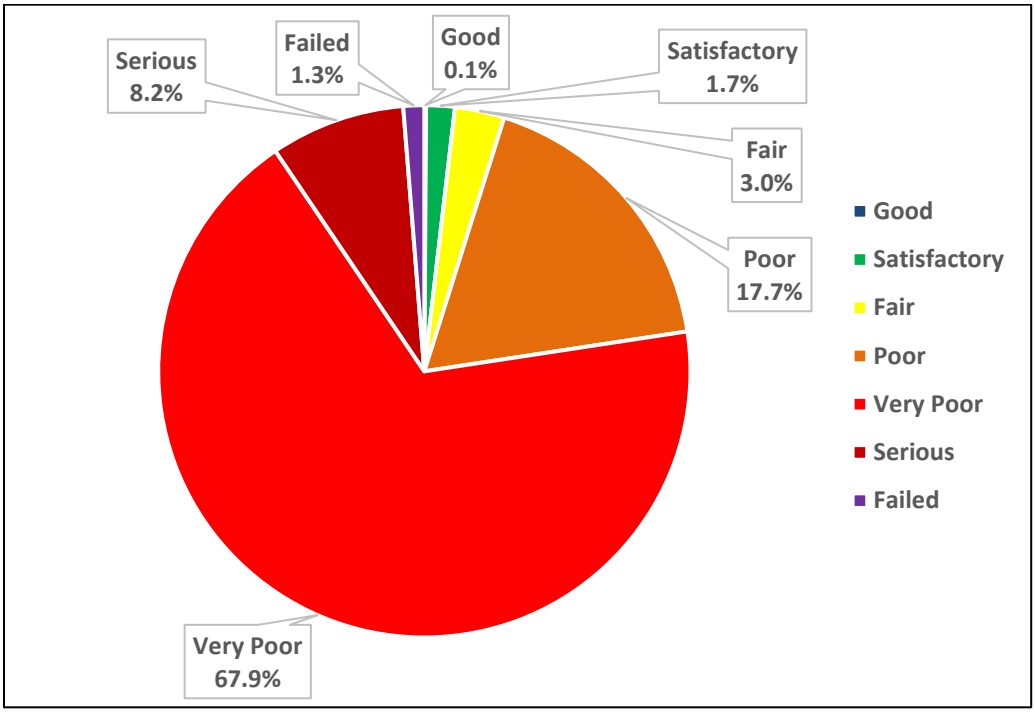


Figure 18. Forecasted Local Roads distribution of pavement area by condition category in 2030.

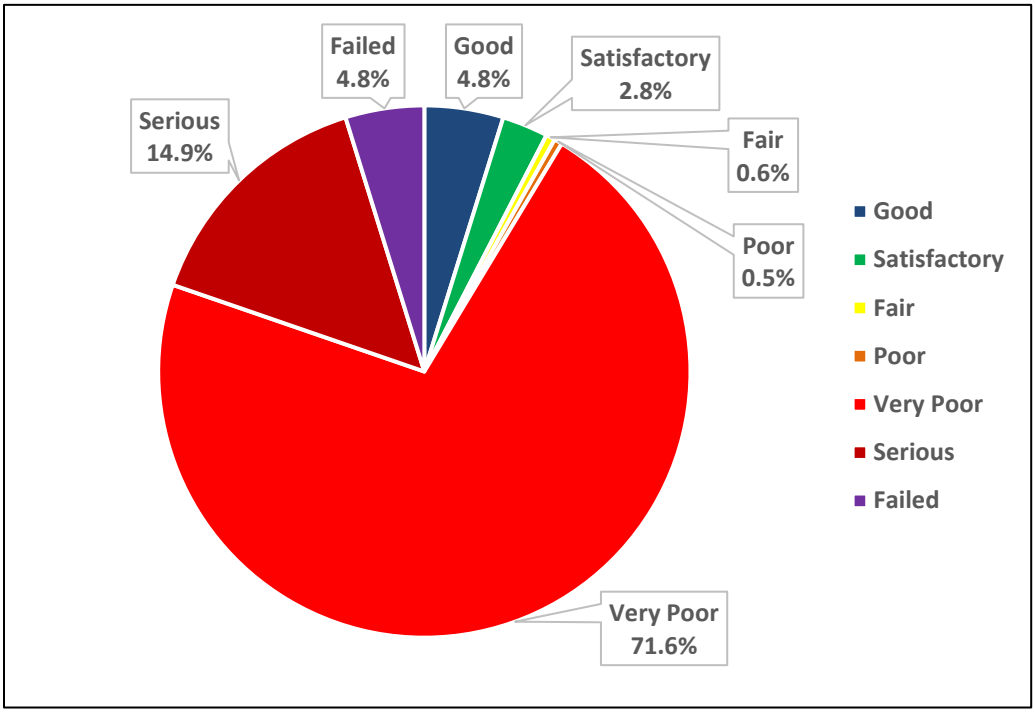


Figure 19. Forecasted Network distribution of pavement area by condition category in 2050.

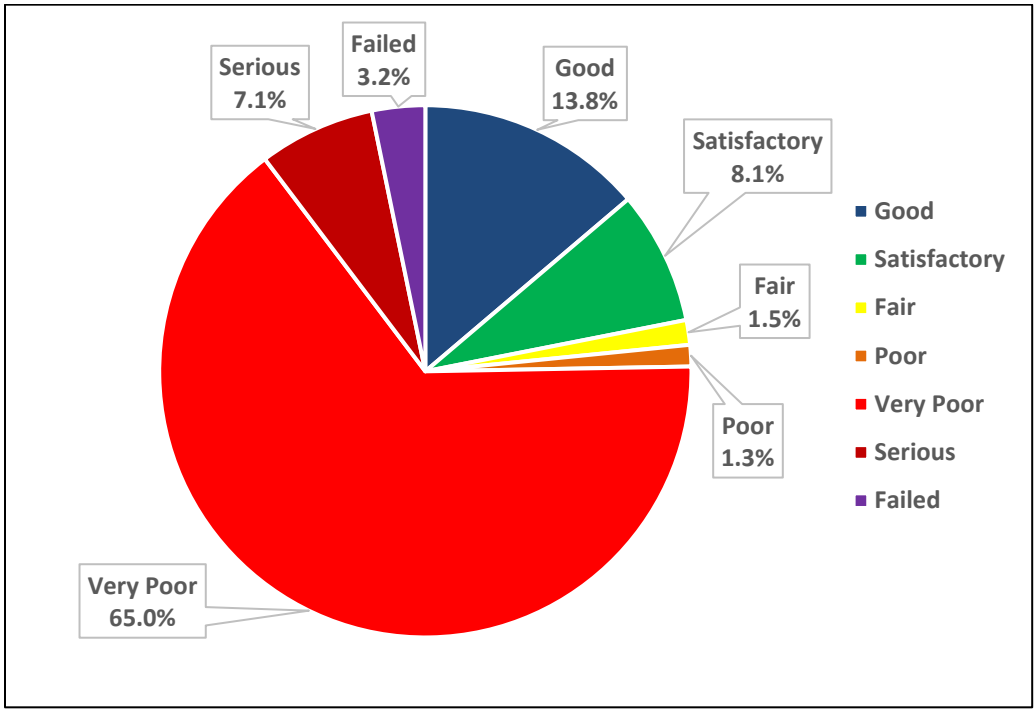


Figure 20. Forecasted Regional Roads distribution of pavement area by condition category in 2050.

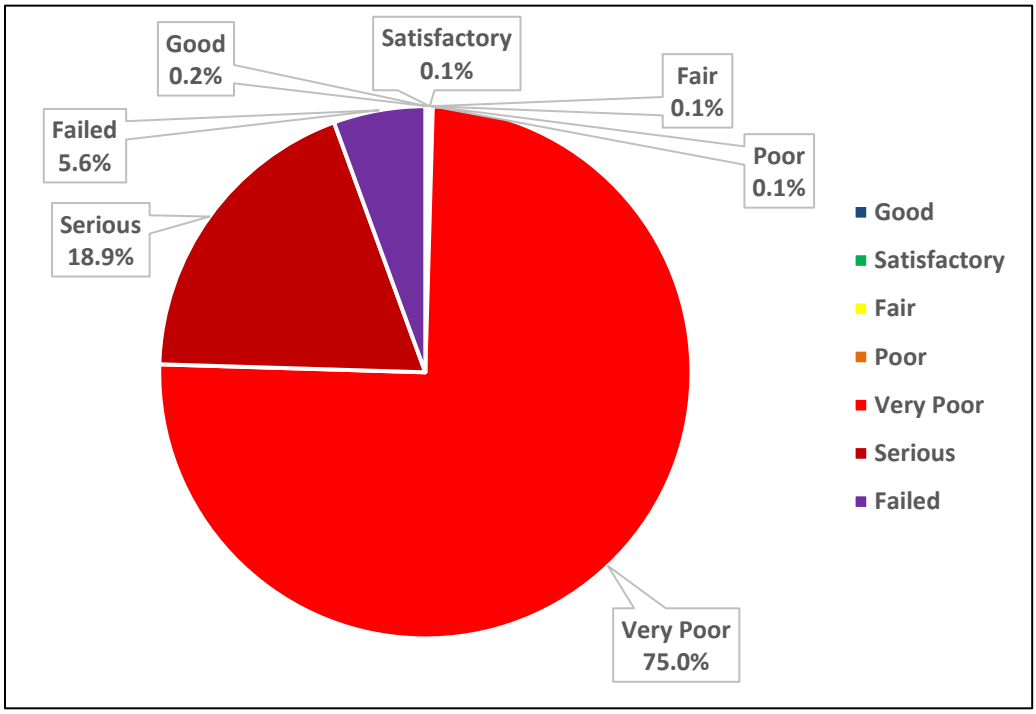


Figure 21. Forecasted Local Roads distribution of pavement area by condition category in 2050.

SUMMARY AND CONCLUSIONS

Carson City Public Works asked APTech to update the configuration of their PAVER pavement management system, document the condition of the City's road network based on the 2021 data collection effort, and analyze a number of maintenance and rehabilitation scenarios. The goal was to provide Carson City Public Works with a condition forecast based on their existing budget and approved Pavement Management Plan.

The 2022 area-weighted average network PCI is 62, placing the network average in the Fair condition category. The following summarizes the findings from analyzing the PCI data and M&R planning scenarios:

- At the current revenue of approximately $4.36 Million per year, the overall area-weighted average of the network would be a 46 by 2030 and 33 by 2050.
- Increasing the current revenue by 100 percent would have a relatively small impact on the overall condition of the network. At this budget level the PCI for the network would reach a 49 by 2030 and a 38 by 2050.
- The required annual funding to maintain the current PCI of 62 for the next 28 years is $25.45 Million. Due to current conditions and the network size, the cost to maintain the network at this level is fairly high due to substantial M&R work needs.
- Budget projections to achieve the targets of 75 for regional roads and 70 for local roads, approved in the Pavement Management Plan was performed. To achieve these area-weighted averages, the agency would require an annual budget of $29.79 Million dollars.
- Budget projections to achieve a Modified Pavement Management Plan more in line with the City's current practice of roadway prioritization with PCIs of 70 for regional roads and 50 for local roads was performed. To achieve these area-weighted averages, the agency would require an annual budget of $22.26 Million dollars.
- The condition of the City roadway network has reached the point that the rate of decline is greater than current funding levels or even funding with reasonable increases can sustain. If the City desires to overcome the declining trend it will need to seek alternative funding mechanisms to significantly increase its investment in road M&R. It is recommended that the results of this analysis be used to demonstrate to decision makers the condition of the roadway network, and the impact of decisions that do not address the needs.
- It is also recommended that while planning for M&R work the City maintains their use of preservation treatments such as crack sealing, patching, and surface treatments, to preserve the roads currently in good condition. This will prevent them from declining in condition and adding additional requirements for expensive M&R work.

Survey Title Carson City Neighborhood Streets Survey

Start Date 11/08/2022 1:45 PM

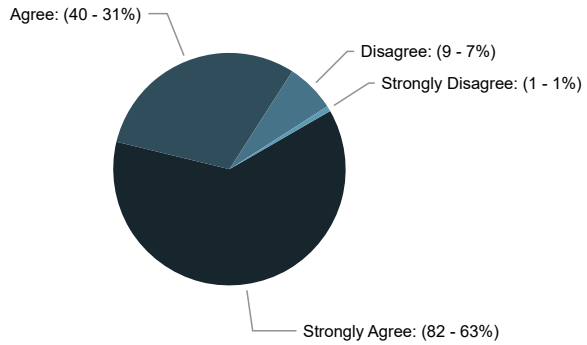
Question's results to display (Display All Results)

Results layout Pie Chart

Results order Answer Order

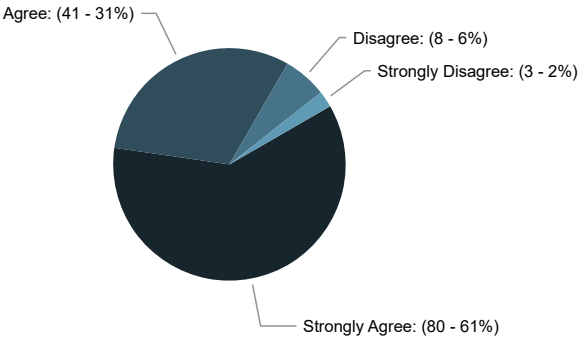
Date range To Apply Range

The visual and physical condition of your neighborhood street affects you.



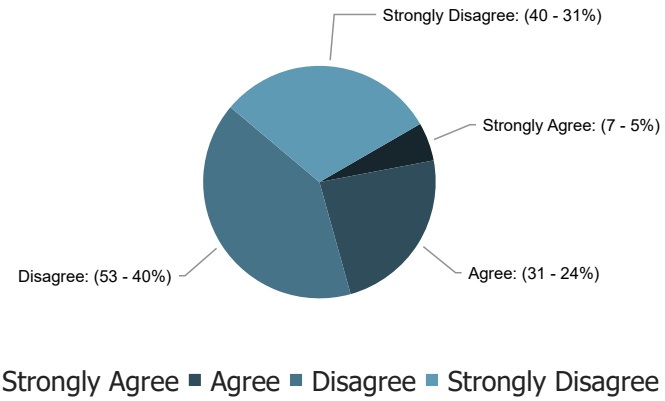
Total Submissions: 132

The poor condition of your neighborhood street negatively impacts property values.



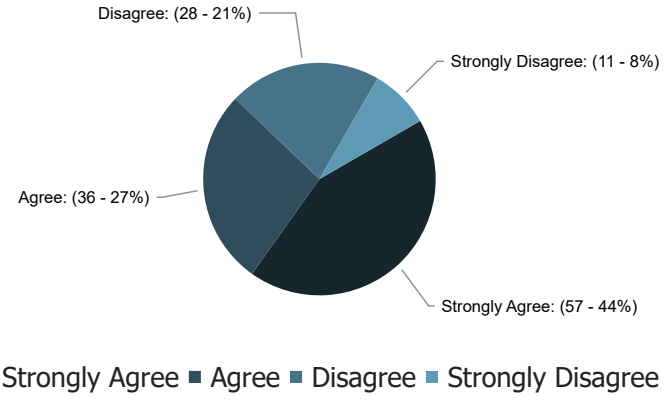
Total Submissions: 132

Your neighborhood street is in an acceptable condition.



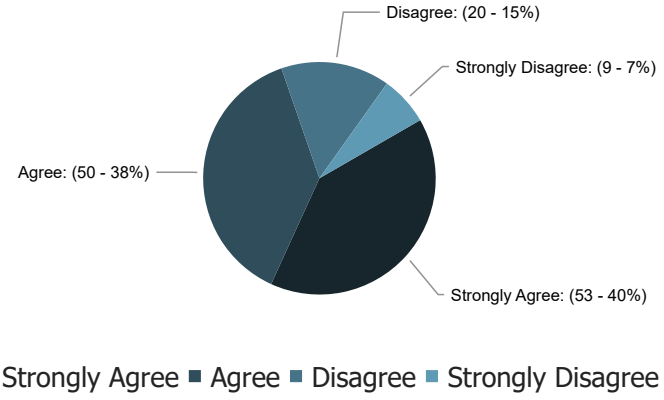
Total Submissions: 131

Your neighborhood street is not in an acceptable condition.



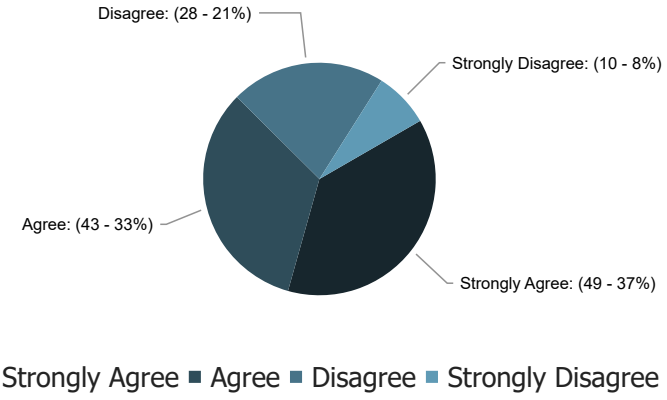
Total Submissions: 132

There are areas that you drive around to avoid bumps/cracks/potholes in your neighborhood street



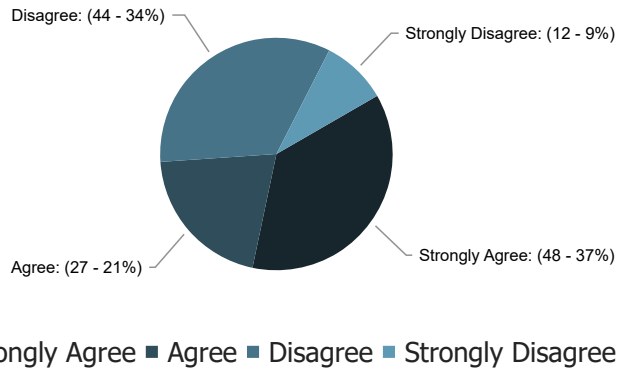
Total Submissions: 132

You are concerned with vehicle safety and damage due to the condition of your neighborhood stree



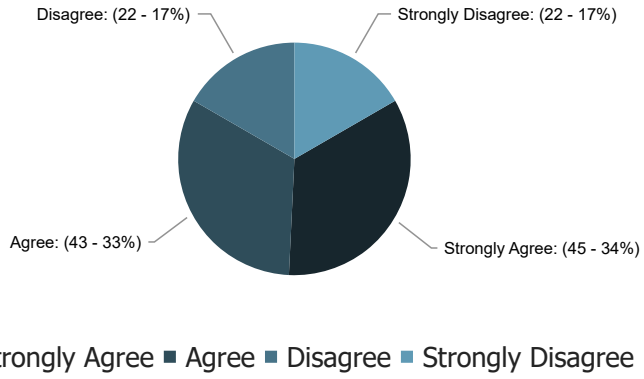
Total Submissions: 130

You are concerned with pedestrian/nonvehicle traffic safety due to the condition of your neighborhood street.



Total Submissions: 131

Investing the equivalent of a coffee shop latte cost a month in an imposed fee or tax is important t preserving and maintaining my neighborhood street.



Total Submissions: 132

A regular meeting of the Carson City Regional Transportation Commission (RTC) was scheduled to begin following the adjournment of the Carson Area Metropolitan Planning Organization (CAMPO) meeting (starting at 4:30 p.m.) on Wednesday, November 9, 2022, in the Community Center Robert "Bob" Crowell Boardroom, 851 East William Street, Carson City, Nevada.

PRESENT: Chairperson Lori Bagwell
Vice Chair Lisa Schuette
Commissioner Robert "Jim" Dodson
Commissioner Chas Macquarie
Commissioner Gregory Novak

STAFF: Darren Schulz, Public Works Director
Dan Stucky, Deputy Public Works Director
Chris Martinovich, Transportation Manager
Adam Tully, Deputy District Attorney
Bryan Byrne, Traffic Engineer
Kelly Norman, Transportation Planner/Analyst
Rebecca Bustos, Grant Analyst
Alex Cruz, Transit Coordinator
Tamar Warren, Senior Deputy Clerk

NOTE: A recording of these proceedings, the commission's agenda materials, and any written comments or documentation provided to the Clerk, during the meeting, are part of the public record. These materials are available for review, in the Clerk's Office, during regular business hours. All approved meeting minutes are available on carson.org/minutes.

1. CALL TO ORDER – REGIONAL TRANSPORTATION COMMISSION (RTC)

(5:28:30) – Chairperson Bagwell called the meeting to order at 5:28 p.m.

2. ROLL CALL

(5:28:37) – Roll was called, and a quorum was present.

3. PUBLIC COMMENT

(5:28:50) – Chairperson Bagwell entertained public comments; however, none were forthcoming.

4. FOR POSSIBLE ACTION: APPROVAL OF MINUTES – OCTOBER 12, 2022

(5:29:00) – Chairperson Bagwell introduced the item and entertained corrections or a motion.

(5:29:10) – Commissioner Macquarie moved to approve the minutes of the October 12, 2022 RTC meeting as presented. The motion was seconded by Commissioner Dodson and carried 5-0-0.

5. PUBLIC MEETING ITEMS

5-A FOR DISCUSSION ONLY – DISCUSSION AND PRESENTATION REGARDING POTENTIAL MECHANISMS TO INCREASE FUNDING FOR THE CONSTRUCTION AND MAINTENANCE OF CARSON CITY'S ROADS AND ROADS-RELATED TRANSPORTATION INFRASTRUCTURE.

(5:29:30) – Chairperson Bagwell introduced the item. Mr. Martinovich provided background, incorporated into the Staff Report, and invited Catherine Hansford, Hansford Economic Consulting, to review a presentation titled Local Roads Funding Options, also incorporated into the record. She responded to clarifying questions as well. Chairperson Bagwell clarified that occasionally roads are rehabilitated through General Fund transfers, but they have been "one-off projects." Commissioner Macquarie was in favor of "some combination of taxes," including the extension of the V&T Infrastructure Sales Tax. Commissioner Dodson inquired why snow removal and street lighting were specifically called out as maintenance activities in the General Improvement District (GID) column and was informed that the related legislation was "pretty specific." Ms. Hansford recommended collecting the funds via utility bills. Mr. Stucky described the Neighborhood Improvement District creation process and Commissioner Novak recommended utilizing existing boards to make the decisions instead of creating their own boards. Chairperson Bagwell recommended a City-wide GID, should a need arise, and not individual GID boards. She also noted that utility bills were not a "favored" method of collecting additional funds and believed that Special Improvement Districts (SIDs) may create disparity in the community as some areas would be unable to afford a SID. Chairperson Bagwell was amenable to the sales tax option because visitors would also participate in payment for roads they use to visit and shop in Carson City. She believed that the sales tax should "go before the voters," similar to the five-cent diesel tax which was voted on earlier that month, adding that she considered transparency of spending very important. She believed that the public must be informed of the prioritizations by the City and be transparent when spending. Commissioner Novak believed that federal safety dollars may be spent on local road safety. Chairperson Bagwell thanked Ms. Hansford for her work and entertained public comments; however, none were forthcoming. This item was not agendized for action.

5-B FOR POSSIBLE ACTION – DISCUSSION AND POSSIBLE ACTION REGARDING A DETERMINATION THAT HERBACK GENERAL ENGINEERING, LLC ("HERBACK") IS THE LOWEST RESPONSIVE AND RESPONSIBLE BIDDER PURSUANT TO NEVADA REVISED STATUTES ("NRS") CHAPTER 338 FOR THE COLORADO STREET CORRIDOR PROJECT ("PROJECT") TO MAKE IMPROVEMENTS TO COLORADO STREET BETWEEN S. CARSON STREET AND SALIMAN ROAD AND TO AWARD CONTRACT NO. 21300216 FOR THE PROJECT TO HERBACK FOR A TOTAL NOT TO EXCEED AMOUNT OF $4,054,674.42.

(6:45:44) – Chairperson Bagwell introduced the item. The Board was informed that the second round of bids had produced a lower bid. Chairperson Bagwell entertained public comments and when none were forthcoming, a motion.

(6:47:34) – Commissioner Novak moved to award the contract as presented. The motion was seconded by Commissioner Dodson and carried 5-0-0.

6. NON-ACTION ITEMS:

6-A TRANSPORTATION MANAGER'S REPORT

Please see item 6-C (Future Agenda Items).

6-B STREET OPERATIONS ACTIVITY REPORT FOR SEPTEMBER 2022

(6:48:58) – Chairperson Bagwell entertained questions regarding the September 2022 Street Operations Report, incorporated into the record; however, none were forthcoming.

6-C OTHER COMMENTS AND REPORTS, WHICH COULD INCLUDE:

- **FUTURE AGENDA ITEMS**

(6:48:01) – Mr. Martinovich explained that the NDOT Local Public Agency (LPA) agreements for "the East Williams Street undergrounding project," the "vulnerable user pedestrian safety project," and information regarding access management will be agendized for the December RTC meeting.

- **STATUS REVIEW OF ADDITIONAL PROJECTS**

(6:49:06) – Mr. Byrne referenced the Bi-Monthly Capital Project Status Report, incorporated into the record, and responded to clarifying questions.

- **INTERNAL COMMUNICATIONS AND ADMINISTRATIVE MATTERS**
- **CORRESPONDENCE TO THE RTC**
- **ADDITIONAL STATUS REPORTS AND COMMENTS FROM THE RTC**

(6:55:50) – Commissioner Macquarie noted that he had enjoyed his five-year tenure on the RTC and praised Staff for their dedication and for doing "an excellent job." He also commended the Commissioners for their "knowledge and engagement." Chairperson Bagwell thanked Commissioner Macquarie for his service, calling him a "great asset" to the Commission.

- **ADDITIONAL STAFF COMMENTS AND STATUS REPORTS**

7. PUBLIC COMMENT

(6:57:05) – Chairperson Bagwell entertained final public comments; however, none were forthcoming.

8. FOR POSSIBLE ACTION: TO ADJOURN

(6:57:13) – Chairperson Bagwell adjourned the meeting at 6:57 p.m.

The Minutes of the November 9, 2022 Carson City Regional Transportation Commission meeting are so approved on this 14th day of December 2022.