Town of Buena Vista 2019
Proposed Street Fund Projects

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Overview:

Developed to identify street improvement needs, the Town of Buena Vista Public Works Staff through the process of evaluation (Pavement Condition Index) PCI, created a 5 Years Street Maintenance Plan. This plan concept is to determine locations and methods of street repair, preventive maintenance, rehabilitation and reconstruction. This plan works with-in the “Street Fund”, a limited annual tax-based funding source.

5-Year Street Maintenance Plan FYS 2018-2022

FY 2018

Street	Section	Linear Feet	Pavement Condition Index (PCI)	Proposed Treatment	Estimated Cost	Notes and Actual Cost
Railroad Street	Baylor to Marquette	1200	32.0	Remove and Replace	$173,000.00	Completed as 2 " Overlay, $27,375.00
Marquette Avenue	Railroad to Baylor	1150	18.0	1/2" Chip Seal	$32,000.00	Completed, Combined Chip-Seal Prices =
Marquette Avenue	Baylor to Surrey	700	18.0	1/2" Chip Seal	$20,000.00	$33,907.80

FY 2019

Street	Section	Linear Feet	PCI	Proposed Treatment	Estimated Cost	Notes and Actual Cost
Court Street	Main to Pine	900	26.5	Remove and Replace	$135,000.00	Completed in 2018 as 2" Overlay, $21,566.00
Gunnison Avenue	W. Main St to Oak St	2000	18.3	1/2" Chip Seal, crack seal, patching	$93,156.00	
DePaul Ave	Hwy 24 to S. Gunnison Ave	210	35.0	Remove and Replace	$8,500.00	

FY 2020

Street	Section	Linear Feet	PCI	Proposed Treatment	Estimated Cost	Notes and Actual Cost
Arkansas Street	24 to Colorado	1000	26.5	Remove and Replace	$70,000.00	Move to 2019 Project List, if funds are available.
Pleasant Avenue	Brookdale to Yale	1100	21.0	1/2" Chip Seal	$33,000.00	
E. Main St	HWY 24 to S. Main St	2843		Slurry-Seal	$33,228.00	Seal-Coat to preserve.
Cedar St	Railroad St to S. Main St	2340		Slurry-Seal	$32,725.00	Seal-Coat to preserve.

FY 2021

Street	Section	Linear Feet	PCI	Proposed Treatment	Estimated Cost	Actual Cost
Gunnison Avenue	Arkansas to Main	1000	23.0	Remove and Replace	$158,500.00	
Gold Street	Beldan to Court	500	17.5	1/2" Chip Seal	$14,000.00	
Gold Street	Court to Railroad	900	16.5	1/2" Chip Seal	$26,000.00	

FY 2022

Street	Section	Linear Feet	PCI	Proposed Treatment	Estimated Cost	Notes and Actual Cost
San Juan Avenue	Arkansas to Main	1000	23.0	Remove and Replace	$163,000.00	
Court Street	Arkansas to Main	1000	18.5	1/2" Chip Seal	$29,000.00	
Pinon Street	Railroad to Court	900	18.5	1/2" Chip Seal	$26,000.00	

South Gunnison Avenue Chip Seal, Crack Seal and Surface Patching:
Rehab and Chip-seal South Gunnison Ave., West Main St to Oak St. This Project will involve multiple methods for street rehabilitation, crack sealing, surface patching, milling and chip-sealing. Several locations of the existing asphalt surface will need to be cut and removed prior to the chip seal installation. Crack Sealing prior to the chip-seal installation will also need to be addressed.

Staff recommends prioritizing this street section, South Gunnison Avenue is an arterial street with higher traffic. Although there are several locations in need of structural repair on this street, the costs associated to chip-seal now will reflect cost saving that can be applied to the streets that no longer qualify for the chip-seal method.

Estimated square footage = 67,617 Estimated Cost = $93,156.00

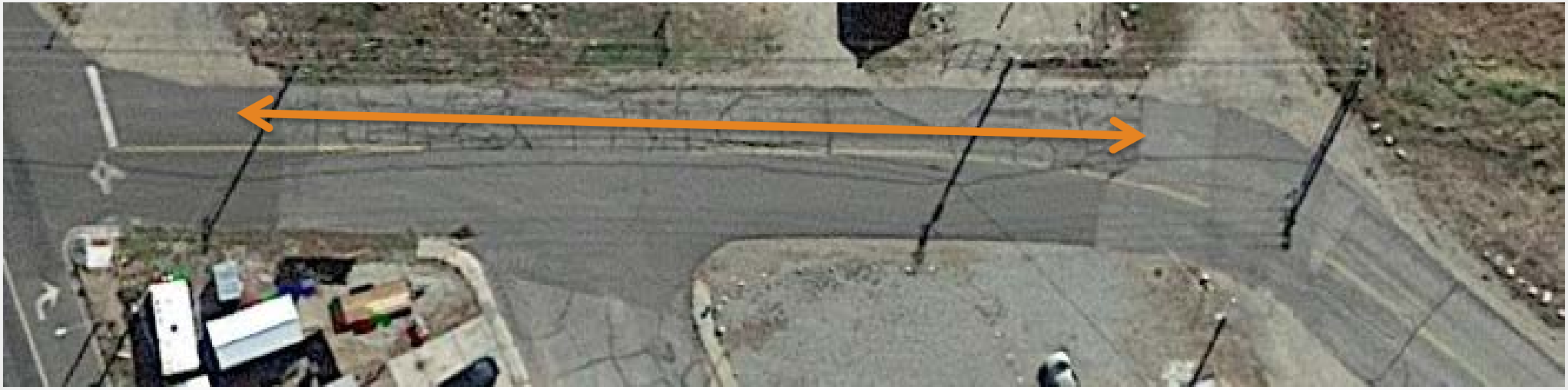
DePaul Ave Removal and Replace:

Remove or Mill existing failing asphalt in south drive lane and replace with new 3" overlay asphalt mat.

Staff recommends including this section in the 2019 Street Improvements.

Estimated Square Footage = 3,440 **Estimated Cost =$8,500.00**

Funding Source, Street Fund

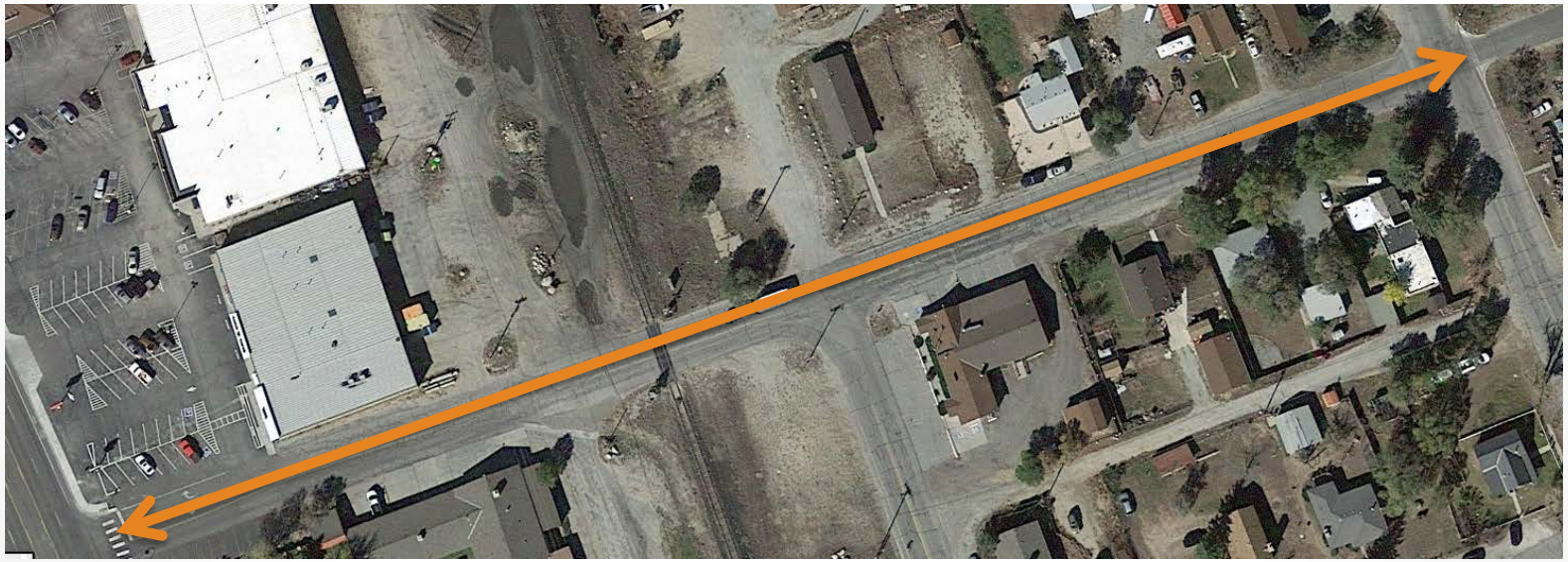


East Arkansas St (HWY 24 to Colorado Ave)

Remove or Mill existing failing asphalt and replace with new 3" overlay asphalt mat. Staff recommends including this section in the 2019 Street Improvements if the remaining budget allows.

Estimated Square Footage = 28,000 **Estimated Cost =$70,000.00**

Funding Source, Street Fund



Funding Source = Street Fund

Budget:

Currently the 2019 Street Fund budget sits at $280,000.00. Staff recommends retaining $50,00.00 t0 $75,000.00 for incidental needs that may arise. Staff also recommends retaining a reserve for the Arizona Bridge/Trail Project, Railroad St./Collegiate Heights Sidewalk Improvements (Safe Route to School), Cottonwood Ave (One-Way) and other street amenities related to this fund.

PAVEMENT CONDITION INDEX 101

There are two ways to measure the condition of a road network. The first way is to call it the Squeaky Wheel, sit back and wait for the complaints. The more complaints, the worse the condition of the roads. The second way is to use a more thorough, comprehen- sive and pro-active approach to review the entire road network.
The Pavement Condition Index is a simple, convenient and inexpensive way to monitor the condition of the surface of roads, identify maintenance and rehabilitation needs, and ensure that road maintenance budgets are spent wisely.

Pavement Condition Index Basics
What It Is: The Pavement Condition Index rates the condition of the surface of a road network.
The PCI provides a numerical rating for the condition of road segments within the road network, where 0 is the worst possible condition and 100 is the best.

What It Measures: The PCI measures two conditions:
• The type, extent and severity of pavement surface distresses (typically cracks and rutting)
• The smoothness and ride comfort of the road
How To Do It: The PCI is a subjective method of evaluation based on inspection and observation.
It is neither a complex nor time-consuming exercise. Knowledgeable and experienced public works officials drive the road network and evaluate its condition in a systematic way.
The PCI should be conducted annually so that changes in road condition can be evaluated.

Road Defects Classification

Inspectors need to know what type of surface defects to look for and a checklist to track their observations. Typical surface defects include:

Surface Defects

Ravelling & Loss of Surface Aggregate

Flushing

Surface Deformations Rippling and Shoving Wheel Track Rutting Distortion

Cracking

Longitudinal Wheel Track Single and Multiple, Alligator

Centerline Single and Multiple, Alligator Pavement Edge Single and Multiple, Alligator Transverse Single and Multiple, Alligator

Longitudinal - Meander or Mid-lan

Inspectors also need a working knowledge about the causes of surface defects. Defects are typically symptoms of one or more underlying problems. Thermal stresses, for example, cause cracking, but cracking can also be the result of a weak base. Rutting can be a symptom of a weak sub-base or instability in the pavement. Different causes call for different remedies.