Citywide Pavement Survey and Management Program Update

City of Upland
Special Public Work Committee Meeting
April 30, 2024

History

- Transmap contract awarded by City Council 6/26/2023

- Scope of Work:

  ➢ Scan City public roadways, alleys, and parking lots (complete).

  ➢ Develop heat maps of the cracking encountered and rate the asphalt condition based on the pavement condition index, PCI (complete).

  ➢ Develop an inventory, management program, and budgeting tool utilizing StreetSaver pavement management program (current work efforts).

  ➢ Provide StreetSaver software training to engineering staff (future work effort).

Public Streets (PCI Map)

City of Upland, CA
2023 ASTM D6433 PCI

PCI

——— 71 - 100

——— 56 - 70

——— 26 - 55

——— 0 - 25
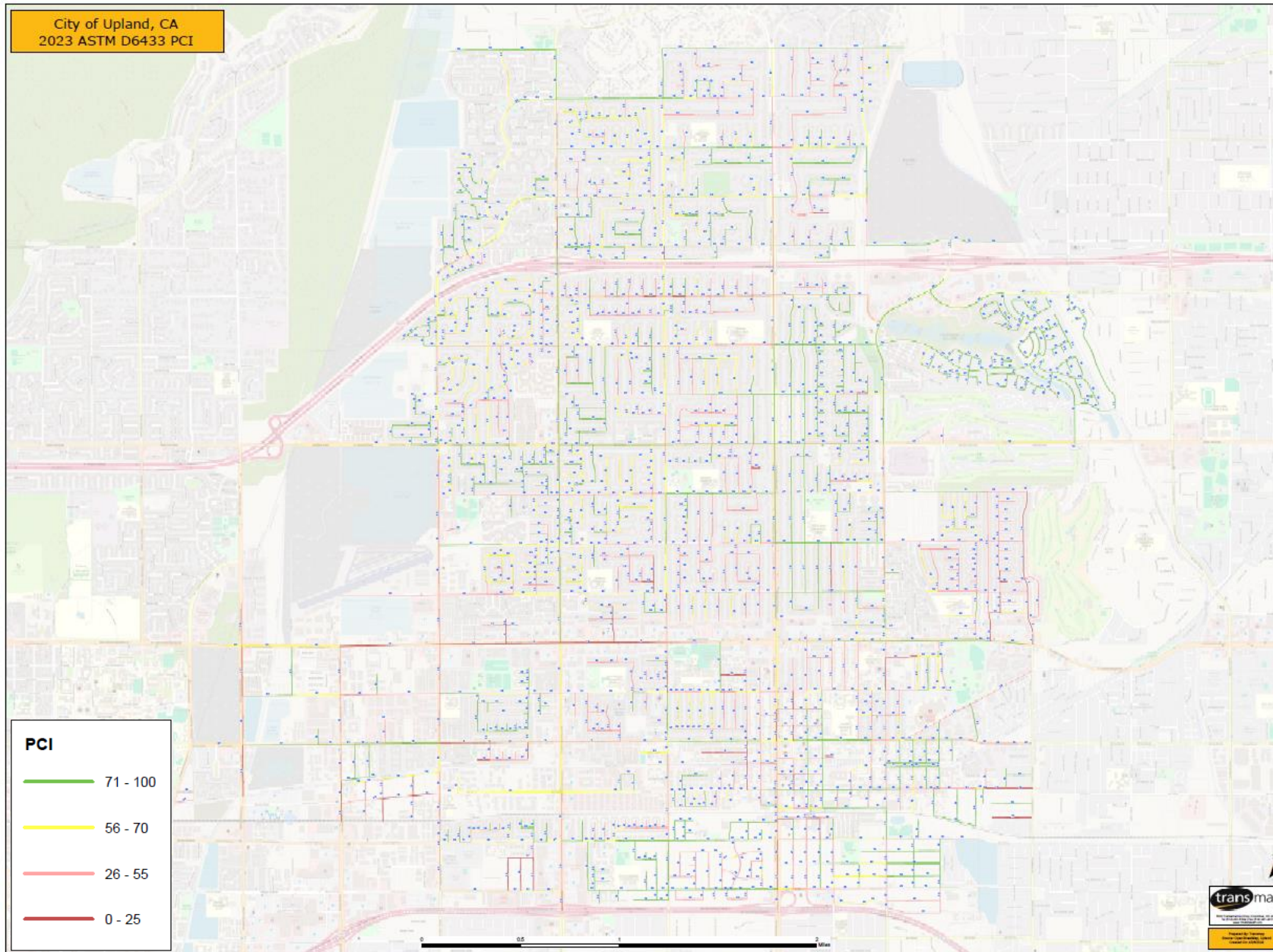
Public Streets Data Analysis

Upland, CA - 2023 PCI Index

PCI		
	Average	62.21
	Median	64
	Minimum	0
	Maximum	100
	Satisfactory (71-100)	37.2%
	Fair (56-70)	22.0%
	Poor (26-55)	33.4%
	Serious/Failed (0-25)	7.4%

Pavement Network		
	Sections	2,210
	Length in Feet	1,011,585
	Length in Miles	192
	Area SqFt	38,974,609
	Area SqYd	4,330,512
	Average Width	36.86

PAVEMENT CONDITION INDEX

Satisfactory (71-100) 37.2%

Fair (56-70) 22.0%

Poor (26-55) 33.4%

Serious/Failed (0-25) 7.4%

Public Alleys (PCI Map)

City of Upland, CA - Alleys
2023 ASTM D6433 PCI
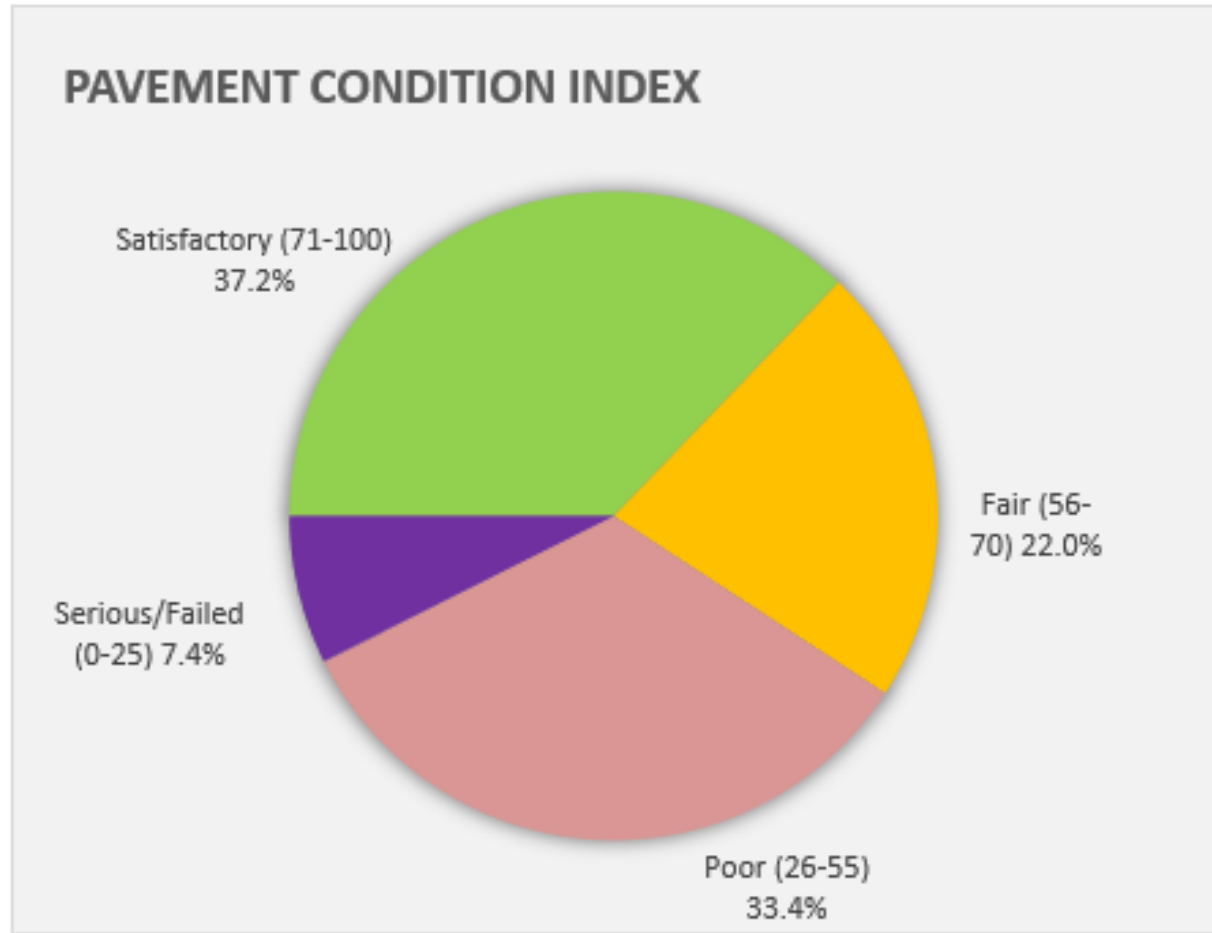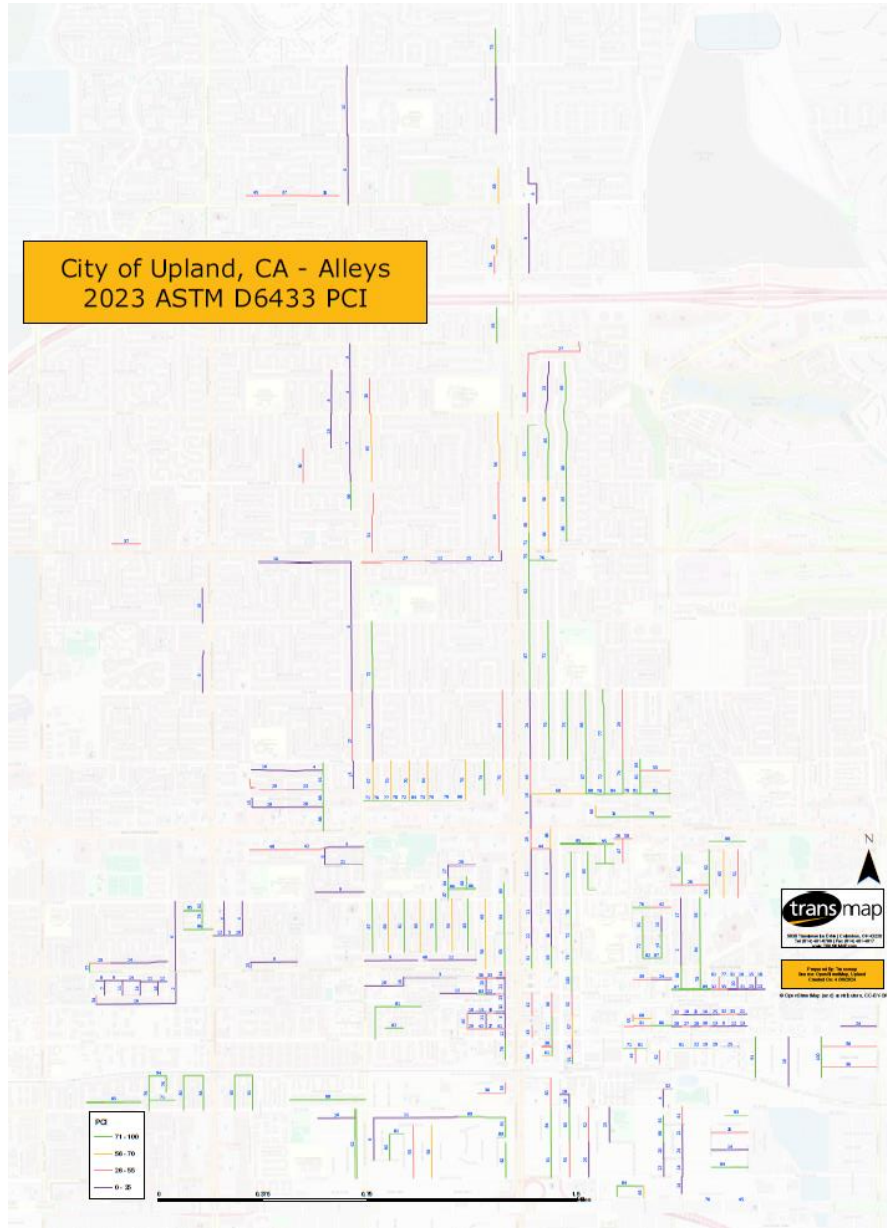
Public Alleys Data Analysis

Upland, CA - 2023 Alley PCI Index

PCI		
	Average	50.40
	Median	46.5
	Minimum	2
	Maximum	100
	Satisfactory (71-100)	38%
	Fair (56-70)	10%
	Poor (26-55)	18%
	Serious/Failed (0-25)	34%

Pavement Network		
	Sections	384
	Length in Feet	197,135
	Length in Miles	37.3
	Area SqFt	3,754,352
	Area SqYd	417,150
	Average Width	18.4

PAVEMENT CONDITION INDEX

Satisfactory (71-100) 38%
Fair (56-70) 10%
Poor (26-55) 18%
Serious/Failed (0-25) 34%
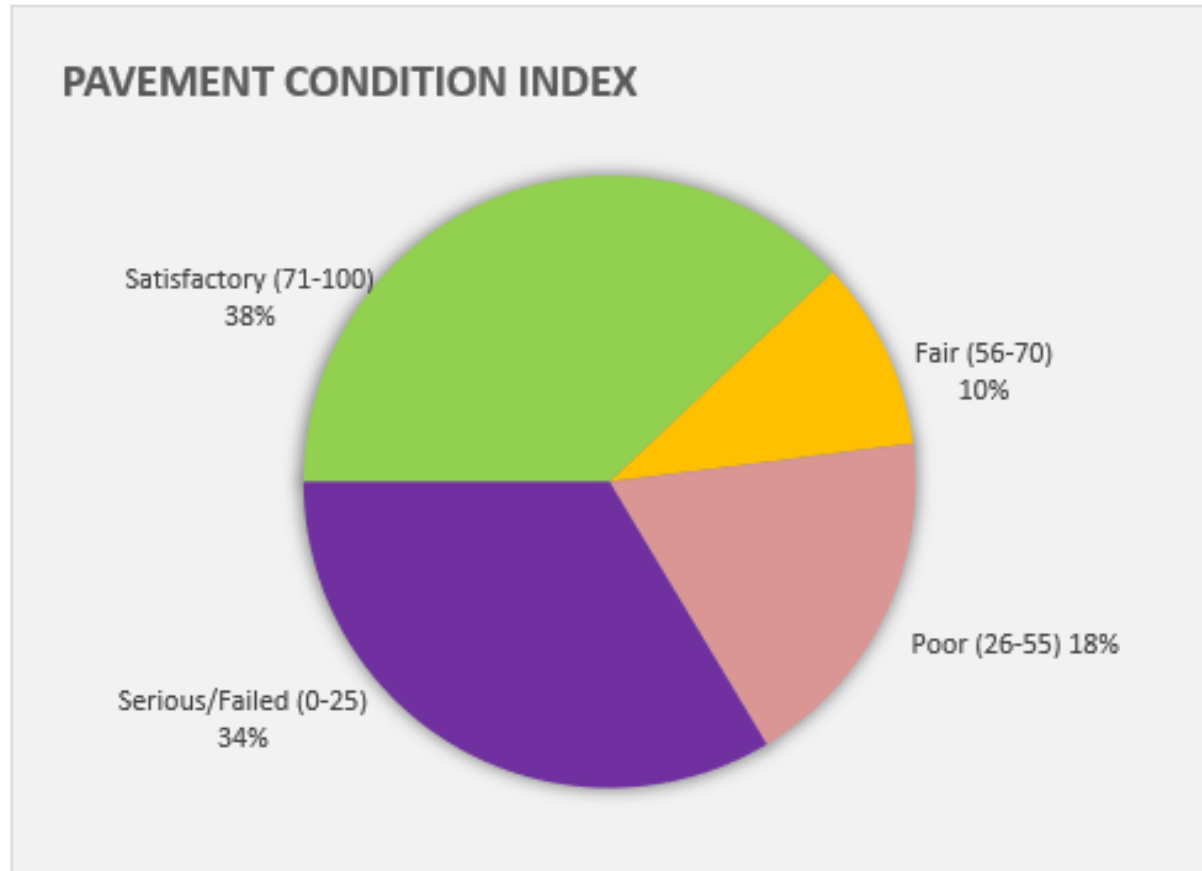
Public Parking Lots (PCI Map)
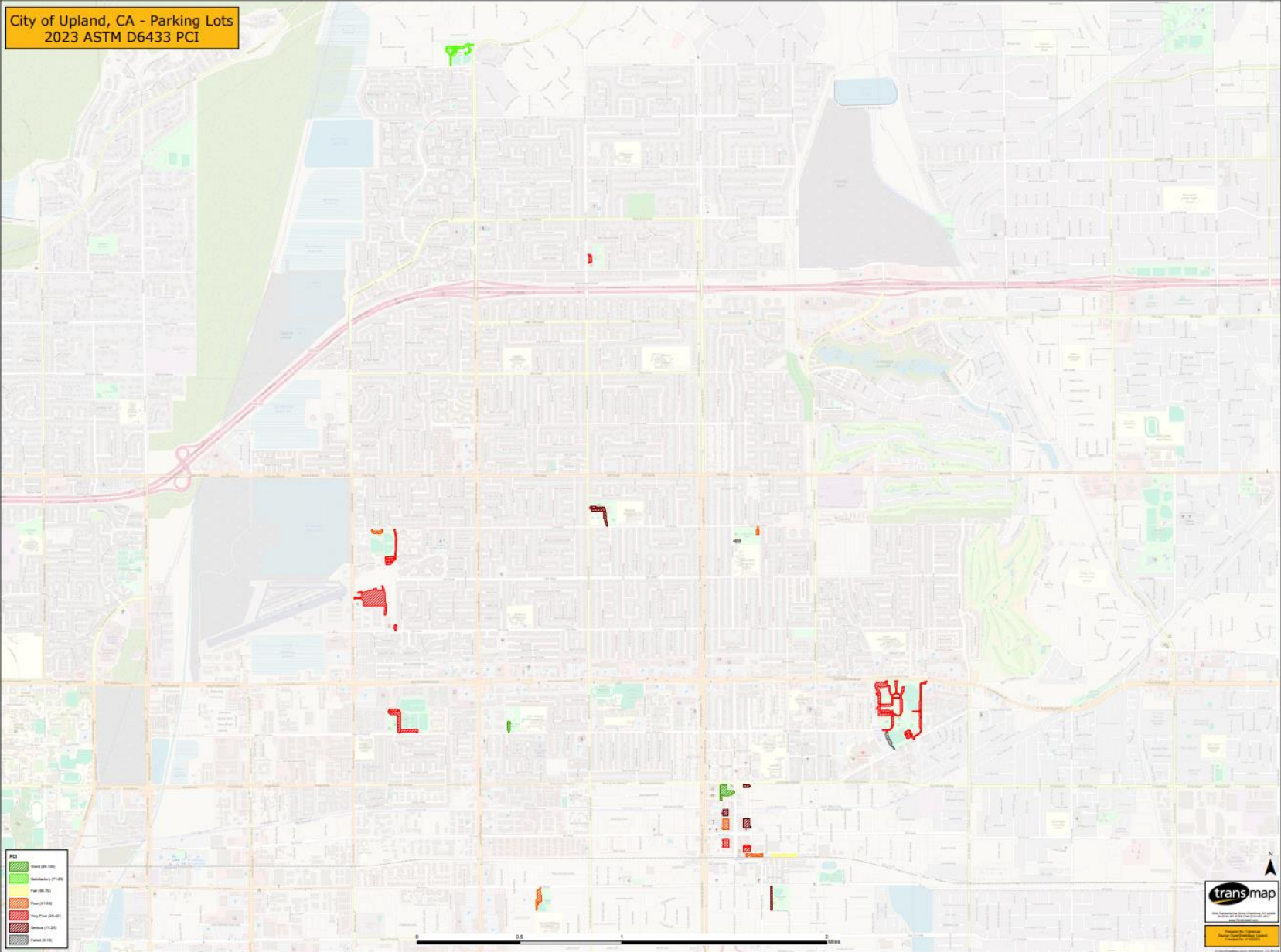
Public Parking Lots Data Analysis

Upland, CA - 2023 Parking Lot PCI Index

PCI		
	Average	38.36
	Median	33
	Minimum	4
	Maximum	90
	Satisfactory (71-100)	12%
	Fair (56-70)	3%
	Poor (26-55)	71%
	Serious/Failed (0-25)	14%
Pavement Network	Sections	25
	Area SqFt	1,341,279
	Area SqYd	149,031

PAVEMENT CONDITION INDEX

Fair (56-70) 3%

Satisfactory (71-100) 12%

Poor (26-55) 71%

Serious/Failed (0-25) 14%
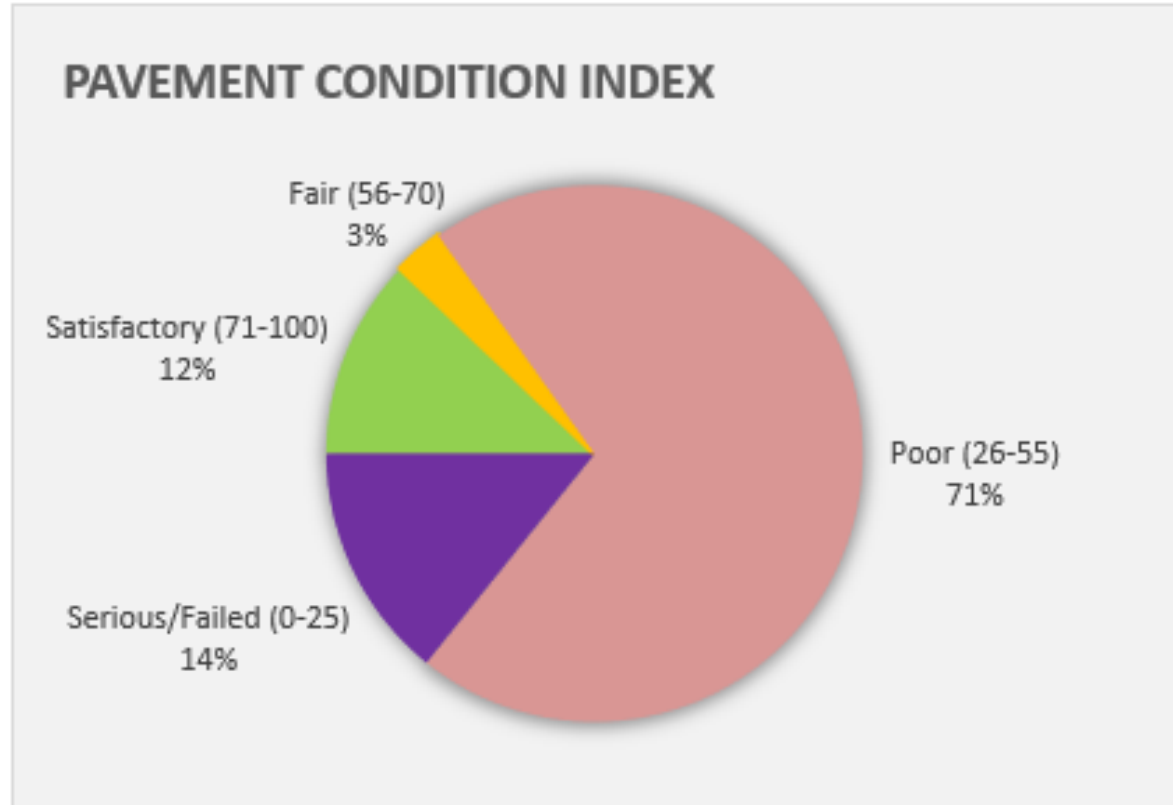
Public Parking Lots Data Analysis - Updated

Upland, CA - 2024 Parking Lot PCI Index

PCI		
	Average	47.56
	Median	40
	Minimum	8
	Maximum	100
	Satisfactory (71-100)	34%
	Fair (56-70)	3%
	Poor (26-55)	51%
	Serious/Failed (0-25)	12%
Pavement Network	Sections	25
	Area SqFt	1,341,279
	Area SqYd	149,031

PAVEMENT CONDITION INDEX

- Satisfactory (71-100) 34%
- Fair (56-70) 3%
- Poor (26-55) 51%
- Serious/Failed (0-25) 12%
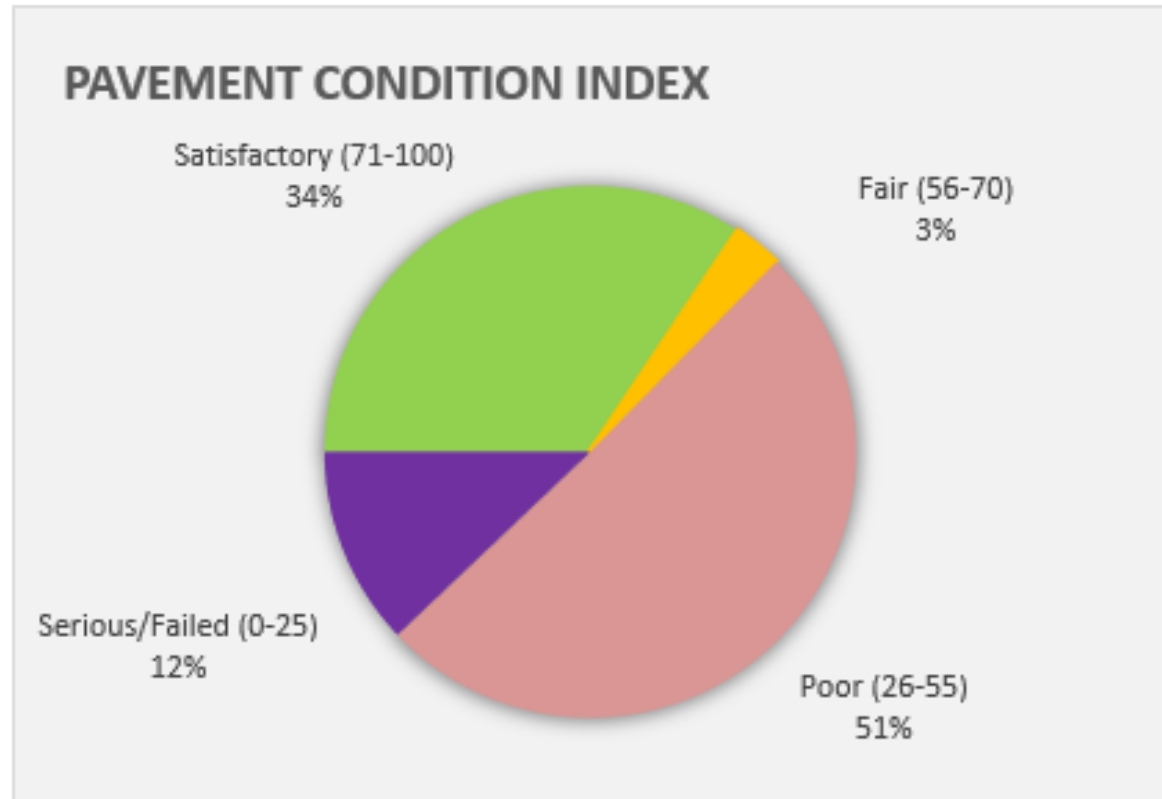
Future

- Eng. Staff & Transmap are working on unit cost data for the StreetSaver software.

- Run cost analytics for various asphalt pavement treatment scenarios based on Upland's pavement conditions

  - ➢ Slurry Seals, Overlays, and Reconstruction.

  - ➢ Run budget analysis scenarios based on current and future funding.

- Compare the pavement management data results with the outcomes of the water & sewer master plans (currently in development) in order to achieve economies of scale on future maintenance and repairs.

Recommendation

❑ It is staff's recommendation that the Public Works Committee Receive and File the Presentation.