

Pavement Management & Condition Survey

Incorporated County of Los Alamos
Public Works Department

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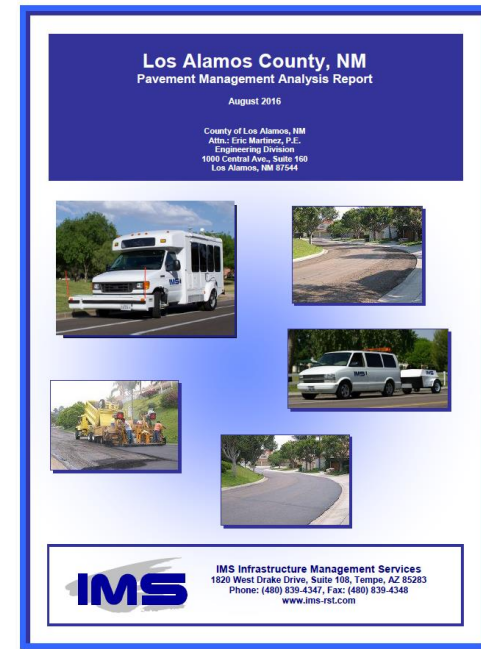
December 6, 2018

Pavement Preservation Policy

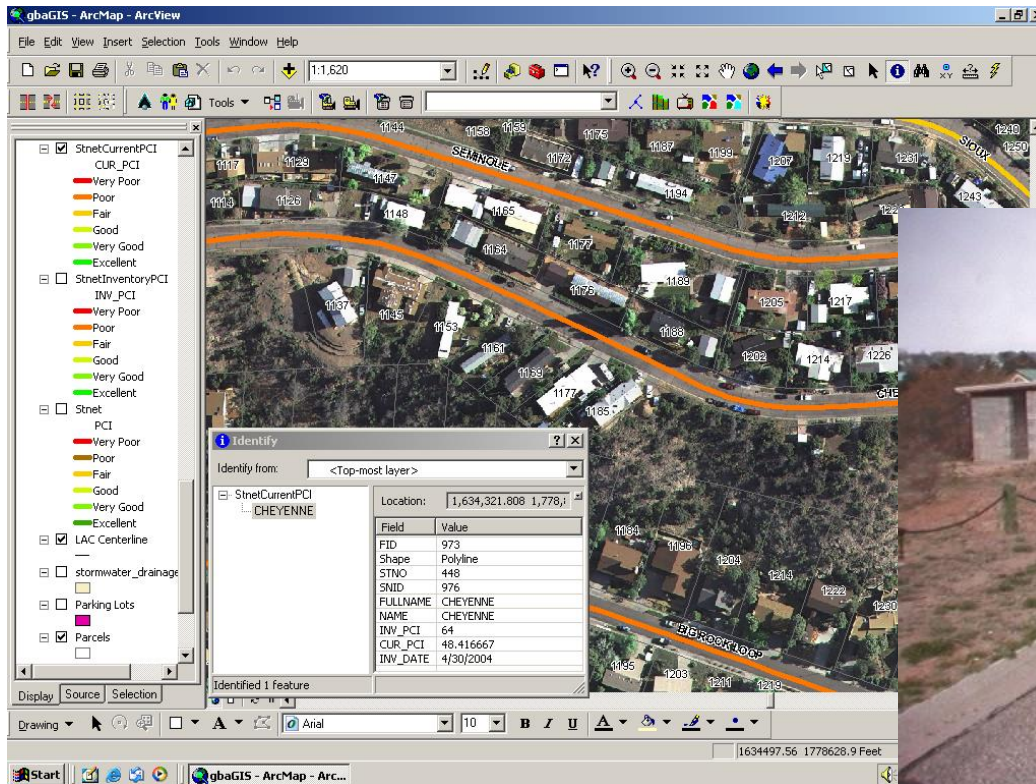
- Council Endorsed – March 30, 2007
- Objective: To proactively maintain and preserve acceptable pavement conditions for County roadways
- Plan and allocate funds for:
 - Pavement Preservation & Preventative Maintenance
 - Surface Treatments, i.e. crack, fog & slurry seals, thin overlays
 - Pavement Rehabilitation, i.e. mill & overlays
 - Roadway Reconstruction
- If funding levels do not allow for all methods, preservation treatments will have higher priority
- Maintain a pavement Asset Management System (software) and conduct field assessment every 5 years

Pavement Condition Analysis

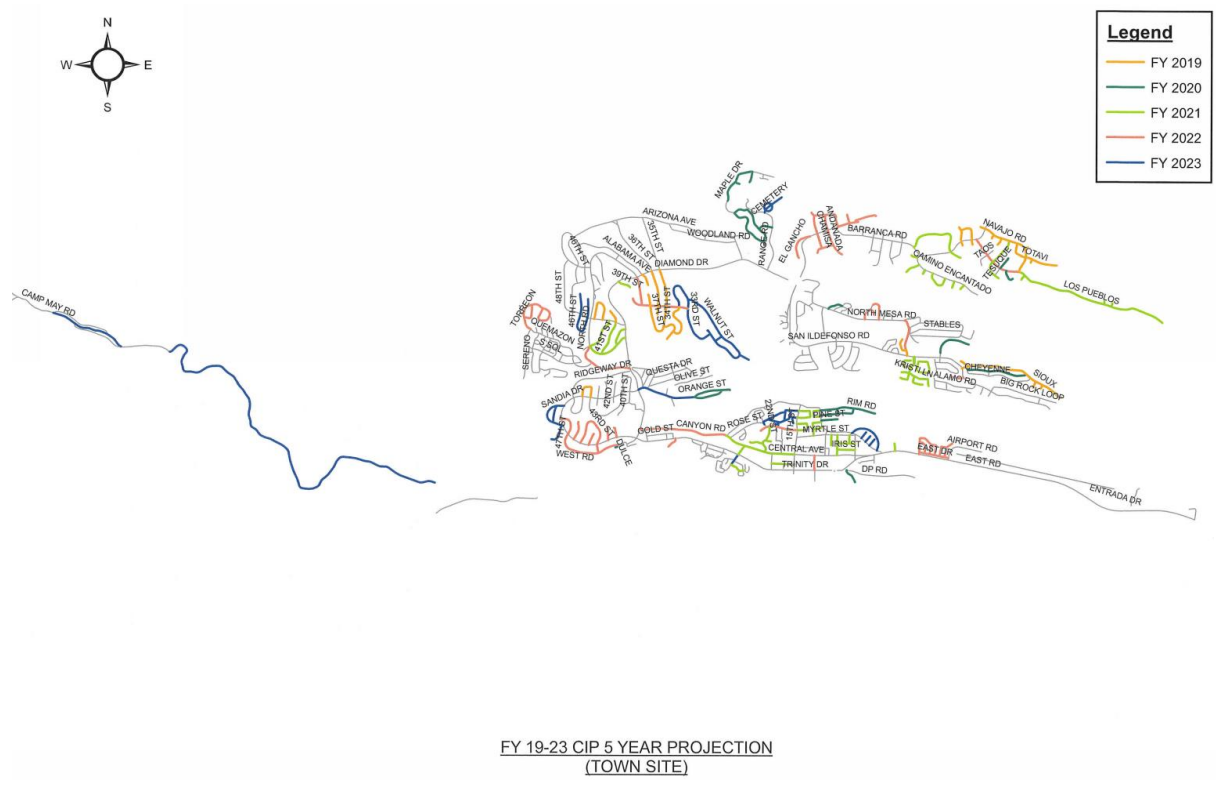
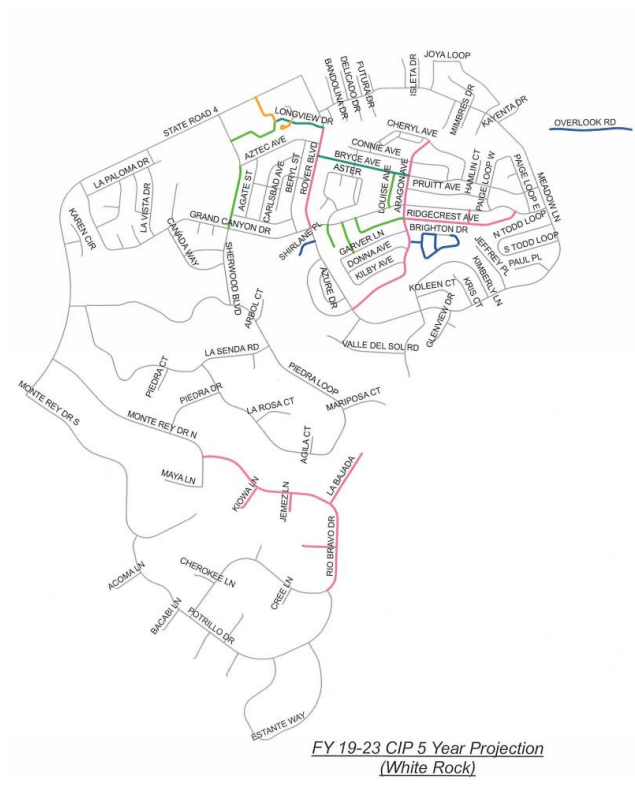
- Pavement Condition Survey
 - Performed every 5 years
 - 2006, 2011, 2016
- Pavement Condition Index (PCI)
 - PCI is assigned
 - Scale of 1 (worst) to 100 (best)
- Pavement Management Software
 - Provides the ability to trend pavement indices between field survey intervals on a year by year basis while also considering system improvements including annual maintenance and reconstruction projects



Pavement Condition Analysis



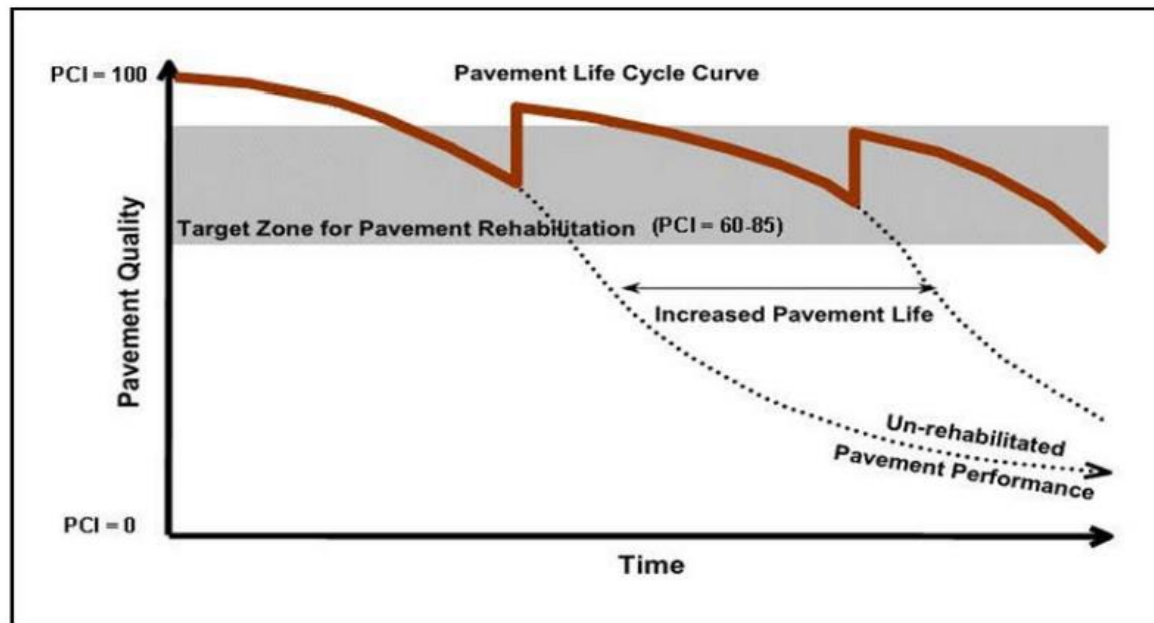
Pavement Condition Analysis



Legend	
Orange line	FY 2019
Green line	FY 2020
Light Green line	FY 2021
Red line	FY 2022
Blue line	FY 2023

Pavement Life Cycle

A successful pavement management program provides a balance of addressing the backlog of poor facilities while also maintaining or preserving those in acceptable condition thereby extending pavement life and quality and thus delaying increased costs of more extensive rehabilitation or full replacement in the near future.



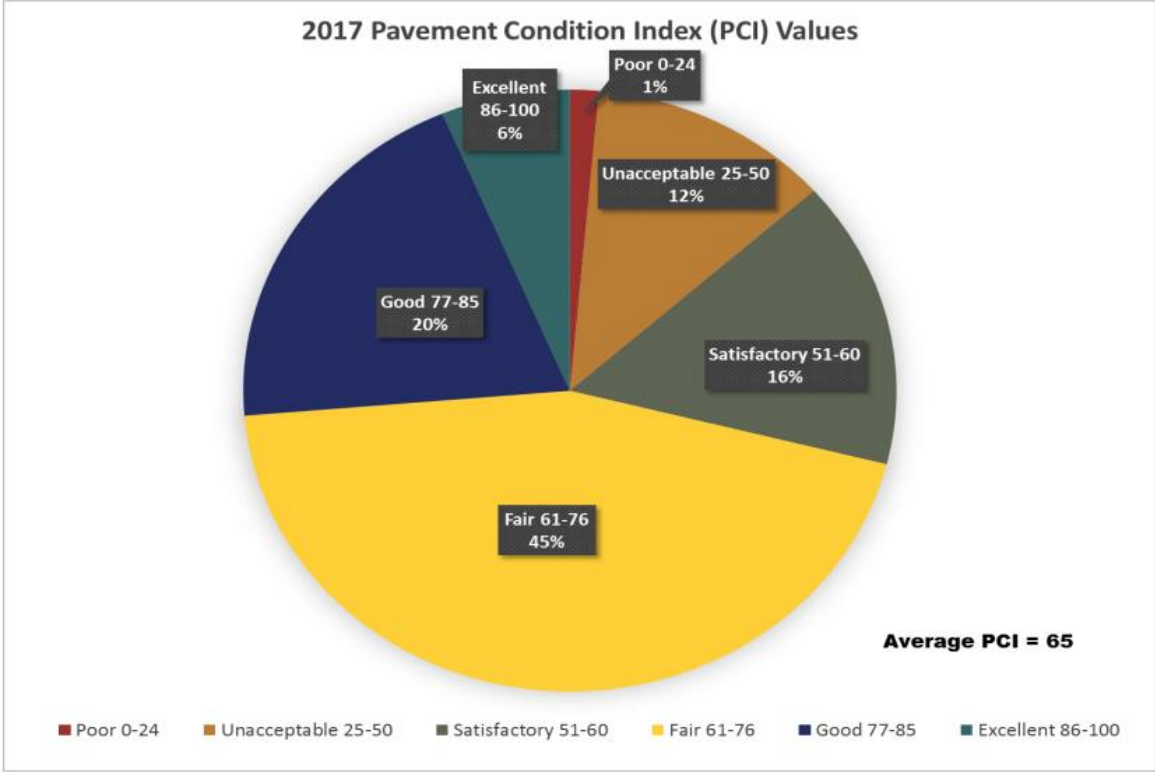
Pavement Life Cycle

- New Pavement Design Life
 - 20 Years (New Construction & Reconstruction)
- Estimated Increase in Pavement Life
 - 10 Years, Mod-Thick Mill & Overlays (> 2-3 inches)
 - 7-8 Years, Thin Mill & Overlays (< 1.5-2 inches)
 - 5-6 Years, Slurry & Chip Seals, Micro-surfacing
 - 2-4 Years, Crack Seal
 - 1-2 Years, Fog Seal

Pavement Condition Target

- Los Alamos County's performance target PCI is 70
- Average PCI for 2017 was 65
- FY2019 Budget
 - Traffic & Streets Division
 - Road Maintenance & Pavement Preservation: \$900K*
*Includes pothole patching, fog, crack and slurry seals as well as concrete curb, gutter, sidewalk and curb ramp repairs.
 - Engineering Division
 - Road Rehabilitation & Reconstruction: \$1.95M

Pavement Condition Statistics



Pavement Condition Investments

Traffic and Streets Division



2018

Micro-seal Monte Rey South in Pajarito Acres (Before & After); Crack Sealing (right)



2017

North Mesa Rd & S. San Ildefonso Road Overlay (Before & After)

Pavement Condition Investments

Engineering Division

2017

North Mesa Phase 1 – Cumbres del Sol



2018

North Mesa Phase 2 – Cumbres del Sol



Pavement Condition Investments

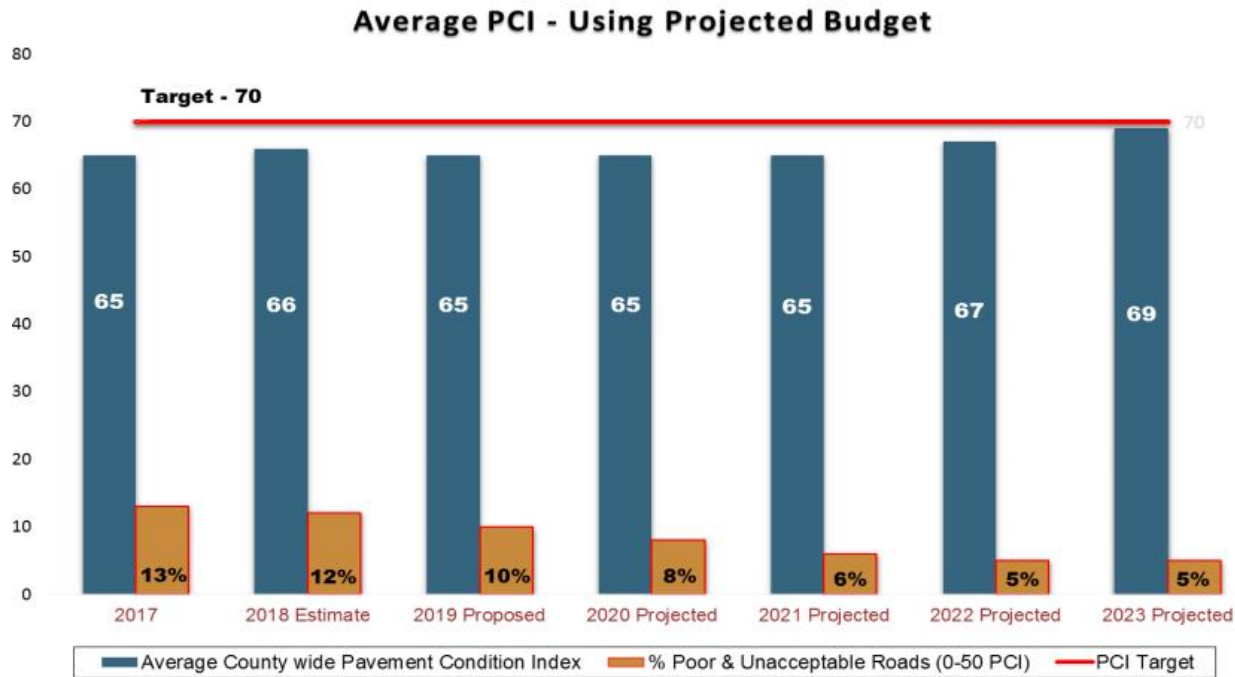
Projected Investments - 5 Year Transportation CIP*

Transportation CIP - FY 2019-2023			
Street Priorities Based on Average Pavement Condition Index (PCI)			
Description	Avg. PCI	Budget Amount	
FY 2019			
Tsikumu Village	Cheyenne	40	\$ 1,950,000
	Sioux		
	Yuma		
	Ute		
	Seminole		
		FY 2019 Adopted Budget	\$ 1,950,000
FY 2020			
Barranca Mesa	La Cueva	43	\$ 1,950,000
	Cascabel		
	Puye		
	Totavi		
	Coyote		
	Navajo		
	El Nido		
	Osito		
	Tesuque		
Laguna			
Canyon Rim Trail Phase 3	Knecht to 15th & 20th Street	NA	\$ 615,000
		FY 2020 Projected Budget	\$ 2,565,000
FY 2020 Economic Development Infrastructure			
Deacon Street	20th to 15th	42	\$ 2,000,000
DP Road	Trinity to A-16-a	50	\$ 1,500,000
FY 2021			
Various Roads	Thin-Moderate Overlays	55-75	\$ 3,487,000
Various Roads	Deep Patch & Thick Overlays	0-55	
Sherwood Boulevard (Deferred from FY 20)	Full Recon. & Drainage - Grand Canyon to Aztec		
Urban Multiuse Trail Phase 1	20th/Trinity to Canyon Road	NA	\$ 500,000
Pavement Condition Survey	5-Year Update - County Wide	NA	\$ 200,000
		FY 2021 Projected Budget	\$ 4,187,000
FY 2022			
Various Roads	Thin-Moderate Overlays	55-75	\$ 3,813,000
Various Roads	Deep Patch & Thick Overlays	0-55	
Canyon Road (Deferred from FY 21)	Partial-Full Reconstruction - Central to Diamond		
Urban Multiuse Trail Phase 2	Canyon Road (Tennis Courts to Aquatic Center)	NA	\$ 500,000
		FY 2022 Projected Budget	\$ 4,313,000
FY 2023			
Various Roads	Thin-Moderate Overlays	55-75	\$ 4,443,000
Various Roads	Deep Patch & Thick Overlays	0-55	
Aspen School Area Phase 1 (Joint Utility Project)	Full Reconstruction		
		FY 2023 Projected Budget	\$ 4,443,000

*Coordinated with DPU's Capital Plan for utility upgrades.

Pavement Condition Projections

Measured performance over time shows the average PCI is maintained for several years then gradually increases assuming road budgets revenues increase



Conclusions

- With flat budgeting anticipated over the next several years, average projected PCI remains at 65
- With additional investment of 3% per year for pavement preservation work, our target PCI of 70 is achievable

Questions?

