



# Street Preventative Maintenance Program (SPMP) Update & 2020 Work Plan



Council Presentation  
May 12, 2020



# Street Improvement Plan (SIP)

## Street Preventative Maintenance Program (SPMP)



**\$14 M / Year**





# Total Street Network (Total 1,218 Center Lane Mile)



Area	Area (SY)	Center Lane Miles	Average PCI	% of Total Network
ADP Downtown	1,695,984	82	61	8%
District 1	4,859,726	292	53	23%
District 2	3,328,199	185	48	16%
District 3	3,222,589	181	50	15%
District 4	4,116,514	261	57	20%
District 5	3,630,444	217	63	17%
Total	20,853,456	1,218		



# Street Condition Assessment & Inventory



- **Pavement Condition**
  - **Micro-PAVER uses 20 pavement distresses in condition surveys:**
    - ✓ *Alligator cracking, rutting, potholes, block cracking, corrugation, bleeding, raveling, shoving, slippage cracking, joint reflection cracking, depression, edge cracking, bumps & sags, railroad crossing, patching & utility cut patching, swell, weathering, polish aggregate, shoulder drop off, longitudinal & transverse cracking.*
- **Pavement Condition Index (PCI):**
  - PCI's are calculated using:
    - ✓ each of the pavement distresses observed;
    - ✓ density/quantity of each; and
    - ✓ severity level of each.
  - PCI calculated value:
    - ✓ is a weighted composite index of each pavement distress observed and deduct value for each; and
    - ✓ is used to identify pavement maintenance & rehabilitation treatment candidates (i.e. reconstruction, overlay, seal coat).
- **Data Collected on a 2-Year Cycle (TransMap)**



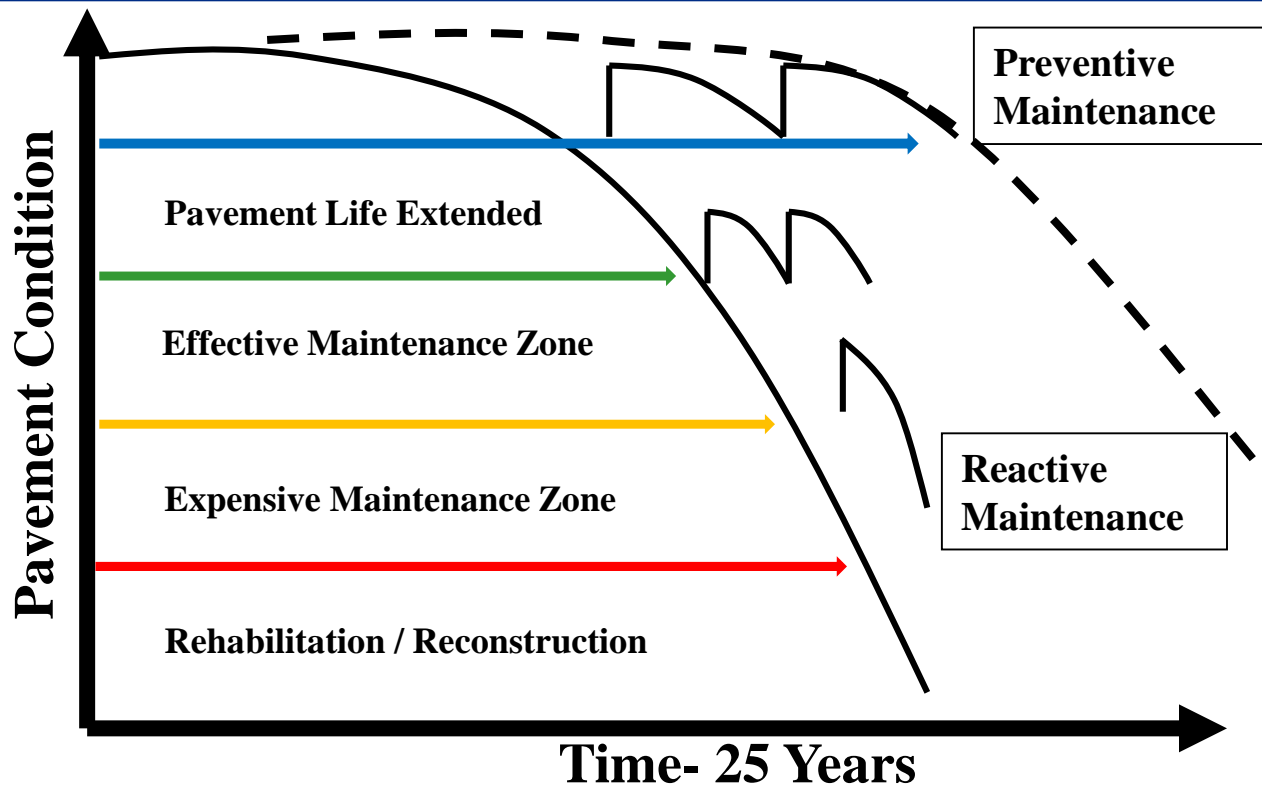
# Street Network Conditions



		Classification of Streets							
PCI Range	PCI Condition	Principal Arterial	Major Arterial	Minor Arterial	Collector	Local Residential	Total	Percent of Network	Percent Condition
91-100	Excellent	11.83	9.41	6.58	24.42	85.59	137.83	11.53	
81-90	Very Good	15.70	9.28	3.04	51.83	142.40	222.25	18.60	
61-80	Good	25.89	25.64	2.92	37.52	98.96	190.93	15.98	
41-60	Fair	11.30	18.70	4.65	24.30	141.81	200.76	16.80	
21-40	Poor	8.65	8.48	0.13	26.45	175.84	219.55	18.37	
0-20	Failed	1.47	0.70	0.41	25.12	195.61	223.31	18.69	
		74.84	72.21	17.73	189.64	840.21	1,194.63	100%	



# Optimized Maintenance





# 2020 SPMP Work Plan



# SPMP Street Selection Criteria



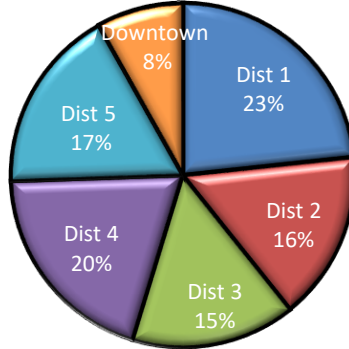
1. Work based on **Pavement Condition Index (PCI)** scores:
  - ✓ Streets selected based on % of concrete and street deterioration
2. Work **Distribute by Street Classification** (Residential, Collectors & Arterials) based on Capital Assets (% of Network)
  1. **Coordinate work** for Residential by Neighborhood and initial subdivision construction dates
  5. **Distribute work** by percentage by Maintenance Applications and Contract and In-House Programs
  6. **Prioritize by traffic loads** causing potential premature failure of roadway



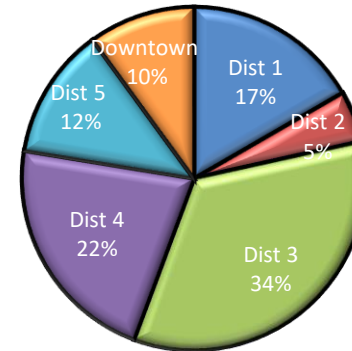
# 2020 (Year 7) Work Plan Target



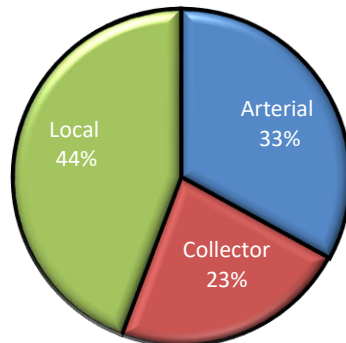
Need by District



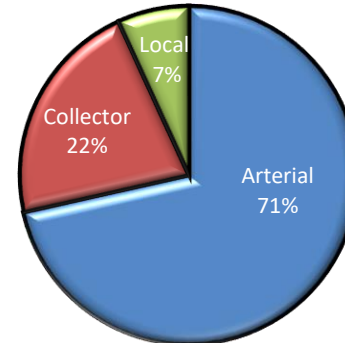
Work Plan by District



Need by Road Classification



Work Plan by Road Class



Target percentages based on Square Yards of Pavement in each District/Category relative to the total City System.



# Proposed 2020 (Year 7) SPMP Work Plan - \$14 M / Year



	Overlays	Ultra-Thin	TOTAL
Streets Maintained	24	7	31
SYs	183,910	231,346	415,256
Center Lane Miles	10	7	17
% Arterial	16%	48%	64%
% Collector	19%	8%	27%
% Residential/Local	9%	0%	9%



# SPMP 2019 Update



- 79 Streets identified in SPMP 2019
- Original work plan
  - 51 Overlay
  - 28 Ultra-Thin
- Revised work plan after evaluation
  - 71 Overlay
  - 5 Ultra-Thin
  - 3 Removed (Programmed as separate projects)
- Construction Progress
  - Notice to Proceed issued on 3/2/2020
  - 54 of 71 Overlay streets released to Contractor for construction (approx. \$11M)
    - ❖ 10 complete
    - ❖ 14 under construction
  - 5 of 5 Ultra-Thin streets released to the Contractor for construction (approx. \$1.5M)



# Next Steps



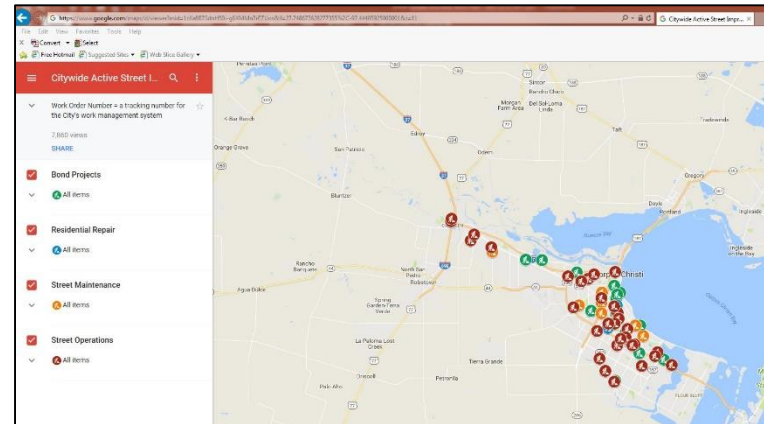
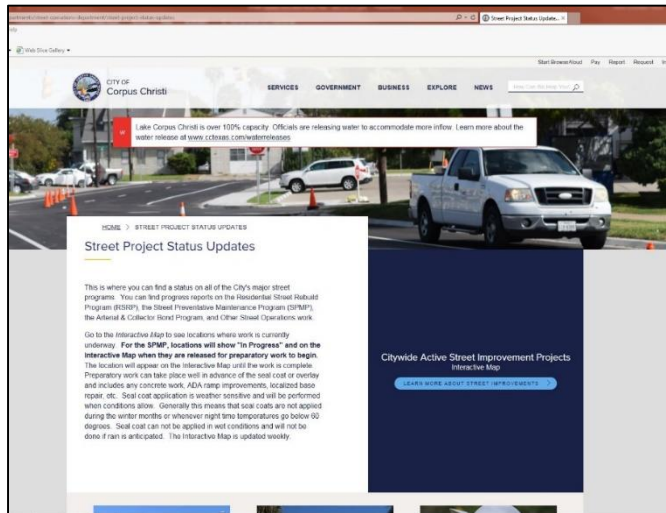
- SPMP 2020 Work Plan (Resolution – This Item)
  - \$7M to be designed by Consultant
  - \$7M to be designed by in house design team
  - Estimated construction to begin Summer 2020
- Evaluation of FY 2021 streets begins June
  - SPMP 2021 Work Plan for Council approval July 2020
  - All delivery orders prepared by in house design team
- Concurrent Development of the 5 year Infrastructure Management Plan (IMP)



# SPMP Program Status



- Website for Program status reports:  
<https://www.cctexas.com/street-project-status>





# Questions?

