



EFFECTIVE SIDEWALK MAINTENANCE MANAGEMENT

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Problems Underfoot...

- Sidewalks essential
- Deterioration and damage occur over time
- Repairs historically a low priority
- Competition for limited funds
- Deferred maintenance backlog grows
 - Potential hazards/ liability risk increase
 - Injury claims and lawsuits grow



Typical Approaches

- Do nothing
- Respond only to complaints
 - Temporary repairs only
 - Limited permanent repairs
- Neighborhood inspections
 - Property owner pays to repair
 - City and owner share cost
 - City pays all cost



Goals and Objectives

Establish a comprehensive, systematic, proactive, equitable and economical sidewalk maintenance program

- Complete city-wide inspection and inventory
- Focus on defects, not ADA deficiencies
- Criteria based on Pavement Distress Manual
- Single, accessible database continually updated
- Well-defined repair/ replacement process
- Reasonable schedules
- Hazard reduction first priority
- Coordinate with other programs to maximum efficiency

Inventory Record

- sidewalk ID #
- address Location
- x/y coordinates
- length
- width
- date built
- summary of inspections
- summary of work orders

Sidewalk Inventory - Unnamed Filter Set

SW Rec No: 18436 Sidewalk ID: 18436 Type: 2 4" Concrete

Attributes | Recent Inspection Info | Location | Inspections | WOs | Custom | Comments

Length	124.9	Street Location	
Width	4.00	Owner	
Curb Distance		Maintained By	1 SM
Driveway Units		Project Number	
From Ramp	To Ramp	Installed By	
From Required	To Required	Date Installed	// /
From Exists	To Exists	Replacement	// /
From ADA OK	To ADA OK		

Record 1 of 1 View Mode Ready...

Starting Out

- City divided into mile-sections and quarter-mile quadrants
- Teams use programmable GPS devices
- “Slope-in-ator” for measuring cross-slope
- Data downloaded every day



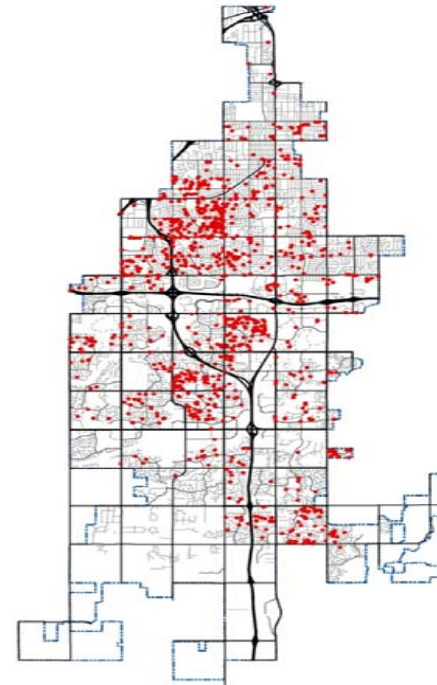


Initial Results

DEFECT	INITIAL	NOW
D CRACKING	591	1,176
FAULTS	27,716	21,474
GAP	1,152	1,250
JOINT SPALLING	2,548	1,916
LINEAR CRACKING	18,220	21,388
SETTLED	248	281
SURFACE DEFECT	3,286	5,902

Mapping It Out

2" +
Faults



Repairs; The "Tool Box"

- Priority to faults (trip hazards)
- Three-prong approach:
 - temporary patch
 - grinding
 - full-slab replacement





A Coordinated Replacement Plan

- Annual sidewalk and curb programs
- Annual street overlay
- Thoroughfare street widening
- Residential street reconstruction
- Residential property owner work
- Utility repair/ relocation projects
- Storm sewer projects
- Traffic signal improvement projects
- Developer projects
- State, County and adjacent city projects

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Keeping the Database Updated

- Additions, changes to the system from:
- developer projects
 - residential subdivisions
 - commercial redevelopment and expansion
 - utility work
- public projects
 - thoroughfare construction (Capital Improvements)
 - neighborhood in-fill (by petition)
 - Residential Street Reconstruction program
 - institutional development



Re-Inspections and Repairs

- Re-inspect prior to major contract work
 - street rehabilitation/reconstruction projects
 - Neighborhood sidewalk replacement program
- Re-inspect entire city on 7-year cycle.
 - 15% of sidewalk system annually
 - Note sidewalk replaced since last inspection or new installations



When You Add it Up:

	<u>Quantities (Sq.Ft.)</u>	<u>Cost</u>
Annual Sidewalk	34,200	\$210,766
Annual Overlay	37,800	\$282,500
Cap. Imp. Projects (CIP)	87,500	\$368,600
Residential St. Program.	12,100	\$54,900
Storm Sewer Projects	5,200	\$19,800
Traffic Signal Projects	4,100	\$24,200
Cities & State	<u>41,600</u>	<u>\$387,300</u>
Total	222,600	\$1,348,000



Summary

- Evaluation of program
 - Better communications & information access
 - Improved efficiency, effectiveness, responsiveness
 - Enhanced public safety
 - Quicker resolution of claims
 - Favorable public perception
 - Increased support from elected officials
 - Accurate information for budgeting



For Further Information

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