

SIDEWALK INSPECTION AND MANAGEMENT SYSTEM



***Department of Public Works
City of Fort Lauderdale***

Agenda

- **Background and Current Challenges**
- **Sidewalk Assessment Results**
- **Sidewalk Assessment Costs**
- **Q & A**

Background: Existing Sidewalk Inventory

- Approximately 512 miles of roadway
- Approximately 425 miles of sidewalk
- Approximately 600 miles of City roadway unaccompanied by sidewalk (estimate based on City roadway inventory and existing sidewalk)
- Estimated 67,800 Parcels Citywide
- Estimated 28,000 Parcels with abutting sidewalk
- Estimated 39,800 Parcels without abutting sidewalk

Current Ordinance

- The Code of Ordinances assigns sidewalk repair responsibility to abutting property owners - 1980
- City Commission resolution is required to notify property owners of necessary repairs - 1971
- City Commission approval is required for City to make repairs and place lien against property - revised 2010

Current Challenges

- Enforcement of current ordinance requires:
 - City Commission resolution to abutting property owners
 - Timelines for repairs to accommodate current ordinance process and associated trip and fall hazards and potential claims
 - Enforcement life cycle for non-compliant property owners (e.g., liens, legal hearings, etc.)
- No program in place to enforce current ordinance
- Assigning responsibility for trees planted in the City's right-of-way (either by the City or the property owner)

Current Challenges Continued

- Public Works receives on average 10 complaints each month regarding sidewalk conditions
- 2013 Neighborhood Survey identified “Maintenance of streets, sidewalks and infrastructure” as a top three priority
- Overall satisfaction with “Maintenance of streets, sidewalks, and infrastructure” dropped from 54% to 49% from 2012 to 2013
- Overall satisfaction with the “Condition of sidewalks” dropped from 49% to 42% from 2012 to 2013

Current Contract

The City has maintained an annual contract for sidewalk repairs over the past 5 years to:

- Repair (at City cost) all sidewalks with trip and fall claims
- Repair (at City cost) some sidewalks damaged by trees planted in the right-of-way
- Repair (at City cost) all other reported sidewalk damage (e.g. utilities damage, construction damage, etc.)

Sidewalk Management – Past 5 years

- Repaired 5 miles of sidewalk
- Cost of repairs = \$750,000
- Enforcement repairs (reimbursed by neighbors)= \$94,172
- Legal Costs associated with Trip & Fall Claims (Average) = \$200,000

FAST FORWARD FORT LAUDERDALE 2035

We Are Connected

We move seamlessly and easily through a safe transportation system where the pedestrian is first.



PRESS PLAY FORT LAUDERDALE - STRATEGIC PLAN 2018

Infrastructure Goal

Be a pedestrian friendly, multi-modal City

- Integrate transportation land use and planning to create walkable and bikeable community
- Improve pedestrian, bicyclist, and vehicular safety

Strategic Initiative

Develop a Citywide comprehensive public/private sidewalk policy and plan to improve sidewalks and connectivity

Strategic Initiative: Comprehensive Sidewalk Assessment & Plan

- As part of the 2014 Commission Annual Action Plan (CAAP) a comprehensive assessment of all sidewalks in the City was requested and as such, staff developed a specific criteria and methodology
- On January 7, 2014 Commission approved the engagement of Atkins North America Inc. (Atkins) to provide consulting services for a comprehensive sidewalk assessment at a cost of \$147,409
- On July 1, 2014 Atkins submitted a comprehensive sidewalk assessment plan to the City

Sidewalk Assessment Tool: Microsoft Access Database



City of Fort Lauderdale
Sidewalk Inspection and Management System

ATKINS

Sidewalk: FLL_04A_20140426_6706 **Neighborhood:** Victoria Park Civic Assoc.

Commissioner District: 2 **Address (Aprox):** 450 NE 17TH WAY

Date: 4/26/2014 **Latitude:** 26° 7' 39.5586" N **Longitude:** 80° 7' 28.4434" W

Type: Concrete

Damage Type: Swale Tree Root Damage **Category:** Small Vertical Displacement

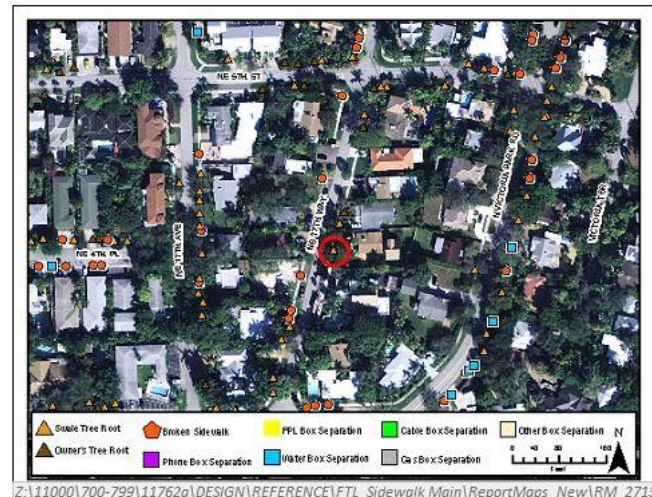
Approx Sqr Ft of Damage: 63.00

Recommended Repair: 50% No Repairs/50% Future Repair (Based on Periodic Inspection)

Estimated Cost: \$225.00

Replacet Sqr. Footage: 75

Notes:



☐ Retake?
☐ New Photo

Damage Categories Ranked By Severity



Category C-1 – Large Vertical Displacement (>1/4")



Category C-2 – Wide Cracks (>1/8")



Category C-3 – Small Vertical Displacement (<1/4")

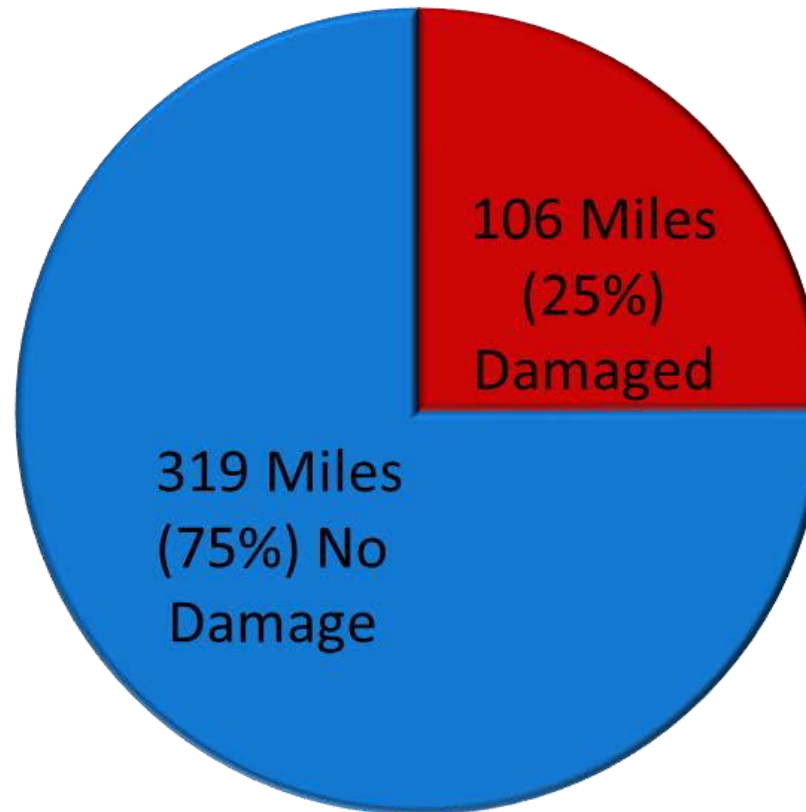


Category C-4 – Surface Defects (Concrete Spalling)



Category C-5 – Narrow Cracks (<1/8")

Sidewalk Assessment Snapshot

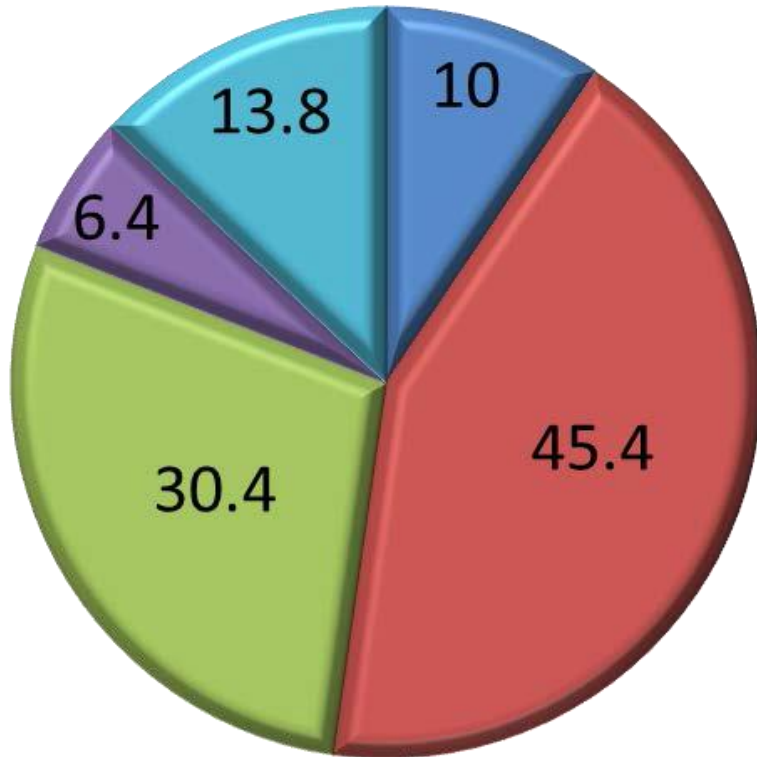


Total Sidewalk = 425 miles

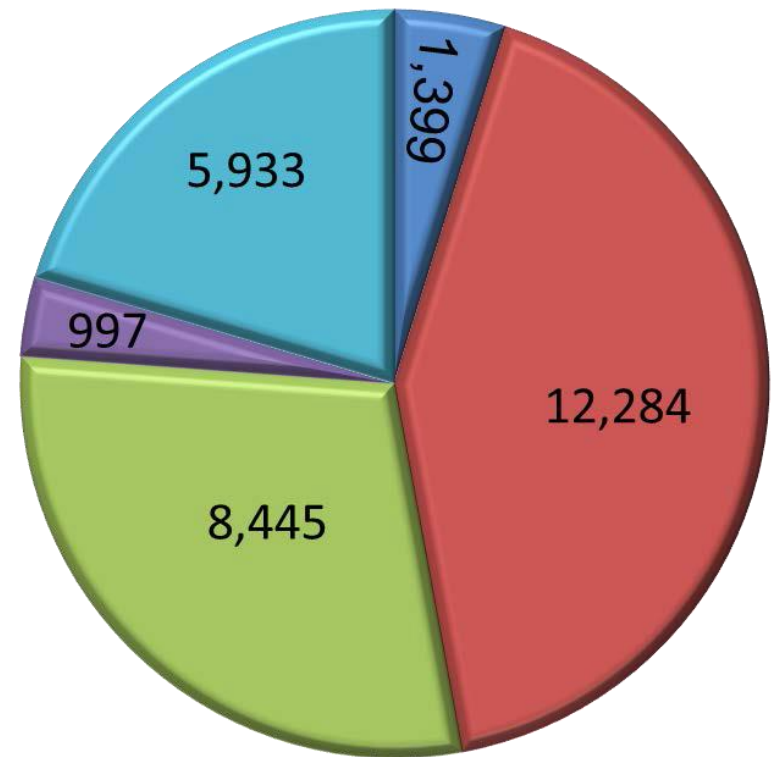
Sidewalk Damage by Category and Number of Locations

Damage Category	Damage Description (Severity Most to least)	Miles	Number of Locations
C-1	Large vertical displacement (>1/4")	10.0	1399
C-2	Wide cracks (>1/8")	45.4	12284
C-3	Small vertical displacement (<1/4")	30.4	8445
C-4	Surface defects (concrete spalling)	6.4	997
C-5	Narrow cracks (< 1/8")	13.8	5933
	Total	106.0	29,058

Sidewalks by Damage Type & Number of Locations



Total Mileage = 106 Miles



Total Locations = 29,058

- C-1 Large vertical displacement (>1/4")
- C-2 Wide cracks (>1/8")
- C-3 Small vertical displacement (<1/4")
- C-4 Surface defects (concrete spalling)
- C-5 Narrow cracks (< 1/8")

Current Funding

- FY 2014 Existing = \$325,327
- FY 2015 = \$30,551
- FY 2016 = \$0
- FY 2017 = \$0
- FY 2018 = \$0
- FY 2019 = \$2,150,000
- Total = \$2,505,878

All funds received from Community Investment Plans (CIP)

Sidewalk Repair Methods and Costs

Damage Type	Repair Strategy	Unit Cost of Repair / Replacement	Estimated Costs
C-1, C-2, C-4 and C-5	Full Panel Replacement (without Sub-Base) <ul style="list-style-type: none"> Demo / remove panel New 6-inch thick concrete 	\$6.00/SF	\$9,936,150
C-1, C-2 and C-4 with tree root damage	Full Panel Replacement <ul style="list-style-type: none"> Demo / remove panel Remove tree roots New base material New 6-inch thick concrete 	\$18.00/SF	\$2,861,310
C3	Grinding Down Separation	\$3.00 /SF	\$2,406,900
	Total Repair Cost		\$15,204,360

Sidewalk Repair Costs Over 5 Years

FY	Damage Category	Repair Cost	Administrative Cost	Total Cost
1	C-1 & C-2	\$ 5,151,480	\$ 206,000	\$ 5,357,480
2	C-2	\$ 5,306,024	\$ 212,000	\$ 5,518,024
3	C-3	\$ 2,551,314	\$ 102,000	\$ 2,653,314
4	C-4	\$ 1,528,562	\$ 62,000	\$ 1,590,562
5	C-5	\$ 1,223,208	\$ 49,000	\$ 1,272,208
Total		\$ 15,760,588	\$ 631,000	\$ 16,391,588

Repair Cost accounts for inflation at a rate of 3% per year beginning in the second year

Right Tree / Right Place

- A sub-base material can help prolong the life of sidewalks when trees are present.

Tree Size	Height at Maturity	Required Swale Width	Required Distant from Sidewalk
Small	20 FT	At least 8 FT	2-4 FT
Medium	20-30 FT	8-10 FT	4-6 FT
Large	+30 FT	At least 10 FT	At least 4 FT

What Other Communities Are Doing

The following agencies have policies opposite to the City of Ft. Lauderdale

- Broward County maintains sidewalks
- City of Coconut Creek maintains sidewalks
- City of Wilton Manors assesses property owners for the cost of materials and the City provides the labor for the sidewalk repairs
- City of Coral Springs assesses property owners for the cost of materials and the City provides the labor for the sidewalk repairs

What Other Communities Are Doing

The following agencies have policies similar to the City of Ft. Lauderdale

- City of Plantation
- City of Lauderdale
- City of Miami
- City of Pembroke Pines
- City of Weston Homeowner's Association maintains sidewalks
- City of Sunrise assesses property owner and uses in house crew to make repairs

Q & A

