

Town of Tonawanda Sidewalk Compliance, Maintenance & Repair Review

Geographic Information System Design - GEO 488/556



Prepared by James B. Jones, PE
Town of Tonawanda, Technical Support Department
February 8, 2007

Sidewalk Statistics

- Estimated 80% of public streets in town have walks on both sides
- This translates to 1,268,247 Lineal Feet
Or 9.4 Million square feet
- Current replacement cost \$4.50 per Square Foot or \$42.3 Million
- Typically, 4 feet wide and 4 inches thick
- Post WWII installations

0.5 feet per pixe

Enter address

tonawanda.pwf

- tonawanda
 - Opened Warehouse
 - tonawanda.pgs
 - parcels_reg
 - villageparcel
 - ton_bndy
 - centerlines

tonawanda.pwf

tonawanda... NYERIE101...



NYERIE1015NeighObliq

NYERIE010015NeighOb

NYERIE1016NeighObliq

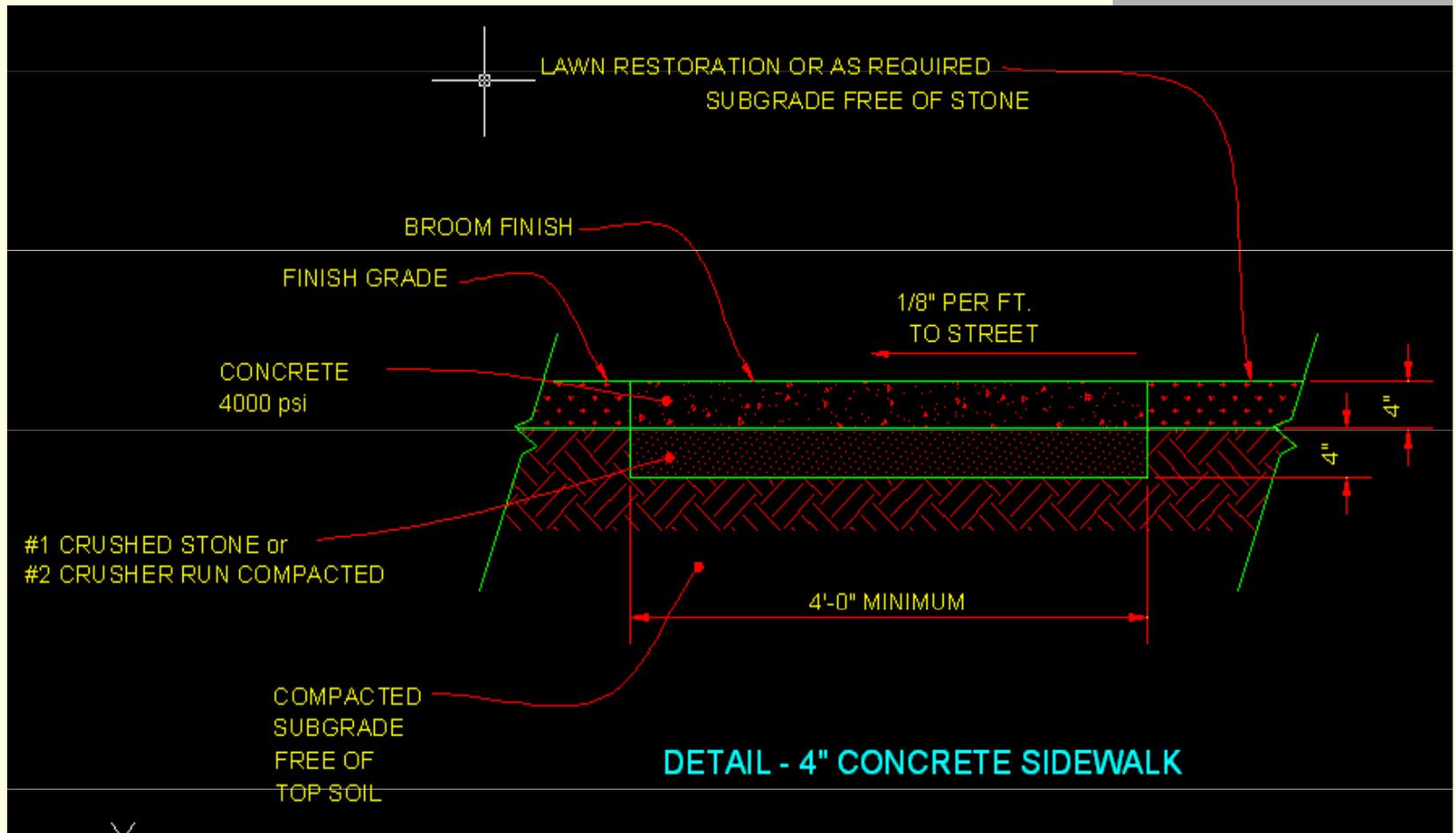
NYERIE010015NeighOb

NYERIE010016NeighOb

NYERIE010016NeighOb

NYERIE010016NeighOb

Town Sidewalk Specification



Replacement policies

- Tree root damage – public trees only
- Water & Sewer dig repairs
- Various public works restoration requirements
i.e. street or sewer reconstruction projects
- Repair & maintenance responsibility falls on
abutting property owner as per Town Code
§183-5

Tree root damage example



Utility damage repair example



Public Works – Street Reconstruction



Town Code §183-5

- § 183-5. Maintenance, repairs and removal of snow, ice and other materials from sidewalks by owners. [Amended 6-17-2002]
-
- A. The owner or occupant of any premises adjoining any street where a sidewalk has been laid shall maintain and keep the sidewalk on such street in good repair and free and clear of snow, ice, dirt and any other material or substance. For the purpose of snow and ice removal, such sidewalk shall be cleared to a minimum width of two feet the entire length thereof.
-
- B. In the event that such snow and ice is frozen so hard that it cannot be removed without material difficulty or injury to such sidewalk, such owner or occupant shall cause sufficient ashes, sand, sawdust, salt or other suitable material to be spread thereon so as to provide a safe path at least two feet in width the entire length thereof. As soon thereafter as weather permits, such owner or occupant shall thoroughly clean said sidewalk.
-
- C. The owner and the occupant shall be jointly and severally responsible for compliance with the provisions hereof. Said responsibility shall include liability for injuries that result from failure to maintain, repair and keep said walkway in a safe condition for usage or to remove snow, ice or other obstructions therefrom.

Complaints receipt

- Constituent complains to Supervisor's Office, Town Clerk, Highway or Technical Support
- Attorney, Parks, Police and Building departments have some involvement
- Notice of Claim received in Clerk's Office
- Attorney notices

Phone Message

IMPORTANT MESSAGE

FOR Pat

DATE 6-12-06 TIME 12:45 A.M.
P.M.

M. Brian James

OF 65 Mayville

PHONE 308-1818

AREA CODE NUMBER EXTENSION

FAX

MOBILE

AREA CODE NUMBER TIME TO CALL

TELEPHONED <input checked="" type="checkbox"/>	PLEASE CALL <input checked="" type="checkbox"/>
CAME TO SEE YOU	WILL CALL AGAIN
WANTS TO SEE YOU	RUSH
RETURNED YOUR CALL	SPECIAL ATTENTION

MESSAGE

Sidewalk raised
due to tree root.

6-15-06 Bill Swanson
Highway will do.
Homeowner 6" depth in drive.

SIGNED Shon

 FORM 3002S
MADE IN U.S.A.

Highway Complaint system

[Print this Complaint](#) | [Edit this Complaint](#)

TOWN OF TONAWANDA		COMPLAINT / REQUEST			
HIGHWAY DEPARTMENT 450 Woodward Ave Kenmore, New York 14217		#47155 FORESTRY - Sidewalks			
CALLER	LOCATION	OPERATOR			
Vicki A Klaus 126 Marjorie Dr Buffalo, NY 14223 Phone:	Vicki A Klaus 126 Marjorie Dr Buffalo, NY 14223 Parcel ID: 66.83-3-6	DawnMarie Dill DATE: 1/11/2007 TIME: 2:29:17 PM			
DESCRIPTION					
01/11/07--tree that was recently removed due to storm caused the sidewalk to be raised;please check-dmd					
ACTION REPORT					
REFERRED TO: Bill Swanson					
ASSIGNED TO: Wm. Swanson DATE: _____ TIME: _____					
Action	Start Date	Assigned To	End Date	Done By	Remarks
Inspection			1/15/07	WES	
Cold Patch					
Root Cutting					
Forms					
Pour					
Clean Up					
B/Fill Seed					
Subcontract					
Size	Quantity	Square Footage	Height (ft)	Width (ft)	
4"	3	60	0	0	
6"	0	0	0	0	
COMMENTS: WILL REPLACE IN 2007					
DATE OF COMPLETION: _____					

Notice of Claim

	 Independent Insurance Adjusters <small>EST. 1936</small> ALBERT F. STAGER, INC.
February 6, 2007	
Tonawanda Town Clerk Municipal Building Kenmore, NY 14217	
RE:	NYCM INSURED: NYCM FILE NO: 2006-009661 AFS FILE NO: 96565 DATE OF LOSS: 09-29-2006 LOCATION OF LOSS: 254 Desmond Drive CLAIMANT:
To Whom It May Concern:	
Our company has been assigned by New York Central Mutual Insurance Company to investigate the above-captioned incident. [redacted] was injured on the sidewalk in front of 254 Desmond. It is also my understanding that [redacted] injured herself on a sidewalk in front of 107 Huetter approximately three years ago.	
Pursuant to the Freedom of Information Act, I would like to find out if there were any prior incidents at the above-referenced address as well as 107 Huetter.	
If you need any additional information to process this request, please contact me at the telephone number listed below.	
Sincerely,	
	
Connie Schmidt Casualty Adjuster	

Complaint review

- Highway Department site inspection
- Technical Support Department site inspection
- If tree root related, Highway adds address to their annual replacement program
- If sidewalk disturbed by W & S repair, they add address to their annual replacement program
- If sidewalk failure is caused by other issue, then TS photographs and issues Notification

Highway list

	A	B	C	D	E	F	G	H	I	J	K	L
1	DAY OF	COMPLAIN	NUMBER	STREET	ROOT CUT	6"/SQ.FT.	4"/SQ.FT.	Opened	Poured	Bf	Hydro	CROSS STREETS
2	CI	43726	230	GLENHURST RD	3/27/2006		140	4/10/2006	4/14/2006	4/27/2006	5/8/2006	GLENALBY RD TO YORKSHIRE RD
3	CI	43445	145	AVON RD	3/27/2006		120	4/10/2006	4/14/2006	4/27/2006	5/8/2006	BRAXMAR RD TO YORKSHIRE RD
4	CI	44433	126	OVERBROOK AVE	3/27/2006		155	4/10/2006	4/14/2006	4/27/2006	5/8/2006	BRAXMAR RD TO YORKSHIRE RD
5	CI	44763	172	OVERBROOK AVE	3/27/2006		120	4/10/2006	4/14/2006	5/3/2006	5/8/2006	OVERBROOK AVE AND YORKSHIRE RD
6	CI	17490	73	GREENLEAF AVE	3/27/2006		140	4/10/2006	4/18/2006	5/3/2006	5/8/2006	GREENLEAF AVE AND BRAXMAR RD
7	CI	43727	225	BRAXMAR RD	3/27/2006		140	4/11/2006	4/18/2006	5/3/2006	5/8/2006	FRIES RD TO GREENLEAF AVE
8	CI	44512	286	BRAXMAR RD	3/27/2006		180	4/11/2006	4/18/2006	5/3/2006	5/8/2006	LYNBROOK AVE TO FRIES RD
9	CI	43708	56	AMES AVE	3/27/2006		160	4/11/2006	4/19/2006	5/3/2006	5/8/2006	BRAXMAR RD TO YORKSHORE RD
10	CI	43481	265	YORKSHIRE RD	3/27/2006		160	4/11/2006	4/19/2006	5/3/2006	5/8/2006	FRIES RD TO AMES AVE
11	CI	44831	300	YORKSHIRE RD	3/27/2006		280	4/12/2006	4/19/2006	5/4/2006	5/15/2006	YORKSHIRE RD AND LYNBROOK AVE
12	CI	43592	568	FRIES RD	3/27/2006		100	4/12/2006	4/21/2006	5/3/2006	5/15/2006	YORKSHIRE RD TO GLENALBY RD
13	CI	44854	594	FRIES RD	4/14/2006		440	4/14/2006	4/21/2006	5/4/2006	5/8/2006	
14	CI	44465	345	GREEN ACRES RD	3/27/2006		140	4/14/2006	4/27/2006	5/4/2006	5/15/2006	FRIES RD TO FRIES RD
15	CI	43485	1950	PARKER BLVD	3/27/2006		120	4/14/2006	4/21/2006	5/4/2006	5/15/2006	BRIGHTON RD TO BRAXMAR RD
16	CI	43845	60	EVERGREEN DR	SPRINKER	240		4/27/2006	4/27/2006	5/4/2006	5/8/2006	WOODSTOCK AVE TO SUNRAISE TER
17	CI	44748	114	EVERGREEN DR	3/29/2006		40	4/18/2006	4/27/2006	5/4/2006	5/15/2006	WOODSTOCK AVE TO SUNRAISE TER
18	CI	43954	163	EVERGREEN DR	3/27/2006		80	4/18/2006	4/27/2006	5/4/2006	5/15/2006	WOODSTOCK AVE TO SUNRAISE TER
19	CI	44835	234	EVERGREEN DR	4/14/2006		80	4/18/2006	4/27/2006	5/4/2006	5/15/2006	WOODSTOCK AVE TO SUNRAISE TER
20	CI	43810	359	EVERGREEN DR	3/28/2006		40	4/18/2006	5/5/2006	5/8/2006	5/15/2006	GREENHAVEN TER TO GREENTREE
21	CI	43508	26	GREENHAVEN TER	3/28/2006		300	4/19/2006	4/27/2006	5/8/2006	5/15/2006	GREENHAVEN TER AND WOODSTOCK AVE
22	CI	43468	805	WOODSTOCK AVE	3/28/2006	20 RAMP	320	4/27/2006	5/3/2006	5/9/2006	5/15/2006	WOODSTOCK AVE AND GREENTREE RD
23	CI	44532	892	WOODSTOCK AVE	3/28/2006		120	4/19/2006	4/28/2006	5/9/2006	5/19/2006	GREENHAVEN TER TO ST CLARE TER
24	M	44889	298	GREENHAVEN TER			40	4/19/2006	4/28/2006	5/9/2006	5/15/2006	EVERGREEN TER TO GLENDALE DR
25	CI	43551	135	MILLWOOD DR	3/29/2006		260	4/20/2006	5/5/2006	5/11/2006	5/15/2006	MILLWOOD DR AND WOODMERE DR
26	CI	44027	175	MILLWOOD DR	3/29/2006		120	4/20/2006	4/28/2006	5/11/2006	5/15/2006	GLANDALE DR TO EVERGREEN TER
27	CI	45046	215	MILLWOOD DR	3/29/2006	20 RAMP		4/27/2006	5/3/2006	5/11/2006	5/15/2006	MILLWOOD DR AND EVERGREEN DR
28	CI	40330	148	WOODMERE DR	3/29/2006		200	4/24/2006	5/5/2006	5/11/2006	5/15/2006	WOODSTOCK AVE TO MILLWOOD DR
29	CI	43788	5	DOLPHANN DR	3/29/2006		240	5/2/2006	5/8/2006	5/11/2006	5/15/2006	DOLPHANN DR TO NADON PL
30	CI	43869	182	PATRICIA DR	3/29/2006		120	4/24/2006	5/8/2006	5/11/2006	5/15/2006	EVERGREEN DR TO ELLICOTT CREEK RD
31	CI	44258	184	GLENDALE DR	3/29/2006		60	5/2/2006	5/9/2006	5/11/2006	5/15/2006	ST CLARE TER TO NADON PL
32	M	44941	251	GLENDALE DR			180	5/2/2006	5/9/2006	5/11/2006	5/15/2006	ST CLARE TER TO NADON PL
33	CI	44367	605	EVERGREEN DR	3/29/2006		80	5/2/2006	5/8/2006	5/11/2006	5/19/2006	MILLWOOD DR TO PATRICA DR
34		45073	63	ST CLARE TER			240	5/8/2006	5/8/2006	5/11/2006	5/19/2006	MILLWOOD DR TO PATRICA DR
35	CI	W/S	37	ST CLARE TER		RAMP		4/27/2006	5/3/2006	5/11/2006	NO SEED	ST CLARE TER AND WOODSTOCK AVE
36	CI	W/S	2609	PARKER BLVD	3/29/2006	160 RAMP/CURB		4/27/2006	5/3/2006	5/11/2006	5/19/2006	PARKER BLVD AND ST CLARE TER
37	CI	43330	16	ELLICOTT CT	3/29/2006	CURB		5/3/2006	5/10/2006	5/16/2006	5/19/2006	ELLICOTT CREEK RD
38	CI	W/S	144	DEXTER TER	3/29/2006	40 RAMP		5/4/2006	5/10/2006	5/18/2006	5/19/2006	DEXTER TER AND THISTLE AVE
39	CI	44552	42	CALVERT BLVD	3/29/2006		280	5/4/2006	5/12/2006	5/18/2006	5/19/2006	FORBES AVE AND CALVERT BLVD
40	CI	44403	37	THISTLE AVE	3/29/2006		80	5/5/2006	5/10/2006	5/22/2006	5/19/2006	THISTLE AVE TO LEAWOOD
41	CI	44014	135	CALVERT BLVD	3/30/2006		40	5/8/2006	5/12/2006	5/18/2006	5/19/2006	THISTLE AVE TO FARAGUT AVE
42	CI	43825	197	FORBES AVE	3/30/2006		80	5/8/2006	5/10/2006	5/22/2006	5/26/2006	THISTLE AVE TO LEAWOOD AVE

Owner Notification



ROBERT M. MORRIS
director

G. PATRICK JOY
engineering assistant

September 13, 2000

33 Harding Avenue
Town of Tonawanda, NY 14217

Re: 33 Harding Avenue

Dear Mr

This office has been notified about the broken sidewalk at the above referenced address.

An inspection was made which indicates a hazardous condition exists along said sidewalk.

You are hereby notified to correct the sidewalk along the property known as 33 Harding Avenue pursuant to the provisions of the Town Chapter 183 and more specifically Section 183-5.

The sidewalk shall be concrete as specified in Section 183-3, including that section of the sidewalk that crosses the driveway.

Very truly yours,

Roy W. Svensson, PE
Town Engineer

RWS/gpj

cc: J. Hedges
Sidewalk File

[E:\town\poc\cc\mg\to\to\side walk\33 Harding.doc](#)

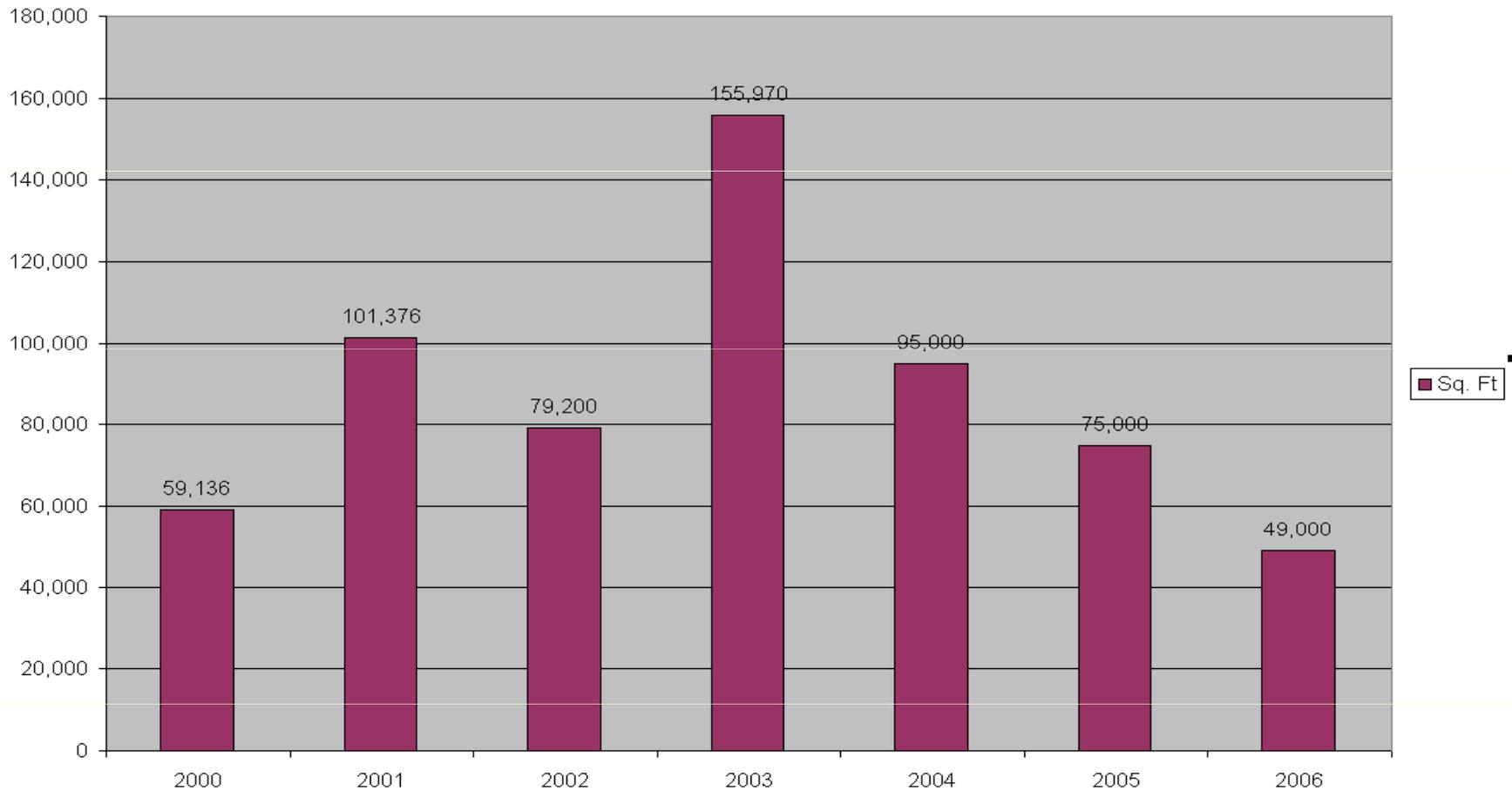


Managerial Issues

- No unified complaint tracking or work management
- No enforcement power
- Little or no compliance monitoring
- No claim payment or replacement cost tracking
- No overall sidewalk replacement management or monitoring
- No reporting ability
- Little or no budget
- ADA Compliance

Replacement effort

Annual Sidewalk Replacement



Technical Issues

- No GIS Sidewalk dataset
- Polygonal spatial adjacency
- No central spatially enabled dataset
- Cumbersome file management
- Little or no historical notification or reference data
- Definitive goals or objectives

Questions?

James B. Jones, PE, MCSE, MCP+I
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