2022-2027 Proposed Transportation Improvement Program

Shane E. Schneider, P.E.

Director of Transportation | County Engineer

Division of Transportation

Public Works, Planning and Transportation Committee

June 1, 2022

Agenda

- Schedule
- Statutory Requirements
- Fund Sources
- Fund Distribution
- Program Categories and Priorities
- Preservation Projects
- Modernization Projects
- Non-motorized Projects
- Expansion Projects

Schedule

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- **June 1, 2022** **Proposed Program Presentation**
- **June 8, 2022** **Committee Adoption for Consideration**
- **June 14, 2022** **County Board Adoption for Consideration**

Purpose
Statutory Requirements

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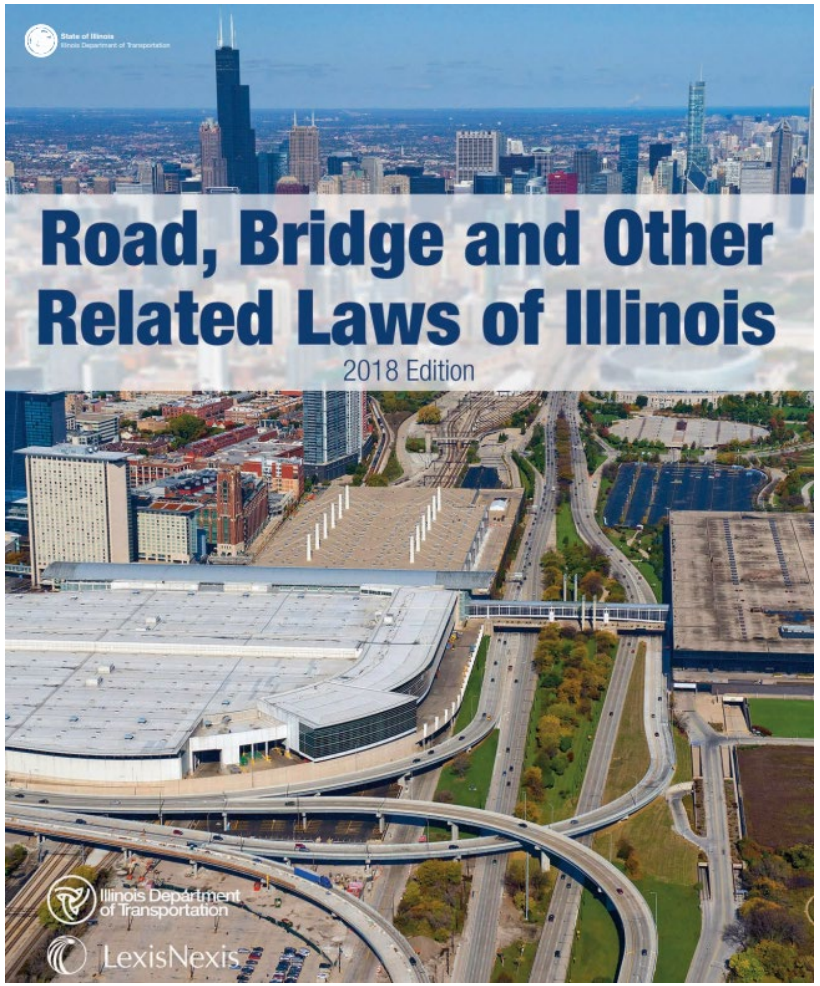
Illinois Road and Bridge Laws (605ILCS 5/5-301)

State law directs the County Engineer to prepare the 5-Year Transportation Improvement Program (TIP) annually by July 1, and file with the Illinois Department of Transportation (IDOT)

- **The 5-Year TIP is the scheduling component of the 20-Year Long Range Plan (Lake County's 2040 Transportation Plan)**



Fiscal Constraint

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Lake County's Five-Year Transportation Improvement Program is fiscally constrained based on the expected revenue over the planning horizon.

Fund Sources
County

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5 Local Revenue Streams Support Transportation Project Funding:

Property Tax Based

- County Bridge Tax (CB)
- Matching Tax (MT)

Sales Tax Based

- RTA ¼% Sales Tax (ST)

User Fee Based

- Motor Fuel Tax (MFT)
- County Option Motor Fuel Tax (CMFT)

A diverse mix of funding streams helps ensure sustainability and predictability of transportation funding that is essential for long-term capital programming.

Fund Sources
Federal, State, Local Partners

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Partial List of Commonly Pursued Outside Fund Sources

- **CMAQ** Congestion Mitigation and Air Quality
- **DCEO** Illinois Department of Commerce & Economic Opportunity
- **HBP** Highway Bridge Program
- **HSIP** Highway Safety Improvement Program
- **ICC** Illinois Commerce Commission Railroad Grade Crossing Protection
- **IILA/BIL** Infrastructure Investment & Jobs Act/Bipartisan Infrastructure Law
- **ITEP** Illinois Transportation Enhancement Program
- **LA** Local Agency Partnerships and Reimbursements
- **RAISE** Rebuilding American Infrastructure with Sustainability and Equity
- **RBI** Rebuild Illinois Bonds
- **STP** Surface Transportation Block Grant
- **TAP** Transportation Alternatives Program
- **5310** Mobility of Seniors and Individuals with Disabilities (Paratransit)
- ***More…***

Fund Sources
2022-2027 Program Totals

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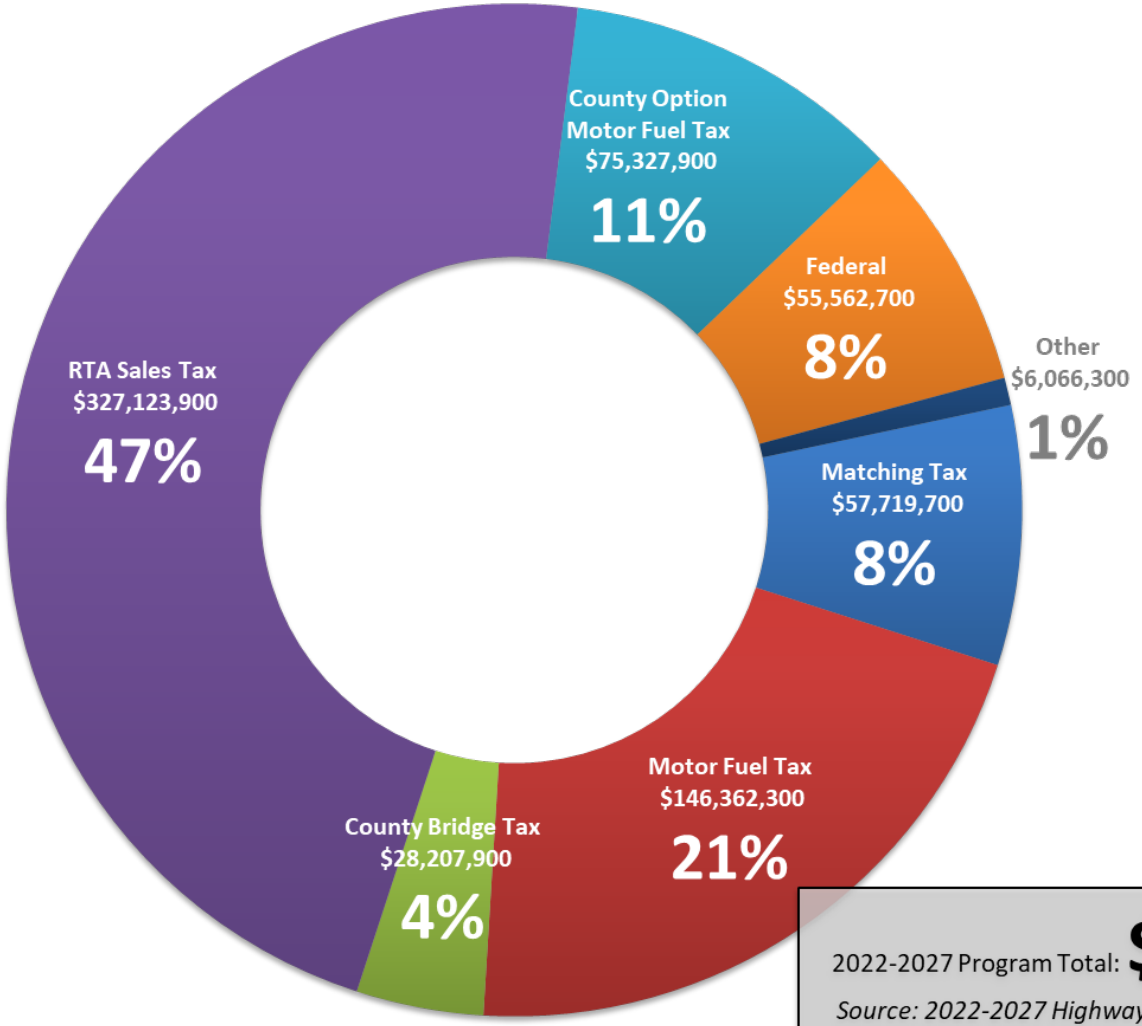

Other Funds
State
Municipal
Township
Developer
CCIP

2022-2027 Program Total: **$696 million**

Source: 2022-2027 Highway Improvement Program, CPMS v.4a

Fund Distribution
2022-2027 Program Totals

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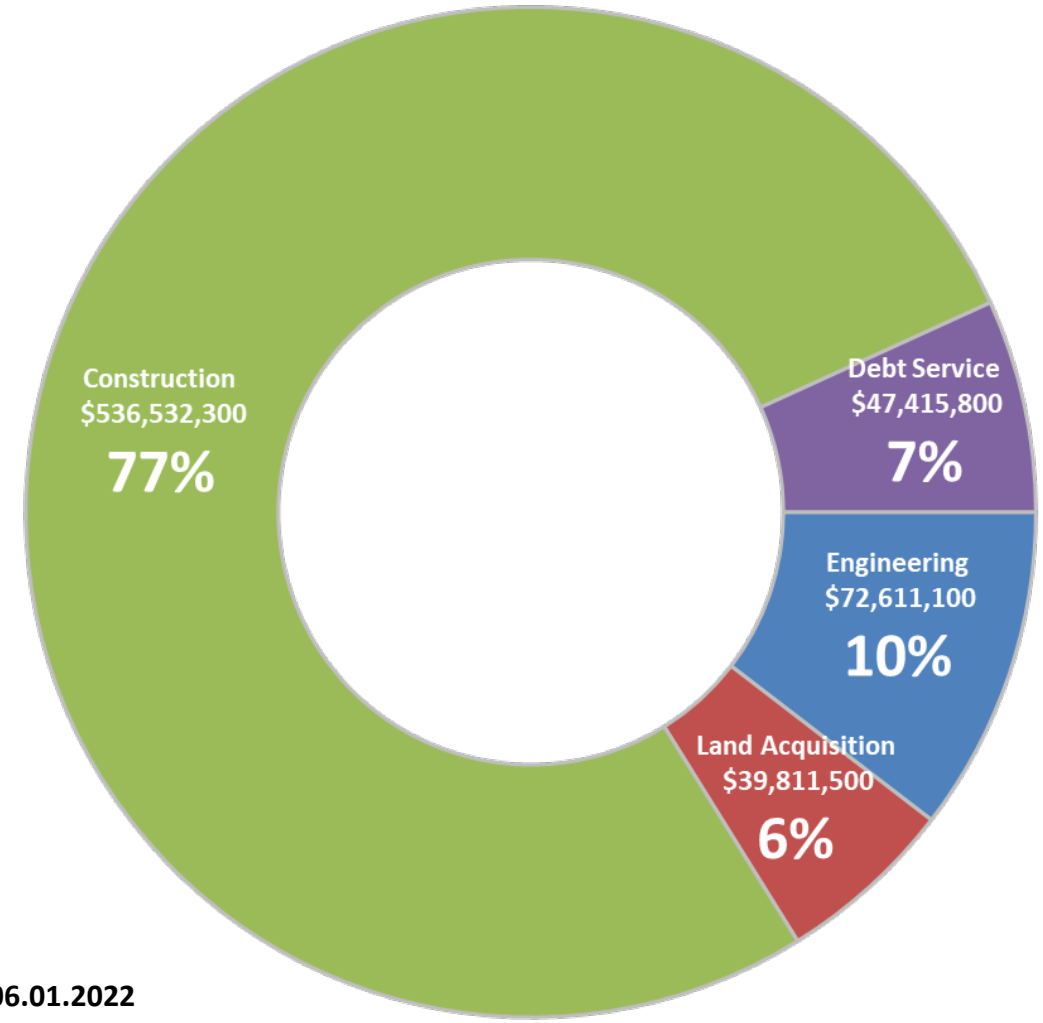
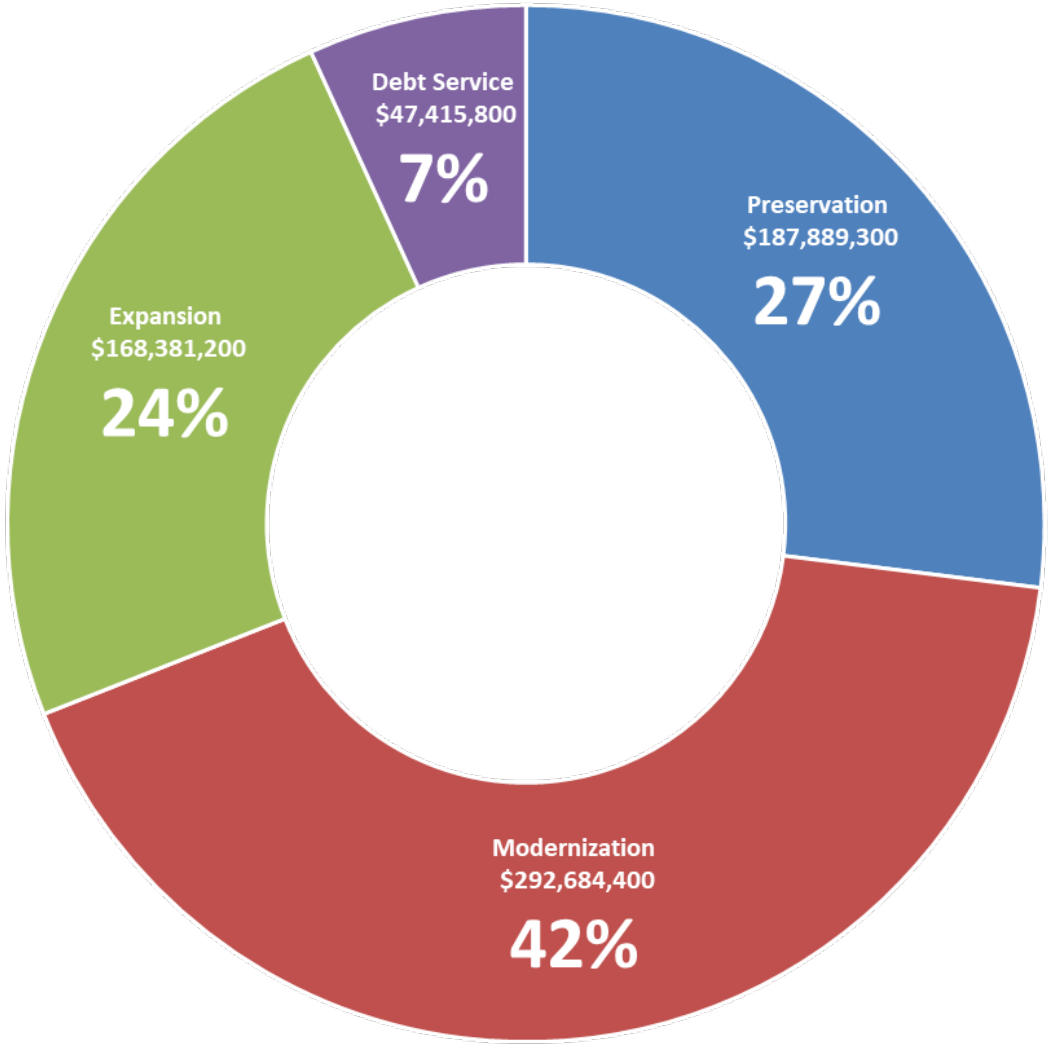
Division of Transportation





New Program Revenue
County Option Motor Fuel Tax

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Total Program Revenue	**$75 million**

Programmed Expenses

Arlington Heights Rd Reconstruction (Lake Cook to IL83)	$17,000,000
Cedar Lake Rd Realignment (Hart to Nippersink)	$24,000,000
Darrell Rd at Roberts Rd Intersection	$ 3,000,000
Fairfield Rd Corridor Modernization (IL134 to IL60)	$ 6,000,000
Lake-Cook Rd Bike Path (Skokie Valley Bike Path to Chicago Botanical Gardens)	$ 5,000,000
Lewis Ave Modernization (IL120 to IL137)	$20,000,000
Peterson Rd and Monaville Rd at CNRR Grade Separation Feasibility Study	$ 500,000
Stearns School Rd Bridge Replacement at Mill Creek	$ 1,500,000

Collections began July 1, 2021 (4 cents per gallon)

Numbers rounded

Program Priorities

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1. Preservation

- Keep roads, bridges, drainage systems, and other assets in good condition

2. Modernization

- Reduce delays and increase safety
- Non-motorized accommodation
- Use technology

3. Expansion

- Accommodate regional traffic and economic development
- Countywide Paratransit

Priority One: Preservation

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Project selection tools:

- Asset inventories
- Condition assessments
- Life cycle/benefit cost analysis
- Unit cost information
- Industry standards
- Innovative techniques

Typical projects include:

- Resurfacing and other pavement treatments
- Annual maintenance work

Life Cycle Analysis
Investments at the right time

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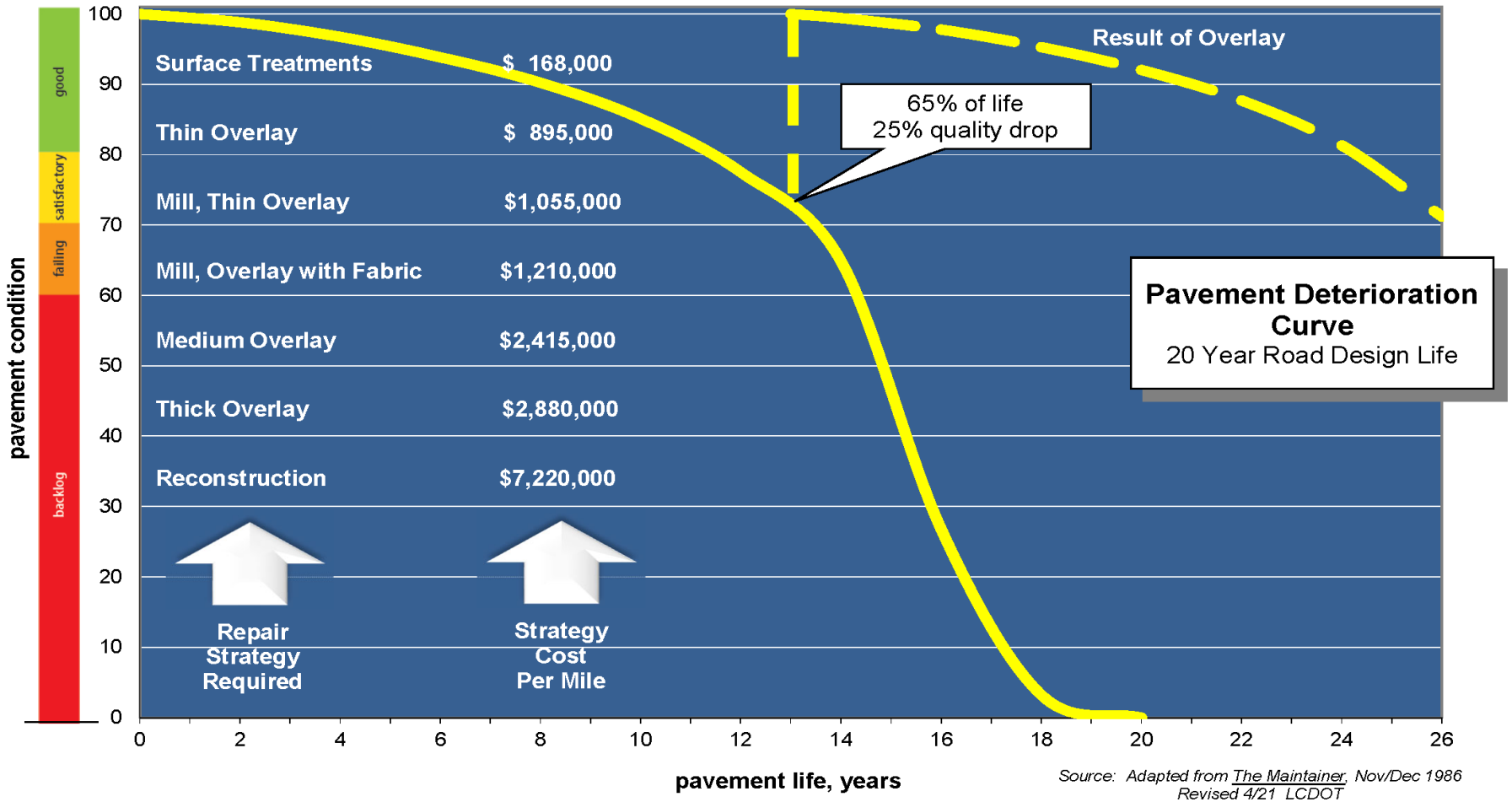

Source: Adapted from The Maintainer, Nov/Dec 1986
Revised 4/21 LCDOT

Resurfacing Projects

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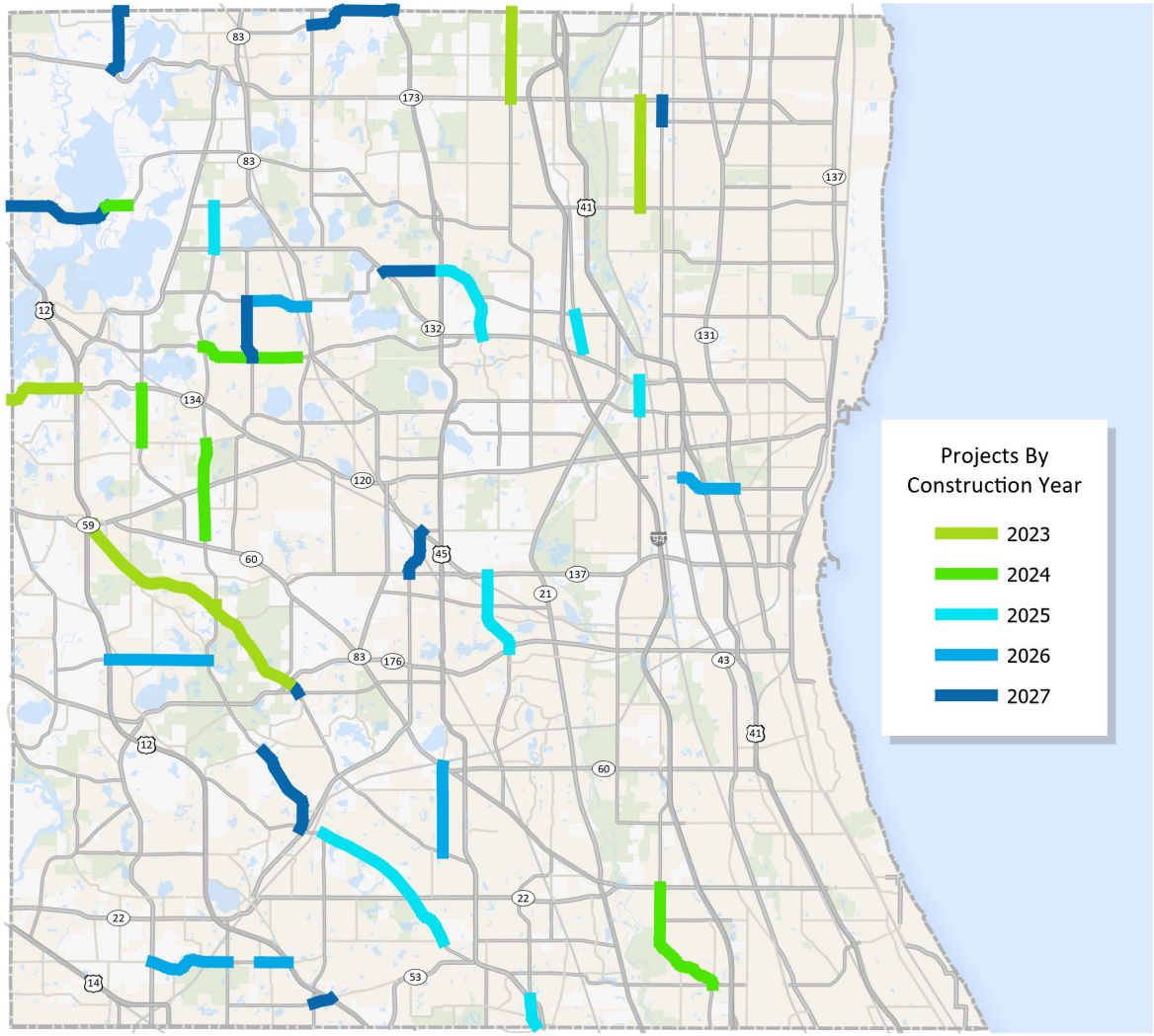
Pavement Management Program Recommended

- **2023: 12.4 miles**
- **2024: 9.4 miles**
- **2025: 11.0 miles**
- **2026: 9.5 miles**
- **2027: 13.1 miles**



Source: LCDOT Design Dept. 1/28/2022

Lake County's Bridges

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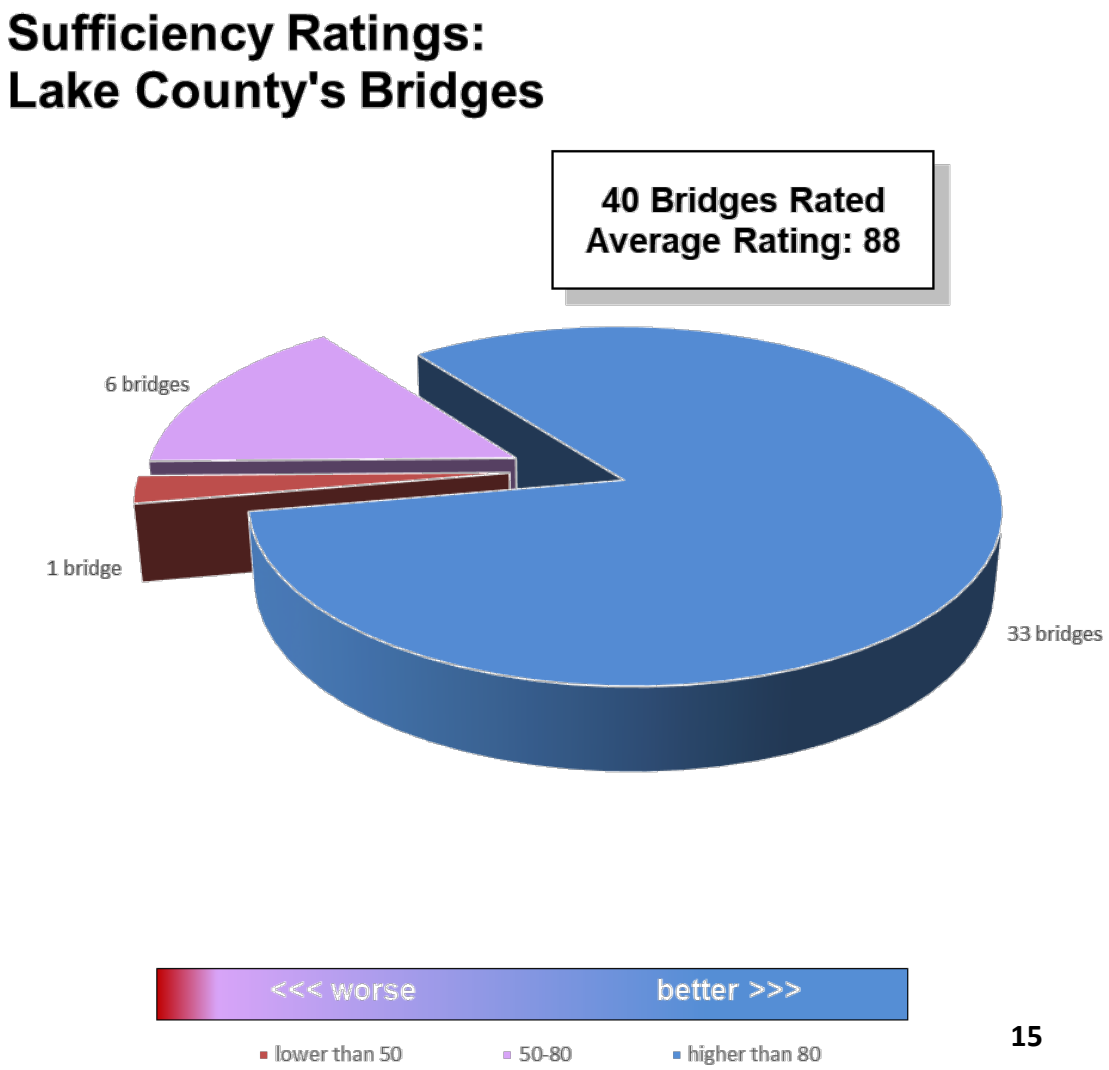
- Highway Bridges
  - Number of bridges 44
  - Average age (years) 28
  - Average deck age (years) 19
- Bike and Pedestrian Bridges
  - Number of bridges 15
  - Number of tunnels 15
- 74 Total Bridges and Tunnels



Asset Inventories

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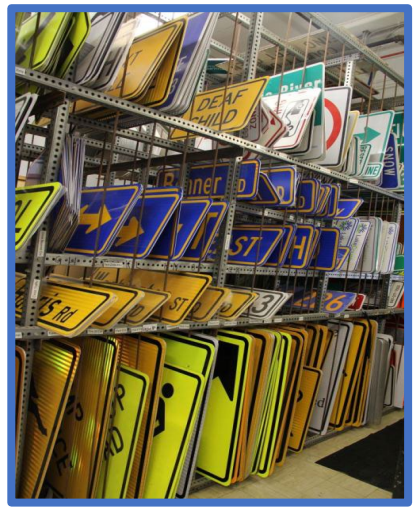
- Pavement and bike facilities
- Guardrail, bridges, rail crossings
- Signals and signs
- Drainage and stormwater facilities
- Fencing
- More…



Preservation | 2022 - 2027

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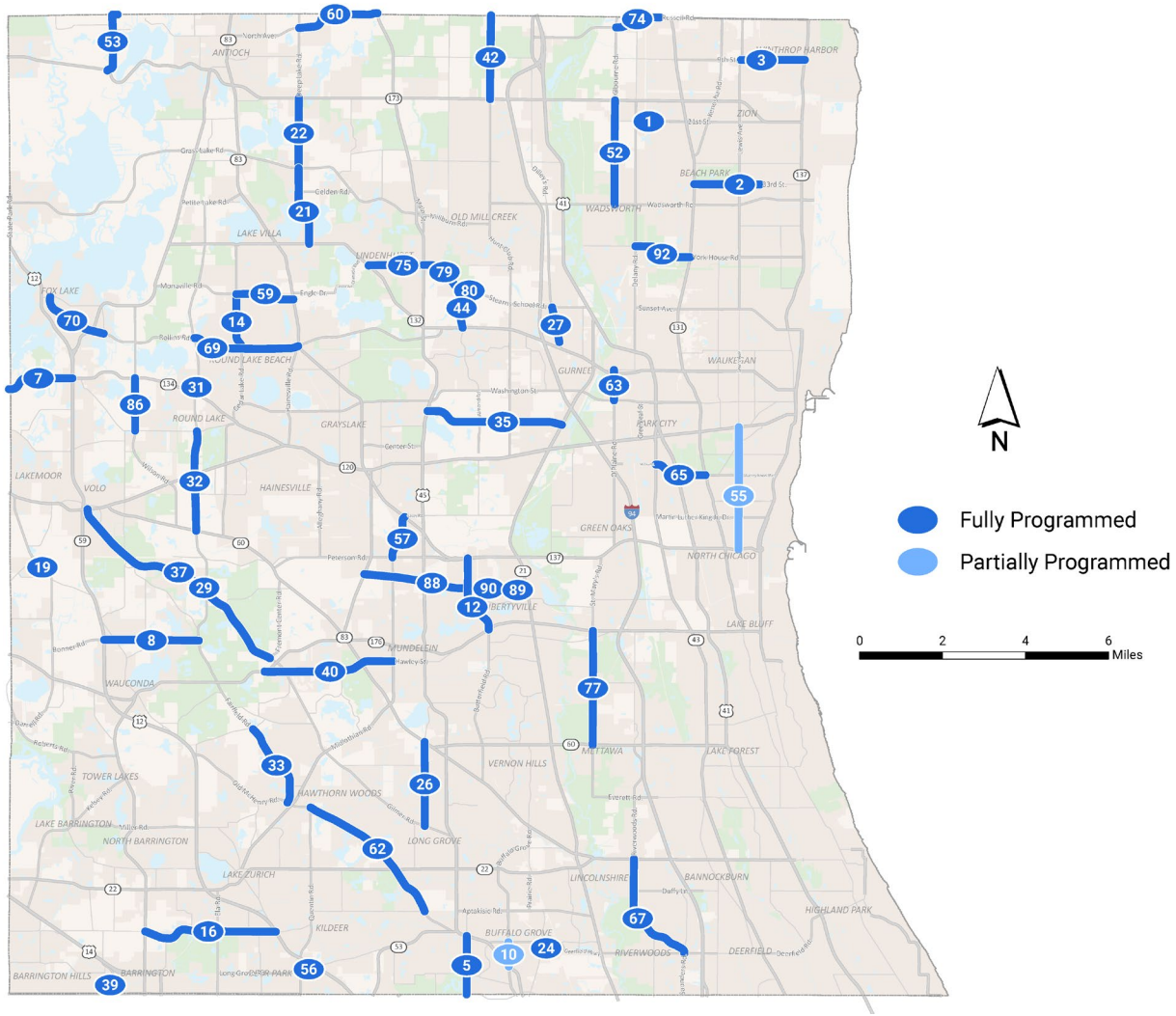

Preservation Projects

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Preservation Projects				
Map ID	Route	Work Type	Program Year	CPMS PIN
1	21st St.	Culvert Replacement	2022	B-01548b
2	33rd St.	Resurfacing	2022	B-01489a
3	9th St.	Microsurfacing	2022	B-01622a
5	Arlington Heights Rd.	Reconstruction	2023	B-01182
7	Big Hollow Rd.	Resurfacing	2022	B-01492
8	Bonner Rd.	Resurfacing	2026	B-01382
10	Buffalo Grove Rd.	Reconstruction	Post-2027	B-01359
12	Butterfield Rd.	Resurfacing	2025	B-01636a
14	Cedar Lake Rd.	Resurfacing	2027	B-01395
16	Cuba Rd.	Resurfacing	2026	B-01678
19	Darrell Rd.	Culvert Replacement	2023	B-00141c
21	Deep Lake Rd.	3R Resurfacing	2022	B-00913a
22	Deep Lake Rd.	Resurfacing	2022	B-00913b
24	Deerfield Pkwy.*	Concrete Repair	2023	B-01708
26	Diamond Lake Rd.	Resurfacing	2026	B-01585
27	Dilley's Rd.	Microsurfacing	2027	B-01635
29	Fairfield & Gilmer Connector Ramp	Resurfacing	2023	B-01631b
31	Fairfield Rd.	Culvert Replacement	2023	B-01434
32	Fairfield Rd.	Resurfacing	2024	B-01634
33	Fairfield Rd.*	Resurfacing	2023	B-01706
35	Gages Lake Rd.	Resurfacing	2022	B-01537
37	Gilmer Rd.	Resurfacing	2023	B-01631a
39	Hart Rd.	Bridge Replacement	2022	B-01372b
40	Hawley St.	Resurfacing	2022	B-01490
42	Hunt Club Rd.	Resurfacing	2023	B-01539
44	Hutchins Rd.	Resurfacing	2025	B-01676
52	Kilbourne Rd.	Resurfacing and Intersection Improvement	2023	B-01576
53	Lake Ave.	Resurfacing	2027	B-01580
55	Lewis Ave.	Reconstruction	Post-2027	B-01452b
56	Long Grove Rd.	Resurfacing	2027	B-01674
57	Midlothian Rd.	Resurfacing	2027	B-01581
59	Monaville Rd.	Resurfacing	2026	B-01538
60	North Ave.	Resurfacing	2027	B-01582
62	Old McHenry Rd.	Resurfacing	2025	B-01673
63	O'Plaine Rd.	Resurfacing	2025	B-01677
65	Pulaski Dr.	Resurfacing	2026	B-01577
67	Riverwoods Rd.	Resurfacing	2024	B-01494
69	Rollins Rd.	Resurfacing	2025	B-01495
70	Rollins Rd.*	Resurfacing	2024	B-01705
74	Russell Rd.*	Resurfacing	2024	B-01704
75	Sand Lake Rd.	Resurfacing	2027	B-01681
77	St. Mary's Rd.	3R Resurfacing	2022	B-01381
79	Stearns School Rd.	Resurfacing	2025	B-01496
80	Stearns School Rd.	Bridge Construction	2022	B-01499b
86	Wilson Rd.	Resurfacing	2024	B-01641
88	Winchester Rd.	Resurfacing	2023	B-01537a
89	Winchester Rd.	Resurfacing	2023	B-01573b
90	Winchester Rd.	Culvert Replacement	2023	B-01573c
92	York House Rd.	Resurfacing	2022	B-01534

** New to this year's Five Year Program*

What's New in Preservation?

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- Roadway Resurfacing Projects:
  - Cedar Lake Rd, Monaville – Rollins
  - Fairfield Rd, Milton – Old McHenry
  - Lake Ave, State Line – State Line
  - Long Grove Rd, Quentin – US12
  - Midlothian Rd, IL137 - Peterson
  - North Ave, Deep Lake – US45
  - Sand Lake Rd, IL132 – US45

- Annual Work at Various Locations:
  - Bridge repairs
  - Crack sealing
  - Microsurfacing
  - Pavement patching
  - Pavement rejuvenator
  - Pavement markers
  - Pavement markings
  - Drainage system cleaning
  - Culvert repair or replacement
  - Retaining wall repair or replacement
  - Roadway signs
  - Curb and gutter repair or replacement
  - Rumble strips
  - Sidewalk and ADA curb ramps
  - Guardrail repair or replacement
  - Township road district projects

Project Highlight:
Deerfield Rd at Weiland Rd Patching

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- **Concrete patching project**
- **Deteriorated joints and pavement condition**

LCDOT's GIS staff are licensed drone pilots and can perform various asset management tasks.

Overhead photo source: Dot the drone

Project Highlight:
Center and Edge Line Rumble Strips

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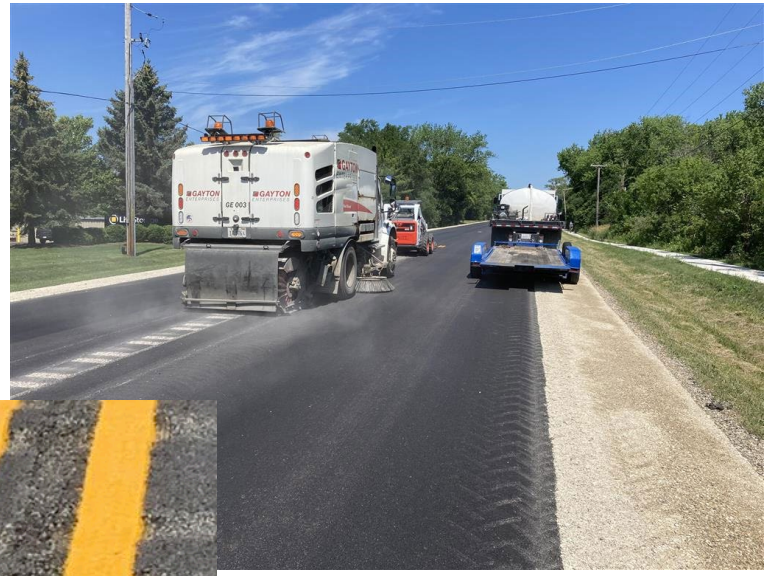
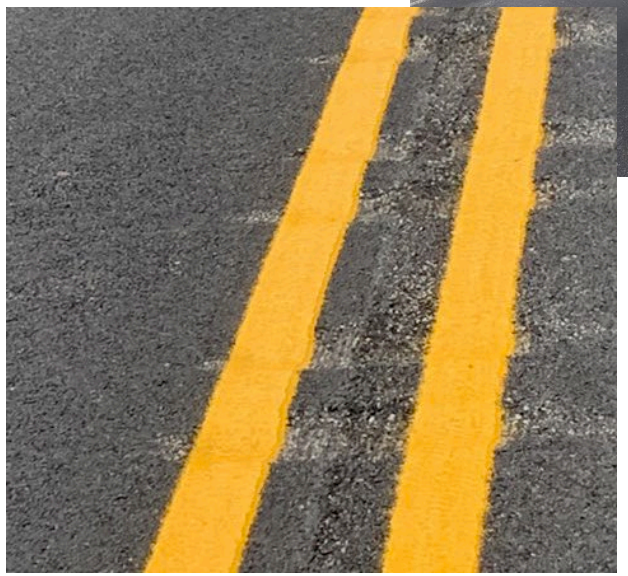
- **New systemwide safety countermeasure intended to reduce roadway departures:**
  - **Run-off-road crashes**
  - **Head-on crashes**
- **Recently resurfaced two-lane county highways with posted speed limits of 45 mph and over**





"The sound of safety"

FHWA Report No. FHWA-SA-16-115

ZERO IS OUR GOAL
A SAFE SYSTEM IS HOW WE GET THERE

Priority Two: Modernization

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- Project selection tools:
  - Traffic and safety analysis
  - Level of Service (LOS) data
  - PASSAGE data
  - 2040 bike and pedestrian priorities
  - Non-motorized policy
  - Bike/Pedestrian gap analysis
- Typical projects include:
  - Intersection and safety improvements
  - Bike and pedestrian accommodations
  - Signal timing and interconnects

Level of Service Data

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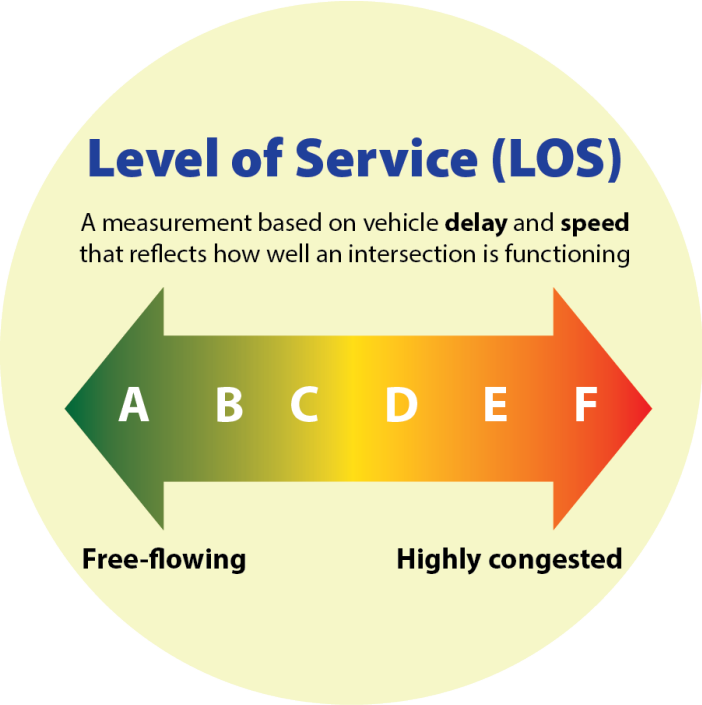
- **County involved, signalized intersections and roundabouts**



- LCDOT uses *Synchro* traffic analysis software to evaluate intersection operations and performance

- **Roundabouts (5 total)**

	Level of Service	AM Peak Hour	PM Peak Hour
(best)	A	2	1
	B	3	2
	C	0	2
	D	0	0
	E	0	0
(worst)	F	0	0

- **Signalized intersections (313 total)**

	Level of Service	AM Peak Hour	PM Peak Hour
(best)	A	97	64
	B	73	73
	C	89	79
	D	33	59
	E	7	22
(worst)	F	14	16

Source: LCDOT Traffic Department 3/2020

Crash Summary

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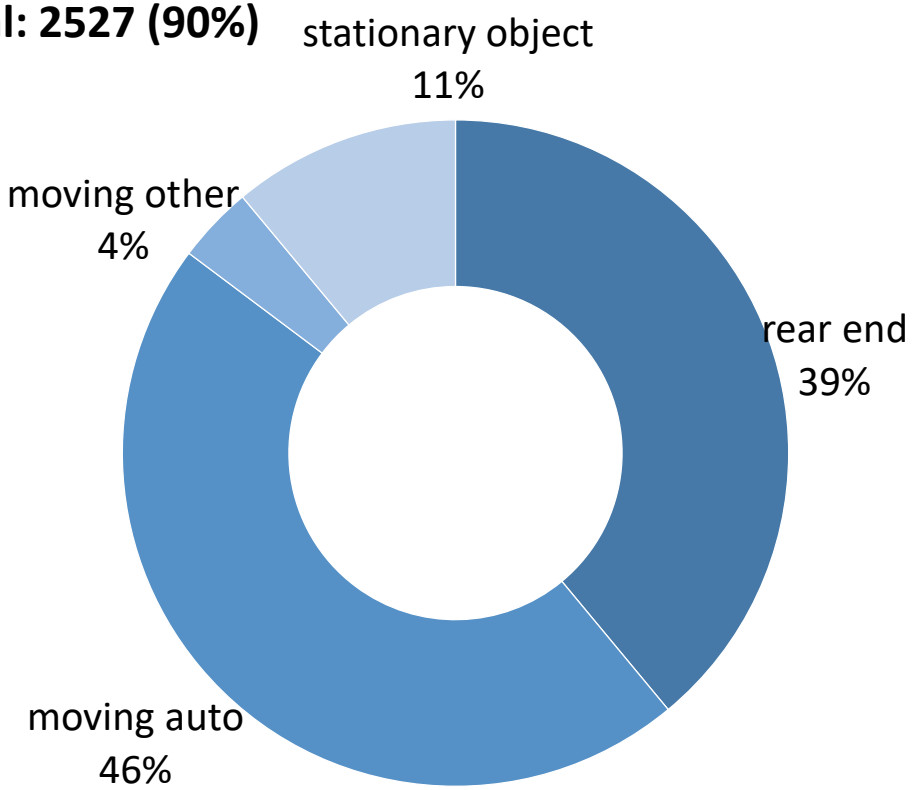
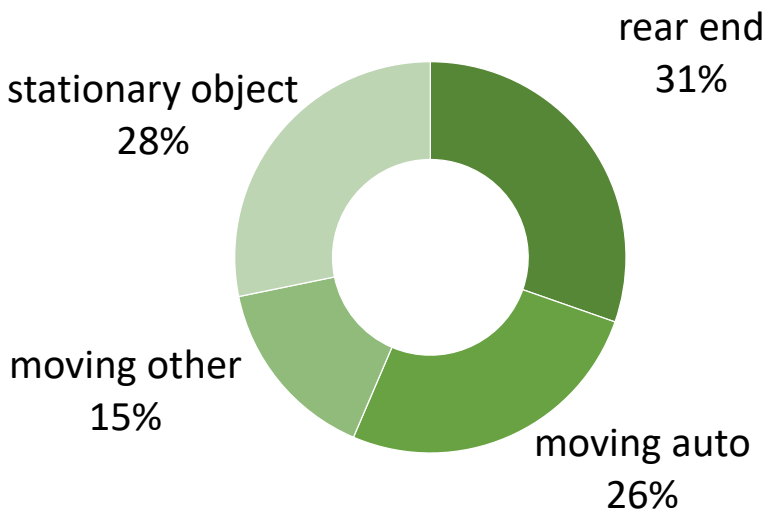
Crashes at intersections
total: 2527 (90%)



Crashes on roadway sections
Total: 280 (10%)



Data Source: LCDOT Traffic Department, 4/2022
IDOT 2020 crash data (most recent available)

Lake County's Traffic Signal and Communication Network

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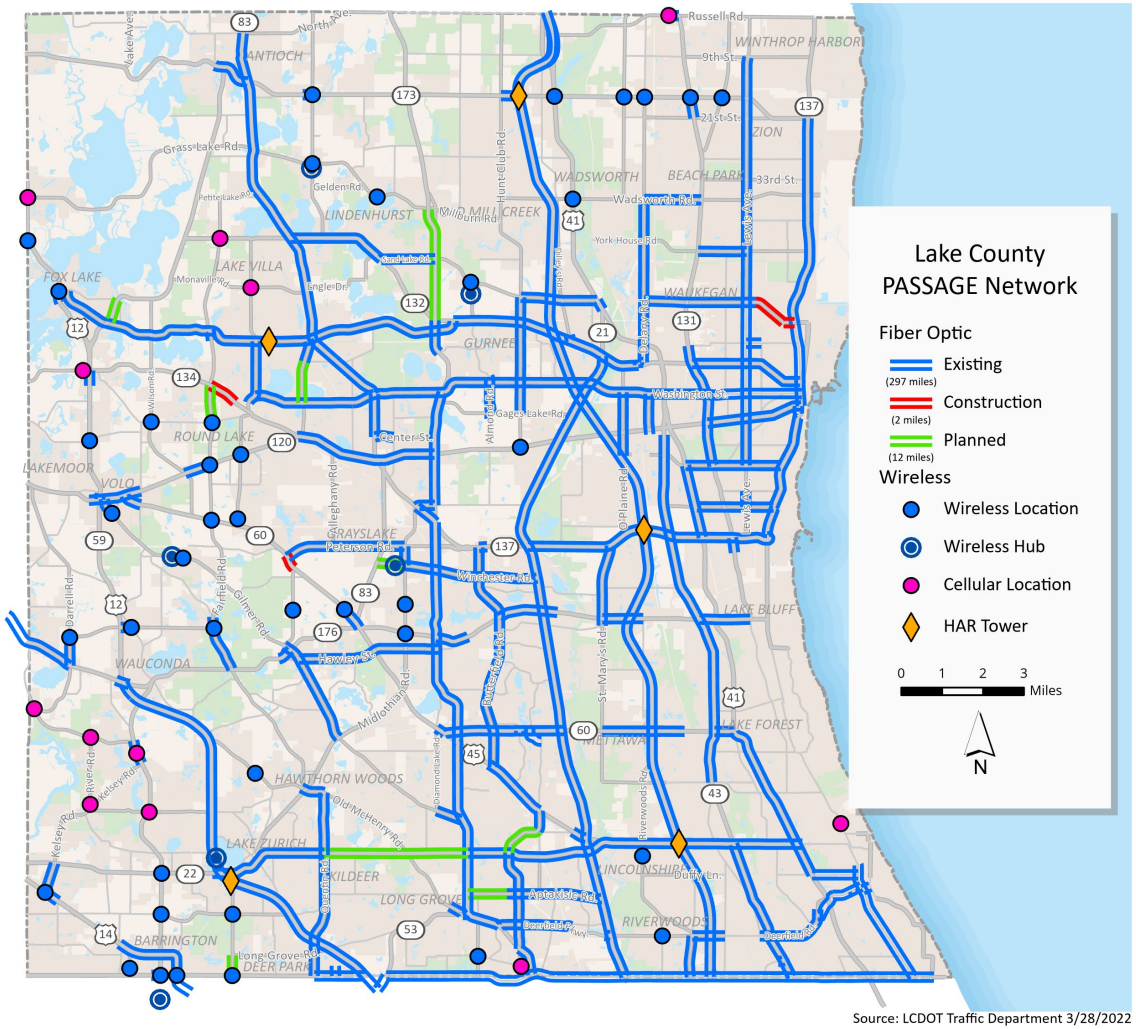
Division of Transportation

- 308 miles of fiber optic in place
- 6 miles under construction
- 12 miles planned
- 663 Traffic signals connected
- 441 PTZ Cameras
- 1 Portable PTZ (cell)
- 9 Portable changeable message board signs
- 5 Highway Advisory Radio (HAR) towers – Radio 1620AM



Source: LCDOT Traffic Department 3/28/2022

Modernization | 2022 - 2027

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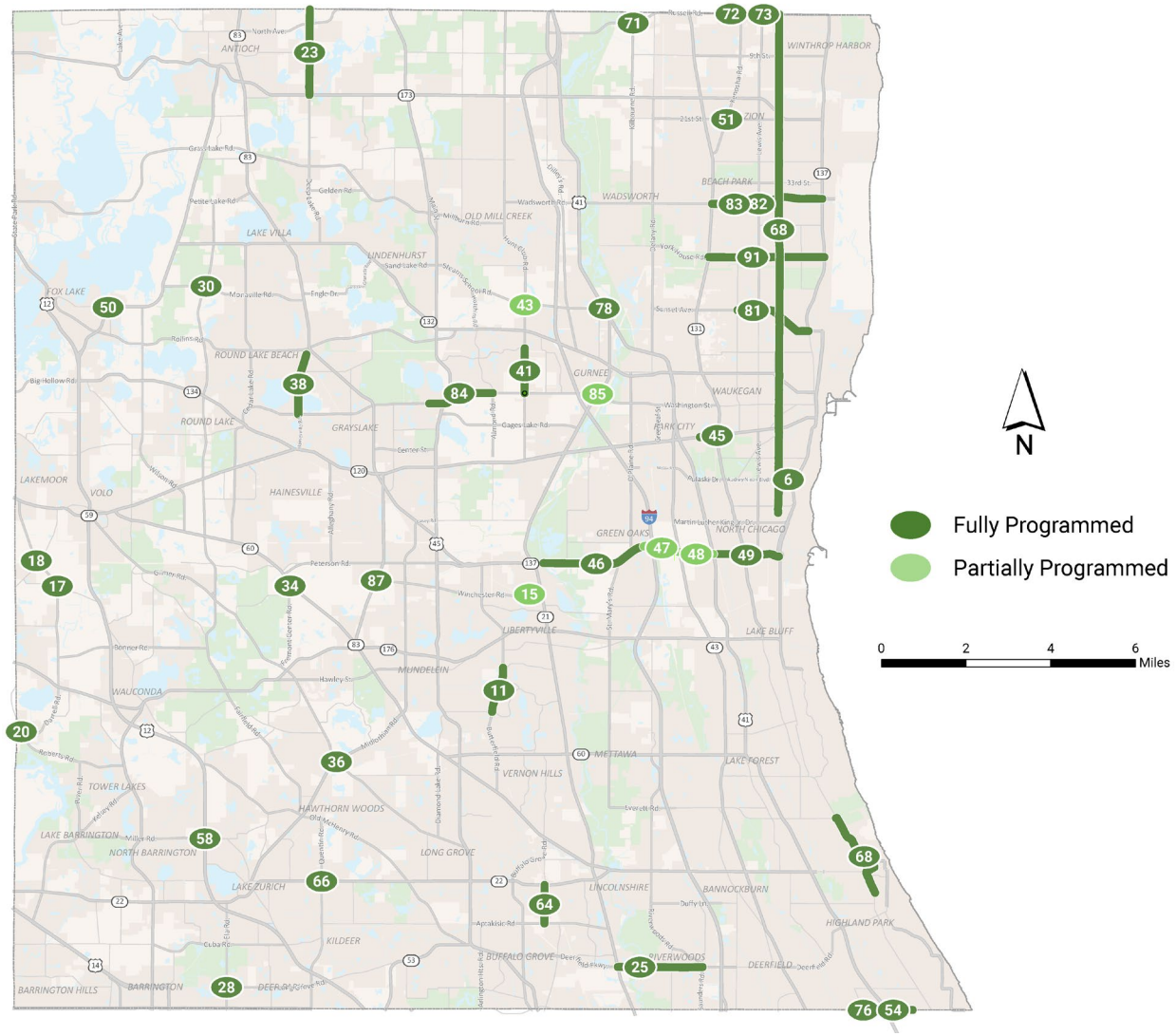

Modernization Projects

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Modernization Projects				
Map ID	Route	Work Type	Program Year	CPMS PIN
6	Audrey Nixon Blvd.	Resurfacing	2022	B-01002b
11	Butterfield Rd.*	Bike Path	2023	B-01617b
15	County Libertyville Campus*	Multiuse Maintenance Facility	Post-2027	B-01709
17	Darrell Rd.	Intersection Improvement	2023	B-00141a
18	Darrell Rd.	Intersection Improvement	2025	B-00141b
20	Darrell Rd.*	Intersection Improvement	2026	B-01703
23	Deep Lake Rd.	Intersection Improvements	2023	B-01547
25	Deerfield Rd.	Reconstruct and Widen	2024	B-01266a
28	Ela Rd.	Intersection Improvement	2022	B-01120
30	Fairfield Rd.	Roundabout	2022	B-01184a
34	Fremont Center Rd.	Intersection Improvement	2022	B-00474c
36	Gilmer Rd.	Intersection Improvement	2022	B-00728a
38	Hainesville Rd.	Reconstruct and Widen	2025	B-01482
41	Hunt Club Rd.	Intersection Improvement	2022	B-01437
43	Hunt Club Rd.*	Intersection Improvement	Post-2027	B-01707
45	IL Rte. 120	Widening	2022	B-00740
46	Patriot Path	Bike Path	2026	B-01181a
47	Patriot Path	Bike Path	Post-2027	B-01181b
48	Patriot Path	Bike Path	Post-2027	B-01181c
49	Patriot Path	Bike Path	2025	B-01181d
50	IL Rte. 59	Intersection Improvement	2022	B-00738
51	Kenosha Rd.	Intersection Improvement	2024	B-01548
54	Lake-Cook Rd.	Bike Path	2026	B-01616
58	Miller Rd.	Intersection Improvement	2022	B-01263
64	Prairie Rd.	Intersection Improvement and Reconstruction	2024	B-01500
66	Quentin Rd.	Non-Motorized Enhancements	2022	B-01572
68	Robert McClory Bike Path*	Bike Path Enhancements	2025	B-01702
71	Russell Rd.	Intersection Improvement	2024	B-01445a
72	Russell Rd.	Intersection Improvement	2025	B-01445b
73	Russell Rd.	Intersection Improvement	2025	B-01445b
76	Skokie Valley Bike Path**	Bike Path Bridge	2022	B-01150
78	Stearns School Rd.	Intersection Improvement	2023	B-01361
81	Sunset Ave./Golf Rd./Greenwood Ave.	ITS PASSAGE	2022	B-01033
82	Wadsworth Rd.	Intersection Improvement	2022	B-01119
83	Wadsworth Rd.	Resurface and Widen	2024	B-01402a
84	Washington St.	Non-Motorized Travel Gap Infrastructure	2024	B-01419a
85	Washington St.*	Intersection Improvement	Post-2027	B-01700
87	Winchester Rd.	Intersection Improvement	2023	B-01365
91	York House Rd.	Resurface and Widen	2027	B-01509

** New to this year's Five Year Program*
*** LCDOT is not the Lead Agency*

What's New in Modernization?

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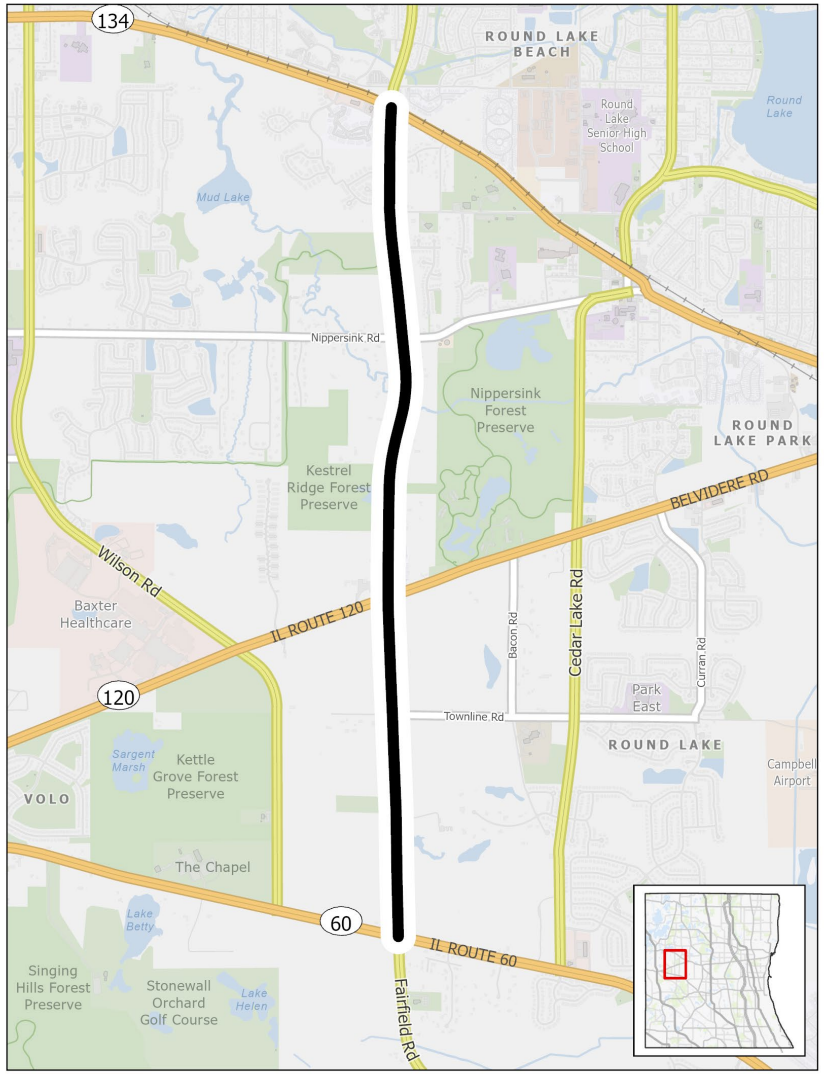
- Butterfield Bike Path: Gregg's Parkway to Golf Rd (Construction)
- CN crossings: Peterson Rd and Monaville Rd (Feasibility study)
- Washington St at IL21: Intersection Improvement (Engineering)
- New traffic signals: Sunset at Northern and Deerfield at Barclay
- Robert McClory Bike Path Improvements: paving, road crossings, landscaping
- Darrell Rd at Roberts Rd: Intersection study
- Hunt Club Rd at Stearns School Rd: Intersection study
- Hunt Club at Washington St (Construction)
- Hainesville Rd: Washington to Rollins (Construction)
- Patriot Path: segment 4 - US41 to Robert McClory Path (Construction phase)
- LCDOT Multi-use Maintenance Facility: Feasibility Study and Design Engineering

Project Highlight: Fairfield Rd Study

LakeCounty Division of Transportation

- Engineering study to modernize corridor and intersections with safety, operational, and non-motorized improvements
- Study limits: IL134 to IL60
- Average daily traffic 12,000-16,000
- Included in 2040 Transportation Plan



Project Highlight: Washington St at IL21

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- Engineering study to enhance safety at the intersection
- 133 crashes (2016-2020): 1 fatal, 46 injury
- County/State intersection with nearly 50,000 vehicles per day
- 30,000+ vehicles per day on Washington Street

Project Highlight: Hunt Club Rd at Stearns School Rd

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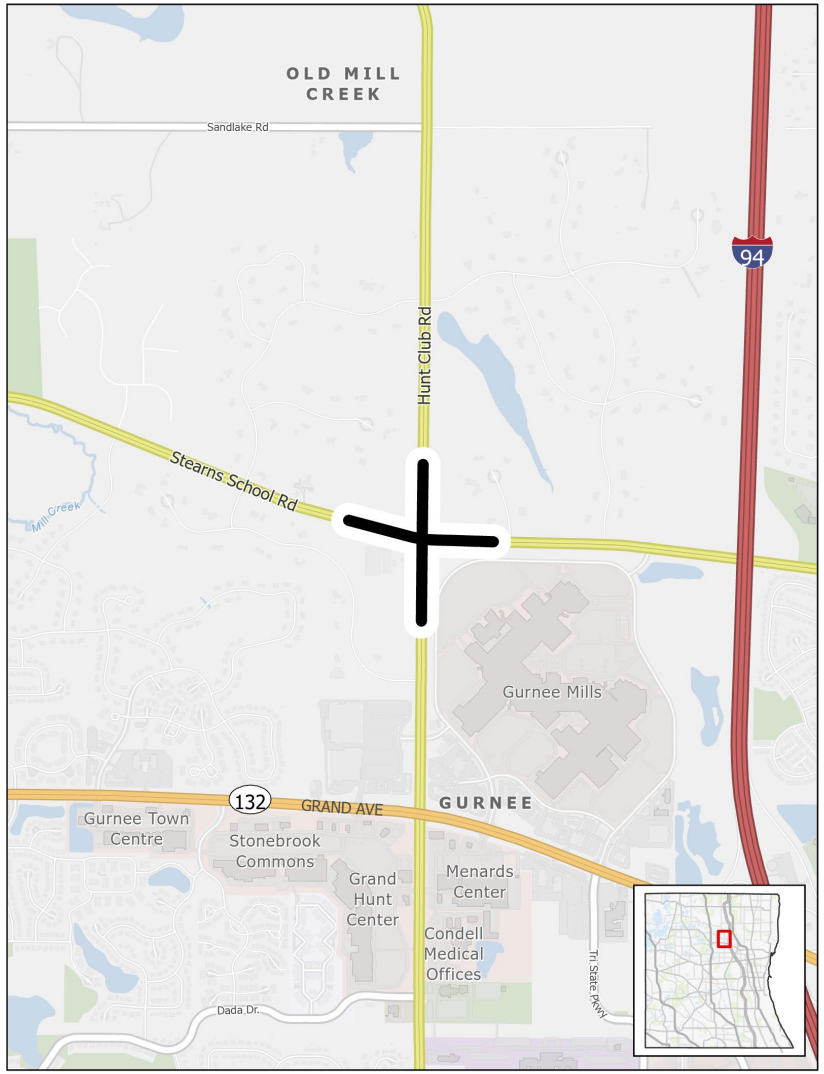
- Engineering study to consider safety improvements, including potential roundabout
- 50 crashes (2016-2020): 11 injury
- 15,000 vehicles per day on Stearns School Rd
- 20,000 vehicles per day on Hunt Club Rd
- Included in 2040 Transportation Plan



Project Highlight: Peterson Rd & Monaville Rd at CNRR

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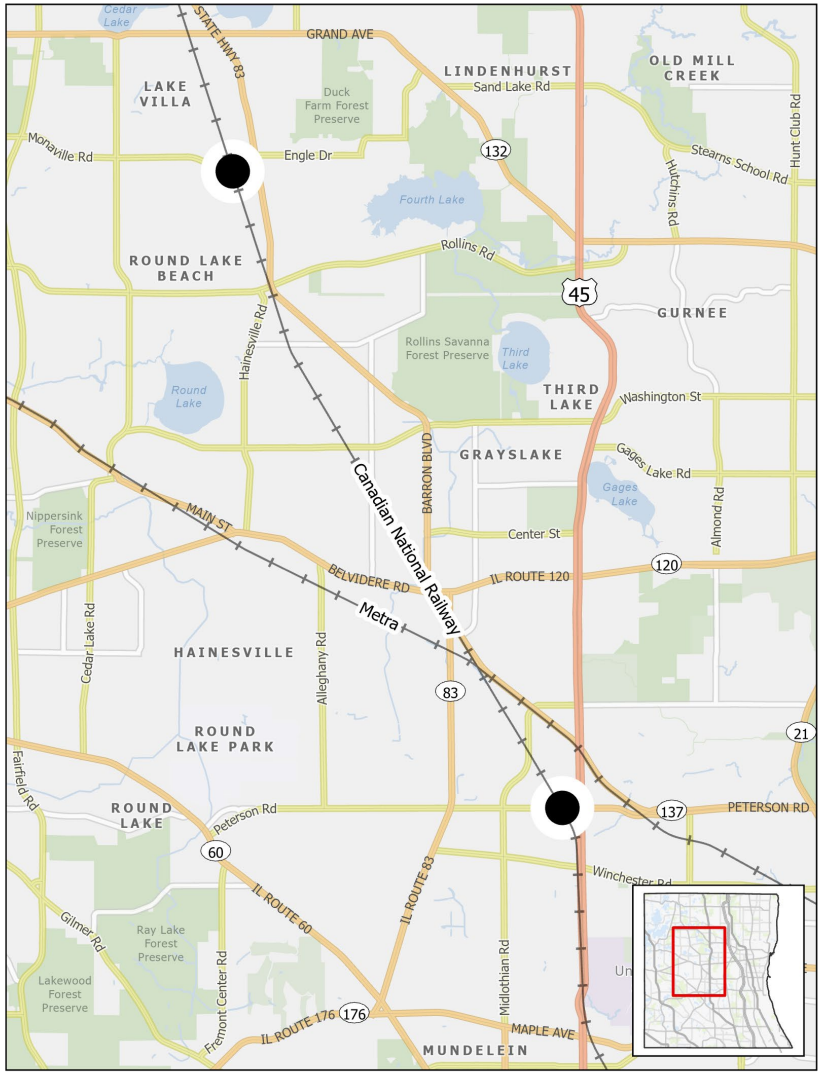
- Feasibility Study beginning in FY2022
- Peterson Rd and Monaville Rd improvements at Canadian National Railroad (CNRR)
- Coordination with CNRR regarding long-term track improvements along North Central Line



Project Highlight:
Multi-Use Maintenance Facility

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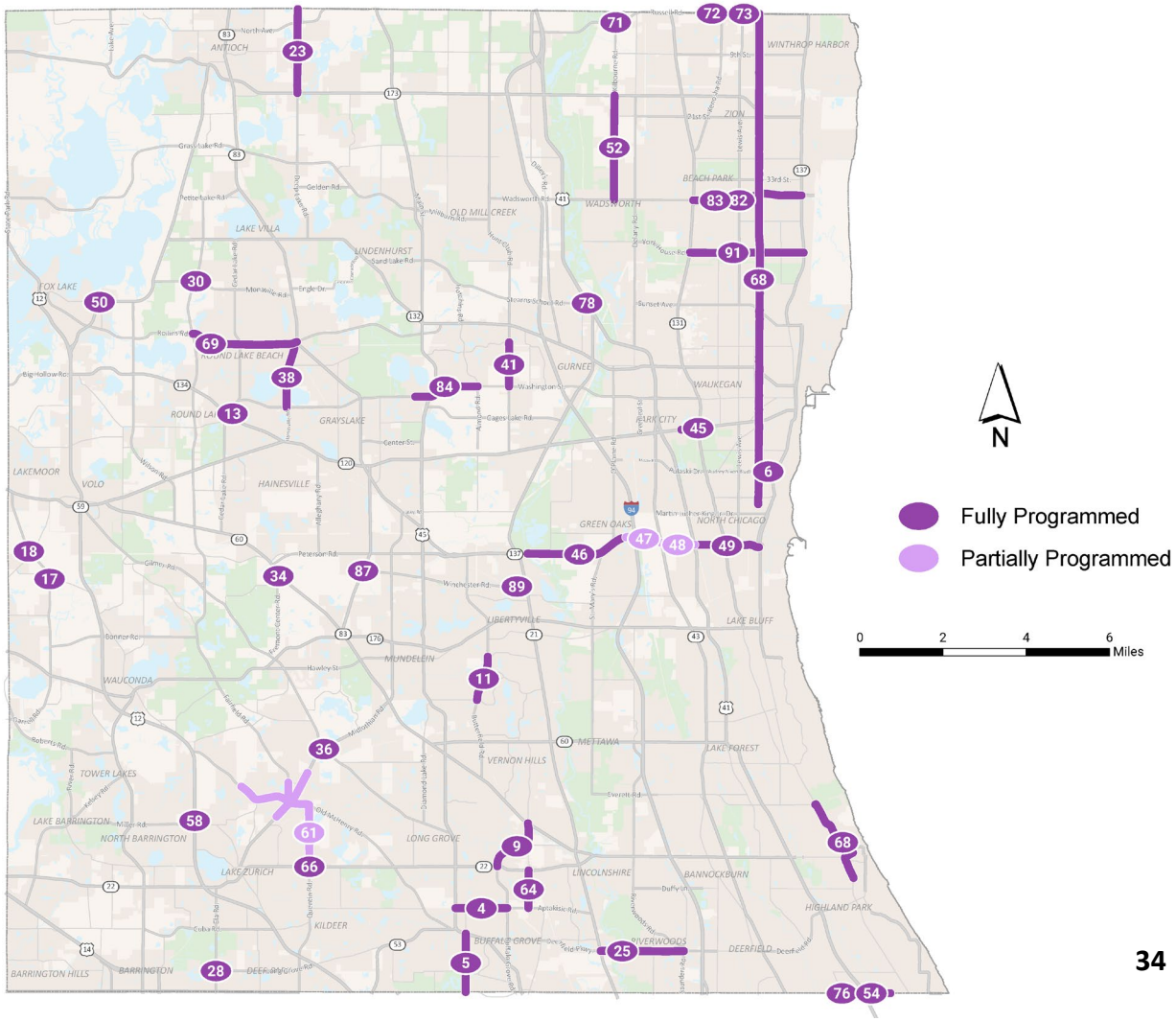
- Feasibility study and design services
- Goals:
  - Modern design that meets current and future (50+ years) needs
  - Energy and operationally efficient
  - Consolidate existing 1950s-70s spaces: truck storage, light duty, parts, snow command, and sign shop
  - Potential storage options for outside departments/agencies
  - Potential flexible meeting spaces for 40-60 staff
  - Potential loading dock for Libertyville campus

Non-motorized Projects | 2022-2027

LakeCounty
Division of Transportation

$72 Million Investment
+10% of program funds

- 34.6 miles of paved shoulder
- 45.1 miles of bike path
- 21.7 miles of sidewalk



Non-motorized projects

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Division of Transportation

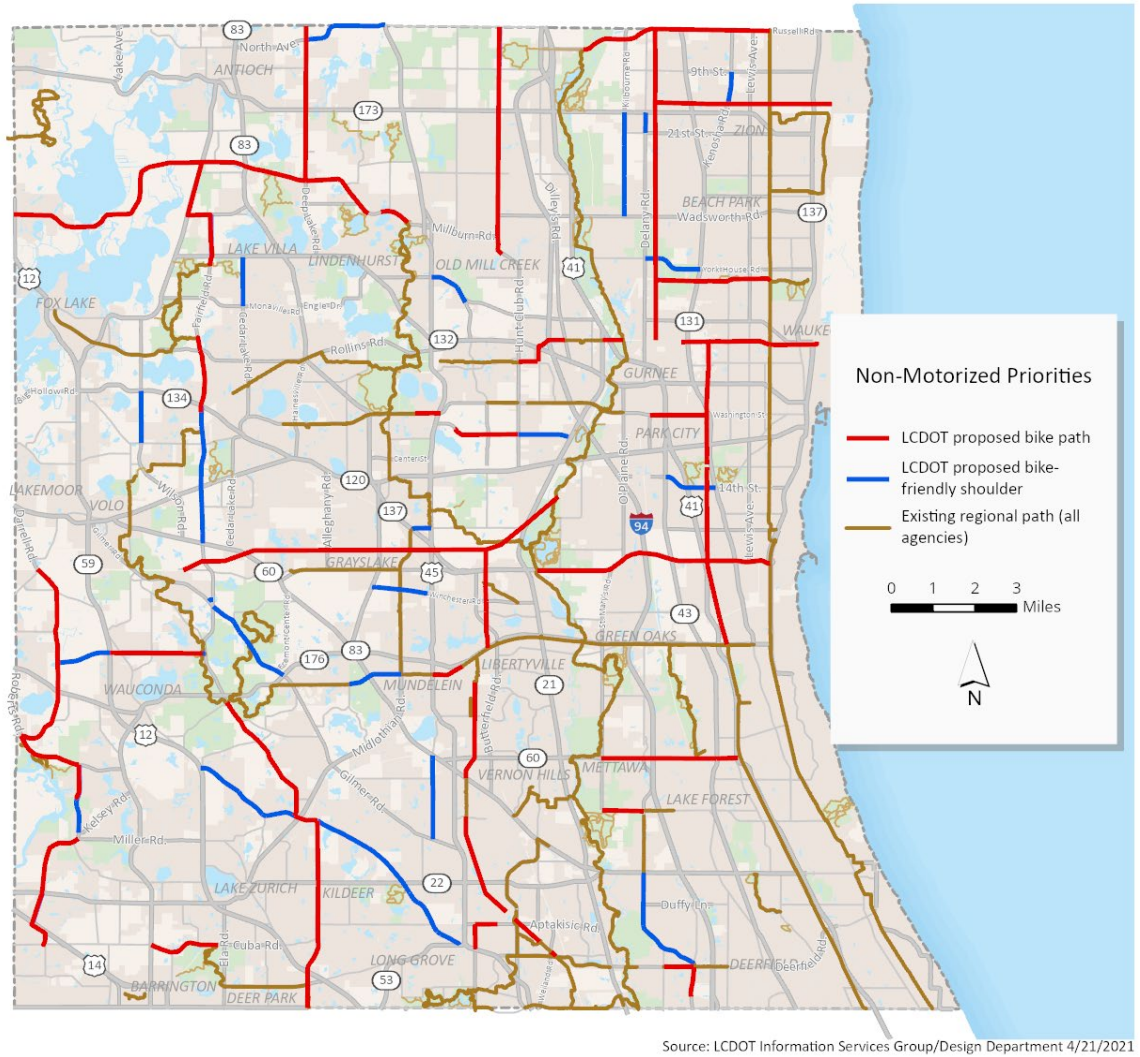
Non-Motorized Accommodations Projects				
Map ID	Route	Non-Motorized Improvement Type	Program Year	CPMS PIN
4	Aptakisic Rd.	Bike Path, Paved Shoulder, Sidewalk	2022	B-00739a
5	Arlington Heights Rd.	Bike Path, Paved Shoulder, Sidewalk	2023	B-01182
6	Audrey Nixon Blvd.	Paved Shoulder	2022	B-01002b
9	Buffalo Grove Rd.	Bike Path, Paved Shoulder, Sidewalk	2026	B-01358
11	Butterfield Rd.*	Bike Path	2023	B-01617b
13	Cedar Lake Rd.	Bike Path, Paved Shoulder, Sidewalk	2024	B-00752
17	Darrell Rd.	Bike Path, Paved Shoulder	2023	B-00141a
18	Darrell Rd.	Bike Path, Paved Shoulder	2025	B-00141b
23	Deep Lake Rd.	Bike Path, Paved Shoulder	2023	B-01547
25	Deerfield Rd.	Bike Path, Paved Shoulder, Sidewalk	2024	B-01266a
28	Ela Rd.	Bike Path, Bike Lanes	2022	B-01120
30	Fairfield Rd.	Sidewalk	2022	B-01184a
34	Fremont Center Rd.	Bike Path	2022	B-00474c
36	Gilmer Rd.	Bike Path, Paved Shoulder, Sidewalk	2022	B-00728a
38	Hainesville Rd.	Bike Path, Paved Shoulder, Sidewalk	2025	B-01482
41	Hunt Club Rd.	Bike Path, Sidewalk	2022	B-01437
45	IL Rte. 120	Sidewalk	2022	B-00740
46	Patriot Path	Bike Path	2026	B-01181a
47	Patriot Path	Bike Path	Post-2027	B-01181b
48	Patriot Path	Bike Path	Post-2027	B-01181c
49	Patriot Path	Bike Path	2025	B-01181d
50	IL Rte. 59	Bike Path, Sidewalk	2022	B-00738
52	Kilbourne Rd.	Paved Shoulder, Sidewalk	2023	B-01576
54	Lake-Cook Rd.	Bike Path	2026	B-01616
58	Miller Rd.	Sidewalk	2022	B-01263
61	Old McHenry Rd.	Bike Path, Paved Shoulder, Sidewalk	Post-2027	B-01546
64	Prairie Rd.	Bike Path, Paved Shoulder, Sidewalk	2024	B-01500
66	Quentin Rd.	Sidewalk	2022	B-01572
68	Robert McClory Bike Path*	Bike Path	2025	B-01702
69	Rollins Rd.	Sidewalk	2025	B-01495
71	Russell Rd.	Bike Path, Paved Shoulder	2024	B-01445a
72	Russell Rd.	Bike Path, Paved Shoulder	2025	B-01445b
73	Russell Rd.	Bike Path, Paved Shoulder	2025	B-01445b
76	Skokie Valley Bike Path**	Bike Path	2022	B-01150
78	Stearns School Rd.	Paved Shoulder, Sidewalk	2023	B-01361
82	Wadsworth Rd.	Bike Path, Sidewalk	2022	B-01119
83	Wadsworth Rd.	Bike Path, Paved Shoulder	2024	B-01402a
84	Washington St.	Bike Path	2024	B-01419a
87	Winchester Rd.	Paved Shoulder	2023	B-01365
89	Winchester Rd.	Bike Path	2023	B-01573b
91	York House Rd.	Paved Shoulder	2027	B-01509

** New to this year's Five Year Program*
*** LCDOT is not the Lead Agency*

Bike and Pedestrian Priorities

LakeCounty
Division of Transportation

- **Lake County's 2040 Non-motorized plan identifies 310 miles of proposed bike paths**
  - 107 miles under LCDOT jurisdiction
  - 43 miles under LCFPD jurisdiction
  - 160 miles under other jurisdiction, such as State, municipality, or township
- **Advance as stand-alone projects or combined with adjacent roadway project work**

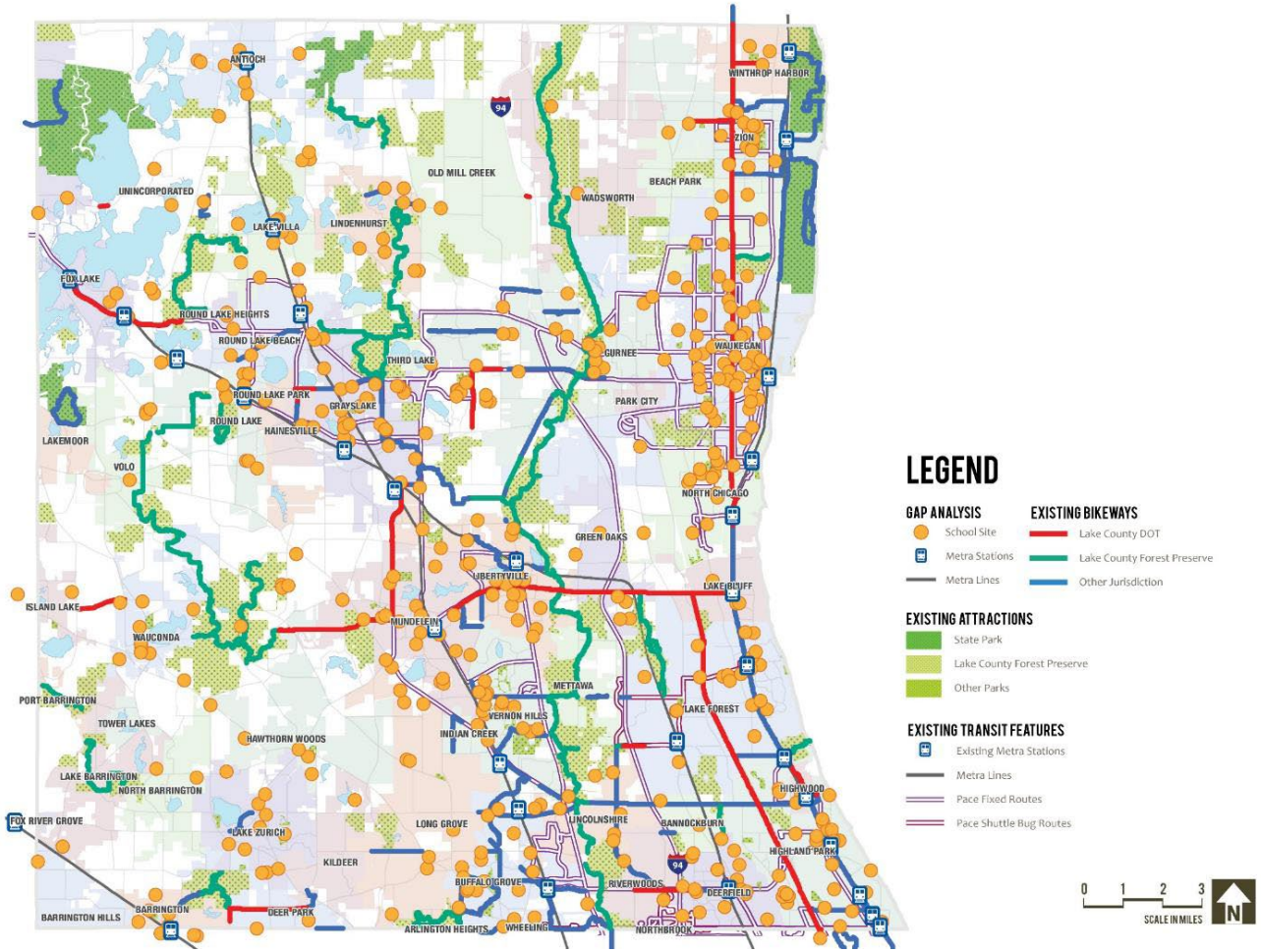


Source: LCDOT Information Services Group/Design Department 4/21/2021

Bike and Sidewalk Gap Analysis

LakeCounty
Division of Transportation

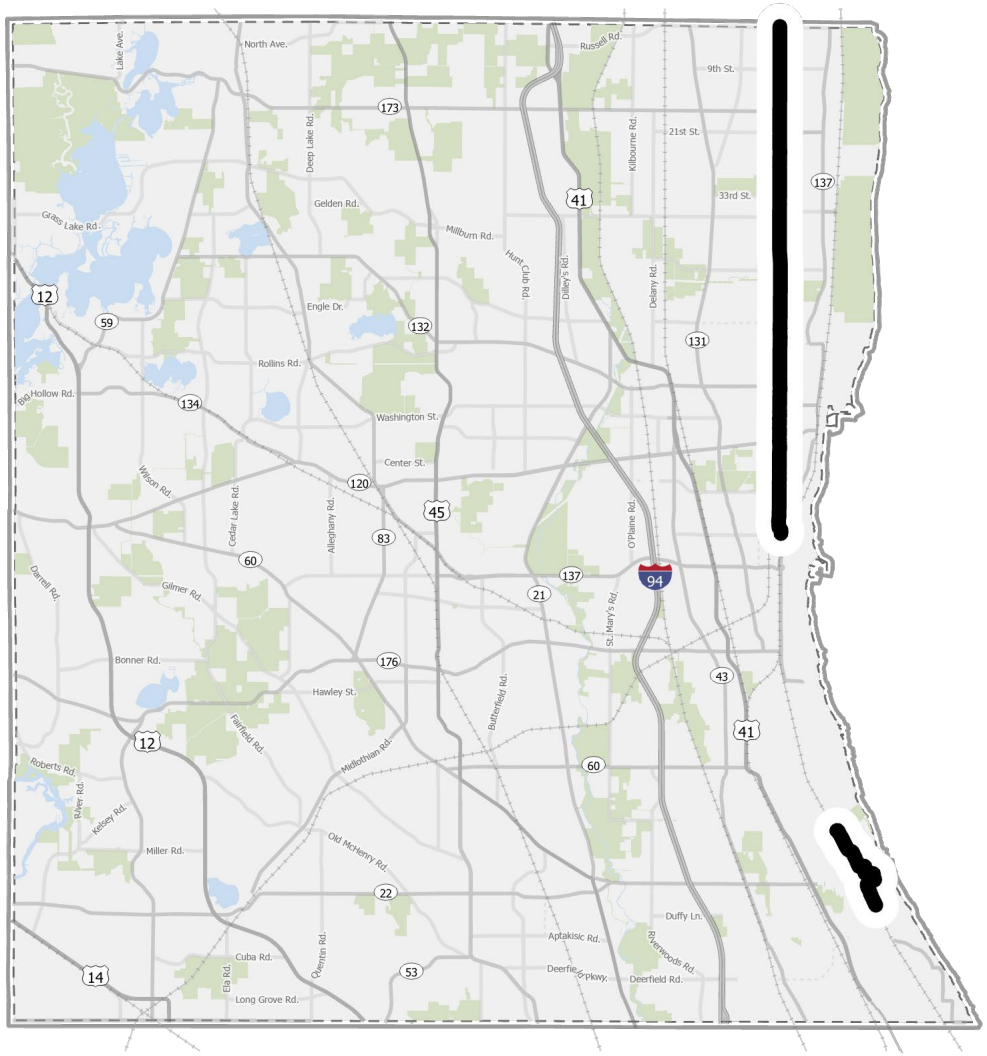
- 2010 study identified 58 strategic gaps, that if filled, would provide regional connectivity
- County pays 100% of cost to fill gaps with local sponsor to own and maintain
- To date, 77% have been programmed or completed



Project Highlight: McClory Bike Path

LakeCounty
Division of Transportation

- Pave northern 11-mile segment of gravel path
- Reconstruct portions of southern segments owned by LCDOT
- Improve multiple uncontrolled crossings at 4- & 5-lane roads
- Coordinate with local communities to enhance the corridor with trail amenities



Project Highlight:
Wayfinding Signs

LakeCounty
Division of Transportation

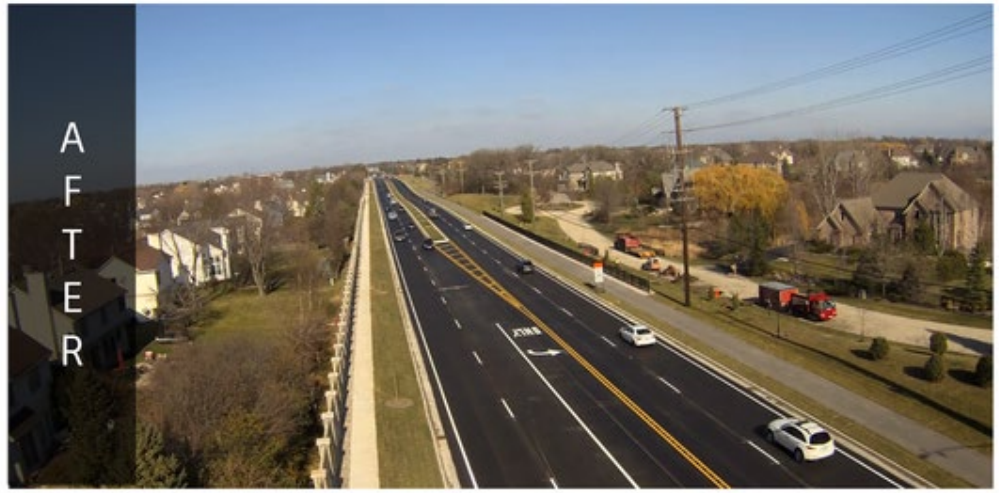
- Install Explore Lake County Wayfinding Signage
  - North Shore Path
  - Robert McClory Path
  - Skokie Valley Path

Priority Three: Expansion

LakeCounty
Division of Transportation

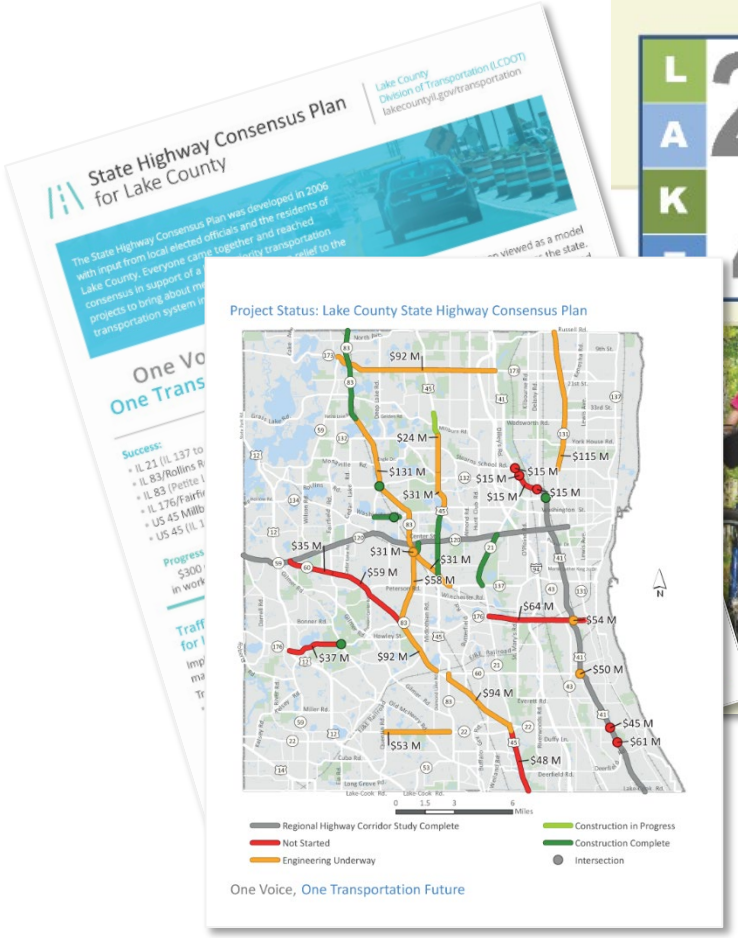
- Project selection tools:
  - Lake County 2040 Transportation Plan
  - State Highway Consensus List
  - CMAP ON TO 2050 Regional Plan
  - IDOT Multi-Year Plan
  - Traffic and Safety Data
  - Demographic Trends
  - Inclusive Growth

- Typical projects include:
  - Add lanes
  - Grade separations
  - Realigned or extended roads
  - Paratransit



Regional Plans

LakeCounty
Division of Transportation



Expansion | 2022 - 2027

LakeCounty
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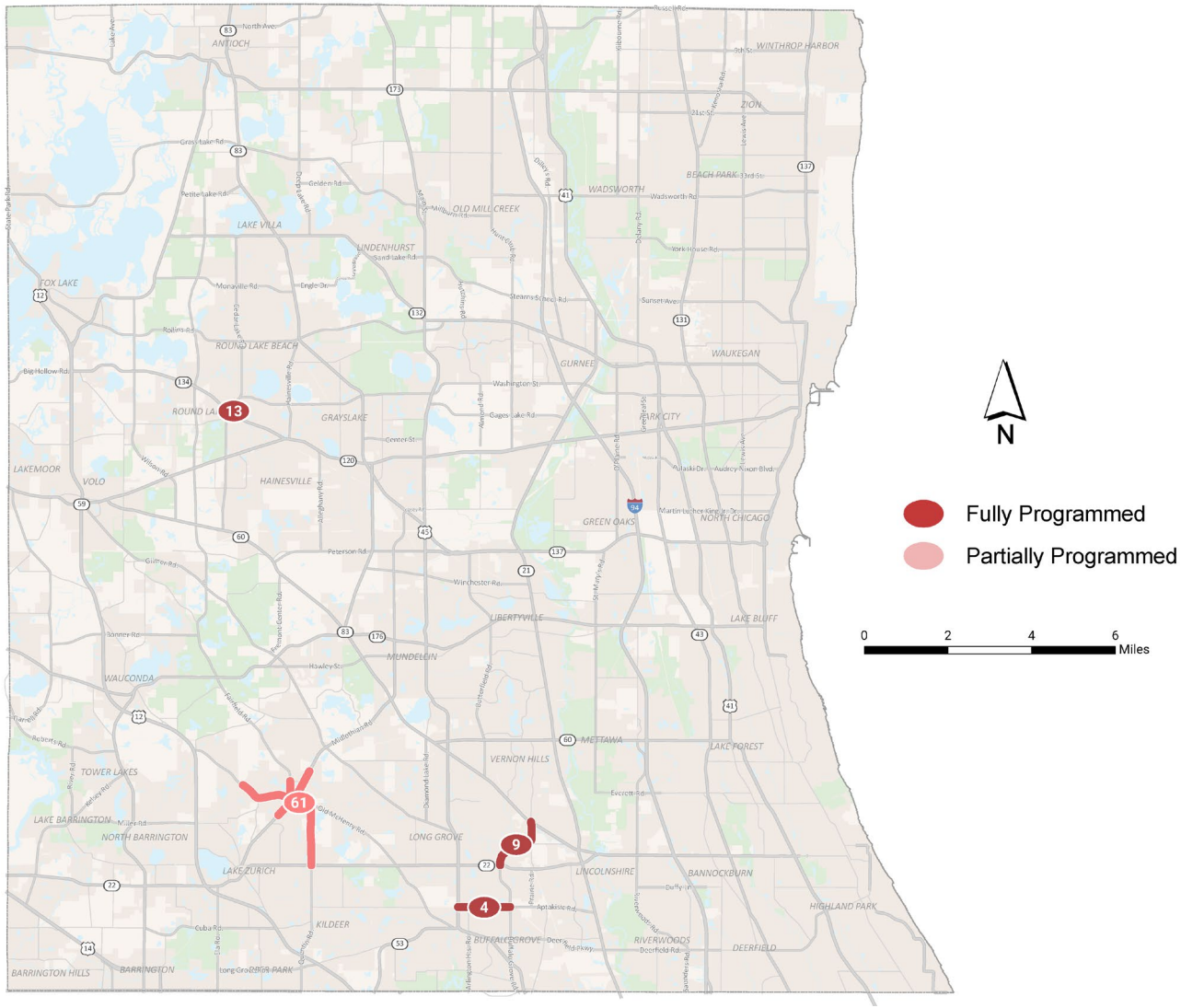

Expansion Projects

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Division of Transportation

Expansion Projects				
Map ID	Route	Work Type	Program Year	CPMS PIN
4	Aptakisic Rd.	Road Widening	2022	B-00739a
9	Buffalo Grove Rd.	Reconstruct and Widen	2026	B-01358
13	Cedar Lake Rd.	Realignment	2024	B-00752
61	Old McHenry Rd.	Reconstruct and Widen	Post-2027	B-01546

What's New in Expansion?

LakeCounty
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- Ride Lake County Borderless Paratransit (Annual Operations)
- Buffalo Grove Rd Widening, IL22 to US45 (Construction)
- Cedar Lake Road Realignment, Hart Rd to Nippersink Rd (Construction)
- Old McHenry Crossings Project (Construction)

Project Highlight:
Paratransit

LakeCounty
Division of Transportation

- Coordinated Countywide Borderless Service launched May 1, 2022
- Annual county funding to cover 100% of local match
- Ridership information for first two weeks of new service:
  - 1,086 registered riders
  - 1,056 trips taken

Ride Lake County

Book Your Trip!
Call Pace
1-800-201-6646

Program Sponsors:

pace

LakeCounty
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Project Highlight:
Old McHenry Crossings

LakeCounty
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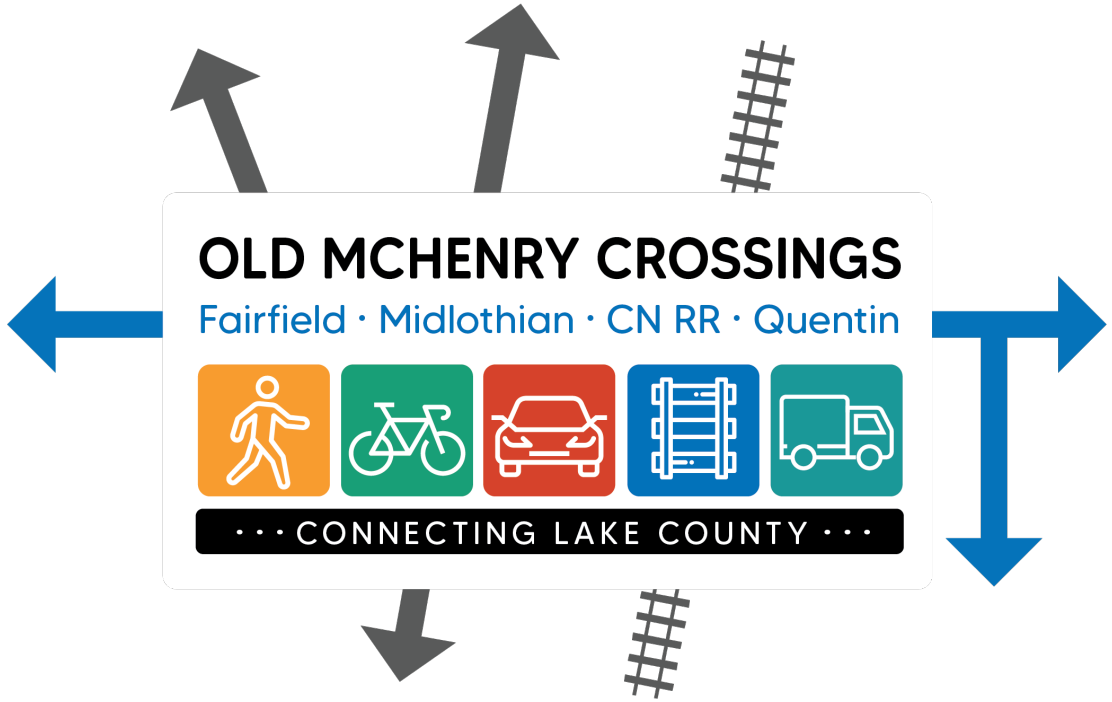
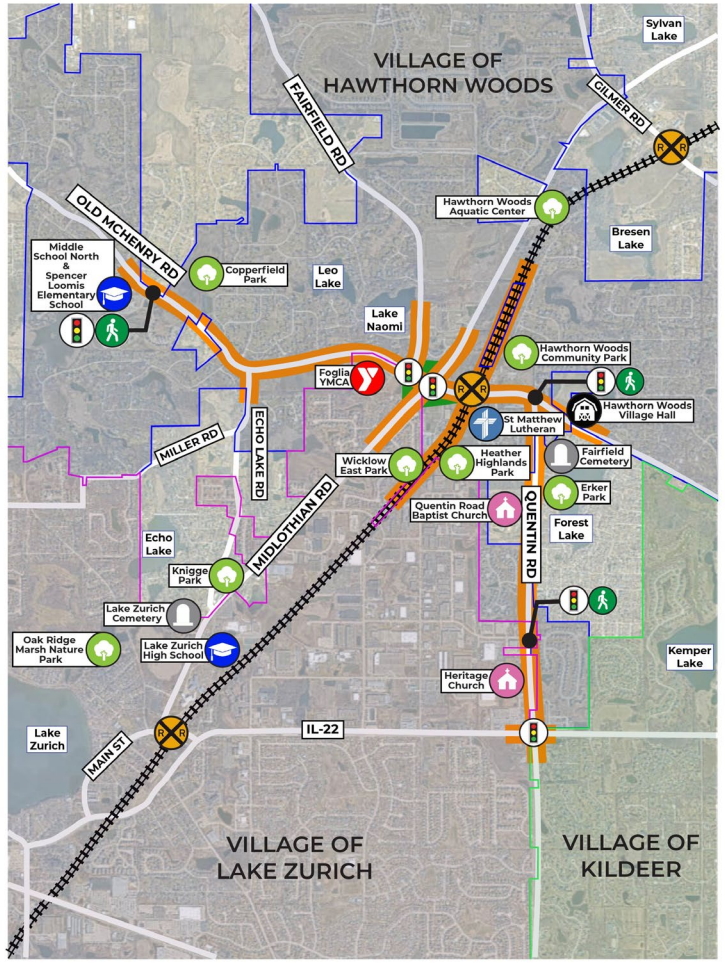
- **Phase I Engineering Underway**
- **Public Informational Meeting in Summer 2022**



LOCATION AREA MAP



Thank You!

LakeCounty
Division of Transportation

Connect with us!

LakeCounty Division of Transportation

LakeCounty PASSAGE

- lakecountyil.gov/transportation
- facebook.com/lcdot
- twitter.com/lcdot
- Instagram.com/lakecountydot
- lakecountypassage.com
- lakecountyil.gov/RLC
- Radio 1620AM

LakeCounty Division of Transportation
IMPROVING infrastructure

Ride Lake County

Explore LAKE COUNTY

Questions

Shane E. Schneider, P.E.
County Engineer
847.377.7400

Background
Asset Information

Assets: Pavement

LakeCounty
Division of Transportation

• Lane miles	915
• Centerline miles	303
• Miles paved shoulder	223
• Average age of roadway (years)	50
• Average age of surface (years)	10

Assets: Culverts

LakeCounty
Division of Transportation

- A variety of culvert materials:
  - Concrete
  - Corrugated metal pipe (CMP)
  - Composite
  - PVC
- More than 650 individual culverts, totaling over 49,000 feet
- Ranging is sizes from 12-inch to 12-feet in diameter

Assets: Signs

- 8,369 Regulatory
- 10,724 Guide
- 5,847 Warning/Object Marker
- 2,2641 Information
- 536 School

- 28,117 Total Signs

Signs installed/maintained by LCDOT

Source: LCDOT sign inventory, April,2022

Assets: Non-Motorized Travel

LakeCounty
Division of Transportation

- Bike/pedestrian bridges 15
- Tunnels and underpasses 15
- Miles of bike facilities 65
- Miles of bike friendly shoulder 142

Assets: Other

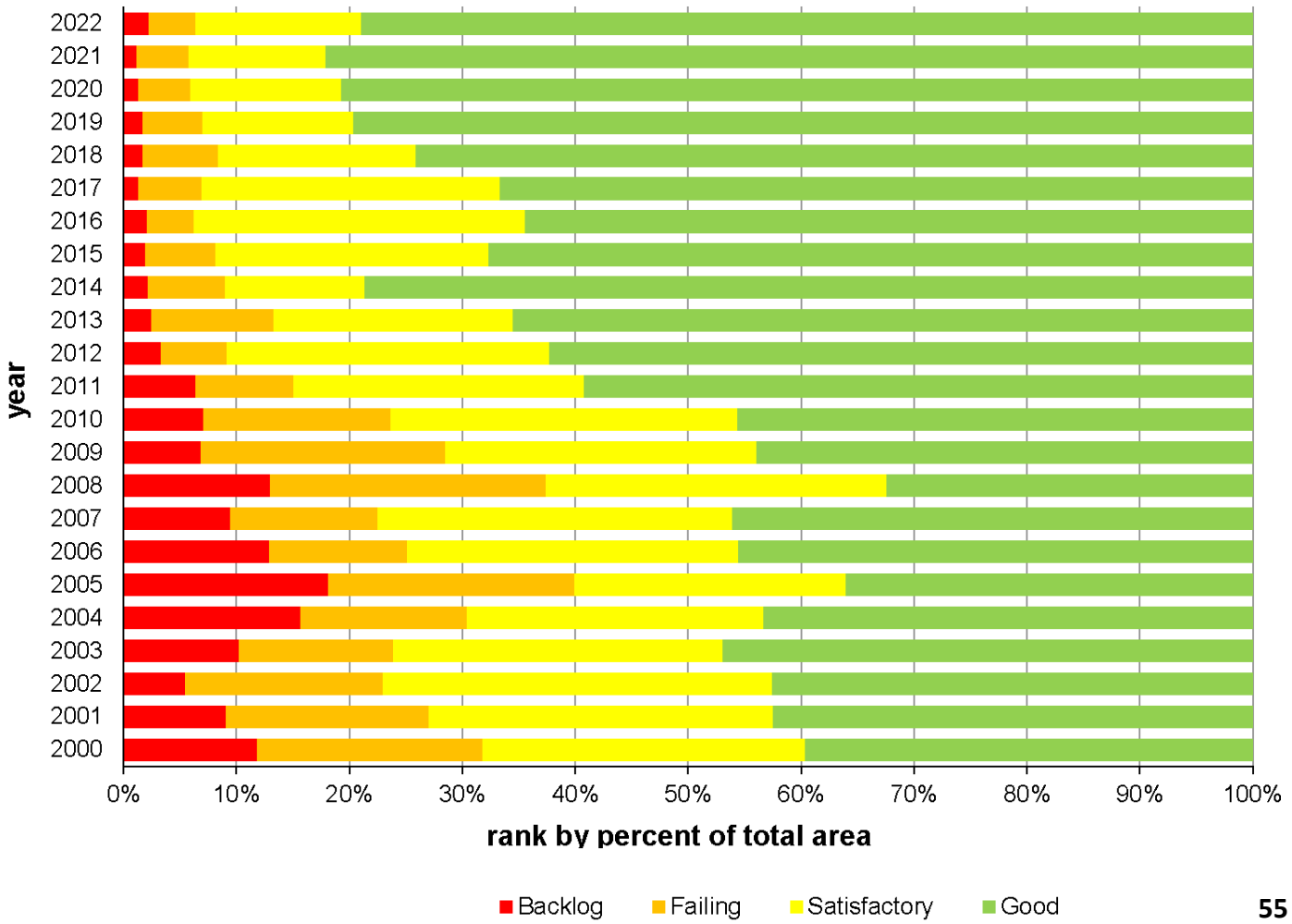
- 17,664 storm sewer structures
- 195 miles of storm sewer pipe
- 653 culverts
- 55 stormwater basins
- 51,118 feet of fencing
- 22,234 feet of retaining wall
- 21 miles of guardrail
- 35 landscape areas (99 acres)

LCDOT GIS / May 2022

ARGUS results

LakeCounty
Division of Transportation

- Implemented in **1986**
- Area of failing pavement reduced from 55% to 1%
- For more information, watch LCDOT's 'Pavement Management Techniques' video at: Lakecountyil.new.swagit.com/videos/16338



ARGUS Pavement Management System

LakeCounty
Division of Transportation

- For data-driven, cost-effective decisions:
  - Where repairs are needed
  - What repair strategies to use
  - When repairs will be most effective

- Using these program components:
  - County highway database
  - Automated pavement testing
  - Repair strategies with costs
  - Pavement aging predictions
  - Optimization program

Laser surface testing

Dynaflect

ARGUS Summary

LakeCounty
Division of Transportation

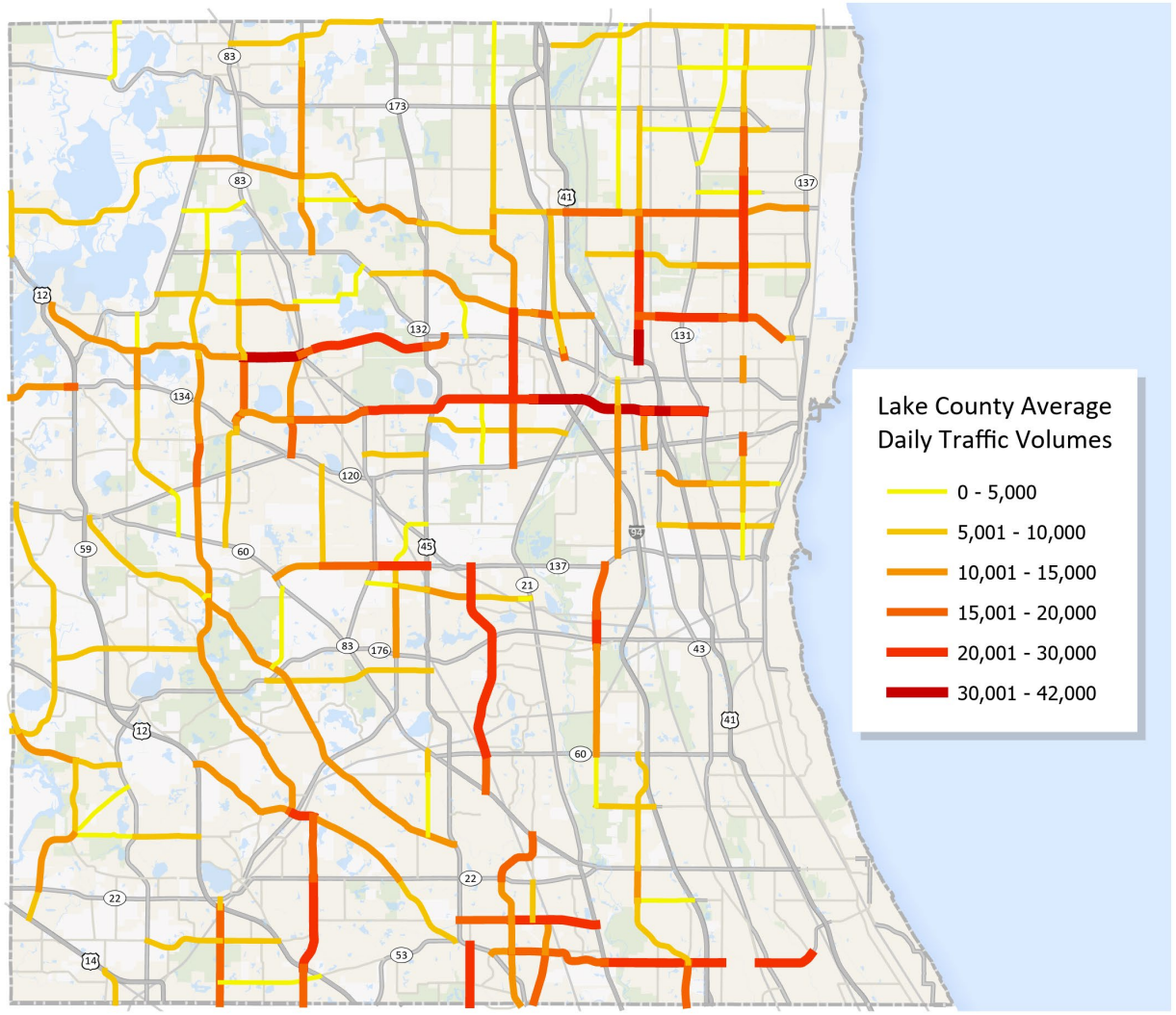
- Pavement management system *does…*
  - Assess the present condition of the system
  - Estimate future road conditions
  - Identify and rank road projects
  - Maximize the condition of the system within the given budget

- Pavement management system *does not…*
  - Replace professional judgment
  - Provide certain detailed project-specific information
  - Evaluate storm sewer and other roadway assets

Traffic Volumes

LakeCounty
Division of Transportation

- **Traffic volumes and truck traffic are key lifecycle indicators**
- **More traffic and heavier vehicles impose more stress and strain on the roadway**



Source: LCDOT Traffic Dept. 1/20/2022

Historical Perspective: Crash Data

LakeCounty
Division of Transportation

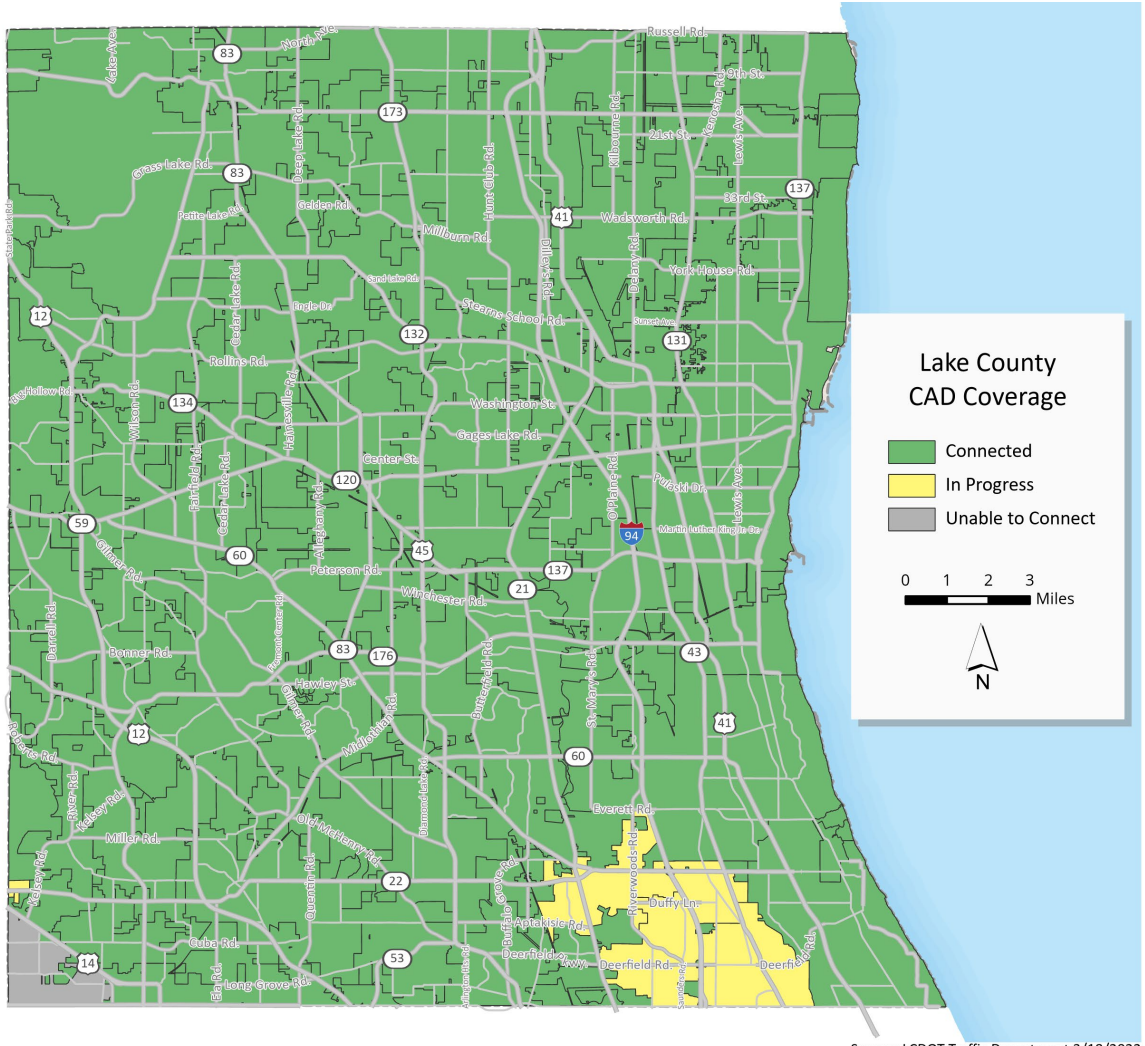
5-year averages	2006-2010	2007-2011	2008-2012	2009-2013	2010-2014	2011-2015	2012-2016	2013-2017	2014-2018	2015-2019	2016-2020
Number of crashes	4236	3994	3704	3485	3530	3673	3796	3934	3991	4037	3819
Fatality	8	8	8	7	8	8	10	12	15	15	16
Crash with injury	942	931	952	974	978	1004	1046	1085	1102	1113	1054
Property damage only	3286	3147	2744	2504	2544	2662	2741	2836	2874	2909	2749

Data Source: LCDOT Traffic Department, 4/2022
IDOT 2020 crash data (most recent available)

Computer Aided Dispatch (CAD) Partnerships

LakeCounty
Division of Transportation

- 11 of 12 dispatch centers (via Central Square) connected with Lake County PASSAGE
- Two-way data sharing:
  - Video (LCDOT provides)
  - Incident data (Dispatch centers provides)
  - Combined real-time data shared with public via PASSAGE



Source: LCDOT Traffic Department 3/18/2022