

Lake County Division of Transportation
Proposed 2017-2022 Highway Improvement Program

FUNDING AND PROJECTS OVERVIEW and ENDORSEMENT REQUEST

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PUBLIC WORKS AND TRANSPORTATION COMMITTEE

JUNE 7, 2017



Presentation Schedule

PWTC 2017 Meeting Date

Presentation Topic

May 3 • Overview and Program Priorities

June 7 • Funding and Projects / Draft Program Document



Improving transportation a top strategic goal for Lake County and regional partners



Efficient transportation contributes to:

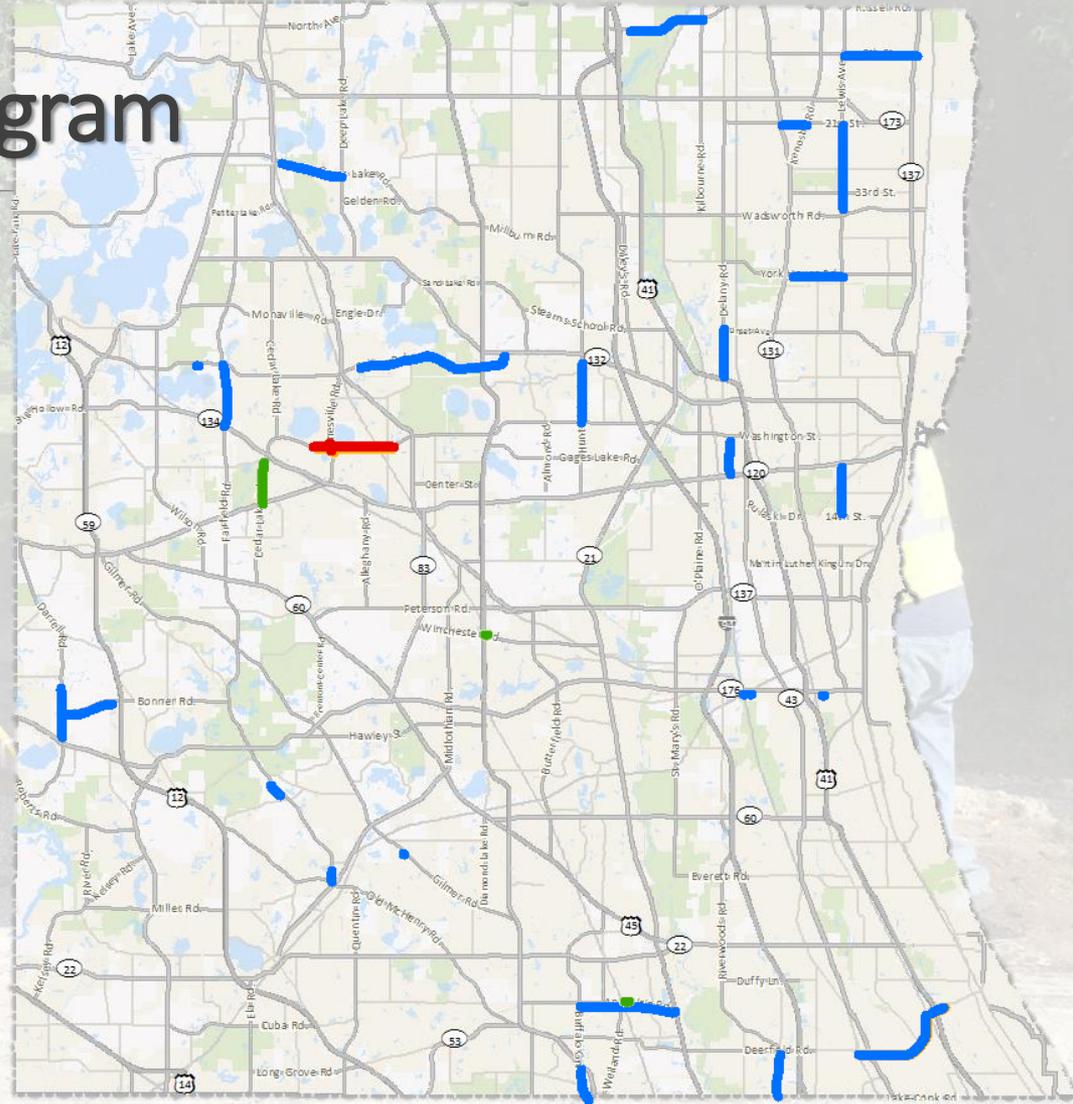


Quality of life
Environmental value
Economic growth
Improved safety



2017 Construction Program

- Continued from 2016
- Preservation
- Modernization
- Expansion



\$56M continued from 2016



Washington St

from west of Hainesville Rd to Lake St
grade separation/add lanes

Deerfield Rd

from Metra RR to US Rte 41
joint project with Village of Deerfield and City of Highland Park
reconstruct



\$38M in new projects

- **Modernization project to reconstruct and widen Cedar Lake Rd to three lanes from IL 120 to Nippersink Rd**

- **Operational Improvements:**

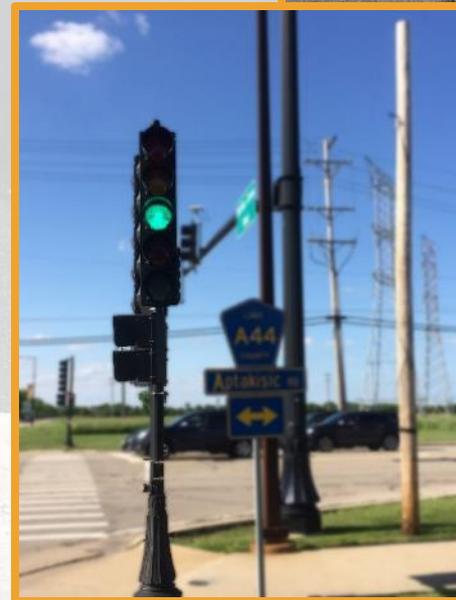
 - Intersection improvements

 - Traffic signal work

 - Additional bike path and pedestrian accommodations:

 - Sidewalk
 - Railroad pedestrian gates
 - Flashers

 - Expand PASSAGE coverage and signal interconnects through more corridors



Funding and Revenue

4 LCDOT Capital Program Revenue Streams:

- County Bridge Fund (CB)
- Matching Tax (MT)
- Motor Fuel Tax (MFT)
- Sales Tax (ST)

All **zero** growth except
ST, growth average 3%



Additional Funds for Effective Programming

- Illinois Commerce Commission (ICC) Railroad Grade Crossing Protection
- Congestion Mitigation and Air Quality (CMAQ)
- Surface Transportation Program (STC, STE, STU)
- Transportation Alternatives Program (TAP)
- 5310 Funds (for current RideLakeCounty|Central project)
- Highway Bridge Program (HBP)
- *more*



Fixing America's Surface Transportation: *FAST* Act

Reauthorized the federal aid highway and transit programs

A **six-year authorization** enacted on December 4, 2015

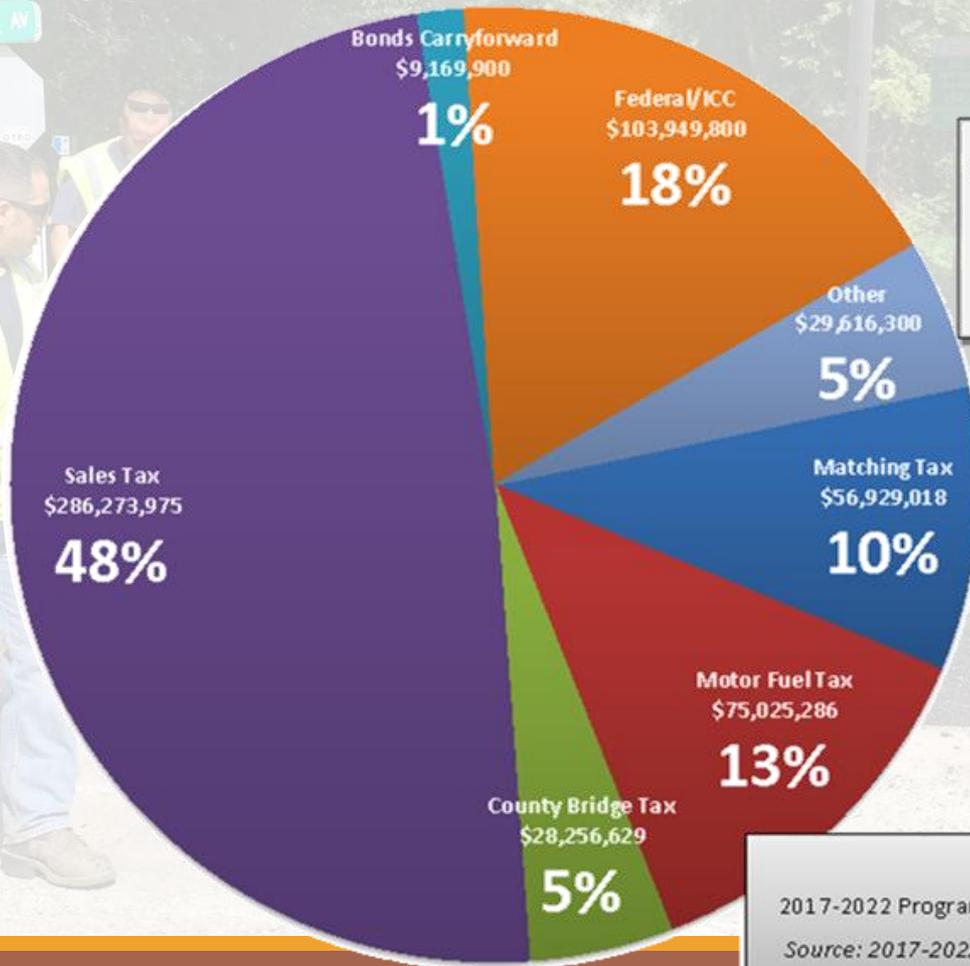
Successor to MAP-21

Continues fund sources available for county use:

- Surface Transportation Program (STP) which now also encompasses Bridge and Transportation Enhancements
- Congestion Mitigation and Air Quality Program (CMAQ)



Fund Sources | 2017-2022 program

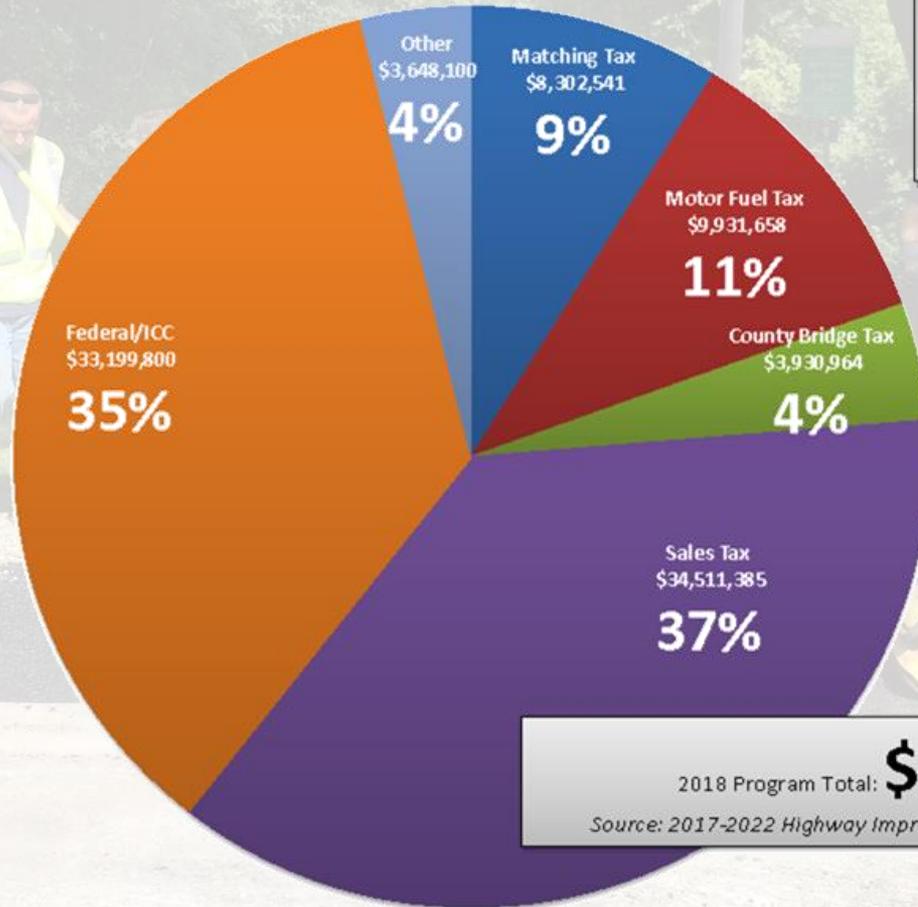


Other Funds
Interest Earnings
Municipal
State
Township
Developer
CCIP

2017-2022 Program Total: **\$592 million**
Source: 2017-2022 Highway Improvement Program, CPMS v.5a



Fund Sources | 2018 program



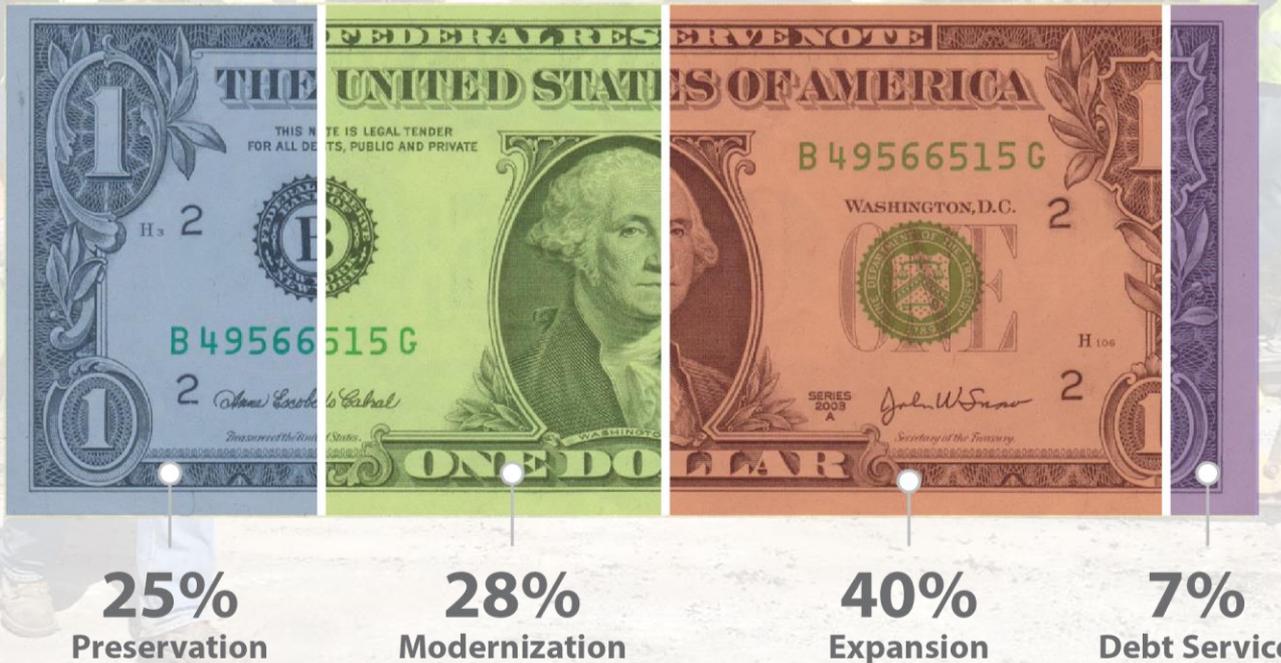
Other Funds
Interest Earnings
Municipal
State
Township
Developer
CCIP

2018 Program Total: **\$94 million**
Source: 2017-2022 Highway Improvement Program, CPMS v.5a



Balancing Program Needs

Funds Distribution | 2017-2022 by program category



2017-2022 Program

2017-2022 project maps and lists

Detail of Preservation, Modernization and Expansion categories

Becomes our capital budget submittal for CFY 2018



Priority One: Preservation

**Preservation projects:
approximately**

25%

of program

**Typically resurfacing, reconstruction,
patching and drainage improvements,
maintenance activities**

Tools in the Toolbox:

- ARGUS pavement management software
- Asset inventories
- Unit cost information
- Industry standards



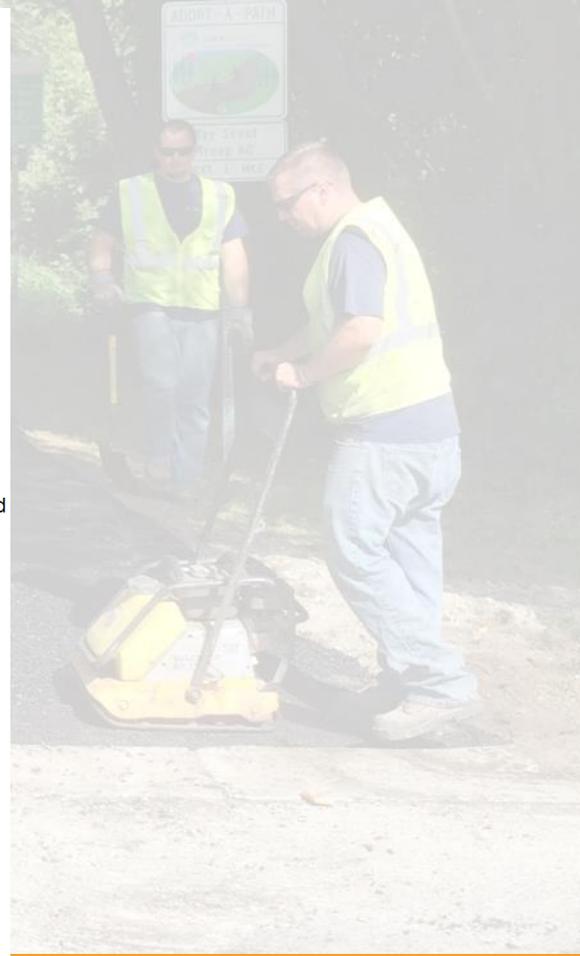
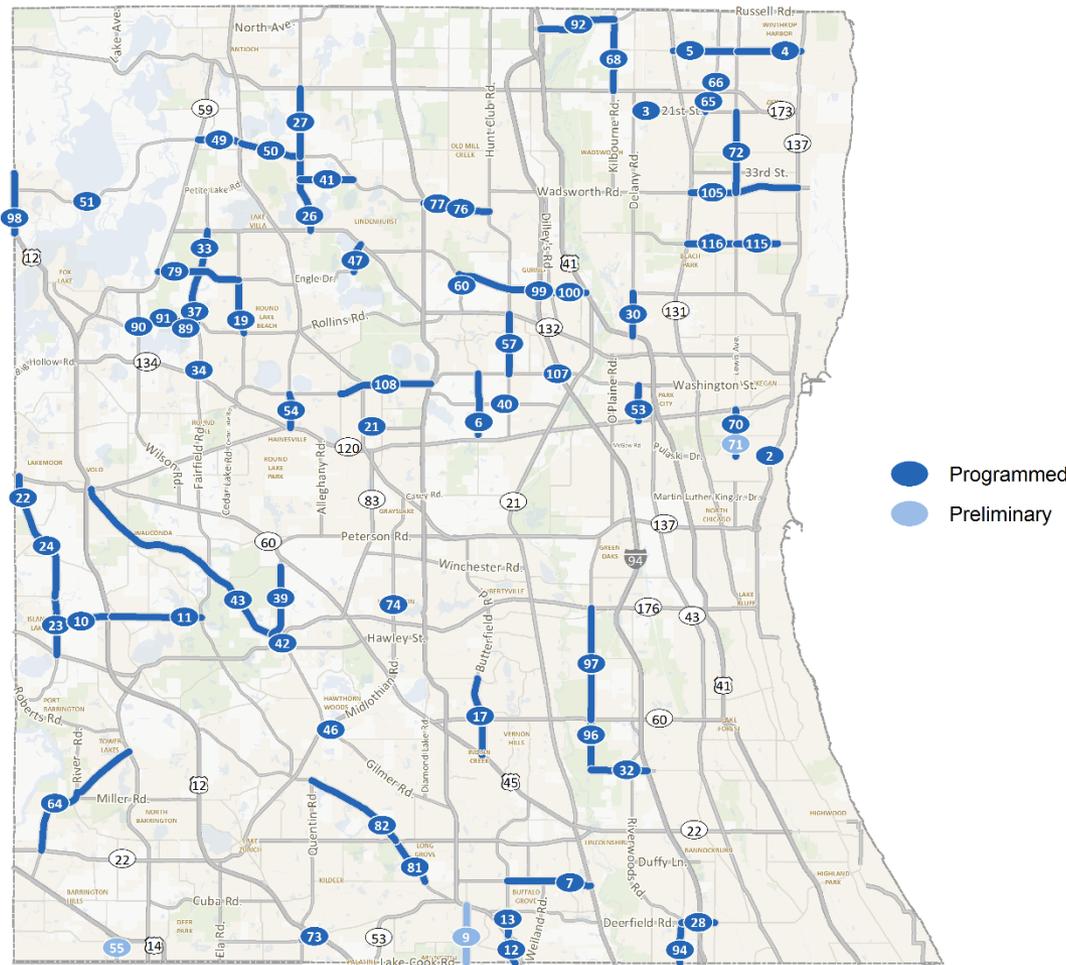
What's **new** in this 5-year program?

Preservation Projects:

- Pavements—Resurfacing or Reconstruction
 - \$45 million
 - 30+ miles
 - 18 locations
- Upgrade PASSAGE equipment
- Bridge inspection
- Culvert replacements
- Storm sewer/drainage work
- Annual maintenance items—patching, crack sealing, trees/landscaping, guardrail, retaining walls, etc.
- Bike path paving



Preservation | 2017 – 2022 Program



Preservation Projects

Preservation Projects					
Map ID	Route	Work Type	Program Year	CPMS PIN	
2	14th St.	Mill and resurface roadway	2019	B-01002b	
3	21st St.	Culvert rehabilitation	2021	B-01376	
4	9th St.	Resurfacing	2017	B-01234	
5	9th St.	Resurfacing	2018	B-01368	
6	Almond Rd.	Resurfacing	2018	B-01389	
7	Aptakistic Rd.	Resurfacing	2017	B-01045a	
9	Arlington Hts. Rd.	Reconstruct existing five lane roadway	Post 2022	B-01182	
10	Bonner Rd.	Resurfacing	2017	B-01309	
11	Bonner Rd.	Resurfacing	2021	B-01382	
12	Buffalo Grove Rd.	Resurfacing	2017	B-01045b	
13	Buffalo Grove Rd.	Reconstruction	2022	B-01359	
17	Butterfield Rd.	Resurfacing	2020	B-01393	
19	Cedar Lake Rd	Resurfacing	2021	B-01396	
21	Center St.	Re-line Culvert	2018	B-01373a	
22	Darrell Rd.	Resurfacing	2020	B-01305	
23	Darrell Rd.	Resurfacing	2017	B-01388	
24	Darrell Rd.	Culvert replacement	2019	B-00141b	
26	Deep Lake Rd.	3R Resurfacing	2021	B-00913	
27	Deep Lake Rd.	Resurfacing	2021	B-01396	
28	Deerfield Rd.	Resurfacing	2021	B-01397	
30	Delany Rd.	Resurfacing	2017	B-01353	
32	Everett Rd.	3R Resurfacing	2018	B-01237a	
33	Fairfield Rd.	Resurfacing	2020	B-01394	
34	Fairfield Rd.	Culvert replacement	2022	B-01434	
37	Fairfield Rd.	Resurfacing	2017	B-01238	
39	Fremont Center Rd.	3R Resurfacing	2017	B-01235a	
40	Gages Lake Rd.	Modify concrete head walls	2018	B-01435	
41	Gelden Rd.	Resurfacing	2018	B-01170	
42	Gilmer Rd.	Resurfacing	2017	B-01235b	
43	Gilmer Rd.	Resurfacing	2021	B-01349	
46	Gilmer Rd.	Retaining Wall Maintenance	2017	B-00980a	
47	Granada Blvd.	Resurfacing	2021	B-01354	
49	Grass Lake Rd.	Resurfacing	2019	B-01239	
50	Grass Lake Rd.	Resurfacing	2017	B-01408a	



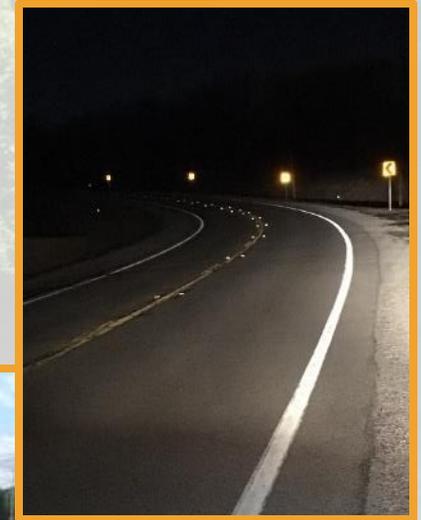
Preservation Projects (cont'd)

51	Grass Lake Rd.	Retaining Wall Maintenance	2018	B-01312
53	Greenleaf St.	Resurfacing	2017	B-01171a
54	Hainesville Rd.	Resurfacing	2019	B-01344
55	Hart Rd.	Culvert replacement	Post 2022	B-01372b
57	Hunt Club Rd.	Resurfacing	2017	B-01049
60	Hutchins Rd.	Culvert replacement	2019	B-01372a
64	Kelsey Rd.	Resurfacing	2018	B-01306
65	Kenosha Rd.	Resurfacing	2018	B-01369
66	Kenosha Rd.	Culvert rehabilitation	2020	B-01377
68	Kilbourne Rd.	Resurfacing	2018	B-01163
70	Lewis Ave.	Mill and resurface Lewis Ave.	2017	B-01142a
71	Lewis Ave.	Reconstruction	Post 2022	B-01142b
72	Lewis Ave.	Resurfacing	2017	B-01308
73	Long Grove Rd.	Resurfacing	2019	B-01390
74	Midlothian Rd.	Culvert replacement	2018	B-01380a
76	Milburn Rd.	Resurfacing	2021	B-01399a
77	Milburn Rd.	Bridge Deck Profiling	2021	B-01399b
79	Monaville Rd.	Microsurfacing	2019	B-01391
81	Old McHenry Rd.	Resurfacing	2019	B-01351
82	Old McHenry Rd.	Resurfacing	2022	B-01401
89	Rollins Rd.	Drainage improvements	2017	B-00982
90	Rollins Rd.	Restore eroded outlet	2017	B-01323
91	Rollins Rd.	Culvert replacement	2018	B-01373b
92	Russell Rd.	Resurfacing	2017	B-01324
94	Saunders Rd.	Resurfacing	2017	B-01307
96	St. Mary's Rd.	3R Resurfacing	2018	B-01237b
97	St. Mary's Rd.	3R Resurfacing	2020	B-01381
98	State Park Rd.	Microsurfacing	2021	B-01400
99	Stearns School Rd.	Bridge Deck Replacement	2019	B-01102
100	Stearns School Rd.	Resurfacing	2019	B-01392
105	Wadsworth Rd.	3R Resurfacing	2022	B-01402
107	Washington St.	Restore drainage	2017	B-01264
108	Washington St.	Resurfacing	2019	B-01350
115	York House Rd.	Drainage Improvements	2018	B-01106
116	York House Rd.	Resurfacing	2017	B-01257a



Improving Safety: Preservation

- Adding bike friendly shoulders with resurfacing projects
- Improving visibility with signage and striping
- Installing recessed pavement markings
- Maintaining smooth, dry pavements
- Mowing/brush clearing to maintain sight distance



Priority Two: Modernization

**Modernization projects:
approximately**

28%

of program

**Typically intersection and safety
improvements, bike and pedestrian
accommodations**

Tools in the Toolbox:

- Traffic analysis
- Level of Service data
- Non-motorized policy
- 2040 bike and pedestrian priorities



What's **new** in this 5-year program?

Modernization Projects:

- Intersection/Signal improvements
 - Old McHenry Rd at US12
 - North Ave: Deep Lake Rd to US45
 - Hunt Club Rd at Washington St
 - Grass Lake Rd at Bluff Rd
 - Russell Rd at Kilbourne Rd
- Traffic software systems maintenance and upgrades
- Signal equipment and coordination
- Bikepath wayfinding signage



Modernization saves time, fuel, money and the environment

Corridors Studied: **4**

Delays Reduced: **478** hours per day

Fuel Saved: **318** gallons per day

Annual Benefit: **\$3,141,414**

CO₂ Emissions Avoided: **566** metric tons per year



Modernization Projects

Modernization Projects					
Map ID	Route	Work Type	Program Year	CPMS PIN	
1	14th St.	Reconstruction	2019	B-01002a	
16	Butterfield Rd.	Adaptive Traffic Signal Control	2018	B-01319	
18	Cedar Lake Rd	Reconstruction	2017	B-00177	
25	Darrell Rd.	Intersection Improvements	2019	B-00141a	
31	Ela Rd.	Intersection Improvement	2019	B-01120	
35	Fairfield Rd.	Intersection Improvement	2019	B-00730	
36	Fairfield Rd.	Intersection Improvement	2020	B-01184	
38	Fremont Center Rd.	Intersection Improvement	2019	B-00474a	
44	Gilmer Rd.	Intersection Improvement	2020	B-00728a	
45	Gilmer Rd.	Realignment	Post 2022	B-00845	
52	Grass Lake Rd.	Intersection Improvement	2018	B-01438	
56	Hart Rd.	Intersection Improvement	2018	B-00736	
58	Hunt Club Rd.	Intersection Improvement	2019	B-01115	
59	Hunt Club Rd.	Replace Traffic Signal Equipment	2018	B-01437	
61	IL Rte. 120	Widening	2019	B-00740	
62	IL Rte. 137	Bike Path (Staged Improvement)	2021	B-01181a	
63	IL Rte. 59	Intersection Improvement	2020	B-00738	
67	Kenosha Rd.	Intersection Improvement	2018	B-00424	
78	Miller Rd.	Intersection Improvement	2019	B-01263	
80	North Ave.	Safety Study and Enhancement	2018	B-01436	
83	Old McHenry Rd.	Roadway Reconstruction	2017	B-01020a	
84	Old McHenry Rd.	Intersection Improvement	2018	B-01378	
85	Old McHenry Rd.	Intersection Improvement	2019	D-00351	
86	O'Plaine Rd.	Modernize traffic Signals	2017	B-01193	
93	Russell Rd.	Intersection Improvement	Post 2022	B-01445	
95	Skokie Valley Bikepath	Bike Path Bridge	2018	B-01150	
101	U.S. Hwy. 41	Intersection Improvement	2021	B-01361	
103	Wadsworth Rd.	Intersection Improvement	2019	B-00737b	
104	Wadsworth Rd.	Intersection Improvement	2021	B-00737c	
106	Wadsworth Rd.	Intersection Improvement	2021	B-01119	
111	Wilson Rd.	Intersection Improvement	2017	B-00842	
112	Wilson Rd.	Intersection Improvement	2017	D-00594	
113	Winchester Rd.	Railroad	2017	B-01183	
114	Winchester Rd.	Intersection Improvement	2019	B-01365	



Improving Safety: Modernization

- Closing sidewalk gaps to accommodate pedestrian travel
- Installing roundabouts
- Coordinating signal timings
- Adding turn lanes
- Improving intersection lighting
- Installing high-visibility signal backplates
- Improving bike paths



Priority Three: Expansion

**Expansion projects:
approximately**

40%

of program

**Typically add lanes, grade
separations, new or extended roads**

Tools in the Toolbox:

- 2040 plan
- State Consensus list
- Demographic trends
- Traffic data



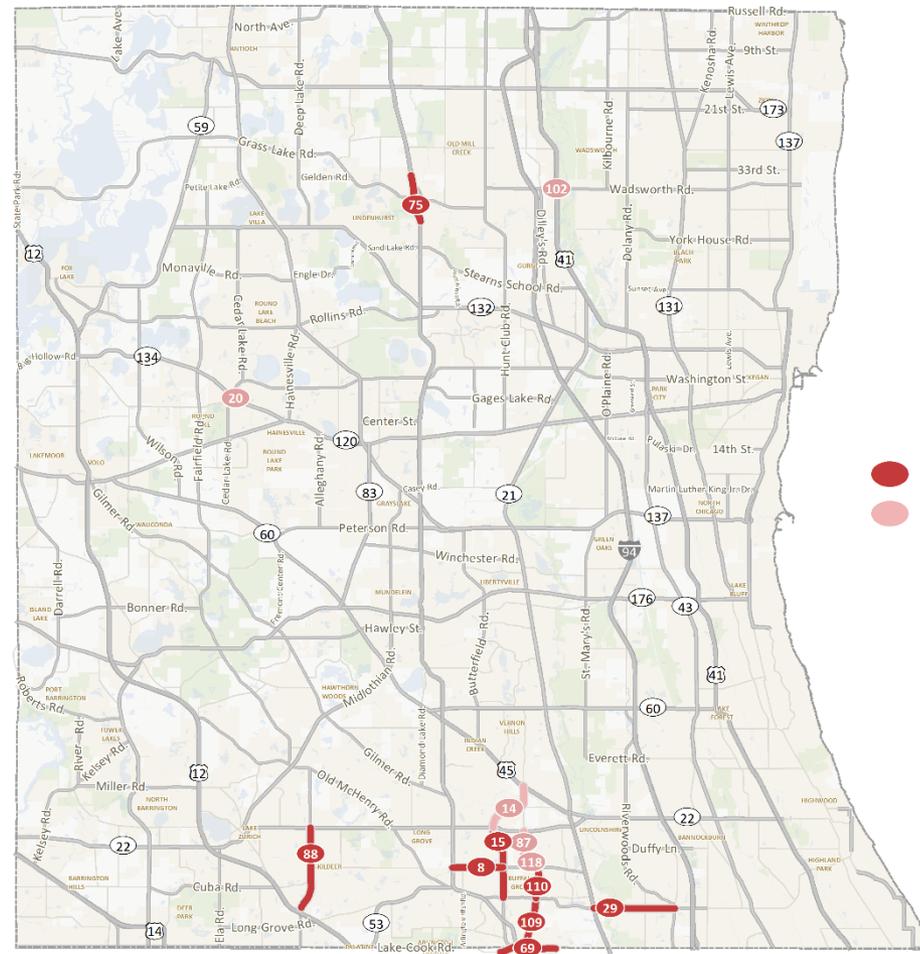
What's **new** in this 5-year program?

Reconstruct/Widening:

- Deerfield Rd | Saunders Rd to w of IL21



Expansion | 2017-2022 Program



- Programmed
- Preliminary



Expansion Projects

Expansion Projects				
Map ID	Route	Work Type	Program Year	CPMS PIN
8	Aptakisic Rd.	Widening	2022	B-00739a
14	Buffalo Grove Rd.	Reconstruction and Widening	Post 2022	B-01358
15	Buffalo Grove Rd.	Reconstruction and Widening	2021	E-00559
20	Cedar Lake Rd	Realignment	Post 2022	B-00752
29	Deerfield Rd.	Reconstruction and Widening	2022	B-01266a
69	Lake-Cook Rd.	Lake Cook Rd Improvement	2018	B-01040
75	U.S. Hwy 45	Bypass	2017	B-00727a
87	Prairie Rd.	Widening	Post 2022	E-00259d
88	Quentin Rd.	Widening	2018	B-00378
102	Wadsworth Rd.	Intersection Improvement	Post 2022	B-00737a
109	Weiland Rd.	Widening	2018	E-00259b
110	Weiland Rd.	Widening	2019	E-00259c
118	Weiland Rd.	Realignment	Post 2022	E-00259a



Improving Safety: Expansion

- Less Congestion = fewer crashes
 - Grade separations
 - Railroad overpasses
 - Road widening



2040 Roadway Priorities

Peak period trips estimated to increase by **36%** between 2010 and 2040

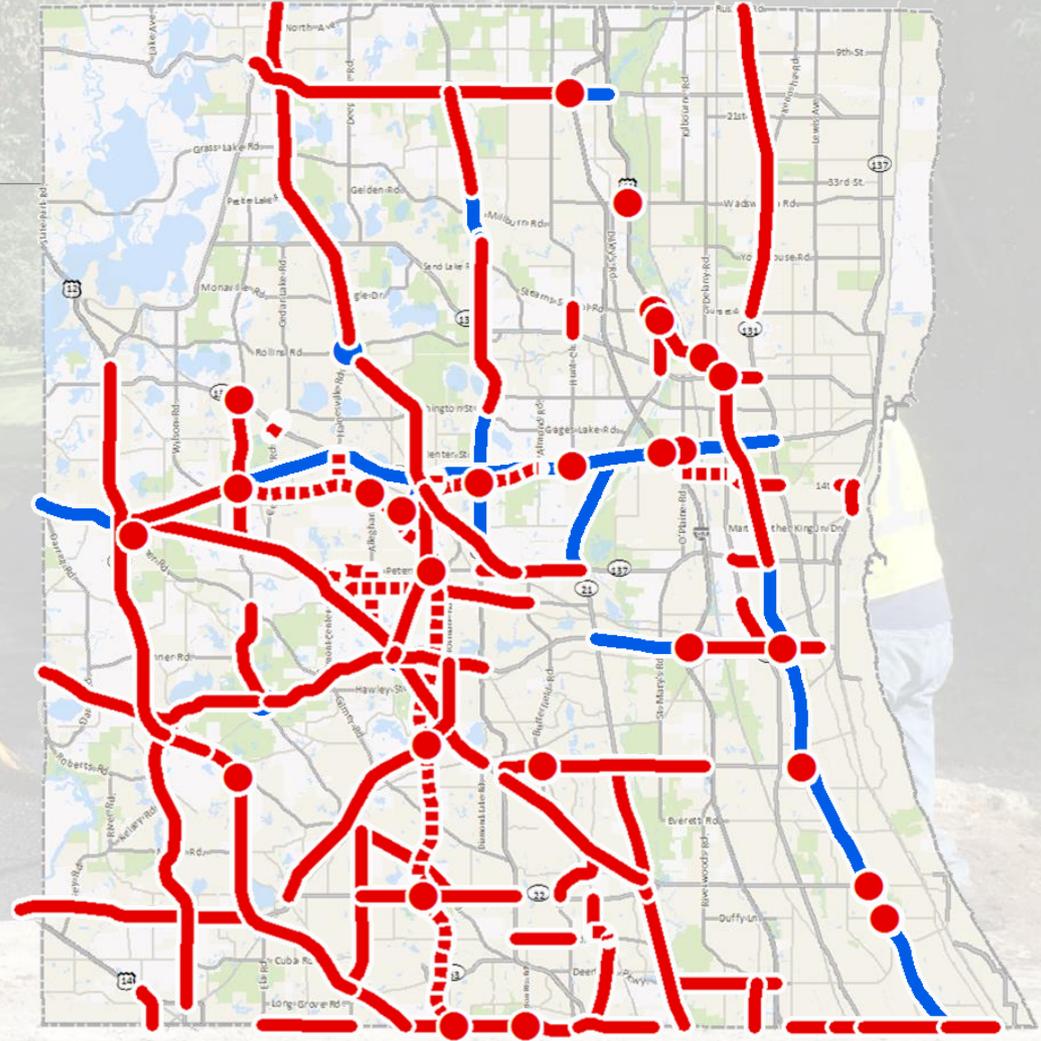
212 miles of roadway Improvements recommended

- **7** interchange
- **9** intersection
- **65** corridor



2040 Roadway Improvements

- Consensus projects
- 2040 projects
- Both LCDOT and IDOT projects
- LCDOT has projects in preliminary phases now that can't be programmed for construction due to lack of funding
- \$2.1 billion in improvements identified in the 2040 Roadway Improvement Plan



Questions?

