

LCTA Annual Meeting

# Lake County Transportation Update

Adaptive Infrastructure: Advancing Safety, Technology, and Multi-Modal Improvements



Shane E. Schneider, P.E.

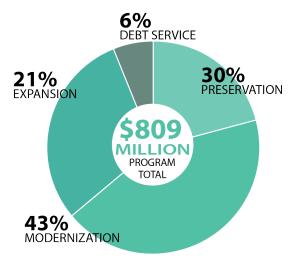
Director of Transportation | County Engineer

Lake County Division of Transportation

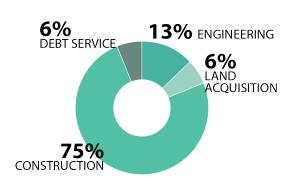
November 17, 2023

# Lake County's 2023-2028 Transportation Improvement Program

#### PROGRAM BY WORK CATEGORY



#### **PROGRAM BY ACTIVITY**



#### **ROADS AND BRIDGES**







1 RAILROAD GRADE SEPARATION
2 RAILROAD GRADE SEPARATION FEASIBILITY STUDIES



\$8.9M

#### TECHNOLOGY, SIGNALS, AND SAFETY INITIATIVES









64.5 MILES
CENTER AND
EDGE LINE
RUMBLE STRIPS

#### **BIKE AND PEDESTRIAN ACCOMMODATIONS**



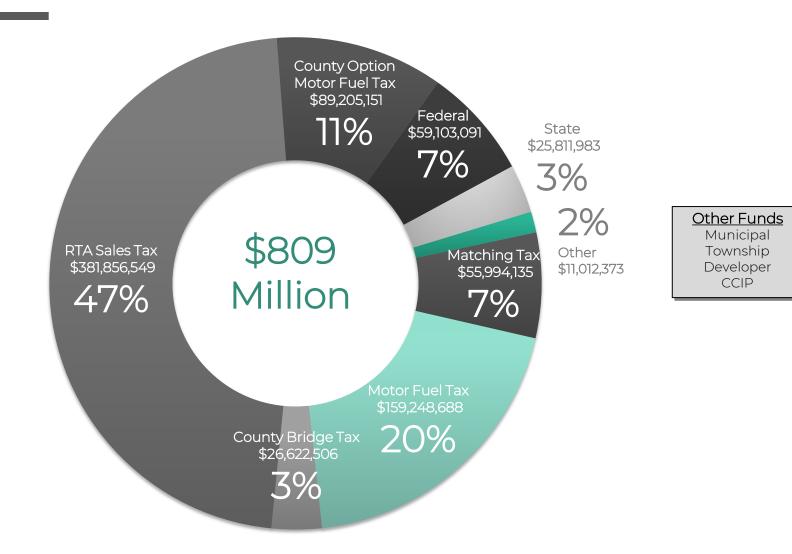
- 14 MILES IMPROVED PATH
- 14 MILES 42 MILES SIDEWALK NEW PATH
- 32 MILES BIKE FRIENDLY SHOULDER



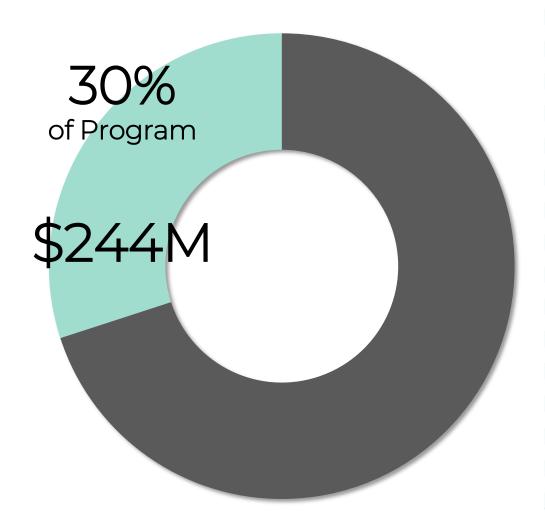


#### Funding Sources | 2023-2028 Program

Lake County Division of Transportation



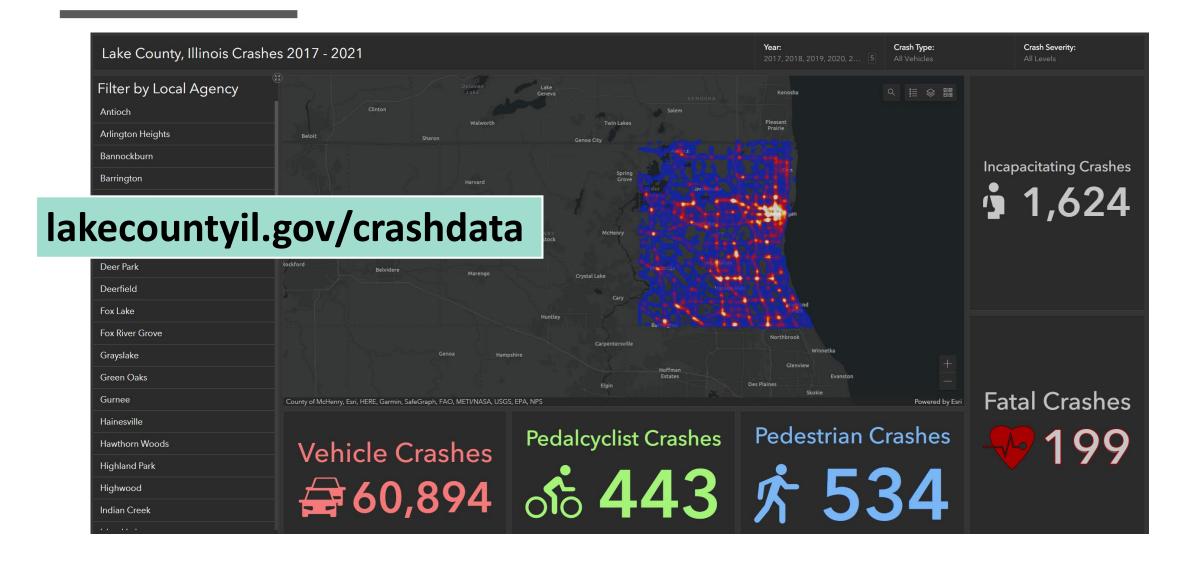
#### Preservation



Route	Туре	Program Year	Total Cost
21st Street	Highway/Road - Resurface (With No Lane Widening)	2026	\$703,000
22nd St./ MLK Jr. Dr.	Highway/Road - Resurface (With No Lane Widening)	2027	\$1,837,000
Arlington Heights Road	Highway/Road - Reconstruct in Kind	2023	\$17,957,017
Buffalo Grove Road	Highway/Road - Reconstruct in Kind	Post-2028	\$825,000
Butterfield Road	Highway/Road - Resurface (With No Lane Widening)	2024	\$2,734,000
Cedar Lake Road	Highway/Road - Resurface (With No Lane Widening)	2026	\$1,726,000
Cuba Road	Highway/Road - Resurface (With No Lane Widening)	2027	\$2,723,200
Culvert Replacements 2024	Culvert - Replacement	2024	\$860,000
Darrell Road	Highway/Road - Resurface (With No Lane Widening)	2026	\$3,993,000
Deep Lake Road	Highway/Road - Resurfacing, restoration, and rehabilitation (3R)	2023	\$8,392,944
Deerfield Parkway	Maintenance - Pavement Patching	2024	\$580,000
Delany Road	Culvert - Replacement	2026	\$7,025,000
Duffy Lane	Highway/Road - Resurfacing, restoration, and rehabilitation (3R)	2028	\$6,224,023
Fairfield Road	Highway/Road - Resurfacing, restoration, and rehabilitation (3R)	2025	\$5,100,000
Fairfield Road	Culvert - Replacement	2023	\$1,050,000
Fairfield Road	Highway/Road - Resurface (With No Lane Widening)	2023	\$3,000,000
Fairfield Road	Highway/Road - Resurface (With No Lane Widening)	2024	\$2,150,000
Gilmer Road	Highway/Road - Resurface (With No Lane Widening)	2024	\$7,871,517
Grass Lake Road	Safety - Pavement Marking	2024	\$4,250,000
Hunt Club Road	Highway/Road - Resurface (With No Lane Widening)	2023	\$3,197,839
Hutchins Road	Highway/Road - Resurface (With No Lane Widening)	2026	\$825,000
Kelsey Road	Culvert - Replacement	2022	\$390,714
Kilbourne Road	Highway/Road - Intersection Improvement and Resurfacing	2023	\$4,556,954
Lewis Avenue	Highway/Road - Reconstruct with Change in Use or Width of Lane	Post-2028	\$18,379,381
Monaville Road	Highway/Road - Resurface (With No Lane Widening)	2026	\$2,046,000
North Avenue	Highway/Road - Resurface (With No Lane Widening)	2028	\$2,121,000
O'Plaine Road	Highway/Road - Resurface (With No Lane Widening)	2028	\$3,572,809
Old McHenry Road	Highway/Road - Resurface (With No Lane Widening)	2024	\$4,200,000
Pulaski Drive	Highway/Road - Resurface (With No Lane Widening)	2025	\$1,338,000
Riverwoods Road	Highway/Road - Resurface (With No Lane Widening)	2027	\$5,300,000
Riverwoods Road	Highway/Road - Resurfacing, restoration, and rehabilitation (3R)	2026	\$12,594,800
Rollins Road	Highway/Road - Resurface (With No Lane Widening)	2025	\$6,649,620
Russell Road	Highway/Road - Resurface (With No Lane Widening)	2024	\$1,100,000
Sand Lake Road	Maintenance - Miscellaneous	2024	\$100,000
St. Mary's Road	Highway/Road - Resurface (With No Lane Widening)	2028	\$3,442,000
Stearns School Road	Bridge/Structure - New	2023	\$1,701,666
Stearns School Road	Highway/Road - Resurface (With No Lane Widening)	2026	\$1,260,000
Wilson Road	Highway/Road - Resurface (With No Lane Widening)	2024	\$1,640,000
Winchester Road	Highway/Road - Resurface (With No Lane Widening)	2023	\$6.458.313

#### Crash Dashboard

2017 - 2021 crash data



## Center and Edge Line Rumble Strips

A Safe System Approach

- Low-cost systemwide safety countermeasure intended to reduce roadway departures:
  - Run-off-road crashes
  - Head-on crashes
- Installed along two-lane county highways with posted speed limits of 45 mph and over (and other corridors with safety risk factors present)

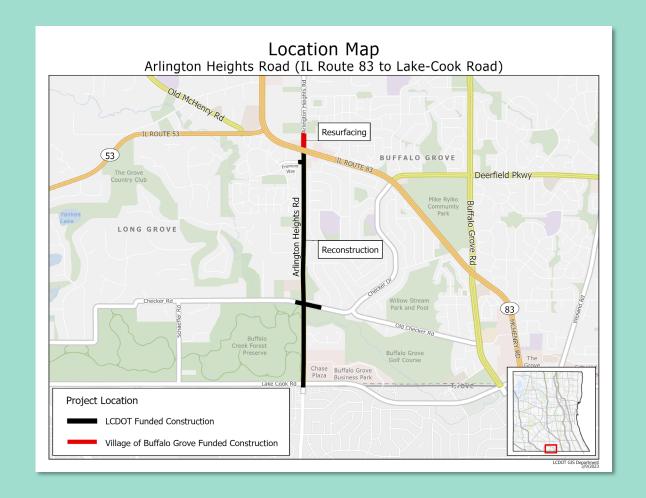
Safe Vehicles THE SAFE SYSTEM APPROACH **Post-Crash** Care **Speeds** RESPONSIBILITY IS SHARED

"The sound of safety"

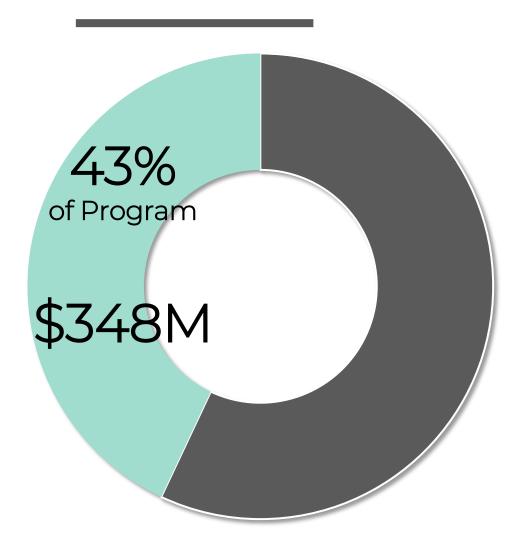
FHWA Report No. FHWA-SA-16-115

### Arlington Heights Rd Reconstruction

- Project Cost: \$27M
- Carries nearly 30,000 vehicles per day
- Reconstructs 2-mile section of 5-lane, 40-year-old pavement and brings the roadway up to current design standards
- Fills non-motorized gaps near local schools, businesses and the Buffalo Creek Forest Preserve
- Target Construction 2024



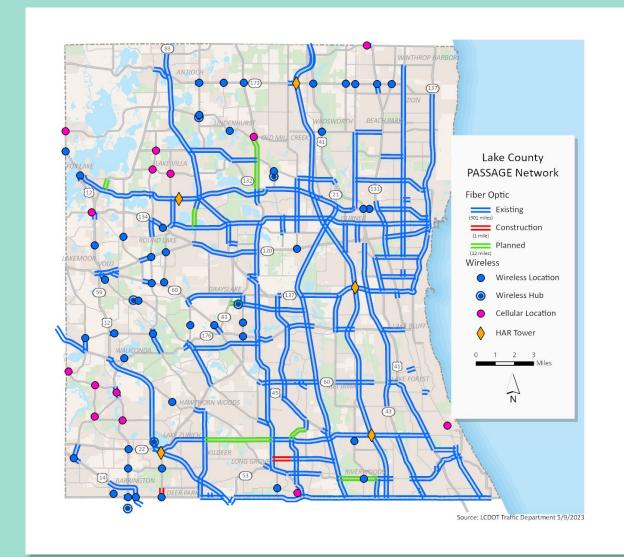
#### Modernization



Route	Туре	Program Year	Total Cost
Buffalo Grove Road	Highway/Road - Intersection Improvement	2028	\$19,000,000
Butterfield Road	New Shared Use Path	2023	\$2,904,971
Darrell Road	Highway/Road - Intersection Improvement	2026	\$3,400,000
Darrell Road	Highway/Road - New Roundabout	2023	\$7,994,239
Darrell Road	Highway/Road - New Roundabout	2023	\$10,140,000
Deep Lake Road	Highway/Road - New Roundabout	2024	\$10,732,570
Deerfield Parkway	Signals - Add Signals at Single Intersection	2025	\$860,000
Deerfield Road	Highway/Road - Continuous Bi-Directional Turn Lanes	2024	\$42,178,792
Dilley's Road	New Shared Use Path	2023	\$693,965
Ela Road	Highway/Road - Intersection Improvement	2022	\$3,397,186
Fairfield Road	Highway/Road - Corridor Improvement	Post-2028	\$6,401,400
Gilmer Road	Highway/Road - Intersection Improvement	2021	\$3,458,654
Hainesville Road	Highway/Road - Continuous Bi-Directional Turn Lanes	2024	\$26,380,248
Hunt Club	Highway/Road - Intersection Improvement	Post-2028	\$3,400,000
Hunt Club Road	Highway/Road - Intersection Improvement	2023	\$18,337,532
IL Route 59	Highway/Road - Intersection Improvement	2023	\$12,512,858
Kenosha Road	Highway/Road - New Roundabout	2025	\$3,540,526
Lake-Cook Road	New Shared Use Path	2026	\$6,517,223
Lewis Avenue	Highway/Road - Reconstruct with Change in Use or Width of Lane	Post-2028	\$2,750,000
Miller Road	Highway/Road - Intersection Improvement	2023	\$3,275,610
Monaville Road and Peterson Road	Highway/Road - Railroad Grade Separation Feasibility Study	Post-2028	\$1,123,215
Patriot Path	New Shared Use Path	2026	\$11,808,764
Patriot Path	New Shared Use Path	2028	\$8,306,400
Patriot Path	New Shared Use Path	2028	\$1,289,100
Patriot Path	New Shared Use Path	2025	\$6,800,800
Prairie Road	Highway/Road - Intersection Improvement	2025	\$6,267,000
Robert McClory Bike Path	Improve Shared Path Facility	2025	\$5,650,000
Rollins Road	Highway/Road - Continuous Bi-Directional Turn Lanes	2026	\$21,109,047
Russell Road	Highway/Road - Intersection Improvement	2025	\$2,785,141
Russell Road	Highway/Road - New Roundabout	2024	\$9,070,000
Stearns School Road	Highway/Road - Intersection Improvement	2023	\$4,148,534
Sunset Avenue	Signals - Add Signals at Single Intersection	2025	\$510,000
Wadsworth Road	Highway/Road - Intersection Improvement	2024	\$4,046,270
Wadsworth Road	Highway/Road - Continuous Bi-Directional Turn Lanes	2026	\$28,336,768
Washington Street	Highway/Road - Intersection Improvement	2028	\$6,400,000
Washington Street	New Shared Use Path	2024	\$3,184,306
Winchester Road	Highway/Road - Intersection Reconstruction	2023	\$3,823,135
York House Road	Highway/Road - Continuous Bi-Directional Turn Lanes	2027	\$18,317,281

#### Lake County PASSAGE

- 300+ miles of fiber optic cable
- 670+ traffic signals connected
- 460 PT7 cameras
- Monitor traffic in real-time, and make needed adjustments remotely from the Traffic Management Center
- Live video feeds to traffic engineers and dispatchers/first responders
- Regional signal timing schemes for major events
- Adaptive traffic signal corridor testing
- Connected vehicle demonstration project (in development)



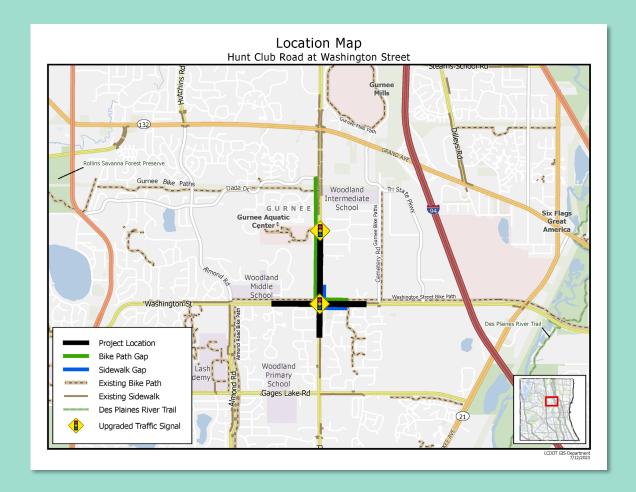
#### Darrell Rd Roundabout Corridor

- Project Cost: \$21M
- The project installs 3 new roundabouts (Neville/Case, Dowell, Fisher) to improve mobility and enhance safety
- A portion of Grand Illinois Trail will be built as part of the project
- Construction of the Neville/Case roundabout is complete and the remaining two planned in 2024
- Roundabouts reduce crashes by 75% at intersections where stop signs or signals were previously used



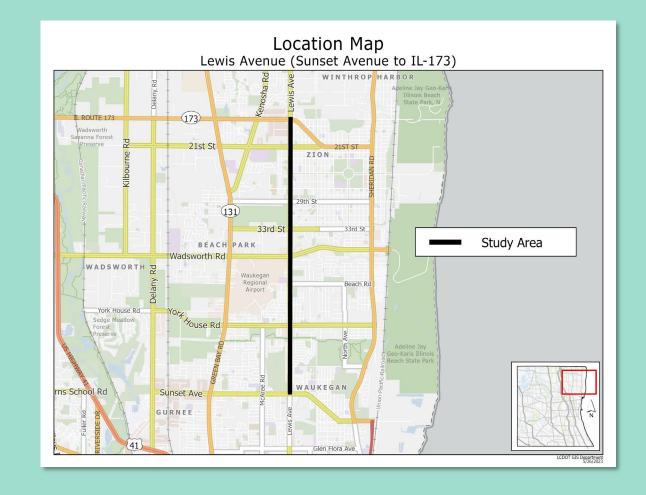
# Hunt Club Rd at Washington St Intersection

- Project Cost: \$20M
- Moves 60,000 daily vehicles (highest volume on LCDOT's system)
- 212 crashes with 91 injuries over 5-year study
- Enhances safety with protected left turn lanes, right-turn lanes, and barrier medians
- Fills non-motorized gaps to Des Plaines River Trail, Millennium Trail, Gurnee Mills, Six Flags
- Target Construction 2024/2025



## Lewis Ave: Sunset Ave to IL 173

- Initial engineering study to investigate crashes and potential range of alternatives
- 5-mile corridor with over 20,000 vehicles per day
- 877 crashes (322 injury crashes) over 5year study period
- Plan to submit Safe Streets and Roads for All (SS4A) implementation grant (federal IIJA funds)



## Non-motorized / Active Transportation

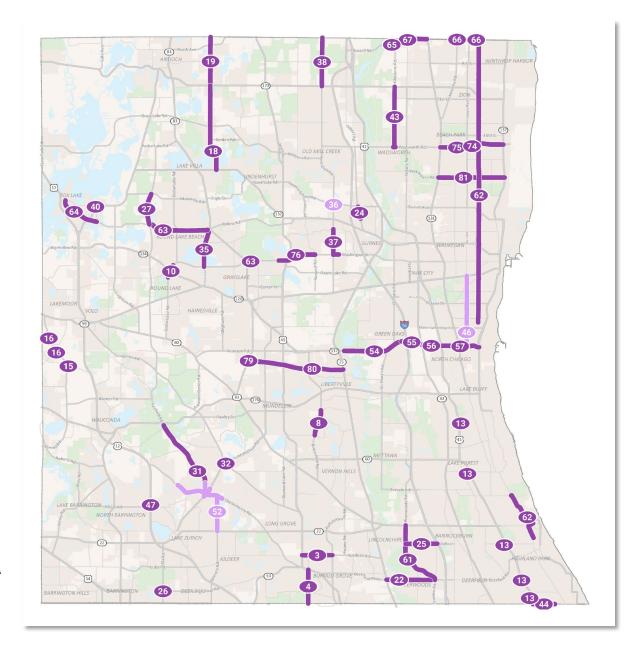
#### \$98 Million Planned Investment

- 31.5 miles of paved shoulder
- 55.7 miles of bike path
- 14.3 miles of sidewalk



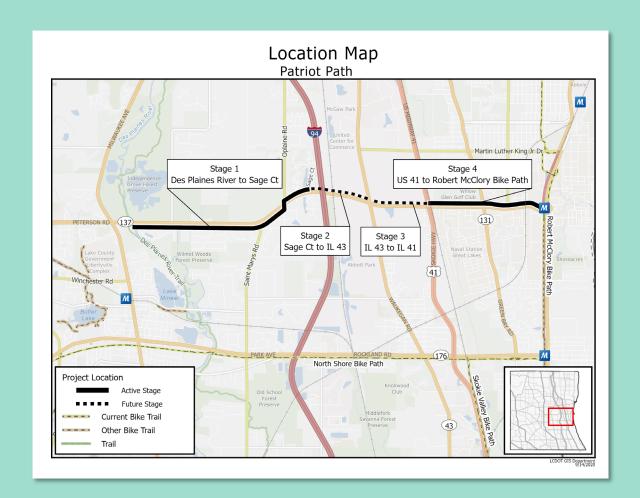






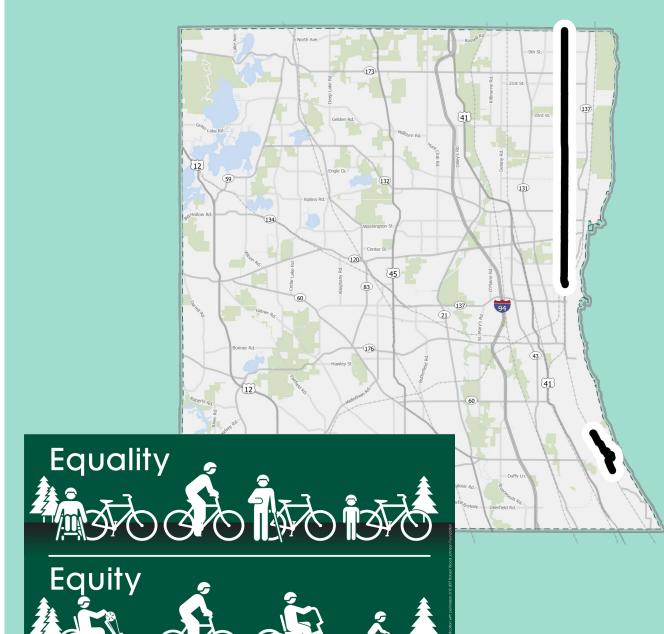
#### Patriot Path

- Project Cost: \$30M
  - Secured \$4.4M ITEP; \$3M TAP
- Constructs 5.5 miles of bike path along IL137, connecting the Des Plaines River Trail (Libertyville) to the Robert McClory Bike Path (North Chicago)
- Provides new opportunities for alternate travel modes
- Enables access to key destinations including transit stops, open space, and employment centers
- Targeting 2025 construction for Stage 1 and Stage 4



## McClory Bike Path / US Bike Route 37

- Convert northern 11-mile segment from gravel to pavement for improved rideability and maintenance
- Re-pave sections of southern segment
- Improve drainage
- Improve safety at uncontrolled roadway crossings
- Coordinate with local communities to enhance trail amenities and provide better mode options for all users



## Bike Path Wayfinding Signs

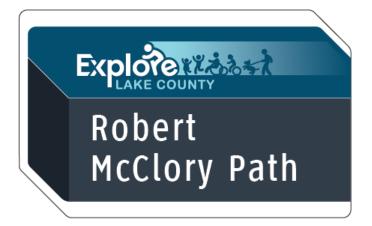
- Installing Explore Lake County Wayfinding Signage
  - North Shore Path
  - Robert McClory Path
  - Skokie Valley Path
  - Others soon
- Route identification with key destinations, distances and mile markers
- LCDOT sign shop is completing fabrication and installation of the 870+ wayfinding signs

View Wayfinding Guide:

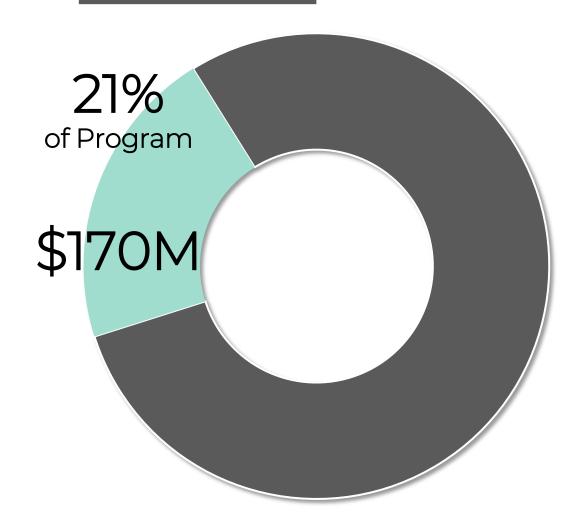
lakecountyil.gov/4171/Bike-Path-Wayfinding-and-Signage-Study







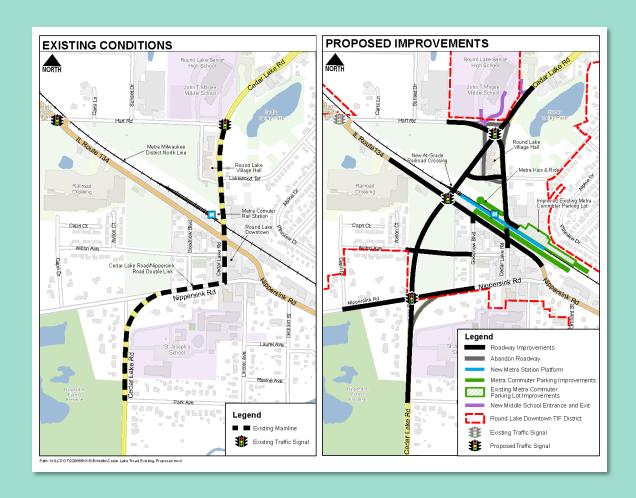
## Expansion



Route	Туре	Program Year	Total Cost
Aptakisic Road	Highway/Road - Add Lanes	2023	\$14,904,780
Buffalo Grove Road	Highway/Road - Add Lanes	2026	\$20,516,987
Cedar Lake Road	Highway/Road - New Road	2025	\$34,842,061
Old McHenry Road	Highway/Road - Railroad Grade Separation	2025	\$52,270,022

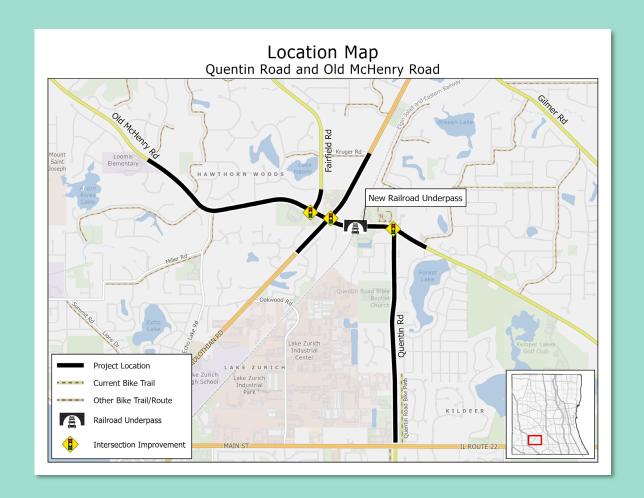
## Cedar Lake Rd Realignment

- Project Cost: \$37M
- Realigns Roadway
- Round Lake Metra Station modernization
  - Boarding platforms
  - Warming shelters
  - Parking lot/Bus parking
- Relocates railroad siding
- Expands sidewalk and bike path connections to downtown business district and fills a key gap on Millennium Trail



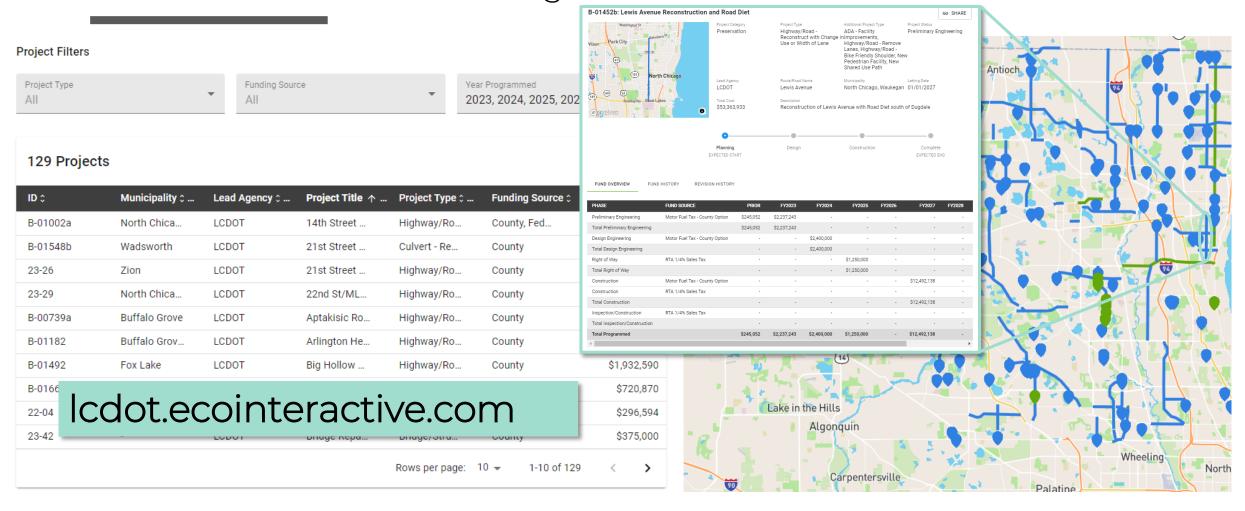
#### Old McHenry Crossings

- Project Cost: \$148M
- Around 30,000 vehicles use corridor daily
- Over 20 daily freight trains increase congestion for motorists, school buses, and emergency responders
- Ongoing engineering study evaluates roadway, intersection and nonmotorized improvements, including a road/rail grade separation



#### Project Tracker

Online Resource – 5 Year Program Details



#### Ride Lake County

- Countywide Borderless Paratransit Service
- Launched May 1, 2022
- Over 27,000 trips in the first year (and growing)
- Funding provided by Pace, Lake County, RTA (5310 grant funds)



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



#### **Program Sponsors:**









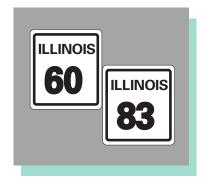
# Major State Projects Advancing in IDOT's Multi-Year Plan



US Route 41

AT IL176

PHASE 2 UNDERWAY \$84M



**IL Route 60/83** 

IL176 to EJ&E Railroad (with grade separation)

PHASE 2 UNDERWAY \$142M

131

IL Route 131

**ILLINOIS** 

Sunset Ave to Wadsworth Rd

PHASE 2 UNDERWAY \$88M



**US Route 45** 

N of IL132 to Washington St

PHASE 2 UNDERWAY \$47M



**IL Route 22** 

Quentin Rd to IL83

PHASE 2 UNDERWAY

\$82M

#### LCTA Annual Meeting

## Thank you!



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