

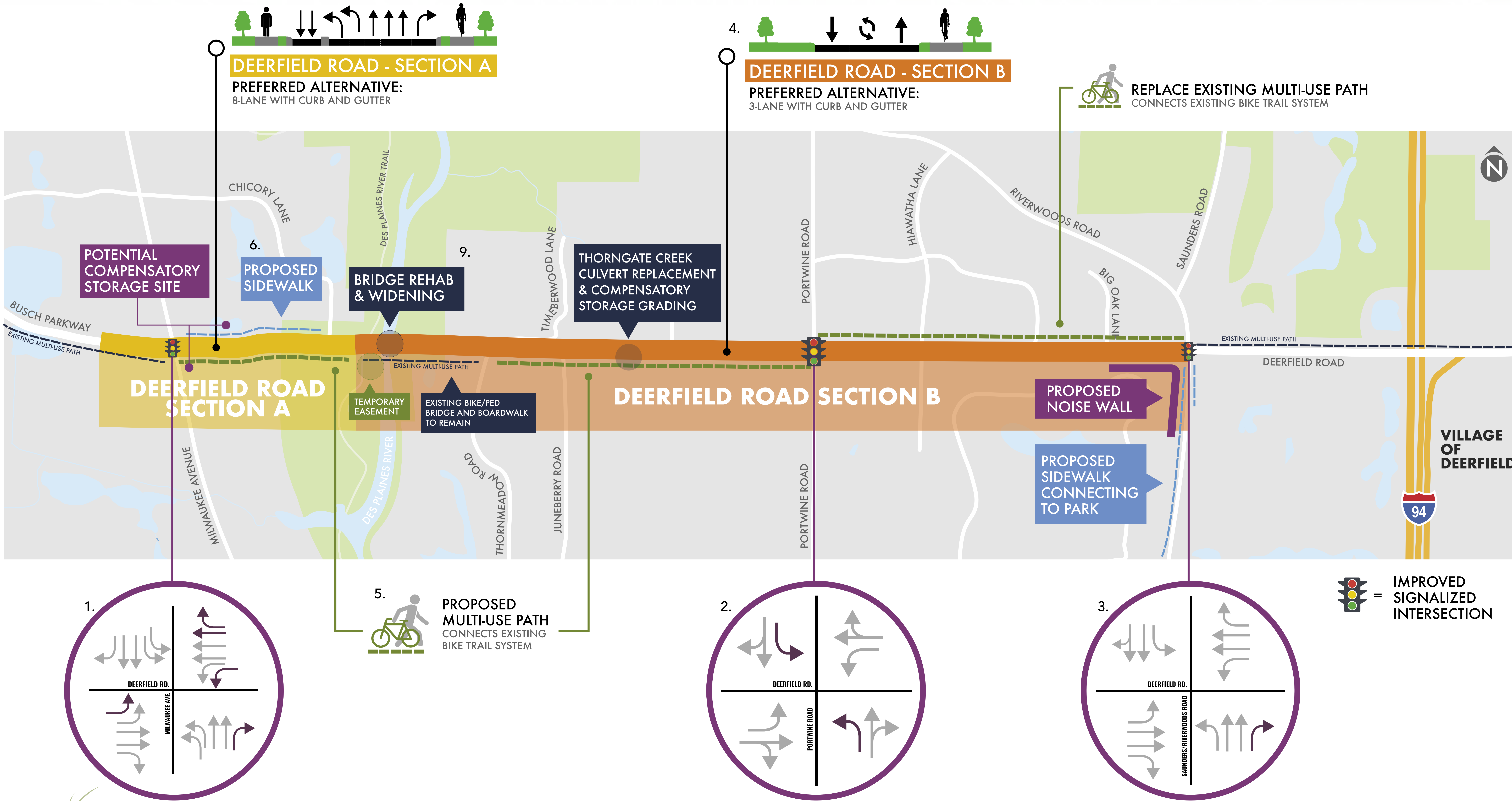


DEERFIELD
Road

MILWAUKEE AVENUE TO
SAUNDERS/RIVERWOODS ROAD

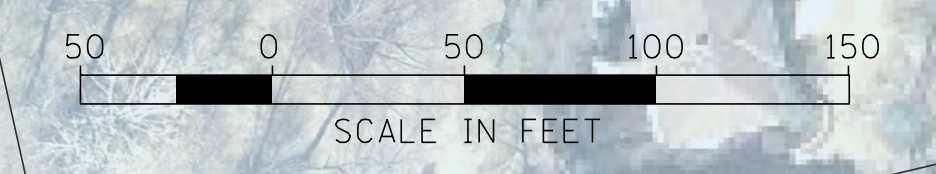
PREFERRED ALTERNATIVE

PREFERRED ALTERNATIVE SUMMARY

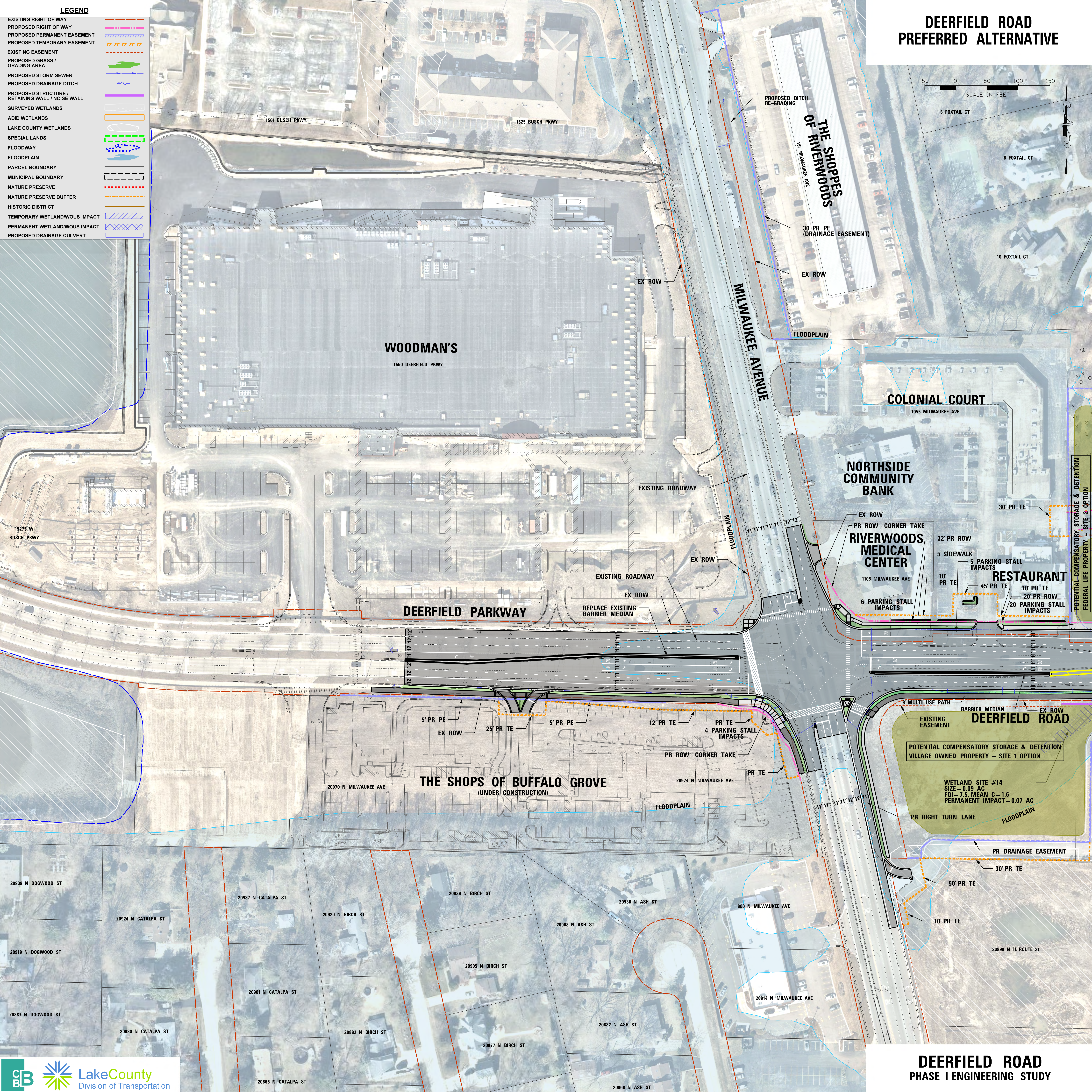


1. Intersection improvement at Milwaukee Avenue, including two thru lanes, dual left turn lanes, and an exclusive right turn lane on the northbound, southbound, and eastbound approaches and three thru lanes, dual left turn lanes, and an exclusive right turn lane on the westbound approach.
2. Intersection improvement at Portwine Road, including an exclusive left turn lane on the northbound and southbound approaches.
3. Intersection improvement at Saunders/Riverwoods Road, including a right turn lane on the northbound approach.
4. The typical roadway section from Milwaukee Avenue to Saunders/ Riverwoods Road includes two 11 feet wide travel lanes in each direction separated by a 12 feet wide two-way left turn lane and 3 feet wide bike friendly shoulders bounded by barrier curb and gutter.
5. A separate 8-foot wide multi-use path along the south side of the roadway from Milwaukee to Portwine Road and along the north side of the roadway from Portwine Road to Saunders/ Riverwoods Road. The multi-use path will be a part of the regional Lake County Trail network.
6. A 5-foot wide sidewalk along the north side of Deerfield Road from Milwaukee Avenue to Chicory Lane, west side of Portwine Road from Deerfield Road south to Arrowwood Trail, and west side of Saunders Road from Deerfield Road to Thorngate HOA Park.
7. A new closed drainage system.
8. A new pavement structure.
9. Widening and re-decking of the Deerfield Road bridge structure over the Des Plaines River.

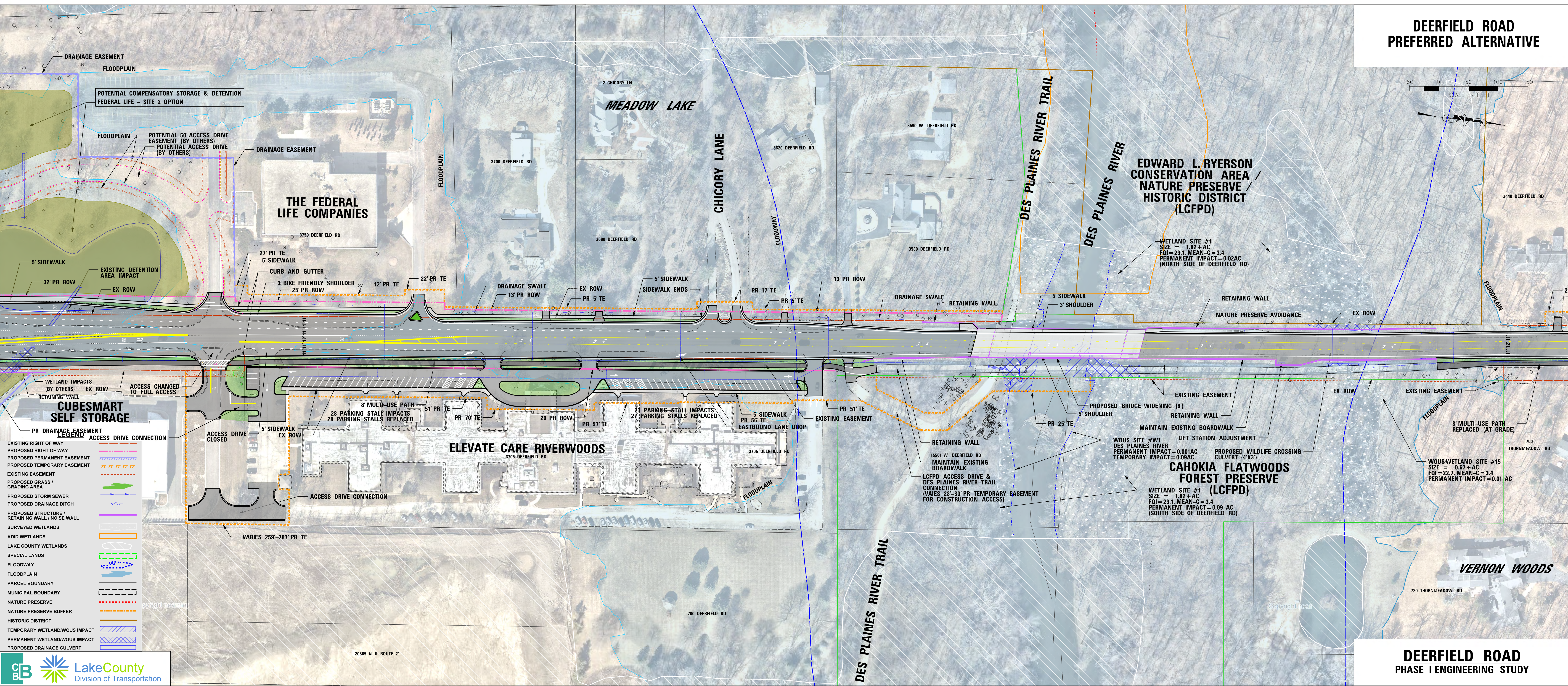
DEERFIELD ROAD PREFERRED ALTERNATIVE



LEGEND	
EXISTING RIGHT OF WAY	--- (dashed line)
PROPOSED RIGHT OF WAY	--- (dashed line)
PROPOSED PERMANENT EASEMENT	--- (dashed line)
PROPOSED TEMPORARY EASEMENT	--- (dashed line)
EXISTING EASEMENT	--- (dashed line)
PROPOSED GRASS / GRADING AREA	--- (dashed line)
PROPOSED STORM SEWER	--- (dashed line)
PROPOSED DRAINAGE DITCH	--- (dashed line)
PROPOSED STRUCTURE / RETAINING WALL / NOISE WALL	--- (dashed line)
SURVEYED WETLANDS	--- (dashed line)
ADID WETLANDS	--- (dashed line)
LAKE COUNTY WETLANDS	--- (dashed line)
SPECIAL LANDS	--- (dashed line)
FLOODWAY	--- (dashed line)
FLOODPLAIN	--- (dashed line)
PARCEL BOUNDARY	--- (dashed line)
MUNICIPAL BOUNDARY	--- (dashed line)
NATURE PRESERVE	--- (dashed line)
NATURE PRESERVE BUFFER	--- (dashed line)
HISTORIC DISTRICT	--- (dashed line)
TEMPORARY WETLAND/IOUS IMPACT	--- (dashed line)
PERMANENT WETLAND/IOUS IMPACT	--- (dashed line)
PROPOSED DRAINAGE CULVERT	--- (dashed line)



**DEERFIELD ROAD
PREFERRED ALTERNATIVE**



LEGEND

EXISTING RIGHT OF WAY	
PROPOSED RIGHT OF WAY	
PROPOSED PERMANENT EASEMENT	
PROPOSED TEMPORARY EASEMENT	
EXISTING EASEMENT	
PROPOSED GRASS / GRADING AREA	
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PROPOSED DRAINAGE CULVERT	

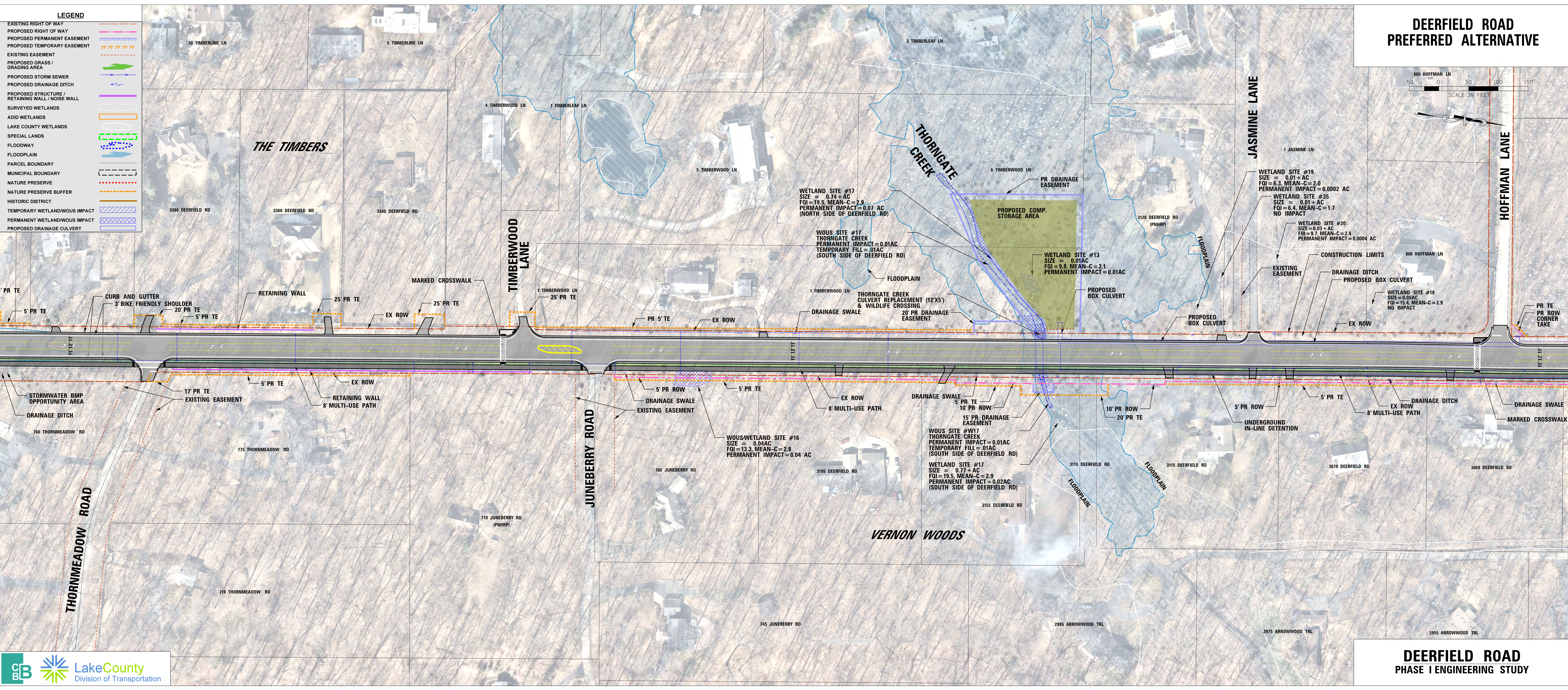
**DEERFIELD ROAD
PHASE I ENGINEERING STUDY**

DEERFIELD ROAD PREFERRED ALTERNATIVE



LEGEND

- EXISTING RIGHT OF WAY
- PROPOSED RIGHT OF WAY
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- PROPOSED TEMPORARY EASEMENT
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DEERFIELD ROAD PHASE I ENGINEERING STUDY

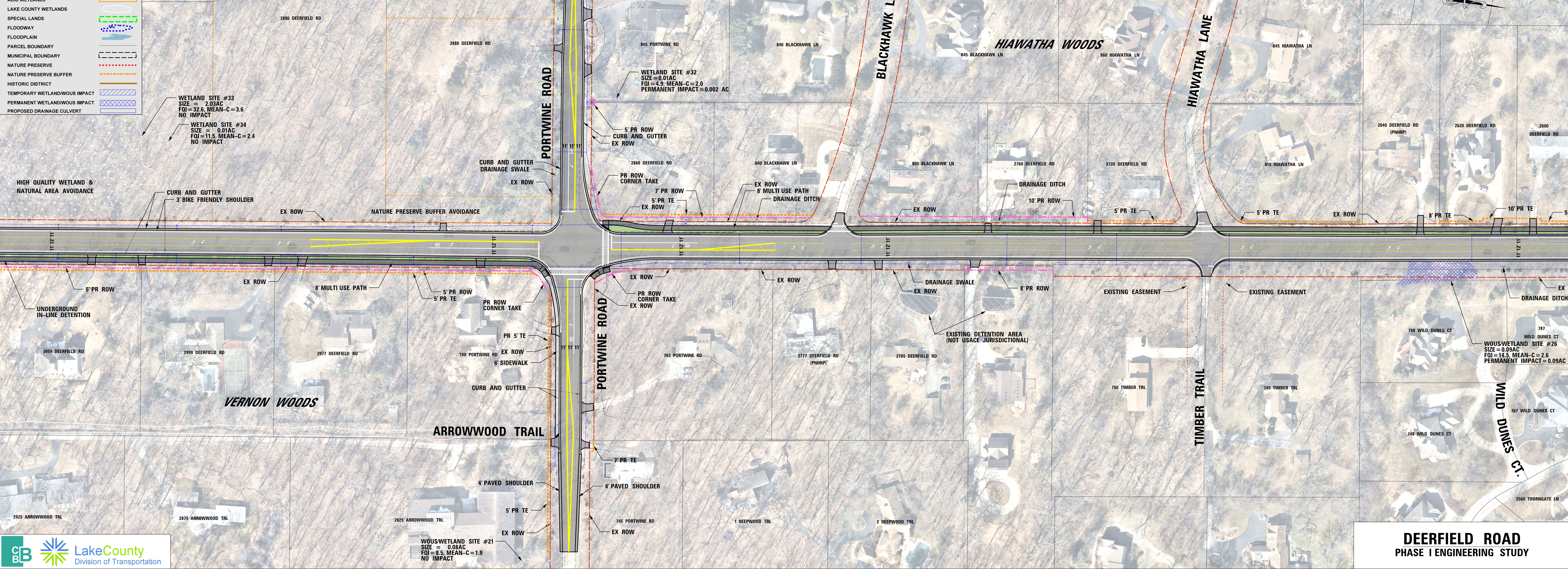
**DEERFIELD ROAD
PREFERRED ALTERNATIVE**



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**HERRMANN WILDFLOWER
FARM ADDITION
NATURE PRESERVE BUFFER
TO THE
EDWARD L. RYERSON
NATURE PRESERVE
(PRIVATE PROPERTY)**

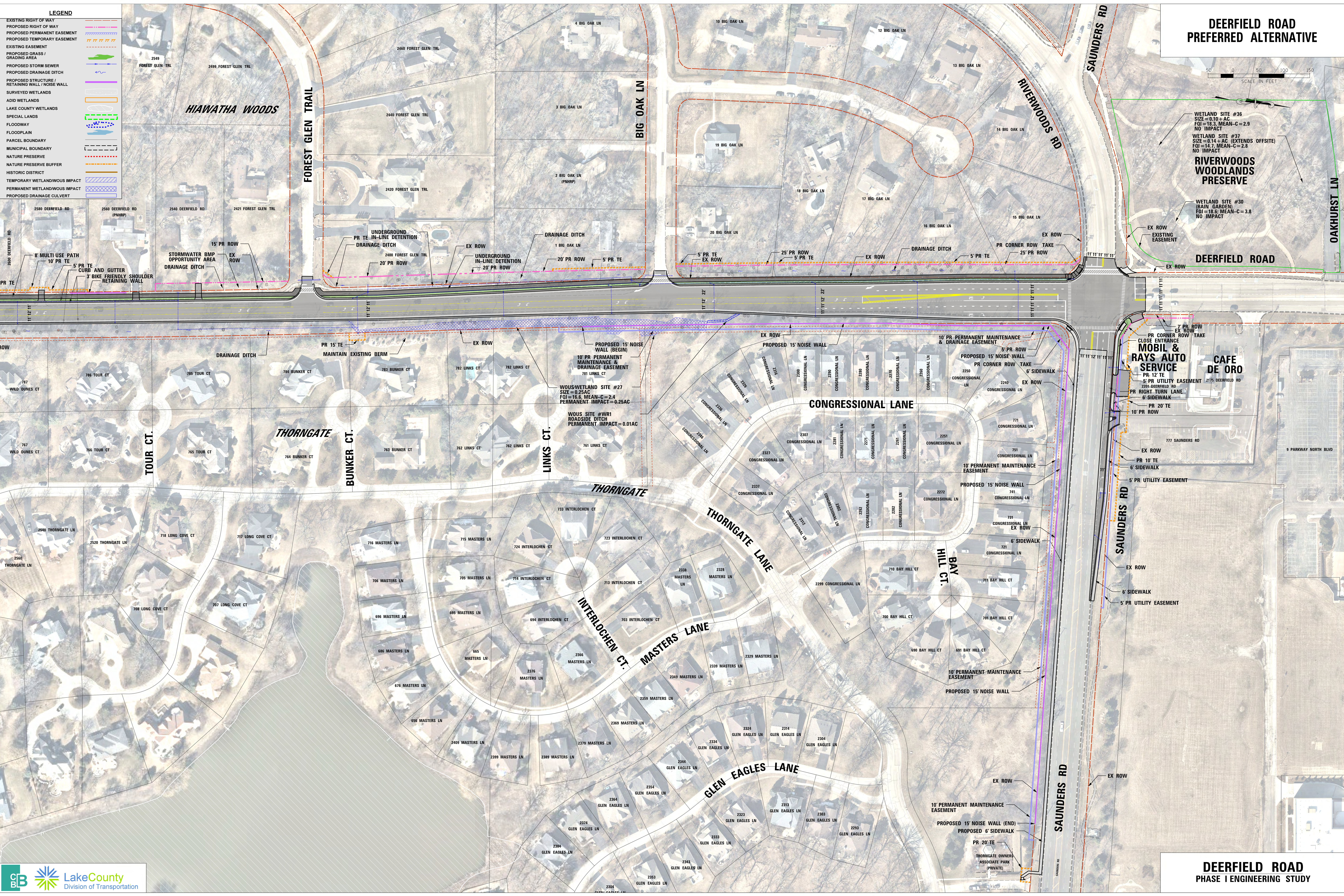


DEERFIELD ROAD
PREFERRED ALTERNATIVE



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- PERMANENT WETLAND/IMPACT
- PROPOSED DRAINAGE CULVERT



WETLAND SITE #36
SIZE = 0.10 AC
FOI = 18.3, MEAN-C = 2.9
NO IMPACT

WETLAND SITE #37
SIZE = 0.14 AC (EXTENDS OFFSITE)
FOI = 14.7, MEAN-C = 2.8
NO IMPACT

RIVERWOODS WOODLANDS PRESERVE

WETLAND SITE #30
SIZE = 0.14 AC (RAIN GARDEN)
FOI = 18.6, MEAN-C = 3.8
NO IMPACT

DEERFIELD ROAD

CONGRESSIONAL LANE

THORNGATE

THORNGATE LANE

MASTERS LANE

GLEN EAGLES LANE

DEERFIELD ROAD
PHASE I ENGINEERING STUDY

PREFERRED ALTERNATIVE EVALUATION TABLE

 **The Preferred Alternative is: Combination of Section A Alternative A1D and Section B Alternative 3**

Benefits include:

- PM westbound travel time is anticipated to decrease 80% (36 minutes to 7 minutes)
- Overall delay at Milwaukee Avenue intersection is anticipated to decrease 70%
- Turning movement deficiencies addressed at Portwine Road and Saunders/Riverwoods Road intersections
- Mobility is anticipated to improve from 0 to 30 acceptable PM gaps
- Injury crashes are expected to decrease by 50%
- Operation deficiencies addressed with pavement reconstruction
- Non-motorized connections made between Milwaukee Ave. and Saunders/Riverwoods Road

The Preferred Alternative meets the Purpose and Need of the project.

Other Notable Information

- No Permanent Forest Preserve/Nature Preserve or building Impacts
- Least impactful out of all alternatives considered

EVALUATION CRITERIA	UNIT OF MEASURE	NO-BUILD 2040		PREFERRED ALTERNATIVE	
TRANSPORTATION PERFORMANCE (SYNCHRO MODELING)					
Deerfield Road Average Daily Traffic (ADT)		20,200		20,600	
Intersection Level of Service (LOS) and Average Delay ¹		AM	PM	AM	PM
Deerfield Road at Milwaukee Avenue Intersection	LOS (sec/veh)	E (66.7)	F (221.6)	D (44.0)	E (72.1)
Deerfield Road at Portwine Road Intersection	LOS (sec/veh)	C (25.7)	D (37.1)	C (24.8)	D (44.8)
Deerfield Road at Saunders/Riverwoods Road	LOS (sec/veh)	C (29.9)	D (37.5)	C (27.2)	C (25.1)
Total Travel Time		AM	PM	AM	PM
Deerfield Road Eastbound (Milwaukee Avenue to Saunders/Riverwoods Road)	Minutes	6.5	6.8	6.6	6.2
Deerfield Road Westbound (Saunders/Riverwoods Road to Milwaukee Avenue)	Minutes	6.6	35.6	4.7	6.7
MOBILITY (SYNCHRO MODELING)					
Roadway Section Average Vehicular Gap Acceptance		AM	PM	AM	PM
Gaps Per Hour at Stop Controlled Intersections/Driveways (Reference Location Timberwood Ln/Juneberry Rd)	# gaps (> 8 seconds) per hour	52	0	53	31
NON-MOTORIZED ACCOMMODATIONS					
Non-Motorized Accommodations	scale	-		+++++	
SAFETY (ILLINOIS HIGHWAY SAFETY DESIGN MANUAL)					
Average Predicted Crashes - Deerfield Road (Milwaukee Avenue to Saunders/Riverwoods Road)	% increase injury crashes/year	4.8%		-51.4%	
ENVIRONMENTAL RESOURCES					
Added Net Pavement/Impervious Area	acres	-		5.72	
Floodplain Impact	acres	-		3.54	
Floodway Impact	acres	-		0.83	
Wetlands Impact	acres	-		0.65	
High Quality Wetlands Impact	acres	-		0.19	
Tree Impacts	each	-		1,020	
Natural Area Impacts	acres	-		0.008	
Nature Preserve Impacts	acres	-		0.0	
Permanent Forest Preserve District Impact	acres	-		0.0	
Temporary Forest Preserve District Impacts	acres	-		0.3	
SOCIO-ECONOMIC IMPACTS					
Residential/Commercial Structure Impacts	scale	-		0	
Temporary Easements	each	-		4.51	
Permanent Easements	acres	-		6.77	
Proposed ROW	acres	-		3.03	
Parcels Impacted	each	-		74	
COST					
Phase I Engineering Estimate of Construction Cost	dollars	-		\$32,600,000	