



CASE STUDY

**INTERSECTION IMPROVEMENT
CEDAR ROAD & LARAWAY ROAD**



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OVERVIEW

Scope of Work

In collaboration with the Will County Division of Transportation, PT Ferro led the reconstruction of the Cedar & Laraway Road intersection, an ambitious infrastructure improvement spanning over a mile of roadway. The project aimed to enhance traffic flow, improve safety, and accommodate future growth in the rapidly developing New Lenox area. This multifaceted project required precision, coordination, and expertise.

Client: Will County Division of Transportation

Location: Intersection of Cedar Road & Laraway Road, New Lenox, IL

Project Timeline: Summer 2021 – Late 2022 (Final Touches in Early 2023)

Contract Number: 61B89

Total Length: 1.11 miles (approx. 5835 feet)

Stakeholders

Eric Wesel, Design Manager for Will County Division of Transportation

Michael Szubryt, P.L.S., Engineer for Will County Division of Transportation.

Joe Cucio, PT Ferro Project Manager for PT Ferro Construction

Eric Zola, General Superintendent for PT Ferro Construction





I. INTRODUCTION – A SMALL INTERSECTION WITH BIG POTENTIAL

In the growing community of New Lenox, Illinois, the intersection of Cedar and Laraway Roads had become a notorious bottleneck of outdated design, growing traffic, and community frustration.

Will County, one of the fastest-growing regions in the U.S., needed a forward-thinking solution for this key intersection in the Laraway Road Corridor, which connects major routes like I-57 and Route 53

COMPREHENSIVE SOLUTIONS

The work included:

- Full-depth pavement removal and replacement
- Construction of temporary pavement to maintain traffic flow
- Hot-mix asphalt binder and surface courses
- New concrete curbs, gutters, and medians
- Storm drainage system upgrades and detention basin construction
- Relocation and adjustment of Village of New Lenox water mains
- Signalized intersection improvements, Including:
 - New LED traffic signals and emergency vehicle priority systems
 - Installation of mast arm poles and signal posts
 - New street lighting systems
- Extensive traffic control, including phased lane closures
- Pavement striping, signage, and final landscaping

Led by the Will County Division of Transportation (WCDOT) in partnership with the Village of New Lenox, the project aimed to modernize infrastructure, increase roadway capacity, and address critical drainage challenges. PT Ferro Construction was awarded the contract to bring this vision to life.

Spanning over 1.1 miles, this project was more than a facelift. It was a critical investment in safety, flow, and resilience for a corridor poised for future development.





II. CONGESTION, DRAINAGE, AND DECADES-OLD DESIGN

Cedar and Laraway had become a high-volume intersection operating well above its original design capacity. What was once a three-lane intersection became a daily source of backups, long delays, and safety concerns for residents, commuters, and commercial vehicles alike.

Frequent flooding added another layer of complexity. In spring, nearby farmland would flood the roadway, prompting locals to nickname it 'Lake Laraway.' Drainage was not only outdated, but it was also virtually nonexistent. Field tile systems under both roads required careful preservation or rerouting to maintain proper flow.

Additionally, utilities presented an ongoing coordination challenge. A late-stage gas main design conflict required rethinking of trunkline routing, and land acquisition was necessary to support a permanent stormwater basin. Despite these challenges, PT Ferro and the County maintained momentum by staying responsive and solution-oriented.

“THIS WAS A SUCCESSFUL PROJECT FOR EVERYONE INVOLVED,”
ADDED **JOE CUCIO, PT FERRO PROJECT MANAGER**. “NO ACCIDENTS,
NO MAJOR REWORK, JUST A WELL-EXECUTED JOB THAT’S GOING TO
LAST A LONG TIME.”

MAJOR UPGRADES INCLUDED:

	Full-depth roadway reconstruction on Cedar Road and Laraway Road, extending over 1.1 miles
	Addition of dedicated left and right turn lanes for optimized intersection movement.
	Modernized traffic signal system featuring LED signal heads, emergency vehicle preemption, and new control cabinets.
	Stormwater system overhaul, including upsized pipes, field tile integration, and catch basin installation
	Construction of a detention basin on the west leg of Laraway Road to mitigate flooding and manage stormwater runoff.
	New street lighting, using energy-efficient LED luminaires mounted on mast arms

III. THE SOLUTION – BUILDING CAPACITY AND RESILIENCE

PT Ferro led a full intersection reconstruction, widening it from three to seven lanes, including dedicated left and right-turn lanes and a concrete median.

This provided the flexibility and flow needed for future development while improving current safety.

Stormwater improvements included the construction of a new detention pond and the installation of modern subsurface infrastructure. The base of the basin was restored with prairie grass to minimize maintenance and support natural absorption.

Pre-Stage Widening: Temporary pavement was constructed on the outer shoulders to shift traffic away from active work zones, allowing for continuous two-way traffic throughout construction.

This approach maintained safe public access while keeping the project moving forward.

Primary Construction Stages: Work was divided into substages to accommodate excavation, utility relocations, storm sewer installation, and paving.

Careful sequencing allowed the team to work around known utility conflicts and phase in new infrastructure while maintaining partial use of the intersection.

TO MINIMIZE COMMUNITY DISRUPTION DURING CONSTRUCTION, PT FERRO & WCDOT IMPLEMENTED A METICULOUSLY PLANNED, MULTI-STAGE PHASING STRATEGY



IV. COLLABORATION & COMMUNITY

This project was deeply collaborative. PT Ferro worked closely with Will County DOT, the Village of New Lenox, utility providers, and private landowners to keep the project running efficiently. Eric Zola, overseeing earthwork, ensured that drainage infrastructure was installed with long-term functionality in mind.



WILL COUNTY DIVISION OF TRANSPORTATION (WCDOT)

provided engineering oversight, clear specifications, and timely decision-making. PT Ferro maintained continuous contact with the County throughout the project, ensuring that staging, scheduling, and sequencing aligned with long-term goals for the broader Laraway Road Corridor.

The strong working relationship with WCDOT allowed issues to be identified and resolved early, keeping the project on track.

THE VILLAGE OF NEW LENOX was instrumental in facilitating water main adjustments and providing access to local utility records. PT Ferro worked with the Village's engineering and public works departments to coordinate relocations and ensure minimal impact on residents.

PRIVATE LANDOWNERS also played a key role. A critical drainage solution, the construction of a detention pond, required the purchase and repurposing of farmland on the west leg of Laraway.

PT Ferro supported the County in working with the landowner to develop a plan that would benefit both the project and the farmer's adjacent fields. The pond now serves as a vital stormwater basin that reduces flooding risk for the entire intersection and surrounding land.

LOCAL BUSINESSES, especially the gas station located at the intersection, required uninterrupted access throughout construction. The original design proposed a concrete median that would have limited left-turn access into the station. After stakeholder input and field review, the design was revised to restore access without compromising safety. This kind of adaptability was critical to maintaining goodwill with the public.

COMMUNICATION was ongoing, from advance notices about lane closures to collaboration with utility companies like AT&T, ComEd, and Nicor to schedule relocations without impacting the public.

“THEY WERE ALWAYS ON-SITE, WORKING HARD AND KEEPING THE PROJECT ON TIME. IT'S GREAT TO WORK WITH PEOPLE WHO SEE THE VISION AND DO WHAT IT TAKES TO GET THERE, SAID **ERIC WESEL, DESIGN MANAGER**, ABOUT WORKING ALONGSIDE PT FERRO CONSTRUCTION.”

V. RESULTS – INFRASTRUCTURE THAT WORKS FOR THE FUTURE

The improved intersection now handles large volumes of traffic efficiently, including freight, school buses, and emergency vehicles. Dual turn lanes, upgraded traffic signals, and improved roadway geometry have made driving safer and faster.

Improved Traffic Flow and Safety:

Prior to construction, the three-lane configuration could not efficiently manage peak-hour traffic. The upgraded design features seven full-width lanes, including dual turn lanes and through lanes, that streamline movement in every direction. Signal timing was modernized with fully-actuated controls that respond dynamically to traffic flow, minimizing wait times. These enhancements have reduced vehicle stacking and intersection conflict points, especially during morning and evening rush hours.

Stormwater Management and Flood Mitigation:

Frequent flooding was one of the most pressing issues at the intersection. PT Ferro installed a completely new stormwater stem with upsized pipes, inlets, and field tile connections to accommodate the increased runoff from impervious surfaces. A new detention pond was constructed on the west leg of Laraway Road, requiring property acquisition, excavation, and grading. This pond now acts as a primary flood mitigation basin, capturing stormwater and releasing it at a controlled rate, protecting the roadway, adjacent farmland, and surrounding properties.

Modernized Traffic Signals and Lighting:

The intersection received a complete traffic signal system replacement, including new mast arms, LED signal heads, pedestrian push-button infrastructure, emergency vehicle priority systems, and a battery-backed controller cabinet. Street lighting was also upgraded to LED, improving visibility at night and during inclement weather while reducing energy usage and long-term maintenance costs.

Enhanced Capacity for Growth:

This project aligns with Will County's long-term corridor improvement strategy, including expansion plans from I-57 to Route 53. With new housing developments, commercial projects, and schools already planned or underway, the improved intersection provides the capacity to handle both current and future demand. By increasing throughput and safety, the project supports sustainable regional development.

Truck-Friendly Design Geometry:

The redesign included generous curb radii to accommodate the turning movements of large commercial vehicles, such as semi-trailers and school buses. This eliminates the need for wide, sweeping turns that previously required drivers to swing into adjacent lanes, improving overall traffic safety and efficiency. The concrete median and dedicated turning bays further guide vehicle movements and reduce conflict points.

“ I DRIVE THIS INTERSECTION TWO TO FOUR TIMES A DAY, ADDED **ERIC WESEL, DESIGN MANAGER**. “IT’S IMPROVED, IT’S FASTER AND EASIER TO GET TO AND FROM WORK NOW.”

VI. RECOGNITION – AWARD-WINNING ASPHALT DESIGN



(Left) Joe Cucio, Project Manager for PT Ferro, (Left Middle) Jeff Ronaldson, Will County Engineer, (Right Middle) Wm. David Berkley, Vice President of PT Ferro, (Right) Al Roerig, QC Manager for Ferro Asphalt.

At the 2022 annual Illinois Road and Transportation Builders meeting, PT Ferro was presented with the Will County Division of Transportation Contractor of the Year award for their work completed on Cedar Road at Laraway Road.

In 2024, the Cedar and Laraway Road intersection project received the prestigious Perpetual Pavement by Design Award from the Asphalt Pavement Alliance.

This national honor recognizes projects built to last, using layered asphalt designs that resist deep distress and require only surface renewal over time. According to the APA,

PERPETUAL PAVEMENT STRUCTURES ARE AN EXCELLENT INVESTMENT FOR TAXPAYERS BECAUSE THEY ONLY REQUIRE PERIODIC SURFACE RENEWAL, HAVE THE MOST PRESERVATION OPTIONS, AND NEVER REQUIRE RECONSTRUCTION.

Will County was presented with a commemorative crystal obelisk to recognize this achievement, an acknowledgment of engineering excellence, strong design practices, and high-quality field execution.



VII. CONCLUSION – MORE THAN AN INTERSECTION

The Cedar and Laraway intersection project demonstrates the power of smart design, skilled work, and collaboration. What was once a daily inconvenience for residents is now a model of modern infrastructure, built to last, built for safety, and built with the future in mind.



Feedback from residents and the County Board has been overwhelmingly positive. *“The road is going to stay there a long time,”* a community member stated. *“It was constructed effectively and with consideration for future needs.”*

Others noted how smooth the drive has become, how safe it feels at night thanks to the new lighting, and how easily they now get to work on time without sitting in congestion. Farmers are also pleased that formerly flooded fields are now dry and usable.

This intersection will serve as a gateway to development, a solution to long-standing issues, and future development, and a symbol of what it means to invest wisely in public infrastructure.

And for everyone involved, from the engineers and laborers to the neighbors who watched it rise, it’s something to be proud of.

IT FEELS GOOD WHEN YOU DRIVE THROUGH AND EVERYTHING WORKS LIKE IT’S SUPPOSED TO,” SAID MICHAEL SZUBRYT, P.L.S., LAND SURVEYOR – RESIDENT ENGINEER FOR WILL COUNTY DIVISION OF TRANSPORTATION.

“AS A NEW LENOX RESIDENT, I USED TO SEE TRAFFIC FLOW BACK UP ON CEDAR, AND THAT’S NOT A PROBLEM ANYMORE.

THANK YOU



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