2017

ANNUAL REPORT
DEKALB COUNTY
HIGHWAY DEPARTMENT

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Introduction

The DeKalb County Highway Department performs many services throughout the year. Some of the more notable services include plowing snow from the county highway during the winter months. During the spring, summer, and fall, the highway department crews can be seen doing things such as mowing ditches, trimming trees, spraying for noxious weeds, crack filling, replacing pipe culverts, cleaning ditches, painting stop bars and railroad crossings, surveying for construction, placing gravel on roadside shoulders, and maintaining the 3,000 signs on county highways. Among the multiple services the public doesn't see is the inspection of bridges.

Per federal requirements, a bridge structure is considered any structure over 20 ft long measured along the centerline of the highway. Newer bridges are inspected every 4 years. Once a bridge begins to deteriorate, it is inspected every 2 years. Some bridges are of low enough quality that they are inspected every year. Most bridges in DeKalb County are inspected on the 2-year cycle.

In order to inspect a bridge, an inspector must be trained and qualified. Most bridge inspectors are qualified after getting field experience, passing a prerequisite class, and finally passing the exam after an 80 hour class. Continuing education is also required for all bridge inspectors.

If a bridge has any of the overall components (Deck, Superstructure, Substructure) rated poor (4 or less out of 9), the bridge is considered a structurally deficient structure. This does not mean the bridge is unsafe or likely to collapse. Rather, it means the bridge needs to be monitored, inspected, and maintained.

On the local highway system, there are 45 county bridges, 18 municipal bridges in 5 municipalities, and 139 township or road district bridges. The DeKalb County Highway Department performs the bridge inspections and maintains the inspection records for 191 of the 202 bridges. These bridges are a critical component for the transportation network.

Each year, the American Society of Civil Engineers provides a report card for the infrastructure of the United States. Nationwide, the roads recently received a D and bridges received a C+. In Illinois, roads received a D+ and bridges received a C+. One of the key components for grading the bridge system is the number of bridges which are structurally deficient.

In DeKalb County, 24 bridges on the local highway system are considered structurally deficient. The number of bridges for each type of jurisdiction is:

County Bridges	4
Township Bridges	15
Municipal Bridges	5

With the rising cost of construction and limited opportunities for outside funding, replacement of these structures can be difficult to schedule. Fortunately in the next 4 years, 9 of those bridges will be addressed. Three of the bridges will be replaced with local County funds, 3 will be replaced with a combination of the County's federal funds with local funds, and 3 will be replaced with federal grant funds.

We continue to monitor the status of not only County bridges, but township and many municipal bridges. We also continue to seek opportunities for external funding sources to help upgrade our local transportation network. If you see a Highway Department truck parked next to a bridge with the strobe lights flashing and no one is in sight, it is probably us making sure the bridge is safe for you to drive over.

Waterman Road Reconstruction

Waterman Road between the Village of Waterman and Perry Road is part of the original north-south state highway in DeKalb County. Jurisdiction was transferred from the State to the County when Illinois Route 23 was moved one mile east to its current location. Because of the combination concrete/bituminous road composition of Waterman Road and years of poor drainage in the ditches, a traditional overlay would only have temporary benefits. The County has been planning to rebuild the 5.0 miles of Waterman Road for years. It began that multi-year reconstruction process in 2017.

The 2017 reconstruction included milling the existing blacktop from the top of the road. The existing concrete pavement underneath was cracked into small pieces and left in place to be used as the subbase for the new road. The blacktop millings were spread over the broken concrete and capped with new aggregate to become the new roadway base. The road received a temporary seal coat surface until the hot mix asphalt is placed in a few years.

In anticipation of drainage improvements over the next couple of years, the majority of the crossroad culverts were replaced with this project. The driveway pipes will be replaced with the shoulder widening and ditch grading. After everything is complete, the final paving of the road will occur.

Civil Constructors, Inc. of Freeport, IL performed the work at a cost of $1,319,470.35. The estimated cost of the project was $1,923,042.75. Of the total, 87% was paid using state Motor Fuel Tax funds and 13% using local Matching Tax funds. The DeKalb County Highway Department prepared the plans for the Waterman Road reconstruction project. Kevin Fricke of the County Highway Department performed the construction inspection.

Somonauk Road Resurfacing

Somonauk Road between the Town of Cortland and the City of Sycamore was last paved in 2003. This 3.3-mile project included resurfacing the existing road and adding paved safety shoulders throughout the entire section.

When planning the project, the County contacted the municipalities at both ends of the project about merging their Somonauk Road projects with the County's project. The City of Sycamore added part of its section of Somonauk Road from Conlin Avenue to Bethany Road. While the Town of Cortland was interested in adding to the project, the scheduling did not work out.

Curran Contracting Company of Crystal Lake, IL performed the paving at a cost of $739,164.46. The estimated cost of the project was $1,046,420.00. Of the total, $273,600.00 was paid using Illinois Truck Access Route Program funds, $419,046.49 was paid using existing construction bond proceeds, and $46,869.74 was paid by the City of Sycamore. The DeKalb County Highway Department prepared the plans for the Somonauk Road resurfacing project. Brad Hunold of the County Highway Department performed the construction inspection.

Somonauk Road Bridge

The Somonauk Road bridge over the Somonauk Creek south of Chicago Road was originally built in 1991. This 71 ft long structure had considerable deterioration due to overweight loads on the structure. The bridge was classified as “structurally deficient”.

The Somonauk Road bridge was scheduled for replacement in 2016. Due to the potential presence of the Slippershell Mussel, a threatened species in Illinois, the project was delayed until 2017 after additional surveys and mitigation could be performed. The new 85 ft long bridge was completed and the road opened to traffic by Labor Day in time for the Sandwich Fair.

Martin & Company Excavating of Oregon, IL was the contractor on this $631,610.58 project. The estimated cost of the project was $843,314.50. 100% of the project was paid using local Bridge Tax funds. Chastain & Associates, LLC of Rockford, IL performed the preliminary and design engineering. Jerry Busse of the County Highway Department performed the construction inspection.

Barber Greene Road Bridge Deck Repair

This project was the bridge deck repair of a 117 ft long structure in Cortland Township originally built in 1960 over part of the South Branch of the Kishwaukee River. While the bridge deck had numerous potholes, the underside of the deck and the substructure were both in good condition.

The contractor used hydrodemolition to remove the bad concrete from the bridge deck. This process includes spraying water at 16,000 psi which removes concrete in poor condition but leaves sound concrete in place. The deck was then cleaned and a new concrete surface poured. These repairs removed the “structurally deficient” status of this bridge.

Civil Constructors, Inc. of Freeport, IL was the contractor on this $147,503.51 project. The estimated cost of the project was $160,902.00. 37% of the project was paid using Township Motor Fuel Tax funds (TMFT) and 73% paid using Cortland Township local funds. Wendler Engineering Services, Inc. of Dixon, IL performed the preliminary and design engineering for the Barber Greene Road bridge project. Jerry Busse of the County Highway Department performed the construction inspection.

Sycamore Forest Preserve

In 2014, DeKalb County purchased Evergreen Village using a federal grant. The residents were relocated out of the floodway and the process began to transform the site into a park. For the next year, DeKalb County removed the structures and created open space on the property. In 2016, the DeKalb County Forest Preserve District began a project to improve parking and add bicycle & pedestrian paths with oversight by the County Highway Department.

The construction portion of the project was completed of July 2017. Although the paperwork required to close out the project through the federal government is not yet complete, the County and the Forest Preserve District were able to open the preserve to the public with an opening ceremony in November 2017.

Curran Contracting Company of Crystal Lake, IL was the contractor on this $338,854.41 project. The estimate of cost was $342,162.75. Wendler Engineering Services, Inc. of Dixon, IL performed the preliminary and design engineering for this Sycamore Forest Preserve project. The DeKalb County Highway Department performed the construction inspection.

Township Resurfacing Projects

Each year, township road districts request the County Highway Department to prepare proposals and contracts as well as oversee construction activities. Some of these activities include hot-mix asphalt paving on subdivision streets and rural roads.

In 2017, 8 township road districts completed hot-mix asphalt paving projects throughout the County. These projects covered 10.3 miles of road at a cost of $1,240,374.21. They were paid using a combination of Township Motor Fuel Tax funds and Township local funds. The DeKalb County Highway Department prepared the plans for these paving projects and performed the construction inspection.

Seal Coat Projects

In 2017, 13 townships and 2 municipalities joined the County's seal coat contract. Seal coat is a preventative maintenance process used to extend the life of a pavement. The County seal coated 11 miles at a cost of $151,910.46. The township road districts seal coated 47 miles at a cost of $698,411.24. Jim Seldal of the County Highway Department was the resident inspector on these projects. The DeKalb County Highway Department prepared the plans for these paving projects and performed the construction inspection.

Rejuvenator Projects

The County also uses a liquid rejuvenator as a way to extend the life of its roads. 16 miles of County roads were sprayed at a cost of $221,405.60. Two township road districts sprayed 4.6 miles of roads at a cost of $60,808.47. One municipality sprayed 1.5 miles of streets at a cost of $20,541.60. Jim Seldal of the County Highway Department was the resident inspector on this project. The DeKalb County Highway Department prepared the plans for this project and performed the construction inspection.

Crack Routing and Filling Projects

Crack filling is another preventative maintenance program used to extend the life of a pavement. While the County uses in-house crews to rout and fill cracks on its roads, the townships and municipalities hire contractors to perform this work. In 2017, 5 townships had 14.9 miles of roads under this contract at a cost of $73,209.74. One municipality had 1.1 miles of streets under this contact at a cost of $1,619.15. The DeKalb County Highway Department prepared the plans for this project and performed the construction inspection.

Other Township Maintenance Projects

In addition to the above work, the 19 township road districts and 4 municipalities had the County prepare various maintenance contracts on their behalf in 2017. In addition to the above described projects, these include bituminous patching materials, various aggregates, calcium chloride, centerline and edge line striping, drainage pipes, and sign materials. In 2017, the township road districts spent $223,206.68 on these other projects. The DeKalb County Highway Department prepared the plans for these projects. The Highway Department also performed construction inspection on miscellaneous drainage projects.

2018 Projects

Barber Greene Road Widening & Resurfacing

Barber Greene Road between Illinois Route 23 and Peace Road was rebuilt in 1958 as an aggregate road. The next year it received a seal coat surface and was paved soon after. Over the years, it was widened in different phases and had turn lanes added in conjunction with shopping center additions.

This ¾-mile project includes widening of the remaining 2-lane section to match the 3 lanes of the rest of the project. The entire road will receive new concrete curb and gutter and a hot mix asphalt overlay. The project is expected to cost $1,152,000. 80% will be paid using Federal Surface Transportation Funds - Urban (STU) through the DeKalb-Sycamore-Cortland MPO (DSATS). The remaining 20% will be paid using local Matching Tax funds.

Coltonville Road / Rich Road / North First Street / Bethany Road Resurfacing

This project includes the resurfacing of Bethany Road from the YMCA to Illinois Route 23, Coltonville Road and Rich Road from Glidden Road to Illinois Route 23, and North First Street from Rich Road north for 1,000 ft.

In 2017, the County worked with the City of DeKalb and the City of Sycamore to plan a joint project for the improvement of several local roads. Through intergovernmental cooperation, drivers would be inconvenienced once instead of with multiple projects. Tax payers would benefit by realizing better construction prices by performing one large project instead of multiple small ones.

This project will upgrade Coltonville Road and Rich Road east of Glidden Road to an 80,000 lb highway which has been the state standard since 2009. By doing so, the City of DeKalb and the County will be eligible for additional funding sources when paving adjacent roads in the future. The entire project is expected to cost $1,347,000. 80% will be paid using Federal Surface Transportation Funds - Urban (STU) through the DeKalb-Sycamore-Cortland MPO (DSATS), 15% will be paid using local County Matching Tax funds, and 5% will be paid by the City of Sycamore.

Waterman Road Reconstruction

As described in the 2017 Waterman Road reconstruction project, the multi-year process of rebuilding the 5-mile highway between Waterman, IL and Perry Road started in 2017. In 2018, the County expects to continue the reconstruction with a shoulder widening & ditch reshaping project. Depending on the cost of the project, a portion or all of Waterman Road may be improved in 2018. The County has budgeted $1,000,000 for the 2018 portion of the reconstruction with 55% paid using state Motor Fuel Tax funds and 45% using local Matching Tax funds.

Somonauk Road Bridge

This project is a replacement of the structure located ¼ miles south of Illinois Route 30 and immediately south of the Burlington Northern Sante Fe Railway. The existing structure is a 66 ft long bridge originally built in 1963. The top and underside of the deck have several holes and concrete spalls. The project is estimated to cost $650,000 and will be paid using the County Aid to Bridges fund.

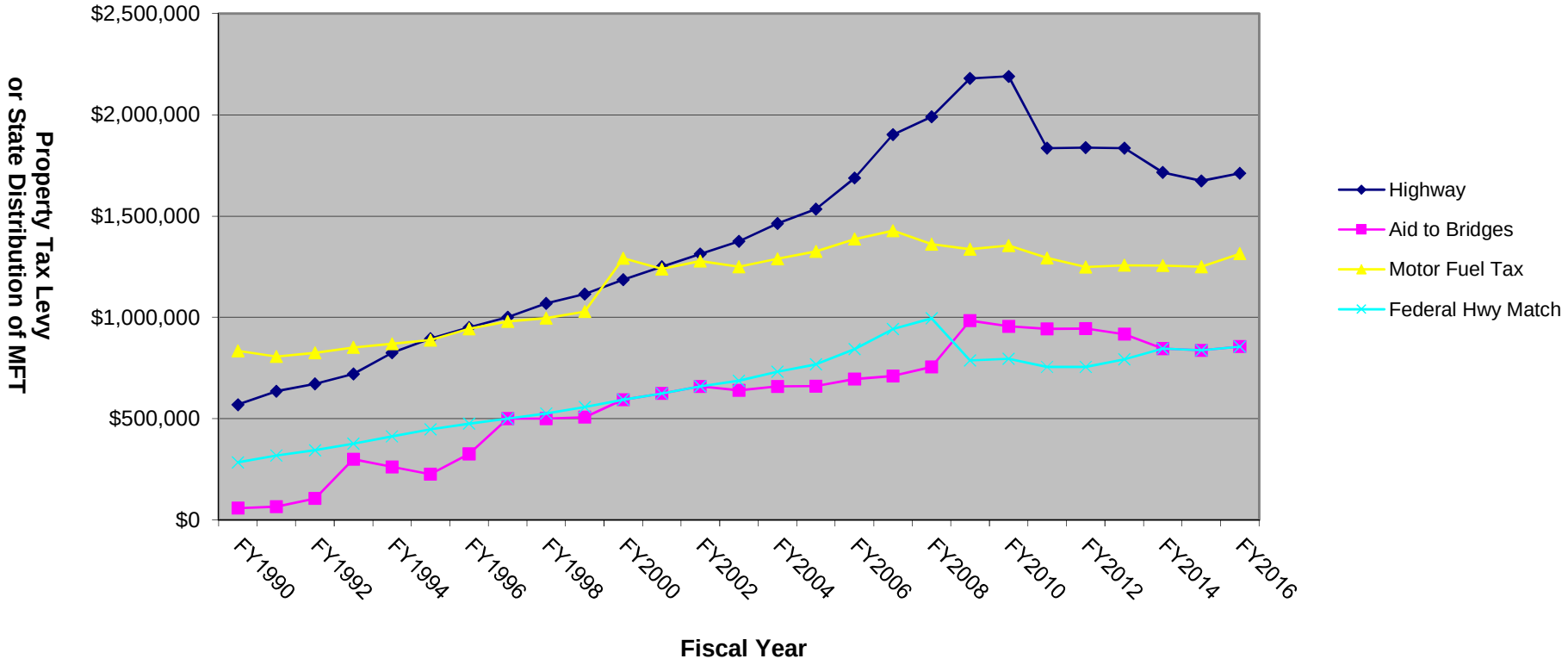
East County Line Road Bridge

This project is the replacement of an existing 56 ft long structure on the county line with Kane County. The structure is located north of the Village of Maple Park, halfway between Illinois Route 38 and Illinois Route 64. The bridge was originally built in 1964. The project was scheduled for replacement in 2017 but was postponed until 2018. The estimate of cost is approximately $1.6 million and will be paid using federal bridge funds (STP-Br), Kane County local funds, and DeKalb County local funds.

Peace Road Safety Shoulders

This project is the improvement of the roadway shoulders between Bethany Road and Illinois Route 64. The current shoulders are aggregate and will be upgraded with hot mix asphalt for the first 4 ft along the road.
Paved safety shoulders eliminate the drop-off at the edge of the pavement which occurs periodically throughout the year. A paved safety shoulder also protects the edge of the pavement from cracking and breaking off. Additionally, it helps provide a safe area for drivers to regain control of their vehicle and re-enter their lane of traffic.
The estimated cost of the project is $140,000 with 80% paid using Federal Surface Transportation Funds - Urban (STU) through the DeKalb-Sycamore-Cortland MPO (DSATS) and 20% paid using local County Matching Tax funds.

Highway Department Funding Levels



DEKALB COUNTY HIGHWAY CONSTRUCTION MAP

WINNEBAGO COUNTY

BOONE COUNTY

McHENRY COUNTY

OGLE COUNTY

KANE COUNTY

LEE COUNTY

KENDALL COUNTY

LASALLE COUNTY

FRANKLIN

KINGSTON

GENOA

SOUTH GROVE

MAYFIELD

SYCAMORE

MALTA

DEKALB

CORTLAND

MILAN

AFTON

PIERCE

SHABBONA

CLINTON

SQUAW GROVE

PAW PAW

VICTOR

SOMONAUK

SANDWICH

N

Approx. E-W Distance 18 Miles
Approx. N-S Distance 36 Miles
Area 634.5 Square Miles

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2017 2018 2019 2020+