



Douglas E. Cade, PE, PS
Hancock County Engineer

County Engineer's Office

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Hours

7:00—3:30 M-F

Summer Maintenance Hours

6:00—4:30 M-Th

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government-services/engineer](http://www.co.hancock.oh.us/government-services/engineer)

Requirement for this Report

The Ohio Revised Code 5543.02 mandates the County Engineer to annually report to the Board of County Commissioners the state of the County Roadways and Bridges

Message from the County Engineer

Our Mission is to provide a safe and cost-effective system of transportation that promotes the trans-economy for Hancock County in a global marketplace.

Daily, our Team is collaborating with private and public partners such as agri-business, business, economic development, ODOT, Township and Municipal government to find ways to improve safety, maintain our road and bridges and plan for the future of our transportation system in Hancock County.

Our goal is to not make the newspaper everyday, but to provide our community with a safe and efficient transportation system so our fellow citizens can worry about their families and their daily lives and not what government should be doing to make their lives better. Our team manages and maintains 358 miles of your County Roads and 372 County, Township and Municipal bridges annually. From this evaluation, we are planning work for 2 to 25 years into the future and making changes to our priorities as conditions require more immediate attention.

This Annual Report is a summary of all of those evaluations that demonstrates the condition of our County Roads and Bridges and how we plan to address those facilities. I appreciate and honored to have the opportunity to serve you as your Hancock County Engineer and will work hard every day to improve our transportation system and our community.

Thank you ,

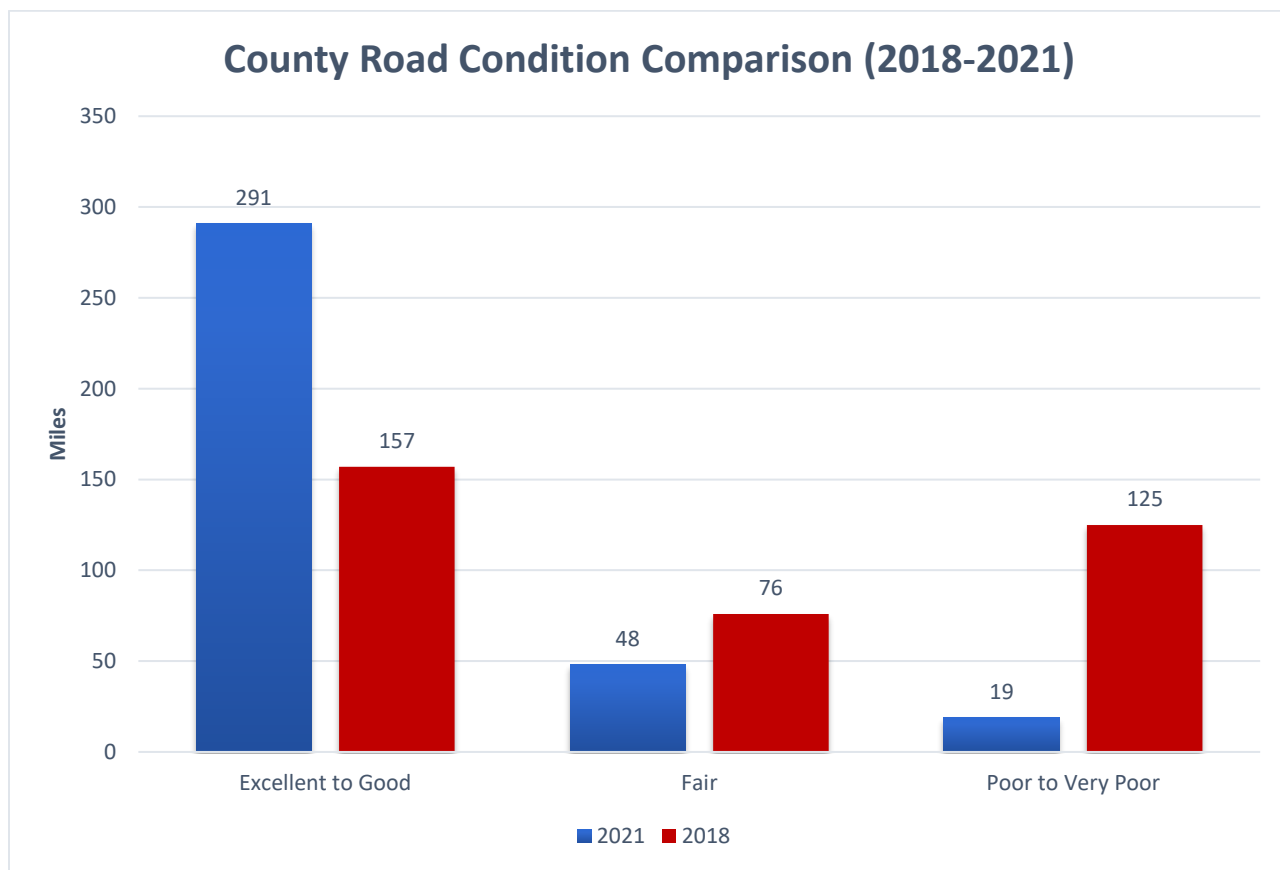
A handwritten signature in blue ink, appearing to read "D. Cade". The signature is fluid and cursive.

Hancock County Engineer

Roads

The County Highway System has 358 centerline miles and we evaluate those pavements using a detailed Pavement Condition Rating system on those roads every three years so that we can make sound engineering-based decisions to maximize our pavement life and triage our roadway system. Additionally, we are constantly monitoring our pavements with our engineering and maintenance team. Currently, we have 91% in Excellent to Good Condition, 4.5% in Fair Condition and 4.5% in Poor to Very Poor Condition, as shown in the table below. The estimated cost to maintain and repair these roads is \$2,240,000.

Ideally, we would like to see our roads be resurfaced on a 12-15 year rotation which would reduce the preventative maintenance and critical maintenance that we have to perform daily. We are striving to improve that resurfacing cycle with the existing gas tax funds to make our County Roads better for all of Hancock County.



The following is a look at what we accomplished in 2021 and a look at what we are planning to improve in 2022.

2021 Resurfacing Program

Asphalt Resurfacing

(Funded with Local and OPWC grant funds)

County Road 2 - 4.32 Miles - \$353,516

County Road 60 - 2.00 Miles - \$132,333

County Road 45 - 2.51 Miles - \$155,569

County Road 75 - 1.06 Miles - \$62,081

County Road 139 - 1.40 Miles - \$100,148

(Funded with Local Gas Tax funds)

County Road 16 - 3.34 Miles - \$217,383

County Road 26 - 6.80 Miles - \$524,851

County Road 9 - 8.17 Miles - \$546,581

County Road 273 - 2.19 Miles - \$135,411

County Road 4 - 1.00 Miles - \$93,324

County Road 197 - 4.41 Miles - \$282,816

County Road 156 - 0.70 Miles - \$51,880



County Road 16 – Before Resurfacing



County Road 16 – After Resurfacing

Roadway Widening

(Funded with Local Gas Tax funds)

County Road 172 – 2.95 Miles - \$400,063

Our Plan for 2022

Asphalt Resurfacing – 29.51 Miles - \$2,425,098

(Using Local Gas Tax and OPWC Funds)

County Road 172 - 4.00 Miles - \$321,792

County Road 236 - 2.37 Miles - \$189,753

County Road 140 - 2.58 Miles - \$187,787

County Road 7 - 6.84 Miles - \$575,555

County Road 216 - 4.73 Miles - \$379,372

County Road 139 - 3.52 Miles - \$296,238

County Road 131 - 0.34 Miles - \$23,249

County Road 96 - 0.25 Miles - \$17,048

County Road 97 - 4.88 Miles - \$434,303

Roadway Widening, Drainage, and Safety Improvement

(Funded with Local Gas Tax funds)

County Road 9 – 0.5 Miles - \$884,000

Hancock County Road 84 – Pavement Preservation Study

In Hancock County, we are continually searching for new and innovative and extend the life of our roads and bridges and, in turn, allow tax dollars to be spent more economically. In 2021, we participated in a pilot project, in conjunction with the Soy Transportation Coalition, to utilize the soy-based product “Replay” on Hancock County Road 84 as an asphalt sealer. The intent is to slow the degradation of the asphalt over time by inhibiting moisture from traveling into the pavement.



**Left Lane – Untreated, Right Lane - Replay
BioSpan Replay Asphalt Sealer**



**Left Lane – Reclaimite, Right Lane - Untreated
Reclaimite Asphalt Rejuvenator**

In concurrence with the soy-based product, we also applied a petroleum-based rejuvenator called “Reclaimite” to select sections of Hancock County Road 84. The purpose of the rejuvenator is to replenish the asphaltenes that are normally burned off during initial placement of the pavement. Returning these asphaltenes into the pavement allows the pavement to remain more flexible and become less porous.

For this project, the placement of each material was staggered to allow for side-by-side comparisons between Replay, Reclaimite, and the untreated pavement.

The table below identifies the location and length of the pilot project segments:

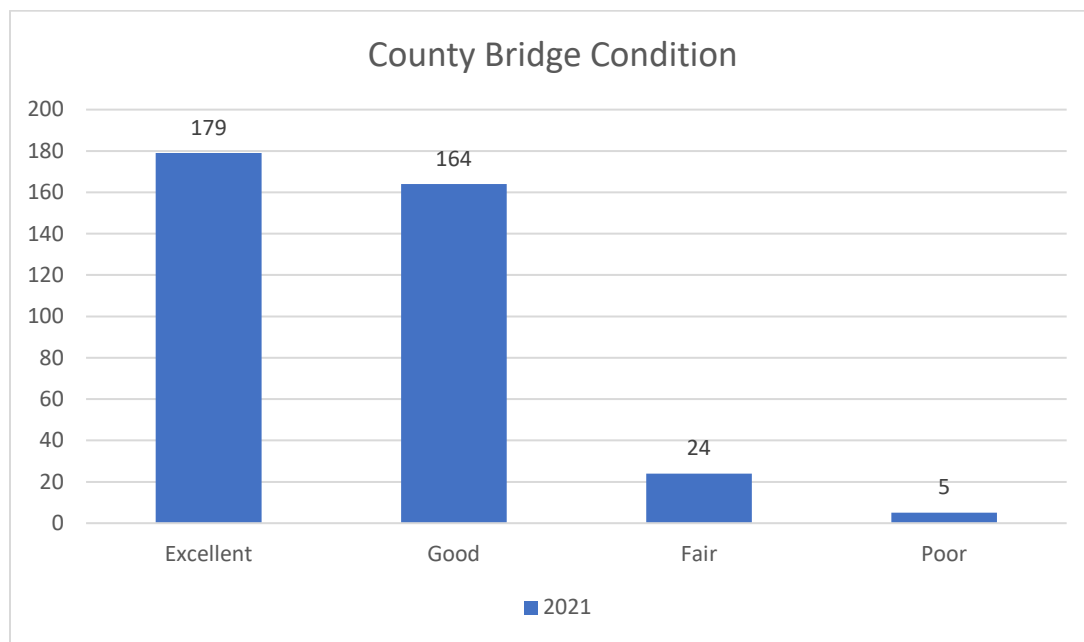
<i>Location</i>	<i>Between</i>	<i>Length (Miles)</i>	<i>West Bound Lane</i>	<i>East Bound Lane</i>
CR 84	CR 9 to TR 139	0.76	Replay - Soy Based	Replay - Soy Based
CR 84	TR 139 to TR 10	0.76	Replay - Soy Based	Untreated
CR 84	TR 10 to TR 130	0.50	Replay - Soy Based	Reclaimite - Petroleum Based
CR 84	TR 130 to TR 128	0.77	Untreated	Reclaimite - Petroleum Based
CR 84	TR 128 to SR 12	1.00	Reclaimite - Petroleum Based	Reclaimite - Petroleum Based

While the immediate return on this investment will not be realized for several years, we will continually monitor the pavement to determine the long-term benefits of this pavement preservation project.

Bridges

In Ohio, a “bridge” is considered a structure spanning 10 ft or more, carrying vehicular or pedestrian traffic over an obstruction such as water, highway, bikeway or railway. According to the Federal Highway Administration (FHWA), the span must be 20 ft or greater. In Hancock County, we have 143 bridges between 10 ft and 20 ft, and 229 bridges over 20 ft.

Our office performs detailed inspections of all 372 bridges that are located on County and Township roads and in some of our 13 Municipalities. In addition to these inspections, we create an inspection report and evaluate all of our bridges for their load carrying capacity. There are 16 County bridges that have a reduced weight limit with 7 of those in fair to poor condition. The remaining Posted bridges are in good condition and will be replaced as the poor condition bridges are completed. From these reports and evaluations, we create a bridge replacement priority list to efficiently and strategically replace our bridges over time. The estimated cost to maintain and repair these bridges is \$15,290,000.



In 2021, we replaced four bridges totaling \$1,055,965.09, utilizing Local Gas Tax funds and Ohio Public Works Commission (OPWC) funds. All four bridges were in poor condition, with three being load restricted.

In 2022, we plan to replace four bridges with an estimated total of \$1,364,944, utilizing Local Gas Tax funds and State Local Bridge Program (LBR) funds. The four bridges range from poor to fair condition, with three being load restricted.

The following is more information on those projects.

2021 Completed Bridges

Portage Township Road 137 – 1.01 Bridge Replacement



*Location: TR137-1.01 over RB Worden Ditch
Between CR203 & TR112*

Existing:

Built in 19??
Single Span, Steel Beam with Corrugated
Metal Deck, Asphalt Wearing Surface,
Span = 33'-6"
Condition - Poor

New:

Built in 2021
Single Span, Prestressed Concrete Box
Beams, Asphalt Wearing Surface,
Span = 35'-0"

Project Total: \$221,255.00 (Local)

Hancock County Road 2 – 4.99 Bridge Replacement



*Location: CR2-4.99 over Keiper JT Ditch
Between CR183 & TR185*

Existing:

Built in 1962
Single Span, Concrete Slab Deck,
Asphalt Wearing Surface,
Span = 15'-0", Load Restricted
Condition - Poor

New:

Built in 2021
Single Span, 2-Piece Precast Box Culvert with
Precast Block Wingwalls, Asphalt Wearing
Surface, Span = 15'-5"

Project Total: \$128,718.89 (Local)

2021 Completed Bridges

M513-0.00 (Howard St) Bridge Replacement



*Location: Howard St over Howard Run
Between Broad Ave & Fox St*

Existing:

Built in 1982
Single Span, Prestressed Concrete Box Beams, Asphalt Wearing Surface,
Span = 25'-6"
Condition - Poor

New:

Built in 2021
Single Span, Prestressed Concrete Composite Box Beams with Semi-Integral Abutments,
Concrete Wearing Surface, Span = 34'-0"

Project Total: \$354,902.40 (Local & OPWC)

Hancock County Road 153 – 0.91 Bridge Replacement



*Location: CR153-0.91 over Potato Creek
Between CR17 & TR191*

Existing:

Built in 1960
Single Span, Steel Pony Truss with Timber Deck, Asphalt Wearing Surface,
Span = 64'-0", Load Restricted
Condition - Poor

New:

Built in 2021
Single Span, Prestressed Concrete Box Beams, Asphalt Wearing Surface,
Span = 60'-0"

Project Total: \$351,118.80 (Local & OPWC)

Our Plan for 2022

Hancock County Road 172-0.33 Bridge Replacement



Location:

CR172-0.33 over Homer Oman Ditch
Between SR68 & TR179

Condition:

Fair Condition, Load Restricted

Project Estimate:

\$136,563 (Local)

Marion Township Road 205-2.91 Bridge Rehabilitation



Location:

TR205-2.91 over Corbin Ditch
Between TR240 & TR244

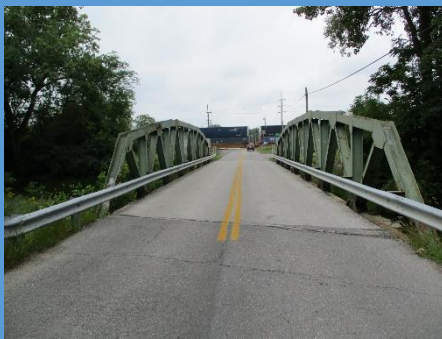
Condition:

Fair Condition

Project Estimate:

\$326,049 (Local)

Marion Township Road 204-0.53 (Olive St) Bridge Replacement



Location:

TR204-0.53 over Eagle Creek
Between CR221 & TR201

Condition:

Fair Condition, Load Restricted

Project Estimate:

\$778,557 (Local & LBR)

Hancock County Road 7-3.76 Bridge Replacement



Location:

CR7-3.76 over Ropp Ditch
Between TR253 & TR255

Condition:

Poor Condition, Load Restricted

Project Estimate:

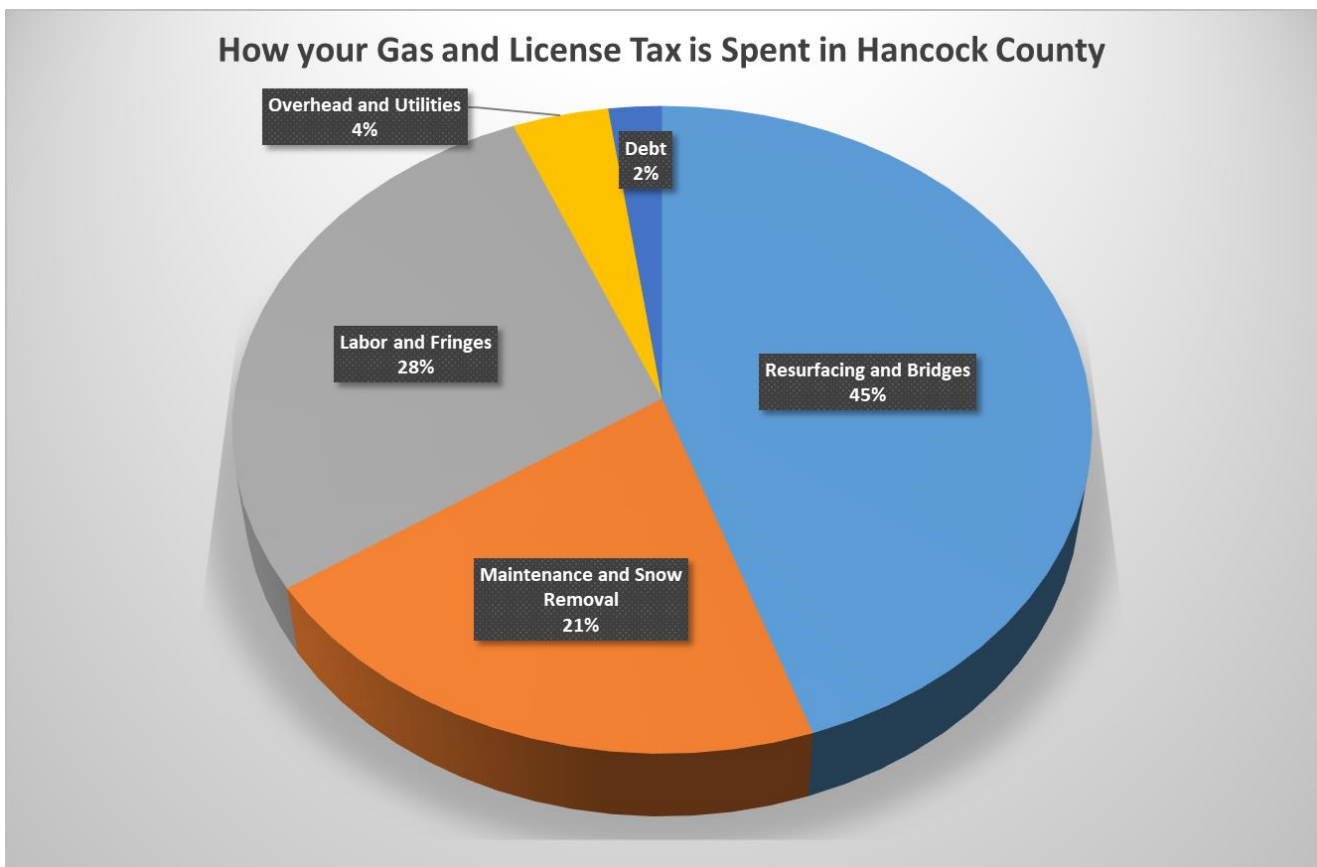
\$123,775 (Local)

Budget / Fiscal Outlook

Our Team is always working to find a more cost effective way to improve the safety of our County's Roadways and stretch our revenue as far as we can. Our employees are dedicated to serving the public and making sure your roads and bridges are as safe as they can be, because it is their families that travel the roads as well. During the past 20 years, we have become more efficient in our operations and prudent in our expenses and have reduced our workforce, through attrition, to a total of 29 employees. That savings has been converted to more resurfacing and bridge replacement and matching funds for state and federal grants. But as with most things the cost of materials has seen a steady increase over the years while our revenue and Force Account limits have remained flat.

We work efficiently by partnering with other agencies to purchase salt, utilize the State Cooperative Purchasing program, utilize the state surplus property program, competitively bid our aggregate, fuel and asphalt, serve as a fuel depot for all County vehicles and some participating Townships, jointly bid with Townships and Villages resurfacing, chip-seal and pavement striping projects and we look at every single item that we purchase to make sure we are getting the best price possible.

During 2021, our Direct Revenue from State Gas Tax, License Plate Fees, County Vehicle Fuel Sales, Township Road Maintenance, Fines, and Interest was \$6,771,719. Additionally, we received \$32,220 in Federal Grants and \$635,220 in State OPWC Grants that were dedicated to specific projects. The following chart describes how those funds were spent for the maintenance and improvement of the County Roads and Bridges.



Tax Mapping

One of many statutory duties of the County Engineer is to serve as the County's Tax Map Draftsman and this is also one of the primary reasons that the County Engineer is required to have a Professional Surveyor License as a qualification to serve. These duties often are not seen as being under the County Engineer because our employees are housed with the County Auditor's staff making for a seamless operation in the transfer of property in Hancock County. But it is an important job that we take pride in efficiently working with land owners, surveyors, real estate agents and attorneys to make the conveyance of property an easy process.

In 2021, my Team reviewed the legal descriptions and appropriately mapped 3,509 transfers and surveys, which was up 11% from 2020. Those included the following:

Conveyed Transfers -	2,082
Exempt Transfers -	1,257
New Surveys -	170
Pre-approvals -	805

Permits

Our office serves as the central location to obtain permits for work in the Road right of way, oversize and overweight trucking permits and floodplain development for all County roads and many of the Townships. While this is not a statutory duty of the County Engineer, we are glad to provide this assistance to the County Commissioners and 14 of the 17 Townships and serve as their engineering advisor.

In 2021, my Team reviewed the 227 Permits and numerous inquiries from business and residents wishing to develop in Hancock County. Those included the following:

Drive Access Permits -	77
Drive Access Variances -	6
Utility Installations (County Roads) -	35
Utility Installations (Township Roads) -	37
Overweight/Oversize Trucks -	63
Roadside Ditch Work (County Roads) -	5
Roadside Ditch Work (Township Roads) -	1
Floodplain Development -	9

Subdivisions

While the County Engineer's statutory responsibility is limited to the review of Subdivision Roads and Bridges, our Team provides assistance to the Hancock County Regional Planning, the County Commissioners and the Township Trustees, to review the County's minimum requirements for Subdivision construction. Currently, our team is reviewing and / or inspecting the following subdivisions:

1. Best Liberty Addition 1st Addition (22 Lots)
2. Hickory Lakes 4th Addition (12 Lots)
3. The Woods at Hillcrest 9th Addition (20 Lots)
4. The Woods at Hillcrest 10th Addition (21 Lots)
5. The Woods at Hillcrest 11th Addition (5 Lots)
6. Eagle Estates 2nd Addition (14 Lots)
7. Meadow Ridge 1st Addition (35 Lots)
8. Hunter Creek 12th, 13th and 14th Additions (121 Lots)

Petition Ditch Construction

Our Office provides assistance to the County Commissioners for the Construction of Ditches that are Petition through the Ohio Petition Ditch Law Process. This assistance is primarily through the Public Viewing, Preliminary Engineering Report, project design and Final Engineering Report and initial construction assessments. In 2002, the County Engineer, County Commissioners and Hancock Soil and Water entered into an agreement that Soil and Water would administer all of the Petition Ditch Maintenance for the County. We continue to provide assistance to Soil and Water on an as needed basis. Like the Subdivision Program, we do this work as time allows due to no funding being provided nor reimbursed from Construction Fees. Currently, our team is working on the following Petition Ditches:

1. Dalzell Ditch Reconstruction (City of Findlay and Liberty Township)
2. Oil Ditch (City of Findlay and Liberty Township)
3. Howard Run (City of Findlay and Marion Township)
4. Liberty Reed (Liberty Township)
5. Western Meadows Outlet Ditch (Liberty Township)
6. McComb Schroll (Pleasant Township and Village of McComb)
7. Best Liberty Addition 1st Addition (Liberty Township)
8. Woods at Hillcrest 9th Addition (Liberty Township)
9. Wells Tri-County (Delaware Township)
10. Conrad Hilshafer (Liberty Township)
11. Forest Lake Subdivision (Marion Township)

Hancock County Engineer's Office is moving to Digital.

Check out our website by searching Hancock County Ohio Engineer.

New information is being added daily including Property Survey Records, Township Information, Subdivision Records and all information that you once had to visit the County Engineer's Office to research paper files.



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