

Ottawa County Engineer's Office

2021 Annual Report



Board of Ottawa County Commissioners:

Included in the following pages are the detailed accomplishments of the County Engineer's Office and Highway Department for 2021. In addition to our typical regiment of drainage work, utility coordination, and road/bridge construction, our facility also had an update to our salt storage abilities. We added a 70' x 144' "hoop/truss" style building that will store in excess of 5,000 tons of Salt. In a successful effort to minimize expenses, our staff handled the subsurface excavation and site preparations in cooperation with the contractor and their erection crew. Depending on the severity of the winter season, this building can store an average of two seasons worth of road salt. Given the reoccurring

volatility of road salt pricing, this structure will give us a much greater ability to mitigate market fluctuations, better strategize winter storm fighting solutions, and assist our Townships with unexpected overflow storage needs.

Thank you again to all of our partners, the tax payers and my staff for another successful year.

Respectfully Submitted,

Ronald P. Lajti, Jr., P.E., P.S.
Ottawa County Engineer

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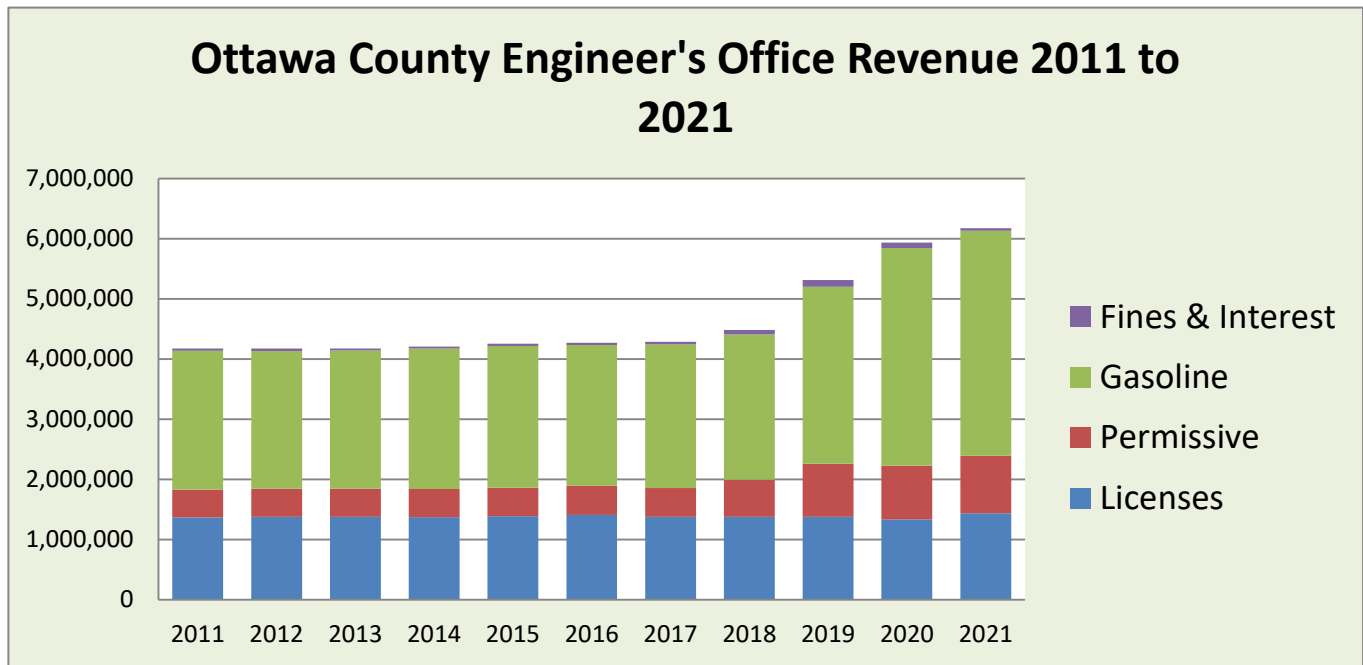
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Revenue

The main sources of revenue for the Engineer's Office are Gasoline Taxes, License Registration Fees, Permissive Fees, fines and interest. For more than ten years the revenue streams remained stagnant and operational and construction costs rose significantly. In an attempt to address this issue the County passed two Five-Dollars Permissive License Fees. The first passed in 2017, is shared with the local municipalities and townships, and generated approximately \$140,000 in 2018. The second fee was passed in 2018, started to collect in 2019, and was expected to generate an additional \$300,000 a year. In total, the additional fees combined to add roughly \$410,000 to our budget. At the end of 2019, through the legislative bill that increased the amount of revenue collected through fuel taxes, that portion of our revenue began to climb as well. Gas and License revenue for 2021 was up \$286,000 over 2020, showing some recovery from the impact of COVID.

In 2021 this office contracted \$4.5 M in road, bridge and drainage projects; \$1.23 M (27%) of that was funded with grants, public/private partnerships, or interest free loans. While that number should honestly speak for itself, it's necessary to point out that those funds found their way into Ottawa County's infrastructure as a direct result of the "behind the scenes" work from this office. I would like to acknowledge all the extra work by my staff to make this happen and to thank them for their efforts.

The following chart provides a graphical view of our revenue sources and amounts while the spreadsheet at the bottom provides actual numbers.



Year	Licenses	Permissive	Gasoline	Fines & Interest	Total
2011	\$ 1,366,534.79	\$ 460,020.64	\$ 2,310,206.90	\$ 34,946.18	\$ 4,171,708.51
2012	\$ 1,378,025.66	\$ 464,450.65	\$ 2,290,681.48	\$ 38,475.94	\$ 4,171,633.73
2013	\$ 1,373,952.16	\$ 467,953.82	\$ 2,299,886.19	\$ 30,702.91	\$ 4,172,495.08
2014	\$ 1,367,905.27	\$ 471,200.21	\$ 2,334,893.50	\$ 31,062.38	\$ 4,205,061.36
2015	\$ 1,383,645.85	\$ 478,226.71	\$ 2,356,712.91	\$ 34,583.90	\$ 4,253,169.37
2016	\$ 1,405,039.17	\$ 486,961.83	\$ 2,338,615.75	\$ 41,603.63	\$ 4,272,220.38
2017	\$ 1,377,170.53	\$ 475,869.94	\$ 2,389,284.77	\$ 45,613.01	\$ 4,287,938.25
2018	\$ 1,374,392.07	\$ 618,474.07	\$ 2,417,403.95	\$ 74,327.57	\$ 4,484,597.66
2019	\$ 1,374,935.10	\$ 885,481.62	\$ 2,939,200.28	\$ 111,365.31	\$ 5,310,982.31
2020	\$ 1,331,345.78	\$ 898,046.63	\$ 3,614,207.26	\$ 92,859.33	\$ 5,936,459.00
2021	\$ 1,435,168.79	\$ 954,673.69	\$ 3,739,694.30	\$ 45,342.05	\$ 6,174,878.83

Road Resurfacing / Preservation Programs

Ottawa County typically bids their road programs by surface treatment type. We join with townships in the bidding process in an effort to secure better pricing than may be received through separate bids. The Ottawa County Engineer's staff also coordinates and handles all contractor relations, on-site inspections and grant documentation. These efforts provide the townships with professional oversight, inspection, and record keeping as well as an opportunity to secure funding that otherwise may not be available to them.

Once again, through our joint cooperation, we were successful in acquiring grant funds to assist in the resurfacing of various county and township roads. Allen, Benton, Carroll and Salem Townships were successful in securing a total of approximately \$170,000 in grant funds through the Ohio Public Works Commission. Ottawa County was also successful in securing \$275,000 in grant funds through OPWC to widen and improve West Catawba Road from Sand Road to Cemetery Road.

County Road Repair/Widening/Resurfacing

*Projects Not Yet Complete – To be finished and reported in 2022

Road No.	Road Name	From	To	Length / Miles	Cost
215	Catawba Avenue*	South Terminus	Put-In-Bay Village	0.93	\$ 591,377
30	West Catawba Road*	Sand Road	Cemetery Road	1.48	\$ 823,327
various	Reclamite Asphalt Rejuvenation*				\$ 39,627
Total:				2.41	\$ 1,454,331

Township Road Resurfacing and Preservation

Township	Road No.	Road Name	From	To	Length (Miles)	Cost
Allen	7	Martin-Williston Rd	Trowbridge Rd	Walbridge Rd	0.99	\$ 102,846
Bay	281	Wilcox Rd	SR 53	Township Line	1.09	\$ 36,905
Benton	20	Suhrbier Road	Toussaint North Rd	Moline Martin Rd	0.81	\$ 14,700
	67	Trowbridge Rd	Elliston-Trowbridge Rd	Graytown Rd	1.00	\$ 105,531
	68	Walbridge Rd	Stange Rd	SR 590	1.00	\$ 102,416
Carroll	97	Bier Rd	SR 19	Behlman Rd	1.00	\$ 109,423
	128	Russell Rd	Duff-Washa Rd	SR 2	0.52	\$ 67,895
Danbury	222	Meter Rd	Bayshore Rd	South Terminus	0.44	\$ 103,678
	1246	Mistic Bay Point	Cul-De-Sac	Buck Rd	0.28	\$ 59,718
Harris	45	Hessville Rd	County Line	Elmore Eastern Rd	1.00	\$ 111,179
	18	Netcher Rd	Schultz-Portage Rd	Linker-Portage Rd	0.99	\$ 42,474
Portage	255	Anderson Rd	South Terminus	Lockwood Rd	0.36	\$ 61,516
	281	Wilcox Rd	Township Line	Fulton Street	0.84	\$ 26,525
	287	West Bay Dr	South Terminus	Wilcox Rd	0.09	\$ 5,008
Salem	41	4 Mile House Rd	Elmore-Eastern Rd	Portage River South	1.46	\$ 30,052
	110	Bloom Rd	SR 19	Bolsinger Rd	2.05	\$ 80,919
	169	Woodrick Rd	County Line	Hetrick Rd	1.00	\$ 101,715
Total:					14.92	\$1,162,500

Highway Department Programs

The County Highway Department contributes to the county road surface treatment program with their Tar & Chip and Fog Seal programs. Efforts are also made to preserve existing pavements through a berm program, hot mix repair and wedge course program, as well as crack seal and patching. The following tables provide information on the work performed in 2021.

Miscellaneous Programs

Work Type	Cost
Berm	\$ 28,636
Crack Seal	\$ 102,045
Cold Patch	\$ 14,867
Total:	\$ 145,548

Tar, Chip & Fog Seal Program

Road No.	Road Name	Length / Miles	Cost
19	Graytown Road	5.96	\$ 149,461
42	Harris-Salem Road	1.61	\$ 43,085
Total:		7.57	\$ 192,546

County Road Hot Mix Wedging / Repair Program

Road No.	Road Name	Treatment Type	Location	Cost
19	Graytown Road	Wedging	Various Locations	\$ 12,370
42	Harris-Salem Road	Wedging	Various Locations	\$ 12,902
171	Camp Perry Eastern Road	Road Repair	Various Locations	\$ 13,978
Total:				\$ 39,250

In addition to road repairs and bridge maintenance, The Highway Department also performs drainage work, snow and ice control, sign maintenance, clear storm damage and remove weeds and brush. The following depicts costs associated with their efforts.

Snow and Ice Control	\$ 251,811
Mowing	\$ 211,820
Fleet Maintenance	\$ 277,109
Sign Maintenance	\$ 66,583

Building Maintenance	\$ 28,361
Junk/Brush/Guardrail/Barr.	\$ 74,433
Storm Work/High Water	\$ 36,511

Miscellaneous Drainage Improvement & Maintenance Programs

Work Type	Location	Cost
Catch Basin Repair & Replacement	Various Locations	\$ 48,244
Cross-Over Repair & Replacement	Various Locations	\$ 5,236
Drainage Improvement Projects (Side Drainage)	Rocky Ridge Road (\$92,975), Fox Road (\$51,656) and various other locations (\$41,469)	\$ 186,100
Total:		\$ 239,580

Roadway Capital Improvement – 5 Year Plan

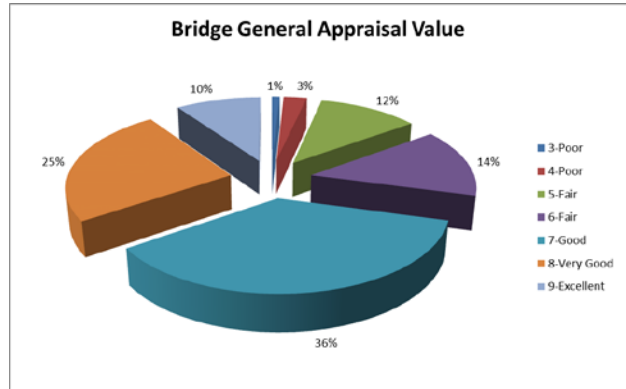
Ottawa County's 5 year Roadway Capital Improvement Program is highlighted below. An annual budget of \$1,500,000 of local funds per fiscal year will be allocated to this effort. Additional funding will be utilized through grant programs available to the county to close the gap in funding for the proposed program.

The following list is the work anticipated to be undertaken in the following years:

County Road Capital Improvement Program Projection (5-year)		
2021 *	West Catawba Road Rehabilitation (OPWC) – started in 2021, to complete in 2022	\$ 744,000
	Catawba Avenue Rehabilitation – started in 2021, to complete in 2022	\$ 180,000
2022	Fostoria Road Rehabilitation (SR 795 to Walbridge East)	\$ 605,000
	Walbridge East Road Rehabilitation (Fostoria to Genoa-Clay Center)	\$ 550,000
	Nissen Road Rehabilitation (SR 579 to County Line)	\$ 300,000
2023	Oak Harbor Southeast Road Rehabilitation (SR 19 to SR 53) (Federal 80%)	\$1,887,000
	Fostoria Road Rehabilitation (Walbridge East to Curtice E&W)	\$ 650,000
	Langram Road Resurfacing (Entire Length – Ferry Entrance to P.I.B. Village Limits)	\$ 750,000
	Nissen Road Rehabilitation (N&S RR to SR 579)	\$ 275,000
2024	Nissen Road Rehabilitation (Penn RR to N&S RR)	\$ 530,000
	West Catawba Road Rehabilitation (SR 53 to Sand)	\$ 450,000
	Genoa Clay Center Road Rehabilitation (County Line to Genoa)	\$ 165,000
	Bolander Road Rehabilitation (Moline-Martin to Trowbridge)	\$ 225,000
	Elmore Eastern Road Improvement (SR 590 to Wolf Creek)	\$ 300,000
	Moline-Martin Road Ditch Enclosure (Schessler Ditch)	\$ 450,000
2025	Moline Martin Road Improvement (SR 51 to Genoa Clay Center)	\$ 650,000
	Church Road Improvement (Bay Shore Road to SR 163)	\$ 490,000
	Moline Martin Road Improvement (Nissen to Elliston-Trowbridge)	\$ 300,000
2026	Wildacre Road Rehabilitation (SR 579 to County Line)	\$ 385,000
	Toussaint South Road Improvement (SR 163 to Penn. Railroad)	\$ 572,000
	Wildacre Road Rehabilitation (SR 579 to County Line)	<u>\$ 385,000</u>
Total Projected Cost		\$10,168,000

Bridge Report

Ottawa County currently maintains 113 bridges. The chart at the right shows the current general condition of bridges in the county. At this time 3 bridges rate “poor”, 29 bridges rate “fair”, and 81 bridges rate “good” or better. 13 bridges are currently posted with a load limit. A list of posted bridges is available on the county website. No bridges on Ottawa County’s inventory are closed at this time.



BRIDGE INSPECTION

Annual conditional evaluation inspection of all bridges maintained by Ottawa County has been completed for 2021. Inspection information has been reported to ODOT. As required by the Memorandum of Agreement (MOA) in place with Sandusky County, we have reported the results of our inspection of the 2 joint county road bridges which Ottawa County has the responsibility to inspect and maintain. Additionally, we have developed and distributed a summary list of bridge conditions to all Townships which have bridges on the County road system. Inspection records are available for review at the Engineer’s Office.

In 2021, the Ohio laws dealing with condition inspection frequency of bridges were modified. Federal and State of Ohio requirements for bridge inspection frequency differ from each other. Federal guidance requires a bridge to be inspected at least once every 24 months and has not changed. The State of Ohio used to require all bridges to be inspected at least one every 12 months. In 2021 Ohio signed into law a hybrid system. The new inspection frequencies in Ohio are as follows:

Bridge Condition	Inspection Frequency
New Bridges	12 months (first 3 years)
All Fracture Critical Bridges	12 months
Bridge with General Appraisal ≤ 6	12 months
Bridge with General Appraisal ≥ 7	24 months

For Ottawa County this means, as of 2021, 52 of the 113 bridges on our inventory may be inspected on a 24 month frequency. This change will reduce the required amount of annual bridge inspections from 113 to 87 as we plan on only inspecting half of the 24 month inspection frequency bridges per year. This office will continue to be diligent in keeping up with the ever changing requirements and will continue to report any important changes.

BRIDGE CAPITAL IMPROVEMENT

In 2021, several bridge improvements were made. County Highway Maintenance crews performed miscellaneous maintenance items including cleaning of all bridge decks and external support members, berm maintenance and washout repairs, creek scour repairs at bridge supports, debris and log jam removal, joint and crack sealing of bridge decks, and chip sealing of several bridge decks.

Ottawa County completed two bridge capital improvement projects in 2021:

- Billman Road over Ayers Creek Bridge Replacement**
 The deficient single span steel beam bridge was replaced with a 36’ single span prestressed concrete box beam bridge. The project cost was \$377,142.27 and was funded with 100% County funds. Bridge Credit has been requested for the project and will result in an additional \$301,713.82 of credit which may be applied to future funded capital improvement projects.



Bridge Report Continued

- Stange Road over Turtle Creek Bridge Replacement**

The deficient single span steel pony truss bridge was replaced with an 80' single span prestressed concrete box beam bridge. The project cost was \$599,898.64 and was funded with 100% County funds. Bridge Credit has been requested for the project and will result in an additional \$479,918.91 of credit which may be applied to future funded capital improvement projects.



BRIDGE LOAD RATING

In 2021, two bridge postings were rescinded and one additional bridge was posted with load limit signs. The existing bridges on Billman Road (TR-54) over Ayers Creek and Stange Road (TR-21) over Turtle Creek were replaced and the load postings associated with the old bridges were rescinded. The bridge on Reiman Road (TR-53) over Packer Creek was found to have substantial deterioration that warranted evaluation of the load carrying capacity of the bridge. The resulting load rating analysis showed that the bridge required a load reduction posting to be established. The load posting was approved and signs were installed on 12/17/2021.

In 2019, all counties in Ohio were provided with a license of the BrR AASHTO Bridge Load Rating software package. The annual cost of the software license is covered with funds from ODOT intended to be used toward the betterment of the overall condition of bridges throughout the state (which is yet another federal mandate). This software is being used by this office to its fullest extent to analyze and rate bridges on the county system. At this time, 64 of our 113 bridges have been analyzed using this software. This is mainly due to the fact that not all bridge types can be analyzed with the BrR software including; truss bridges, corrugated steel arches & culverts, and round & elliptical concrete culverts. Other methods will continue to be used to analyze these structure types.

BRIDGE CAPITAL IMPROVEMENT

Ottawa County is planning to perform a significant number of bridge renewal projects over the next several years. An annual budget of \$1,000,000 of local funds per fiscal year will be allocated to this effort. Additional funding will be utilized through grant programs available to the county to close the gap in funding for the proposed program.

The following list is the work anticipated to be undertaken in the following years:

Bridge Capital Improvement Program (5-year)		
2021 *	Wildacre Road over Cedar Creek Rehabilitation (Federal 100%) – started in 2021, to complete in 2022	\$457,915
2022	Nissen Road over Packer Creek Replacement	\$500,000
	Fostoria Road over Dry Creek Rehabilitation (Joint County - Wood)	\$250,000
	Reiman Road over Packer Creek	\$300,000
	Locust Point Road over Turtle Creek Rehabilitation	\$400,000
2023	Linker-Portage Road over Sugar Creek Rehabilitation (Federal 100%)	\$450,000
	Toussaint North Road over Packer Creek Rehabilitation	\$500,000
	Elliston-Trowbridge Road over Toussaint Creek Replacement (State 95%)	\$700,000
	Paulsen Road over Quisno Ditch Replacement	\$125,000
2024	Portage River South Road over Sugar Creek Rehabilitation	\$600,000
	Rider Road over Beef Creek	\$200,000
	Rocky Ridge Road over Toussaint Creek Replacement	\$700,000
	Reiman Road over Cedar Creek Rehabilitation	\$450,000
2025	Wildacre Road over Crane Creek Rehabilitation	\$400,000
	Fostoria Road over Crane Creek Rehabilitation (Joint County - Wood)	\$400,000
	Trowbridge Road over South Branch of Turtle Creek Replacement	\$500,000
	Rymers Road over LaCarpe Creek Rehabilitation	<u>\$250,000</u>
Total Projected Cost		\$7,182,915

Ditch Maintenance

Drainage improvements and construction plan development efficiency was the focus again in 2021. The Ottawa Soil and Water Conservation District was a key partner in the 2021 Program. They assisted with the coordination and oversight of efforts to clean and maintain several ditches (or portions of ditches) currently in the county maintenance program. Their duties included performing annual inspections of each ditch, management of several cleaning projects, and preparing plans for pending projects.

The County Highway Department addressed roadside drainage by performing various road side ditch projects and other improvements at various locations. In addition to the strong efforts of these entities, the Engineer's Office was actively involved with surveying, engineering and the administrative oversight for these projects.

2021 also saw three petitioned ditches in Bay Township vacated in conjunction with a large wetlands restoration project. Ducks Unlimited is planning to restore two managed wetlands totaling 100 acres in the Little Portage Wildlife Area at the confluence of the Portage and Little Portage Rivers. DU is collaborating with the Ohio Department of Natural Resources Division of Wildlife (ODOW) to design wetland management infrastructure to divert up to 400 acres of off-site agricultural run-off into the wetlands, rather than flowing directly into the Little Portage River as is now the case. This project is funded by H2Ohio with no direct cost to the landowners.

Maintenance Ditch Programs

Maintenance Ditch Costs	
Beginning Balance	\$ 340,525
2021 Net Expenses	\$ 323,093
2021 Income	\$ 275,006
Ending balance	\$ 292,438
<u>Ditch Statistics</u>	
Ottawa County oversees 90 ditches - (85 single county, 5 joint county)	
Open Ditches =	146.6 miles
Closed Ditches =	3.0 miles
<u>Projects still in progress:</u>	
<small>Started in 2021 – to complete in 2022</small>	
Epling	\$ 58,497
Freimark	\$ 54,486
<u>Final cost for those completed in 2021:</u>	
Bayou	\$ 50,278
Marquardt	\$ 37,419
Reiman	\$ 5,053
Opfer-Lentz	\$ 28,028
Otto Pfeiffer	\$ 9,962
Eisman Tile	\$ 16,036
Schmardebeck (Brush)	\$ 23,875
2021 Maintenance Costs	\$ 170,651

Proposed for 2022	
Construction Projects	
F. Miller	\$ 32,082
Lenz	\$ 133,482
Bury-Billman	\$ 48,592
Woodrick	\$ 52,505
Permanent Base Reviews	
- Linker Portage	- Sandrock
- Roose	- Schmardebeck
- Humphrey Road	- Lohrbach
- LaCarpe (Harmon)	- Schott
- Kemke	- Winters

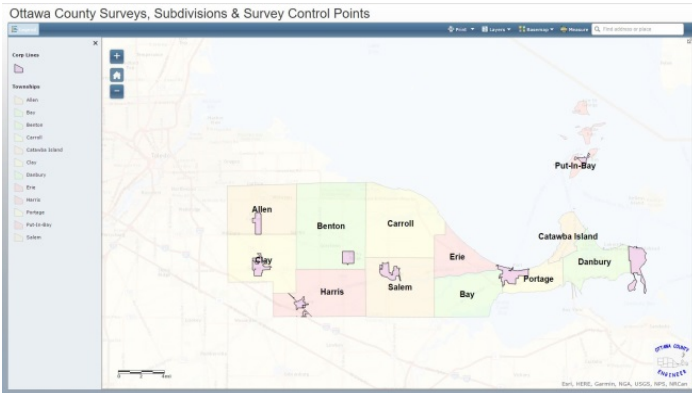
Survey Division



2021, was a year of recovery. Still in the midst of the pandemic, we needed to hit the ground running, to make up for lost time and schedule delays. Not only did this office need to prepare for projects scheduled for 2021, but also needed to complete a few projects planned for 2020 that were postponed. There were still times the office was short-staffed, but by working together we were able to complete all of our projects. While 2022 has an aggressive schedule, it will be a welcome change of pace from what the last year required.

Projects that were surveyed in 2021 included surveys for: a 1 mile ditch relocation on Salem-Carroll Road, 2 bridges to be replaced on Fostoria Road and Linker-Portage Road, a ditch enclosure on Hessville Road, a 1/2 mile drainage project on Nissen Road, a drainage improvement on Russell Road and preliminary survey work for the new salt storage barn at the highway garage. In the midst of that, we began adding the permits on file in our office to our GIS inventory, covered multiple R & I inquiries, assisted the Townships with their needs, assisted with many utility locates and permits. Legal description reviews were still a major part of the day to day operations.

Our staff continuously works to update our GIS map and develop new feature class layers that will someday not only assist our office, but also the Townships and constituents of Ottawa County. Our in-house GIS map has been a hit as we are able to provide up to date information. Many surveyors have been complimentary for this asset. We are finding that it is not only beneficial to County Offices, but to the private sector as well.



Ottawa County Engineer GIS Web Map

This interactive map allows the user to search for section corner / benchmark records, property surveys and subdivision plats. This GIS Data Map is available 24/7 on our website!

Visit our website at:
<http://www.co.ottawa.oh.us/index.php/county-engineer/>

The survey personnel are responsible for fieldwork and a significant amount of office assignments. The following provides additional information on these duties.

Subdivision Reviews	13 proposed subdivisions
Administrative Approvals	63 (54 small & 7 large)
Legal Description Reviews	670 (increased by 175 from 2020)
Requests & Investigations	48 (handled by all staff)
Township Requests	40 (handled by all staff)
E-File Reviews	616 (increased by 239 from 2020)

Survey Division Continued

The 2022 schedule is still in development, but so far includes: continual section cornerstone and benchmark recovery and checks, surveys for: a bridge replacement on Elliston-Trowbridge Road, a bridge replacement on Paulsen Road, Phase Three of West Catawba Road Rehab, a drainage improvement on Camp Perry East Road, a ditch enclosure on Moline-Martin Road, and a drainage improvement on Fostoria road.

Utility Coordination and Permits

The number of permits issued in 2021 reflects a growth in home building and property improvements. With COVID still a concern it was good to see construction continue through the year.

Utility companies continued improvements as well. The following is a summary of their efforts:

- Amplex spread out and installed a fiber optic cable from Genoa to Graytown along Genoa-Clay Center, Hellwig, Holts East, Martin-Williston, Elliston-Trowbridge, True and Graytown Roads
- Columbia Gas of Ohio removed an old gas line off of a bridge on Wildacre Road over Cedar Creek so the bridge could be replaced. They then bored a new gas line under Cedar Creek and the bridge. Also Columbia Gas filed for permits to replace gas lines in the year 2022 within Elmwood Park and Marmor Gardens Subdivisions.
- Frontier and Toledo Edison relocated their utilities for the bridge replacements on Stange Road over Turtle Creek and Billman Road over Ayers Creek.

1,963	Locate Tickets (OUPS)	93	Moving Permits
12	Road Crossing Permits (non-utility)	8	Cable Company Permits
10	Special Permits (6 ditch cleanings)	9	Electric Company Permits
3	Storm Sewer Tap Permits	20	Gas Company Permits
1	Curtain Drain Outlet Permits	14	Telephone Company Permits
89	Driveway Permits (6 existing drive permits)	1	Pond Permits

STAFF

John Ahrens, Mechanic
 Jeff Allen, Engineer Aide/Construct Inspect
 Daniel Brough, Highway Worker
 Dean Brough, Highway Clerk
 Mike Brough, Utility Coordinator
 Tina Deluca, Administrative Clerk/Recept.
 Wes Dobbelare, Crew Leader
 Joe Dusseau, Highway Worker
 Dennis Huston, Highway Worker
 Dan Jensen, Superintendent
 Dante Kirsch, Highway Worker

Craig Miller, Deputy Engineer
 Tina Molnar, Administrative Assistant
 James Moore, PE, Bridge Engineer
 John Netherland, Highway Worker
 Tim Rahm, Highway Worker
 Tate Schiets, Highway Worker
 Johnathan Studneski, Highway Worker
 Dan Toris, PE PS, Deputy Drainage Engineer
 David Williams, Mechanic
 Mike Wittman, PS, Chief Surveyor/GIS Co
 Joshua Wolfe, Highway Worker