

Engineers' News

May 2021

Vol. 83 No. 8

www.FortWayneEngineersClub.org



Find us on 

May Tour

ChromaSource

When: Thursday, May 27th at 6:00 PM

Website: <https://www.chromasource.com/>

Info: In business since 1996, ChromaSource is the industry leader in color sampling. They make the paint samples that you pick up when you start thinking about what color to paint your house. They also produce and manage color systems, which are display centers for the color samples.

Address: 2433 S County Road 600 E Columbia City, IN 46725

Directions: Take Highway 30 West out of Fort Wayne. ChromaSource is located just west of Steel Dynamics on the north side of the highway.

Special Note: To attend this tour, you will need to get on the sign-up list. Please contact Ryan Stark (Treasurer) at 260-456-0809, or email us at Info@FortWayneEngineersClub.org to get on the list. We will need your name and the company you work for. The deadline for tour signup is Sunday, May 23rd. Safety glasses may be required, so please bring a pair. No cellphone pictures allowed

April Presentation Summary

by Rod Vargo



Northeastern Indiana Regional Coordinating Council (NIRCC) Presentation by Dan Avery

Date: April 29, 2021

The Northeast Indiana Coordinating Council purpose is to integrate the conception, funding, planning, and implementation of motorized and non-motorized transportation within a region that could otherwise be a chaotic mix of agencies and municipalities. NIRCC has provided continuously updated long-term plans (available through www.NIRCC.com) across our region for discussions and purposes such as goals, land use planning, and funding. These are coordinated with multiple agencies and government units across an area that varies, but the discussion ranged from basically one to as many as eleven counties. The timeframe ranged from the 1970's to currently at least 2040.

Our newsletter from February 2019 has substantial background detail and illustrations which are available online at our [FWEC website](#). Much of that information is still current, particularly "Big Data" from cell phone and other tracking methods. These analyses include "Flow Roses" and "Desire Lines" of movement within the region, and traffic flows through our area. NIRCC plans another Big Data effort when traffic appears to stabilize after the pandemic.

For more, click [here](#) to read the full summary

New job posting listed

The club accepts both job openings from around the area, as well as resumes from those seeking employment. Please submit these to the following email address:

Info@FortWayneEngineersClub.org

May 2021: [APT Manufacturing Solutions](#) recently posted a new job opening. Director of Operations - Automation-Controls. See this [link](#) for more information. Or look on the Club's LinkedIn site.

Volunteer positions within the Club

This month's spotlight is on the job of Newsletter Editor

The club currently uses the company [MailChimp](#) to produce this newsletter. This is a very cool website that allows the club to both manage their email contact list and also easily distribute the newsletter to our club members and various other contacts. MailChimp also makes the process of editing and sending the newsletter quick and easy. It's estimated that you will spend roughly 45 minutes per month on this process once you have learned how to navigate MailChimp. If you would be interested in helping the club as well as learn a valuable skill, please contact Ryan Stark at Info@FortWayneEngineersClub.org

PS: A skill like this looks great on your resume!

Local Opportunities

Experimental Aircraft Association Chapter 2

The Experimental Aircraft Association's Chapter 2 is very active. Check the [EAA-2 website](#) for current information!

Upcoming events:

- June 12, EAA Young Eagles - [free airplane flights](#) for 8-17 year-olds from Smith Field's historic hangar, 9 am to 1 pm.
- July 10, EAA Chapter 2 Lunch and Ice Cream Social Fly-in/Cruise-in [Hangar 2 at Smith Field](#) - 12:00 PM
- *** Tentative Time - Please check back later and watch the website for updates. ***
- July 26-August 1, a conventional AirVenture Oshkosh 2021 - This is the largest air show in the world and should be on your bucket list.
- Tentative additional dates for EAA Young Eagles free airplane flights from Smith Field are August 14 and September 11.

TekVenture - Recovery efforts after the fire.

Much of TekVenture's core 15,000 square feet and contents have been scrubbed and painted top to bottom (15 foot ceilings). Visitors are welcome through the southeast-side door. The core facilities and active members include clay & pottery, welding for either art or practical purposes, extensive woodworking equipment and space, log and driftwood work (including industrial plank-making saw; log recovery trailer), small and large machining, vehicle (or boat/RV-trailer) work, hot or cold metalworking, electronics, printing, and (in progress) acres of riverside meditation space. Potential bench or floor space can be extended if needed for projects. Relatively large kiln capacity is in use and pottery activity has been very significant all winter, either working alone or socially. Some active members are involved with farmers markets and other regular activities around the Fort Wayne

region.

Membership and use of facilities is remarkably low cost, routinely \$30/month. (Materials are extra, roughly at cost.) TekVenture is a nonprofit 501(c)3. Cash donations are tax-deductible and were critical in surviving fire, pandemic, and winter. PARTICIPATION OR SUPPORT ARE STILL NEEDED, with recovery and a formal open house in sight. See Facebook or www.tekventure.org for updates.

Instruction upon request is a reason that TekVenture exists, for any suitable age or situation. Everyday activity depends on where individual interests are. Part of Tek's intent is to provide guidance and facilities if possible as ideas or projects arise. Industrial strength sewing machines, a new modern \$2,000 laser cutting or embossing machine, and 3-D printing can be made available, but are not yet in demand again after the fire. The Great Hall has been cleared and awaits cleaning (volunteers needed May 22 & 23, anytime noon-6 pm). It was used for scouting, other youth activities, general events, booths, and preplanning/staging other affairs. The Hall's large theater-quality stage was popular for bands to practice and will hopefully be available by late June.

The fire was in an adjoining building, not associated with TekVenture, which is completely gone. Visitors can still learn about the ravages of smoke damage, but also the process of renewal and opportunity that can grow from it.

General Info

Fort Wayne Engineers Club dues are \$0. Donations are welcome but strictly voluntary. In recent years, club funds have helped support Discover-E, the Regional Science and Engineering Fair, annual bridge building contests in schools, academic awards, networking events, mentoring, our website, and facilitating free tours. Please see FortWayneEngineersClub.org, LinkedIn, or Facebook for updates on current Club activities, other news, and/or prior newsletters.

Those participating in activities through FWEC and our hosts does so strictly at their own risk, including disease exposures. Participation in club events is voluntary, free, nonprofit, and solely for the benefit of participants and the community at large. Anyone with an interest may participate unless restrictions are specified for specific events, such as minimum age or minimum safety attire.

Interested in hosting a tour?

Contact us at Info@FortWayneEngineersClub.org

FWEC Board Meetings

The FWEC board meets eight times a year to plan and organize tours for our members. These meetings are open for anyone to attend. We are always looking for new members to join our team! If you are interested in being a board member please attend our next board meeting or contact us at info@fortwayneengineersclub.org.

Next Meeting

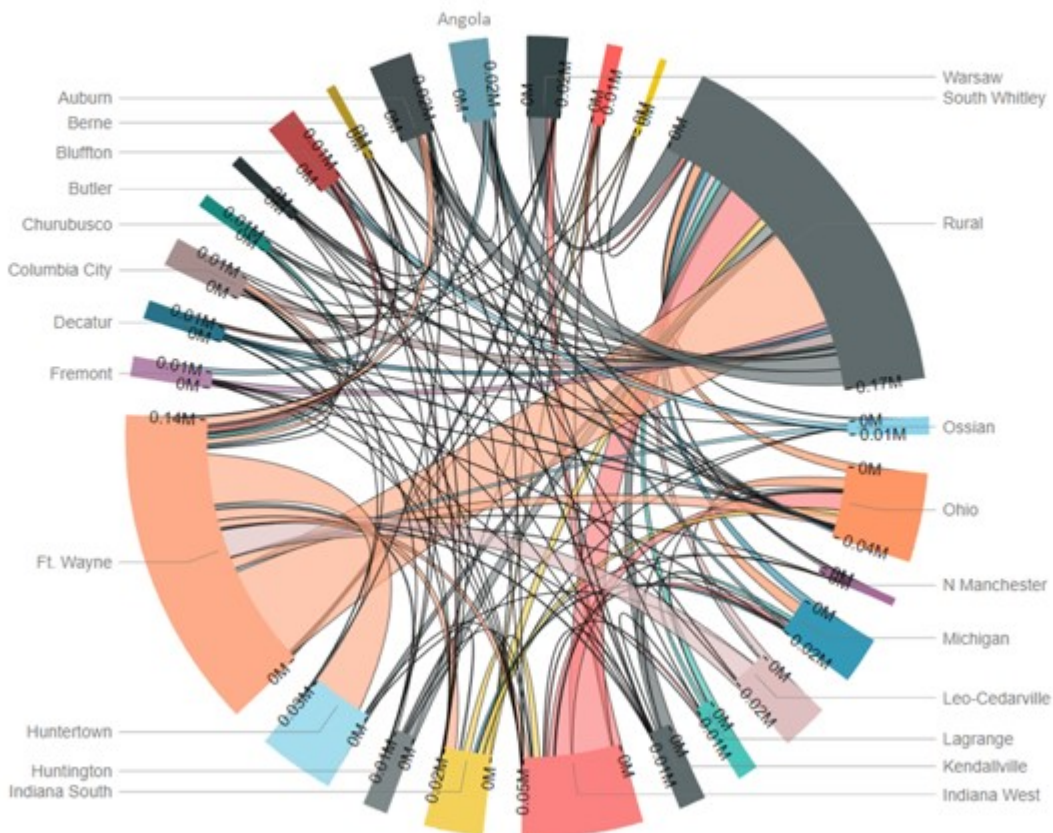
Date: August 31st, 2021

Time: 7:00 pm

Location: Blackstone Laboratories 502 E Pettit Ave, Fort Wayne, IN 46806

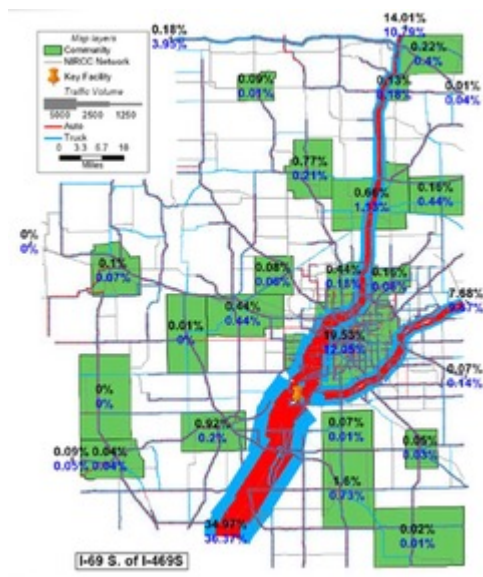
April Presentation Summary Continued

DAILY INTERACTIONS BETWEEN COMMUNITIES, RURAL, AND EXTERNALS WITHOUT INTRA-DISTRICT TRIPS



This NIRCC presentation also dovetailed with last month's presentation by FWEC member Dave Schaller on semi-truck engineering and practices (see the April 2021 issue). NIRCC data indicated

that total vehicle miles have been relatively steady over the last roughly twenty years, but truck traffic of various heavy types has doubled. Dave's presentation last month indicated the greatest single source of truck mileage is regular routes that are repeated daily within a region. The intense flow lines in this month's presentations frequently appeared to support that idea. Trucking of motor vehicle parts seemed significant, such as supplying the GM assembly plant (see illustration below). Certain food delivery routes also seemed to show up clearly on analyses of other major roadways. Regular work routes which originate and return to the same location(s) are currently the best candidates for electrification (not necessarily automation), but limited to where massive electrical grid capacity is available to supply the power. (Ed.: See last month's newsletter, and two earlier issues on AEP's \$3 billion grid replacement here, which included the technologically ambitious 765 kV power line and substation running through Roanoke. Amazon now has three major projects nearby.)



A major historical shift occurred with the completion of I-469.

Particularly truck traffic shifted from traveling through Fort Wayne to bypassing around it. Responsibility for many older routes was transferred to local agencies. Overall, total vehicle mileage in the immediate Fort Wayne region increased from 4.5 million miles in 1986 to 8 million in 2019. The increase was primarily years ago and, since then, has proportionately shifted towards commercial vehicles.

But, transportation planning is an ongoing continuous process. It appears to be a complex task involving delicate political balances throughout the region, hard sources of data acquired each year, various individual discussions with the public including potential developers, availability of funding, and agencies such as INDOT.

Many sources are combined into a database which can generate a range of maps. Local agencies still make very extensive use of traditional counting boxes which use hoses stretched across roads. Various incident, accident, 911, and maintenance sources provide data. Current and projected utility availability (including capacity of sewage pipes) is a major predictor of future transportation needs. Land uses, land use density, and zoning are factored in. Public input is actively encouraged. Being actively out and about is part of the process as well. The overall NIRCC process incorporates (including hiring practices to some extent) pedestrian, bicycle, public transit, special needs, and other considerations. (Ed.: My suggestions have been actively encouraged and often incorporated for over

a decade.)

Potential developers might be guided towards appropriate locations with excess capacity in terms of current traffic flows, land use density, utilities, and other facilities.

Considerable funding became available during Governor Mitch Daniel's administration for upgrades and new construction. These included priorities along I-469, I-69, and Route 3 (Lima Road). INDOT has since transitioned to proper maintenance of its infrastructure until additional funds become available. Comments from FWEC included that asphaltic crack sealer can result in unpredictable slippery traction for motorcycles, particularly on freeways.

Much of NIRCC's influence is seen in relatively everyday projects. Like them or not, traffic flow has been speeded along entire routes by judicious use of "roundabouts" where traffic lights once existed.

Maps were shown using continuously variable color for flow rates along road arteries, much like medical scans of blood circulation. The local designs for roundabouts have also evolved, and earlier version tweaked based on experience. For now, NIRCC is not concerned when traffic flow is slow for limited periods, such as an hour during commuting times. Funding is chronically limited. They begin to focus attention when transport times are constrained for 6 hours or more.

NIRCC was a major player in approval for constructing I-469, the Maplecrest/Adams Road extension, the Hillegas/Ardmore extension, and more. Bicycle and related movement has been facilitated between southeast and northwest residential areas for school and work commutes.

Current focus includes improving flow on Hillegas/Ardmore, particularly reducing chronically slow and/or stopped traffic. (Ed.: Also, sidewalks or trails are being installed in Fort Wayne's northwest quadrant to serve a meaningful percentage of the City's mobile home and other low income households, so wheelchairs and strollers no longer routinely compete with vehicles for corridor roadways. The latter projects grew from public comment.)

A major trend in traffic management is to avoid stopped traffic, particularly along highways, major corridors, and construction zones. Stopped traffic is a primary cause of fatal collisions.

The State of Indiana has an extra registration fee of \$150 for electric passenger vehicles (and light trucks?) to offset the loss of gasoline-tax funding for roads and related transportation projects.

NIRCC related projects are predominantly related to gas tax funds.

A very effective opportunity to personally learn and interact with NIRCC is their Open House each Spring. They also have a useful website, www.NIRCC.com.

A sincere THANK YOU to Director Dan Avery.

FWEC roster for FY2020-2021

President: Nate Berndt
Vice President: TBD
Immediate Past President: John Magsam
Secretary: Marna Renteria
Treasurer: Ryan Stark
Treasurer-Trainee: TBD
First-year Board Members: Dave Gordon, TBD
Second-year Board Member: John Renie, Craig Welch
Third-year Board Member: Rob Cisz, Bert Spellman
Editor of Engineer News: TBD
Membership and Contact Chair: Dave Schaller
Northeast Indiana DiscoverE Chair: TBD

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