

# Starke County Highway Department

## Monthly Report – December 2nd, 2019

November tends to be a relatively straightforward month when it comes to field operations. It is mostly winter prep, winter plowing and material hauling for next year's paving operations. After a successful summer paving program, we are looking to smoothly transition to an equally successful winter operations season. It is a little more hectic for our office staff. Cost summaries for this year's summer operations, grant writing, road assessments for next year's paving operations, State of Indiana reporting requirements and development of the maintenance/road improvement/training scheduling for next year are just a few of the things keeping the administrative staff busy in November.

## ROADWAY ASSET MANAGEMENT

### WINTER OPERATIONS

Overall, November's snow/ice events went well. However, we will need to make some adjustments to the timing of our material application. The optimum times to apply material are just before and during the storm. If you do not apply enough salt-sand prior to and during the storm you will need to use more after the storm than should be necessary. The salt needs to bind to water on the roadway to create brine in order for it to be successful. If a driver waits until there is hard packed ice on the roadway before applying material, it will take longer for the brine to take effect (hardpacked ice doesn't "give up" its water as easily as falling or freshly plowed snow). Our new drivers that most of the problems with timing. Our supervisors will continue to work hard with these drivers to improve their performance as the winter progresses. On a positive note, the average plow speed of our drivers was right where we want it to be (between 17 and 22 MPH). Normally the drivers plow too fast during the first snow events of the year. This year, that has not been a problem.

**November 2019 Snow Event Record**

PLOW EVENT	DATE	SNOW"	PLOW DRIVERS	PLOW HOURS	PLOW HOURS PER DRIVER	MILES CLEARED	MILES CLEARED PER DRIVER	MILES CLEARED PER HOUR	MILES CLEARED PER HOUR per driver	UNTREATED SALT USED (TONS)	TREATED SALT USED (TONS)	TOTAL SALT USED (TONS)	SAND USED (TONS)	COMMENTS
1920-01	11/7/2019	0.24	15	108.0	7.20	2200.0	146.67	305.56	20.37	59	0	59	260	Pre-Treat
1920-02	11/11/2019	2.52	17	122.0	7.18	2430.0	142.94	338.61	19.92	79	0	79	313	Not bad for a first day of snow. However, most of the drivers did not use enough material.
1920-03	11/12/2019	0.00	17	173.0	10.18	3305.0	194.41	324.77	19.10	145	0	145	579	Because the drivers did not use enough material yesterday (11/11/2019), they used way too much today. We need to train them to use material more efficiently.
1920-04	11/13/2019	0.00	17	140.8	8.28	2624.0	154.55	316.93	18.64	87	0	87	600	Decent Work
1920-05	11/14/2019	0.00	16	125.3	7.83	2144.0	134.00	273.88	17.12	63	0	63	271	This day of treating the roadway could have been avoided if the drivers had used more material during the snow of 11/11/2019.
November 2019 Totals		2.76	16	669.0	40.66	12703.00	154.47	311.95	18.99	434	0	434	2023	

## **COMMUNITY CROSSINGS 2019**

Last month, Starke County was awarded over \$700,000 of Community Crossings Grant funds for the asphalt resurfacing of CR50S from SR39 to the Knox City Limits. The construction bids for this project will be opened during the December 16<sup>th</sup>, 2019 Commissioners' meeting. Construction will begin sometime next Spring.

Our office Manager, Mary Perren, is close to finishing the necessary Community Crossings closeout procedures for the asphalt paving of 25N from CR600E to SR23 that was completed this summer. Once this closeout is approved by INDOT we will be eligible to apply for Community Crossings grant funds during the January 1<sup>st</sup> call for projects for 2020. We have three applications complete and ready to submit:

- 1) CR250N from US35 to Range Road, asphalt resurfacing
- 2) Range Road from SR10 to Toto Rd., asphalt resurfacing
- 3) CR400S from just west of CR650W to US421, asphalt resurfacing

No other proposed project has all the application requirements complete, thus they will be left off the January application list. The next Community Crossings application call for projects will be next July.

## **2019 ROAD IMPROVEMENT PROGRAM**

We have improved 91.55 miles (see below).

ROAD IMPROVEMENTS	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Future Years
CHIP SEAL	0	39.75	0	12.75	0	47	53	29.25	29.56	19	11.15	44.86	50
FOG SEAL	0	0	0	0	0	0	0	12	0	0	0	0	5
ASPHALT PAVING	7	3.5	8	0	4	2	8	18.63	21.28	6.88	21.83	20.5	25
CRACK SEAL	0	0	0	0	0	0	13	8.25	11	12.5	12.49	11.9	10
RE-STONE/WIDENING	0	0	0	0	0	21	3	8	8	32.37	22	11.09	10
HOT-MIX	0	10.75*	0	0	0	1.25	0	1	0.1	2	3.59	3.2	5
TOTAL MILES IMPROVED	7	54*	8	12.75	4	71.25	77.00	77.13	69.94	72.75	71.06	91.55	105

## PAVING COSTS

Here are the day-to-day costs associated with our paving operations. The per-mile costs will be presented during next month's report

### 2019 Pug Costs

LOADS	DATE	TIME	GALLONS	OIL COST	MATERIAL COST	TOTAL COST	TONS PRODUCED	Vendor	TYPE
1	20-May-19	6:45AM	6069.46	\$10,196.69	\$1,699.45	\$11,896.14	404.00	Bit-Mat	AE-200/11
2	20-May-19	7:50AM	5794.01	\$9,733.94	\$1,622.32	\$11,356.26	386.00	Bit-Mat	AE-200/11
3	20-May-19	10:30AM	6136.53	\$10,309.37	\$1,718.23	\$12,027.60	409.00	Bit-Mat	AE-200/11
4	22-May-19	6:45AM	5921.95	\$9,948.88	\$1,658.15	\$11,607.02	394.00	Bit-Mat	AE-150/11
5	22-May-19	8:48AM	5704.88	\$9,584.20	\$1,597.37	\$11,181.56	380.00	Bit-Mat	AE-150/11
6	22-May-19	10:30AM	5824.39	\$9,784.98	\$1,630.83	\$11,415.80	388.00	Bit-Mat	AE-150/11
7	22-May-19	12:35PM	5723.39	\$9,615.30	\$1,602.55	\$11,217.84	381.00	Bit-Mat	AE-150/11
8	31-May-19	6:30AM	5809.76	\$9,760.40	\$1,626.73	\$11,387.13	387.00	Bit-Mat	AE-150/11
9	31-May-19	8:05AM	6224.39	\$10,456.98	\$1,742.83	\$12,199.80	414.00	Bit-Mat	AE-150/11
10	31-May-19	12:35PM	5985.37	\$10,055.42	\$1,675.90	\$11,731.33	399.00	Bit-Mat	AE-150/11
11	3-Jun-19	6:40am	5968.29	\$10,026.73	\$1,671.12	\$11,697.85	397.00	Bit-Mat	AE-150/11
12	3-Jun-19	~9:30am	5995.12	\$10,071.80	\$1,678.63	\$11,750.44	399.00	Bit-Mat	AE-150/11
13	3-Jun-19	10:40am	5890.24	\$9,895.60	\$1,649.27	\$11,544.87	392.00	Bit-Mat	AE-150/11
14	3-Jun-19	??	5875.61	\$9,871.02	\$1,645.17	\$11,516.20	391.00	Bit-Mat	AE-150/11
15	4-Jun-19	6:44am	5939.02	\$9,977.55	\$1,662.93	\$11,640.48	395.00	Bit-Mat	AE-150/11
16	4-Jun-19	~9:00am	5868.29	\$9,858.73	\$1,643.12	\$11,501.85	391.00	Bit-Mat	AE-150/11
17	4-Jun-19	10:21am	6170.73	\$10,366.83	\$1,727.80	\$12,094.63	411.00	Bit-Mat	AE-150/11
18	4-Jun-19	~1:00pm	5902.44	\$9,916.10	\$1,652.68	\$11,568.78	393.00	Bit-Mat	AE-150/11
19	6-Jun-19	6:35am	5812.2	\$9,764.50	\$1,627.42	\$11,391.91	387.00	Bit-Mat	AE-150/11
20	6-Jun-19	9:00am	5858.54	\$9,842.35	\$1,640.39	\$11,482.74	390.00	Bit-Mat	AE-150/11
21	6-Jun-19	10:10am	5853.66	\$9,834.15	\$1,639.02	\$11,473.17	390.00	Bit-Mat	AE-150/11
22	6-Jun-19	11:55am	5856.1	\$9,838.25	\$1,639.71	\$11,477.96	390.00	Bit-Mat	AE-150/11
23	7-Jun-19	7:00am	5785.37	\$9,719.42	\$1,619.90	\$11,339.33	385.00	Bit-Mat	AE-150/11
24	7-Jun-19	8:45am	5912.2	\$9,932.50	\$1,655.42	\$11,587.91	394.00	Bit-Mat	AE-150/11
25	23-Jul-19	6:45am	5829.27	\$9,793.17	\$1,632.20	\$11,425.37	388.00	Bit-Mat	AE-150/11
26	23-Jul-19	8:30am	5978.05	\$10,043.12	\$1,673.85	\$11,716.98	398.00	Bit-Mat	AE-150/11
27	23-Jul-19	10:15am	5946.34	\$9,989.85	\$1,664.98	\$11,654.83	396.00	Bit-Mat	AE-150/11
28	23-Jul-19	12:00pm	5982.93	\$10,051.32	\$1,675.22	\$11,726.54	398.00	Bit-Mat	AE-150/11
29	24-Jul-19	6:40am	5904.88	\$9,920.20	\$1,653.37	\$11,573.56	393.00	Bit-Mat	AE-150/11
30	24-Jul-19	8:45am	5736.59	\$9,637.47	\$1,606.25	\$11,243.72	382.00	Bit-Mat	AE-150/11
31	24-Jul-19	10:00am	5834.15	\$9,801.37	\$1,633.56	\$11,434.93	388.00	Bit-Mat	AE-150/11
32	24-Jul-19	12:15pm	5782.93	\$9,715.32	\$1,619.22	\$11,334.54	385.00	Bit-Mat	AE-150/11
33	25-Jul-19	6:45am	5609.76	\$9,424.40	\$1,570.73	\$10,995.13	373.00	Bit-Mat	AE-150/11
34	25-Jul-19	8:30am	5807.32	\$9,756.30	\$1,626.05	\$11,382.35	387.00	Bit-Mat	AE-150/11
35	25-Jul-19	10:15am	5831.71	\$9,797.27	\$1,632.88	\$11,430.15	388.00	Bit-Mat	AE-150/11
36	25-Jul-19	12:00pm	5921.95	\$9,948.88	\$1,658.15	\$11,607.02	394.00	Bit-Mat	AE-150/11
			212047.82	\$356,240.34	\$59,373.39	\$415,613.73	14117.00		

## **ROADWAY CONVERSION APPLICATION**

Last month, the Board approved the roadway conversion application process (converting gravel roads to chip seal roads). As of today, we have received two requests for 2021 applications. Once these are completed and turned in to our department, we will review and score each application. The deadline to submit applications for 2021 roadway conversions is June 1, 2020. Applications and instructions can be picked up in our office during business hours. We can also send them via email or USPS.

## **BRIDGE ASSET MANAGEMENT**

*Add to website*

**Bridge 158 (CR700E over the Jain Ditch, north of CR600N) re-bid** – The high bids last month were primarily because the contract required the contractor to finish this year. It also included a clause on using concrete during cold weather that may have shied contractors away. We anticipate a saving of over \$100,000.00 when we amend and rebid the contract to include an early Spring start date and relaxed concrete restrictions. The rebid will take place at the February Commissioners' meeting.

**Bridge 140 (CR200E over the Robbins Ditch, just north of CR480N)** – Construction is 80% complete. JCI Bridge Group will have the bridge open for traffic with gravel approaches by the 1<sup>st</sup> of the new year. The paving of the approaches will be done in the Spring.

**Bridge 7, (CR1200E over the Yellow River, just north of 250S)** – We have received one consultant proposal for the RFP we sent out last month. The submittal will be scored and we will recommend a design award to the Commissioners at the December 16<sup>th</sup> Board Meeting. The project is now set for a fall of 2022 bid opening.

**Bridge 137 (CR300E over the Yellow River, just south of CR50N)** Although this bridge is not yet structurally deficient in terms of sufficiency rating, it probably will be by 2025. The superstructure of the bridge is already rated a 4 (out of 10) and is eligible for INDOT funds. Recently INDOT announced a call for projects for the 2025 fiscal year (This is a separate program from Community Crossings). This is one of the most important bridges in the County due to its proximity to the industrial park. Because of this and that the anticipated deficiency, I am submitting this bridge replacement project for the 2025 call.

**2019 Culvert Replacement Master List - Final As Of 11/19/2019**
**Total Culverts Replaced = 20**
**Culvert Work Complete As of 11/19/2019**

TWP	Road Name	Location	Date Replaced
Center	250 S	5120E 250 S 1/4 mi W of 550 E	Replaced 3/12/2019
Railroad	900 W	900 W 3271' S of 800 S	Replaced 3/19/2019
Center	200 E	1056' N of 50 S	Culvert Replacement On Hold Per Rik 4/30/2019
Davis	500E	50' N/O Yellowstone Trail	Replaced 4/23/2019
California	200E	200E & 900S INTERSECTION N.S.	Replaced 4/30/2019
Railroad	900S	1,750_ E/O Jasper Co Line	Replaced 5/3/2019
Wayne	500W	Intersection 500W & 700S	Replaced 5/8/2019 - See Damage Ticket # 1905082502
Railroad	700S	Intersection 700S & 1200W	Replaced 5/10/2019
Wayne	900S	1000_ E/O SR39	Replaced 5/13/2019
Wayne	300W	1250_ N/O 800S	Replaced 5/14/2019
Railroad	800W	2,000_ S/O 700S	Replaced 5/15/2019
California	50E	1500_ S/O 500S	Replaced on 6/14/2019 Under 811 Ticket # 1905285374 W/ Exp Date 7/2/2019.
North Bend	1150E	2500_ N/O 750S	Replaced 6/18/2019
California	200E	2500_ N/O 900S	Replaced 6/19/2019
Wayne	600W	2000' S/O 500S	Replaced 6/27/2019
Center	200S	1,000_ W/O 100E	Removed from replacement list per Dale 7/9/2019. Culvert was reevaluated and is in fair condition. Roadway was just chip sealed in 2018. Ok per Rik 7/12/2019
Wayne	600W	3500' S/O 500S	Culvert was reevaluated and is in good condition per Ricky - Ok per Rik 7/12/2019
Center	100 E	Intersection 100E & 250N S/S	8/21/2019 - Per Dale the culvert now needs to be replaced. Replaced 8/21/2019
Oregon	1200E	2600' S/O 900N	8/22/2019 - Replaced (Ricky is aware after pictures are needed) Added to GIS 8/26/2019
California	Toto Rd	1500' E/O 200E	10/17/2109 - Work Cancelled per DC - Need to wait for Surveyor to update drainage
Center	500E	2,600_ N/O 200S Knox City Limits	Replaced 11/4/2019
Center	550E	2,600_ N/O 200S	Replaced 11/4/2019
Railroad	500S	1,850_ E/O US421	11/5/2019 - Per Brian Burke w/ NIPSCO E the site is clear no need for a tech to be on site. 11/6/2019 ~8:05 am NIPSCO G Tech was on site for excavation. Culvert Replaced.
North Bend	750S	2300_ E/O 1000E	11/4/2019 - Not replacing per Rick
Wayne	Toto Rd	2,000_ W/O English Lake Rd (550W0	Replaced 11/19/2019

## **STELLAR COMMUNITIES GRANT**

On November 12<sup>th</sup>, the Constellation of Starke Stellar Executive Committee formally presented its application proposal in Indianapolis. After the presentation there was a question and answer period that consisted of all the relevant state agencies asking the executive committee questions related to the application. All involved thought it was a successful endeavor and look forward to the final grant award decision.

This Thursday, OCRA (The Office of Community and Rural Affairs) will be announcing this year's recipient of the award. If chosen, the Constellation of Starke will immediately start working on the development of the approved Stellar projects. If not chosen, the executive committee will discuss how to use the "consolation" award of \$333,333.00 and most likely begin the process of applying for the 2020 regional Stellar grant.

## **Revision of the Starke County Map**

Our office is currently working with WTH/GIS on a revision of our County map. Our Asset Manager, Laura Morlock, has been leading this effort on our end. She compared the existing INDOT inventory of Starke County roads, the County's existing inventory of these roads and what was actually shown on the previous map. Whenever all three did not match on a specific road, a discrepancy was noted. Laura found over 300 such discrepancies. We are currently reviewing and resolving each one before we send our revised data to WTH for inclusion in the new map.