

Starke County Highway Department March 2020 Monthly Report

Roadways

Several members of our department attended the recent PASER/Asset Management workshop hosted by Purdue LTAP at the Nancy J. Dembowski Community Center in Knox. We started PASER ratings last week, but that process was rudely interrupted by snow. It's difficult to rate pavement conditions when roads are covered with snow or have water standing. We hope to resume that process later this week.

Bridges

Bridge 137 – CR 300 E over the Yellow River, just south of CR 50 N. We were awarded \$1.28 million in Federal Highway Administration (FHWA) construction and inspection funds to replace this bridge. It is part of the INDOT 2025 Call for Projects and is an 80/20 match. We will have an early coordination meeting with INDOT in the coming days.

Bridge 7 – CR 1200 E over the Yellow River – As previously reported, the design is being finalized and will be set out for bid and construction in 2021. We are coordinating this project with the Surveyor's office and their Yellow River bank stabilization plans.

Culverts

700 E over the Jain Ditch. As you know, the second round of bids to replace the failed culvert on 700 E with a bridge came in much higher than anticipated and were rejected. We are in the process of getting quotes for both single and double pipes in order to ensure an appropriate, long-term fix. So far, we have received pricing from two vendors, which is attached.

In 2014 the commissioners voted to follow INDOT Standard Specifications for all major projects, which is the basis for these recommendations. Doing so will increase the infrastructure capacity and ensure a longer-term solution.

The specification for a 138.9 square foot pipe is Q100. By comparison, the collapsed culvert was only 42.4 square feet and a new bridge would have a capacity of more than 200 square feet.

If the commissioners choose to deviate from the Q100 specification, a vote will be required.

CAPACITY	
Q100	138.9 sq. ft.
collapsed culvert	42.4 sq. ft.
112" x 75"	48 sq. ft.
128 x 83"	60.5 sq. ft.
New Bridge	200+

MATERIALS AND LABOR	Quantity	Unit Price	Total Cost
INDOT Revetment Rip Rap	150 tons	\$17.50	\$2,625.00
INDOT #9 stone	100 tons	\$11.00	\$1,100.00
INDOT #2 stone	15 tons	\$8.80	\$132.00
INDOT #73	25 tons	\$7.25	\$181,25
Labor and Hauling	1 SYS	\$10,000.00	\$10,000.00
Guard Rail	1 sys	\$8,000	\$8,000.00
			\$21,857.00
	20% contingency		\$4,371.40
			\$26,228.40

	DEBCO (Francesville, IN)	METAL CULVERTS (Evansville, WI)	E3 BRIDGE	ST. REGIS CULVERTS
128" X 83" 8GA	\$26,010.00*	\$20,695.50		
112" X 75" 8GA	\$22,215.00*	\$18,725.00		
112 X 75 10GA	\$16,850.00	\$15,977.50		

SINGLE PIPE SOLUTION	CAPACITY	COST OF MATERIALS AND INSTALLATION	COST PER SQ. FT. OF CAPACITY
128" X 83" 8GA	60.5 sq. ft.	\$46,923.90	\$775.60
112" X 75" 8GA	48 sq. ft.	\$44,953.40	\$936.53
112 X 75 10GA	48 sq. ft.	\$42,205.90	\$879.29
DOUBLE PIPE SOLUTION	CAPACITY	COST OF MATERIALS AND INSTALLATION	COST PER SQ. FT. OF CAPACITY
2X (128" X 83" 8GA)	121 sq. ft.	\$70,619.40	\$583.63
2 X (112" X 75" 8GA)	96 sq. ft.	\$66,678.40	\$694.57
2 X (112 X 75 10GA)	96 sq. ft.	\$61,183.40	\$637.33

NEW BRIDGE	CAPACITY	COST OF MATERIALS AND INSTALLATION	
	231 sq. ft.	\$475,000.00	\$2,056.28

As you can see from the attached chart of single and double-pipe solutions, the first option under double-pipe solutions is the most cost-effective and is what we recommend. It is 2 128"x83" 8-gauge pipes, with a capacity of 121 square feet. The cost of \$583.63 includes delivery, and the capacity is close to the Q100 standard. However, there are a couple of drawbacks – this type of pipe will require more maintenance, and it will be more difficult to install. However, we believe it is the best and most cost-effective solution. We have also factored in the cost of materials and labor, including guardrails and added a 20% contingency.

If you are ready to proceed with this tonight, we will need a motion to deviate from the INDOT specs.

We had an unusual situation last week when what we originally thought was a sinkhole turned out to be a failed culvert on 400 S. east of 1000 E. It was discovered Wednesday afternoon February 26th. As you may recall, it snowed all day Wednesday, and our drivers were busy plowing. Initially we thought it would be an easy repair, but we quickly realized it was more involved than that. We mobilized an emergency response which included a road closure, coordination of emergency utility locates, notification to the school corporations first responders and neighbors that the road was shut down and temporary repairs to shore things up. Thursday morning as soon as we received an all-clear from the utility companies, we sent a crew out to replace the pipe. This is normally a spring/summer project, and it definitely isn't something we do in the snow when the temperature is below freezing. Our garage foreman Ricky Fisher and mechanic Mark Varga got all of the necessary equipment started and ready to go, and we got the culvert changed and road reopened while keeping up with plowing on Thursday. This is a testament to our training and teamwork. Our entire staff did a great job.

Training

We have two LTAP classes coming up within the next week. The first is **Core Course #11 – Plan Reading**, which will take place at the Work Truck Show in Indianapolis on Thursday, March 5. Garage Foreman Ricky Fisher and Senior Driver Ralph Saine will be attending the entire Work Truck Show, and several of our other workers will be making a same-day trip for the LTAP class.

The second class is **Core Course #6 – Basics of a Good Road**. It will take place Monday, March 9 at Purdue Road School. Again, several of our workers will be going to West Lafayette for the day to take the class. Rik and I will be staying for Road School. Some of the sessions we have highlighted deal with Asset Management and various funding sources as well as paving, signage, public relations and ADA.

Speaking of the ADA, Rik will be attending the **National ADA Symposium** in May and was awarded a scholarship to cover the cost of the conference. He is the county ADA coordinator, and he currently has 24 of his 40 credits to complete his ADA certification. He will earn his final 16 credits at the conference, which in turn will open up more grant opportunities for the county by having a certified ADA Coordinator.

Chainsaw Safety – Purdue LTAP is hosting their annual Chainsaw Safety Training in Knox in May. The close proximity means we will be able to send several people to this class as well. We will also be sending people to the LTAP Temporary traffic control class in April.

Facilities

Our office renovations are almost complete. The next big project is the flooring installation, which will happen in the coming weeks.

Stellar Communities

The Stellar Executive Committee is finalizing the consultant selection process and will have an announcement soon.

Equipment

Our new rubber tire roller arrived last Friday. We are now looking for a new distributor truck. That purchase will give us equipment comparable to what a contractor uses to chip seal roads.

