

Starke County Highway Department

Monthly Report – January 3, 2017

WINTER OPERATIONS

December was a busy month at the highway garage. There were 12 “plowable events”. The drivers plowed almost 100 hours each and the Department cleared over 31000 miles of County roadway. Despite the high number of miles there were no accidents in December and no major truck malfunctions. This averages over 22 complete passes of all County roads. We had nine reported mailbox complaints during December. There are approximately 6000 mailboxes on County roadways which means during the 22 plow passes our trucks plowed past 132,000 mailboxes. Nine mailboxes knocked over out of 132,000 gives us a ration of 1 mailbox knocked over for every 14,666 passed. Although it is never a happy event when your mailbox is damaged we believe this ration represents a concerted effort by the drivers in our Department to minimize mailbox damage. If you have any concerns about mailboxes please call our office at 574-772-3011

2016-7 WINTER PLOWING

| MONTH | SNOW EVENTS | SNOWFALL IN INCHES | PLOW HOURS | PLOW HOURS PER DRIVER | MILES CLEARED | MILES CLEARED PER HOUR PER DRIVER | SALT USED | SAND USED |
|---------------|-------------|--------------------|-------------|-----------------------|----------------|-----------------------------------|------------|-------------|
| NOVEMBER | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| DECEMBER | 12 | 14.8 | 1632 | 99.6 | 31318.3 | 19.19 | 595 | 2542 |
| TOTALS | 12 | 14.8 | 1632 | 99.6 | 31318.3 | 18.74 | 595 | 2542 |

2015-6 WINTER PLOWING

| MONTH | SNOW EVENTS | SNOWFALL IN INCHES | PLOW HOURS | PLOW HOURS PER DRIVER | MILES CLEARED | MILES CLEARED PER HOUR PER DRIVER | SALT USED | SAND USED |
|---------------|-------------|--------------------|------------|-----------------------|---------------|-----------------------------------|------------|-------------|
| NOVEMBER | 3 | 9.13 | 311.5 | 22.9 | 5978 | 19.19 | 150 | 655 |
| DECEMBER | 2 | 0 | 324.5 | 20.28 | 5079 | 15.65 | 45 | 584 |
| TOTALS | 5 | 9.13 | 636 | 43.18 | 11057 | 18.74 | 483 | 2369 |

2014-5 WINTER PLOWING

| MONTH | SNOW EVENTS | SNOWFALL IN INCHES | PLOW HOURS | PLOW HOURS PER DRIVER | MILES CLEARED | MILES CLEARED PER HOUR PER DRIVER | SALT USED | SAND USED |
|---------------|-------------|--------------------|------------|-----------------------|---------------|-----------------------------------|-----------|------------|
| NOVEMBER | 1 | 0.1 | 12 | 3 | 287.7 | 23.98 | 20 | 80 |
| DECEMBER | 1 | 0.2 | 120 | 8 | 3181.6 | 26.51 | 30 | 120 |
| TOTALS | 2 | 0.3 | 132 | 11 | 3469.3 | 26.28 | 50 | 200 |

2013-14 WINTER PLOWING

| MONTH | SNOW EVENTS | SNOWFALL IN INCHES | PLOW HOURS | PLOW HOURS PER DRIVER | MILES CLEARED | MILES CLEARED PER HOUR PER DRIVER | SALT USED | SAND USED |
|---------------|-------------|--------------------|----------------|-----------------------|---------------|-----------------------------------|-------------|-------------|
| NOVEMBER | 4 | 8.9 | 360.45 | 22.5 | 7328 | 20.32 | 150 | 655 |
| DECEMBER | 9 | 9.9 | 954.56 | 59.66 | 18243 | 19.31 | 275 | 1112 |
| TOTALS | 13 | 18.8 | 1315.01 | 82.16 | 25571 | 19.45 | 1828 | 9275 |

Starke County Highway Asset Management Overview

ROADS

- 1) Road Assessments (PASER) – Our 3rd annual PASER rating of our County roadways is underway. We will use the data from this to evaluate the overall health of our Roadways.
- 2) More Improvements – Community Crossings grant
- 3) New maintenance methods – crack seal, fog seal, wedges, saw patching, shoulder repair.
- 4) Increase the use of “wedge and chips”
- 5) Major Collectors\State Funding – adapting to the new rules
- 6) Better plowing and overall road maintenance.
- 7) Increase the use of brine and other anti-icing agents
- 8) Improve our Chip Seal process
- 9) Improve our cold mix asphalt transitions
- 10) More responsive to complaints
- 11) Heavy truck ordinance. We would like to introduce this ordinance in 2017.

BRIDGES

- 1) Bridge Replacement – Plan to reduce # of deficient bridges to zero by 2020. We are currently at five and will be at two by mid-summer. The plan currently two years ahead of schedule.
 - a. Concrete vs. Aluminum Box Culverts vs. small structures (concrete pipes, CMP, etc..)
- 2) Bridge Maintenance Plan, improved plan in its third year.
- 3) Reduce the number of required supplementary inspection
- 4) Bridge Rehabilitation
- 5) Culvert Inventory and replacements – 1st ever culvert inventory. We have 642 culverts with no previous records of replacement or repair. This year we will inspect and repair all 642 culverts. Each one will get “eyeballed”

SIGNS

- 1) Sign Inventory – 1st ever comprehensive sign inventory
- 2) Sign Replacement – High Reflectivity
- 3) Placement Reviews – Free through Purdue LTAP
- 4) Speed Limit Evaluation
- 5) Improved Roadway Safety – Accidents have decreased significantly on Starke County roadways over the last three years.
- 6) We would like to introduce a sign ordinance in 2017

SAFETY

- 1) More training – weekly safety trainings,
- 2) More and better safety equipment
- 3) Better results – Lower workman’s comp, accidents, and tort claims
- 4) We would like to involve our drivers more in the planning and implementation of safety measures.

TRAINING

- 1) More skilled workers
- 2) LTAP Road Builder program
- 3) INDOT certified construction techs

COST SAVINGS EFFORTS

- 1) Construction Inspection – (see chart) hundreds of thousands of dollars
- 2) Fuel purchasing
- 3) Reduced road improvement costs – 40% reduction by making our own material and new methods
- 4) Reducing workman comp claims/accidents
- 5) Reducing tort claims
- 6) Apprentice program - \$15,000 per year
- 7) Reduced bridge maintenance costs
- 8) Reduced number of motor vehicle accidents on County roads (Better plowing, better mowing, better sign placement)
- 9) Make our own asphalt patch and paving material Our cost \$32.00/ton -- Contractor cost \$100.00/ton
- 10) Doing our own dust control – saves \$20,000/yr
- 11) Funding our own facility improvements at no extra cost to the County
- 12) Better Inventory Control
 - a) Equipment
 - b) Pipes
 - c) Fuel
 - d) Culverts
 - e) Roads
 - f) Material
 - g) Signs

CURRENT BRIDGE REPLACEMENTS

County Bridge #50 (CR1150E, .9 miles SR10.) This bridge was awarded to Norther Indiana Construction in September. The selected bid was \$270,531.00. This was almost \$46,000 less than the engineer's estimate. Construction will begin in April

County Bridge #46 (CR900E, .8 miles SR10) The design for this bridge is complete. The bid opening was held on November 21st. Northern Indiana Construction was awarded the contract with a bid of \$263,945.13. Construction will begin in April of 2017

County Bridge #47 (CR625S, just west of 875E) The design for this bridge is complete. The bid opening was held on November 21st. Northern Indiana Construction was awarded the contract with a bid of \$274,747.13. Construction will begin in April of 2017

County Bridge #7 (1200E, 1.1 miles S of SR8) Starke County was awarded \$1,080,000.00 in matching funds for this bridge replacement in 2019. The RFP for design has been advertised by INDOT. The due date for proposals for the design of the bridge is January 16, 2017. All submitted proposals will be scored by both INDOT and Starke County. The contract will be awarded after that scoring is complete.