



Zionsville Street and Stormwater Department
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2017 STREET AND STORMWATER DEPARTMENT YEAR-END REPORT

Statistics

- Generated 360 work orders from various sources and tracked progress, and closed out 398 work orders.
- Replaced 309 linear feet of sidewalks through the annual in-house and contracted sidewalk program.
- Resurfaced or repaired 7.7 miles of streets through the annual street repair program.
- Crack-sealed 5.4 miles of roadway as a pavement preservation.
- Applied approximately 735 tons of salt/deicing material to public streets, parking areas and municipal facilities.
- Performed routine maintenance cleaning on approximately 2.5 miles of sanitary sewers.
- Improved 61 curb ramps to ADA standards and provided 11 new ADA accessible curb ramps.
- Placed 147.34 tons of hot mix asphalt and 12.5 tons of cold mix asphalt patch to perform in-house street repair and pothole patching.
- Collected and disposed for recycling approximately 270 tons (54 truckloads) of chipped brush and limbs.
- Collected and disposed for recycling approximately 675 tons (135 trailer loads) of leaves.
- Replaced, repaired and/or installed 53 street signs.
- Provided 75 new street trees.
- Performed or had contracted for trimming maintenance on 21 street trees.
- Removed or had removed 24 street trees.
- Received, reviewed and processed 110 permits for construction within public rights-of-way.

- Collected approximately 10.5 cubic yards (2362.5 lbs.) of litter through road-side clean-up.
- Responded formally to one (1) sewer emergency call for service, although none were found to be problems with town-owned sewer mains.
- Replaced street light bulbs or repaired 126 streetlights.
- Reviewed approximately 4479 requests for field-verification and locating of underground sanitary and storm sewer facilities and provided underground location services in 197 warranting instances.
- Cleaned over 500 linear feet of storm sewer. Televised approximately 1,500 linear feet of storm sewer.
- Storm sewer pipes: Eleven (11) spot repairs; 40 ln. ft. replaced.
- Storm sewer structures: 13 repaired; nine (9) new or replaced
- Twenty-two (22) storm sewer outfalls repaired, maintained and/or remediated for scour conditions.
- Drainage ditches: 630 ln. ft. re-graded; 2,100 ln. ft. routine maintenance.
- Approximately 25 tons of material collected and disposed of from the maintenance of storm sewer infrastructure, open conveyances and water quality best management practices (BMP's).
- Contracted street sweeping of approximately 175 curb miles in the urban and rural service districts covering the entire regulated MS4 area, with 89 tons of material collected and disposed.
- Conducted 247 formal Stormwater Pollution Prevention Plan (SWPPP) compliance inspections of active construction sites in addition to routine informal site visits and inspections of non-permitted sites.
- Issued local Stormwater Management Permit approval for eight (8) new development projects.
- Issued local Stormwater Individual Lot Permit approval for 153 new residential construction projects.
- Conducted four (4) formal Stormwater Ordinance Violation Investigations for reported illegal dumping/illicit discharges and coordinated mitigation or brought enforcement action as-appropriate.
- Issued 18 formal Notices of Violation and levied six (6) fines for outstanding stormwater pollution prevention compliance issues at active construction sites.

Storm Sewer Statistics

Existing town-owned storm sewers:

	Storm Pipe (ln. ft.)	Storm Pipe (ln. mi.)	Manholes & Inlets (#)
2017	305,882	58	3,678
2016	255,704	48	3,248
% Growth	19.6%	19.6%	13.2%

Stormwater Best Management Practices (BMPs):

Stormwater BMPs are water quality and quantity management practices ranging from retention ponds to rain gardens and porous pavers. These practices are installed during

development to provide flood control and to prevent pollutants from reaching local waterways and require perpetual inspection and maintenance to ensure proper function.

Description	Public (Zionsville)	Private	Total
BMPs	58	209	267

In-House Services

- Heavy Trash Collection coordinated and completed on schedule through contract with Ray's Trash Service.
- Both spring and fall Brush and Limb Collection completed on schedule.
- Leaf Collection service provided on a weekly schedule from October 23rd through December 8th.
- Applied salt and/or removed snow from public streets on 10 events through 15 specific actions to facilitate public safety.
- Performed trimming and/or maintenance on ROW trees to promote a healthy and safe streetscape environment.
- Continued special event and community support, maintaining and replacing Main Street banners, flags and decorations and providing barricade services.
- Maintained all traffic signals.
- Responded to all drainage concerns brought to our attention by area residents and coordinated mitigation.
- Obtained a new leaf vac trailer unit.
- Nuisance sump pump discharges to public streets in four subdivisions were mitigated to eliminate hazardous ice formation in winter and premature pavement degradation.
- Purchased a new street sweeper to replace the Town's existing sweeper which was recently retired due to age and mechanical failure. The street sweeper helps the Town meet its NPDES stormwater permit requirements by preventing street debris from reaching local waterways and by providing advanced storm structure cleaning capability.
- Purchased a new mini excavator which will provide advanced capability for completing work in confined spaces, pipe installation, grading and other specialized tasks.
- Performed routine maintenance on known drainage trouble spot areas to prevent ponding and localized flooding during rain events.

Administration and Meetings

- Superintendent served on the Indianapolis Metropolitan Planning Organization Technical Committee, attending quarterly and special meetings.
- Superintendent served on the Executive Committee of the Board of Directors of the White River Alliance (WRA), the entity that develops critical NPDES permit compliance activities.
- Attended and participated in monthly meetings of the Technical Advisory Committee, as well as follow-up meetings with the applicants.
- Superintendent attended Pathways Committee Meetings and maintained agendas and minutes for the committee on the town's web site.

- Attended meetings with Boone County government and local organizations to coordinate operations, services and development.
- Coordinated two cooperative paving projects with Boone County Highway Dept.
- Completed bi-annual town-wide PASER rating for pavement conditions.
- Provided three touch-truck opportunities for various community groups.
- Coordinated with Boone County on drainage plan review on new projects as well as problem resolution on existing properties.
- Assistant Superintendent - Stormwater served on the White River Alliance public education sub-committee.
- Superintendent completed two-year Certified Public Manager course through the Bowen Center of Ball State University.
- Superintendent maintained certification as INDOT ERC (Employee of Responsible Charge) to keep the town eligible for federal funding.
- Obtained continuing education at the following:
 - Annual LTAP Stormwater Drainage Conference
 - IDEM-sponsored MS-4 Annual Meeting
 - INAFSM Annual Conference
 - WTH Engineering Annual Conference (ThinkGIS)
 - Annual LTAP Road School
 - Ball State University Certified Manager Program
 - PASER Training/Asset Management Conference
- Regular attendance at the following meetings:
 - Hamilton County Stormwater Standards, Plan Review & Enforcement Committee
 - Indiana Association of Floodplain and Stormwater Managers (INAFSM) inspector subcommittee
- Provided development oversight services for public and private projects to ensure compliance with the Stormwater Ordinance and Technical Standards Manual including plan review, permitting, site inspection, coordinating engineering services, project close-out and permit termination. Effective project oversight is necessary to ensure that stormwater management systems are properly installed and maintained in perpetuity.
- Participated in preconstruction meetings for all new permitted development projects.
- Assistant Superintendent - Stormwater maintained Certified Floodplain Manager certification administered by the Association of State Floodplain Managers.
- Assistant Superintendent – Stormwater was presented with the Excellence in Stormwater Management Award at the annual statewide Indiana Association of Stormwater and Floodplain Managers (INAFSM) conference.
- Stormwater Technician obtained Certified Erosion Sediment and Stormwater Inspector certification administered by Envirocert International.
- Assistant Superintendent - Stormwater maintained Certified Professional in Erosion and Sediment Control certification administered by Envirocert International.
- Maintenance and updating of the Town GIS through ongoing data correction and the acquisition and importing of as-built data, aerial imagery, floodplain mapping and field-collected GPS data.
- Completed all annual services in a timely fashion and conducted all operations, maintenance and procurements within budget constraints.

- Coordinated and participated in the INDOT state-wide road salt quote solicitation process.
- Received mileage inventory from INDOT of 99.9 miles that accurately reflects current centerline miles and maximizes state funding distributions.
- Submitted updated mileage inventory to INDOT requesting an additional 4.4 miles for credit.
- Submitted a request to the Indianapolis MPO for federal funds to extend Bennett Parkway from its terminus south to 96th St.
- Submitted all applicable project information to the Indianapolis MPO for inclusion in the regions 2045 Long Range Transportation Plan.
- Developed and secured multiple areas of additional rights of way to provide for future sidewalk, pathway and road projects.
- Drafted one (1) ordinance to amend the Code of Ordinances for consideration by the Safety Board and/or Town Council.
- Added a new Stormwater Technician position to meet growing demand for construction inspection and permitting, storm sewer maintenance, equipment operation and other departmental needs.
- Coordinated two staff trainings on storm pipe and structure materials, installation and maintenance, including new and innovative practices.
- Coordinated a free demonstration of a trenchless sewer structure rehabilitation product to repair a failing storm sewer.
- Submitted to INDOT for Community Crossings Matching Grant funds and received \$486,562.71.
- No lost-time personal injury accidents.
- Completed spring, summer and winter IPEP safety training sessions to meet yearly requirements.
- Conducted operations within budget constraints.

Project Development and Management

- Initiated and completed the installation of a new traffic signal at the intersection of Oak St. and CR 800 E.
- Initiated and completed construction of an intersection improvement project at the intersection of 96th St. and Zionsville Rd.
- Initiated design and land acquisition for a project to widen Zionsville Rd.
- Initiated design for the N-S Connector project.
- Initiated and completed construction of a new roundabout at the intersection of Ford Rd. and Whitestown Rd.
- Negotiated and secured a parcel of land to permit the construction of the CR 700 pathway project connecting Royal Run to Zionsville West Middle School.
- Finalized design and began construction of the CR 700 pathway project connecting Royal Run to Zionsville West Middle School.
- Coordinated multiple utility projects for new facility locations.
- Developed and completed the 2017 road rehabilitation project.
- Coordinated town partnership with the City of Carmel on a joint pathway project along 116th St.
- Work was completed on Phase I of the Fourth Street Storm Sewer Improvements project. This greatly expands the drainage capacity of one of the primary storm sewer trunk lines serving the Village residential area.

- A contract was awarded for Phase II of the Fourth Street Storm Sewer Improvements and work is expected to be completed in late spring/early summer of 2018. The project was delayed due to difficulty in obtaining easements necessary to complete construction.
- A contract was awarded for the Third Street Storm Sewer Improvements project and work is expected to be completed in late spring/early summer of 2018.
- Work has begun to complete design and produce final construction plans for drainage improvements to address historical flooding issues in the Irongate subdivision and on W. Oak St. Design work will be complete in 2018 and the project can then be considered for future funding.
- Work has begun on an engineering study to evaluate capacity needs and mitigation options to address historical drainage problems in a rear-yard drainage corridor between 6th St. and 9th St., north of W. Oak St. in the Village. The study will be completed in 2018.
- Work is ongoing on a project to determine capacity needs for storm sewers throughout the Village and to use existing and new televising to evaluate pipe condition. This work will help prioritize areas for potential future storm sewer improvement projects.
- Developed a condition rating system for storm structures and used this new method to evaluate infrastructure located in the Village, totaling 265 structures.
- Worked with a fiber optic utility to have repaired, at their expense, a storm sewer that was damaged during directional drilling work.
- Completed the emergency repair of a failing trench drain at the intersection of Cedar St. and Main St.

Stormwater Program

- Held the annual contractor training and certification training program for construction site stormwater pollution prevention requirements. Over 200 people attended the event, 112 of which sat for certification testing.
- Hosted the Boone County Solid Waste Management District's annual Household Hazardous Waste Disposal and Electronics recycling event at the Municipal Services Building. The record-setting event had 507 visitors/vehicles dispose of 10.57 tons of hazardous waste and recycle 6.8 tons of electronics.
- Completed a reorganization of and updates to the Street and Stormwater Department section of the Town's website assisted by Director of Communication.
- The Indiana Department of Environmental Management conducted an audit of the Town's Stormwater Quality Management Program covering Public Education and Participation and Municipal Operations Pollution Prevention. IDEM provided a favorable report noting only three minor deficiencies which have since been addressed.
- Provided stormwater training for existing and new staff members of the Wastewater and Parks Departments.
- Participated in the annual Z'Greenfest held at the Hussey-Mayfield Memorial Library by demonstrating the Eagle Creek walkable watershed map and storm drain model and distributing Clear Choices Clean Water materials

- Participated in the Pleasant View Elementary STEM night by demonstrating the walkable watershed map and providing the water cycle bracelet “Incredible Journey” activity.
- Participated in the Zion Nature Center’s Creekstomp event.
- Participated in the regional Boy Scout summer camp at Camp Belzer by staffing a White River Alliance educational booth. Hundreds of area scouts and their families attended the camp.
- Participated in the Zion Nature Center’s Biologist Boot Camp by presenting a youth-oriented version of the Hoosier Riverwatch basic training. Fifteen children and four (4) adults participated.
- Held the annual Creekfest event at Elm Street Green which included a stream cleanup where 125 volunteers helped remove over 3,000 lbs. of trash from over 2 miles of Eagle Creek. Approximately 250 people attended the festival portion of the event.
- Worked with the Parks Naturalist and representatives of Eagle Elementary to relocate the Town Hall rain garden to the school as the garden was to be demolished as a component of the new Town Hall project. Street & Stormwater staff removed all plant and stone material from Town Hall, transported it to the school and excavated the new garden. Volunteers then installed the landscape stone and plants.
- Coordinated with the White River Alliance to have a corporate “Stormwater Action Team” clean storm drains and install “no dumping” placards on all drains in the Raintree Place subdivision.
- Worked with the White River Alliance and several area municipalities to hold a workshop for HOA’s, landscape contractors and pond management companies on how to properly maintain stormwater best management practices (BMPs) such as ponds, water quality treatment units, rain gardens and porous pavements. Approximately 40 people attended the event.
- Staff conducted inspections of privately-owned stormwater BMPs located throughout Zionsville, as authorized under the Zionsville Stormwater Ordinance. The purpose of the inspections is to educate BMP owners on local requirements for proper maintenance to ensure devices remain functional.
- Installed new Flexstorm inlet filters at the Municipal Services Building salt barn and Wastewater Treatment Plant biosolids barn to replace failing/underperforming filters.