



Zionsville Street and Stormwater Department  
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## 2016 STREET AND STORMWATER DEPARTMENT YEAR-END REPORT

### **Statistics**

- Generated 357 work orders from various sources and tracked progress, and closed out 457 work orders.
- Replaced 877 linear feet of sidewalks through the annual in-house and contracted sidewalk program.
- Resurfaced or repaired 6.9 miles of streets through the annual street repair program.
- Crack-sealed 4.9 miles of roadway as a pavement preservation.
- Applied approximately 888 tons of salt/deicing material to public streets, parking areas and municipal facilities.
- Performed routine maintenance cleaning on 13,399 linear feet of sanitary sewers.
- Improved 48 curb ramps to ADA standards and provided five (5) new ADA accessible curb ramps.
- Placed 187.94 tons of hot mix asphalt and 30.06 tons of cold mix asphalt patch to perform in-house street repair and pothole patching.
- Collected and disposed for recycling approximately 210 tons (42 truckloads) of chipped brush and limbs.
- Collected and disposed for recycling approximately 1,015 tons (203 trailer loads) of leaves.
- Replaced, repaired and/or installed 53 street signs.
- Provided 218 new street trees.
- Performed or had contracted for trimming maintenance on 12 street trees.
- Removed or had removed 23 street trees.
- Received, reviewed and processed 141 permits for construction within public rights-of-way.

- Collected approximately 6.5 cubic yards (1,462.5 lbs.) of litter through road-side clean-up.
- Responded to five (5) sewer emergency calls for service, although none were found to be problems with town-owned sewer mains.
- Replaced street light bulbs or repaired 80 streetlights.
- Reviewed over 3,056 requests for field-verification and locating of underground sanitary and storm sewer facilities and provided underground location services in 405 warranting instances.
- Storm sewer cleaning: 655 ln. ft. in-house; 520 ln. ft. contracted
- Storm sewer televising: 1,215 ln. ft. in-house; 520 ln. ft. contracted
- Storm pipes: Seven (7) spot repairs; 90 ln. ft. replaced; 40 ln. ft. added
- Storm sewer structures: 27 repaired; six (6) new or replaced
- Storm sewer outfalls: 14 maintained and/or remediated for scour conditions.
- Approximately fourteen (14) tons of material collected and disposed of from the maintenance of storm sewer infrastructure, open conveyances and water quality best management practices (BMP's).
- Collected and disposed of over 138 tons (23 truckloads) of material through regular in-house street-sweeping efforts.
- Contracted street sweeping of approximately 175 curb miles in the urban and rural service districts covering the entire regulated MS4 area, with 75 tons of material collected and disposed.
- Conducted 178 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 sixteen (16) new development projects.
- Issued local Stormwater Individual Lot Permit approval for 81 new construction projects.
- Conducted 10 formal Stormwater Ordinance Violation Investigations for reported illegal dumping/illicit discharges and coordinated mitigation or brought enforcement action as-appropriate.

**Storm Sewer Statistics**

Existing town-owned storm sewers:

	<b>Pipe (Linear Feet)</b>	<b>Pipe (Linear Miles)</b>	<b>Manholes &amp; Inlets (Total Number)</b>
<b>Town Owned</b>	255,704	48.4	3,248

Future development-related growth:

<b>Project Name</b>	<b>Pipe (Linear Feet)</b>	<b>Pipe (Linear Miles)</b>	<b>% Increase</b>	<b>Manholes &amp; Inlets (Total Number)</b>	<b>% Increase</b>
Hidden Pines	12,407	2.3	4.9%	117	3.6%
Hampshire	30,501	5.8	11.9%	228	7.0%
Vonterra	6,775	1.3	2.6%	68	2.1%
Oxford Woods	2,175	0.4	0.9%	19	0.6%
Ansley Park	1,296	0.2	0.5%	12	0.4%
Courtyards	2,479	0.5	1.0%	31	1.0%
Pemberton	7,487	1.4	2.9%	58	1.8%
<b>Total</b>	<b>63,120</b>	<b>12.0</b>	<b>24.7%</b>	<b>533</b>	<b>16.4%</b>

### **In-House Services**

- Heavy Trash Collection completed on schedule through contract with Rays Trash Service. Prior partner Disposal Alternatives Organization was no longer in business and no alternate appliance recycling agency could be located. Rather than reverting to a paid service, the Town absorbed the nominal cost of refrigerant-bearing appliances.
- Both spring and fall Brush and Limb Collection completed on schedule.
- Leaf Collection service provided on a weekly schedule from October 24<sup>th</sup> to December 9<sup>th</sup>.
- Applied salt and/or removed snow from public streets on 14 events through 21 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 new equipment to perform milling in-house resulting in increased capacity and quality of work.
- Secured a new Hot Box trailer to extend seasonal use of hot mix asphalt by 100%.

### **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 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 maintained certification as INDOT ERC (Employee of Responsible Charge) and initiated Title VI compliance efforts.
- 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.
- Maintained Street and Stormwater Department news and information on town website.
- Assistant Superintendent - Stormwater maintained Certified Floodplain Manager certification administered by the Association of State Floodplain Managers.
- 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 99.6 miles that accurately reflects current centerline miles and maximizes state funding distributions.
- Drafted one (1) ordinance to amend the Code of Ordinances for consideration by the Safety Board and/or Town Council.
- Implemented a new loading zone along First St.

- Attended and presented information to the HOA Roundtable.
- Added a new Assistant Superintendent - Streets staff position and restructured Stormwater Program Manager position to Assistant Superintendent – Stormwater position.
- Secured additional right of way to correct a long-standing encroachment of a street onto private property.
- Secured additional right of way to provide for a new sidewalk along Oak St.
- Submitted for and received \$1,000,000 in Community Crossings Grant funds.
- Hosted a multi-jurisdictional OSHA 10-Hour safety course resulting in all staff, along with some Parks and Recreation Dept. employees obtaining certification.
- 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**

- Completed an intersection study/signal justification for the Oak St./CR 800 intersection and completed preliminary engineering on a new signal in preparation of early 2017 construction.
- Installed digital radar feedback signs along Oak St.
- Completed the construction of the Bloor Lane Pathway project.
- Coordinated multiple utility projects for new facility locations.
- Developed and completed the 2016 road rehabilitation project.
- Coordinated a Boy Scout community service project to provide landscaping in the Ford Rd. roundabout at Bloor Lane.
- Finalized land acquisition for an intersection upgrade at Zionsville Rd. and 96<sup>th</sup> St. through funding made available by the Boone County RDC. The intent of this project, now scheduled for construction in 2017, is to spur Indianapolis to begin concerted efforts to upgrade their portion of Zionsville Rd. to four (4) lanes. Worked with property owners along CR 700 E. in an effort to obtain donated right of way to support the future path in this area, securing all necessary lands to construct a pathway along the east side of the road south of Whitestown Parkway.
- Provided construction oversight and project management for the Creekside Corporate Park
- Initiated an in-house stump-clearing project along the Sycamore St. pathway resulting in the removal of 33 tree stumps.
- Coordinated town partnership with the City of Carmel on a joint pathway project along 116<sup>th</sup> St.
- Initiated pre-engineering project development and coordination of the Zionsville Road project to upgrade and widen this road from 106<sup>th</sup> St. to Technology Center Dr.
- Began engineering on a new roundabout to be constructed in 2017 at the intersection of Ford Rd. and Mulberry St. as well as added capacity for vehicles entering the Zionsville Middle School.
- Began design on a pedestrian crossing upgrade and added sidewalk project at the intersection of Oak St. and Ford Rd. to be constructed in 2017.

- Construction began on the Fourth Street Storm Sewer Improvements Phase I but underground conflicts with utilities hampered progress. Substantial completion is anticipated in early 2017, pending cooperative weather.
- Completed a project to link the existing storm sewer televising library to the town's GIS storm sewer mapping. 129 televising files were successfully linked.
- Developed a condition rating system for storm sewer structures and initiated an in-house survey of all structures located in the Village. 94 structures were evaluated in 2016.
- Completed Phase 1 of a project to develop a storm sewer pipe condition rating system utilizing the towns existing televising library. A total of 10,536 feet of storm sewers were evaluated producing a summary report of maintenance, repair and replacement recommendations.
- Completed a comprehensive update to the Stormwater Technical Standards Manual and storm sewer construction details.
- Work is complete on a storm sewer outfall and bank stabilization project in Colony Woods.
- Worked with a private utility company to have a damaged storm sewer repaired at their expense on 96<sup>th</sup> Street near the Northwest Technology Center.
- Worked with a private utility company to have damaged subsurface drains repaired at their expense in the Brittany Chase subdivision.

### **Stormwater Program**

- a) Completed and submitted to the Indiana Department of Environmental Management (IDEM) the Rule 13 "Annual Report" in accordance with the town's NPDES stormwater permit. The report covered over three (3) years of permit-related Stormwater Quality Management Program activities.
- b) Assisted the Parks Department Superintendent with GPS field mapping work in support of the Eagle Creek bank stabilization initiative in Starkey Park.
- c) Met with representatives of IDEM and the Boone County SWCD at their request to discuss construction-phase erosion and sediment control for the Creekside Corporate Park project.
- d) Assisted the Fire Department with the cleanup of an automotive fluid spill resulting from a vehicular accident.
- e) In collaboration with the White River Alliance hosted a rain garden workshop at Town Hall to educate residents on the purpose of rain gardens and how to build and maintain their own garden. 8 people attended the event.
- f) Participated in the coordination and presentation of a regional contractor's workshop through the White River Alliance to provide training on construction site stormwater pollution prevention. 185 people attended the event, 101 of which sat for "Trained Individual" certification testing.
- g) In collaboration with the Parks Naturalist held a rain barrel program for a first grade class at Union Elementary. In addition to the educational programming, the Street & Stormwater Department donated a rain barrel which will be decorated by the students and installed at the school.
- h) Participated in the Boone Meadow Elementary STEM night by demonstrating the Eagle Creek walkable watershed map and distributing Clear Choices Clean Water materials. Also assisted with a "seed bomb" activity by providing purple coneflower seeds.

- i) 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.
- j) Completed semi-annual stormwater facility assessments at 6 town-owned facilities to determine compliance with Stormwater Pollution Prevention Plans.
- k) In collaboration with the Parks Naturalist held a comprehensive rain barrel workshop at Town Hall. With the benefit of Community Grant funds awarded to the Street and Stormwater Department by the Boone County Solid Waste Management District, discounted rain barrels were offered for purchase to participants. A total of 49 people attended the workshop and 44 rain barrel kits were purchased.
- l) Staffed the White River Alliance's activity booth at Camp Belzer to help disseminate water quality information. Scouts made water cycle bracelets and were provided with Clear Choices Clean Water activity kits. 500-600 scouts and their families from the central Indiana region attended the camp.
- m) Significant staff time and planning efforts were put forth to hold the 2016 Creekfest event and annual stream cleanup. Unfortunately, the event was cancelled due to unsafe conditions in Eagle Creek and hazardous weather forecasts for the day of the event. More than 130 people had registered for the cleanup and event organizers are already discussing Creekfest 2017.
- n) Participated in the Zion Nature Center's Biologist Boot Camp by presenting a "watered-down" version of Hoosier Riverwatch program, including macroinvertebrate sampling and analysis to evaluate water quality in Cross Branch Creek. Eleven (11) children and four (4) adults participated.
- o) Through a collaborative effort coordinated with the Indiana Association of Stormwater and Floodplain Managers (INAFSM), produced a video intended to educate HOAs on proper detention pond maintenance practices and requirements.
- p) Participated in the Indiana Association of Stormwater and Floodplain Managers Annual Conference as a planning committee member and presenter. Participated in planning committee meetings and conference calls throughout the year and served in a supporting role during conference. Presented on the implementation of a construction stormwater pollution prevention program.
- q) In anticipation of a forthcoming audit of the Town's Stormwater Management Program by the Indiana Department of Environmental Management, mock audits of all Town facilities with Stormwater Pollution Prevention Plans have been conducted including the Wastewater Treatment Plant, Municipal Services Building, Golf Course and all three Fire Stations. All facilities received a satisfactory audit rating.
- r) Presented a video to the Town Council and Mayor that was co-developed by Zionsville through the Indiana Association of Stormwater and Floodplain Managers. The video was developed specifically for elected official education on the MS4 program and its myriad benefits to the community.
- s) Participated in the Do It Again Recycled Art Market held at the SullivanMunce by donating 5 rain barrels that were decorated by local artists and auctioned-off, with proceeds benefiting the Cultural District.
- t) Worked with the White River Alliance to hold a comprehensive workshop designed to educate homeowners associations, landscape companies and pond maintenance contractors on requirements for and proper management

of stormwater management systems from ponds to rain gardens. 73 people attended the event.

- u) Collaborated with Boone County on the local Annual Hazardous Household Waste Collection Day. 467 Boone County residents (vehicles) participated in the event and over 17 tons of hazardous waste and electronics were collected and properly disposed of or recycled.
- v) Hosted the Indiana Ready Mix Concrete Association to provide staff training on proper concrete washout and waste disposal practices.