

Road & Bridge Mission

To provide a safe and modern transportation network constructed and maintained in a fiscally sound and environmentally responsible manner that is effectively coordinated with city, state and federal agencies.

Letter from the Chief Engineer

Dear Boone County Commissioners and Boone County Residents,

The Boone County Resource Management – Engineering Division is pleased to present our Annual Report which highlights major activities and accomplishments for fiscal year 2014. Our mission is to maintain and improve the County's 700+ mile infrastructure network of roads, bridges, culverts and other drainage structures. The continued trust and support from the Commission is the key to our success. For this we are thankful. The identified continued funding for Pavement Preservation, Concrete Rehab, Asphalt Rehab and Bridge Rehab speaks to the progressiveness of our Commissioners and to the triumph of these plans. The department is confident that the institution of these programs are the core reason for our success because they allow us to work from a PROACTIVE approach rather than a reactive style!

The new Bridge Rehabilitation and Replacement Program, introduced in 2014, uses a wide variety of treatment plans in maintaining and upgrading Boone County drainage structures. This effort entails work from replacement of small culverts to hydro-demolition of bridge decks to full replacement of bridges and anything in between. This plan has gotten off to a good start with over 450 structures (greater than 4 feet in diameter but less than 20 feet in span length) identified, and over half have been inspected. This data will allow a proactive work plan to be developed over the next few years for systematic repair and replacement. In fact, some gains have already been made in this area. For some of the potential candidates, a GIS layer exists that allows maintenance operations to identify structures with issues. It also contains a code for assigning responsibility to the division of Road & Bridge that will address the repairs.

Of course, the old programs of pavement preservation, asphalt and concrete road rehabilitation, along with concrete panel replacement are continuing to function well. The majority of the planning was done last summer and fall, with the budget process. This collaborative planning effort was mentioned several times in last years annual report by Chet Dunn and the maintenance employees at Public Works. Staff is already bidding some of the 2015 projects. Now Mother Nature just needs to cooperate!

In closing, the dedication of all our employees plays an integral part in our accomplishments, for without them none of this is possible. Together we will continue to provide a safe, modern, well maintained transportation system by serving the citizens of Boone County with excellence and integrity. Experience teaches us that the coming year will present its unique challenges as it will also provide opportunities to excel. Thanks again for the support and the occasion to serve.

Respectfully,



Inside this issue:

Requirement 1	1-
Expenses	13
Requirement 2	14-
Plan	17
Requirement 3	18-
Condition	24
Additional	25-
Responsibilities	63

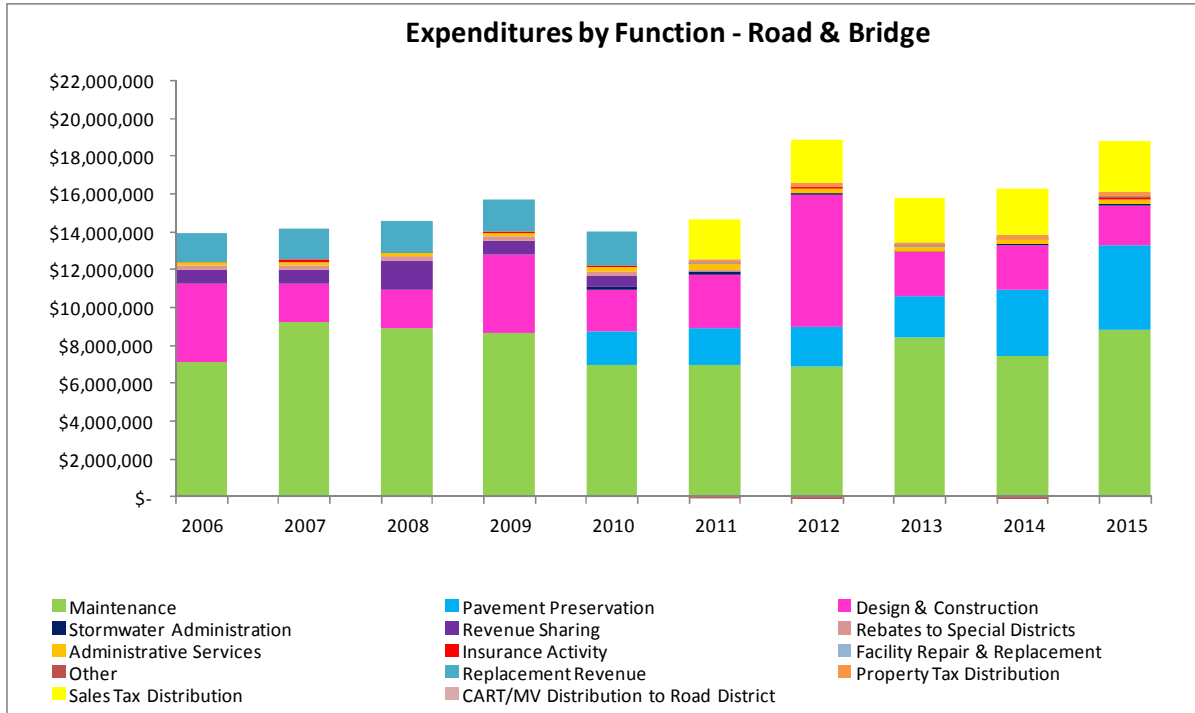
Requirement #1

2014 Expenses

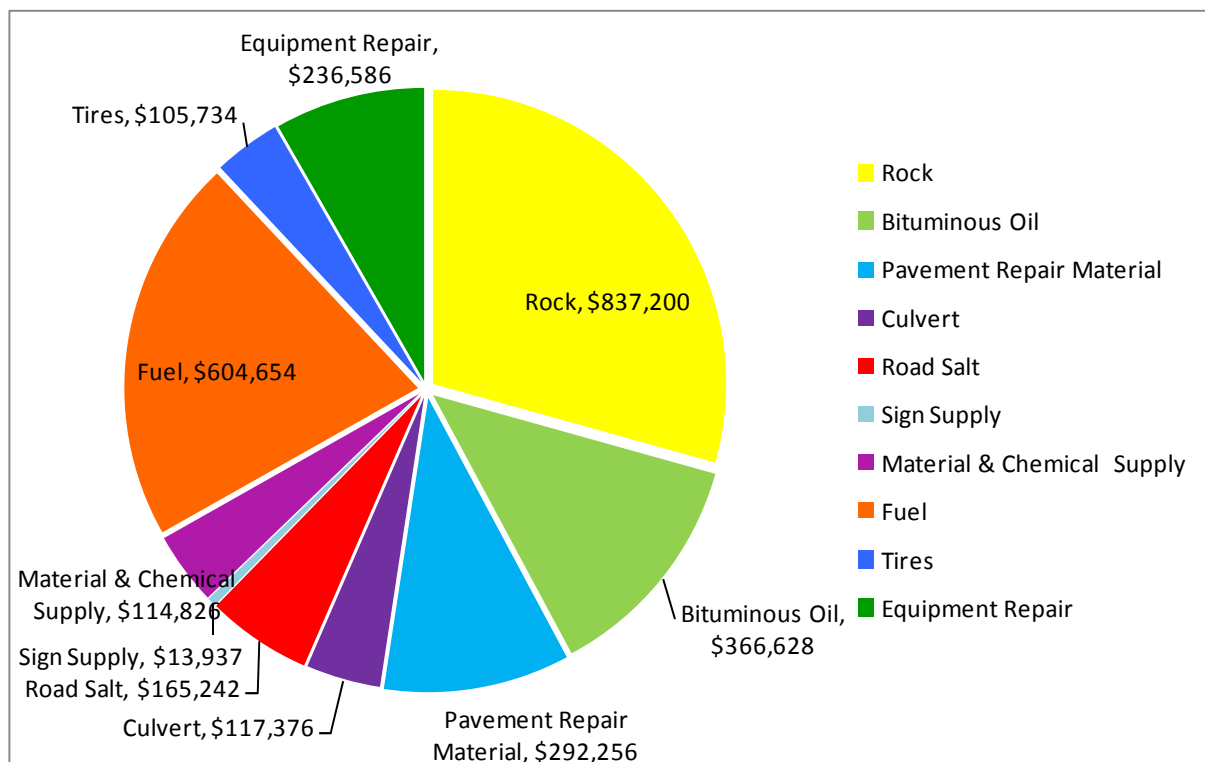
Report the money expended for construction, maintenance and repair of such highways, roads, bridges and culverts during the preceding year.

Road & Bridge Expenses

Total Road & Bridge Expenditures in 2014

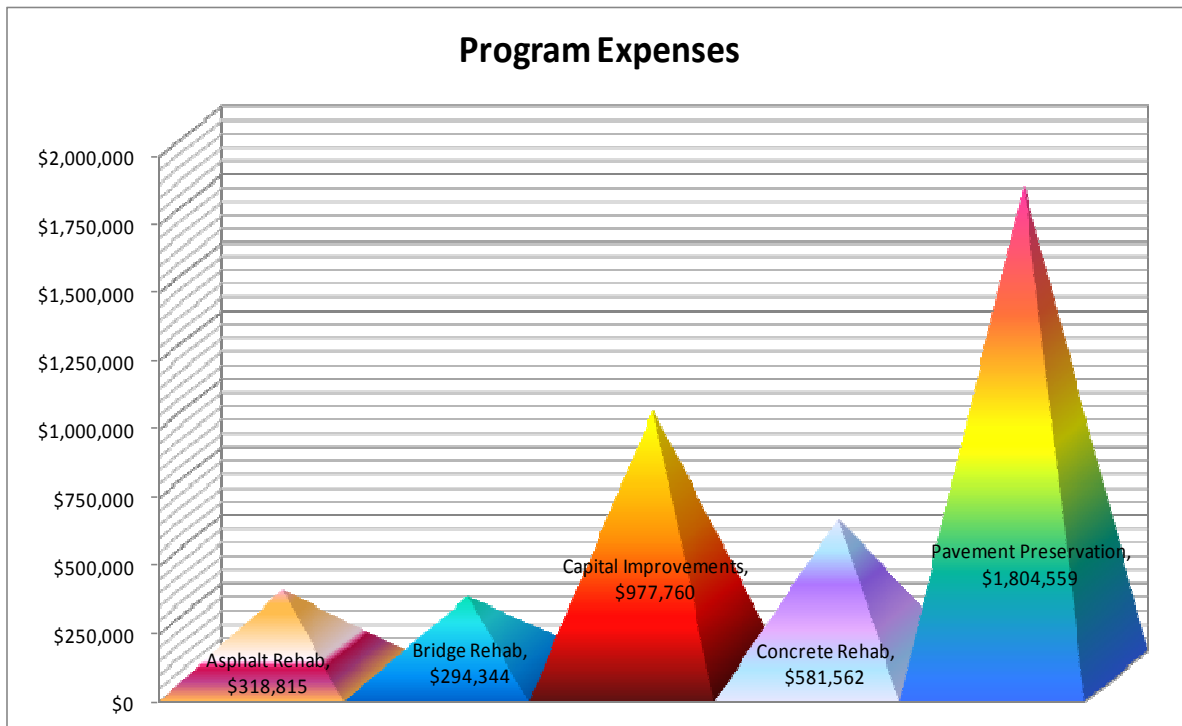


Major Maintenance Operations Supply Expenditures in 2014



Road & Bridge Expenses

Design & Construction Program Expenditures in 2014

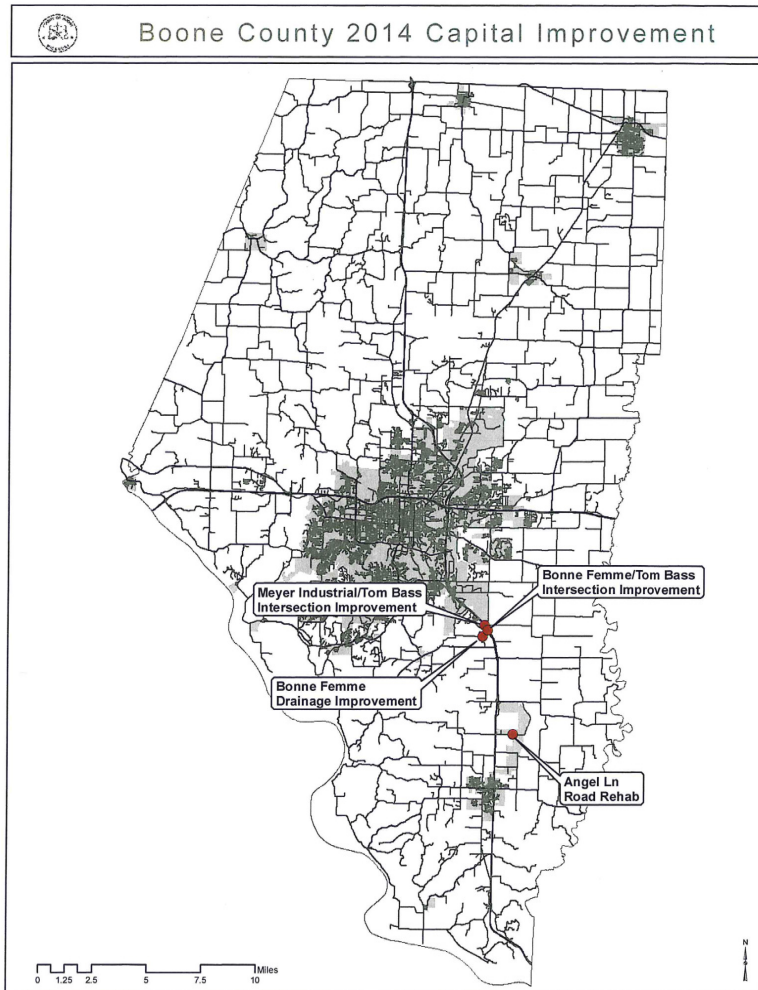


Uncontrollable circumstances which highly affect our budget & our work plan

Enemies of the Road

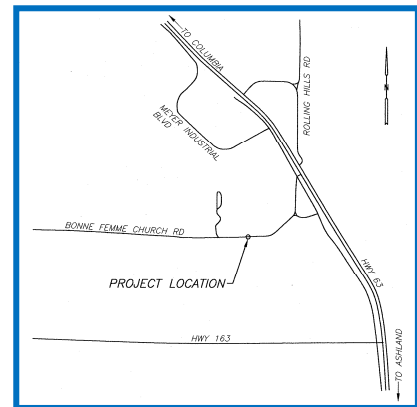


Capital Improvement Projects



Capital Improvement projects for 2014 that were not part of our rehabilitation programs are shown in the full map of Boone County.

The map below shows the Bonne Femme Church Road Drainage Improvement project location.



Bonne Femme Church Road Drainage Improvements



Photo shows the project area prior to construction.

Problem: Water overtopped the roadway several times per year.

Challenges: Needed to minimize the length of time the road was closed for construction.

Project work: Replaced the existing low water crossing east of Hummingbird Lane with a 16' wide by 5' high precast concrete box culvert raising approximately 450' of roadway.

Capital Improvement Projects

Benefits: Water should not overtop the roadway unless it is a 100-year storm event. The culvert and roadway fill were designed to allow the roadway to be widened in the future if traffic increases to a level that warrants widening.

Photo shows the Bonne Femme Church Road Drainage Improvement project area after construction.



Tom Bass Road/Meyer Industrial Dr Intersection Improvements

The 2013 completion of the extension of Meyer Industrial Dr. connecting it to Ponderosa St., brought about the examination of the T-intersection of Meyer Industrial Dr. with Tom Bass Road and the intersection of Tom Bass Road with Bonne Femme Church Road.



Problems: 1) Easy for the traveling public to unknowingly drive past the Meyer Industrial Dr intersection and continue north on Tom Bass Rd only to find the road dead ends at the entrance to the Boone County Public works office and the Magellan pipeline terminal. 2) Possible safety issue of a driver trying to turn around while tractor trailers are attempting to enter the Magellan facility .

Challenges: Needed to minimize the disruption to operations for Magellan Pipe Line and Boone

County Maintenance Operations while the intersection was under construction.

Project work: Meyer Industrial Dr and Tom Bass Rd intersection was reconfigured to mimic the Meyer Industrial Dr and Ponderosa St intersection. The result is Meyer Industrial now curves into Tom Bass Rd.

Benefits: Created a more connected travel way. The new intersection configuration also allows for quicker, unimpeded access to any future businesses which may locate on Meyer Industrial Dr.

Capital Improvement Projects

Tom Bass Road/Bonne Femme Church Road Intersection Improvements



Problem: skewed geometry at this intersection provided limited sight distance to those on Bonne Femme Church Rd.

Project Work: remove and replace a portion of Bonne Femme Church Rd., and have the new portion of Bonne Femme Church Rd. curve and tie into Tom Bass Rd. at a right angle.

Benefit: improved safety and sight distance.

Angel Lane

Problem: This road was jointly maintained by the City of Ashland and Boone County. This section of road was over a mile long, suffering from base failure and had reached the end of its useful lifespan.

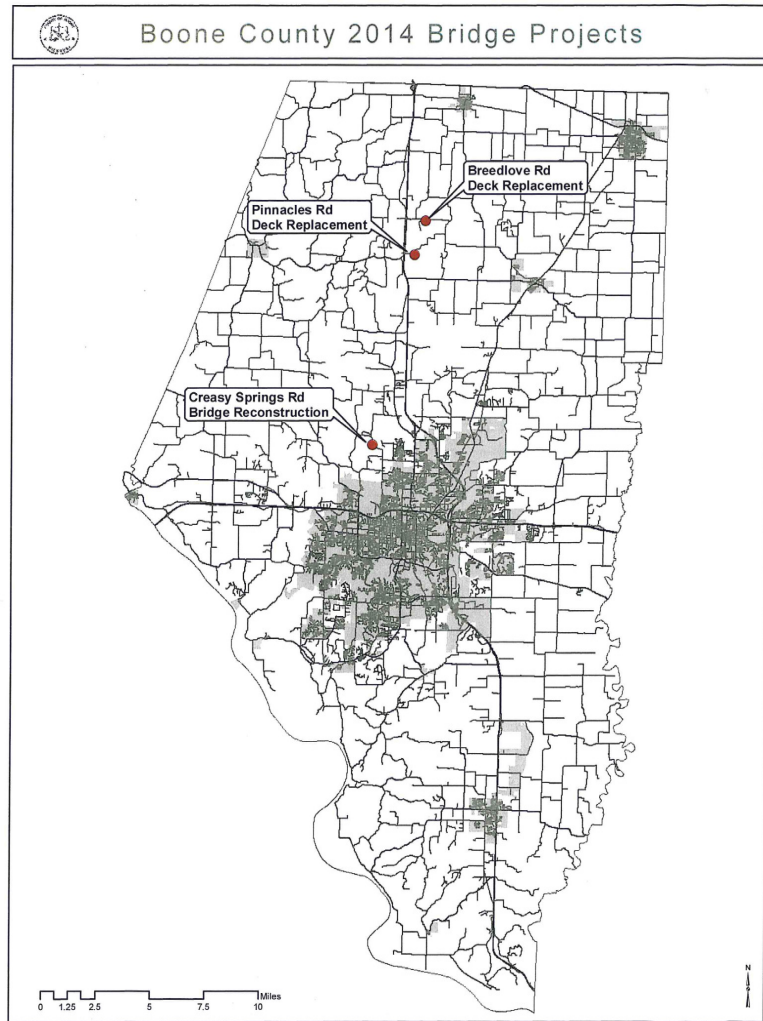
Project Work: Consisted of geotechnical investigation and civil engineering which determined that Full Depth Reclamation with an asphalt overlay would be an economical and efficient fix.

Benefit: Reset the life of the road and have the City of Ashland take over the maintenance of the road.



Bridge Projects

2014 saw the implementation of the Boone County \$1 million bridge rehab and replacement program. We are making progress on collecting our inventory and assessment data. We also completed the replacement of 1 bridge, performed a hydro-demolition treatment on 2 others, contracted for the construction of one replacement to occur early in 2015, and began the preliminary corrective design work on several others.



Bridge Hydro-Demolition

Two bridges with deteriorated decks had those decks rehabilitated in 2014. The bridge on Breedlove Road over Silver Fork Creek and the bridge on Pinnacles Road over Silver Fork Creek both underwent a Hydro-Demolition treatment. Hydro-Demolition, as shown here is a process in which a very high pressure water jet



blasts the deteriorated concrete loose from the deck. The loose material is vacuumed up, the deck is power washed, and a new wearing surface is poured into place. The wearing surface is made of a latex modified concrete mix that bonds well to the remaining deck material and resists absorption of moisture.

Bridge Projects



Here workers begin well before daylight placing the latex modified concrete. This work is performed in the early morning hours to maintain workability of the product.

The Hydro-demolition process leaves the bridge with a deck that has an expected life cycle greater than the original deck and is quick to construct. The Pinnacles Road bridge also had deteriorated bearing pads that allowed the steel bridge beams to sit directly on the concrete abutment pillars, which was causing deterioration of the concrete abutments. To correct this problem new neoprene bearing pads were placed between the bridge steel and the concrete abutments by jacking up the bridge and inserting the new pads.

Picture to the right shows the large jack used to raise the Pinnacles Road bridge for the abutment repair.



Picture to the left shows the early stages of the abutment deterioration and the new bearing pad.

Bridge Projects

Creasy Springs Road Bridge



Problems: Deterioration of the concrete girders of the superstructure and the load rating for this bridge had been reduced to a weight limit of 15 tons.

Challenges: Nesting area for migratory birds, determining rehabilitation existing structure versus replacement. Missouri Department of Transportation uses a rule of thumb that if the rehabilitation costs exceed 68% of replacement costs then total structure replacement is recommended. In this case the estimated rehabilitation costs did not exceed the 68% ratio so a rehabilitation project was designed.

Project Work: The existing substructure was in good condition so the superstructure or bridge deck was removed and replaced and a rock blanket was added to the north abutment to prevent future erosion.

Benefits: Increased weight limit for travel across the bridge and increased life expectancy for the structure.

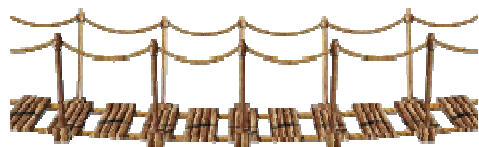


Top Picture:

Creasy Springs Road looking southwest at the bridge after construction

Bottom Picture:

Intermediate bent after construction



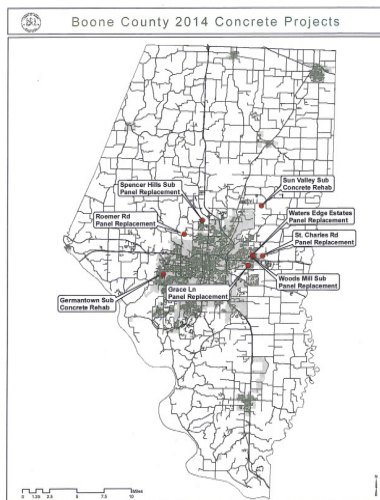
91% of Boone County bridges are rated as Excellent or Acceptable!

Concrete Rehab Projects

The management of concrete roads is much different than asphalt roads. Concrete roads tend to stay in good condition for a long time, and then fail very quickly. Due to the nature of the material, the idea of low cost preventative maintenance treatments is not really applicable. Boone County's management of its concrete roads currently focuses on the systematic replacement of failed panels. These replacements are done using two different approaches detailed below. The type of treatment used is based on the size of the deteriorated area and the cause of the decline of the driving surface.

Targeted Panel Replacement

Targeted Panel Replacements involves the removal and replacement of individual concrete panels that have deteriorated to a point they are no longer serviceable. These replacements are performed by either a contractor or by the Public Works Department. In 2014 approximately 334 panels were replaced (147 by Public Works, 187 by Contractors) with Targeted Panel Replacement. An additional 24 panels were replaced as part of the Rangeline Road Asphalt Rehab project.



Concrete Road Rehab Project

Concrete Road Rehab projects are a much larger scale removal of failed panels and replacement with new pavement. These projects typically encompass an entire neighborhood. The new pavement could be conventional concrete, full depth asphalt, or as has been the case recently, Roller Compacted Concrete (RCC) topped with a 2" asphalt wearing surface. In 2014 Concrete Road Rehab projects were performed in Germantown Subdivision and Sun Valley Estates. Approximately 6,478 sy (3,487 in Germantown and 2,991 in Sun Valley Estates) of concrete pavement was removed and replaced with RCC and 2" of asphalt wearing surface.

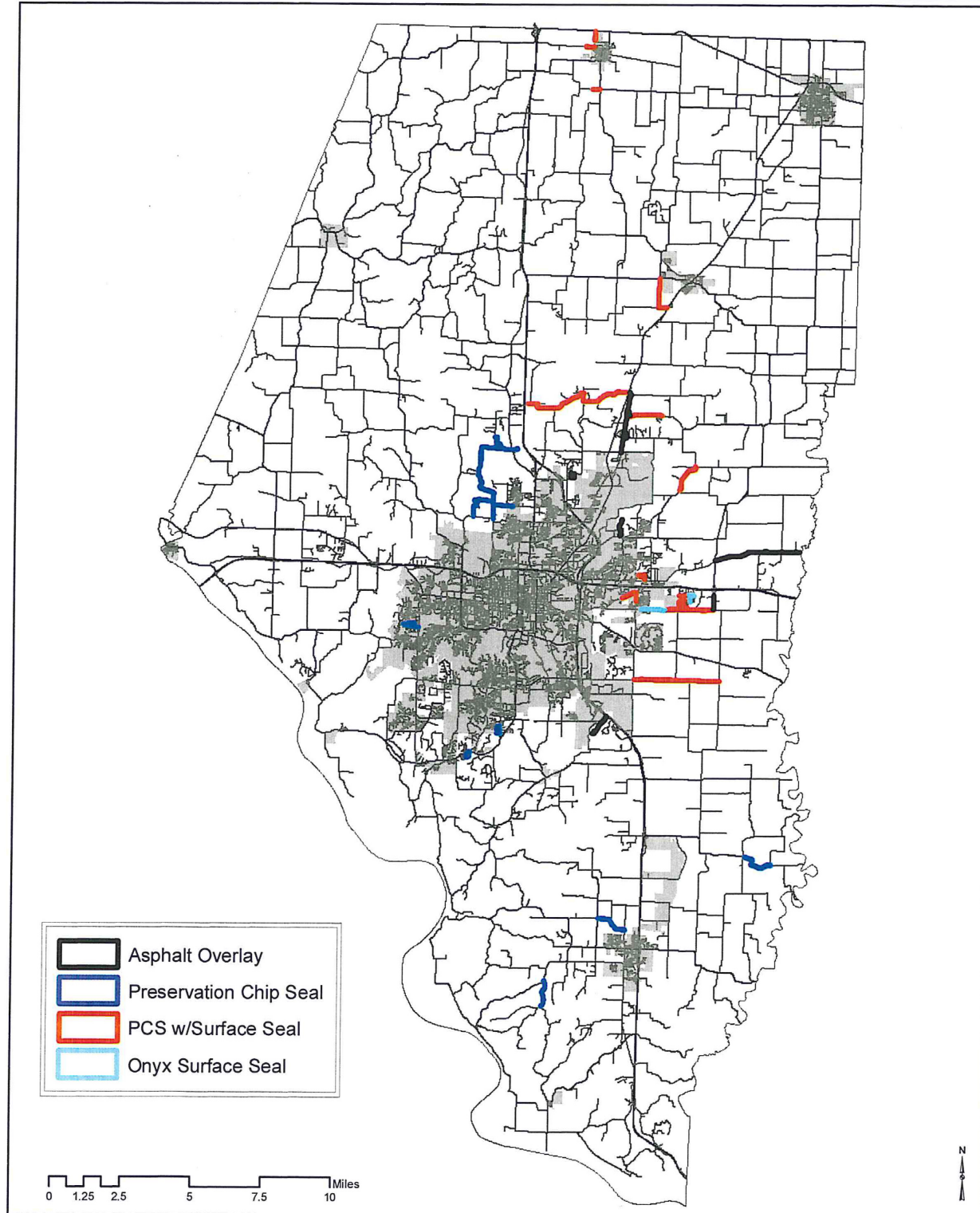
These photos depict the removal of failed concrete panels and the excavation performed to correct the sub-grade prior to rebuilding the road.



Pavement Preservation Projects



Boone County 2014 Pavement Preservation



Pavement Preservation Projects

As in recent years, 2014 shows the 2nd largest category for expenditures of the Road & Bridge department were related to the Asphalt Pavement Preservation Program. The basic idea in pavement preservation is to perform lower cost treatments to roads while they are in good condition, to keep them in good condition, rather than performing higher cost treatments to the roads in worst condition. Considering pavement preservation is a more extensive form of maintenance, it makes sense to view maintenance expenditures and pavement preservation expenditures together. Doing so shows that 68.75% of the total Road & Bridge expenditures in 2014 were in an effort to keep good roads in good condition. As we continue to practice good management techniques in selecting candidates for treatment we continue to make progress in our mission of protecting the investments that have been made in asphalt roads, by extending the life of those roads. Boone County's approach to pavement preservation has used the following three treatments with known results for the last few years: Asphalt Overlay, Preservation Chip Seal & Fog Seal GSB-88.

Asphalt Overlay

Condition: Asphalt overlays are performed on roads that exhibit some moderate distresses and smoothness irregularities, but otherwise are in good condition.

Treatment: Typically 2" of new asphalt mix is placed on the road surface.

Miles: In 2014 approximately 8.5 centerline miles of road received an asphalt overlay.



Preservation Chip Seal

Condition: Preservation Chip Seals are performed on roads in excellent condition, typically within 2-3 years of being constructed or receiving an asphalt overlay .

Treatment: The heavy application of asphalt emulsion oil that is applied as part of a chip seal creates a very robust barrier between the pavement and the environment limiting the deteriorating effects of sunlight and moisture to the road. The chips applied to the road (Iron Mountain Trap Rock) is a very hard, durable rock which provides a wearing surface and traction to the road.

Miles: In 2014 approximately 29.3 centerline miles of roads received a Preservation Chip Seal treatment.



Pavement Preservation Projects

Fog Seal – GSB-88



Condition: Fog Seals are performed on roads in excellent condition. Currently, every road that receives a Preservation Chip Seal is planned to also get Fog Sealed in the same construction season.

Treatment: This type of treatment using GSB-88, a gilsonite asphalt based sealant, was first used on Boone County roads as part of the Asphalt Pavement Preservation Program in 2011. Since that initial test, it has been used to supplement and extend the life cycle of Preservation Chip Seal treatments.

Miles: Due to weather limitations, in 2014 only 8.9 centerline miles of roads were treated with a GSB-88 Fog Seal treatment. Funds were included in the 2015 budget to treat the remaining roads from 2014.

With the intent of discovering if additional tools can be added to our standard operations, Boone County introduced 3 pilot projects in 2013 using additional surface treatments. Tire Rubber Modified Surface Seal (TRMSS) was one of the treatments first used on Boone County roads in 2013. Initial impressions of the 2013 treatment looked promising and interest in seeing the treatment on a somewhat larger scale was expressed. We also witnessed a demonstration of Onyx Surface Seal in 2013. Initial impressions of this treatment also looked promising prompting an interest in seeing this treatment on a somewhat larger scale as well.

Fog Seal – TRMSS

Condition: As with the Fog Seal treatment using GSB-88 material, the purpose of this treatment is to supplement and extend the life cycle of Preservation Chip Seal treatments on roads in excellent condition.

Treatment: As you can see from the photographs the largest difference between the Fog Seal GSB-88 & the TRMSS is the chemical make up of the two products. The TRMSS has at least 18 recycled tires in each 1000 gallons of sealant.

Miles: In 2014 3.9 centerline miles of roads were treated with a TRMSS Fog Seal.



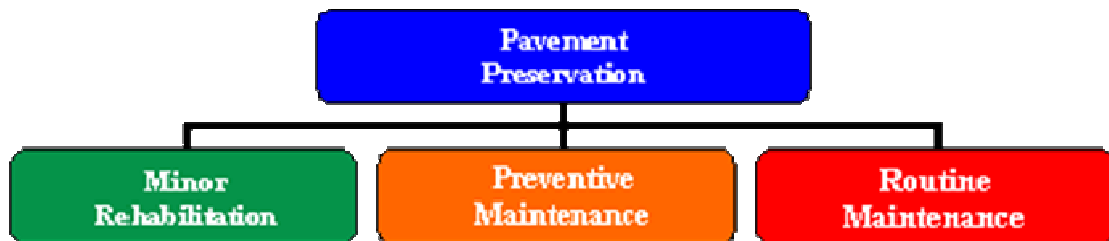
Pavement Preservation Projects

Onyx Surface Seal

Condition: As with the Fog Seal treatment using GSB-88 material, the purpose of this treatment is to supplement and extend the life cycle of Preservation Chip Seal treatments on roads in excellent condition.

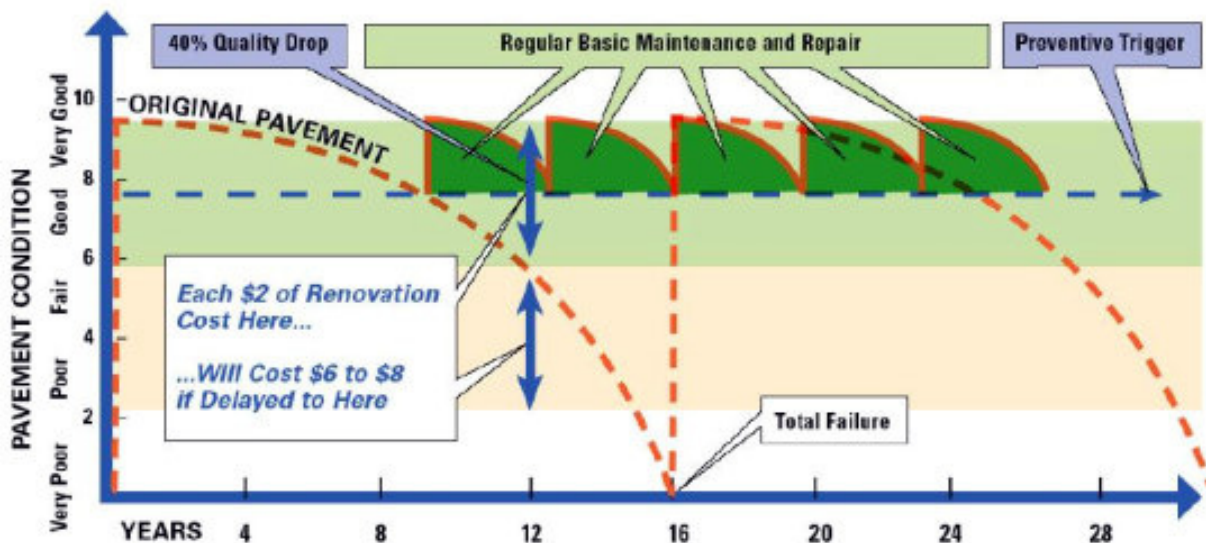
Treatment: Onyx Surface Seal is applied similar to a fog seal with the same intended purpose, to supplement and extend the Preservation Chip Seal or asphalt surface.

Miles: In 2014 4.8 centerline miles of roads were treated with an Onyx Surface Seal.



Pavement preservation is a combination of different strategies which, when taken together, achieve a single goal: a proactive approach to extending maintenance dollars and reducing user delay costs. For further information, please visit the [Federal Highway Administration's Preservation](#) web site.

The Cost of "Timely" Maintenance



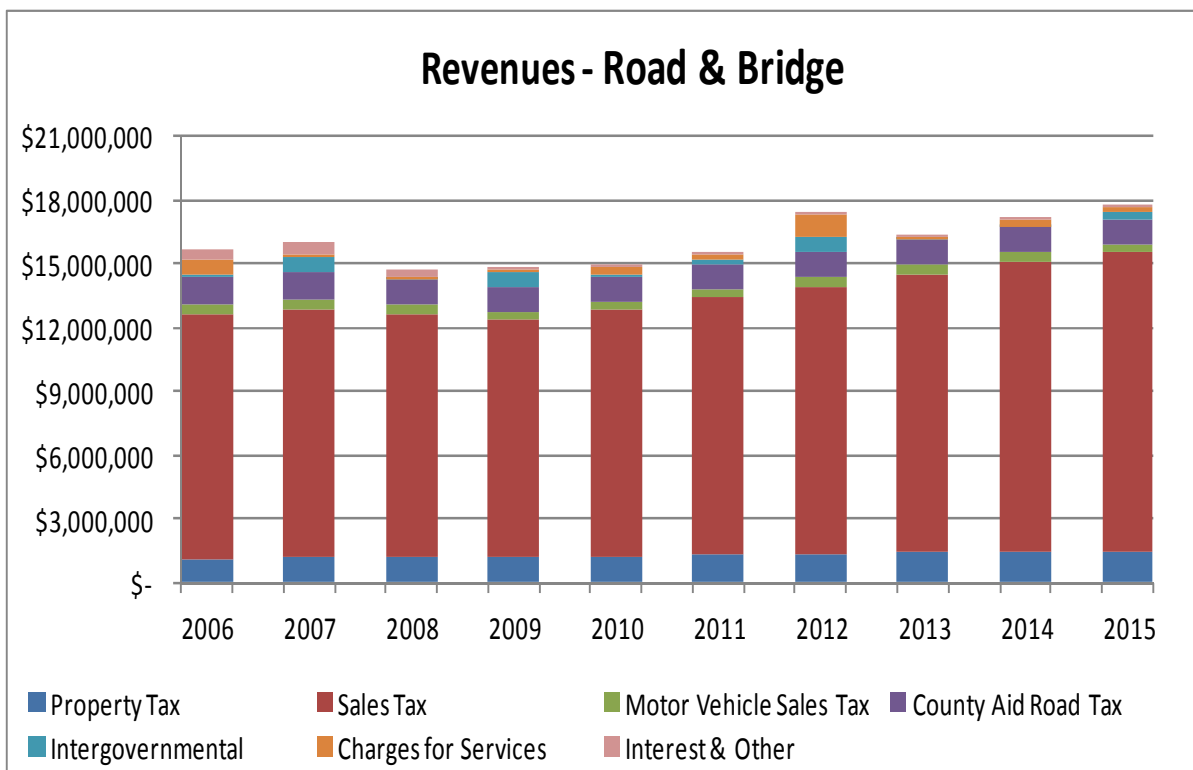
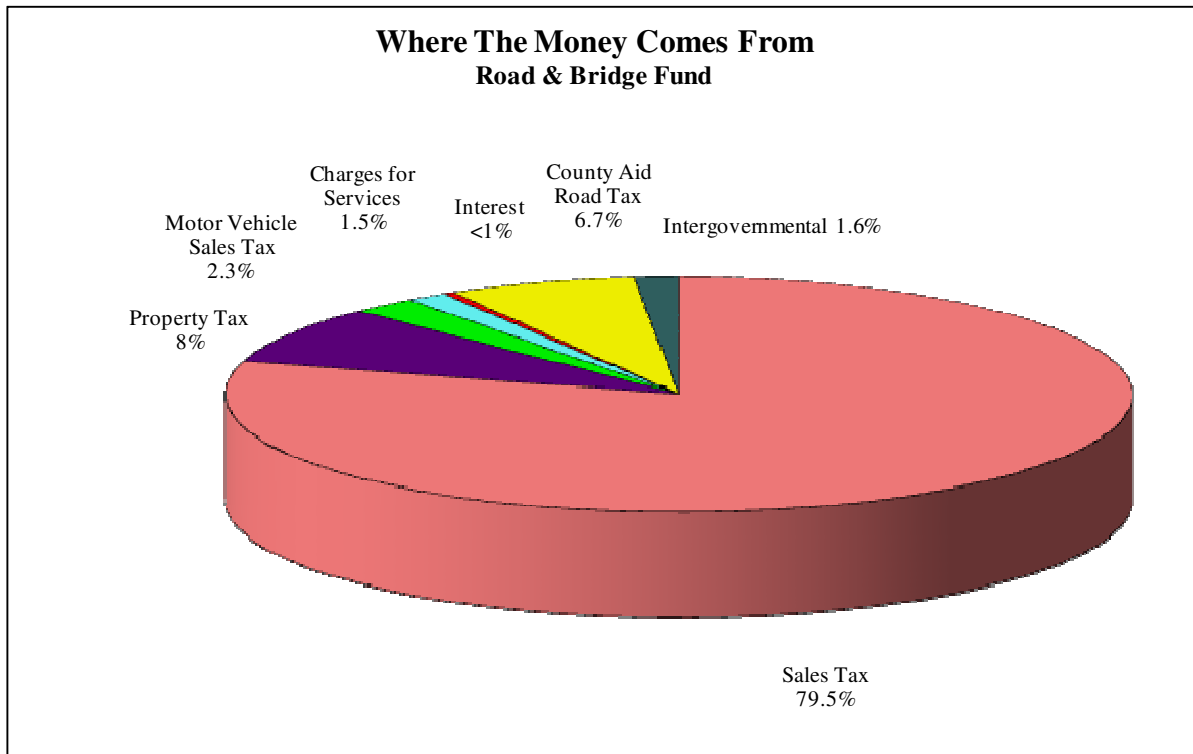
Requirement #2

2015 Plan

Submit a plan for construction, reconstruction, maintenance and repair of existing established public highways, roads, bridges, and culverts proposed to be undertaken and completed during the current year.

Where the Money Will Come From

Total Road & Bridge Revenue in 2015



Projects In The Works

Capital Improvement Projects

These projects are currently under design and proposed to be constructed in 2015 or 2016

Boone Industrial Intersection Repair
Waters Edge Drainage Improvements

Bridge & Culvert Projects

These projects are currently under design or contracted and proposed to be constructed in 2015 or 2016

Hill Creek Bridge
Rustic Road Bridge
Mexico Gravel Bridge
Stidham Road Culvert
Harper Road Culvert
Red Rock Road Bridge
Mount Zion Church Road Bridge
Smith Hatchery Road Culvert
Gillespie Bridge Road Bridge Abutment

Concrete Rehabilitation Projects

These projects are currently under design and proposed to be constructed in 2015

Brookfield Estates
Hartford Road

Willow Brook Subdivision

The 3 project areas above will replace approximately 18,200 square yards of concrete
Panel Replacement—152 panels

Asphalt Rehabilitation Projects

These projects are currently under design and proposed to be constructed in 2015

Mexico Gravel Road

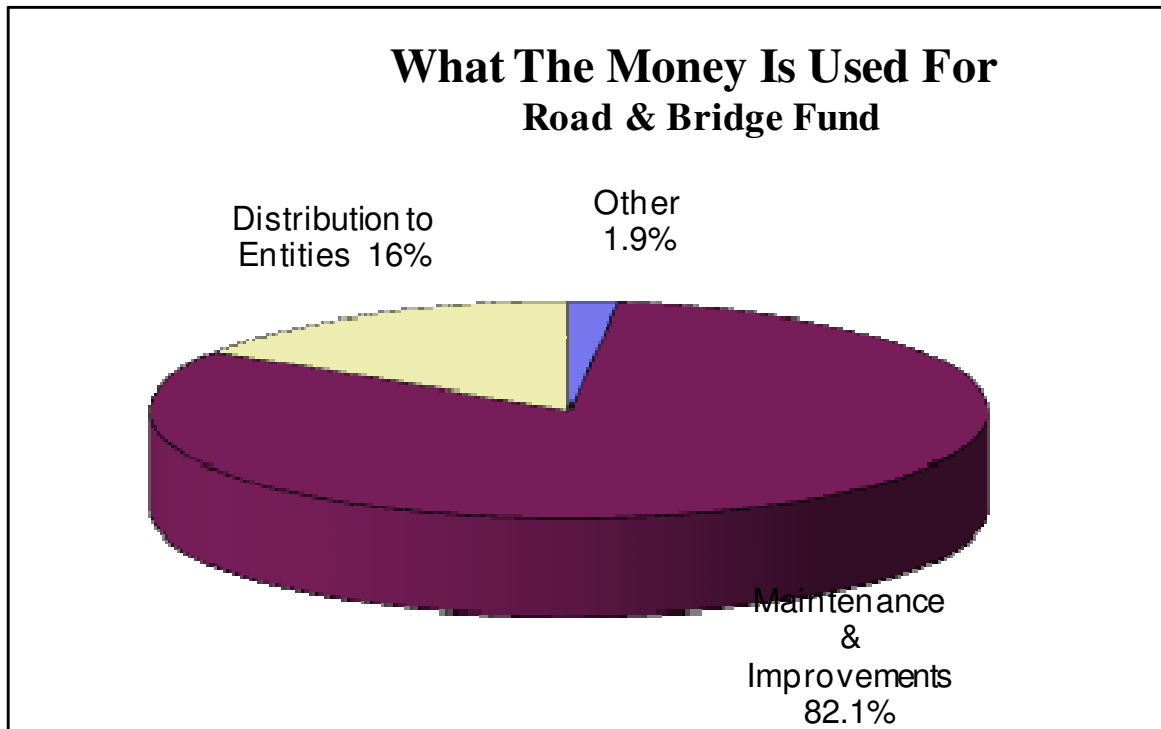
Pavement Preservation Projects

These projects are currently under design and proposed to be constructed in 2015

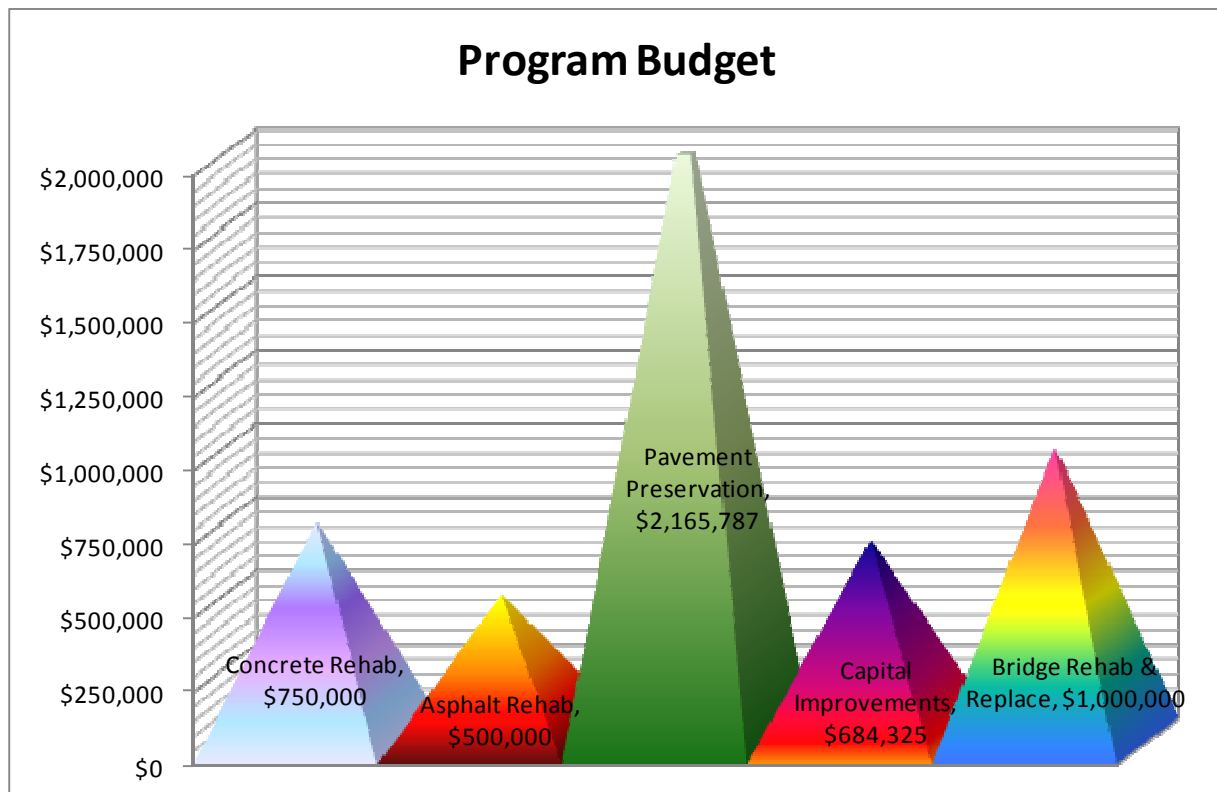
Asphalt Overlay—6 miles
Preservation Chip Seal—29 miles
Fog Seal GSB 88—31 miles
Onyx Surface Seal—13.6 miles
Reclamite—pilot preservation technique

Where the Money Will Go

2015 Overall Budget for Road & Bridge

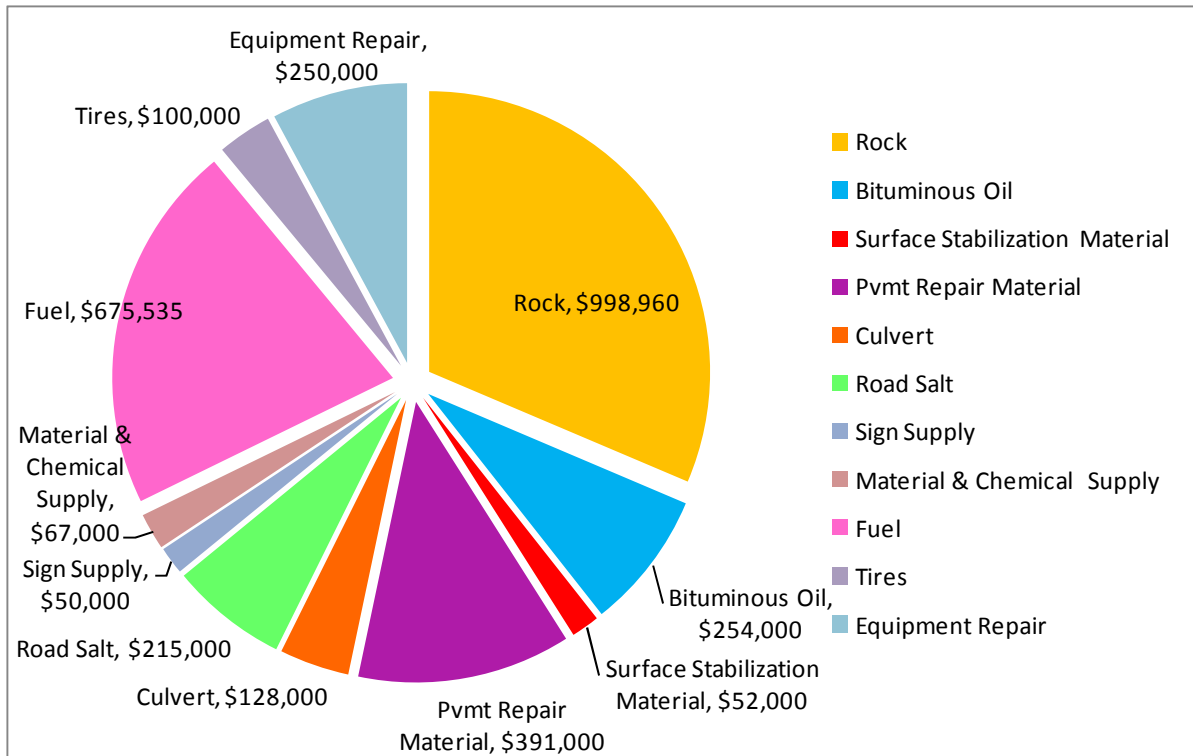


2015 Design & Construction Budget by Program



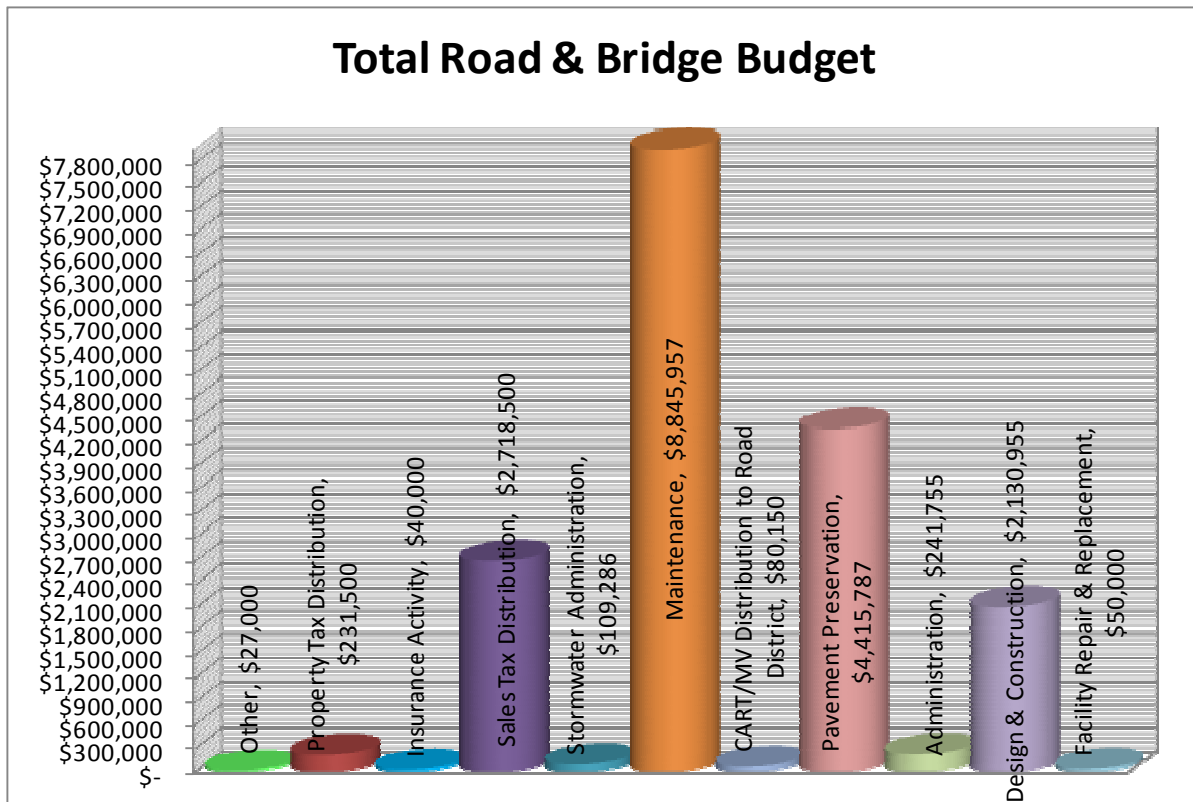
Where the Money Will Go

2015 Major Maintenance Operations Supply Budget



2015 Distribution of the Bucks

Total Road & Bridge Budget



Requirement #3

2014 Condition

Report the general condition of all established public highways, roads, bridges and culverts in the county.

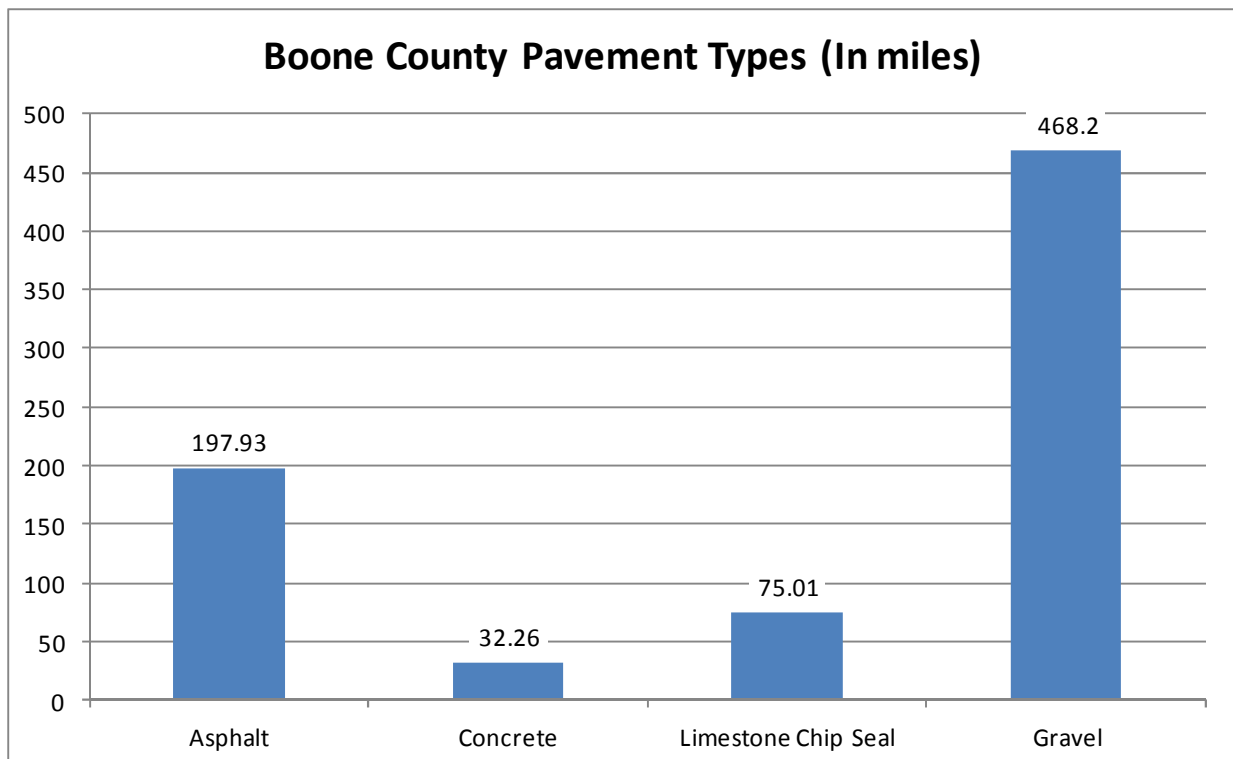
Condition of Boone County Roads, Bridges & Culverts

The following charts are based on information stored in Cartegraph, these values are for only non retired roads that are currently maintained by Boone County. Roads that are partially owned by the County but not maintained by the County are not considered in these values. The categories are also based on surface type values, the only exception is Preservation Chip Seal, which is considered the same as Asphalt surface and therefore combined with the Asphalt category in these stats.

The information for the ratings are done in several different ways, the asphalt roads are inspected by segment and their conditions are based on curves that also account for work done on the segments. This value is generated by Cartegraph and the following values are used for the classes. Excellent is any OCI (Overall Condition Index) value that is 85 and above, Acceptable is an OCI value between 55 and 85, anything less than 55 is considered Failed. Gravel and Limestone Chip Seal roads are not inspected because their condition and rating can change weekly; therefore all of these roads are listed in the Acceptable category for ratings.

Concrete roads are not inspected the same as the asphalt roads and therefore cannot be compared the same way, they are inspected by each individual panel. Therefore the ratings below are based on the panels in each category and not in road miles. If the panel has no damage it is considered Good, if it is damaged then it is considered Acceptable, if it needs replaced then it is considered Failed.

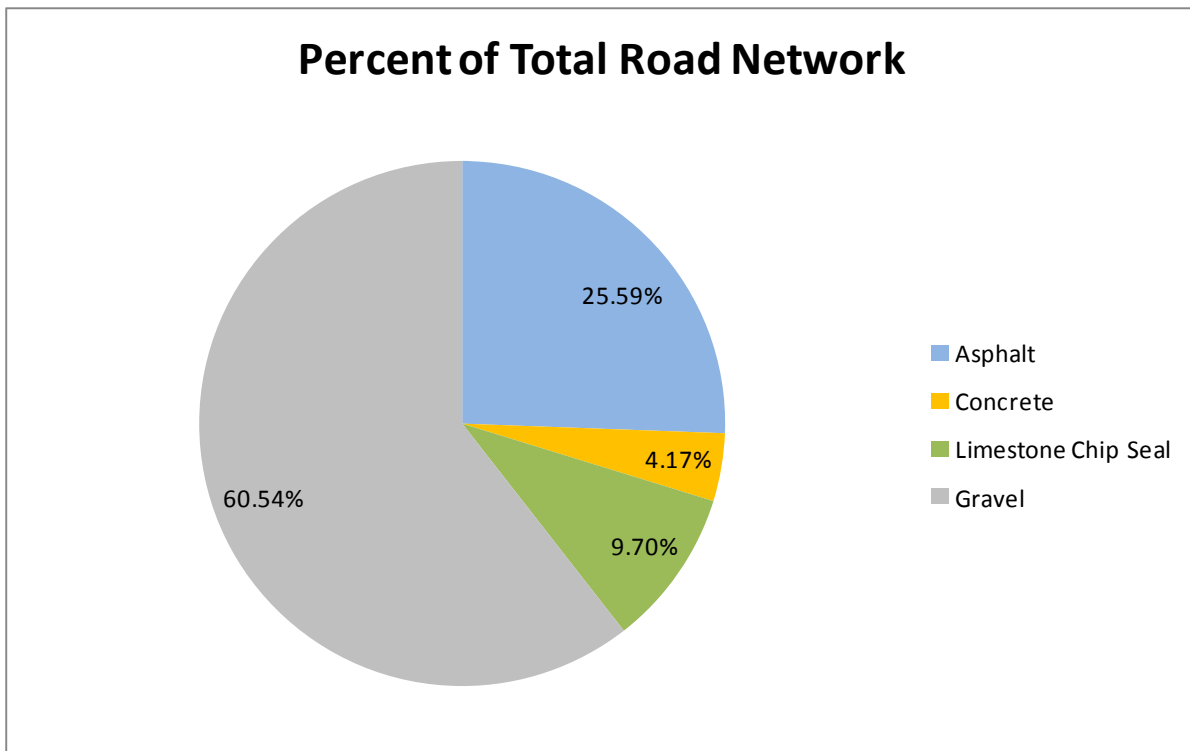
Total Miles of Road Maintained by Boone County



Condition of Boone County Roads, Bridges & Culverts

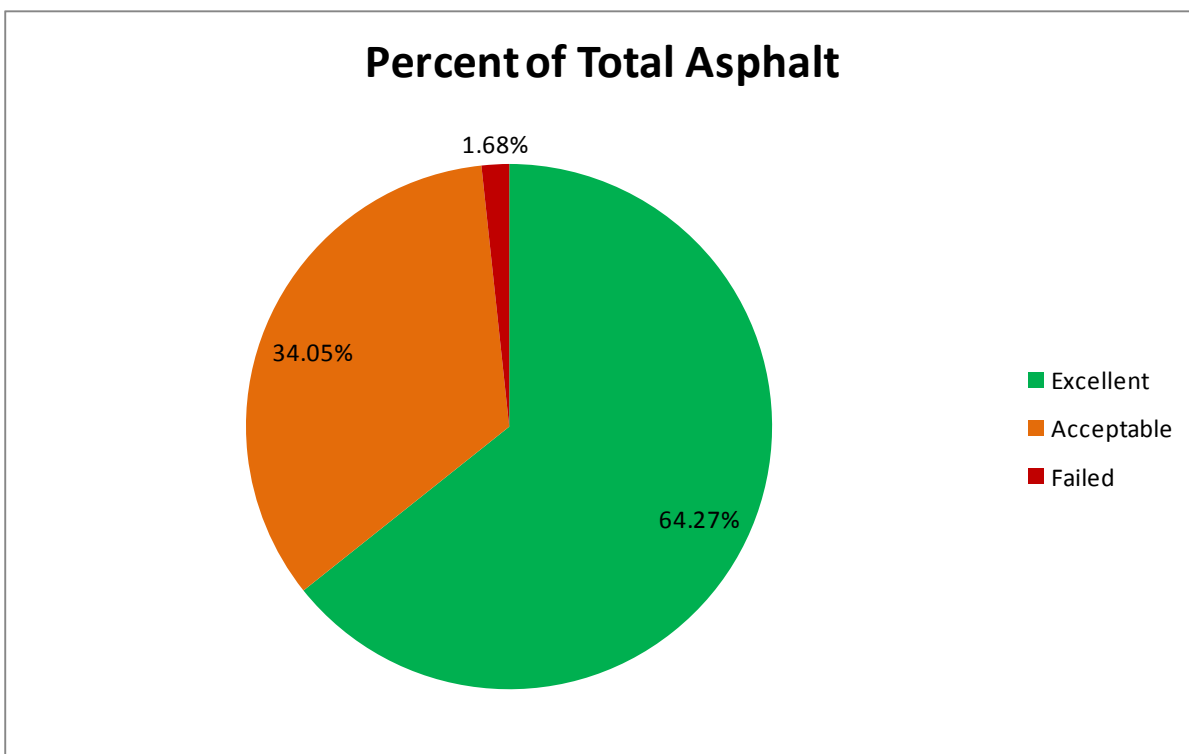
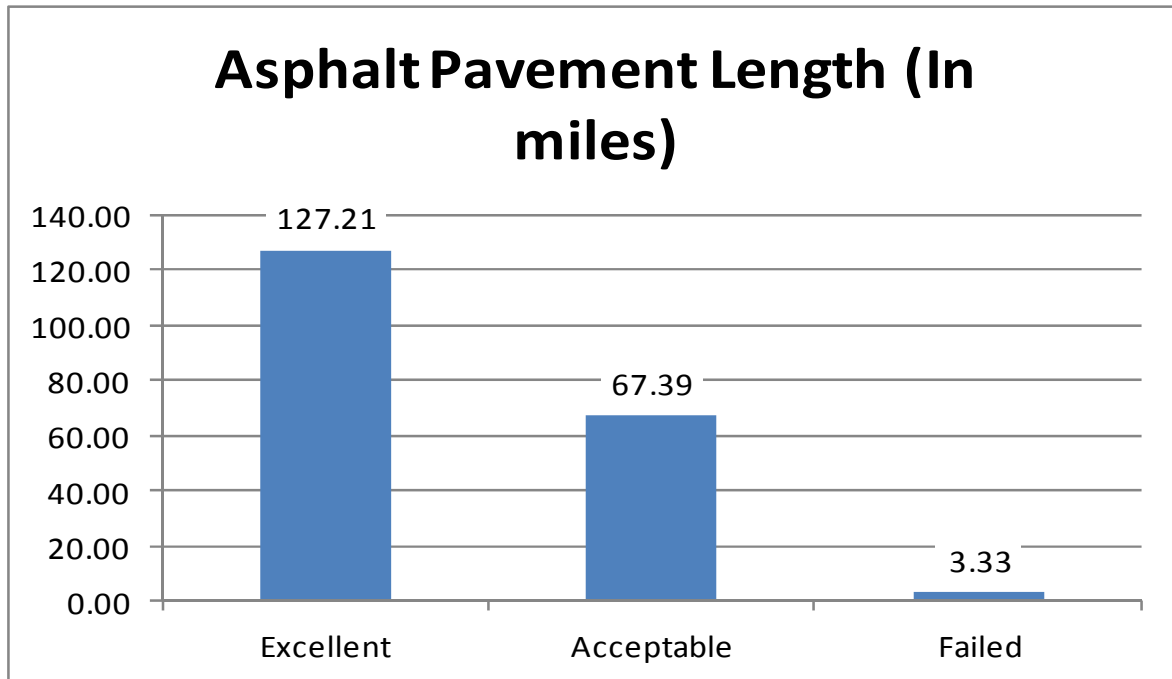
Surface Type	Total Miles	<i>Change in Total Miles from 2013</i>
Asphalt	197.93	<i>-1.64 Miles</i>
Concrete	32.26	<i>-0.38 Miles</i>
Limestone Chip Seal	75.01	<i>-1.75 Miles</i>
Gravel	468.2	<i>-1.96 Miles</i>
Total Miles	773.4	<i>-5.73 Miles</i>

Total Miles of Road Maintained by Boone County



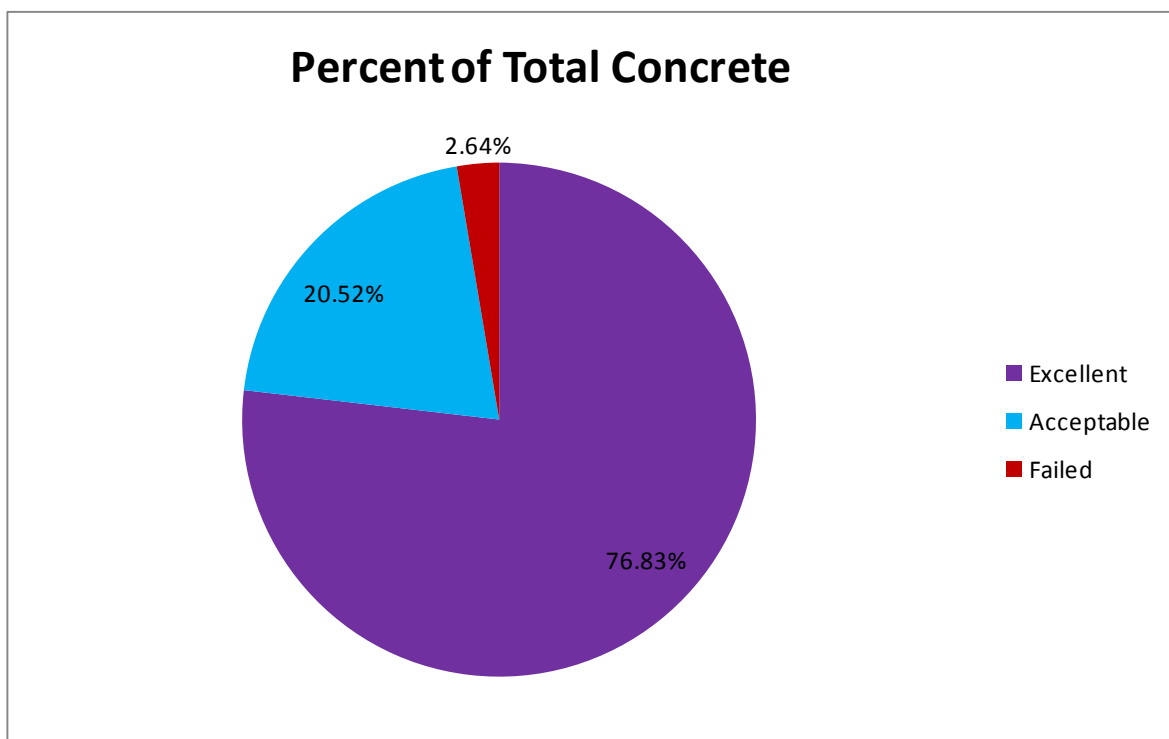
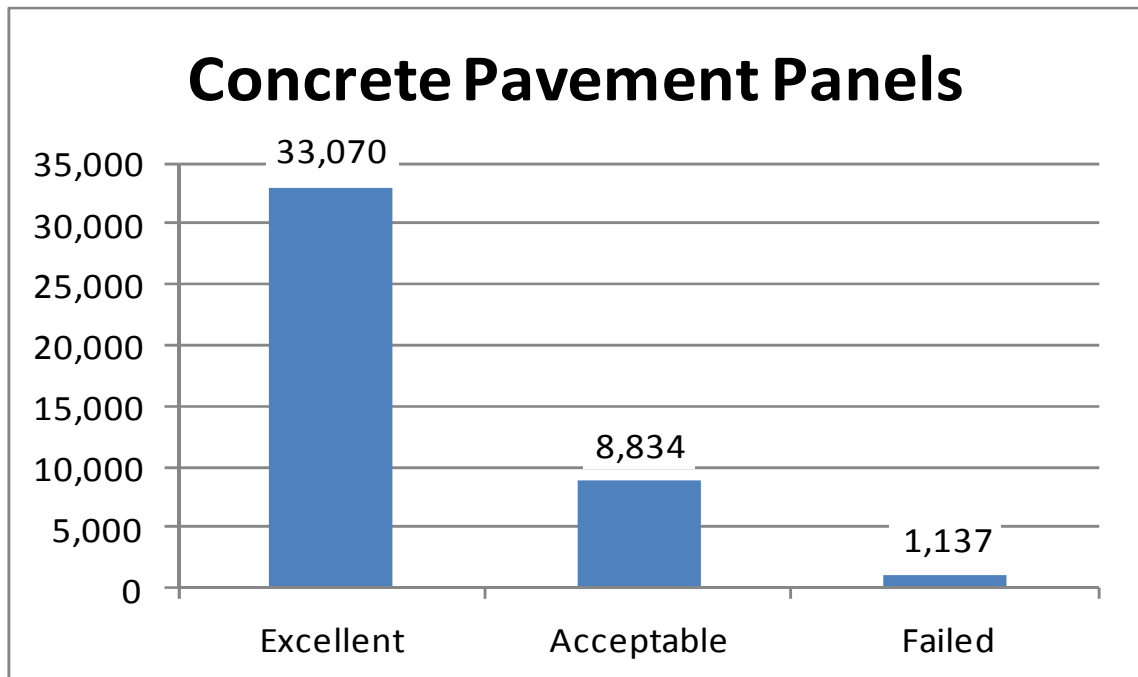
Condition of Boone County Roads, Bridges & Culverts

Asphalt Surface Ratings



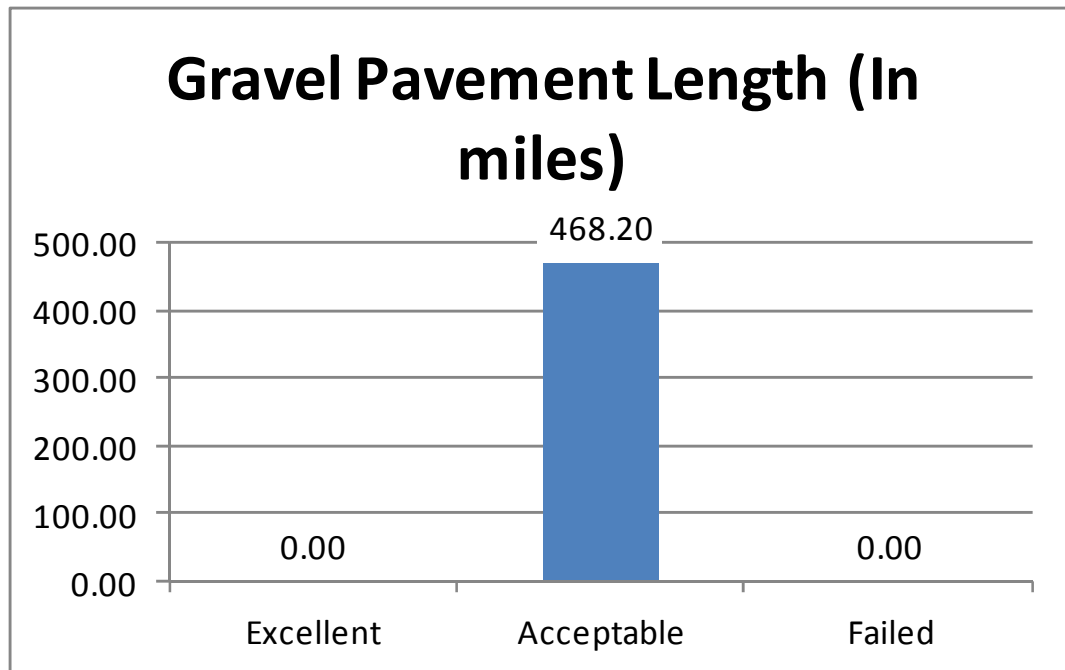
Condition of Boone County Roads, Bridges & Culverts

Concrete Surface Ratings

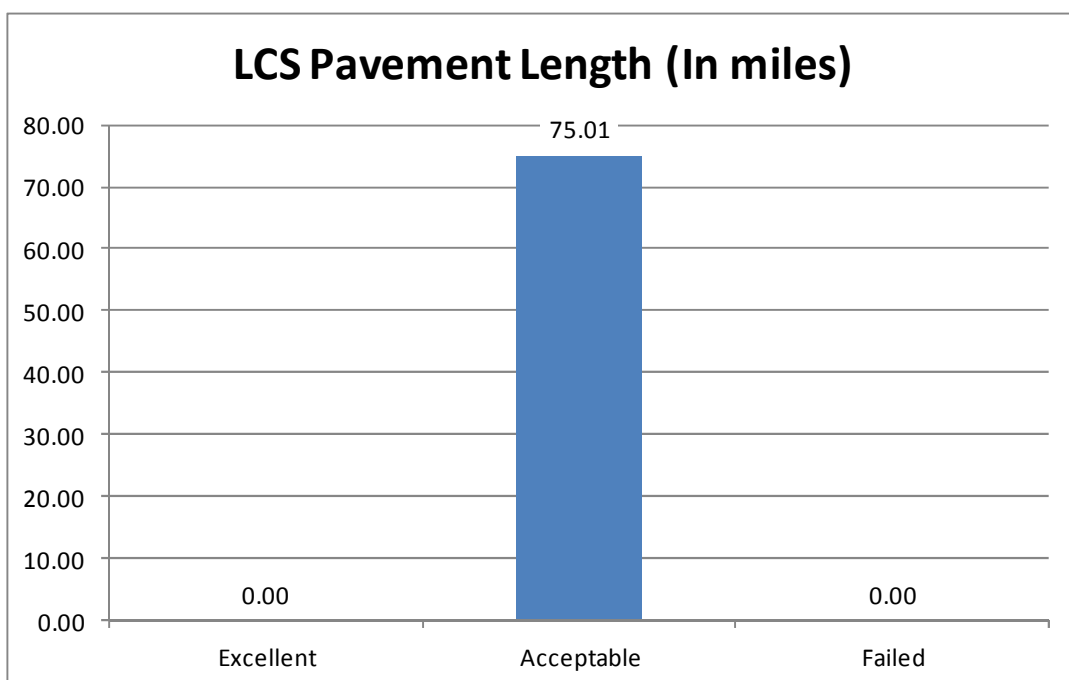


Condition of Boone County Roads, Bridges & Culverts

Gravel Roads



Limestone Chip Seal Roads



Stormwater

In February of 2010 Boone County approved and adopted the Boone County Stormwater Ordinance, which went into effect April 15, 2010. With the implementation of the Stormwater Ordinance the Boone County Stormwater Division established annual goals aimed at helping Boone County residents understand and comply with the ordinance. Listed below are those goals and the 2014 activities and accomplishments pertaining to these goals.

Public Education and Participation

Make at least 6 presentations to local organizations

- Annual Right-of-Way and Utility Meeting
- Summers at Mizzou Big Muddy River Camp Presentation



Catherine Beatty, Boone County Urban Hydrologist, explains the science involved in the testing performed at the Grissum site

- Equestrian Education Fair
- CAM Annual Report Press Event – 3M Wetlands
- MoDNR Jr. Nature Day

Students explore the effects of nature on Boone County waterways



- Fall MU BMP Tour
- Sturgeon HS Environmental Studies Program/Science Club Stream Table Demonstration
- Chester Boren Middle School 6th Grade Scientist Week Stream Table Demonstration – Centralia, MO
- Spring MU BMP Field Tour
- Rock Bridge HS STEM Expo

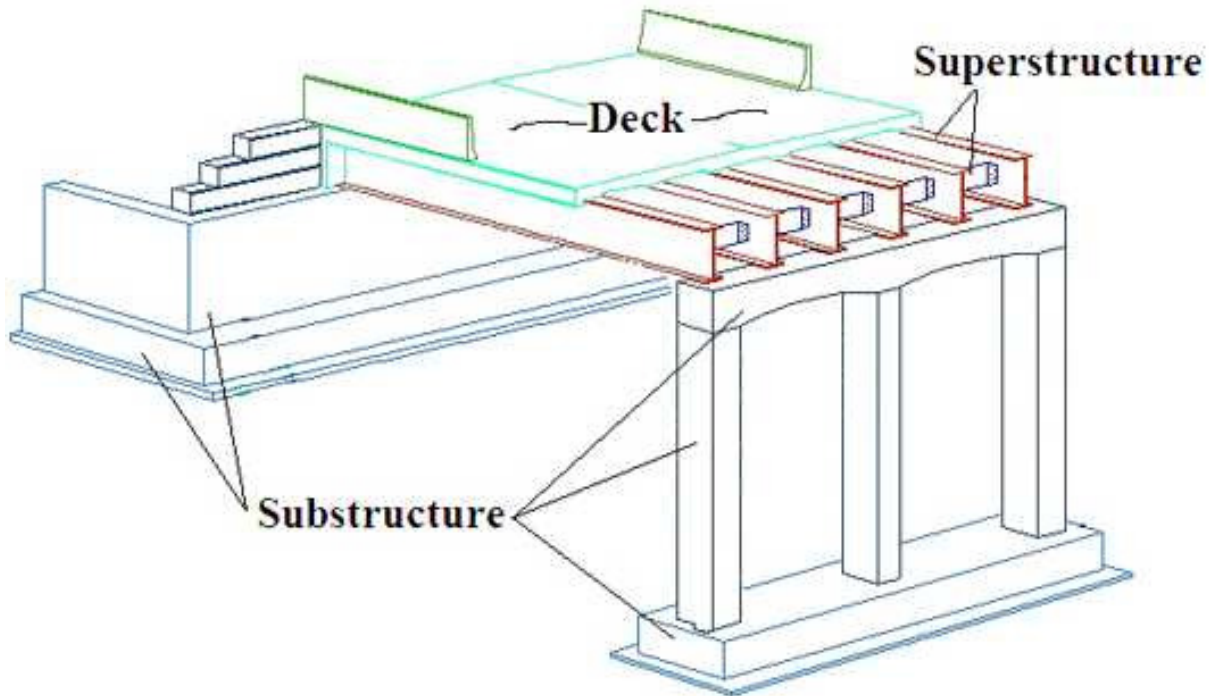


Students change the configuration of the stream table to see if they can stop the flow of water

Condition of Boone County Roads, Bridges & Culverts

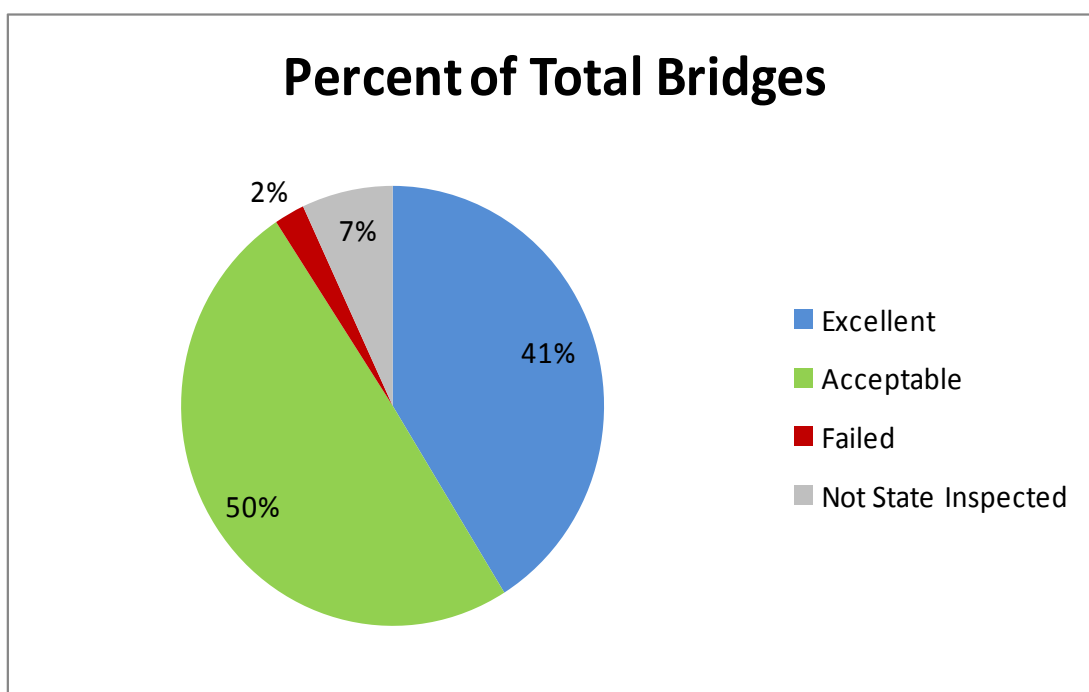
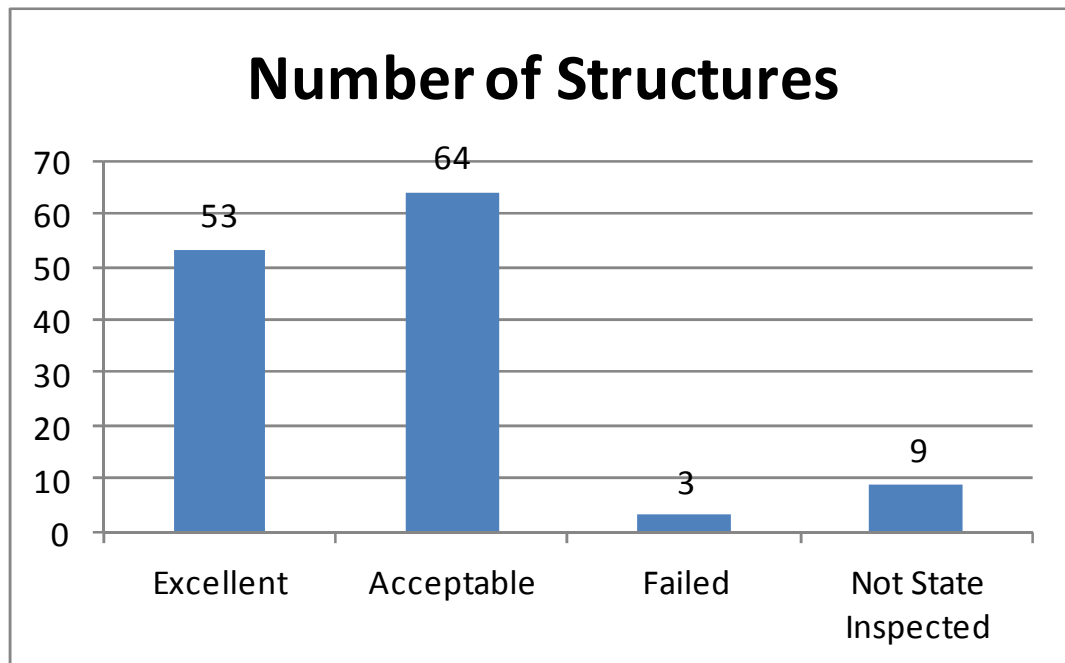
The following charts are based on information stored in Cartegraph; these values are for only non retired bridges that are currently maintained by Boone County. The categories are based on Structure Type values being equal to a Bridge.

The information for these ratings is based on MoDOT inspections that are performed every other year. The most recent inspections were performed in 2013. From the MoDOT inspections the Deck Condition (directly carries traffic), Substructure Condition (supports the superstructure and distributes all bridge loads to below ground bridge footings), and Superstructure Condition (supports the deck & connects one substructure element to another) are rolled into an average value based on a 0 – 100 scale. This value is generated by Cartegraph and the following values are used for the classes. Excellent is any OCI (Overall Condition Index) value that is 75 and above, Acceptable is an OCI value between 50 and 75, anything less than 50 is considered Failed. Not all of the structure types of bridges are inspected by MoDOT due to size requirements (must be at least 20 feet long); these structures will therefore be separated out in the statistics to follow.



Condition of Boone County Roads, Bridges & Culverts

Bridge Ratings



2014

- *Surveying**
- *Stormwater**
- *Urban Retrofit Grant**
- *Sales Tax Distribution**

Surveying

The Design & Construction Division of Boone County Road and Bridge has a licensed surveyor on staff to assist County staff and County residents with various endeavors. Included here descriptions of some of the tasks completed by the Surveyor in 2014.

Assistance to the Public

- Responded to the many requests that Boone County receives from property owners, Title Companies, Realtors, other Governmental Agencies, Surveyors and Engineers, and others regarding existing road rights-of-way
- Placed permanent monuments in the position of selected corners of the Public Land Survey System (Section and ¼ Section Corners) as part of the Missouri Department of Agriculture County Surveyor Co-op Program. Participation in this program is vital to Boone County property owners as these corners are the used to locate and describe all real property within Boone county. The County was reimbursed \$250 per corner re-monumented.
- Represented Boone County Public Works at concept reviews held by the Boone County Planning Department for review of upcoming developments
- Responded to 6 inquiries for NID's (Neighborhood Improvement Districts). None, to date, have filed applications with the County

Assistance to County Staff

- Assisted Public Works Maintenance and Operations personnel by providing a variety of surveying services and right-of-way and easement information as necessary
- Assembled topographic data for the preparation of plans for projects
- Assisted right-of way personnel by staking easements (both temporary and permanent) for reviewing proposed plans, and assisting them when meeting and negotiating with property owners on proposed projects. At times, accompanying right-of-way personnel to those meetings
- Assisted Planning & Building Inspections Department with complete reviews of all plats of proposed Subdivisions and Administrative Surveys, submitting comments and suggestions to the Planning Department, and notifying the surveyors of those comments and suggestions. Additionally, all descriptions for granting easements for public roadways and for utilities (these are required when preparing many of the Administrative surveys) were reviewed

Stormwater

STORMWATER PROGRAM COMPLIANCE

	Stormwater Prevention Plans Reviewed	Pre- Application Meetings Held	Land Disturbance Permits Issued	Stormwater Discharge Permits Issued	Pre-con Meetings Held	Site Inspections Conducted	Notice of Violation Issued
2011	19	21	15	4	9	45	3
2012	17	4	17	4	5	47	0
2013	15	13	32	10	7	49	4
2014	15	4	24	6	6	28	2

Stormwater

Develop 2 fact sheets or brochures

- Stormwater Newsletter – July

Used oil is exactly what its name implies; any petroleum-based or synthetic oil that has been used. During normal use, impurities such as dirt, metal scrapings, water or chemicals, can get mixed in with the oil. Eventually, this used oil must be replaced with virgin or re-refined oil to do the job correctly. If you are one of the many people who change their own motor oil, you too need to know how to properly dispose of the used oil.

Did you know used oil:

- from one oil change can contaminate one million gallons of fresh water? That's a years' supply for 50 people!
- is insoluble, persistent and can contain toxic chemicals and heavy metals.
- is slow to degrade.
- sticks to everything from beach sand to bird feathers.
- is a major source of oil contamination of waterways & can result in pollution of drinking water sources.
- on average, about four million people reuse motor oil as a lubricant for other equipment or take it to a recycling facility.
- recycled used motor oil can be re-refined into new oil, processed into fuel oils, and be used as raw materials for the petroleum industry.
- one gallon of used motor oil provides the same 2.5 quarts of lubricating oil as 42 gallons of crude oil.
- if all the oil from American do-it-yourself oil changers were recycled, it would be enough motor oil for more than 50 million cars a year. Imagine how much foreign oil that would eliminate!

Begin recycling your used motor oil today! Boone County Public Works will take waste motor oil at their facility for all county citizens. Bring in milk jugs or other containers with lids. Contact the office at 573-449-8515 and they will direct you where to place the oil to be recycled.

- Stormwater Newsletter – December

Eco-Friendly Ways to De-Ice Your Driveway

- Snow shovel: Minimize snow and ice by shoveling, and the sooner after snow stops falling, the better. If shoveling is too challenging for you, pay a neighborhood kid a few dollars to help.
- Get a grip: Scatter sand or even birdseed for traction. The grains won't melt snow or ice, but they will give you more grip on icy surfaces.
- Scrimp on the de-icer: Remember the job of a de-icer is to loosen ice from below to make it easier to shovel or plow. Don't pile on the de-icer thinking you'll remove the ice completely. You won't. The recommended application rate for rock salt is around a handful per square yard you treat. Calcium chloride will treat about 3 square yards per handful.
- Pick your salt carefully: If you do use salt, choose wisely. Sodium chloride (NaCl) may contain cyanide. Calcium chloride (CaCl) is slightly better since less goes farther, but it is still not ideal, since its runoff increases algae growth, which clogs waterways. Potassium chloride is another salt to avoid. Whatever you use, keep it away from landscape plants, especially those that are particularly salt-sensitive like tulip poplars, maples, balsam firs, white pines, hemlock,

Stormwater

redbud, rose bushes and spirea bushes.

- Skip the kitty litter or wood ashes: Neither melts snow or ice and they have a tendency to get messy when it warms up.
- Avoid products that contain nitrogen-based urea, they are more expensive and are not effective once the temperature drops below 20 °F. Plus, the application rate for urea during a single deicing is ten times greater than that needed to fertilize the same area of your yard.

Provide opportunities for public involvement

- Stormwater Public Service Announcement Videos
- City of Columbia/Boone County Rain Barrel Sale



Designed to collect runoff water from your roof. A rain barrel collects and stores rainwater from your rooftop to use later around the house. Harvested rainwater can be used for watering your Landscaping. Additionally the rainwater can help to improve the health of your flower garden, lawn, and trees. Rain is a naturally soft water and devoid of minerals, chlorine, fluoride, and other chemicals. For this reason, plants respond very well to rainwater. After all, it's what plants in the wild thrive on!

Training Opportunities for County Staff

- WEBINAR – Design & Construction of BMPs
- CAM BMP Tour
- WEBINAR – BMP Maintenance
- WEBINAR – How to Pick the Right Vegetation for Bio-retention & Its Cousins
- LMVP Water Monitoring Training
 - * *Highlight from this training was new techniques and ways to use monitoring devices*
- REGFORM
- WEBINAR – Stream Restoration as a Pollutant Reduction Strategy
- MWEA Conference
- WEBINAR - Local TMDLs & Regional/River Basin TMDLs:webcast A Happy Engagement or a Shotgun Wedding?
- WEBINAR – Fluvial Geomorphology 101
- Safety Day
- WEBINAR – Retrofitting Existing Stormwater Ponds & Basins
- WEBINAR - Street Dirt: A Better Way of Measuring BMP Effectiveness

Stormwater

Monitoring and Assessments

LMVP Sampling

The **Lakes of Missouri Volunteer Program** started in 1992 as an effort to get citizens involved in lake water quality monitoring. The goals of the LMVP are:

1. Determine the current water quality based on productivity of Missouri's lakes
2. Monitor for changes in water quality over time,
3. Educate the public about lake ecology and water quality issues.

This year, staff at Boone County took over the sampling at Stephens Lake, Tri City Lake and Lick Creek Lake. Staff collected 15 samples between June and September. By participating in this effort, Boone County receives free sampling equipment and information on the status of the lakes in Boone County. For more information, visit www.LMVP.org/.



CAM

Collaborative Adaptive Management

The goal of the collaborative adaptive management process is to improve water quality in Hinkson Creek by using a science-based approach guided by a local stakeholder Committee. It will assess the entire stream system, including the creek and other parts of the watershed. Improving the ecosystem should help support the return of the biological community to a fully functioning level as well as addressing other pollutants that may be contributing to water quality issues.

2014 CAM Activities

Stakeholders - The Stakeholder group met 8 times.

Action Team - The Action Team met 12 times.

Science Team - The Science Team met 5 times.

Habitat Assessment – Physical Assessment is 100% complete

Forum Nature Area Level Spreader – Construction is 100% complete

Stormwater

Collaborative Adaptive Management Assessments

Physical Habitat Assessment

This project was designed to figure out what exactly is impacting Hinkson Creek and its macroinvertebrates. The habitat assessment consists of two phases: GIS and Remote Sensing techniques used to create basic information on the geomorphology of Hinkson Creek and the distribution of land cover within the valley and watershed, and a physical assessment designed to examine longitudinal variations in characteristics including (but not limited to) channel morphology, floodplain width, streambed substrate composition, and adjacent riparian vegetation from the mouth of Hinkson Creek to the first second order confluence at the headwaters. To view the GIS Interactive Map and learn more, visit www.helpthehinkson.org.

Forum Nature Area Level Spreader

This project was initiated to divert water from a small un-named tributary to Hinkson Creek (~115 acre drainage area) and spread the water over an area of Hinkson Creek Floodplain. The area where the water is spread will be reforested in order to improve infiltration. The practice will focus on small runoff events, runoff from storms of 1 year frequency or less. This is expected to clean the water, reduce the immediate flow of runoff to the creek in channel altering storms, and increase base flow in the creek.



Photo of the level spreader project

Stormwater Urban Retrofit Grant

Urban Stormwater Retrofit & BMP Validation Project

Sunrise Estates

Activities:

Urban Retrofit Grant Steering Committee
Soil Amendment and Rainwater Harvesting Workshop
MWEA presentation on rain garden monitoring updates
Sunrise Estates Stormwater Newsletter- August

Monitoring: Data collected at Sunrise Estates includes flow data and climate data. Continuous climate station data can be viewed at:
<https://www.hobolink.com/p/d6e8c67e0df65682779f62c31a15fe3e>.

- Six (6) rain gardens were outfitted with flow measuring devices and water level loggers in May.
- Every two weeks data is collected from the level loggers and climate station , and maintenance activities are performed.
- Data collected is currently being analyzed and will be used to create a model to predict treatment performance of Best Management Practices (BMPs) for Sunrise Estates.



Grissum

Activities:

Pave Drain Installation Open House
MWEA presentation on the challenges for retrofitting a public works facility
Spring MU BMP Tour
Fall MU BMP Tour
319 Grant Video – Section 319 The Final Chapter: Porous Pavers
Tour of site for City Counsellmen
Missourian and Columbia Tribune news articles
KBIA radio news broadcast
YouTube Video – Building the Burrito!
YouTube Video – Pave Drain Install

Monitoring: Sigma Automatic Samplers with ultrasonic sensors were installed in the fall to monitor the efficiencies of the BMPs.

- After a rain event, water samples were collected at the inlet and outlet of the BMP in order to determine the BMP's efficiency at reducing pollutant load.
- Water samples were collected three times at the step-pool and once at the bio-retention after fall rain events and analyzed for lead, copper, zinc, total suspended solids, total dissolved solids, total volatile solids, COD, total nitrogen, and total phosphorus
- Data collected shows the Step Pool is consistently reducing total suspended solids and volatile suspended solids. However, this could be related to dilution and not treatment. The step pool is also reducing chemical oxygen demand.
- The bio-retention is performing extremely well in terms of load reductions of total suspended solids, volatile suspended solids and chemical oxygen demand. We are also seeing reductions in nutrient loads.

City of Ashland

ROAD & BRIDGE ANNUAL SUMMARY REPORT

For use by all Entities (Application, Formula and Centralia Special Road District) to provide annual information in accordance with the Cooperative Agreement entered into with Boone County, Missouri (Commission Orders 459-2011 through 471-2011 approved on November 15, 2011, by the Boone County Commission).

Reporting Entity: City of
Ashland

Reporting on Calendar Year: 2014

Narrative for use of funds received The City of Ashland used the funds for repairs and maintenance in 2013 and used the funds for the reclamation of Angel Lane in 2014

Narrative on overall condition of roads and bridges within reporting municipality:

The City has poor road conditions due to a lack of inspections and standards when most of the roads were installed. Narrow streets with inadequate substructures exist in the downtown area and several residential neighborhoods have poor street condition due to poor construction. Building Codes and street inspections are now in place and enforced in Ashland

Allocation and Expenditure of Funds Received listed by project, with a project description. Include only direct design and construction costs pertaining to roads, bridges and storm water; indirect and other administrative costs are not allowable. Attach extra pages as necessary.

Projects with descriptions _In 2013, the City deployed its \$121,456.19 allocation to much needed street repair and stormwater improvements throughout the City. The voters passed a 0.5% Transportation Sales Tax in August of 2013 bringing a revenue stream to dedicate to stormwater and street repair and maintenance.

With the Transportation Sales Tax in place, the City was in a position to partner with Boone County to dedicate its \$136,229.69 allocation to the full-depth reclamation of Angel Lane. The City had reserved previous allocations to this project and used an additional \$100,000 reserve payment to fund this project. The City's final expense was \$287,906.16 leaving a balance of \$48,323.53 from the 2014 Road and Bridge allocation. These funds will be used to address major street issues as part of the 2015 Capital Improvement Plan. Salinda Drive stormwater improvements and an Oak Street overlay have been identified by the Board of Aldermen as projects to be funded in the Fiscal Year 2016 Capital Projects budget. The final project list will be available next spring.

City of Ashland

ROAD & BRIDGE ANNUAL SUMMARY REPORT

Page 2

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or other markings on the paper.

TOTAL

\$136,229.69

I declare that I have examined this report, including accompanying schedules and statements, and to the best of my knowledge, certify that the information provided above is true, complete and accurate.

Signature

Date _____

City

Administrator_

Title

Josh M Hawkins

2014

Printed Name _____

11-19-

Day Time Phone number

Complete this report and send to Boone County Resource Management, Attn: Kelle Westcott, 801 East Walnut Room 315, Columbia, MO 65201; by December 15th.

City of Centralia

ROAD & BRIDGE ANNUAL SUMMARY REPORT

For use by all Entities (Application, Formula and Centralia Special Road District) to provide annual information in accordance with the Cooperative Agreement entered into with Boone County, Missouri (Commission Orders 459-2011 through 471-2011 approved on November 15, 2011, by the Boone County Commission).

Reporting Entity: City of Centralia

Reporting on Calendar Year: 2014

Narrative for use of funds received The funds received went to ward the annual overlay of streets which is detailed below, as well as the operation of the Street Department. In addition to road maintenance we completed several sidewalk improvements and extensions. One sidewalk extension linked Centralia Intermediate School to a nearby subdivision.

Narrative on overall condition of roads and bridges within reporting municipality:

The City of Centralia conducts an annual review of the 34.08 miles of streets under our control and scores their condition on a scale of 1 - 10 where 10 is a functionally new road. The results were:

Miles of Road	Condition
---------------	-----------

7.90	10
------	----

10.24	7-9
-------	-----

9.58	4-6
------	-----

6.36	1-3
------	-----

Allocation and Expenditure of Funds Received listed by project, with a project description. Include only direct design and construction costs pertaining to roads, bridges and storm water; indirect and other administrative costs are not allowable. Attach extra pages as necessary.

Projects with descriptions _See attached sheets.

Page 2

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or other markings on the paper.

\$413,911

Signature McHarkie Date 12/15/2014

Matt Harline

573-682-2139

City of Centralia

December 15, 2014

ANNUAL PROGRESS REPORT ATTACHEMENT

CITY OF CENTRALIA, MISSOURI 2014 Boone County Revenue Replacement Funds

As required by the Boone County Road Tax Revenue Sharing and Revenue Replacement Policies Manual, the City of Centralia submits the following report:

The City accounts for receipts of the County's Roll Back and Formula A monies as a line item within the City's General Fund. Formula B funds are treated as additional revenues to the Transportation Sales Tax Fund and applied to debt service and major projects.

Starting in Fiscal year 2001-02, "Revenue Sharing" grant funds (now Formula B funds) from Boone County to the City of Centralia have been accounted in either a separate Capital Projects Fund or the Transportation Sales Tax Fund. Until recently, County funds were used to pay a portion of the debt service for a major street project. The City made its final debt service payment on this project on April 15, 2012. County Formula B monies that year also were used to fund asphalt overlay work throughout the City and engineering for street reconstruction planned for summer 2014.

SUMMARY

The City of Centralia is very grateful for the revenue sharing policy adopted by the County and gladly supplies this report in an attempt to satisfy our obligation to report on the use of these funds. **If any additional information or clarification is required please contact City Administrator, Matt Harline (573-683-2139 cityadmin@centraliamo.org)**

We have paid off the bonds on the previous road projects on Lakeview and Columbia Streets and so there are no remaining bond payments for road projects. The report breaks the financial information into expenditures in Calendar Year 2014 (11.5 months of information), Fiscal Year 2015 (approximately 8.5 months) and the fully audited FY2014. The fiscal year for the City of Centralia (referred to as simply the City through most of this report) is April 1 – March 31; so FY 2015 is April 1, 2014 – March 31, 2015.

The funds in FY2015/Calendar Year 2014 were primarily used for the summer overlay project, sidewalk construction/replacement and general maintenance. There were no major reconstruction projects.

For the FY 2016 Budget we have tentatively planned to fund the reconstruction of the Jefferson Street rail crossings in concrete at a cost of \$146,000. We could still possibly fund up to \$50,000 in overlay projects or in sidewalk reconstruction. A recent citizen survey showed that the condition of sidewalks is considered poor by a majority of respondents. We have an application in for a Safe Routes to Schools Grant to extend sidewalks to the high school. We

City of Centralia

anticipate needing about \$10,000 for engineering in FY2016.

REVENUES

ACCOUNT NUMBER	ACCOUNT TITLE	Calendar 2015	FY2015 YTD	FY2015 Budgeted	FY2014 Audited
01-00-00-43-302	FEDERAL SRTS GRANT	-	-	-	-
	STATE GAS & MOTOR FUEL				
01-00-00-43-550	TAX	94,703	69,620	102,500	102,357
01-00-00-43-560	STATE AUTO SALES TAX	45,501	34,113	41,500	46,077
01-00-00-43-620	COUNTY ROAD TAX	55,468	55,468	52,000	52,520
		<u>\$ 195,673</u>	<u>\$ 159,202</u>	<u>\$ 196,000</u>	<u>\$ 201,455</u>
02-03-01-41-520	STATE LOCAL SALES TAX	195,049	149,776	193,000	193,517
	COUNTY GRANT-				
02-03-01-43-650	REVENUE SHARING	72,032	72,032	65,300	65,147
02-03-01-46-110	INTEREST	250	116	500	969
		<u>\$ 267,331</u>	<u>\$ 221,924</u>	<u>\$ 258,800</u>	<u>\$ 259,633</u>
	TOTAL				
	TOTAL COUNTY REVENUE	127,501	127,501	117,300	117,667
	TOTAL ROAD/STREET				
	REVENUE	<u>\$ 463,004</u>	<u>\$ 381,126</u>	<u>\$ 454,800</u>	<u>\$ 461,088</u>

City of Centralia

EXPENDITURES

PUBLIC WORKS HIGHWAYS & STREETS

ACCOUNT NUMBER	ACCOUNT TITLE	Calendar 2015	FY2015 YTD	FY2015 Budgeted	FY2014 Audited
PLANNING & ADMIN					
01-03-01-01-001	SALARIES AND WAGES	12,018	8,227	13,000	13,107
01-03-01-01-010	ACCRUED EMPLOYEE BEN	8,202	5,864	12,308	12,254
01-03-01-01-110	PRINTING,PUBLICATION	57	57	200	42
01-03-01-01-120	DUES/MEMBER/SUBS/TUI	-	-	50	50
01-03-01-01-142	PROF. SERV.ARCHT.ENG	-	-	-	0
01-03-01-01-150	CONTRACT LABOR	1,401	1,151	1,300	1,318
01-03-01-01-170	MAINT.AGREEMENTS,LEA	1,216	785	1,000	1,044
01-03-01-01-180	MEALS,LODGING,TRAVEL	-	-	100	0
01-03-01-01-201	OFFICE SUP. FURNITUR	-	-	-	0
01-03-01-01-210	OPERATING SUPPLIES	123	91	300	657
01-03-01-01-490	EQUIPMENT USE CHARGE	2,090	1,540	2,200	1,954
01-03-01-01-506	DATA PROCESSING EQUI	-	-	-	0
	SUBTOTAL	25,107	17,715	30,458	30,426
STREET MAINT.					
01-03-01-02-001	SALARIES AND WAGES	9,407	8,318	11,146	11,723
01-03-01-02-010	ACCRUED EMPLOYEE BEN	6,037	5,277	6,537	7,134
01-03-01-02-110	PRINTING, PUBLICATIO	56	56	150	53
01-03-01-02-132	UTILITIES-NATURAL GA	405	280	450	394
01-03-01-02-150	CONTRACT LABOR	1,013	1,013	1,000	1,823
01-03-01-02-160	REPAIR SERVICE	-	-	400	0
01-03-01-02-170	MAINT.AGREEMENTS, LE	315	315	500	1,589
01-03-01-02-210	OPERATING SUPPLIES	8,206	7,471	18,000	13,600
01-03-01-02-220	TOOLS/SMALL EQUIPMEN	-	-	200	0
01-03-01-02-450	EQUIPMENT RENTAL	-	-	1,000	0
01-03-01-02-490	EQUIPMENT USE CHARGE	9,476	8,027	13,000	13,576
01-03-01-02-502	VEHICLES	32,114	32,114	-	0
01-03-01-02-503	FURNITURE AND FILES	-	-	32,114	0
01-03-01-02-508	OTHER EQUIPMENT	1,575	1,575	-	0
01-03-01-02-509	MISCELLANEOUS CAPITA	-	-	1,600	0
01-03-01-02-801	TRANSFER TO OTHER FU	-	-	-	0
	SUBTOTAL	68,604	64,446	86,097	49,892

City of Centralia

ACCOUNT NUMBER	ACCOUNT TITLE	Calendar 2015	FY2015 YTD	FY2015 Budgeted	FY2014 Audited
ALLEY MAINT.					
01-03-01-03-001	SALARIES AND WAGES	435	159	273	540
01-03-01-03-010	ACCRUED EMPLOYEE BEN	343	89	83	336
01-03-01-03-210	OPERATING SUPPLIES	1,750	1,750	1,000	100
01-03-01-03-490	EQUIPMENT USE CHARGE	2,616	2,139	400	805
	SUBTOTAL	5,144	4,137	1,756	1,781
SIDEWALK & PARKING					
01-03-01-04-001	SALARIES & WAGES	11,739	11,547	3,770	3,832
01-03-01-04-010	ACCRUED EMPLOYEE BEN	6,118	5,972	2,090	2,217
01-03-01-04-150	CONTRACT LABOR	-	-	200	0
01-03-01-04-160	REPAIR SERVICE	-	-	100	0
01-03-01-04-210	OPERATING SUPPLIES	2,060	2,060	10,000	10,446
01-03-01-04-220	TOOLS/SMALL EQUIPMEN	7	7	-	0
01-03-01-04-490	EQUIPMENT USE CHARGE	3,770	3,697	2,600	1,279
	SUBTOTAL	23,694	23,283	18,760	17,774
BLDG & GROUNDS					
01-03-01-05-001	SALARIES AND WAGES	3,560	1,946	2,028	2,752
01-03-01-05-010	ACCRUED EMPLOYEE BNE	2,231	1,278	3,941	4,374
01-03-01-05-132	UTILITIES-NATURAL GA	1,909	781	1,900	1,869
01-03-01-05-133	UTILITIES, TELEPHONE	370	273	550	419
01-03-01-05-150	CONTRACT LABOR	5,766	304	400	5,667
01-03-01-05-160	REPAIR SERVICES	-	-	-	0
01-03-01-05-170	MAINT AGREEMENTS & L	-	-	163	217
01-03-01-05-190	INSURANCE	1,030	1,030	1,048	1,048
01-03-01-05-201	OFFICE SUPP FURNITUR	-	-	100	718
01-03-01-05-210	OPERATING SUPPLIES	965	746	1,500	1,186
01-03-01-05-220	TOOLS/SMALL EQUIPMEN	386	386	300	0
01-03-01-05-490	EQUIPMENT USE CHARGE	44	40	200	191
01-03-01-05-510	BUILDING IMPROVEMENT	1,560	810	5,430	750
	SUBTOTAL	17,821	7,594	17,560	19,191
SNOW & ICE REMOVAL					
01-03-01-06-001	SALARIES AND WAGES	11,757	124	17,037	14,248
01-03-01-06-010	ACCRUED EMPLOYEE BEN	7,741	94	13,510	9,277
01-03-01-06-160	REPAIR SERVICE	-	-	200	0
01-03-01-06-210	OPERATING SUPPLIES	8,713	5,668	15,000	3,068
01-03-01-06-490	EQUIPMENT USE CHARGE	5,931	56	9,000	6,967
	SUBTOTAL	34,142	5,942	54,747	33,560

City of Centralia

ACCOUNT NUMBER	ACCOUNT TITLE	Calendar 2015	FY2015 YTD	FY2015 Budgeted	FY2014 Audited
STREET SIGNS & MARKINGS					
01-03-01-07-001	SALARIES AND WAGES	5,126	3,968	3,795	4,126
01-03-01-07-010	ACCRUED EMPLOYEE BEN	2,815	2,073	1,936	2,288
01-03-01-07-150	CONTRACT LABOR	-			0
01-03-01-07-160	REPAIR SERVICE	-		150	0
01-03-01-07-210	OPERATING SUPPLIES	3,397	2,851	5,000	2,462
01-03-01-07-220	TOOLS/SMALL EQUIPMEN	-			0
01-03-01-07-490	EQUIPMENT USE CHARGE	1,458	1,194	1,400	1,112
	SUBTOTAL	12,796	10,086	12,281	9,988
STORM DRAINAGE					
01-03-01-08-001	SALARIES AND WAGES	9,824	9,209	12,236	12,226
01-03-01-08-010	ACCRUED EMPLOYEE BEN	11,488	8,085	13,088	9,880
01-03-01-08-150	CONTRACT LABOR	715	715	1,000	1,200
01-03-01-08-170	MAINT AGREEMENTS & L	-			0
01-03-01-08-210	OPERATING SUPPLIES	5,212	4,086	13,000	18,877
01-03-01-08-220	TOOLS/SMALL EQUIPMEN	26	26		0
01-03-01-08-490	EQUIPMENT USE CHARGE	4,276	4,098	6,000	5,359
01-03-01-08-509	MISCELLANEOUS CAPITA	-		50,000	0
01-03-01-08-901	MISCELLANEOUS	-			0
	SUBTOTAL	31,541	26,219	95,324	47,542
BRUSH & TREE CONTROL					
01-03-01-09-001	SALARIES AND WAGES	2,989	2,839	1,466	1,265
01-03-01-09-010	ACCRUED EMPLOYMEE BE	1,616	1,528	923	747
01-03-01-09-160	REPAIR SERVICE	-		50	0
01-03-01-09-170	MAINT AGREEMENTS & L	-			0
01-03-01-09-210	OPERATING SUPPLIES	172	172		3
01-03-01-09-490	EQUIPMENT USE CHARGE	960	882	1,300	908
	SUBTOTAL	5,737	5,421	3,739	2,923
TOTAL (EXCLUDES MOWING)		\$ 224,586	\$ 164,843	\$ 320,722	\$ 213,077
CAPITAL SUMMARY					
02-03-01-01-509	CAPTIAL EXPENDITURES	\$ 189,325	\$ 189,325	\$ 335,884	\$ 335,538
TOTAL ALL EXPENDITURES		\$ 413,911	\$ 354,168	\$ 656,606	\$ 548,615

City of Centralia

CAPITAL EXPENDITURES DETAIL FOR FY2015/CALENDAR YEAR 2014

Total capitalized expenditures for FY 2015

Date	Per Jnl Reference	Vendor	Amount
11/20/2014	JENNINGS-CONCRETE SIDEWALK	MISC REVENUE	(201)
10/6/2014	SIDEWALK ON SNEED	CENTRAL	1,131
9/16/2014	COLUMBIA STREET SIDEWALK (CIS)	CENTRAL	1,231
9/16/2014	COLUMBIA STREET SIDEWALK (CIS)	CENTRAL	2,563
9/5/2014	STREET DEPT SUPPLIES SIDEWALKS	LA CROSSE	460
8/8/2014	STREET DEPT SUPPLIES SIDEWALKS	LA CROSSE	638
8/7/2014	CONCRETE FOR SIDEWALKS	CENTRAL	452
7/24/2014	CONCRETE FOR SIDEWALKS	CENTRAL	1,055
7/22/2014	CONCRETE FOR SIDEWALKS	CENTRAL	905
7/22/2014	ASPHALT PAVING (SEE DETAILS BELOW)	APAC	170,994
7/8/2014	SIDEWALK CONCRETE ALLEN/BARNES	WARREN	355
5/15/2014	HEAD ST SIDEWALK CONCRETE	CENTRAL	678
4/24/2014	CITY SQUARE SIDEWALK CONCRETE	CENTRAL	861
4/21/2014	FINAL SWITZLER ST PROJECT PMT	CANNON	7,272
4/21/2014	CONCRETE	WARREN	929
		TOTAL:	189,325

The sidewalk project on Columbia Street connected a section of sidewalk from Centralia Intermediate School (CIS) to a nearby subdivision. The City cooperated with the Centralia School District who actually reimbursed the City for the cost of the concrete. The City supplied all the labor and other supplies to install the approximately 600 feet of sidewalk.

A detailed account of the asphalt overlay for the City can be found on the next page.

City of Centralia

Asphalt overlay details:

OVERLAYS

Street	Width (ft.)	Length (ft.)	thickness	Actual tons	Price/ton	Cost
Mitchell (all but west 1/2 block)	18	1250	2"	310.35	\$68.10	\$21,134.84
Clayton	18	800	2"	171.31	\$68.10	\$11,666.21
Porter St.	18	800	2"	205.30	\$68.10	\$13,980.93
Ash St.	18	800	2"	172.09	\$68.10	\$11,719.33
Wesley	20	580	1.5"	142.45	\$68.10	\$9,700.85
N. Allen (700 block)	28	850	1.5"	272.57	\$68.10	\$18,562.02
Southgate (Columbia to Switzler)	20	525	1.5"	148.84	\$68.10	\$10,136.00
Sappington	18	900	1.5"	227.30	\$68.10	\$15,479.13
Columbia (Lakeview to Bruton)	21	1360	1.5"	343.57	\$68.10	\$23,397.12
Sneed (Jefferson to Bradford)	23	190	1.5"	46.62	\$68.10	\$3,174.82
Pratt	20	408	1.5"	67.33	\$68.10	\$4,585.17
Spauldin	16	380	2"	125.23	\$68.10	\$8,528.16
Howard Burton Drive (1/2 block south of Booth)	16	220	2"	61.92	\$68.10	\$4,216.75
Bryson	20	280	1.5"	49.04	\$68.10	\$3,339.62
Elm	22	184	2"	84.95	\$68.10	\$5,785.10
Walnut, just south of Booth	22	150	1.5"	24.76	\$68.10	\$1,686.16
North Street (small)	20	880	2"	57.3	\$68.10	\$3,902.13
TOTAL EXPENDITURES						\$170,994.33

Respectfully submitted December 2014 by

Matthew C. Harline,
City Administrator

Centralia Special Road District

ROAD & BRIDGE ANNUAL SUMMARY REPORT

For use by all Entities (Application, Formula and Centralia Special Road District) to provide annual information in accordance with the Cooperative Agreement entered into with Boone County, Missouri (Commission Orders 459-2011 through 471-2011 approved on November 15, 2011, by the Boone County Commission).

Reporting Entity: Centralia Special Road District of Boone County Mo.

Reporting on Calendar Year: 2014:

Narrative for use of funds received : Routine maintenance of roadways within the District including hauling gravel on unpaved roads, overlay on blacktop roads, replacing road pipes, cleaning ditches, cutting brush, mowing right of ways as needed.

Narrative on overall condition of roads and bridges within reporting municipality:

The overall condition of the gravel roads is considered average to above average condition. The condition of our blacktop roads is average to below average with about 40% of our blacktops needing to be overlayed. The bridges are in average condition considering their age.

Allocation and Expenditure of Funds Received listed by project, with a projection description. Include only direct design and construction costs pertaining to roads, bridges and storm water; indirect and other administrative costs are not allowable. Attach extra pages as necessary.

Projects with descriptions _

1. Overlayed Davis Road, Gano Chance (from 124 to Jay Jay), and San Lynn Road at a total cost of \$156,219.70
2. Replaced two road pipes on Rangeline Road and two road pipes on Grassland Road at a total cost of \$2,893.00
3. Hauled approximately \$35,000.00 of rock on non-paved roads.

ROAD & BRIDGE ANNUAL SUMMARY REPORT

Page 2

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There is a small dark mark or smudge near the top left corner. The paper appears to be part of a notebook or a set of loose-leaf papers.

\$194,112.70

Signature Anthony Lindahl Date 11/29/14

Anthony Kendrick	573-881-2169
Printed Name	Day Time Phone number

44

City of Columbia

ROAD & BRIDGE ANNUAL SUMMARY REPORT

For use by all Entities (Application, Formula and Centralia Special Road District) to provide annual information in accordance with the Cooperative Agreement entered into with Boone County, Missouri (Commission Orders 459-2011 through 471-2011 approved on November 15, 2011, by the Boone County Commission).

Reporting Entity: City Of Columbia-David A. Nichols Assistant Public Works Director

Reporting on Calendar Year: 2014

Narrative for use of funds received Scott Blvd Phase II and Phase III, funds will be used for construction Costs

Narrative on overall condition of roads and bridges within reporting municipality:

Scott Phase II was completed in October 2014, funds were used to build a new bridge over Hinkson Creek, a roundabout at the intersection of Scott and Vawter School Road.

Scott Phase III will reconstruct and widen the existing roadway to improve vertical and horizontal alignment, the project is in the right of way acquisition phase and working with utility companies for their relocation needs. Construction is to begin in spring 2015 with completion prior to August 2016.

Allocation and Expenditure of Funds Received listed by project, with a projection description. Include only direct design and construction costs pertaining to roads, bridges and storm water; indirect and other administrative costs are not allowable. Attach extra pages as necessary.

Projects with descriptions _ The proposed improvement for Scott Boulevard Phase 2 included four main elements: 1) Continuing the sidewalk and bicycle facilities on both the east and west sides of the road to connect the MKT trail with the sidewalks and bicycle facilities being constructed on Scott Boulevard Phase 1 from Rollins Road to Brookview Terrace; 2) Raising the roadway profile to reduce the frequency of roadway overtopping; 3) Reconstructing the bridge over Hinkson Creek to connect with the raised roadway profile and to provide sidewalks and bicycle lanes on the bridge, and 4) Reconstructing the intersection at Vawter School Road as a roundabout which includes realigning Brushwood Road to connect at the intersection. Total costs approximately \$4.5 million, County contribution on attached sheet.

Scott Boulevard Phase 3 consists of two travel lanes with a center grassed median. The median will be replaced with a left turn lane at all public streets. The typical section provides a 12 foot center median, 12 foot vehicle lanes, two foot marked bicycle lane measured from the two foot gutter sections. This will allow using either portland cement concrete or asphalt cement concrete pavement types and still provide marked lanes for vehicles and bicycles. In the instance of a disabled vehicle, the 19 foot wide pavement provides adequate passing space. The recommended cross section also includes an eight foot sidewalk on the east side, setback 6.5 foot from the back of curb and a five foot sidewalk on the west side, setback 6.5 foot from the back of curb. The total Right of Way width required for the recommended typical section is 76 feet. Total cost \$9.8 million, County contribution on attached sheet.

ROAD & BRIDGE ANNUAL SUMMARY REPORT
Page 2

TOTAL see attached sheet

Signature L. King & N. King Date 12/1/22

Title Assistant Director City of Colaba Public Works

Printed Name David A Nichols Day Time Phone number 573-874-7250

46

City of Columbia

**City of Columbia
County Road Tax Rebate -C00503
Cash Balances**

	Sept 30 2010	Sept 30 2011	Sept 30 2012	Sept 30 2013	Sept 30 2014
Cash Balance Forward	265,902.58	431,429.52	-	1,569,924.31	1,810,343.41
Receipts:					
County Road Tax Rebate from Boone County	1,649,274.62	1,657,714.81	1,874,958.65	1,915,419.10	1,996,052.91
Investment Income	29,677.32	14,463.90	-	-	-
Total Receipts	1,678,951.94	1,672,178.71	1,874,958.65	1,915,419.10	1,996,052.91
Disbursements:					
Transfer to Fund 440 (Capital Projects):					
C00128 Maguire Blvd	-	-	-		
C00241 Mexico Gravel Rd	(1,400,000.00)	-	1,369,965.66		
C00149 Scott Blvd	-	-	-		
C00320 Rolling Hills Road		(1,400,000.00)	-		
C00319 Scott - Vawter to MKT PH II		(590,183.23)	(1,675,000.00)	(311,686.00)	
C00274 Scott-Vawter to KK III				(1,363,314.00)	(3,400,000.00)
Transfer to Fund 110 (General Fund)	(113,425.00)	(113,425.00)	-		
Total Disbursements	(1,513,425.00)	(2,103,608.23)	(305,034.34)	(1,675,000.00)	(3,400,000.00)
Cash Balance @ Year End	431,429.52	-	1,569,924.31	1,810,343.41	406,396.32

City of Hallsville

ROAD & BRIDGE ANNUAL SUMMARY REPORT

For use by all Entities (Application, Formula and Centralia Special Road District) to provide annual information in accordance with the Cooperative Agreement entered into with Boone County, Missouri (Commission Orders 459-2011 through 471-2011 approved on November 15, 2011, by the Boone County Commission).

Reporting Entity: City of Hallsville

Reporting on Calendar Year: July 1, 2013 - June 30, 2014

Narrative for use of funds received

Survey and engineering alleyway/access in preparation of 2015 reconstruction project.
Grant funding being held over for Spring, 2015 projects.

Narrative on overall condition of roads and bridges within reporting municipality:

The streets, both asphalt and concrete curb and gutter are in good condition.

Allocation and Expenditure of Funds Received listed by project, with a project description. Include only direct design and construction costs pertaining to roads, bridges and storm water; indirect and other administrative costs are not allowable. Attach extra pages as necessary.

Projects with descriptions _The City spent \$5,000 from Road Grant money in engineering and surveying fees for an alleyway improvement, and \$45,573.06 from the City's General Fund for general street upkeep and repairs. The alleyway that was engineered and surveyed, is located between City Hall and Boone County National Bank and connects Rt. B with Highway 124-East. The alleyway is widely used by citizens as access to both of these State Roads, as well as to three businesses that can only be accessed by this alleyway. The alleyway has a major drainage issue, as it holds water and freezes into dangerous sheets of ice, causing potential vehicle accidents and has caused personal falls and injuries. Several people fell last winter alone, with minor injuries that could have been serious, making it a safety liability for the City. Plans are to reconstruct the alleyway according to engineering specs already completed and to let bids in the Spring, following all State and Federal laws. The City will be utilizing pervious pavement on portions of the project to help divert the storm water issue as this area is flat with no slopes.

In addition, at the intersection at Monarch Drive and Lantern Drive, a crosswalk is going to be constructed to an adjacent sidewalk that is not handicap accessible and does not have a curb-cut. This makes it extremely dangerous for children walking and biking to a nearby elementary school. This project will cost approximately \$5,000 using Road Grant Funds.

The City also plans to repave Elizabeth Street at a cost of several thousand dollars. Bids and specifications will be done in 2015.

As soon as weather permits, the City will be rebuilding a portion of North Street and the driveway approach to the Hallsville High School where several accidents have occurred.

No indirect expenses or administrative costs will be paid from the Road Grant Funds on all of the above projects.

Page 2

_\$5,000.00 from Road Grant Funds and \$45,573.06 from General Funds.

49

Town of Harrisburg

ROAD & BRIDGE ANNUAL SUMMARY REPORT

For use by all Entities (Application, Formula and Centralia Special Road District) to provide annual information in accordance with the Cooperative Agreement entered into with Boone County, Missouri (Commission Orders 459-2011 through 471-2011 approved on November 15, 2011, by the Boone County Commission).

Reporting Entity: Town of Harrisburg

Reporting on Calendar Year: 2013

Narrative for use of funds received
The funds were used for street maintenance including snow and ice removal. 2013 Street Project funds were saved in a separate ledger to accumulate for larger project.

Narrative on overall condition of roads and bridges within reporting municipality:
As of 12/9/14 roads and bridges are in good condition.

Allocation and Expenditure of Funds Received listed by project, with a projection description. Include only direct design and construction costs pertaining to roads, bridges and storm water; indirect and other administrative costs are not allowable. Attach extra pages as necessary.

Projects with descriptions _
Street Maintenance - including snow and ice removal: \$10,093.54
2013 Street Project (\$11,067.33 awarded) - saved in a separate ledger to accumulate funds for larger project.

Village of Hartsburg

ROAD & BRIDGE ANNUAL SUMMARY REPORT

For use by all Entities (Application, Formula and Centralia Special Road District) to provide annual information in accordance with the Cooperative Agreement entered into with Boone County, Missouri (Commission Orders 459-2011 through 471-2011 approved on November 15, 2011, by the Boone County Commission).

Reporting Entity: Village of Hartsburg Mo.

Reporting on Calendar Year: 2014

Narrative for use of funds received NO USE: saved in Bank

Narrative on overall condition of roads and bridges within reporting municipality:
Good condition.

Allocation and Expenditure of Funds Received listed by project, with a project description. Include only direct design and construction costs pertaining to roads, bridges and storm water; indirect and other administrative costs are not allowable. Attach extra pages as necessary.

Projects with descriptions NONE

Village of Pierpont

ROAD & BRIDGE ANNUAL SUMMARY REPORT

For use by all Entities (Application, Formula and Centralia Special Road District) to provide annual information in accordance with the Cooperative Agreement entered into with Boone County, Missouri (Commission Orders 459-2011 through 471-2011 approved on November 15, 2011, by the Boone County Commission).

Reporting Entity: Village of Pierpont

Reporting on Calendar Year: 2014

Narrative for use of funds received
Funds used to offset cost of repair of Tomlin Hill Road.

Narrative on overall condition of roads and bridges within reporting municipality:
Tomlin Hill in good condition with repair. Road was resurfaced in 2013

Allocation and Expenditure of Funds Received listed by project, with a project description. Include only direct design and construction costs pertaining to roads, bridges and storm water; indirect and other administrative costs are not allowable. Attach extra pages as necessary.

Projects with descriptions
Repaired a 110' x 9' section of Tomlin Hill road , improved road base and resurfaced that section.

Village of Pierpont

ROAD & BRIDGE ANNUAL SUMMARY REPORT


Page 2

[illegible]

TOTAL

\$9,909.90

I declare that I have examined this report, including accompanying schedules and statements, and to the best of my knowledge; certify that the information provided above is true, complete and accurate.


Signature

Signature

11/20/14

Date _____

Chairman of Trustees

Title

Ronald L. Skiles

573-999-1212

Printed Name _____

Day Time Phone number

Complete this report and send to Boone County Resource Management, Attn: Kelle Westcott, 801 East Walnut Room 315, Columbia, MO 65201; by December 15th.

City of Rocheport

CITY OF ROCHEPORT

Fax: 573-698-3800

Nov 25 2014 03:42pm

P001/002

ROAD & BRIDGE ANNUAL SUMMARY REPORT

For use by all Entities (Application, Formula and Centralia Special Road District) to provide annual information in accordance with the Cooperative Agreement entered into with Boone County, Missouri (Commission Orders 459-2011 through 471-2011 approved on November 15, 2011, by the Boone County Commission).

Reporting Entity: CITY OF
ROCHEPORT

Reporting on Calendar Year: 2014

Narrative for use of funds received

Narrative on overall condition of roads and bridges within reporting municipality:

Allocation and Expenditure of Funds Received listed by project, with a project description. Include only direct design and construction costs pertaining to roads, bridges and storm water; indirect and other administrative costs are not allowable. Attach extra pages as necessary.

Projects with descriptions _THE CITY HAS DELAYED ANY STREET REPAIR OR MAINTENANCE FOR THE 2014 YEAR. OUR ENGINEER IS PREPARING STREET WORK FOR THE SPRING OF 2015.

P002/002

ROAD & BRIDGE ANNUAL SUMMARY REPORT

Page 2

[illegible]

TOTAL

\$16,457.51

I declare that I have examined this report, including accompanying schedules and statements, and to the best of my knowledge; certify that the information provided above is true, complete and accurate.

SHIRLEY JENKINS-OLD

11-25-14

Signature _____

Date _____

CITY

CLERK

Title _____

SHIRLEY JENKINS-OLD

698-3245

573-

Printed Name _____

Day Time Phone number

Complete this report and send to Boone County Resource Management, Attn: Kelle Westcott, 801 East Walnut Room 315, Columbia, MO 65201; by December 15th.

City of Sturgeon

ROAD & BRIDGE ANNUAL SUMMARY REPORT

For use by all Entities (Application, Formula and Centralia Special Road District) to provide annual information in accordance with the Cooperative Agreement entered into with Boone County, Missouri (Commission Orders 459-2011 through 471-2011 approved on November 15, 2011, by the Boone County Commission).

Reporting Entity: City of Sturgeon

Reporting on Calendar Year: 2014 - 2015

Narrative for use of funds received
Chip + Seal Project

Narrative on overall condition of roads and bridges within reporting municipality:
Good - with continual upgrades

Allocation and Expenditure of Funds Received listed by project, with a project description. Include only direct design and construction costs pertaining to roads, bridges and storm water; indirect and other administrative costs are not allowable. Attach extra pages as necessary.

Projects with descriptions
Chip + Seal Project for City of Sturgeon

ROAD & BRIDGE ANNUAL SUMMARY REPORT

Page 2

Date		Page	
		1	
		2	
		3	
		4	
		5	
		6	
		7	
		8	
		9	
		10	
		11	
		12	
		13	
		14	
		15	
		16	
		17	
		18	
		19	
		20	
		21	
		22	
		23	
		24	
		25	
		26	
		27	
		28	
		29	
		30	
		31	
		32	
		33	
		34	
		35	
		36	
		37	
		38	
		39	
		40	
		41	
		42	
		43	
		44	
		45	
		46	
		47	
		48	
		49	
		50	
		51	
		52	
		53	
		54	
		55	
		56	
		57	
		58	
		59	
		60	
		61	
		62	
		63	
		64	
		65	
		66	
		67	
		68	
		69	
		70	
		71	
		72	
		73	
		74	
		75	
		76	
		77	
		78	
		79	
		80	
		81	
		82	
		83	
		84	
		85	
		86	
		87	
		88	
		89	
		90	
		91	
		92	
		93	
		94	
		95	
		96	
		97	
		98	
		99	
		100	

TOTAL

\$54,492.50

I declare that I have examined this report, including accompanying schedules and statements, and to the best of my knowledge; certify that the information provided above is true, complete and accurate.

Signature _____

Signature John P. Dingerich

Date _____

11/24/14
Date

Title

Title Maintenance Superintendent

Printed Name

John J. Gingerich

Day Time Phone number

573-687-3321

Complete this report and send to Boone County Resource Management, Attn: Kelle Westcott, 801 East Walnut Room 315, Columbia, MO 65201; by December 15th.

City of Sturgeon



1620 Woodson Road
St. Louis, Missouri 63114

(314) 219-7303
FAX: (314) 991-9624

June 6, 2014

John Gingrich
City Superintendent
303 Station Dr., P.O. Box 387
Sturgeon, MO 65284

Dear Mr. Gingrich:

Per our recent discussion, Missouri Petroleum Products Company, LLC will be able to offer our services for the price we offered for the work performed on the 2013 project for the city. This offer is predicated on the understanding that the work can be accomplished immediately before or after our work in Boone County is accomplished in late June to early August. Project specifics are as follows:

Aggregate	3/8" limestone
Emulsion	EA90P
Approximate Quantity	17,750 square yards
Cost	\$3.07 per square yard
Contract Amount	\$54,492.50

We welcome the opportunity to partner with the city of Sturgeon and will await your response to our proposal. We will need a reply no later than June 15, 2014 so that we can secure the proper amount of materials for the project and that we may schedule the additional work.

Under the terms of this agreement, \$10,000 will be paid upon completion of the work with the remaining balance due on or before November 15, 2014.

An executed signature from a Sturgeon city official will serve as authorization for Missouri Petroleum Products Company, LLC to proceed with the project. We look forward to working with you and the city of Sturgeon.

Sincerely,

Patrick G. Palmer, P.E.
Government Services Manager

This document serves as formal authorization for Missouri Petroleum Products Company, LLC to treat the streets in the city of Sturgeon in accordance to the provisions established in this communication.

Print, Sign and Date for authorization
Sturgeon, Missouri

Print, Sign and Date for acceptance
Missouri Petroleum Products Company, LLC

City of Sturgeon

Chip & Seal
2014

		Square feet	Square yard
	N Turner - W Stone - W Wall	15,606	1,734
	W Wall - N Turner - N Wentz	13,158	1,462
	N Ruby - E Stone - E Wall	17,280	1,920
	E Smith - N Ogden - N Rockford	15,000	1,666
	W Davis - S Wentz - Dead end	15,858	1,762
	S Turner - W Davis - W McDowell	12,564	1,396
	Jones - W McDowell - Robinson	15,104	1,678
	Robinson - Jones - CC	9,114	1,012
170X18	S Walker - Burks - CC 1/2 block	3,060	340
	E & W Burks - Dead end - Bridge		
	W Burks - S Ogden - Dead end	18,532	2,059
	(E Burks - S Ogden - Bridge - Ruby to Rockford already done	24,494	2,721
	S Rockford - E McDowell - E Burks	5,778	642
	Traded for School parking on right of way	165,548	18,392
			X 3.07
			\$ 56,463.44

City of Sturgeon



Entities That Did Not Submit Reports

Village of Hunttsdale

City of McBaine