

2012 ANNUAL REPORT

PREPARED BY:

ALAN BRUBAKER, P.E., P.S.
SUMMIT COUNTY ENGINEER

ISSUED APRIL 5, 2013



Van Buren Road Bridge over the Tuscarawas River Replacement Project



Van Buren Road Bridge Replacement
Beam setting

Mission Statement

Our mission is to serve the Summit County community by maintaining and improving our region's infrastructure, encouraging economic development, and ensuring a safe and efficient transportation system while protecting the environment.



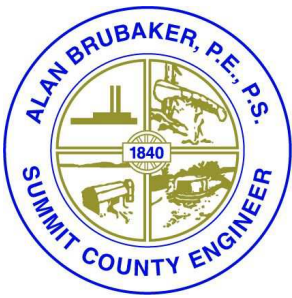
2013 Miniature Bridge Building Competition



North Fork erosion project

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ALAN BRUBAKER, P.E., P.S.

SUMMIT COUNTY ENGINEER

April 2, 2013

Summit County Council
Ohio Building – 7th Floor
175 South Main Street
Akron, Ohio 44308-1314

Dear Members of Summit County Council:

In accordance with Ohio Revised Code Section 5543.02, I respectfully submit the Summit County Engineer's (SCE) annual report for the year 2012. This report reviews the activities of this Office for 2012, highlighting major infrastructure improvement projects and the maintenance of our existing infrastructure. The Office continues to be an active partner with the townships, cities, and villages in their efforts to update and improve local infrastructure systems.

The fourth year in office featured some slight stabilization in the economy, though revenues did not increase to anywhere near pre-recession levels. We, once again, were able to keep our expenditures in line with our revenue while still providing essential services to the public. Notably, our salary and benefits line item was reduced by another \$567,000, representing a decrease of 7% from 2011. These reductions allowed us complete capital projects and even add money to our reserve fund for future operations. In addition, we advanced several initiatives, including expanding the Regional Pavement Maintenance Program and consolidating GIS and payroll functions.

This annual report highlights many of our projects and initiatives. If you have any questions regarding past accomplishments or the future plans set forth within this Annual Report, please contact me at (330) 643-2850.

Sincerely,

Alan Brubaker, P.E., P.S.
Summit County Engineer

Services

Summit County Engineer Alan Brubaker, P.E, P.S.
is pleased to offer the following services to the public:

- Design, construction, inspection and maintenance of Summit County highways, bridges and dedicated stormwater facilities.
- Installation, inspection, and maintenance of traffic safety equipment, signs, traffic control signal systems, and pavement markings on county highways and bridges.
- Snow and ice control on Summit County highways and in other communities by agreement.
- Engineering design and other services to Summit County's cities, villages and nine townships.
- Coordination of local efforts to procure state and federal funding for infrastructure.



Summit County Engineer's employees at the 2013
Miniature Bridge Building Contest

Your Summit County Engineer maintains:

- Over 360 lane miles of roads - in all seasons
- Over 300 bridges throughout the County - and inspects each one, **every** year
- Over 1200 culverts
- Hundreds of miles of road right-of-way and roadside ditches
- Regional storm water facilities, including assessed subdivisions
- Over 30 signalized intersections

**THE SUMMIT COUNTY ENGINEER
HAS A WEALTH OF RESOURCES
AND INFORMATION FOR PUBLIC
USE. PLEASE LET US KNOW HOW
WE CAN HELP YOUR COMMUNITY!**

CALL US AT 330.643.2850

www.summitengineer.net

Here's just some of the resources currently available on our website:

- List of current projects & initiatives
- Conveyance standards
- Bid notices
- Traffic Alerts
- SCE publications
- Surveys
- Subdivision plats & documentation
- Monument mapper
- County maps
- Road and bridge permit forms
- Township services forms

Notable Events

Expanded Regional Pavement Maintenance Program

In 2011, the Summit County Engineer's office created a regional pavement maintenance program. The office's bid process was opened up to other communities in Summit County. The larger purchasing power created by bidding for pavement maintenance items as one unit had led to a smaller per unit costs for all participants, while the municipalities still maintain local control over the projects. The Summit County Engineer's office administers the County-wide program.

In 2012, our office expanded the program to include a Regional Concrete Road Repair component. We are currently adding a Regional Culvert Replacement Program that will be in place for 2013.



Workers pour concrete for the new deck on the Akron Peninsula Road Bridge

Canton Road/Springfield Lake Drive Traffic Signal Installation

In 2012 the Summit County Engineer's office completed the installation of a much anticipated traffic signal at the intersection of Canton Road and Springfield Lake Drive. The installation of the traffic signal at Springfield Lake Drive and Canton Road is part of the Summit County Engineer's efforts to improve safety at the intersection and along the Canton Road corridor between Sanitarium Road and Waterloo Road. The communities of Springfield Township and Lakemore Village requested the signal many years ago and we are very pleased to be able to follow through with the construction of the signal.

This project also represents our continued partnership and cooperation with the Ohio Department of Transportation for the improvement of the Canton Road corridor. We have additional work and safety improvements planned for 2013 and beyond.

Bridge Load Rating Project

Summit County maintains over 300 bridges. For the past few years we have been successful in obtaining funding for load rating all of our bridges meeting the requirements of the Federal Highway Administration. In 2012 we completed the fourth and final round of load ratings.



Ribbon cutting for the Van Buren Road Bridge

\$33,948.95 less than the official engineer's estimate of \$1,002,682.95. A ribbon cutting ceremony was held on September 7, 2012.

Akron-Peninsula Road Bridge

In 2012 we found the Akron Peninsula Road Bridge over Robinson Run was in need of immediate repair. Due to the emergency nature of the project, this bridge rehabilitation became the first "design-build" project administered by this office. The contractor made the necessary repairs and replaced the bridge's concrete deck. The project was a success and the bridge reopened in December of 2012.

Van Buren Road Bridge over the Tuscarawas River

SCE completely replaced the Van Buren Road Bridge over the Tuscarawas during the spring and summer of 2012. The road opened thirty-six days ahead of schedule. Kenmore Construction was the contractor on the project. The cost of the project was \$968,734.00, which was

Notable Events

Federally Funded Projects

The Summit County Engineer's office moved forward with several projects for which we applied for and received federal funding. The improvement of two portions of Riverview Road, a stretch of Cleveland Massillon Road, and Quick Road were designed in 2012 and are expected to be constructed in 2013. Public Lands Highway Discretionary funds were used to resurface Akron Peninsula Road in 2012. The amount of money brought in to our office for these projects is almost \$4 million dollars.



Cleveland Massillon Road (31st Street) Bridge over Hudson Run

This was a complete bridge replacement project. The construction cost of the project was \$870,157.33, with federal funding covering \$696,125.86 of those costs. The Summit County Engineer's office was able to obtain additional federal funds for this project by starting construction in 2012. Wolf Creek Engineering and Contracting was the contractor.

Boston Mills Road "in-place recycling" project

The new bridge was built with an additional lane and a sidewalk on the east side to accommodate the future plans to widen 31st Street in Barberton and Cleveland Massillon Road in Norton. The Summit County Engineer's office worked with the City of Barberton and the City of Norton to maintain uniformity of the roadway. Barberton plans to widen 31st Street in 2014 or 2015.

Aid to Summit County Communities

The Summit County Engineer's office was able to offer aid to townships and municipalities in Summit County in order to help with salt purchase requirements. Since the 2011/2012 snow and ice season was very mild, several local governments could not fulfill their minimum salt purchase as required by the vendor, as they had no place to store the purchased salt. We were able to buy salt from the local governments in order for them to complete their purchase requirements, saving local governments thousands in storage fees.

Advanced Consolidation and Cooperation in County Government

In addition to expanding the Regional Pavement Maintenance Program, we also consolidated our GIS section with the Executive's office and the Fiscal office. Now the Executive's Office of Community Development and GIS oversees all of the County's GIS functions. They also are now responsible for house numbering. SCE still houses one GIS technician to support our engineers' needs.

We also combined our payroll personnel with the Executive's office Human Resource division. One employee will now be doing SCE payroll along with payroll for the Department of Environmental Services.

Harrington Road Bridge over the Tuscarawas Diversion Dam

While our office was in the process of doing repairs to the bridge expansion joints on the Harrington Road Bridge, we discovered deterioration of the concrete deck at both ends of the bridge, as well as deterioration to concrete encased steel bearings between the bottom of the deck and the bridge abutments seats. The Summit County Engineer's office met with engineering and construction consultants and devised a plan to repair the bridge. The Summit County Engineer's bridge crews along with a contractor worked very hard to get the bridge repaired and reopened for the Bridgestone Invitational and Susan G. Komen Race for the Cure.

In 2013 we will partner with the Ohio Department of Natural Resources to rehabilitate the bridge at the same as ODNR makes dam improvements. Work will be conducted and complete before the Bridgestone Invitation in 2013.

Public Services Division

The Public Services Division is responsible for maintaining over 360 lane miles of county roadway, 315 bridges, over 1,200 culverts, guardrail, berms, vegetation control, ditches, pavement markings, traffic signals, tree trimming and removal, deceased animal removal, driveway culvert pipes, fleet maintenance, retention and detention ponds, roadside mowing, and snow and ice control. The men and women in the Public Services Department are most often the public face of this office. They do so much more than just maintain the roadway. They are often rebuilding culverts, driveway pipes, dredging retention or detention ponds, providing snow and ice control or providing pavement markings.

The Public Services Division's administrative office and the South Street Station are located at 601 East Crosier Street in Akron, with an outpost at Boston Mills Station located in Boston Township. Bath, Boston, Copley, Coventry, Northfield Center, Richfield, Sagamore Hills, Springfield and Twinsburg townships are provided general maintenance and snow and ice control by our department. We also provide snow and ice control for the City of New Franklin by contract. In addition to our South Street and Boston locations, the County has salt storage facilities in Bath, Lakemore and New Franklin.

In 2012 a total of 1,095 requests for service were received and completed, 197 animals were picked up and disposed of, 121 ditches were cleaned, 37 traffic signal malfunctions were repaired, 131 tree problems and 19 road shoulder repairs were handled. The department used 2,406 tons of stone, 2,000 ft. of culvert pipes (various sizes), 1,300 tons of asphalt and 9,200 tons of salt.

Harrington Road Bridge repairs



Public Services Division

Our South District replaced a crossover pipe on Jacoby Road. Ditch enclosure repairs were performed on Lockwood Road, State Street, and Jacoby Road. A fallen tree was removed from Pontius Ditch, and a beaver dam was removed from Hughes Ditch. In addition, roadside mowing and numerous driveway culverts replacements, ditch cleanouts and asphalt patching was performed thought the South District.

Our North District replaced crossover pipes on Riverview Road, and Bath Road. The crew installed a trench drain on Bath Road, and installed a new catch basin on Bath Road at Church Drive. A failing ditch enclosure was removed on highland road and was replaced with an open roadside ditch. On Boston Mills road west of Blue Hen Falls, the crew stabilized the ditch line to prevent further erosion. In addition, roadside mowing and numerous driveway culvert replacements, ditch cleanouts and asphalt patching was performed in the North District.

Our Ditch Crew cleaned out and rebuilt, to original specifications, retention basins at Ridge top Estates in Twinsburg Township, Creek side Allotment in Copley Township, Hillside Allotment in Copley Township, Chenoweth Estates in Springfield Township, Red Hawk Reserve in Sagamore Hills Township, and Kingsbury Trace in Copley Township. The Crew improved a retention pond by raising the dam and building a new emergency spillway in Kingsbury Crossing in Copley Township. A slide area was repaired on Sourek Road. A headwall was replaced and rock channel protection was placed in Bath County Estates in Bath Township. The crew also performed erosion control on a retention pond in Kingsbury Crossing in Copley Township, and performed ditch maintenance work in Foxtail Trail Allotment in Copley Township.



Portage Lakes Drive Culvert Repair

Material Usage

	2009	2010	2011	2012
Salt (in tons)	14,160	16,400	20,000	9,200
Stone (in tons)	5,500	3,400	19,000	2,406
Asphalt (in tons)	2,300	2,000	1,300	1,300
Culvert Pipe (in feet)	5,100	2,300	1,300	2,000



Hillside Allotment Retention Pond Restoration

Public Services Division

Bridge Section



Brush Road Guniting Repair

In 2012, our Bridge Crews were busy sandblasting, forming and pouring concrete to replace crumbling parapet walls, wing walls and other important components of the bridges that comprise the lifeline of our commerce. The following highlighted projects demonstrate work performed by this crew in 2012.

Harrington Road Bridge (AKR 227-0023): Expansion Joint Repair

High Level Bridge (AKR-8-0908): Routine bi-annual maintenance.

Brush Road Bridge (RFT 178-0206): Guniting repair.

Graybill Road Bridge (GRT 248-0121): Waterproofing project.

Reimer Road Bridge (NTC 211-0178): Waterproofing project.

Everett Road Bridge (BST 47-0502): Waterproofing project.

Cleveland Massillon Road Bridge (BAT 17-1899): Extensive scour repair.

Granger Road Bridge (BAT 79-0283): Guniting Repair and modify slope protection

North Street Bridge (AKR 10-0208): Guardrail and guniting repair.

In addition to work mentioned above, the Bridge Crew performed an emergency culvert repair on Portage Lakes Drive in Coventry Township, removed numerous log-jams, performed bridge deck washing and other various maintenance tasks.



North Fork erosion project

Engineering Division

The Engineering Division is active in the development of plans for highway, drainage, and bridge improvements and new construction on Summit County roads. The engineers and technicians prepare improvement plans for federal, state and locally funded projects on County highways. They also assist townships by preparing plans for township roads and drainage systems. Our project managers are responsible for overseeing large projects from initial scoping through the design phase and into construction.



Northampton Road Bridge Replacement

Akron Peninsula Road Resurfacing Part Two

Akron-Peninsula Road was improved from 300' south of Truxell Road to the Cuyahoga Falls Corp. Line. The existing road was milled, pavement repairs performed, new asphalt placed, and new pavement markings applied.

Boston Mills Road Resurfacing

Boston Mills Road, from Riverview Road to the Summit County Engineer's Maintenance Station was resurfaced. The existing road was recycled into the base for the new road by a process known as "Single Pass In-Place Asphalt Recycling." 405 Motor Paving and 422 Seal Coat was then installed as the intermediate and surface courses.

2012 Summit County 405 and 409 Resurfacing Program

- Martin Road from Cuyahoga Falls corporate line to Bath Road
- Black Road from Boston Mills Road to Columbia Road
- Ira Road from Hametown Road to Cleveland-Massillon Road
- Pickle Road from Killian Road to Krumroy Road

2012 448 Resurfacing

- Revere Road from Shade Road to Ira Road
- Jacoby Road from Copley Road to Ridgewood Road

2012 Crack Sealing Program for Summit County

- Cleveland Massillon Road from Springside Drive to Ghent Road
- Summit Road from Cleveland Massillon Road to Jacoby Road
- Portage Lakes Drive from S. Turkeyfoot Road to S. Main Street
- State Street from SR 93 to New Franklin
- Warner Road from Arlington Road to La Force Road
- Wheatley Road from the I-77 ramp to Revere Road
- Brookwall Road from Springside Drive to Cleveland Massillon Road

2012 Asphalt Rejuvenating Program

- Pickle Road from the City of Green to Killian Road
- Old Mill Road from the City of Twinsburg to Ravenna Road
- Bath Road from Revere Road to Shade Road
- Revere Road from Bath Road to Shade Road
- Albrecht Road from Edith Road to SR 532
- Akron Peninsula Road from the Village of Peninsula to 500' south of Quick Road
- Warner Road from La Force Road to Arlington Road

Summit County 2012 Spot Paving Program

- Bath Road from Shade Road to the Cuyahoga Falls line
- Boyden Road from Highland Road to SR 82
- Sourek Road from Revere Road to Ghent Road
- Everett Road Bridge deck over Riding Run
- Graybill Road Bridge deck over Heckman Ditch
- Reimer Road Bridge deck over Van Hying

Engineering Division

Survey Section

The Summit County Engineer's Survey Section has a survey field crew under the direct supervision of a Professional Surveyor to perform surveying for internal departments and townships. A Trimble 5600 robotic total station, Topcon 300 series total station and a data collector with TDS software are used to collect survey data. Computers with Civil 3D CAD and specialized survey software are used to process and analyze the field data to create the base mapping for design and field staking purposes. The Survey Section also has six GPS receivers to establish horizontal and vertical control on jobsites. Two of the GPS receivers were purchased in 2012 and can receive dual frequencies from GPS satellites and can utilize the Ohio department of Transportation's (ODOT) Continuously Operating Receiver System (CORS)/Virtual Reference System (VRS), which provides real time coordinates having survey accuracy. The survey Section annually prepares and adheres to an efficient and cost effective budget.



The Survey Section provided various surveying services including record research, plan review, topographical mapping, field staking, calculations to determine road centerline, right-of-way lines, property lines, and the preparation of legal descriptions for drainage projects.

The Survey Section provided:

- Fifteen legal descriptions for proposed easements on 10 different projects.
- Base mapping and plan review for 11 in-house drainage projects.
- Field staking of proposed acquisition areas to aid in easement acquisitions on three projects.
- Measurements and reports to monitor landslide movement of a portion of Revere Road, the 2011 repairs to Portage Lakes Drive, and to verify the lack of movement in concrete wingwalls of a bridge in Stow.
- Survey control to monitor alleged movement affecting concrete sidewalks at the Coventry Township Clock Tower.
- Staking for road right-of-way and drainage easements at the request of the SCE Public Service Department to aid with a right-of-way encroachment, a signal pole installation and three ditching projects.
- Verification of road survey monumentation in new subdivisions.
- Review of major subdivision plats, and survey drawings and legal descriptions for parcel splits and consolidations to ensure they met state and local standards.
- Mapping and legal descriptions for a petition by Boston Township to the County Council for the proposed township vacation of three roads.
- Survey coordination and plan review with consultants for three bridge improvements.
- Research assistance to surveyors, engineers, and the public for various public and private projects.

The Survey Section continues to perpetuate the integrity of the road surfaces by surveying for the placement of Monument Boxes that are installed during County paving projects. Since a portion of everyone's property borders a road, private surveyors need to dig holes in the pavement to find old survey pins that define the centerline of that road. The holes can be more than a foot deep and soon turn into large "pot holes". We survey to determine the centerline of road right of way in coordination with a pavement resurfacing project. Monument Boxes with lids containing survey pins marking the centerline can then be installed at the surface of the pavement during the paving project. This allows private surveyors easy access to the monument box to the pins they need to perform surveys for the public and other improvement projects. This helps to eliminate unnecessary potholes

Engineering Division

Survey Section

The Survey Section set or reset road centerline of right-of-way monumentation on or along 7 county highways and 1 township road in conjunction road resurfacing projects. The monumentation includes survey pins set or verified inside 7 monument boxes defining the centerline of right-of-way, 2 survey pins set outside the pavement defining the point of intersection of the centerline of right-of-way, 27 metal survey spindles defining the centerline of right-of-way, 33 metal survey Mag nails defining the centerline of right-of-way and 23 pins set along the right of way. The monument boxes, spindles and Mag nails are set flush with the pavement and are accessible to surveyors without damage to the roadway pavement.

The Survey Section has been instrumental on establishing and maintaining the geodetic survey monumentation that comprises the foundation of the Summit County GIS program. Data sheet information on these survey monuments can also be found through the "ON LINE TOOLS" section on the Summit County Engineer website: <http://www.summitengineer.net/resources/tools>

The Survey Section maintains road and survey record information in a data base format. This allows us to better serve the residents of Summit County.

Public Records on File

- Geodetic control in Summit County used to reference the GIS
- Records for County and Township Roads
- Road improvement plans
- Road Dedication and Vacation Plats
- Summit County survey field notes
- Survey Drawings of Minor Subdivisions
- Records of Summit County Surveys
- State Road Improvement Plans
- Major Subdivision Plats and Improvement Plans in unincorporated areas
- Ditch and Drainage Records
- Summit County Bridge Records
- Cemetery Maps
- Survey Maps of Ohio-Erie Canal

Right-of-Way

Many projects require the acquisition of additional property from adjacent landowners. This process is tightly regulated by state and federal requirements.

Our office is highly fortunate to have a dedicated ROW Manager to handle our right-of-way acquisitions. He personally does the acquisition himself or oversees consultants who perform the work on our behalf. Furthermore, our ROW Manager is THE ONLY person in the entire state to be qualified by the Ohio Department of Transportation to perform all phases of property acquisition (title research, appraisals, appraisal review, negotiations, and closings). In addition, he possesses an Ohio Certified Residential Appraiser License.

In addition, to acquiring property for this office, he has also acquired property for other government agencies that do not have acquisition capabilities.

Right-of-Way acquisition performed by this office in 2012 is as follows:

- Canton Road Signal Installation – Acquired 2 easements for \$3,000.
- Cleveland-Massillon Rd. Bridge over Hudson Run Replacement – Acquired 5 easements and property for \$5,360.
- Cottage Grove Culvert Replacement – Acquired 2 easements for \$600.
- Iris Drive and Bender Drive Culvert Replacement – Acquired 2 easements for \$900.
- Kingsbury Trace Detention Basin Improvements – Acquired easement by donation.
- Krebs Drive Culvert Replacement – Acquired 2 easements by donation.
- S. Main St. and Whitefriar Drive Sanitary Sewer Extension – Acquired 3 easements for \$24,400.

Engineering Division

Bridge Section

The Summit County Engineer Bridge Section is responsible for bridge inspections, bridge inventory, coordination of our bridge maintenance program and developing recommendations for rehabilitation or replacement of County bridges. The bridge section also reviews all bridge plans prepared by consultants. Our project inspectors serve a dual role. They are ODOT certified bridge inspectors and perform our bridge inspections annually to ensure they remain safe for the traveling public.

RECENTLY COMPLETED BRIDGE PROJECTS

31st Street (Cleve-Mass Rd) Bridge over Hudson Run in City of Barberton – Total bridge reconstruction completed in December 2012.

Van Buren Road Bridge over Tuscarawas River in City of New Franklin – Total bridge reconstruction completed in August 2012.

BRIDGE INSPECTION

Summit County Bridges – Completed required inspections and inventory of all 314 bridges.

MetroParks Serving Summit County Bridges – Completed 3rd year inspection and inventory of 7 highway/ pedestrian bridges and 25 pedestrian bridges for MetroParks Serving Summit County.

BRIDGE LOAD RATINGS

Summit County Bridges – The Federal Highway Administration (FHWA) requires all bridges over 20 Ft clear span in the United States be load rated. The Summit County Engineer has currently load rated 100% of the 176 eligible bridges.

COMMUNITY INVOLVEMENT

The Bridge Section participates in the Annual Miniature Bridge Building Competition. This year's competition featured 38 teams of Summit County High School students.

UPCOMING BRIDGE CONSTRUCTION

- **Cleveland Massillon Road Bridge over Van Hyning Run** in City of Norton.
- **Greenwich Road Bridge over Branch of Hudson Run** in the City of Norton.
- **East North Street Bridge over Little Cuyahoga River** in City of Akron.
- **Ravenna Road Bridge over Tinkers Creek** in Twinsburg Township.
- **Ravenna Road Bridge over Tinkers Creek** in City of Hudson.
- **Medina Line Road Bridge over Branch of Yellow Creek** in Bath Township.
- **South Main Street Bridge over Portage Lakes Feeder Channel** in Coventry Township.



Beam setting on the Van Buren Road Bridge over the Tusc

UPCOMING BRIDGE MAINTENANCE

- **Hametown Road Bridge over Hudson Run** in City of Norton – Gunite repairs of prestressed concrete box beams.
- **South Main over Nimisila Creek** in City of New Franklin – Concrete patching of bottom of prestressed concrete box beams.
- **Overture Way over Channel C** in City of New Franklin – Place rock channel protection in scour hole.
- **Akron-Peninsula Road Bridge over Haskell Run** in Village of Peninsula – Gunite concrete repairs to side and bottom of deck slab.
- **Boston Mills Road Bridge over Brandywine Creek** in City of Hudson – Scour mitigation with rock channel protection.
- **Everett Road Bridge over Furnace Run** in Richfield Township – Scour mitigation with rock channel protection along east abutment footer.
- **Hudson Drive Bridge over Powers Brook** in City of Stow – Scour mitigation with rock channel protection and gunite repairs to bottom of deck slab.
- **Olde 8 Road Bridge over Branch of Cuyahoga River** in Sagamore Hills Township – Fill scour hole at outlet with Rock Channel Protection.
- **Riverview Road Bridge over Slipper Run** in Village of Peninsula – Fill scour hole at outlet end with Rock Channel Protection and/or Concrete

**Summit County Engineer
Bridge Facts**

314 total bridges
118 in Townships
196 in Cities and Villages

Planning Section

Supported Committees & Organizations:

The Planning Section supports and regularly attends meetings of various committees and organizations that affect roads and bridges in the County. Attendance at these meetings enables this Office to communicate the impact of their projects on County facilities, advise them of County projects that may affect their programs, and assist in planning County projects to co-ordinate with other community programs. This office participated in the following committees and organizations:

- National Pollution Discharge Elimination System Phase II County-wide Program
- Heritage Corridors of Bath Scenic Byway
- Northeast Ohio Four County Planning and Development Organization (NEFCO) Environmental Technical Advisory Committee (TAC)
- Akron Metropolitan Area Transportation Study (AMATS) Technical Advisory Committee
- Yellow Creek Watershed Group
- Heritage Corridors of Bath
- Muskingum Watershed Conservancy District
- SCE representative to Bath Township
- Providing municipal engineering services to the City of Norton



Bath Nature Preserve Underpass

G.I.S. Section

The Geographic Information System (G.I.S.) Section is a complement to our engineering section by supporting the design engineers by creating design drawings, mapping infrastructure features, including the mapping of infrastructure features using handheld G.P.S. equipment and other miscellaneous spatially based mapping necessary to provide information to make informed engineering decisions. They also provide the Summit County maps to the public.

Summit County Map Update

The G.I.S. Section is currently updating the county map to reflect changes made since the 2011 update.

House Numbering

House numbering duties performed by the Summit County Engineer have been transferred to the Planning and GIS Division of the Summit County Department of Community and Economic Development. 330-643-2723

AutoCad Civil 3D

The G.I.S. Section uses AutoCad Civil 3D 2013 to prepare in house plans for county construction projects.



Engineering Division

Drainage Section

The Drainage Section coordinates requests, reviews, inspects, designs and schedules improvements to ditches, culverts, storm sewers and other drainage-related items for landowners, townships and/or County maintenance. Preliminary studies and improvement plans were prepared for several township and county drainage projects. There were several proposed commercial improvement plans reviewed in the townships as well as several drainage studies and storm sewer replacement projects. There were 8 ditch restoration projects coordinated with the Summit County Engineer's Maintenance Department Ditch Crew and 7 drainage projects are in various stages of design.

2012 Ditching Projects

Township	Location	Type of Work
Bath	Bath Reserve	Retention Basin Maintenance
Copley	Creekside Estates Phase 1	Detention Basin Maintenance
Copley	Hillside Phase 1	Detention Basin Maintenance
Copley	Kingsbury Trace Crossing Phases 1 and 2	Detention Basin Reconstruction
Copley	Kingsbury Trace Phase 4	Detention Basin Maintenance
Copley	West Ridge Estates Phase 4	Catch Basin Repairs
Springfield	Chenoweth Country Club Estates	Detention Basin Maintenance
Sagamore Hills	Eaton Estates	Detention Basin & Culvert Maintenance

2012 Drainage Projects

Bath	Treecrest Drive Drainage Improvements	Active Petition Ditch Project
Copley	Hamtown/Ridgewood Drainage Study	Design completed
Copley	Janwood Drive Culvert	Design Completed
Copley	Wedgewood Subdivision Drainage	Design Underway
Coventry	Cottage Grove Colvert	Construction in 2013
Coventry	Krebs Drive Culvert	Construction in 2013
Various	2013 Culvert Contract—Culverts on Boyden and Revere Road	Construction to be Completed 2013

2012 Commercial Plan Reviews

Bath

- Homewood & Fairfield Suites -Springside Drive

Copley

- 2879 Reserve Drive Warehouse Addition
- Akron Fossils & Science Center—S. Cleveland Massillon Road
- CNS Building Addition—Focus Drive
- Conrad's Tire—Ridgewood Crossing
- Foxtail Glen Apartments Building Addition
- Gordon Food Services—Rothrock Road
- Team Health—Ridge Park Business Corridor
- Walmart—200 Rothrock Road
- Winking Lizard— Brookwall Drive

Coventry

- All About Kids Daycare—Waterloo Road
- Coventry Schools Bus Garage—Manchester Road
- Sterling Jewelers—Logan Parkway

Sagamore Hills

- Brandywine Ski Resort Addition—W. Highland Road
- Northcoast Behavioral Healthcare—Sagamore Road

Springfield

- 2863 S. Arlington Road Office Building
- Dollar General—Canton Road
- Wayside Furniture Building Addition—Canton Road

Engineering Division

Allotment Section

The Allotment Section works with developers, engineers, contractors, governmental agencies and the public to regulate the design, construction and acceptance of subdivisions. This section also coordinates inspections under the Engineer's annual stormwater maintenance program. This consists of inspecting detention/retention ponds, catch basins, headwalls and storm sewers in subdivisions throughout the County. When required, corrective measures are taken to update the stormwater facilities to assure that stormwater is appropriately managed in allotments.

2012 Subdivision Review & Construction Inspection

- GFS Marketplace Subdivision
- Natures Preserve Phase 1
- Ridgewood Crossing No. 2
- Richfield Industrial Park



2011 FINAL PLATS			
TOWNSHIP	SUBDIVISIONS	SUBLOTS	ACRES
Bath	1	2	5
Copley	2	5	16
Coventry	3	6	2.5
Richfield	1	5	16
Springfield	1	28	17
Twinsburg	1	28	17
TOTALS	9	48	57

2012 PRELIMINARY PLANS			
TOWNSHIP	SUBDIVISIONS	SUBLOTS	ACRES
Copley	2	5	16
Richfield	1	1-Block	96
Twinsburg	1	28	17
TOTALS	4	33	129

Highway Section

The Highway Section is responsible for highway design, installation and maintenance of traffic control devices such as signs, pavement markings and traffic signal systems/warning flashers. These functions are integral parts of all improvements made to the Summit County highway system. In addition to the section's primary function of preparing plans for roadway improvements, the Highway Section also conducts studies and/or evaluations of roadway traffic, geometrics, physical features and access. The Highway Section determines the need for signage, guardrail, lane assignments/construction, speed limit revisions and other safety capacity improvements. This Section also reviews and coordinates construction projects to ensure that alternate routes for traffic detours are free of major obstructions and available during the construction season.

Design Complete	Studies Complete
Bath — Cleveland Massillon Road Improvements (SR 18 to Ghent Road)	Coventry/Barberton — Lockwood Road Speed Limit Study
	Richfield — Southern Road Speed Limit Study
Current Design	Springfield — Portage Line Road Speed Limit Study
Bath — Cleveland Massillon Road Improvements (Ghent to Ira Roads)	Springfield — Killian Road Speed Limit Study
Boston — Riverview Improvements (Ghent to Ira Roads)	
Boston — Quick Road Improvements (Cuyahoga Falls line to Northampton Road)	Current Studies
Boston — Riverview Road Improvements Phase 2 (Peninsula line to Boston Mills)	Copley — Monstrose Speed Limits
Boston — Riverview Road Improvements Phase 3 (Boston Mills to the Cuyahoga County line)	Copley — West Ridge Estates Parking Study

Engineering Division

Construction Section

The Construction Section is responsible for the quality, cost, and timeliness of improvements to the County's highways and bridges. This includes reviewing preliminary plans, acquiring property, relocating utilities, construction inspecting construction, testing construction materials, and completing final construction contract documents.

The Construction Section provides assistance as requested by townships and various other municipalities, which may include review of construction documents and plans, preparation of cost estimates and bid documents, inspection of construction activities and contract administration. In addition the Construction department administers permits for road openings and closings, special hauling, ditch enclosures, and driveway culverts. The Construction section encompasses the ROW Section (Page 10) and houses the bridge inspectors, who annually inspect all Summit County owned bridges (Page 11).



Akron Peninsula Road Improvements

Utility Coordination

Existing utilities, private and public, overhead and underground, conflict with almost every construction project. Our Utility Coordinator is responsible to ensure that all conflicts are identified and addressed before construction begins. This entails detailed reviews of preliminary construction plans, visits to the proposed construction site, and constant coordination with representatives of the utility companies.

In addition, to coordinating utilities for this office, our Utility Coordinator also performs this work for other government agencies that do not have a Utility Coordinator.

Construction Management, Inspection, and Materials Testing

Our project coordinators and construction inspectors work with the general contractors to ensure that work is performed in conformance with the contract documents.

In 2012, the Construction Section managed 45 projects worth \$7,864,000.

Regional Pavement Maintenance Program

The Construction Section manages the Regional Pavement Maintenance Program. We invite all pavement owners in Summit County to join in joint projects for common roadway maintenance work types. The goal is to achieve savings through economy of scale and standardization of specifications.

The individual entities develop their own scopes and provide their own inspection. This office condenses the numerous smaller projects into larger projects and advertises, awards, and administers the projects.

This year, 10 individual local governments participated. 28 individual projects were combined into 6 larger projects worth \$3.0 Million.

Engineering Division

Construction Section

Road Projects

Akron-Peninsula Road Part 2	\$ 762,000.00
Boston Mills Road Improvements	\$ 183,000.00
Canton Road Traffic Signal	\$ 105,000.00
Spot Paving	\$ 139,000.00

Bridge Projects

Akron-Peninsula Road over Robinson Run Deck Replacement	\$ 180,000.00
Cleveland-Massillon Road Bridge over Hudson Run Replacement	\$ 939,000.00
Van Buren Road Bridge over Tuscarawas River Replacement	\$ 988,000.00

Drainage Projects

Twinsburg Rd Culvert Replacement	\$ 24,053.62
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Pavement Rehabilitation

Hot Mix Asphalt Resurfacing - 448 North	\$ 210,000.00
Hot Mix Asphalt Resurfacing - 448 South	\$ 189,000.00
Resurfacing - Seal Coat and Motor Paving	\$ 457,000.00
Pavement Marking	\$ 140,000.00
Pavement Rejuvenation	\$ 50,000.00
TOTAL	\$ 4,342,000.00

2012 Regional Pavement Maintenance Program

Hot Mix Asphalt Resurfacing - 448 North	\$ 934,000.00
Hot Mix Asphalt Resurfacing - 448 South	\$ 129,000.00
Pavement Repair for Concrete Roads	\$ 385,000.00
Resurfacing—Seal Coat and Motor Paving	\$ 373,000.00
Pavement Marking	\$ 27,000.00
Pavement Rejuvenation	\$ 78,000.00
Total	\$1,926,000.00

2012 Township Controlled Highway Miles:

Bath	62.37	Boston	10.82
Copley	58.91	Coventry	54.78
Northfield Ctr.	20.75	Richfield	15.71
Sagamore Hills	37.37	Springfield	70.14
Twinsburg	13.43		

Total Township Miles: 344.26

2012 County Controlled Highway Mileage: 182.74

Township Construction Projects Administered, Inspected, and Tested	Projects
Township	Projects
Bath	4
Boston	0
Copley	4
Coventry	3
Northfield Center	1
Richfield	0
Sagamore Hills	6
Springfield	3
Twinsburg	2
	23

TOWNSHIP PROJECTS

Township Cost

Bath Township

Bonnebrook Drive Culvert Replacement \$ 75,000.00

Coventry Township

Iris Drive Culvert and Bender Drive Culvert Replacement \$ 103,000.00
 Krebs Drive Culvert Replacement \$ 24,000.00
\$ 127,000.00

Sagamore Hills Township

Holzhauser Road Improvements Phase II \$ 313,000.00
 Sagamore Hills Loop Trail Park Improvements \$ 412,000.00
 Spring Streets Improvements Phase I \$ 379,000.00
\$ 1,104,000.00

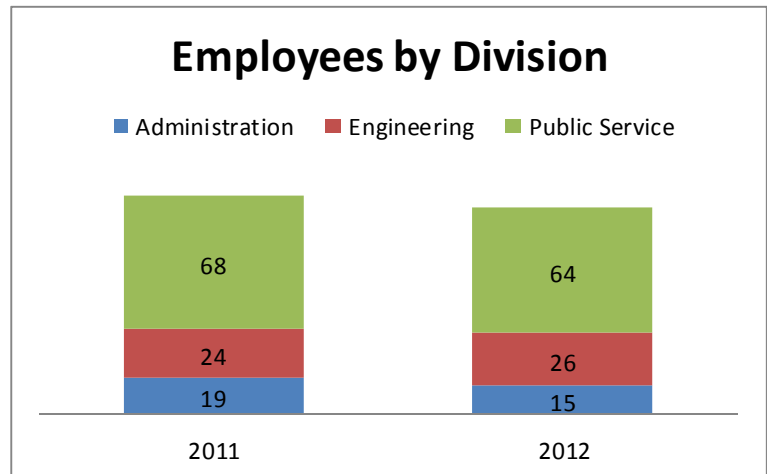
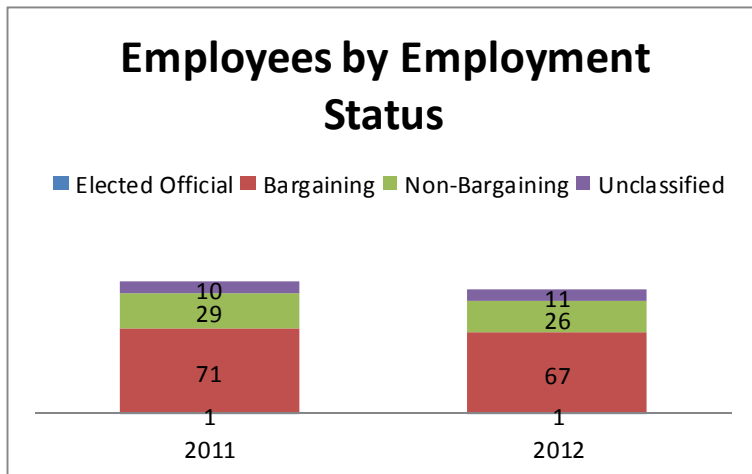
Administration Division

Human Resource Section

The Human Resource (HR) Section coordinates the human resource functions of the Summit County Engineer's Office, acting as a source of information and support for employees and managers in all aspects of employment, including policy, procedure, compensation, benefits, training, and professional development. The HR Section is also responsible for labor relations and Equal Employment Opportunity Compliance for the Engineer's Office.

The HR Section trains employees on current Office, County, state and federal policies and procedures, and assures compliance with federal and state labor and workplace safety laws, County Human Resource Commission Rules, and the County's Classification/Compensation Plan. The section maintains an employee database for the 106 County Engineer employees.

The Engineer's office has managed to control its budget by controlling personnel costs. Our personnel budget is the lowest it has been 1996, even without adjusting for inflation.



IT Section

The Information Technology (IT) Section plans, implements, and supports all hardware, software, and network infrastructure for the Engineer's Office. The IT Section also advances the Office's efforts to incorporate cost-effective technology into our operations to constantly improve our delivery of services and information to the citizens of Summit County.

In 2012 our IT staff helped save money and time by creating or updating software programs designed make our operations more efficient. SCE's computer programmer developed a program that aids our office in recouping license taxes that were mistakenly allocated to the wrong political entity. The program finds incorrect addresses in the system and corrects them in order for their license tax to be distributed to the proper place.

The IT Section also made several changes and upgrades to a program called "Highpoint" which enabled it to more closely match our needs. Highpoint keeps track of our inventory, fleet tracking, and purchasing. In addition, the IT Section designed an application that will centralize our Human Resources database and enable our different programs to "talk to each other", creating a more efficient use of HR staff's time. This application will be deployed in 2013.

Finance Section

The Finance Section provides oversight, control and management of all budgetary functions for the Summit County Engineer's Office. In addition to the typical accounting functions, the Finance Section manages inventory control, asset accounting, cost accounting, budget management and finance planning.

Revenue

Tax revenue posted very modest improvement over 2011 totals. However, total revenue was up dramatically in 2012 due to an unanticipated windfall in excess of \$1million. The "windfall" was actually the result of good research by our engineering staff members who identified unclaimed reimbursements from projects completed years ago. Without the unanticipated revenue from their hard work, the office would have had no growth in revenue for 2012. The extra money will support additional roadwork in 2013 as we make a concerted effort to improve our overall pavement condition rating for the County.

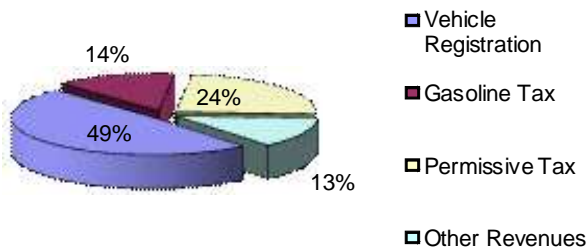
Expenses

We reduced our 2012 expenses to replenish the fund balance to meet our policy standards. We were able to make reductions in all areas without diminishing services. In part, Mother Nature giving us a mild winter that required lower than anticipated salt expenses and less overtime assisted us. Our efforts to reduce expenditures were necessary because in 2011, expenses exceeded revenue and brought our year-end fund balance below the amount required by our minimum fund balance policy.

Fund Balance

Our year-end fund balance increased significantly in 2012 due to the unanticipated revenue and our efforts to control costs. This rebound in fund balance permitted increased capital expenditures in the 2013 budget. The minimum fund balance policy requires our office to prepare a budget that projects a final unencumbered fund balance equal to at least 10% of our annual expenditures and no more than 15% of our annual expenditures. The 2013 budget includes additional capital appropriations to bring our fund balance in line with our policy and catch-up on some needed improvements.

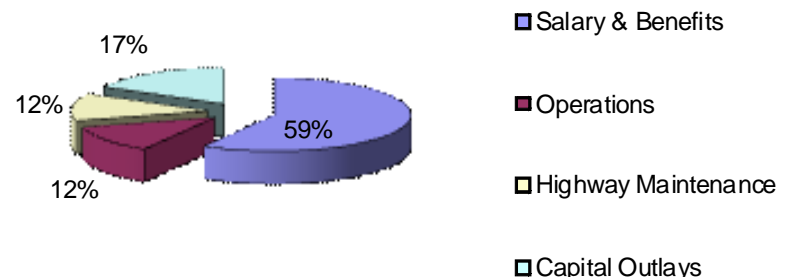
2012 Revenue



REVENUES	2011	2012
Vehicle Registration	\$7,647,232	\$7,851,413
Gasoline Tax	\$2,310,207	\$2,290,681
Permissive Tax	\$3,904,047	\$3,940,213
Other Revenues	\$927,725	\$2,097,646
TOTAL	\$14,789,211	\$16,179,953

2012 Expenditures

EXPENSES	2011	2012
Salary & Benefits	\$8,436,662	\$7,869,592
Operations	\$1,881,751	\$1,665,494
Highway Maintenance	\$2,007,579	\$1,582,376
Capital Outlays	\$2,681,317	\$2,357,027
TOTAL	\$14,917,309	\$13,474,489



Alan Brubaker, P.E., P.S. Summit County Engineer

**Main Office
538 E. South Street
Akron, Ohio 44311
Phone: (330) 643-2850
Fax: (330) 762-7829**

For more information on projects of the Summit County Engineer's Office please contact us or check our website:

www.summitengineer.net

Pothole Season

Summit County Public Services Department is open Monday - Friday 7:30 a.m. – 4:00 p.m. for reporting any potential problems or concerns affecting the roadways throughout the County.

We also have a 24/7 reporting system to gather information reports of roadway problems. To report a pothole or roadway defect call 330-643-2860.

**Summit County Engineer snow-plow drivers work all winter to keep our roads open and safe. Report county roads that need attention, during any season, 24 hours a day, 7 days a week at:
330-643-2860**



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