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## FEBRUARY 17-23



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## Carroll Engineering Corporation

Carroll Engineering Corporation (CEC) has been providing quality engineering and surveying services for 45 years to clients throughout Pennsylvania and New Jersey. The company provides highly recognized professional services to a wide range of authority, municipal, public and private clients in the region. CEC currently has a staff of approximately 90 professionals divided into eight interrelated departments, four of which represent specific engineering functions being Municipal / Authority, Planning & Site Development, Structural, and Traffic & Transportation Services. The remaining four departments include Surveying, Construction Inspection, GIS / Computer Aided Drafting & Design, (CADD), and Administrative, all of which are support departments to our engineering services. Our corporate office is in Warrington, Bucks County. We also have offices in Malvern, Chester County, King of Prussia, Montgomery

County and Hillsborough, Somerset County, New Jersey.

CEC has a staff of professionals with state or national registrations and certifications in engineering, planning, surveying, and geology. In addition to professional registrations, many of our staff have supplemental certificates in specialties such as sewage enforcement, hazardous material removal, bridge inspections, water and wastewater operation, etc. Also, CEC developed MuniLogic, Municipal Management Software, an enterprise-wide system to resolve many of the challenges municipal and authority organizations face. This software allows the municipality or authority to become more efficient, better equipped to comply with regulations, make better decisions and ultimately save money.

To learn more about CEC, please visit our website at [www.carrollengineering.com](http://www.carrollengineering.com). To learn more about MuniLogic, please visit the website [www.munilogic.com](http://www.munilogic.com).

*Congratulations on  
Boyertown's 150*

**ALL COUNTY  
& ASSOCIATES**

Land Surveying • Civil Engineering  
Environmental Permitting

**Building Permit Plans...  
The Maze.**

### BE SURE TO ASK THESE IMPORTANT QUESTIONS!

- |  |  |
|--|--|
| How Do I know if I need a Building Permit Plan?        | What other Agencies will be involved?      |
| What does the typical Building Permit Plan consist of? | How long of a process is this?             |
| What grading or elevation needs to be shown?           | How much does a Building Permit Plan cost? |

Where do I find the help I need to get a Building Permit Plan done? You need to look no further than All County & Associates, Inc. (ACA). ACA is a professional Land Surveying, Civil Engineering and Environmental Permitting firm located in southeastern Pennsylvania ready to serve your Building Permit needs. Our experienced staff works throughout Pennsylvania and has done so since our inception in 1992. As a full service company, ACA has the knowledge and experience to make your goals become a reality.

We offer many other services, including:

- |                                       |  |
|---------------------------------------|--|
| • Subdivision/Land Development Design | • On-site Sewage Disposal System Inspections |
| • Environmental Permitting            | • Boundary Surveys                           |
| • Hydraulic Load Testing              | • Wetland Investigations                     |

**On-site Sewage Disposal System Inspections...Let it flow.**

### BE SURE TO ASK THESE IMPORTANT QUESTIONS!

- |   |  |
|---|--|
| Are you buying a house served by a septic system?     | What is a drainfield?  |
| What type of Septic System do I have?                 | Should the septic system be inspected?                           |
| Where are the components of my Septic System located? | How much does an On-Site Sewage Disposal System Inspection cost? |
| What is a septic tank?                                |  |

Where do I find the help I need to get an On-site Sewage Disposal System Inspection done? You need to look no further than All County & Associates, Inc. (ACA). ACA is a professional Land Surveying, Civil Engineering and Environmental Permitting firm located in southeastern Pennsylvania ready to serve your On-site Sewage Disposal System Inspection needs. Our experienced staff performs inspections throughout eastern Pennsylvania and has done so since our inception in 1992. As a full-service company, ACA has the knowledge and experience to make your goals become a reality.

We offer many other services, including:

- |                                       |                            |
|---------------------------------------|----------------------------|
| • Subdivision/Land Development Design | • Environmental Permitting |
| • Boundary Surveys                    | • Hydraulic Load Testing   |
| • Wetland Investigations              | • Building Permit Plans    |

Land Surveying • Civil Engineering • Environmental Permitting

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## Developing a New Commercial Site

### By Ludgate Engineering Corp.

As Professional Engineers and Surveyors we often are the preparer of "Land Development Plans" for an owner to move their business to a new site, whether to relocate a business or enlarge the development of a present site. Forty years ago, when Bob Ludgate Senior founded our firm, "land development" was pretty straight forward.

We'd start with a boundary survey of the lot and add a topographic survey to show significant ground features and contours.

We'd "spot" the proposed building, lay out the parking, define how to access the highway, and figure out if we could get a sewer hook-up or if we needed to secure a permit for on-lot sewage.

Now Thomas Ludgate is in charge. The basics of "land development" remain, but every element has become more convoluted. While the boundary survey requirements are much the same, the regulators require much more topographic detail. Some of this new detail is needed for stormwater management; some is needed



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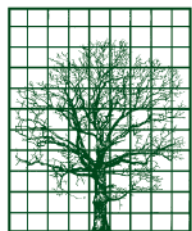
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to analyze how new development might affect the neighborhoods; some, such as locating every tree and bush, is related to more stringent zoning rules.

More information about the building usually is required. Lighting, façade pictures, and access for deliveries were not general requirements in the "old days." Parking layout must accommodate specified handicapped spaces, auto and truck turning paths, and especially careful drainage analysis. Sewer connections have not changed much, but on-lot sewage disposal has many, many new options which must be understood in order to offer our clients the best cost-effective solution.

PADOT did require a permit for a new roadway/driveway connection back then, but these often took only a 15-minute meeting with the county permit technician. Today, the "planning and engineering" for

these driveway permits (HOP) often is the most costly part of the land development process.

The "new wrinkles" in "land development planning" are sophisticated — "Stormwater Management Plans," along with complex "Erosion Control Plans" and multi-level municipal planning reviews. Fortunately, Thomas Ludgate is up to date on these "new wrinkles." He is both a Professional Land Surveyor and a Professional Engineer, but he probably deserves a new kind of professional recognition. Perhaps we could call it "Professional Land Development Process Guru."

Ludgate Engineering Corporation is located at 10 Vanguard Drive, Suite 90, Reading, PA 19606; 610.404.7330; [www.ludgate-eng.com](http://www.ludgate-eng.com).

## Earth Engineering Incorporated

Earth Engineering Incorporated (EEI) is a full-service geotechnical/environmental engineering consulting firm composed of a group of engineers and geologists dedicated to providing the swift, cost-effective, professional service needed to meet the demands of today's development projects. With offices located in East Norriton, Lehigh Valley and Mechanicsburg, Pennsylvania as well as South Jersey, EEI is well equipped to service the entire 422 Corridor.

EEI has specific expertise in Geotechnical Consulting, Subsurface Investigations, Infiltration Testing, Construction Inspection & Testing, Geotechnical Specialty Design Services, Environmental Site Assessments, and Clean Fill Analysis. Items such as cost-effectiveness of foundation alternatives are evaluated along with site development issues and geotechnical data to establish recommendations. This approach has enabled EEI to contribute to



the successful development of many large-scale projects by adding true value to the planning process.

At EEI, our goal is to combine quality consulting and investigative work with on-time, on-budget performance. We're committed to providing our clients with the higher level of service and experience they have come to expect from EEI.

For additional information, please call 610.277.0880 and visit [www.earthengineering.com](http://www.earthengineering.com).

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