



## A Note from the Managing Principals: Developer Review Questions Process

The most common comments by developers to our municipalities and authorities is "Why did I get so many comments?" and "Why is my letter of credit or bond amount higher than the amount I provided?"

The first comment is more difficult to describe than the second. The first answer typically is "We get many submittals that are **incomplete**", not per the ordinance and not containing the information required by ordinance. It appears many have not read the ordinance, nor prepared the plans based on the ordinances. The initial review seems to provide the check list of what plans are required to have and were **not** included in the submittal. To lessen the cost to developers, municipalities and authorities, we recommend plan submittals be returned as incomplete by the Owner if they do not have the minimum items included.

The second comment is bonding amounts and the question — "Why is the bond amount so high in comparison to my engineer's estimate?"

Per the Pennsylvania Municipal Planning Code (MPC) - "The amount of financial security required shall be based upon an estimate of the cost of completion of the required improvements, submitted by an applicant or developer and prepared by a professional engineer licensed as such in this Commonwealth and certified by such engineer to be a fair and reasonable estimate of such cost. The municipality, upon the recommendation of the municipal engineer, may refuse to accept such estimate for good cause shown. If the applicant or developer and the municipality are unable to agree upon an estimate, then the estimate shall be recalculated and recertified by another professional engineer licensed as such in this Commonwealth and chosen mutually by the municipality and the applicant or developer. The estimate certified by the third engineer shall be presumed fair and reasonable and shall be the final estimate. In the event that a third engineer is so chosen, fees for the services of said engineer shall be paid equally by the municipality and the applicant or developer."

So... the question is "What should the estimate be based on?" Private bids or public bids? If an authority or a municipality uses money from a developer's bond, to complete improvements, they will need to prepare a bid package and bid the work as a public advertised bid. This work will need to be bid per the approved design plans, and inspected to confirm the plans are completed per the approved plans the same as if a developer was completing the work. Therefore, the developer's engineer is to use public bid pricing, prevailing wages and include cost for layout, as-builts and observation of construction and general project services to administer the contract.

In the end the developer's private estimate is likely 50-100% less than public bidding including the items listed above. We often get calls from developers questioning the amount proposed to be bonded and we quickly determine that they don't realize what's required for a municipality to bid a project and build it. Once explained the majority understand and post the listed amount. In the future we plan to provide developers in growth communities the recent bids for their use in determining paving values, etc. to assist them with preparing a better initial estimate and provide them the typical cost for the soft cost items such as; inspection, bidding and construction advertisements under municipal bidding requirements. In closing, our goal is to have the developers provide submittals consistent with the ordinance and with municipal bidding estimates.

## Call 811 and Subsurface Utility Engineering (SUE) Awareness: IT'S NOT JUST A "ONE CALL" Anymore

LSSE will have a virtual late summer municipal Permits and Regulations Update and one main item that will be discussed is SUE Awareness. With the recent enactment and effective date (April 28, 2018) of the Underground Utility Line Protection Law revisions (aka PA One Call Law – Act 50) has certainly impacted the operations of municipalities, authorities, utilities, engineers and contractors.

Discussed in greater detail will be changes in the One Call Law in 2018 established enforcement and compliance responsibilities to the Pennsylvania Utility Commission (PUC). Alleged Violation Reports (AVRs) has become a frequently used acronym in the industry. Kathy Automated Response to Location requests (KARL) is another acronym within the One Call system. Another acronym that will resonate with "Project Owners" as the "new" law matures is SUE (Subsurface Utility Engineering).

Lastly, the One Call Law also established a formal Damage Prevention Committee to review AVRs and issue informal warnings, administrative penalties among other items will be discussed. To this end, LSSE is planning to have a representative from the Damage Prevention Committee in attendance. Invitations will be sent with more details regarding the virtual meeting.

## Note from the MPs on COVID-19 Provisions

LSSE takes action during the COVID-19 outbreak to continue to serve our clients and employee's needs. In early March, LSSE went to two shift schedule, day and evening shift to better serve our clients and to provide options for our staff as far as scheduling. We determined, two shifts in office would make it possible to implement social distancing practice in office and provide flexibility in scheduling for our staff and their families. LSSE also implemented virtual meetings throughout the company both internal and external in early March. During this time, we also began the process to set up a remote access program for our staff to utilize if/when we were ordered to work remote. This program permitted LSSE to be up and operational in less than 12 hours working remotely with the majority of our staff. March and April brought out the best in our LSSE team pulling together developing and implementing new protocols to not only maintain our efficiency but increase it with an unparalleled effort in communications. In June, we transitioned back to day shift only and working towards majority of staff being in office and following CDC guidelines. Our staffing program for 2020 will continue to have remote access work from home available to staff as well as in office work as needed to support our staff and client needs. We thank our staff for continued efforts to work through these challenging times and continuing to serve our clients' needs whether we are in office or working remotely.

## Lennon, Smith, Souleret Engineering, Inc.

LSSE News is published for the benefit of our clients, associates and friends.

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A Division of LSSE

LSSE is proud to announce the expansion of our Greensburg, Westmoreland County, PA branch office. The expansion includes additional work space and a conference room to better serve our Clients needs.



## LSSE Recent Project Awards - NAIOP

### Chapman Westport Business Park by Chapman Properties

LSSE would like to congratulate Chapman Properties for winning the Best New Business Park award at the 2020 NAIOP Awards Banquet. LSSE provided civil site/permitting for all parcels developed at Chapman Westport including the recently completed Building 100/200, GE and currently under construction Parcel A by Hillwood. Parcel A improvements include private access drives, utilities, stormwater conveyance facilities, 1,000 parking spaces, 90 truck docks and 163 trailer spaces.

The Stormwater Management System for the development includes an interconnected system of vegetated swales, rain gardens, forebays, and four stormwater detention facilities to distribute stormwater throughout the development mimicking predevelopment stormwater discharge characteristics.

Work included preparation of site development plans including grading, drainage and utilities; street lighting plans; sanitary sewers and waterlines; erosion and sedimentation control plans, report and details; stormwater management report; post-construction stormwater management report and roadway design. LSSE prepared PaDEP Chapter 105, U.S. Department of the Army Corps of Engineers 404 joint permit to disturb approximate 0.71 acre of wetlands and a dam breach permit to remove an abandoned mine pond on the property. LSSE also provided survey stakeout services for the construction of each parcel.



### Mill 19 by Regional Industrial Development Corporation

LSSE would like to congratulate Mill 19 by Regional Industrial Development Corporation (RIDC) for winning the Green Building award at the 2020 NAIOP Awards Banquet. LSSE provided civil engineering and surveying services under a subcontract to the Site Architect, MSR Design, for a multi-phased adaptive reuse of a 1,300 foot-long, historic steel mill located within the Hazelwood Green development. This project is a 170-acre brownfield site that is being transformed into a highly sustainable, mixed-use development. The design positions the new building as a box inside the steel structural frame of the old mill. It will house office space; areas for design, prototyping, and testing; and public areas, with tenants including Carnegie Mellon University's Advanced Robotics Manufacturing Institute. The project has been designed to include sustainable measures to meet the goal of achieving LEED-NC v4 Gold certification and near net zero energy usage including rainwater harvesting, solar panels and the adaptive re-use of existing site materials.



LSSE's scope of work included surveying services including supplemental topography, property survey, lot consolidation and subdivision plats; stormwater management and post-construction stormwater management facility design; PaDEP NPDES permitting, and utility coordination and preparation of rainwater harvesting water balance calculations. Construction plans included construction details for the rainwater harvesting and site amenities; grading, drainage and utility plans; construction specifications and details; permitting for modification of existing rain gardens and stormwater facilities; and construction of an interactive water feature area.

## LSSE Recent Projects

### Center Township Water Authority River Intake and Residual Waste Processing Facility - Complete

LSSE completed design; permitting and construction phase services for the Center Township Water Authority (CTWA) new river intake and residual waste processing facilities of which support their existing 3.0 million gallons per day (MGD) Interim Water Treatment Facility in Beaver County, Pennsylvania. These facilities are part of the project scope that were necessary to accommodate and support construction of an Industrial facility in Neighboring Potter Township.

The new 5 MGD River Intake is a multistory facility that collects raw water from the Ohio River using tunnels constructed below the river bed. Once collected; raw water is lifted to the treatment facility using high pressure vertical turbine pumps. The pumps are fitted with specialty composite bearings and a clean water lubrication system to reduce wear caused from the abrasive Ohio River water. Similar systems are used for power plants and other critical infrastructure. Construction of their facility was completed with multiple contracts with Trumbull Incorporated and G.M. McCrossin, Inc. being the principal contractors.

The new Residual Waste processing facility is located adjacent to the Interim Water Treatment Facility and the proposed Water Filtration Plant site. Backwash water from the 3 MGD Interim Water Treatment Facility is treated in this facility prior to discharge to the Ohio River. The area available for this facility was limited and prohibited the use of lagoons or similar solutions. LSSE performed bench scale testing and water treatability studies to determine available alternatives the constructed facility includes equalization storage, polymer feed, lamella plate clarifier, cloth disc filtration and a sludge press. Construction of this facility was completed under two contracts by Mele & Mele & Sons, Inc. and Preload, LLC.

Phase III, which includes construction of the Permanent Water Filtration Plant, is in the final stages of design/permitting. The PaDEP Public Water Supply Permit is pending. Once received, it is proposed to proceed with construction this year. The proposed water filtration plant will include precast building construction, new clearwell, lamella plate clarifiers, conventional filtration followed by GAC absorbers and UV treatment.



### Center Township Sanitary Authority (CTSA) Headworks

CTSA (Beaver County, Pennsylvania) has completed an upgrade to the headworks facilities at their existing Elkhorn Run Sewage Treatment Plant. LSSE provided design and permitting services for the installation of a new mechanically cleaned bar screen and site improvements. The existing Elkhorn Run headworks facilities consisted of an aged comminutor. This device was designed to macerate solid and fibrous materials in the influent waste stream.

*Continued*

With the recent increased popularity of “flushable” wipes and cleaning products simply grinding or shredding these materials is not sufficient to protect downstream treatment facilities and process equipment. The shredded materials often “bulk” together and create maintenance changes for plant operators including clogged pumps and process equipment.

LSSE designed a new concrete influent headworks channel upstream of the existing influent channel to house the 1/4” opening screen. The self-cleaning mechanical screen removes solid materials and rags from the waste stream to protect downstream process equipment. Mechanical rakes clean the screen and transport the removed items to a mechanical washer/compactor where they are rinsed, dewatered, compacted, and deposited in a dumpster for economic removal with minimal operator effort. The overall design concept also included an emergency screen bypass pipe that re-used the existing bypass bar screen.

Integral to the headworks improvements, LSSE in collaboration with the Authority Operations Supervisor incorporated site grading, paving and access improvements to facilitate installation of the new screen channel and provide improved site access and mobility for plant operations.



### Findlay Industrial Park – Solar Drive Phase IV

LSSE provided civil-site engineering services for the Imperial Land Corporation to complete the final leg of Solar Drive in Findlay Township, Allegheny County. Phase IV of Solar Drive included the construction of approximately 2,200 linear feet of new roadway, walking trail, utilities and stormwater management facilities, completing the roadway loop through the industrial park and reconnecting with the local roadway system. Funding assistance for the construction project was provided through a Redevelopment Assistance Capital Program grant from the Commonwealth of Pennsylvania. LSSE was responsible for completing the surveys, civil-site design and permitting, preparation of contract documents, bidding and construction phase services for this project.

### Dormont Borough Stormwater Authority – Athens Alley Stormwater Improvements

The Dormont Borough Stormwater Authority just completed the first phase of a multi-phase project to improve the collection, conveyance and rate of runoff that drains to Athens Alley and ultimately Saw Mill Run. The residents along Athens Alley have historically experienced significant flooding during severe rain events as a result of the 32.6 acres uncontrolled watershed consisting of densely populated residential and commercial property. LSSE provided civil engineering and surveying services to the Authority to first study the watershed and develop a model of the storm sewer system and then develop a multi-phase improvement project to incrementally improve the collection system by capturing and detaining the runoff at its sources. The first phase of the project included the installation of approximately 250 LF of 6-foot diameter underground detention tank and the redirection of approximately 17 acres of runoff from West Liberty Avenue that was overwhelming the 24” storm sewer along Athens Alley. For Phase I of the project, LSSE was responsible for completing the surveys, civil-site design, permitting, preparation of contract documents, bidding and construction phase services.



### Saw Mill Run Watershed Cleanup

The Saw Mill Run Watershed is one of seven intermediate watersheds in Allegheny County located in the south-central portion of the county. Saw Mill Run is 22 miles long, including its tributaries, with a land area of almost 20 square miles with a branch of its headwaters bisecting Castle Shannon Borough. Community focused groups, stakeholders and volunteers have united around this singular resource in the South Hills of Pittsburgh. Since 2016, the Castle Shannon Revitalization Corporation (CSRC), Watersheds of South Pittsburgh (formerly Saw Mill Run Watershed Association), and Castle Shannon Borough have welcomed volunteers for the annual spring Saw Mill Run Stream Clean-Up Program.



Participation was such a hit that the CSRC organized a fall clean-up in 2019. Armed with pseudo Halloween costumes, willing stream stewards arrived for some festive treats (including coffee, hot cocoa, bagels and doughnuts) energized to remove non-natural debris from the stream and the stream banks. The event organizers provided gloves, safety vests, and trash bags as well as waders (or other water friendly footwear) to folks who didn't have their own. Tires, scrap metal, litter, trash, old carpets among other items have been removed from Saw Mill Run. Volunteers have also removed downed trees laying perpendicular to the stream flow precluding a potential flooding condition.

Unique to this effort is that videography has been obtained documenting the massive amount of non-natural material removed from the stream. Please YouTube “Castle Shannon Saw Mill Run Clean-Up” to check out these environmental stewards in action.

### Grants and Funding Update

We are pleased to announce recent funding awards to our clients:

**Pennsylvania Department of Conservation and Natural Resources (DCNR):** Avalon Borough - \$184,000 Grant – Avalon Community Park Improvements Phase 2  
**Community Development Block Grant (CDBG):** Avalon Borough - \$93,000 Grant – Structure Demolitions; Avalon Borough - \$54,000 Grant – Playground Improvements; Edgewood Borough - \$20,898.60 Grant – Chairlift; Midland Borough - \$129,000 Grant – Sewer Improvements and Coraopolis Borough - \$43,961 Grant – Structure Demolitions

**Gaming Economic Development Fund (GEDF):** Bridgeville Borough - \$100,000 Grant – Bower Hill Stormwater Improvements; Bridgeville Borough - \$425,000 Grant – McLaughlin Run Flood Mitigation; Findlay Township - \$100,000 Grant – RIDC PRP Retrofit; Moon Township - \$81,267 Grant – Dog Park; North Fayette Township - \$85,000 Grant – Salt Storage Roof Replacement; North Fayette Township - \$120,000 Grant – LaFayette Plaza PRP Improvements; Sewickley Borough - \$100,000 Grant – War Memorial Park Culvert Replacement and Sewickley Borough - \$50,000 Grant - War Memorial Park Stream Restoration

**Allegheny County Conservation District Low Volume Road:** Coraopolis Borough - \$46,850 Grant – Euclid Avenue Stormwater Improvements

**Rural Community Assistance Partnership:** Imperial Land Corporation - \$2,000,000 Grant – Findlay Industrial Park Phase IV (Grant Administration)

**Commonwealth Financing Authority:** Midland Borough - \$650,000 Grant – Road Improvements; South Beaver Township - \$181,300 Grant - Swampoodle Road Bridge Deck Replacement; North Fayette Township - \$432,950 Grant – West Allegheny Road Traffic Signal and Turning Lanes and Coraopolis Borough - \$157,000 Grant – Ferree Street Stairway and Bicycle Runnel

**Local Share Account (LSA):** Peters Creek Sanitary Authority - \$100,000 - CIPP Repair Program (Project D-West)

### Surveys: The new Elevation Certificate (EC) is Effective Immediately (February 21, 2020):

Per the Federal Emergency Management Agency (FEMA) requirements, all ECs signed and sealed on February 21, 2020 or later must be completed using their new form, even if draft versions were previously submitted using the old/expired form.

OMB No. 1660-0008: Expiration Date: November 30, 2022

Unfortunately, this does mean that any ECs received using the old form must be rejected by communities as of February 21, 2020 and resubmitted using this new form. Note that this form is the same as the previous version, except has a new expiration date.

Please feel free to contact Joseph Duganich, P.L.S. (jduganich@lsse.com) with any questions or for additional information about the new EC requirement.

### Pennsylvania Department of Environmental Protection PAG-02 Permit

On December 7, 2019, the Pennsylvania Department of Environmental Protection (PaDEP) issued the 2019 NPDES General Permit for discharges of stormwater associated with construction activities (PAG-02). The new NPDES General Permit has been issued in accordance with the requirements of the Federal Environmental Protection Agency. The new permit has resulted in a complete overhaul of the permitting process associated with earth disturbance activities that disturb more than 0.99 acre. This permit cycle has changed the termination date for all NPDES General Permits that will be issued by the PaDEP in the next five years. All permits will expire on December 7, 2024.

All permits that discharge to a watercourse impaired by siltation, suspended solids, turbidity, etc. will be required to implement a non-discharge alternative or the Antidegradation Best Available Combination of Technologies (ABACT) Best Management Practices (BMP). Additionally, if the receiving waterway has an approved Total Maximum Daily Load (TMDL) the non-discharge alternative and/or ABACT BMPs selected must meet the specific wasteload allocation.

New Co-Permittee and Permit Transfer Acknowledgment Forms have been issued. The previous “Transferee/Co-Permittee Application” (3150-PMBWEW0228) will no longer be accepted to transfer coverage under a PAG-02 permit or add an additional Co-Permittee. Prior to the start of earth disturbance activities, the permittee is required to ensure all entities associated with earth disturbance be added to the permit utilizing the new Co-Permittee Acknowledgment Form. Additionally, permittees that desire to transfer coverage associated with a PAG-02 permit must utilize the “Application for NPDES/WQM Permit Transfer”.

Included as part of the 2019 PAG-02 Permit, PaDEP developed E&S and PCSM modules that are expected to be used if a NOI is planned to be submitted or renewed for coverage under the PAG-02 Permit. These modules are intended to serve as the narrative components of E&S and PCSM Plans when submitted with associated plan drawings.

### MS4 Workshop – Pollution Prevention and Good Housekeeping

Mr. Shawn R. Wingrove, E.I.T. LSSE’s Municipal/MS4 Unit Manager gave a presentation to a group of approximately 65 municipal staff members from the participating municipalities of the Western Allegheny Stormwater Awareness Group (WASAG) on February 25, 2020. Attendees were primarily Public Works, Parks Department and Road Department staff. WASAG is a group of local municipalities – including, North Fayette Township, Findlay Township, Moon Township, Oakdale Borough, Coraopolis Borough, Hopewell Township, Collier Township and Crescent Township – that coordinate collaborative efforts related to stormwater management and MS4 permit compliance. Municipalities’ MS4 Permits, as part of MCM #6, require development and implementation of an Operation and Maintenance Plan for all municipal facilities and activities. The presentation focused on several aspects of a typical O&M Plan, including maintenance of PCSM BMPs (detention basin, rain gardens, infiltration galleries, etc.), outfall screening follow-up for illicit discharges and maintenance, and general operations such as fueling, spill cleanup and material storage.



### EMPLOYEE SPOTLIGHT

Congratulations to Carter J. Johnson, E.I.T. and Dominic N. Mandarino, E.I.T. for passing the E.I.T. Exam.

#### New Hires:

**Allegheny County Office (Headquarters):**

Gregory S. Copelli, S.I.T. – Assistant Chief of Surveys; Ryan H. Deschaine – Assistant Surveyor; Gregory J. Geary – Project Manager; Dominic N. Mandarino, E.I.T. – Assistant Engineer; Joshua A. Puharic – Senior Designer; Thomas J. Stewart – Senior Designer; Alan F. Wiltfeuer – Senior Designer; Samuel A. Tittiger – Resident Project Representative; Carl D. Decker, E.I.T. - Engineer; Tyler J. Johnson - Assistant Surveyor; Anna M. Mason - File Clerk

**Westmoreland County Office (Branch):** **Erie County Office (Branch):**

Michael Novosedliak – Senior Designer Terrie L. Swanson - Environmental Scientist  
 Jacob A. Dykes - RPR/Assistant Engineer

### LSSE’s Newborns

Lawrence Lennon Jr. and his wife, Jennifer, welcomed their son Lawrence John Lennon III (Nickname Jack) on November 5, 2019, 6 lbs., 4 oz.



Andrew Leslie and his wife, Sara, welcomed their son Grant Leslie on May 14, 2020, 9 lbs., 4 oz.