



2027

SURVEYORS' Conference

AGENDA

Sunday, January 10

3:00PM – 5:00PM..... EXHIBITOR REGISTRATION (OUTSIDE OF EXHIBIT HALL)
4:00PM – 6:00PM.....REGISTRATION OPEN (CONFECTION HALL OFFICE)
5:00PM – 7:30PM..... EXHIBITS OPEN (EXHIBIT HALL)
5:00PM – 9:00PM.....SOCIAL GATHERING (EXHIBIT HALL)

Monday, January 11

7:00AM – 5:30PM.....REGISTRATION (CONFECTION HALL OFFICE)
7:00AM - 8:15AM.....BREAKFAST (EXHIBIT HALL)
7:00AM - 5:45PM.....EXHIBITS OPEN (EXHIBIT HALL)
8:15AM – 11:45AM.....CONCURRENT SESSIONS

- **101: Legal Description v. Boundary Description: Why Attorneys Should Not Prepare Boundary Descriptions!**
 - **Presenter:** D. Robert Davidson, PLS, Esq., SEO, Attorney, MPL Law Firm, LLP
 - **Description:** A legal description is required for the transfer of interests in real property and should include a boundary description. This presentation will examine the differences between legal and boundary descriptions, the various ways that property can be described and provide methods by which both legal and boundary descriptions are created. Discussion regarding, reading, writing and interpreting legal and boundary descriptions, and how this relates to retracement surveys will be included.
- **301: Bridge & Structure Surveys**
 - **Presenters:** Joab Carter, PLS, Senior Project Manager, Woolpert, Inc. & Steve Reisinger, PLS, Retired
 - **Description:** This will be a discussion about types of structures, the methods of surveying those structures, and what needs to be surveyed for different types of projects including construction layout.
- **501: NFIP Roles & Responsibilities**
 - **Presenters:** Ken Roberts, CFM, BCO, CZO, State NFIP Coordination/Floodplain Manager, State NFIP & Cody Hoffman, CFM, Specialist, PA Emergency Management Agency
 - **Description:** The NFIP Roles and Responsibilities course is designed to equip participants with the knowledge and skills needed to understand and fulfill the local, state, and federal obligations under the National Flood Insurance Program (NFIP). The course prepares participants—especially local Floodplain Administrators, building inspectors, code officials, engineers, state NFIP coordinators, and Community Rating System (CRS) coordinators—to effectively manage floodplain development and meet NFIP participation requirements Association of State Floodplain Managers | ASFPM. It is also relevant for anyone needing a foundational understanding of NFIP compliance, such as surveyors and engineers. There will be Q&A at the end.
- **701: Basic GIS for Surveyors**
 - **Presenter:** Jeffrey Horneman, PLS, GISP, Survey Manager, Brayman Construction
 - **Description:** The class is designed to enable surveyors to better understand the role of GIS both within Architecture and Engineering (A&E) projects and outside of these traditional standards. Students will gain a grasp of usage and limitations of existing data, and creation of their own GIS datasets. Real world empirical data will be used to show actual examples. There will be a question and answer period afterwards and information for on-site class availability.

Thank You to Our Premier Sponsor!



8:15AM – 11:45AM.....CONCURRENT SESSIONS

• **801: PA Exam Prep - Part 1**

- **Presenter:** Shaheed Smith, PLS, President, SAS Geospatial, LLC
- **Description:** Part 1 - This workshop will focus on the first two major areas of the PA State Specific Land Surveyors Exam: Pennsylvania Professional Practice and Unique Pennsylvania Legal Aspects. This session will review the professional and legal responsibilities of practicing land surveyors in Pennsylvania, including the Registration Law – Act 367, as amended, professional standards, professional ethics, statutes of limitation and repose, and Pennsylvania State Plane Coordinates. The session will also cover key Pennsylvania legal and boundary topics, including record research, retracement surveys, senior rights and sequential conveyances in a subdivision, rights-of-way, easements, riparian rights, writing boundary descriptions, the Municipal Planning Code – Act 247, condominiums, and other relevant statutes. The goal is to strengthen participant's understanding of the laws, standards, and professional judgment required to practice surveying in Pennsylvania and to approach exam questions involving boundary evidence, legal principles, and professional responsibility with greater confidence.

8:15AM - 9:45AM.....CONCURRENT SESSIONS

• **201: AI in Aerial Surveying: From Marketing Hype to Practical Innovation**

- **Presenter:** Logan Campbell, Founder & CEO, Aerotas
- **Description:** Artificial intelligence is rapidly changing how surveyors evaluate software, automate office work, and process aerial mapping data. This session separates practical uses from marketing hype, explaining the difference between language models, vision-language models, and production computer-vision tools. Attendees will learn where AI can improve workflows today, where human survey and geospatial judgment remains essential, and how to evaluate AI claims without sacrificing accuracy, accountability, or deliverable quality.

• **401: CURSIVE IS DEAD? Long Live Cursive!**

- **Presenter:** Don Teter, PS, Assistant Professor of Surveying, Fairmont State University
- **Description:** Pundits often declare that reading cursive is a worthless skill, becoming more archaic by the day. Some of us -- those who must research old cursive documents -- do not agree. This group includes retracement surveyors, historians and anyone who wants to truly go to the source. Reading old cursive does not need to be as daunting as some believe. It is not a foreign language, and as with any other surveying task, study and practice are the keys. This seminar will offer tips on interpreting cursive writing, from odd abbreviations and contractions to confusing letter styles, and the instructor will help the class ""translate"" a few old documents.

10:15AM - 11:45AM.....CONCURRENT SESSIONS

• **202: The Philadelphia Standard (Philly Foot): Surveying in Philadelphia**

- **Presenter:** Darin Gatti, PE, Senior Project Manager, HDR Inc.
- **Description:** The City of Philadelphia has a unique standard of measure known as the District Standard(DS) or Philadelphia Standard, generally 100'DS= 100.25'US. The Surveyor and Regulator(S&R) for each of the City's survey districts is responsible for maintaining that standard in their district. In addition to maintaining the district standard, the S&R's are responsible for resolving property disputes, correcting deed mistakes, and preparing determinations of responsibility for walls and sidewalks. This presentation is a discussion on the role and responsibilities of the Philadelphia Survey Bureau, the history of the Philadelphia Standard, how they manage the standard as well as the City Plan of Philadelphia.

• **402: Historical Document Research**

- **Presenter:** Don Teter, PS, Assistant Professor of Surveying, Fairmont State University
- **Description:** Why do research? How far back do you go? What do you need and where do you find it? How do you use it? An introduction and overview for researching deeds and other historic documents and organizing and analyzing the results of the research.

11:45AM - 1:00PM.....LUNCH (EXHIBIT HALL)

1:00PM – 4:30PM.....CONCURRENT SESSIONS

- **102: Boundary Location Related to Roads Open and Unopened**
 - **Presenter:** D. Robert Davidson, PLS, Esq., SEO, Attorney, MPL Law Firm, LLP
 - **Description:** Roads are often called for as boundaries. Often these roads are not currently public roads. How do you determine who holds title to the location of an open or unopened road? Should the boundary be the edge or the center of the road? This presentation will discuss the difference between Record Title and Legal Title & will examine how to determine who may own the beds of roads, streets & alleys, both open & unopened. Court cases law related to these issues will be reviewed.

- **302: PA Municipal Planning Code (MPC)**
 - **Presenters:** Donald Housley, PLS, Retired & David Housley, PLS, Harshman CE Group
 - **Description:** This session will review & discuss the PA Municipalities Planning Code as it relates to the profession of land surveying. This session will overview how the profession of land surveying & our interaction with local (County & Municipal) through the intergrated use of Land Use Controls, a Planning Commission, Zoning Rules, Zoning Hearing Board, Floodplains, Subdivision & Land Development (AKA Engineering Land Surveys per our Registration Act) What is a Zoning Officer & how do they function? What is a Conditional Use vs Special Exception vs a Variance?

- **702: Advanced GIS for Surveyors**
 - **Presenter:** Jeffrey Horneman, PLS/GISP, Survey Manager, Brayman Construction
 - **Description:** The class is designed to enable surveyors with a better grasp of GIS to extend those capabilities & take a role of a GIS practitioner. Real world data will be researched, downloaded, metadata analyzed, datasets brought in & overlaid in CAD (participants are more than welcome to bring their laptop to follow along). Basic GIS for Surveyors should be taken first if not up to date on definitions and usage. There will be a Q & A period afterwards & information for on-site class availability.

- **802: PA Exam Prep - Part 2**
 - **Presenter:** Shaheed Smith, PLS, President, SAS Geospatial, LLC
 - **Description:** Part 2 - This workshop will focus on the third major area of the PA State Specific Land Surveyors Exam: Minor Engineering/Land Development Design. This session will provide a general review of the land development and regulatory topics that PA surveyors may encounter on the exam and in professional practice. Topics will include stormwater runoff and hydrology, including the Rational Method and SCS TR-55; stormwater management systems, including hydraulics for pipes and swales and detention facilities; erosion and sediment pollution control; roadway design; sanitary sewer extensions; on-site sewage facilities; permits; PennDOT highway occupancy requirements; DEP-related permits and planning modules; wetlands, stream encroachments, erosion and sediment control, and utilities. The goal is to understand the surveyor's role in land development, permitting, and regulatory coordination. We will emphasize practical familiarity with these topics rather than advanced engineering design, helping candidates recognize key concepts, terminology, and exam-style issues related to Pennsylvania land development practice.

1:00PM – 2:30PM.....CONCURRENT SESSIONS

- **203: From Chain to Cloud: The Past, Present, and Future of Surveying Deliverables**
 - **Presenters:** Ken Fronheiser, PLS, Keystone Precision Solutions & Rick Johnston, Keystone Precision Solutions
 - **Description:** This course explores the rapid evolution of land surveying deliverables over the past decade, from conventional total stations and GPS to today's robotic total stations, satellite based GNSS rovers, drone-based (UAS) mapping, and augmented reality solutions. We will examine current workflows and explore innovated solutions like AR/VR integration, SLAM laser scanning, and automated processing that will redefine the deliverable process. Designed to connect core surveying principles with emerging tools, this course equips attendees to navigate the changing landscape of creating surveying deliverables.

1:00PM – 2:30PM.....CONCURRENT SESSIONS

- **403: Precise Measurements: Stairway to Heaven or Pathway to Purgatory?**
 - **Presenter:** Don Teter, PS, Assistant Professor of Surveying, Fairmont State University
 - **Description:** Advances in measurement technology now allow moderately trained personnel to obtain increasingly precise positions. This provides many solutions but is fraught with peril if valid evidence is overlooked. When evidence and long-standing boundary law concepts are ignored and boundary determinations made with undue reliance on precise measurement, the result may be unnecessary conflict and fruitless litigation. Don will explore the use and potential misuse of the wonderful tool of “measurement”.
- **502: From Surveyor to Project Manager: The Skills They Never Taught Us**
 - **Presenter:** Douglas M. Allwein, PE, PLS, President & Ceo, Honor Engineer Co.
 - **Description:** Technical expertise alone does not prepare a surveyor to successfully manage projects, clients, budgets, and staff. As surveyors advance into project management roles, they are often expected to lead multidisciplinary teams, negotiate scope changes, control project budgets, manage client expectations, and deliver profitable projects—all with little formal training. This workshop explores the transition from technical surveyor to effective project manager by examining practical tools and techniques used in engineering consulting firms. Topics include project planning, scope management, budgeting, scheduling, communication, risk management, quality control, and lessons learned from managing federal, utility, and private development projects. Participants will leave with practical strategies they can immediately implement within their own organizations.
- **601: Pennsylvania Gun Laws**
 - **Presenter:** Joshua Prince, Esq., Attorney, Prince Law Offices, P.C.
 - **Description:** A review of Pennsylvania’s law governing open & concealed carry of firearms, use of force, & recent case law.

3:00PM – 4:30PM.....CONCURRENT SESSIONS

- **204: Understanding Modern Scanning Technologies**
 - **Presenter:** Anthony Pascuzzi, Director of Geospatial Technology, Precision Laser & Instrument, Inc.
 - **Description:** In this class, we will explore the various 3D scanning technologies that are becoming increasingly common in modern surveying workflows. Topics include Aerial LiDAR, SLAM scanning, terrestrial laser scanning, and mobile mapping systems. We'll examine how each technology works, discuss their strengths and limitations, and identify the types of projects where each solution is most effective. By the end of the course, you'll have a better understanding of how to select the right reality capture technology for your specific surveying applications.
- **404: Title Insurance: An Introduction for Land Surveyors**
 - **Presenter:** Scott Reeser, PLS, Director of Surveys, Hunt Engineering Company
 - **Description:** Land surveyors performing boundary surveys and more specifically AL TA NSPS Land Title Surveys often interact with title insurance providers and title abstractors. A basic understanding as to how title insurance came into existence and how it affects conveyance of land can make their jobs easier. This session is a primer on the issue of title insurance, topics to be covered are why the concept of title insurance came to be and the key elements of a title insurance policy. The intended audience for this session is the surveyor that conducts surveys to be used in the conveying of land title.
- **602: Roadway Safety**
 - **Presenter:** Douglas M. Allwein, PE, PLS, President & CEO, Honor Engineer Co.
 - **Description:** Following the proper safety procedures while working on active roadways is often overlooked in our industry. Whether caused by a lack of time, budget restraints, or ignorance, many surveyors will proceed with their work without the necessary controls in place to comply with federal and state regulations. This session is a review of the regulations set forth in the Manual on Uniform Traffic Control Devices (MUTCD), and Pub 212, as adopted by the Pennsylvania Department of Transportation. The workshop will also review traffic statistics and study cases of incidents on the roadways. This will remind us of the seriousness of roadway hazards. We often become desensitized to the traffic conditions, which makes working on the roadways even more dangerous. Creating a safe work environment should be everyone’s top priority.

5:00PM - 5:45PM.....RECEPTION & NETWORKING (EXHIBIT HALL)
 6:00PM - 8:15PM.....DINNER & EVENING PROGRAM (EXHIBIT HALL)
 (AWARDS & SWEARING-IN OF OFFICERS/GENERAL MEMBERSHIP MEETING)
 8:15PM - 10:30PM.....MEMBER APPRECIATION PARTY (COCOA BALLROOM)

Tuesday, January 12

7:00AM - 5:30PM.....REGISTRATION (CONFECTION HALL OFFICE)
 7:00AM - 8:15AM.....BREAKFAST (EXHIBIT HALL)
 7:00AM - 5:45PM.....EXHIBITS OPEN (EXHIBIT HALL)
 8:15AM - 11:45AM.....CONCURRENT SESSIONS

- **103: Staying on Track: Modern Solutions for Rail Surveying**
 - **Presenters:** Taylor Shepley, PLS, Technical Sales Consultant, Keystone Precision Solutions & Thomas Williamson, Rail Technical Sales Specialist, Trimble
 - **Description:** Surveying within the railroad right-of-way presents unique challenges, where safety, efficiency, and accuracy are critical. This presentation takes an in-depth review of how modern technologies (including trackbars, laser scanners, track trolleys, and other advanced geospatial tools) can integrate with conventional surveying methods to improve data collection while minimizing time spent in active rail corridors.
- **205: Best Practices for Reaching New Heights in the Modernized NSRS**
 - **Presenter:** Dan Martin, Northeast Regional Geodetic Advisor, National Geodetic Survey
 - **Description:** The use of GNSS technology has become common within the surveying profession. This is especially true when it comes to the use of real-time techniques (Real-Time Kinematic) and Real-Time Networks (RTN). These techniques offer methods that significantly increase productivity, with little degradation of accuracy. But a tool by itself does not produce accuracy or confidence. The procedures used, and attention to detail by the user is what helps to ensure you achieve the results you are aiming for. How much thought is given to the level of accuracy (either absolute or relative) needed to accomplish the intended goals? Do we consider the various sources of error that may accompany the tools and processes we use, hidden like an army in a trojan horse? Or acknowledged as existing, but generally ignored, or considered to be insignificant? In this workshop, we will discuss the GNSS tools and techniques that are available, their adequacy for common survey tasks, and take an in-depth look at “best practices” that have been developed that are designed to catch blunders, eliminate common systematic errors, and increase confidence in survey results. We will also talk about potential issues when using the Modernized NSRS, specifically the new vertical datum which has a definitional reliance on the use of GNSS, and the desire or requirement to provide results in legacy datums.
- **405: USC & GS Triangulation and Jasper Bilby’s Innovative Survey Tower**
 - **Presenter:** Don Teter, PS, Assistant Professor of Surveying, Fairmont State University
 - **Description:** How do you accurately create a control network for mapping a sprawling nation before distance meters and GPS? The U.S. Geodetic Survey of the Coast and its successors used precisely measured baselines, such as the one at St. Albans, West Virginia, and check-bases like the one near Carnegie, Pennsylvania, extending control with precisely measured angles over long distances. We’ll review their methods and results, including a look at their work on determining elevations. Particular attention will also be given to the baseline at Holton, Indiana, less than 10 miles from Jasper Bilby’s hometown of Osgood, and the nearby station “Glasgow”, set in 1890 on land owned by Jasper S. Bilby. When surveying triangulation networks, where do you go for long shots? High ground. Or you use hand built wooden towers, like the one on Bilby’s land where five tons of stones were used to support the legs of the tripod and scaffold. In 1926, tired of the labor-intensive wooden towers, Jasper Bilby designed a portable “erector set” version that reduced tower costs by about 75% and allowed observers to reach heights of 24 to 156 feet. Surveyors Historical Society recently led the effort to recover one of the last Bilby Towers, standing in a Louisiana swamp. It has risen again in Osgood, Indiana, Jasper Bilby’s hometown, as a memorial to him. We will look at the process of dismantling and reconstruction of that historic survey tower.

8:15AM – 11:45AM.....CONCURRENT SESSIONS

- **503: Ethics for Engineers, Land Surveyors, and Geologists**
 - **Presenter:** Scott Reeser, PLS, Director of Surveys, Hunt Engineering Company
 - **Description:** This session will discuss ethical considerations surveyors but also applies to engineers. Attendees will review published definitions of Professional Ethics, as well as cultivate a group definition. The Code of Ethics included within the Engineer, Surveyor and Geologist Registration Law will be reviewed, as well as ethical codes from other surveying and engineering professional organizations. Discussion on the development of surveyor ethics will be discussed. This session is geared toward group participation, the presenter will encourage participation by all attendees in a manner that encourages thought and exchange of ideas.
- **603: Ensuring Safe and Effective Utility Access in Confined Spaced: Best Practices and Innovations**
 - **Presenter:** Bryan Hazelwood, Chief Pilot & Senior Field Service Manager, Civil & Environmental Consultants, Inc.
 - **Description:** General overview of confined spaces including: Dangers of confined space; Minimum requirements; Recommended requirements; Procedures and methods for entry; and Alternate means of data collection, and innovations.
- **803: Basic Surveying Math (Part 1)**
 - **Presenters:** Mark E. Hummel, PLS, Owner, Arpenteur, LLC & Tom Phillips, PLS, Project Manager, Howell Surveying
 - **Description:** In this session, we will work on calculations necessary for the profession of surveying and for licensure. Ideally, after this session you will be comfortable both for the field and office knowing these formulas and how to use them for your everyday job. There is a part 1 and part 2 of this topic.

8:15AM – 9:45AM.....CONCURRENT SESSIONS

- **303: Stormwater - SCS Methodology**
 - **Presenter:** Theodore C. Frear II, PLS, EIT, Civil Engineer - Bridges, PennDOT Engineering District 4-0
 - **Description:** This workshop provides a practical introduction to the NRCS Curve Number (CN) methodology, one of the most widely used techniques for estimating runoff volumes from developed and undeveloped watersheds. Participants will explore rainfall characteristics, watershed hydrology, runoff estimation, and time of concentration calculations using step-by-step examples. Designed for surveyors, engineers, and design professionals, this workshop focuses on developing a practical understanding of hydrologic concepts and their application to real-world land development projects.
- **703: Pennsylvania's Geospatial Coordinating Board and Our Statewide Mapping Initiatives**
 - **Presenter:** Dr. Scott Dryzyzga, Executive Director, PA State Geospatial Coordinating Board
 - **Description:** Pennsylvania's Geospatial Coordinating Board is an important venue that allows geospatial professionals from all sectors and levels of government to discuss spatial data, policies, standards, trends, and workflows. Established by legislation in 2014 and supported by 9 state agencies, the 'GeoBoard' provides advice and recommendations to the Governor and the citizens of our Commonwealth. The Pennsylvania Society of Land Surveyors has a seat on the GeoBoard. This session will provide a detailed summary of the GeoBoard, outline its major "PA BaseMap 2030" and "3D PA" initiatives, and highlight opportunities and threats where surveyors and GIS professionals are working or can work together to accomplish common goals.

10:15AM – 11:45AM.....CONCURRENT SESSIONS

- **304: Stormwater - Rational Method, Pipe Sizing, and Conveyance**
 - **Presenter:** Theodore C. Frear II, PLS, EIT, Civil Engineer - Bridges, PennDOT Engineering District 4-0
 - **Description:** This workshop provides a practical introduction to estimating peak runoff using the Rational Method and designing stormwater conveyance systems using Manning's Equation. Through step-by-step examples and hands-on exercises, participants will learn how to calculate runoff, determine time of concentration, size open channels and storm sewer pipes, and evaluate partially full pipe flow using hydraulic elements charts. Emphasis is placed on understanding the underlying hydraulic concepts, proper application of design methods, and developing confidence in solving real-world stormwater conveyance problems commonly encountered in engineering and surveying practice.

10:15AM – 11:45AM.....CONCURRENT SESSIONS

• **704: Bridging the Gap: GIS and Surveying**

- **Moderator:** TBD
- **Panelists:** Jeffrey Horneman, PLS, GISP; Kevin Chappell, PLS, PE; Dr. Scott Drzyzga, GISP
- **Description:** As GIS technology evolved and was embraced by government agencies and private industries, there was significant apprehension by many in the Land Surveying profession over concerns that GIS could infringe in the realm of Professional Land Surveying. Many Surveyors also balked at municipal requirements intended to standardize electronic deliverables for incorporating survey-related data into their GIS systems. This has often placed Professional Land Surveyors and GIS Professionals at-odds when grappling with Licensure laws in the light of continued development of new technologies. However, for some agencies and surveying companies, the integration of Geographic Information Systems (GIS) into land surveying practices has transformed how surveyors collect, analyze, and present spatial data – moving the practice of Professional Land Surveying beyond the limits of the static 2-dimensional survey deliverable. GIS Professionals also have gained greater appreciation of the relationship between what is on-the-map and what is on-the-ground - the Professional Land Surveyor's expertise. Many now see an opportunity for these two worlds to collaborate with a shared interest that includes datums, projections, mapping, and public safety and welfare. This panel discussion brings together experienced professionals to explore the synergy between GIS and traditional surveying. Topics will include the definition of land surveying, accuracy considerations, practical applications, data interoperability, and how GIS enhances decision-making in land development, infrastructure, and environmental projects. Attendees will gain insights into current trends, tools, and strategies and learn greater appreciation for how GIS and Surveying can best collaborate for the benefit of our communities.

11:45AM - 1:00PM.....LUNCH (EXHIBIT HALL)

1:00PM – 4:30PM.....CONCURRENT SESSIONS

• **206: Boundary Commission - A Retracement Survey**

- **Presenter:** Michael F. Brinkash, President, Brinkash & Associates, Inc. & David Widmer, PLS, President, Widmer Engineering Inc.
- **Description:** Here is an outline for topics covered during this session:
 - 1A. Why A Boundary Commission? 2. Why A Retracement Survey? 3. Who appoints? 4. Composition of a Boundary Commission? 5. Duty of Boundary Commissions? 6. Sources of instructions? 7. Necessity of Public Hearings? 8. Professional Standards of Practice.
 - 2A. Source Records & Authority of Records: 1. Legislative Acts. 1a. Statute Reference Books 2.Original Surveys 2a. PA Archives, County Boundary Survey Maps, Township Connected Warrant Maps, Individual Warrant Surveys 3. County Courthouse 3a. Deeds 4. Maps 4a. GIS, LIS, General Use Maps
 - 3A. Boundary Retracement Considerations: 1. Slope distances 1a. Survey Laws at the time of Survey 1b. Modeling the terrain 2. Angle Accuracies 2a. Compass vs. Total Stations vs. GPS 3. Geodetic Survey Considerations vs. Conventional Survey Methods 4. Basis of Datum and Reasons Why?
 - 4A. Correlating Information, Record and Field: 1. Are the Survey Rules of Constructions applicable? Requirements of Final Map and Report: 1. Authority for Source of Required Information 1a. Specific items to be shown on plan.
 - 5A. Case Review: Retracement of the common boundary lines between the Counties of Lawrence and Butler, Pennsylvania

• **305: Understanding Pennsylvania's Zoning Regulations from a Land Surveyors Point of View**

- **Presenters:** Donald Housley, PLS, Retired & David Housley, PLS, Survey Team Leader, Harshman CE Group
- **Description:** This session will review and discuss the Pennsylvania Zoning Regulations as it relates to the profession of land surveying. We shall review the PA MPC and how Zoning is established through this law. This session will overview how the profession of land surveying and our interaction with local (County and Municipal) officials through the integrated use of Zoning rules and regulation issues that Land Surveyors must deal with in our profession through Planning Boards and Commissions, Subdivision and Land Development (AKA Engineering Land Surveys per our Registration Act). What is a Zoning Officer and how do they function? What is a Zoning Hearing Board and how do they function? What is a Conditional Use vs Special Exception vs a Variance? What does a Floodplain have to do with Zoning?

1:00PM – 4:30PM..... CONCURRENT SESSIONS

- **604: Everything 'Field-to-Finish' with Carlson Software**
 - **Presenter:** Michael Hyman, Regional Director, Carlson Software
 - **Description:** Students will gain a better understanding about the 'Field-to-Finish' process in a 'hands-on' lesson using industry leading land surveying field and office software. We will take a systematic approach for someone who is just getting started as well as assist users who have started the process of getting them to the next level. How it can be adapted for both the office and the field vs. how intimidating it can be even if the land surveying firm has never done one before. We will also look at some of the updated functionality that the Land Surveying Industry has been asking for per direct input from the Land Surveying Profession. As time allows, we will answer and review Everything Field-To-Finish within this session!
- **705: GNSS Precise Point Positioning (PPP) & How It Impacts Surveying**
 - **Presenter:** Kevin Chappell, PE, PLS, Principal & Chief Surveyor, Bowman Consulting Group
 - **Description:** Traditional high-accuracy GNSS methods used by surveyors (RTK, NRTK, PPK, Static) rely on differential positioning using two or more receivers (or receiver-to-network connections). Advancements in Precise Point Positioning (PPP) now allow the use of a single receiver to achieve centimeter-level accuracy globally without local base stations. This presentation explains what PPP is, how it works and how it can be used for surveying and mapping workflows. The advantages and disadvantages of using PPP will be discussed. Project case studies and the reliability, repeatability, and legal defensibility of using PPP on a surveying project will be presented.
- **804: Basic Surveying Math (Part 2)**
 - **Presenters:** Mark E. Hummel, PLS, Owner, Arpenteur, LLC & Tom Phillips, PLS, Project Manager, Howell Surveying
 - **Description:** In this session, we will work on calculations necessary for the profession of surveying and for licensure. Ideally, after this session you will be comfortable both for the field and office knowing these formulas and how to use them for your everyday job. There is a part 1 and part 2 of this topic.

1:00PM – 2:30PM..... CONCURRENT SESSIONS

- **104: Documentation of Boundary Evidence**
 - **Presenter:** Scott Reeser, PLS, Director of Surveys, Hunt Engineering Company
 - **Description:** This session will discuss different types of property boundary evidence encountered by surveyors and suggest ways to document evidence in a manner that supports their work. The presenter will share best practice suggestions with the attendees and encourage them to do the same. The intended audience for this session is ALL land surveyors engaged in property boundary surveys despite their level of experience.
- **406: Contracts, Communication, and General Practices to Reduce Professional Liability (Part 1)**
 - **Presenter:** Mark Amirault, Partner, Foundation Risk Partners
 - **Description:** In today's increasingly complex project environment, land surveyors face growing exposure to professional liability. This interactive workshop is designed to provide practical strategies to help surveyors reduce risk, strengthen client relationships, & better protect their business. Participants will gain insight into how well-crafted contracts, clear communication, & proactive project management can significantly minimize disputes & claims. We will focus on real-world applications, offering tools & techniques that can be immediately implemented in your practice.
- **504: Best Practices in Drone Surveying**
 - **Presenter:** Logan Campbell, Founder & CEO, Aerotas
 - **Description:** Drone surveying can improve speed, cost, and deliverable quality, but only when the full workflow is designed around the final map rather than the flight itself. This session reviews practical best practices for survey-grade drone programs, including mission planning, RTK/PPK setup, ground control and checkpoints, photogrammetry versus lidar tradeoffs, accuracy verification, data processing, and CAD-ready deliverables. The emphasis is on reliable workflows that produce usable survey and engineering outputs

3:00PM – 4:30PM.....CONCURRENT SESSIONS

- **105: History of Datums and What's New**
 - **Presenter:** Dan Martin, Northeast Regional Geodetic Advisor, National Geodetic Survey
 - **Description:** In this session, we will take a very brief look at the evolution of the geodetic datums in the U.S., up to today. The who, what, when, and sometimes the where and why. We are here, witnessing the next step in that evolution, NSRS Modernization. We will finish our discussion reviewing the work undertaken over the last 18 years that puts on the doorstep of a whole new system.
- **407: Contracts, Communication, and General Practices to Reduce Professional Liability (Part 2)**
 - **Presenter:** Mark Amirault, Partner, Foundation Risk Partners
 - **Description:** In today's increasingly complex project environment, land surveyors face growing exposure to professional liability. This interactive workshop is designed to provide practical strategies to help surveyors reduce risk, strengthen client relationships, & better protect their business. Participants will gain insight into how well-crafted contracts, clear communication, & proactive project management can significantly minimize disputes & claims. We will focus on real-world applications, offering tools & techniques that can be immediately implemented in your practice.
- **505: Mentoring the Next Surveyors**
 - **Presenter:** Jeffrey Horneman, PLS/GISP, Survey Manager, Brayman Construction
 - **Description:** As the members of the profession are retiring faster than we can bring on new surveyors, correct mentoring is an essential tool, if not a requirement. This class will help bridge the gap between textbook and theory to reality, as well as those with zero experience working the way up the career ladder.

5:00PM - 5:45PM.....RECEPTION & NETWORKING (EXHIBIT HALL)

6:00PM - 8:30PM.....DINNER & EVENING PROGRAM (RAFFLE & AUCTION) (EXHIBIT HALL)

Wednesday, January 13

7:00AM – 11:45AM.....REGISTRATION (CONFECTION HALL OFFICE)

7:00AM - 8:15AM.....BREAKFAST (EXHIBIT HALL)

8:15AM – 11:45AM.....CONCURRENT SESSIONS

- **106: Szabo Case Review**
 - **Presenters:** Donald Housley, PLS, Retired & David Housley, PLS, Harshman CE Group
 - **Description:** This class will review the background, processes, and outcome of the Szabo vs. PENNDOT case on a De Facto taking. There will be an in-depth review of the multiple varying and different aspects of the case from a professional surveyor's point of view. A part of this session will examine the surveyor's report.
- **408: Computer Aided Boundary Resolution (C.A.B.R.)**
 - **Presenter:** Amy Hopkins, PLS, Owner, Urban Terrain LLC
 - **Description:** This interactive session will enlighten Surveyors, Party Chiefs, Techs, and Drafters to some tips and tricks to aid them in resolving boundaries with the use of CAD functions. Compare deed vs measured distances and angles; calculate best fit lines & curve to establish centerline and right of way; move & rotate to fit field evidence; layer control for your benefit; groups vs blocks; scale by reference or ratio (surveyor's friend). This session is for the master and novice alike. Participants are encouraged to bring a laptop with their preferred drafting software. Practice drawings will be provided.
- **506: Panel Discussion: Current Hot Topics in the Land Surveying Profession**
 - **Moderator:** Scott Reeser, PLS, Director of Surveys, Hunt Engineering Company
 - **Panelists:** TBD
 - **Descriptions:** This session will host a panel of surveyors from varying backgrounds and varying types of professional work. The moderator will provide a list of questions to each panelist and provide time for discussion among both the panelists and potentially the audience. If time allows, questions from the audience may be considered. The session is intended to encourage discussion and get everyone thinking about issues beyond, survey accuracy, datums and new equipment. The intended audience for this session is anyone in the land surveying field. Other related professionals such as engineers, architects, lawyers and attorneys may find the session of interest.

8:15AM – 11:45AM.....CONCURRENT SESSIONS

• **805: Applied Survey Math**

- **Presenters:** Mark E. Hummel, PLS, Owner, Arpenteur, LLC & Tom Phillips, PLS, Project Manager, Howell Surveying
- **Description:** This seminar will utilize the knowledge gained in the Basic Survey Math sessions to solve real world problems that a surveyor may encounter. The course will cover how to utilize coordinate geometry, and how to calculate horizontal & vertical curves.

8:15AM – 9:45AM.....CONCURRENT SESSIONS

• **207: From Field to Model - Surveying's Critical Role in Digital Delivery**

- **Presenters:** Allen Melley, PE, Chief - Digital Delivery, PennDOT & Scott McMasters, BIM Manager, PennDOT
- **Description:** PennDOT's Digital Delivery program is transforming how transportation projects are planned, designed, constructed, and managed through a model-based approach to roadway, bridge, drainage, and utility infrastructure. At the foundation of this transformation is accurate, reliable survey data. Digital Delivery embraces field-to-finish workflows that support a continuous data life cycle—from initial field collection and design through construction, as-built documentation, and long-term asset management. The resulting 3D models provide engineers, surveyors, and contractors with actionable project information, including material and pay-item attribution, accessible through both desktop and field applications. As PennDOT advances toward increasingly connected digital models and digital twins, the accuracy and integrity of field-collected data become even more critical. High-accuracy survey information is essential throughout project planning and design, during construction, and in the final collection of as-built infrastructure. This workshop will explore the critical role of the surveying profession in PennDOT's Digital Delivery initiative, highlight evolving workflows and data requirements, and provide an opportunity for the survey community to share its professional expertise.

• **306: Subsurface Utility Engineering vs. Utility Locating**

- **Presenters:** Rhett Sloan, PLS, Director of Utility Engineering and Geospatial Solutions, The Lexis Group LLC & Brett Jones, Damage Prevention Liaison, Pennsylvania One Call
- **Description:** All too often Subsurface Utility Engineering (SUE) & One Call are misunderstood as to what their roles are for representing utility information. Surveyors are being asked more & more to collect utility data to be incorporated into a topo survey or ALTA survey. This presentation aims to help educate surveyors on how to respond to clients seeking more utility info by knowing what to expect from either a one call ticket or utilizing a SUE provider.

• **605: Stop the Bleed**

- **Presenter:** Amy Bollinger, BSN, RN, TCRN, Trauma Education, Outreach, & Injury Prevention Nurse Coordinator, Penn State Hershey Medical Center
- **Description:** Uncontrolled bleeding is the #1 cause of preventable death from traumatic injury. The more people who know how to control bleeding in an injured citizen, the greater the chance of surviving that injury. In this education session, non-medical bystanders will learn three ways to effectively stop life threatening bleeding and save lives: holding pressure, packing a wound, and applying a tourniquet. This session includes a presentation, followed by hands on skills stations. Following this session, the learner will receive a Stop the Bleed certificate.

• **706: From Survey to Asset Intelligence: Utilizing GIS for Infrastructure Asset Management**

- **Presenter:** Mark Maguire, GISP, GIS/Geospatial Practice Lead, Civil & Environmental Consultants, Inc.
- **Description:** Modern infrastructure owners do not manage drawings, point clouds, shapefiles, or orthophotos - they manage assets. This presentation demonstrates how survey technologies, including conventional surveying, utility mapping, LiDAR, mobile scanning, and UAV data collection, provide the foundational data needed to build GIS-based asset management systems that support infrastructure planning, maintenance, budgeting, and capital improvement programs. Participants will learn how to leverage the Esri ArcGIS cloud platform to transform survey deliverables into practical asset management workflows through examples using applications such as Field Maps Designer and Survey123. The session will also explore how these tools can be used to streamline asset inventories, inspections, and data collection processes while integrating 3D information within ArcGIS Online and ArcGIS Pro for enhanced visualization and decision-making. Real-world case studies, including a municipal water utility asset inventory, stormwater infrastructure assessments, and 3D scanning and asset tagging initiatives, will illustrate how survey and GIS technologies work together to convert accurate spatial data into actionable systems that support smarter infrastructure management.

10:15AM – 11:45AM.....CONCURRENT SESSIONS

- **208: The Evolving Skies: Understanding the Next Generation of FAA UAS Regulations**
 - **Presenter:** Bryan Hazelwood, Chief Pilot & Senior Field Service Manager, Civil & Environmental Consultants, Inc.
 - **Description:** In this session, we'll briefly review the FAA's journey to today's UAS regulatory framework before exploring the proposed regulations that could shape the next phase of the industry. We'll examine how different UAS operations introduce varying levels of risk to the National Airspace System (NAS) and how the FAA is working to address those risks through a safety-focused regulatory approach. Finally, we'll discuss practical steps individuals and organizations can take now to prepare for the potential changes expected in the FAA's next chapter of UAS regulations.

- **307: State & Federal Legislative Issues Impacting the Surveying Profession**
 - **Presenters:** Bob Regola, State Lobbyist & John "JB" Byrd, NSPS Lobbyist
 - **Description:** Effective policy and the political process in Harrisburg and Washington, D.C., have never been more important to the surveying profession. This session will provide an overview of pending national legislation affecting surveyors, as well as the legislative process and ways professionals can effectively advocate for policies that protect the interests of surveyors and promote public health, welfare, and safety. At the state level, PSLS is actively engaged in several important legislative initiatives, including Right-of-Entry, updates to the Registration Law, and revisions to the State Plane Coordinate System Law. PSLS members need to understand these efforts, stay informed, and be prepared to engage and mobilize when their voices are needed. This session will highlight the issues that matter most and provide surveyors with the knowledge and tools needed to effectively participate in the legislative process and advocate for the future of the profession.

- **606: First Aid for Surveyors**
 - **Presenter:** Amy Bollinger, BSN, RN, TCRN, Trauma Education, Outreach, & Injury Prevention Nurse Coordinator, Penn State Hershey Medical Center
 - **Description:** This presentation will describe common mechanisms of injury associated with land surveying. In addition, the presentation will include basic first aid and basic trauma care concepts, as well as ways to intervene while awaiting first responders to arrive on scene. A case study will be included.

1:00PM – 4:30PM.....STANDARDS OF PRACTICE FORUM

(Lunch will be served in the session room at 12PM. Lunch is only for those attending this session and you must be registered for this ahead of time.)

- **Moderator:** Terry McMillen Jr., Owner & President, McMillen Engineering Inc.
- **Panelists:** Don Housley, Don Groesser, Larry Leso, Brian Yorkiewicz, Tim Wentz, Scott Reeser, Matt Madden
- **Description:** The PSLS Standards of Practice provide important guidance for professional land surveyors throughout the Commonwealth. This interactive forum will examine the rationale behind the various sections of the Standards and provide participants with an opportunity to raise questions, discuss concerns, and recommend possible modifications. Meaningful discussion will depend upon informed participation. Attendees are strongly encouraged to review the Standards of Practice in detail before the conference. Ideally, each PSLS Chapter will discuss the document in advance, identify areas requiring clarification or reconsideration, and bring its questions and recommendations to the forum. The goal is to foster a thoughtful, open, and constructive statewide discussion that builds greater understanding of the Standards while ensuring that they continue to reflect sound professional practice and the needs of Pennsylvania's surveying community. View the Standards of Practice [here](#).

4:30PM.....ADJOURNMENT

Thank You to Our Premier Sponsor!

