

The North Carolina Bulletin

The Newsletter of the North Carolina Board of Examiners for Engineers and Surveyors

November 2018 Fall Issue



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The North Carolina Bulletin

Published to provide news and information regarding statutory and regulatory changes and to promote a better understanding of the practices of engineering and land surveying in the State of North Carolina.

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2022 Reference Frame Datum

by Andrew G. Zoutewelle, PLS, Vice Chair and Stacey A. Smith, PE, CPC Committee Chair Our geospatial stakeholders should be prepared for the future 2022 Reference Frame change. Recently, we have participated on the 2022 Reference Frame Working Group which reports to the Statewide Mapping Advisory Committee (SMAC), operating under the authority of the North Carolina Geographic Information Coordinating Council (GICC). The Working Group has been chartered to:

- Evaluate the impact of replacing NAD83 and NAVD88 with geometric and geopotential (4D1) reference frames on state and local governments and the surveying and mapping industry.
- Recommend practical solutions for implementation of the 2022 Reference Frame.

National Geodetic Survey

The National Geodetic Survey (NGS) defines and manages the



National Spatial Reference System (NSRS), a consistent coordinate system that defines latitude, longitude, height (elevation), scale, gravity, and orientation throughout the United States. Today,

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2022 Reference Frame Datum

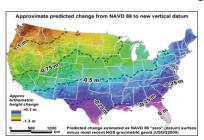
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various layers of The National Map are produced with centimeter-level absolute accuracy relative to NGS' official horizontal and vertical datums that establish the origin of horizontal coordinates and elevations above mean sea level. This ensures that orthophotos, elevation data, hydrography, transportation, administrative boundaries, and other mapped features fit together with centimeter-level precision when one mapping layer is registered to another. North Carolina among other states must review and coordinate updates in conjunction with NGS.

Information about the NSRS, coordinate systems, and the 2022 Reference Frame can be found at the following link: https://www.ngs.noaa.gov/datums/newdatums/index.shtml.

The New 2022 Reference Frame

Currently most Professional Engineers, Professional Land Surveyors, and other geospatial users base their data on the NGS horizontal datum from 1983 (North American Datum of 1983 (NAD83)) and the NGS vertical datum from 1988 ("North American Vertical Datum of 1988 (NAVD88)). Correctly interfacing with these datums is especially important when geospatial professionals import geographic information into their work product from different sources. In 2022, NAD83 and NAVD88 will be replaced with new interrelated reference frames (geometric and geopotential)

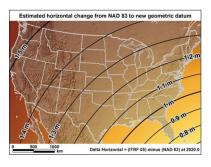


which will rely on satellite navigation systems such as the well known Global Positioning System (GPS) as well as an updated and time-tracked geoid (gravity) model. Due to the

widespread public availability of smart phones and the advances of satellite navigation systems, the new geometric reference frame will change latitude, longitude, and ellipsoid heights by approximately 1 to 2 meters from the current NAD83 (2011) values, and the new geopotential reference frame will change orthometric heights (elevations) on an average of -50 centimeters (from -1 meter in the Pacific Northwest to zero in south Florida).

The replacement of NAD 83 and NAVD88 with new reference frames (datums) will impact all maps, charts, geographic information systems, surveying and engineering operations that federal, state, and local agencies produce and perform, to include hydrographic charts produced by NOAA; 3DEP elevation datasets and National Hydrography Datasets produced by USGS; and

Flood Insurance Rate Maps produced by FEMA, for example. Furthermore, The North Carolina State Plane Coordinate System will change in order to more accurately model various geographic features within



North Carolina to the new reference system. The new North Carolina (NC) State Plane Coordinate System (NCSPCS) of 2022 will differ from the current NCSPCS. A final decision on the design of the NCSPCS of 2022 will be made by mid-2019. It is critical that federal, state, and local agencies along with the private sector are made aware of this change and develop plans for a transition of their respective data to the new reference frames.

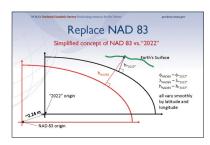
Naming Conventions

As a result of the change, new naming conventions, which will replace the old, are in order as follows:

- NAD83 becomes: North American Terrestrial Reference Frame (NATR2022)
- NAVD88 becomes: North American-Pacific Geopotential Datum of 2022 (NAPGD2022)

Horizontal Coordinate System

The new 2022 geometric (horizontal) reference frame (NATR2022) will be based on a Cartesian coordinate system with positions represented as sets of X/Y/Z coordinates with the origin of the coordinate system (0/0/0) at the center of the earth (it's this earth's center that is being corrected by approximately 2 meters to more accurately reflect the earth's true rotation). In other words, it will be Earth Centered, Earth Fixed (ECEF), aligned with the International Terrestrial Reference Frame (ITRF) at a particular epoch (To Be Determined). These coordinates will require a little change in thinking for those accustomed to the x,y, of the NC State



Plane Coordinate System or those who use latitude and longitude. Regarding the epoch, remember that the various crustal plates are in motion, so defining the epoch of the datum

2022 Reference Frame Datum

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location on the earth's surface is important. The new reference frame is likely to contain aspects of some well-modeled velocities, e.g., plate rotations. Passive control monuments will continue to be used as a secondary method to access the NSRS by surveyors on the ground.

Vertical Heights

The new 2022 geopotential (vertical) reference frame (NAPGD2022) will be accessed with satellite navigation (GPS, or similar satellite based systems) technology, and a gravimetric geoid model with passive monuments. It will be based on a spherical harmonic model (SHM) of Earth's external gravity potential. (Remember, the earth's equipotential – or "sea level" -- surface is not a uniform curved shape, but is actually slightly irregular due to undulations in gravity caused by the complex geophysics of the earth's mass.) This new model will be partly derived from airborne and terrestrial gravity data collected as part of the Gravity for the Redefinition of the American Vertical Datum (GRAV-D) and will likely build upon the planned "EGM2020" model from the National Geospatial-Intelligence Agency (NGA). This SHM will be used to derive various quantities, such as dynamic heights, surface gravity, and a gravimetric geoid serving as the zero height surface of orthometric heights (commonly known as "elevations"). The target accuracy is 2-centimeters in both absolute and relative (over all distances) orthometric heights using Global Navigtaion Satellite System (GNSS) and a geoid model. It will monitor time-varying nature of gravity field, including the geoid.

GRAV-D is an NGS project using sensitive airborne gravity equipment which is being performed to:

- a) develop a high-resolution snapshot of gravity in the U.S., supporting gravimetric geoid accuracy, and
- b) monitor changes to the gravity field at decadal scales, including changes to the geoid.







North Carolina Geodetic Survey is partnering with NGS to collect terrestrial gravity data to support the GRAV-D project in North Carolina.

Industry Impact

North Carolina products/services that will be impacted (at a minimum):

- North Carolina Continuously Operating Reference Station (CORS) network
- NC State Plane Coordinate System (NCSPC)
- All activities/services related to highway construction
- All public/private sector construction projects and equipment using GNSS technology
- Land Records Management Program
- All State/local agencies geographic information systems
- Charting and navigation systems
- Aerial imagery projects
- Unmanned Aerial System (UAS) Technology
- National Wetlands Inventory (NWI)
- Precision agriculture
- NC OneMap
- NC Geodetic Survey geodetic database
- Flood Risk Information System (FRIS)
- Flood Inundation Mapping Alert Network (FIMAN)

We appreciate the input from emeritus member of the board, Gary Thompson, PLS and Chief of the North Carolina Geodetic Survey. Please stay apprised of the impact to our state's response in this effort with the following link: https://www.ngs.noaa.gov/datums/newdatums/FAQNewDatums.shtml.



Effectively Communicating with the Surveying Client

by John M. Logsdon, PLS

The practice of surveying is regulated in North Carolina "in order to safeguard life, health, and property, and to promote the public welfare" and is restricted to those persons who have met the requirements of licensure through education, experience and examination. Chapter 89C of the North Carolina General Statutes is the statutory authority for the regulation of engineering and surveying, and it authorizes and directs the Board of Examiners to adopt and enforce rules governing the practice of engineering and surveying, which appear in Title 21, Chapter 56 of the North Carolina Administrative Code (the "Board Rules").

The professional land surveyor has an obligation to honestly and effectively communicate with the client. The Rules of Professional Conduct state that a licensee "shall be objective and truthful in all professional reports, statements or testimony" and "shall include all relevant and pertinent information in such reports, statements or testimony." The results of a survey must be reported to the client in the form of a map or report of survey, prepared in a clear and factual manner. Consistent with the surveyor's obligation to protect the public, the term "clear and factual" requires that the information contained in the reports or statements must be presented in a way that is understandable to the client or other user of the survey: what may be obvious to a licensed professional may not be at all clear to a person without the education and experience of a PLS or a PE.

The need for effective communication with the client is illustrated in two examples commonly encountered by surveyors:

- (a) the depiction of overlaps and gaps on plats, and
- (b) the preparation of exhibits.

A. Platting Overlaps and Gaps

In the performance of boundary surveys, the Standards of Practice set forth certain obligations of the surveyor. The surveyor is required to examine the public records not only of the property being surveyed, but also adjoining properties.⁵ In addition, the surveyor must spend the necessary time and effort to make investigations to determine if there are encroachments, gaps, lappages, or other irregularities along each line surveyed.⁶ It is not unusual for the surveyor to encounter instances in which an examination of the public record reveals apparent overlaps or gaps in the descriptions of adjoining properties. Similarly, the investigation of the physical evidence along boundary lines may reveal conflicting monumentation or other evidence of possession of adjoining properties.

In making a final report of survey, whether graphical or written, the surveyor must disclose the existence of overlaps or gaps discovered during the survey, in a manner that is clear and factual. At a minimum, this requires that the location and extent of any overlaps or gaps discovered by the surveyor must be shown on the plat in a manner that is neither deceptive nor misleading. The surveyor should prepare a plat giving due consideration to the fact that a person reviewing the plat may not have the experience or skill in interpreting maps that is generally possessed by professional land surveyors.

The use and selection of line types and line weights is an important consideration in conveying information on a plat. Every plat must contain a legend depicting nomenclature or symbols not otherwise labeled,⁷ which includes line types and line weights. The Board recognizes that it is common practice for surveyors to

Effectively Communicating with the Surveying Client

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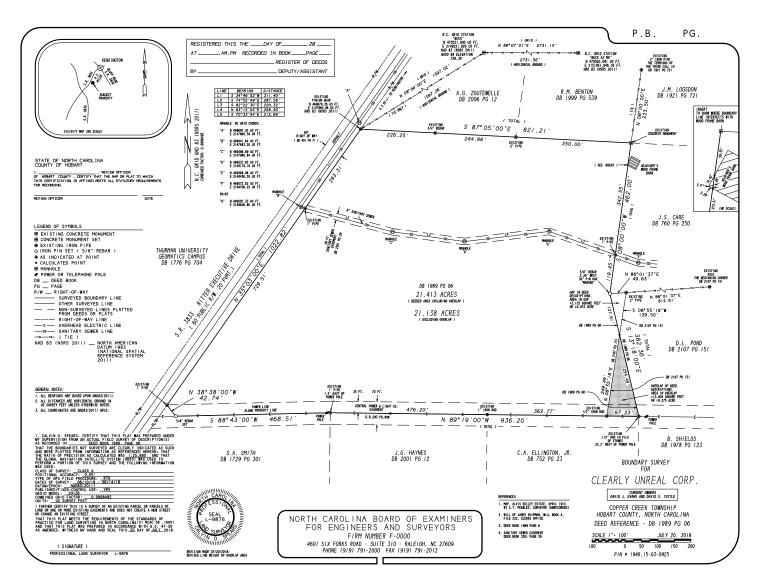
select one line type and line weight (often, a solid, bold line) to represent the entire boundary of the property being surveyed, and a different line type and weight to represent an adjoining deed description or line of possession.

For boundary retracement surveys, clients engage the services of a professional land surveyor to express an opinion as to the location of boundary lines, based on the surveyor's skill, knowledge and experience, after adequate investigation and the application of appropriate legal principles. The final plat is just that: an expression of a professional opinion. The surveyor, alone, cannot resolve overlaps, gaps or other boundary disputes; ultimately, such disputes can be resolved only by the written agreement of the parties or the entry of a final judgment of a court.

In the past, the Survey Committee of the Board has expressed the concern that clients may interpret the use of differing line weights to mean that there has been a final determination of the location of the true boundary line. Specifically, there was a concern that the use of a bold, solid line depicting the client's deed description and a lighter line to show an adjoining deed may create the impression that the client owns, or at least has a greater claim to, the conflicting area. Neither the client nor the public (the adjoining land owner) are protected if the result of a survey is that the client takes self-help actions (cutting timber, removing a fence) in the mistaken belief that the survey plat is a final resolution of a boundary dispute.

The current Survey Committee shares the concern that the surveyor must clearly identify the existence of overlaps and gaps and to effectively communicate with the client the importance and impact of the overlap or gap. However, the Survey Committee recognizes that information may be conveyed to clients in a variety

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of ways. The existence of an overlap or gap may be highlighted on a plat by shading the area and including conspicuous explanatory notes. In addition, the nature of the surveying process can be related to the client in the form of an accompanying written report or letter. In whatever form the necessary information is conveyed, it remains the surveyor's obligation to assure the plat or report is clear and factual, including the fact of the existence, location and extent of overlaps or gaps. The Survey Committee does not prescribe any particular method by which this information can be communicated (including the selection of line weights), but rather leaves this decision to the sound judgment of the professional land surveyor. Consistent with this change of approach, the Board has posted a revised sample plat on its website: www.ncbels.org/forms/Sample_PLAT.pdf.

B. Preparation of Exhibits

N.C. Gen. Stat. § 47-30 is one of the statutes governing the recordation of documents in the offices of the Registers of Deeds. It is a recording statute and does not regulate the practice of surveying. For a plat to be recorded, a licensed surveyor must certify that it contains certain specific information. However, this statute also provides that a map not meeting the requirements to be separately recorded may be attached as an exhibit to a deed or other instrument submitted for recording, provided that the map includes a conspicuously labeled disclaimer.8 Exhibits, of course, can serve very useful purposes: an example is an attachment to a written description showing the relative locations of several described easements. This raises the question: Can a professional land surveyor prepare an exhibit for a document to be recorded that does not otherwise meet the requirements for recording a plat? In other words, if a non-surveyor can prepare an exhibit to a deed, why could a surveyor not do the same?

Prior to preparing an exhibit to attach to a deed, the surveyor should consider the client's view of the services provided. Could the client believe that the exhibit is a "survey" of the property because it was prepared by a surveyor? I have had clients tell me they have a survey, and then show me a deed plot, a tax map, and even a photocopy of a surveyor's work map. If the client leaves a surveyor's office believing he has a survey but the document does not meet the Standards of Practice for Land Surveying,9 the surveyor probably has not effectively communicated with the client and may have violated the Rules of Professional Conduct by failing to protect the public.

A surveyor must further consider the nature of the disclaimer that must be attached to exhibits under § 47-30(n). If the exhibit is the result of an actual survey, a licensee must comply with the requirements of Chapter 89C and the Board Rules. Any map not certified for recording and all reports of survey must contain a certificate, signed and sealed by the surveyor, stating that it was prepared in accordance with the Standards of Practice. Furthermore, "Final drawings, specifications, plans and reports prepared by a licensee shall, when issued, be certified and stamped with the seal or facsimile of the seal."

A surveyor should also consider the intended use of the exhibit. If the exhibit is to be used to define property rights or for other authoritative purposes, then the preparation of the exhibit likely falls within the definition of surveying. When a surveyor is engaged to perform work requiring a surveying license, and the "exhibit" is the final drawing or report, it must be signed and sealed. A surveyor cannot avoid his or her professional obligations to the client and the public by attaching a disclaimer to the final work product and recording it as an exhibit to a deed.

Getting back to the question of whether a surveyor can prepare exhibits: the answer is yes, IF (1) the preparation of the exhibit does not involve the practice of surveying and the surveyor has effectively communicated with the client to assure the client understands that the exhibit is not a survey; or (2) the surveyor has delivered to the client a signed and sealed map or report of survey, the exhibit is part of the overall services performed, and the exhibit references the signed and sealed work product; or (3) the exhibit is based exclusively on a recorded document and the exhibit includes the recording information of the document (e.g., an un-modified deed plot).

¹ N.C. Gen. Stat. § 89C-2

² N.C. Gen. Stat. § 89C-13(b).

³ 21 NCAC 56.0701(d)(1).

⁴ 21 NCAC 56.1602 (f).

⁵ 21 NCAC 15.1602(c)

^{6 21} NCAC 56.1602(a)

⁷ 21 NCAC 56.1604(d)(11)(H)

⁸The required disclaimer is: "This map may not be a certified survey and has not been reviewed by a local government agency for compliance with any applicable land development regulations and has not been reviewed for compliance with recording requirements for plats." N.C. Gen. Stat. § 47-30(n).

⁹ 21 NCAC 56.1600, et seq.

^{10 21} NCAC 56.1604(d)(12)

¹¹ N.C. Gen. Stat. § 89C-16(c)

MEMBER NOTES



Access the Licensees Only section of the Board's website here:

https://www.membersbase.com/ncbelsindividual/login.aspx

Renewals for 2019

License renewals for 2019 begins on December 1. Licensees are encouraged to renew online as it is considerably faster than renewing by mail. Simply login to the *Licensees Only* section on the Board's website and enter your license number and PIN. If you do not know your PIN, follow the instructions in the *Licensees Only* section to receive it by e-mail. Also, the PDHs you reported the previous year can be viewed in the *Licensees Only* section. If you are a Professional Engineer and Professional Land Surveyor, you will only receive one renewal form for both licenses. All PE and PLS licenses expire on December 31 each year. Reinstatement fee after January 31 is \$100 (total \$175).

Paper Renewal Opt-Out

To streamline the PE/PLS license renewal process and to be environmentally friendly, the Board offers a paper renewal opt-out feature. To opt out of receiving paper renewal forms, login to the *Licensees Only* section on the Board's website using your license number and PIN and follow the opt out instructions. The Board will continue to send e-mail notices when it's time to renew so keep your e-mail address up to date.

Address Changes

Per Board Rule [21 NCAC 56.0505(a), .0606(a)], you are required to provide the physical places of business and residential addresses. You can still provide a PO Box for your mailing address. You can login to the *Licensees Only* section on the Board's website at anytime to update your addresses and e-mail. Also, you are required to give notice to the Board of a change of business or residential address within 30 days of the change.

Business Firm Questions?

For any business firm questions, contact: Mark Mazanek, Director of Firm Licensure, via email to mmazanek@ncbels.org or by phone at (919) 791-2000 x102.

Board Meetings

Meetings of the NC Board of Examiners for Engineers and Surveyors are open to the public. Meetings are conducted at the Board office at 4601 Six Forks Road, Suite 310, Raleigh, NC 27609 (unless otherwise noted).

Persons wishing to be placed on the agenda should submit a written request to the Board address as follows: ATTN: Andrew Ritter, Executive Director, at least two weeks in advance of the next regularly scheduled Board meeting. These requests should contain information concerning the nature of the business that you would like to discuss with the Board.

EXAMS

- » Stats
- » Dates
- » News



Registration deadline for the spring exam is January 2 and for the fall exam is August 1.

April 2018 Exam Statistics

Principles & Practice of Engineering (PE) 62.07% pass rate

Structural Engineering (SE)

Vertical Component 12.5% pass rate Lateral Component 0.00% pass rate

Principles & Practice of Surveying (PS)

 April 2018
 July 2018

 Part B:
 100% pass rate
 80.0% pass rate

 Part C:
 87.5% pass rate
 63.64% pass rate

Computer-Based Exam Results: May 16, 2018 - November 9, 2018

Principles & Practice of Surveying (PS)
 Fundamentals of Engineering (FE)
 66.12% pass rate
 Fundamentals of Surveying (FS)
 34.78% pass rate

Examination Schedules

The **FE** and **FS** exams are offered year-round as computer-based exams at Pearson VUE testing centers. See www.ncees.org/exams for details.

The **PE** and **SE** exams are scheduled as follows:

Year	PE and SE Vertical	SE Lateral
2019	April 5 & October 25	April 6 & October 26
2020	April 17 & October 23	April 18 & October 24
2021	April 23 & October 22	April 24 & October 23
2022	April 22 & October 21	April 23 & October 22
2023	April 14 & October 27	April 15 & October 28

All **PE** exams are offered twice a year **except** for the following:

PE exams offered in April Only	PE exams offered in October Only
Agricultural and Biological	Control Systems Engineering
Engineering	Fire Protection Engineering
Architectural Engineering	Metallurgical and Materials
Industrial Engineering	Engineering
Naval Architecture and Marine Engineering	Mining and Mineral Processing Engineering
Software Engineering	Nuclear Engineering
	Petroleum Engineering

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BOARD ACTIONS 2018-2

The following summaries represent actions taken by the Board. Penalties vary depending upon the specific circumstances of each case. Space limitations preclude full reporting of all circumstances. The range of disciplinary actions includes: issuing a reprimand; suspend, refuse to renew, refuse to reinstate, or revoke the certificate of licensure; require additional education; or, as appropriate, require reexamination; or levy a civil penalty not in excess of \$5,000 for any engineer or \$2,000 for any land surveyor. Questions or requests for information concerning specific cases should be directed to David S. Tuttle, Board Counsel, at (919) 791-2000, extension 111 or via email at dstuttle@ncbels.org.

CASE NO. V2015-077

Robert T. Macia [PE No. 026690 – Suspended] Raleigh, NC

VIOLATION: Respondent engaged in misconduct in the practice of the profession of engineering, and violated .1103(a)(3), when he authorized placement of his electronic signature on final design documents, which were not certified in accordance with .1103(c); engaged in misconduct in the practice of the profession of engineering, and violated .1103(c), when he issued and affixed his seal and signature to plans, which were not final and without the required notations sufficient to put the public on notice not to use such plans as a final product; respondent's conduct in creating, issuing, and affixing his seal to inadequate and unsafe design documents, submitting plans for permitting before computing adequate calculations himself or before verifying that another had computed adequate calculations, and failing to adequately address communicated concerns with the design constituted a failure to protect the public, health, safety, and welfare, was misconduct in the practice of the profession of engineering, and constituted a violation of .0701(b) and G. S. 89C-20; respondent's conduct constituted gross negligence and misconduct in the practice of the profession of engineering in violation of G. S. 89C-20 and .0701(b) by: a. creating, issuing and affixing his seal to inadequate and unsafe design documents; b. failing to adequately address communicated concerns with the design; and c. failing to perform a Quality Assurance/Quality Control process to review the calculations for the connections of the supported glulam girders and suspended glulam trusses on the subject bridges before construction, or failing to have another employee perform a QA/QC review process before construction.

BOARD ACTION: Suspended Engineering Certificate of Licensure for 24 months and \$5,000 civil penalty.

CASE NO. V2016-069

Godwin Q. Amekuedi [Non-licensed] Raleigh, NC

VIOLATION: Practiced or offered to practice engineering without a license as required by G. S. 89C-23; presented or attempted to use the certificate of licensure or seal of another [G. S. 89C-23]; and falsely claimed to be licensed under G. S. 89C [G. S. 89C-23].

BOARD ACTION: Refer to State Bureau of Investigation.

CASE NO. V2017-021

Infinite Land Design, P.C. [C-2471] Siler City, NC

VIOLATION: Failed to conduct its practice in order to protect the public health, safety and welfare [.0701(b)] and personnel from the firm failed to be completely objective and truthful in professional statements [.0701(d)(1)].

BOARD ACTION: Reprimand and \$2,000 civil penalty.

CASE NO. V2017-044

A. Scott Matthews, PE [036809] Southern Pines, NC

VIOLATION: Produced deficient, substandard or inaccurate reports, failing to protect the public [.0701(b)].

BOARD ACTION: Reprimand and \$2,000 civil penalty.

CASE NO. V2017-066

Joseph R. Brochure, PLS [L-1759] Oak Island, NC

VIOLATION: Failed to conduct practice in order to protect the public health, safety and welfare [.0701(b)] for inadequate client communication that led to unnecessary confusion regarding the project and for improper use of the "preliminary" statement; failed to provide adequate tie [.1602(g), .1604(d)(9)]; failed to report the results of a survey as a map or report of survey [.1602(f)] yet provided verbal confirmation there was adequate space to construct garage; and failed to provide an adequate legend [.1604(d)(11)].

BOARD ACTION: Reprimand and \$500 civil penalty.

CASE NO. V2017-067

Damon Boseman [Non-licensed] Goldsboro, NC

VIOLATION: Practiced or offered to practice engineering without a license as required by G. S. 89C-23.

BOARD ACTION: Issued letter to place the individual on notice that practicing, or offering to practice, engineering in North Carolina without being licensed with the Board, is a violation of G. S. 89C-23.

CASE NO. V2017-071

Acousti Engineering Co. of Florida [Non-licensed]
Orlando, FL

VIOLATION: Corporation practiced or offered to practice engineering in violation of G. S. 89C-24 and 55B.

BOARD ACTION: Issued letter to place the company on notice that practicing, or offering to practice, engineering in North Carolina and using "engineering" in its name without being licensed with the Board is a violation of G. S. 89C-23, 24 and 55B.

CASE NO. V2017-073

Christopher F. Halpin, PE [036672] Glastonbury, CT

VIOLATION: Disciplined by another jurisdiction [G. S. 89C, .0701(h)]; failed to notify the Board of license discipline within 30 days [.0505(a)]; and submitted false information on a renewal form [G. S. 89C-23, .0701(d)].

BOARD ACTION: Reprimand.

CASE NO. V2017-082

Carolinas Structural Consultants [F-1226] Denver, CO

VIOLATION: Submitted false information on renewal form [.0701(d)] and failed to have a resident licensed professional in responsible charge in each office [.0901].

BOARD ACTION: Suspended license until such time as company provides proof of resident professional in the North Carolina office and \$2,000 civil penalty.

CASE NO. V2017-083

Jeffrey J. Moss, PE [024346] Apex, NC

VIOLATION: Failed to conduct practice in order to protect the public health, safety and welfare [.0701(b)]; produced a deficient, substandard or inaccurate report, failing to protect the public [.0701(b)]; representation as architectural services or as Architect [G. S. 83A, .0701(b)]; and failed to include address on documents [.1103(a)(6), (b)(5)].

BOARD ACTION: Reprimand, \$2,500 civil penalty, and ethics course.

CASE NO. V2017-088

Parrish Point, LLC [Non-licensed] Virginia Beach, VA

VIOLATION: Limited Liability Company practiced or offered to practice surveying and engineering in violation of G. S. 89C-24, 57D and 55B.

BOARD ACTION: Issued letter to place the company on notice that practicing, or offering to practice, engineering and land surveying in North Carolina without being licensed is a violation of G. S. 89C-24, 57D and 55B. The activities include, but are not limited to, civil engineering, roadway design, commercial site design, land development, construction management, storm water modeling and design, water/sewer system modeling and design, land use planning and feasibility studies.

CASE NO. V2017-093

Douglas Cagle [Non-licensed] Seagrove, NC

VIOLATION: Practiced or offered to practice land surveying without being licensed as required by G. S. 89C-23.

BOARD ACTION: Issued letter to place the individual on notice that practicing, or offering to practice, land surveying in North Carolina without being licensed with the Board, is a violation of G. S. 89C-23.

CASE NO. V2017-095

Charles O. Eliason, PLS [L-3599] Siler City, NC

VIOLATION: Failed to conduct practice in order to protect the public health, safety and welfare [.0701(b)]; failed to be completely objective and truthful in professional statements [.0701(d)(1)]; affixed seal to work not done under direct supervisory control or responsible charge [.0701(c)(3)]; and for the following maps: Map 1 – failed to report the results of a survey in a clear and factual manner [.1602(f)] as to certification statement, legend for monumentation and to lines surveyed, failed to report and show gap [.1602(a), (f)], failed to survey boundary lines for survey that was recorded [.0701(b)], restricted use of map for intended purposes by copyright note [.0701(b)], and issued "preliminary" map to be recorded [.0701(b)]; Map 2 – failed to describe and

date revisions [.1103(a)(7)] and issued "preliminary" map to be recorded [.0701(b)]; Map 3 – restricted use of map for intended purposes by copyright note and copyrighted to dissolved and archived company [.0701(b)] and failed to describe and date revisions [.1103(a)(7)].

BOARD ACTION: Reprimand and \$2,000 civil penalty.

CASE NO. V2018-004

Charles L. Johnson, III [Non-licensed] Holly Springs, NC

VIOLATION: Practiced or offered to practice engineering without a license as required by G. S. 89C-23 and used the word "engineer" in violation of licensing required by G. S. 89C-23.

BOARD ACTION: Issued letter to place the individual on notice that practicing, or offering to practice, engineering in North Carolina without being licensed with the Board, is a violation of G. S. 89C-23.

CASE NO. V2018-014

Roger L. Blair, PE [040207] Nevada City, CA

VIOLATION: Disciplined by another jurisdiction [G. S. 89C, .0701(h)] to include probated license suspension.

BOARD ACTION: Suspended Engineering Certificate of Licensure, probated until such time as the licensee furnishes proof of satisfaction of probation in other jurisdiction.

CASE NO. V2018-015

David B. Logan, PE [034106] Sterling, VA

VIOLATION: Disciplined by another jurisdiction [G. S. 89C, .0701(h)]; failed to notify the Board of license discipline within 30 days [.0505(a)]; and submitted false information on renewal form [G. S. 89C-23, .0701(d)].

BOARD ACTION: Reprimand.

CASE NO. V2018-016

Randolph S. Piersall, PE [035421] Westerville, OH

VIOLATIONS: Failed to notify the Board of license discipline within 30 days [.0505(a)]; disciplined in another jurisdiction [G. S. 89C, .0701(h)]; and submitted false information on renewal form [G. S. 89C-23, .0701(d)].

BOARD ACTION: Reprimand and \$500 civil penalty.

CASE NO. V2018-018

William J. Zastrow, PE [045592] Lisle, IL

VIOLATION: Disciplined by another jurisdiction [G. S. 89C, .0701(h)] to include suspension.

BOARD ACTION: Suspended Engineering Certificate of Licensure until proof of eligibility to be reinstated in the State of Hawaii is furnished.

CASE NO. V2018-033

Matthew T. Mokanyk, PE [032440] Grawn, MI

VIOLATION: Failed to notify the Board of license discipline within 30 days [.0505(a)]; submitted false information on renewal form [G. S. 89C-23, .0701(d)(1)]; and was disciplined by another jurisdiction [G. S. 89C, .0701(h)].

BOARD ACTION: Reprimand and \$500 civil penalty.

CASE NO. V2018-035

David W. Tiegs, PE [034947] Collegeville, PA

VIOLATION: Disciplined in another jurisdiction [G. S. 89C, .0701(h)]; failed to notify the Board of license discipline within 30 days [.0505(a)]; and submitted false information on renewal form [G. S. 89C-23, .0701(d)].

BOARD ACTION: Reprimand.

