



Final Regulation Agency Background Document

Agency name	DPOR/ Board for Architects, Professional Engineers, Land Surveyors, Certified Interior Designers and Landscape Architects
Virginia Administrative Code (VAC) citation	18 VAC10-20
Regulation title	Board for Architects, Professional Engineers, Land Surveyors, Certified Interior Designers and Landscape Architects Regulations
Action title	Develop necessary regulations to implement a regulatory program for photogrammetrists
Date this document prepared	December 18, 2007

This information is required for executive branch review and the Virginia Registrar of Regulations, pursuant to the Virginia Administrative Process Act (APA), Executive Orders 36 (2006) and 58 (1999), and the *Virginia Register Form, Style, and Procedure Manual*.

Brief summary

Please provide a brief summary (no more than 2 short paragraphs) of the proposed new regulation, proposed amendments to the existing regulation, or the regulation proposed to be repealed. Alert the reader to all substantive matters or changes. If applicable, generally describe the existing regulation. Also, please include a brief description of changes to the regulation from publication of the proposed regulation to the final regulation.

The purpose of the proposal is to make the following changes:

Develop necessary regulations to implement a regulatory program for photogrammetrists, including standards for determination of topography, as permitted by HB2863 from the 2005 session of the General Assembly.

Other changes which may be necessary may also be considered.

Statement of final agency action

Please provide a statement of the final action taken by the agency including (1) the date the action was taken, (2) the name of the agency taking the action, and (3) the title of the regulation.

On December 13, 2007, the Board for Architects, Professional Engineers, Land Surveyors, Certified Interior Designers and Landscape Architects adopted final Board for Architects, Professional Engineers, Land Surveyors, Certified Interior Designers and Landscape Architects Regulations.

Legal basis

Please identify the state and/or federal legal authority to promulgate this proposed regulation, including (1) the most relevant law and/or regulation, including Code of Virginia citation and General Assembly chapter numbers, if applicable, and (2) promulgating entity, i.e., agency, board, or person. Describe the legal authority and the extent to which the authority is mandatory or discretionary.

§§ 54.1-404, 54.1-411.C, 13.1-549 and 13.1-1111 of the Code of Virginia authorize the Board to promulgate regulations for a regulatory system. While the Board is mandated to establish regulations, the content of the regulations is at the discretion of the Board.

Purpose

Please explain the need for the new or amended regulation. Describe the rationale or justification of the proposed regulatory action. Detail the specific reasons it is essential to protect the health, safety or welfare of citizens. Discuss the goals of the proposal and the problems the proposal is intended to solve.

The new and amended regulations are necessary to implement the provisions of HB2863 of the 2005 General Assembly session which granted the APELSCIDLA Board authority to regulate the practice of photogrammetry as a sub-set of the land surveyor profession. This regulatory program will allow photogrammetrists to be licensed in an appropriate manner while ensuring the public is adequately protected through minimum competency standards of practice for individuals who are integral in the process of constructing improvements on real property and determining flood plains.

Substance

Please identify and explain the new substantive provisions, the substantive changes to existing sections, or both where appropriate. A more detailed discussion is required under the "All changes made in this regulatory action" section.

The Board will develop regulations to implement a regulatory program for photogrammetrists, including standards for determination of topography, in accordance with the provisions of § 54.1-404.B of the Code of Virginia as follows:

B. The Board may impose different licensure requirements for a limited area of the practice of land surveying for persons who determine topography, contours, or depiction of physical improvements utilizing photogrammetric methods or similar remote sensing technology who are not otherwise exempt pursuant to subsection C of § 54.1-402. Any such requirements shall include reasonable provisions for licensure without examination of persons deemed by the Board to be qualified to provide photogrammetric and remote sensing surveying services.

Any license issued pursuant to this subsection shall be distinctive, reflecting the limited area of the practice of land surveying so authorized, and considered as a land surveyor and the practice of land surveying for the purposes of §§ 13.1-549, 13.1-1111, 54.1-402, 54.1-405, 54.1-406 and 54.1-411. Nothing herein shall be construed to authorize a person issued a limited license pursuant to this subsection to practice beyond such limited area of practice. The establishment of any such limited license shall not prohibit any duly qualified land surveyor licensed pursuant to § 54.1-400 from engaging in any such limited area of practice.

The proposed change is being considered as a study by the Board for Professional and Occupational Regulation determined that the practice of photogrammetry does affect the health, safety and welfare of the public. Further, in order to adequately protect the public, the General Assembly granted the APELSCIDLA Board the authority to develop the necessary regulatory program.

Other changes which may be necessary may also be considered.

Issues

Please identify the issues associated with the proposed regulatory action, including:
1) *the primary advantages and disadvantages to the public, such as individual private citizens or businesses, of implementing the new or amended provisions;*
2) *the primary advantages and disadvantages to the agency or the Commonwealth; and*
3) *other pertinent matters of interest to the regulated community, government officials, and the public. If there are no disadvantages to the public or the Commonwealth, please indicate.*

The public and those associated with the development of real property will now have a pool of qualified photogrammetrists from which to select. In addition, the Board will have the authority to discipline those regulants who show themselves to be a danger to the public. The photogrammetrists will bear the costs of the regulatory program; however, the expense is expected to be minimal (on par with what Land Surveyors currently pay) and should not have an adverse impact on the profession. The GIS community is exempted from this licensure program and should not be adversely affected.

Changes made since the proposed stage

Please describe all changes made to the text of the proposed regulation since the publication of the proposed stage. For the Registrar’s office, please put an asterisk next to any substantive changes.

There were no changes made since the proposed stage.

Public comment

Please summarize all comments received during the public comment period following the publication of the proposed stage, and provide the agency response. If no comment was received, please so indicate.

Summary of comments received during public comment period (July 9, 2007 – September 13, 2007, with a public hearing held on September 13, 2007) regarding the proposed regulations. During the public comment period and public hearing, the Board received the following comments from 4 parties:

#	REGULATION #	SUMMARY OF COMMENT(S)
	COMMENTOR'S NAME	BOARD RESPONSE
1	Department of Planning and Budget's Economic Impact Analysis (EIA)	Concurs with the findings in the EIA – costs exceed the benefits; increase the cost to become a photogrammetrist which will decrease the number of available photogrammetrists; state and local agencies will have to pay more for photogrammetric services; and state and local agencies will have to procure photogrammetric services through competitive negotiation which will increase the cost of the services.
	Thomas Conry, Fairfax County, via the Public Comment Forum on the Virginia Regulatory Town Hall (www.townhall.virginia.gov) on September 13, 2007.	As stated in the "Agency Response to the EIA," we do not concur with the concerns raised in the EIA.
2	Department of Planning and Budget's Economic Impact Analysis	Must balance the need for regulation against the cost of the regulation – only should be regulated for the development of legal documents developed in support of the recognized practice of land surveying. Concurs with DPB's Economic Impact Analysis will increase the cost to local and state governments – recommends that a cost benefit analysis be completed after one year.
	Dan Widner, Coordinator, Virginia Geographic Network, via the Public Comment Forum on the Virginia Regulatory Town Hall (www.townhall.virginia.gov) on September 13, 2007.	Concur with the need to regulate to only to the extent necessary to ensure minimal competency and to protect the health, safety and welfare of the public. While there is a cost of regulation, we do not believe it is excessive or burdensome. As stated in the "Agency Response to the EIA," we do not concur with the concerns raised in the EIA.
3	Department of Planning and Budget's Economic Impact Analysis	Agrees with the DPB Economic Impact Analysis provided for 18 VAC 10-20. In her 25 years of public service it has been her experience that given similar circumstances professional services contracts generally are more expensive than non professional services contracts. The quality of the work can be controlled by careful attention to specifications, reference checking and proactive contract management. There is no substitute for cost comparison, and the time consuming professional services contracts will raise the price of photogrammetric services.
	Mary Beth Fletcher, Arlington County, via the Public Comment Forum on the Virginia Regulatory Town Hall (www.townhall.virginia.gov) on September 13, 2007.	As stated in the "Agency Response to the EIA," we do not concur with the concerns raised in the EIA.
4	Department of Planning and Budget's Economic Impact Analysis	On page 3772, the term LIDAR is mis-applied. LIDAR stands for Light Detection and Ranging, not "Laser."
	NOTE: The page numbers refer to the page numbers on which the proposed regulations appeared in the <i>Register of</i>	On page 3774, it is stated that "most land surveyors ... did not have the knowledge

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	<p><i>Regulations</i> (published July 9, 2007).</p>	<p>necessary to certify the work of photogrammetrists.” Given this admission by surveyors, the regulation is flawed by requiring individuals, expert in photogrammetry, to have experience “under the direct supervision and direction of a licensed land surveyor ...” in order to be licensed. This provision in the regulations, noted below, is a “poison pill” provision.</p> <p>On page 3775, they strongly object to the paragraph that begins, “If no suitable contract is negotiated...” The person who made this comment was stating an opinion, not fact, with no substantiation and with non professional credentials to support such an opinion.</p> <p>The quote from the AG in this context is wrongly placed. The AG’s opinion was on licensure, not procurement. This quote is inappropriate and out of context in this section.</p> <p>Additionally, they strongly disagree with the statement that “the proposed regulations will likely suppress development of new remote technologies within the state.” Remote sensing technologies are inter-state and international commercial activities. Advancements in other geographic jurisdictions are, can, and will be embraced by practitioners in Virginia. Moreover, the technologies are developed by original equipment manufacturers (OEMs), who are not subject to professional licensing.</p> <p>Similarly, they strongly disagree with the entire discussion on page 3775, column two, on “Projected Impact on Employment.” Again, there is no data or substance to the very misleading and erroneous discussion. The experience in other states that have licensed photogrammetrists has not had a negative impact on total employment. In fact, this sector has been identified by the Federal Government, U.S. Department of Labor, as one of the highest job growth communities in the American workforce.</p>
	<p>John M. Palatiello, Executive Director, MAPPS, via e-mail on September 13, 2007.</p>	<p>Concur with the comments. As stated in the “Agency Response to the EIA,” we do not concur with the concerns raised in the EIA.</p>
5	<p>18 VAC 10-20-295</p>	<p>Under “Approved photogrammetric surveying or similar remote sensing technology experience,” they strongly oppose the requirement that training or supervision under the “direction of a licensed land surveyor.” As noted above, the report already acknowledges “most land surveyors ... did not</p>

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		have the knowledge necessary to certify the work of photogrammetrists.” Moreover, most practicing photogrammetrists who wish to be licensed have worked independent of a licensed land surveyor. This is a “Catch-22” and “poison pill” requirement.
	John M. Palatiello, Executive Director, MAPPS, via e-mail on September 13, 2007.	Do not concur with the comment. The regulation permits acceptable experience to be gained under the “...supervision and direction of a licensed land surveyor, licensed surveyor photogrammetrist, or under the supervision and direction of an individual authorized by statute to practice land surveying or photogrammetry.” Therefore, while permitting acceptable experience to be gained under a licensed land surveyor, it does not mandate that as the only way acceptable experience may be obtained.
6	18 VAC 10-20-295 (B)	The reference to “under the supervision of a licensed land surveyor” should be stricken, for the same reasons as stated above.
	John M. Palatiello, Executive Director, MAPPS, via e-mail on September 13, 2007.	It appears that this comment is intended to reference subsection B of 18 VAC 10-20-310 as 18 VAC 10-20-295 does not contain a subsection B. Do not concur with the comment. The regulation permits acceptable experience to be gained under a licensed land surveyor or licensed surveyor photogrammetrist. Therefore, while permitting acceptable experience to be gained under a licensed land surveyor, it does not mandate that as the only way acceptable experience may be obtained.
7	18 VAC 10-20-295 (C)	Although this section does not specifically use the phrase “Approved photogrammetric surveying or similar remote sensing technology experience” or “under the supervision of a licensed land surveyor,” it is ambiguous as to what experience will be accepted by the Board. They would strongly oppose any interpretation that such experience must be “under the supervision of a licensed land surveyor.” Similarly, with regard to the grandfather provision, (C) 1-5, the regulations should be clarified as to what the Board would accept. A senior, experienced photogrammetrist may not have had algebra, geometry and trigonometry in high school (40+ years ago), but may be a highly qualified, competent. They suggest referring to the standards utilized in Oregon and South Carolina. Moreover, the provision for “a related higher degree of education” must be clarified. It is possible for an individual to earn a degree in

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		surveying or engineering and not take any course work in photogrammetry. It is possible to earn a degree in forestry and have significant course work in photogrammetry. They fear a student in the former would be deemed qualified and the latter would not.
	John M. Palatiello, Executive Director, MAPPS, via e-mail on September 13, 2007.	<p>It appears that this comment is intended to reference subsection C of 18 VAC 10-20-310 as 18 VAC 10-20-295 does not contain a subsection C.</p> <p>Do not concur with the comment. The regulation permits acceptable experience to be gained under a licensed land surveyor or licensed surveyor photogrammetrist. Therefore, while permitting acceptable experience to be gained under a licensed land surveyor, it does not mandate that as the only way acceptable experience may be obtained.</p> <p>As to the education, each application pursuant to the grandfather provisions contained in subsection C of 18 VAC 10-20-310 must meet the requirements contained in the first paragraph of subsection C of 18 VAC 10-20-310 which permit the Board some flexibility in evaluating an applicant's total education and experience (combination of at least eight years of board approved education and progressive experience); however, the Board believes that evidence of basic education in algebra, geometry and trigonometry are required to safely perform as a surveyor photogrammetrist.</p>
8	18 VAC 10-20-350 et. seq.	In this section, and thereafter, on examinations and comity, there is frequent reference to "a Virginia state-specific examination." And in 18 VAC 10-20-360, it indicated such "examination shall include questions on law, procedures, and practices pertaining to land surveying in Virginia." These individuals, when licensed, will not be entitled to practice "land surveying"; they will only be entitled to practice "photogrammetry." It is an unnecessary burden, and again a "Catch-22" and "poison pill" to require these individuals be able to pass an examination on law, procedures, and practices pertaining to land surveying in Virginia. Virginia must establish a state-specific examination on photogrammetry, not land surveying, for these individuals.
	John M. Palatiello, Executive Director, MAPPS, via e-mail on September 13, 2007.	It is the Board's intention to have (and they have started development of) a photogrammetric specific Virginia state-specific examination.

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9	Overall	Provide an equitable grandfather period for currently practicing, qualified Photogrammetrists to continue their practice, in their area of expertise, in Virginia, and to be licensed to do so. This must be done without requiring untenable experience under the supervision of a land surveyor, who is not competent in photogrammetry.
	John M. Palatiello, Executive Director, MAPPS, via e-mail on September 13, 2007.	Do not concur with the comment. The regulation permits acceptable experience for the grandfather provision (subsection C.2 of 18 VAC 10-20-310) to be verified by supervisors and clients – if they are the owner of the company and do not have a supervisor, the Board currently accepts verification from alternate sources and would apply this same practice to the grandfather applicants.
10	Overall	Examinations (both parts), specific to photogrammetry, not land surveying, must be implemented. The examinations must test knowledge of photogrammetry, not land surveying.
	John M. Palatiello, Executive Director, MAPPS, via e-mail on September 13, 2007.	It is the Board's intention to have (and they have started development of) a photogrammetric specific Virginia state-specific examination. Further, subsection B of 18 VAC 10-20-350 permits a "board approved surveyor photogrammetrist examination" in lieu of the NCEES Principles and Practice of Land Surveying examination and has funded the development of such an examination by the Colonial States Boards of Surveyor Registration.
11	Overall	The regulations are unclear as to when Virginia will close the grandfather period upon adoption of relevant examination(s). The grandfather period must be stipulated, and kept open until the exam(s) are in place, so that the Commonwealth does not create a government-imposed shortage of photogrammetrists. This is what has happened in Florida, and it must be avoided in Virginia.
	John M. Palatiello, Executive Director, MAPPS, via e-mail on September 13, 2007.	Do not concur with the comment. Subsection C.5 of 18 VAC 10-20-310 states that the grandfather provisions will expire one year from the effective date of the regulation "...or until such time as the examinations required by 18 VAC 10-20-310.B are available, whichever is later."
12	Overall	A reasonable comity process, specific to photogrammetry, not land surveying, must be implemented.
	John M. Palatiello, Executive Director, MAPPS, via e-mail on September 13, 2007.	Do not concur with the comment. Subsection B of 18 VAC 10-20-360 is specifically for surveyor photogrammetrists.

All changes made in this regulatory action

Please detail all changes that are being proposed and the consequences of the proposed changes. Detail new provisions and/or all changes to existing sections.

The rationale for the changes in the following chart are as follows: the new and amended regulations are necessary to implement the provisions of HB2863 of the 2005 General Assembly session which granted the APELSCIDLA Board authority to regulate the practice of photogrammetry as a sub-set of the land surveyor profession. This regulatory program will allow photogrammetrists to be licensed in an appropriate manner while ensuring the public is adequately protected through minimum competency standards of practice for individuals who are integral in the process of constructing improvements on real property and determining flood plains.

Current section number	Proposed new section number, if applicable	Current requirement	Proposed change and rationale
18 VAC 10-20-10		N/A	Add appropriate definitions for the "Surveyor Photogrammetrist" license program.
18 VAC 10-20-280		N/A	Add appropriate fee for the "Surveyor Photogrammetrist" licensure program.
18 VAC 10-20-295		N/A	Add appropriate land surveyor specific definitions for the "Surveyor Photogrammetrist" license program pertaining to acceptable experience and accuracy standards.
18 VAC 10-20-300		N/A	Change the reference to the "Land Surveyor-In-Training" designation to the "Surveyor-In-Training" designation.
18 VAC 10-20-310		N/A	Add entry provisions for the "Surveyor Photogrammetrist" license program including grandfather provisions.
18 VAC 10-20-340		N/A	Amend to include reference to the "Surveyor Photogrammetrist" license program.
18 VAC 10-20-350		N/A	Amend to include examination requirements for the "Surveyor Photogrammetrist" license program.
18 VAC 10-20-360		N/A	Amend to include requirements for comity applicants for the "Surveyor Photogrammetrist" license program.
18 VAC 10-20-380		N/A	Delete subsection F and move to a more appropriate place in the regulations (see 18 VAC 10-20-395).
	18 VAC 10-20-382	N/A	Add standards for the determination of topography.
	18 VAC 10-20-392	N/A	Add a section that the performance of photogrammetric surveys for the practice of land surveying (as defined in Chapter 4 of Title 54.1) must be performed by a land surveyor or surveyor photogrammetrist.
	18 VAC 10-20-395	N/A	Move the <i>Standard of Care</i> provision for land surveyors from subsection F of 18 VAC 10-20-380 to a more appropriate place as it applies to all surveys; not just those surveys for the determination of the location of physical improvements.
18 VAC 10-20-760		N/A	Add a seal image for the Surveyor Photogrammetrist license holders.

Regulatory flexibility analysis

Please describe the agency's analysis of alternative regulatory methods, consistent with health, safety, environmental, and economic welfare, that will accomplish the objectives of applicable law while minimizing the adverse impact on small business. Alternative regulatory methods include, at a minimum: 1) the establishment of less stringent compliance or reporting requirements; 2) the establishment of less stringent schedules or deadlines for compliance or reporting requirements; 3) the consolidation or simplification of compliance or reporting requirements; 4) the establishment of performance standards for small businesses to replace design or operational standards required in the proposed regulation; and 5) the exemption of small businesses from all or any part of the requirements contained in the proposed regulation.

The regulations were developed with consideration that the photogrammetric industry consists of small businesses. The Board considers that the regulatory methods implemented were promulgated to accomplish the applicable law while minimizing the adverse impact on small businesses and are consistent with the regulation of small businesses of other professions regulated by the APELSCIDLA Board.

Family impact

Please assess the impact of the proposed regulatory action on the institution of the family and family stability including to what extent the regulatory action will: 1) strengthen or erode the authority and rights of parents in the education, nurturing, and supervision of their children; 2) encourage or discourage economic self-sufficiency, self-pride, and the assumption of responsibility for oneself, one's spouse, and one's children and/or elderly parents; 3) strengthen or erode the marital commitment; and 4) increase or decrease disposable family income.

The contemplated changes are not anticipated to have any significant impact on Virginia's families.