OREGON DEPARTMENT OF TRANSPORTATION TECHNICAL SERVICES ENGINEERING & TECHNICAL SERVICES DIRECTIVE

SUBJECT ODOT Digital Seal and Digital Signature Requirements	TSB21-01(D)	10/15/2021	VALIDATION DATE	SUPERSEDES or RESCINDS N/A
	WEB LINK(S) https://www.oregon.gov/ODOT/Engineering/Pages/Technical-Guidance.aspx			
TOPIC/PROGRAM Professional of Record Sealing	APPROVED SIGNATURE			
Requirements	Original signed by			
Intequillements	Steve Cooley, PE, PLS Chief Engineer			

PURPOSE

The purpose of this directive is to provide the ODOT requirements for use of digital seals and signatures on technical documents that require a professional of record (POR) seal.

GUIDANCE

Oregon Administrative Rule (OAR) governs seal and signature requirements in the state of Oregon. The following outlines the seal and signature requirements for each professional field addressed in this document:

- Engineering and Land Surveying:
 - o OAR Chapter 820 Division 025 Digital Seal and Signature
- Geology and Engineering Geology:
 - o OAR 809-050-0000 Use of Seal
 - OAR 809-050-0005 Signature
- Landscape Architecture:
 - OAR 804-030-0000 Stamp of the Landscape Architect
 - OAR 804-030-0003 Signature

This document addresses the ODOT digital seal and digital signature requirements for the following professional fields:

- Professional Engineer
- Professional Structural Engineer
- Professional Land Surveyor
- Professional Photogrammetrist
- Professional Traffic Engineer
- Certified Water Rights Examiner
- Registered Geologist
- Certified Engineering Geologist
- Registered Landscape Architect

Although this document addresses requirements for a variety of professionals, the majority of the content is focused on defining seal and signature requirements for professional registrations under the Oregon State Board of Examiners for Engineering and Land Surveying (OSBEELS).

DEFINITIONS

Digital Seal - An electronic professional registrant's seal according to OAR 820-025-0005 and OAR 820-025-0010.

Digital Signature - A type of electronic signature, authorized by ORS 84.001 to 84.061, that transforms a message through the use of an algorithm or series of algorithms that provide a key pair, private and public, for signer verification, document security, and authentication. A digital signature is independently verifiably by a 3rd party certificate authority.

ACRONYMS

OAR – Oregon Administrative Rule

ORS – Oregon Revised Statute.

OSBEELS – Oregon State Board of Examiners for Engineering and Land Surveying

OSBGE – Oregon State Board of Geologist Examiners

OSLAB – Oregon State Landscape Architect Board

POR – Professional of Record

BACKGROUND/REFERENCE

The applicable ORSs and OARs provide requirements for use of digital seals and digital signatures, but lack some specific details about digital seal format and allowable digital signature formats on digital seals.

See the OSBGE website (https://www.oregon.gov/osbge/Registration/Pages/Stamp.aspx) for professional stamping requirements for registered geologists and certified engineering geologists. For all ODOT documents, digital signatures on registered geologist stamps and certified engineering geologist stamps are required to contain the following text:

- The words "Digitally Signed";
- Text stating the date and time of signature application; and
- The word "Expires" followed by the registrant's expiration date.

For more information regarding stamping and signature requirements for registered geologists and certified engineering geologists, contact the ODOT Geotechnical Engineering Program Lead.

See the OSLAB website (https://www.oregon.gov/landarch/registration/Pages/Stamp.aspx) for professional stamping requirements for landscape architects. For all ODOT documents, digital signatures on registered landscape architect stamps are required to contain the following text:

- The words "Digitally Signed"; and
- Text stating the date and time of signature application.

For more information regarding stamping and signature requirements for landscape architects, contact the ODOT Roadside Development and Erosion and Sediment Control Program Lead.

In addition to the requirements on the OSBEELS Seals and Signatures website (https://www.oregon.gov/osbeels/maintaining/Pages/Seals-and-Signatures.aspx), OSBEELS provided ODOT with further guidance regarding allowable digital signature formats. This document provides the ODOT digital seal and digital signature requirements for engineers and land surveyors, which are in compliance with all OSBEELS requirements.

See <u>TSB16-01A</u> for guidance regarding digital signatures and which documents require a Professional of Record seal.

EXPLANATION

The following requirements apply to all ODOT documents that are stamped using a digital seal and digital signature for engineering or land surveying according to OAR 820-025.

General Requirements

For engineering and land surveying seals:

- A Seal may be applied to a document by rubber stamp or it may be computer-generated onto the document.
- Digital seals shall be in compliance with OAR 820-05 and OAR 820-025.
- The electronic file that is the final electronic document shall contain one digital signature that is permanently linked to it.

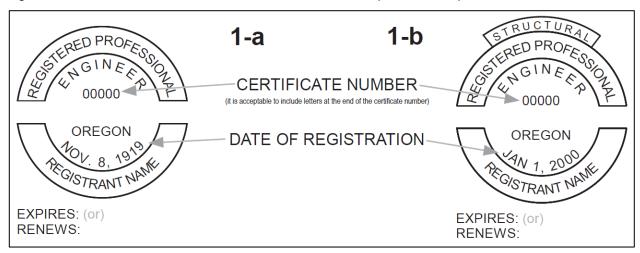
Digital Seal Format

The following guidance applies to engineering and land surveying seals. Seals, as referenced by ORS 672.020(2) and 672.025(2), must contain all of the following:

- The printed name of the registrant
 - The registrant's printed name on the seal will be exactly the same as the registrant's name on file with OSBEELS. For example; if a registrant has the name of "First Middle Last" on file with OSBEELS, the registrant's seal cannot contain the name "First Last" or "First M. Last".
- The date of registration
- The number of the registrant's certificate of registration
 It is acceptable to include letters at the end of the certificate number (e.g. "PE").

The registrant's professional title

Figure 1: Professional Seal Format; From OSBEELS Exhibit 1 (Official Seals)



The size, design, and content of the seal shall be an exact replica, in style, of the examples shown in OSBEELS <u>Exhibit 1 (Official Seals)</u>. In accordance with OAR 0820-025-0005(2), reduced or enlarged seals are not permitted on final documents, however, a tolerance of 1/4" is permitted as to the size of the seal. For example: if a seal is shown with a diameter of 1.75" in Exhibit 1, a registrant's version of the seal may have a diameter between 1.5" and 2.0".

See Figure 2 through Figure 7 for correct seal sizes according to OSBEELS <u>Exhibit 1 (Official Seals)</u>.

Figure 2: Engineer Seal

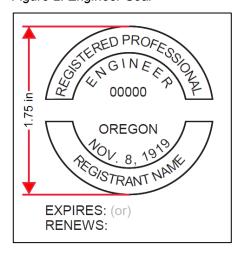


Figure 3: Structural Engineer Seal

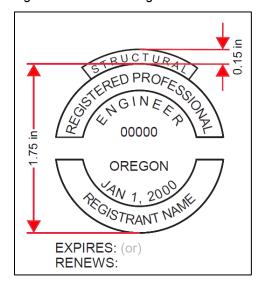


Figure 4: Land Surveyor Seal

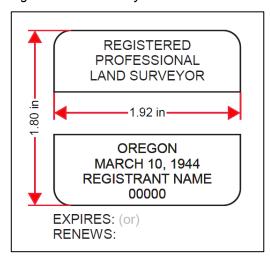


Figure 5: Water Right Examiner Seal

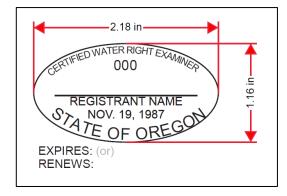


Figure 6: Photogrammetrist Seal

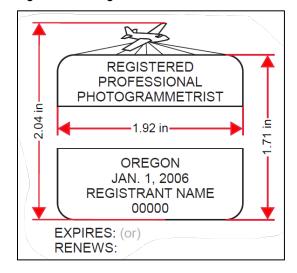
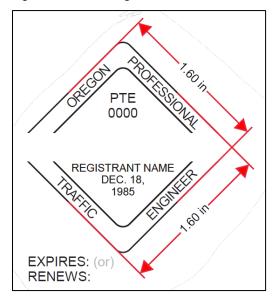


Figure 7: Traffic Engineer Seal



Digital Signature Requirements

See OAR Chapter 820 Division 25 for engineering and land surveying digital seal and signature requirements.

According to OAR 820-025-0005, a digital signature for final documents is acceptable as an alternative to a handwritten signature in permanent ink if the digital signature:

- Is unique to the registrant using it;
- Is independently verifiable by a Certificate Authority (3rd Party);
- Is under the sole control of the registrant using it;
- Is linked to the document in such a manner that the digital signature is invalidated if any data in the document is changed; and

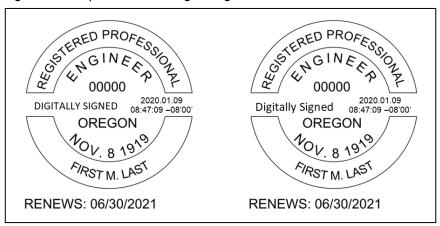
• Bears the phrase "digitally signed" in place of a handwritten signature.

For ODOT documents, digital signatures applied on digital seals shall only contain:

- The words "Digitally Signed" ("DIGITALLY SIGNED" and "digitally signed" are also acceptable); and
- Text stating the date and time of signature application.

See Figure 8 for examples of acceptable digital seals and signatures for ODOT documents. Except for variations in capitalization and the location of text, no other digital signature formats will be considered acceptable by ODOT.

Figure 8: Acceptable ODOT Digital Signature Formats



Digital signature fields and text applied on digital seals shall not:

- Contain the name of the individual signing
- Cover any information on the seal
- Be a photocopy, scanned copy, or other facsimile of a signed and sealed hard copy document
- Be a copy of a rubber stamp seal and ink signature
- Be a copy of a computer-generated image of a seal and ink signature

Figure 9 through Figure 13 below provide examples of unacceptable digital signatures on seals for ODOT documents. These figures provide some common examples of unacceptable signature formats but are not an all-inclusive list of unacceptable signature formats.

Figure 9: Unacceptable ODOT Signature - No Date/Time



The digital signature format in Figure 9 above is unacceptable because it does not contain the text showing the date and time that the signature was applied. ODOT requires that digital seals and signatures contain both "Digitally Signed" and the date/time that the signature was applied.

Figure 10: Unacceptable ODOT Signature - Name Included



The digital signature format in Figure 10 above is unacceptable because it contains the name of the signer. OAR 820-025-0005 requires that digital seals and signatures bear the text "Digitally Signed" in place of the name of the signer.

Figure 11: Unacceptable ODOT Signature - No Date/Time & Includes Name



The digital signature format in Figure 11 above is unacceptable because it contains the name of the signer and does not contain the text showing the date and time that the signature was applied. OAR 820-025-0005 requires that digital seals and signatures bear the text "Digitally Signed" in place of the name of the signer, and ODOT requires that digital signatures on seals contain the date/time that the signature was applied.

Figure 12: Unacceptable ODOT Signature - Signature Covers Seal



The digital signature format in Figure 12 above is unacceptable because the digital signature covers a portion of the information on the seal. Digital signatures must be sized and placed in a manner that does not obscure any of the information on the underlying seal.

Figure 13: Unacceptable ODOT Signature - Overlapping Signature Information



The digital signature format in Figure 13 above is unacceptable because some of the text within the digital signature is overlapping other text within the digital signature. Digital signatures must be sized and placed in a manner that does result in overlapping text within the signature.

RESPONSIBILITIES

Engineer of Record or Professional of Record - Use this technical directive to determine acceptable digital seal and signature formats for all ODOT documents requiring a POR seal.

ODOT Quality Assurance Staff, Project Controls Office, and Region Personnel - ODOT staff will notify the professional if the submitted deliverables do not meet the ODOT requirements for digital seal and signatures formatting. ODOT staff will return and reject for resubmission documents that are not properly signed or sealed.

CONTACT INFORMATION

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