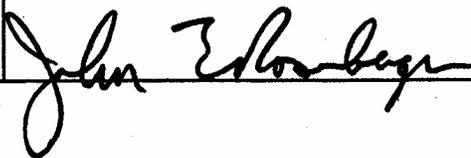




POLICY

NUMBER DES 05-02	SUPERSEDES 9/26/00
EFFECTIVE DATE August 7, 2003	PAGE NUMBER 1 OF 9
REFERENCE ORS 672.020 to 672.525 and ORS 671.310 to 671.459	
APPROVED SIGNATURE 	

SUBJECT

DOCUMENT STAMPING REQUIREMENTS FOR REGISTERED ENGINEERS, LAND SURVEYORS, GEOLOGISTS, AND LANDSCAPE ARCHITECTS

PURPOSE:

To identify documents required by Oregon law to be stamped by registered professional engineers, landscape architects, land surveyors, and geologists.

BACKGROUND:

Oregon Revised Statute (ORS), Chapter 672 details the legal requirements for affixing the seal (stamping) of a Registered Professional Engineer, Registered Professional Land Surveyor, Registered Geologist, and Certified Engineering Geologists to final documents prepared by the registrant. ORS Chapter 671 details the legal requirements for affixing the seal (stamping) of a Registered Landscape Architect to final documents prepared by the registrant.

SCOPE:

This policy requires that all internal and external submittals for engineering design or landscape architecture design that are identified by the list of documents contained within this policy (*Required Document Stamping List*) are to be stamped by the appropriate registered professional. This action will provide the Oregon Department of Transportation (Department) consistency and compliance with ORS 672 or ORS 671 and will clarify expectations to internal staff and external partners and stakeholders. This policy does not supercede State of Oregon statutes that require affixing engineering or other professional seals in other applications.

POLICY:

Each sheet in a set of plans, if it contains a unique design, shall be stamped by the registrant who prepared the design, or in the case of a non-registered person, by the registrant in technical supervision and control of the design. Multiple seals are required where more than one unique design from different engineering specialties is presented on a sheet prepared by more than one registrant. In this case, the provisions of OAR 820-010-0623 shall be met.

"Documents shall not be sealed by more than one registrant unless it is clearly explained and denoted on the document by all registrants sealing the work that portion each professional prepared and is responsible"

At least one stamped copy of all "Standard Drawings" will be kept on file and maintained by a registrant who is a subject matter expert in the particular engineering discipline.

Contract special provision specifications prepared by a registered professional shall be stamped by the registrant and placed in a file copy.

Each registrant who seals a work product with their stamp shall be the **Engineer of Record** for that portion of the cumulative design product through construction. In the case that the individual is no longer available during construction, another licensed professional engineer, experienced and qualified in the specialty, may be designated by the appropriate division manager to perform the duties as Engineer of Record for the design.

In the case of **contract modifications**, where the drawings and/or specifications are modified or amended, the Engineer of Record, or other licensed professional for that element of the design must concur. If unavailable, another Licensed Professional Engineer or licensed professional, experienced and qualified in the specialty, may be designated by the appropriate division manager and affix his/her seal to the change on the plans with a note of explanation. "As built" drawings need not be stamped.

When **consultants** are used for design products, the contract shall reflect that the consultant will be required to perform the professional registration stamping requirements in this policy, and that they be retained for the life of construction. (The consultant is the Engineer of Record for the design products that they prepare). This is so that they may continue the responsibility of Engineer of Record, or other appropriate licensed professional, for any amendments or changes to the design that may be necessary.

Highway Maintenance and Facility projects requiring a unique design, or review for the appropriate application of a standard design, for site specific purposes that improve or repair a structure or facility, shall require an Engineer of Record, or other registered professionals, who will be responsible for stamping the reports, plans, drawings and specifications.

RESPONSIBILITY:

Region and Division Managers

ACTION:

Communicate this policy and related guidelines to all employees.

Distribute policy to section and unit managers and staff for immediate implementation.

Develop a process for document review that ensures proper use of the *Required Document Stamping List*.

Develop a process for a yearly review of the *Required Document Stamping List*.

Ensure that the *Required Document Stamping List* is implemented as a routine business line activity in the document review process.

Chief Highway Engineer	Develop and track a periodic review process of the <i>Required Document Stamping List</i> to ensure that it remains current and compliant with ORS 672 and ORS 671.
Division Managers	Initiate any amendments to the Product Stamping List and this policy as required. When requested, review modifications to the <i>Required Document Stamping List</i> using subject matter experts as staff support.
Department Employees	Use this policy and future amendments as a guide to actions and decision making. Each employee who is required to possess a license of professional registration will maintain the requirements of their respective Board of Registration to ensure that they do not become delinquent, or in violation of the Registration Act.

REQUIRED DOCUMENT STAMPING LIST

BRIDGE ENGINEERING

Professional Engineer (P.E.)

- Bridge design contract plan sheets which also includes: retaining walls greater than 4 feet high measured from the bottom of the footing to the top of the wall, soundwalls, culverts, sign support structures and other miscellaneous highway related structures
- Calculation books
- Load ratings
- Bridge "Posting Recommendation" letters
- Construction design changes - details and calculations
- Construction shoring and falsework working drawings and calculations (usually from consultants) as required by specifications
- Maintenance repairs - details and calculations

TRAFFIC ENGINEERING

Professional Engineer (P.E.)

- Traffic signal plans
- Illumination plans
- Wiring diagrams
- Sign plans
- Striping plans - including all pavement markings which will be stamped by the preparer (these are also prepared and stamped in the ROADWAY Engineering Section)
- "Traffic Signal Operations Design Elements" report

- Lane modifications (such as passing lanes)
- Construction design changes - details and calculations
- ITS (Intelligent Transportation Systems) plans and calculations
- Final traffic reports recommending the installation, modification, or removal of traffic control devices or road geometry.
- Access Management Program: Engineering analysis conducted as part of the approach permit application process for those conditions that do not meet the adopted standards.

Preliminary Design Unit

Professional Engineer (P.E.)

- Interchange Layout Sheet

TRANSPORTATION DEVELOPMENT DIVISION

Transportation Planning Analysis Unit

Professional Engineer (P.E.)

- "Traffic Impact Study": for projects requiring an Environmental Assessment (EA) or Environmental Impact Study (EIS) and traffic reports for air quality and/or noise impacts when required
- Planning technical reports for use in Transportation System Plan (TSP) development

ROADWAY ENGINEERING

Professional Engineer (P.E.)

- Roadway plans
- Striping plans
- Pipe Data Sheets
- Specifications and special provisions
- Temporary Traffic Control Plans
- Erosion Control Plans
- Construction Design Changes
- Design Exceptions

CONSTRUCTION

Pavement Design Unit

Professional Engineer (P.E.)

- Pavement designs (report only, not the plan sheet)

Geometrics Unit

NOTE: These functions and products may also be performed and prepared by Region survey crews.

Professional Land Surveyor (P.L.S.)

- *Horizontal Control Map:* A diagram and information relating to the establishment of a project's Horizontal Control Network
- *Recovery Map:* A diagram and information relating to the recovery of all monuments of record within a project site
- *Retracement Map:* A diagram and information relating to the retracement and resolution of the existing highway right-of-way centerline
- *Monumentation Map:* A diagram and information relating to the existing highway right-of-way boundary and/or establishment of the newly acquired highway right-of-way boundary
- *Geodetic Survey Report:* A diagram and information relating to the establishment of Geodetic Control
- *Boundary Survey:* A diagram and information relating to the establishment or re-establishment of property boundaries, other than highway right-of-way (for example: surplus property, quarry sites, wetland mitigation sites, or monuments destroyed by construction where no right-of-way was purchased)
- *Monument Restoration:* A diagram and information relating to the re-establishment of Public Land Survey System monuments
- *Flood Map Elevation Control:* A map that may be prepared by others, showing elevations, that is stamped by a PLS to confirm that those elevations are correct

GEO/HYDRO

Geotechnical Engineering

Professional Engineer (P.E.)

- Geotechnical reports including foundations
- Landslide repair designs
- Drawings that depict subsurface conditions (formerly "Foundation Data Sheets") – these may be stamped or co-stamped by a Certified Engineering Geologist (C.E.G.)
- Cut and fill slope designs
- Rock slope design or rockfall mitigation that requires artificial support elements (these may also require a C.E.G. stamp if a structural geology analysis is required)
- Retaining walls greater than 4 feet high measured from the base of the footing to the top of the wall, soundwalls, culverts, signs and other miscellaneous highway related structures
- Engineering studies, reports or other design work product that involves the mitigation of noise impacts

Hydraulics Engineering

Professional Engineer (P.E.)

- Hydraulic reports
- Culverts over 48 inches in diameter (these can be a plan sheet or a report)
- Stream modification structures
- Erosion control plans (when prepared by a P.E.)
- Structural scour and erosion protection designs
- Structural design of culverts, pipe, and arches including headwalls and wingwalls
- Storm water facility designs
- Wetland mitigation designs that contain in-stream modification structures
- Bio-stabilization designs
- Temporary Water Management Design

NOTE:

These products also apply to the Region Geo/Hydro Units that have qualified hydraulic engineers on staff.

Region Geo/Hydro Units

Professional Engineer (P.E.)

- Hazardous Materials Remedial Action Plans that require engineering design. These include: designs for vapor extraction systems, air-sparge systems, ground water pump-and-treat systems, and other mechanical remediation systems.
- Designs for earth/rock works and foundations are the same as for Geotechnical Engineering Unit

Registered Geologist (R.G.)

Note: These products may also be stamped by a C.E.G.

- Geology reports of a reconnaissance nature that do not make recommendations to engineering design
- Hydrogeology reports that contain groundwater or aquifer characterization or water well production potential
- Hazardous Materials Corridor Studies, Level I Initial site Assessments and Level 2 Preliminary site Investigations. (these also require the stamp of a P.E. if prepared by an engineer qualified in environmental science) when they contain site specific interpretations of:
 - Geologic stratigraphy and/or structure; ground water characterization for gradient and direction of flow; interpretation of contaminant fate and transport; physical soil or rock characteristics such as permeability, porosity or storativity; well logs that portray any of the above (the presence or concentrations of chemical constituents not included)
- Site closure reports and Risk Based Corrective Action reports, other than clean UST closures and Soil Matrix Closures signed by a licensed Soil Matrix Cleanup Provider (these also require the stamp of a P.E. if prepared by an engineer qualified in environmental science).
- Any stand-alone drawing or hydrogeology/hazmat drill log that contains stratigraphic or groundwater interpretations that is transmitted without a cover report

Certified Engineering Geologist (C.E.G.)

- Engineering Geology Reports
- Drawings that depict subsurface conditions (formally "Foundation Data Sheets") that contain the subsurface material stratigraphy and/or interpretations derived from or developed by the registrant (these may also be stamped or co-stamped by a P.E. qualified in geotechnical engineering)
- Geologic cross sections or plan views that contain the subsurface material stratigraphy and/or interpretations derived from or developed by the registrant for use in engineering design
- Material source plans including restoration plans
- Disposal Site plans
- Rock slope design or rockfall mitigation plan that requires a structural geology analysis (these may also require a P.E. stamp if artificial support elements are used)
- Any stand-alone drawing or engineering geology drill log that contains stratigraphic or groundwater interpretations that is transmitted without a cover report

Landscape Architecture (Known as Roadside Development within the Department)

Registered Landscape Architect (R.L.A.)

- Final studies, research, or reports developed by a landscape architect
- Wetland Mitigation Plans
- Mitigation Monitoring Reports
- File copy of project Specifications and Special Provisions prepared by the registrant

The following products, if prepared by a R.L.A., shall be stamped by the registrant. With regard to these products, the Department will determine in each case whether the product must be produced by a R.L.A. or if it should or may be produced by other registered professionals, or by a Landscape Contractor or by Maintenance personnel to the extent permitted under ORS 671.321(1) and ORS 671.540 or other applicable law.

- Visual Resource Reports regarding landscape preservation
- Site development plans that include irrigation, grading, and layout of landscape elements
- Contour grading plans and related details
- Planting plans, plant lists, and related details
- Irrigation plans and related details
- Material source restoration plans
- Plan roadside development typical sections
- Erosion Control plans
- Landscape Standard Drawings
- Landscape Project Construction Inspection Reports
- Construction Design Changes

MAINTENANCE

Routine

Professional Engineer (P.E.)

- Any cut or fill slope modification or repair that could potentially affect stability
- Any retaining structure over 4 feet in height measured from the bottom of the footing to the top of the structure
- Any culvert replacement in which review of the culvert replacement [**Note:** see culvert replacement guidelines below] by the local maintenance manager indicates that the culvert replacement work requires a design to be stamped by a licensed P.E. (refer to the section in Chapter 2 titled "Maintenance Projects")
- Any culvert replacement for fish passage
- Any in-stream channel modifications
- Any stream bank repair or armoring that enhances the original design
- Any maintenance paving project that requires more than two inches of mix thickness
- Channelization work done by Maintenance whether using state forces or through a Department of Administrative Services (DAS) contract
- Maintenance or replacement in kind of existing features may require a professional stamp (as a minimum, consult with the Geo/Hydro Section in the Technical Services Division)

Emergency

Professional Engineer (P.E.)

- Emergency work regarding the above will at a minimum requires consultation (stamping may not be a viable option in many cases)

CULVERT REPLACEMENT GUIDELINES

Contact Geo/Hydro when:

- Area has had major urban expansion
- Existing culvert has history of clogging with sediment or clogging with debris
- Severe outlet erosion occurring (i.e., large scour hole at outlet with undermining of the culvert outlet)
- Fish passage issue
- Trenchless pipe technology applications are being considered (e.g., pipe jacking, pipe bursting, microtunneling, etc.)
- Existing culvert is causing flood problems (e.g., water overtops highway or damages private property)
- Pipe has less than one foot of cover
- Galvanized pipe is being considered as material for replacement pipe (galvanized pipe will often not meet service life requirements in Western Oregon)

SUPPORT SERVICES

Facilities and Fleet

Professional Engineer (P.E.)

- Preparation of design or repair plans to structures or infrastructure not covered by the Bridge Section or not defined as a significant structure by ORS 672.129
- Modifications to equipment and tools, equipment design, and modifications.