

PREFABRICATED STRUCTURES PROGRAM

Prefabricated buildings guide

The Prefabricated Structures Program (Program) provides plan review and inspection services to registered businesses intending to sell, rent, lease, or install prefabricated buildings in Oregon. Businesses located outside of Oregon may have limited options regarding certain services. See Oregon Administrative Rule (OAR) Chapter 918, Division 674.

Prefabricated buildings intended for sale, rent, lease, or installation in Oregon must be constructed according to construction documents approved by the Program and must have an Oregon insignia of compliance attached to the building. Construction documents must comply with Oregon laws, Oregon adopted specialty codes, Program requirements, and other applicable regulations. Construction documents must be prepared by an Oregon-approved design professional for all disciplines (structural, mechanical, plumbing, electrical, etc.).

Detailed information about completing required applications and forms is provided here. You can also work with Program staff when submitting your initial plan package so staff can assist you with any questions or concerns.

DO NOT submit applications, forms, or fees for plans or insignias if your business does not have a valid Oregon Prefabricated Structures Program registration. Services will not be provided, and fees will be refunded. See "Registering a business" webpage if your business is not currently registered with the Program.

Manufacturers may not use any third-party plan review or inspection business, unless they are approved under Oregon Revised Statutes (ORS) 455.705 and OAR Chapter 918, Division 674, to perform any required plan reviews or inspections required by the Prefabricated Structures Program. Any third-party business approved by the Program to perform plan reviews or inspections for a prefabricated structure manufacturer may only provide those services to a manufacturer with a manufacturing facility located in the state of Oregon. See ORS 455.705.

Contents in this guide

Oregon adopted specialty codes

Changes to adopted specialty codes or laws

Reciprocity (Tristate Agreement)

Plan Types

Design master plan

Custom plans

Required Construction Documents

Calculating permit and plan review fees

Oregon insignia of compliance (for prefabricated buildings)

Inspection options available to manufacturers

Compliance Control Program (for prefabricated buildings)

Application

Oregon adopted specialty codes

Oregon adopted specialty codes are the construction standards adopted by the Oregon Building Codes Division for the design and construction of prefabricated buildings (<u>OAR 918-674-0023</u>). Get more information about each specialty code through the links below. Some specialty codes are available for free viewing online at <u>Oregon.gov/bcd/codes-stand/Pages/adopted-codes.aspx.</u>

- Oregon Structural Specialty Code (OSSC)
- Oregon Mechanical Specialty Code (OMSC)
- Oregon Energy Efficiency Specialty Code (OEESC)
- Oregon Electrical Specialty Code (OESC)
- Oregon Plumbing Specialty Code (OPSC)
- Oregon Residential Specialty Code (ORSC)

Changes to adopted specialty codes or laws

New editions of Oregon adopted specialty codes are typically adopted every three years, and they are not all effective on the same date. This can be very confusing and challenging for manufacturers of prefabricated buildings intended to receive an Oregon insignia of compliance. Manufacturers must monitor the Oregon Building Codes Division's code change processes to stay informed on new code editions or code amendments adopted during the interim. It's recommended that manufacturers follow posted information regarding code changes on the division's website.

Plans submitted for review by the Program must comply with the Oregon adopted specialty code in effect at the time of submittal. If a plan is approved by the Program, no changes are required long as the plan remains valid with the following exceptions:

- A manufacturer that intends to renew a Design Master Plan will be required to either demonstrate the design
 complies with a new code edition or will be required to submit revisions to bring the design in compliance with
 a new code edition. It is the responsibility of the manufacturer to complete this process prior to the plan's
 expiration date. No exceptions will be made, and no Oregon insignia of compliance will be issued for an
 expired plan.
- The Program reserves the right to require a Design Master Plan be revised to comply with a new code edition
 where the Program determines an immediate need to protect the health and life safety of the occupants and
 users of prefabricated buildings intended to receive an Oregon insignia of compliance.
- If an Oregon law changes the Program will evaluate that change and determine any impact the change may have regarding the validity of an existing Design Master Plan. The Program will notify manufacturers if any Oregon law change impacts an existing Design Master Plan and will provide information or options regarding the change. Oregon laws include changes made by the Oregon legislature to Oregon Revised Statutes (ORS) or changes made by the Oregon Building Codes Division to an Oregon Administrative Rule (OAR).

Existing Custom Plans are typically not impacted by a code change because Custom Plans are for one structure only and the design is approved according to codes in effect when the design was submitted.

Reciprocity (Tristate Agreement)

Manufacturers located in Oregon, Idaho, or Washington may receive shared government services for plan reviews and inspections based on an agreement between the three states. Manufacturers intending to obtain shared government services under this reciprocity program *must meet the requirements established by each state* where the manufacturer intends to receive approval for their prefabricated buildings. Contact program staff for specific information regarding shared services between these three states. See <u>OAR 918-674-0043</u>.

Reciprocity DOES NOT mean that a prefabricated building approved in one of these three states automatically complies with laws, codes, or other requirements for either of the other two states. Reciprocity does not apply to alterations to an Oregon-approved prefabricated building.

Under the tristate agreement plan review and inspection shall be performed by appropriately certified plans examiners and inspectors that are direct employees of the state agency administering the prefabricated building program for that state.

As specified in the tristate agreement any manufacturer operating under the benefit of the tristate agreement are required to use appropriately licensed installers for any electrical or plumbing installations for any prefabricated building intending to receive an Oregon insignia of compliance.

A manufacturer may be denied the use of shared government services for failure to comply with Oregon laws, codes, or Program requirements. Manufacturers on an Oregon-approved Compliance Control Program and manufacturers of prefabricated building components are not eligible for shared government services under this agreement.

Plan Types

Applicants have the choice of submitting either a "Design Master Plan" or a "Custom Plan." This determination is made when completing the plan review application and when calculating structural permit fees for the purpose of determining plan review fees. Each plan type is detailed below.

Design master plan

A design intended for a series of identical buildings with identical floor plans (same square footage/building footprint), structural details, engineering criteria and type, and the location of any associated plumbing, mechanical and electrical equipment installations. This design is for one occupancy, one type of construction, and specific design criteria.

- 1. Plans must list the specific design criteria requirements of the Oregon Structural Specialty Code for roof load, wind speed, energy conservation, and seismic design for each geographic area in Oregon where the prefabricated building is designed for or intended to be located.
 - **Exception:** A **site-specific project** may be submitted as a Design Master Plan to meet the minimum roof load, wind load, seismic design, and energy conservation requirements of a specific address/location. Approval of a site-specific Design Master Plan is limited to a specific project, orientation and number of buildings that are to be located on the same plot of land and permanently installed on a foundation system. Minimum submittal requirements for a site-specific Design Master Plan must include a plot plan. The application for plan review and the plan cover sheet must identify the submittal as a "Site Specific Design Master Plan."
- 2. Plans must clearly indicate the location, nature and extent of the work proposed. The plans must show in detail that they conform to the applicable provisions of Oregon adopted specialty codes, applicable statues, administrative rules, or other applicable regulations.
- 3. Plans must be prepared, designed and stamped by an Oregon-approved design professional.
- 4. "Design Master Plan" or "DMP" must be clearly identified on the plan review application, on the plans, and on the design calculations.
- 5. The plan may contain Design Options submitted with the Design Master Plan or they may be added later. Note: Design Options may not change the square footage/footprint of the building or change any submitted or approved engineering of the base Design Master Plan. Design Options are detailed below.
- 6. Plan review fees for a Design Master Plan are calculated using the plan review and permit fee worksheet. (See Calculating permit and plan review fees section below)
- 7. Changes to an approved Design Master Plan are based on current per-hour rates established in administrative rule.
- 8. A Design Master Plan is valid for one-year from date of approval and may be eligible for renewal. A Design Master Plan may not be valid for more than a total of three years from the original date of approval.

- Design Master Plan renewal fees are fifty percent of the plan review fees for the original plan including any Design Options associated with the Design Master Plan. Renewal applications must be received two months prior to the plan expiration date along with applicable fees.
- 10. Design Master Plans and any associated Design Options may be impacted by changes to Oregon adopted specialty codes or changes to Oregon laws. If the manufacturer intends to renew a Design Master Plan or any associated Design Options, these changes may require revisions to be submitted to comply with these changes. Alternatively, the Program may allow a code compliance letter to be submitted by the manufacturer indicating the design was not impacted by a newly adopted Oregon specialty code edition or change in Oregon law. In some cases, plan expiration dates may be modified.

Design options

Design Options are approved variations to a Design Master Plan. Design Options may be submitted with a Design Master Plan or added later. Each Design Option is an extension of the plan number assigned to a Design Mater Plan, but identified with a unique extension; for example: A1, A2, A3 etc. Design Options are also known by others as addendums. A maximum of four (4) Design Options may be applied for per each Design Master Plan.

- 1. The following are examples of Design Options:
 - a. Use of rafters instead of trusses, or vice versa. Calculations and details are required.
 - b. Adding windows or doors that do not change the lateral-force-resisting system and adding or removing interior non-load bearing walls.
 - c. HVAC systems, such as electric, gas, oil, solar, hydronic or any combination must be detailed with product information and installation instructions provided in addition to the required energy code forms.
 - d. Plumbing Design Options may include but are not limited to adding or removing a complete restroom. Adding a bath, sink, and shower option requires plumbing schematic, lighting and ventilation details. Plumbing options require a separate floor plan drawing.
 - e. Electrical Design Options may include but are not limited to an electrical service of a larger size than the service for the Design Master Plan building. The option submittal would show at a minimum, load calculations and installation schematic diagram with panel schedule.
- 2. Design Options must be submitted using a separate plan review application. The Design Option must be clearly identified on the application, on the plans, and any other associated documents. The plan approval number of a Design Master Plan associated with a Design Option must be listed on the plan review application when a Design Option is submitted after the Design Master Plan was approved.
- 3. Plans must be prepared, designed and stamped by an Oregon-approved design professional for each discipline involved as specified in the "construction documents" section of this guide.
- 4. Plans must clearly indicate the location, nature and extent of the work proposed. The plans must show in detail that they conform to the applicable provisions of Oregon adopted specialty codes, applicable statues, administrative rules, or other applicable regulations.
- 5. Plan review fees for a Design Option or any changes to an approved Design Option are based on current per-hour rates established in administrative rule.
- 6. Design options expire on the same date the associated Design Master Plan expires. Design Options may be renewed along with the associated Design Master Plan provided the Design Option complies with any changes to Oregon adopted specialty codes or Oregon laws, and applicable fees are paid.
- 7. Design Options may not change the square footage/building footprint of the building and are not permitted to change the submitted or approved engineering of the base Design Master plan.
- 8. Siding or roofing variations are not considered Design Options unless they affect any structural requirements. Separate calculations may be required.
- 9. Design Options are specific variations to an approved Design Master Plan. Options to an approved Design Option are not allowed.

Custom plans

A design used for the construction of a single building (one-of-a-kind building).

- 1. Plans must include the occupancy classification, intended use, floor plan, specific design criteria requirements of the Oregon Structural Specialty Code for roof load, wind speed, energy conservation, and seismic design for the geographic area in Oregon that the prefabricated building is designed for or intended to be located, and the location and installation of plumbing, mechanical and electrical equipment.
- 2. Plans must be prepared, designed and stamped by an Oregon-approved design professional.
- 3. Custom Plan must be identified on the plan review application.
- 4. Plans must clearly indicate the location, nature and extent of the work proposed. The plans must show in detail that they conform to the applicable provisions of Oregon adopted specialty codes, applicable statues, administrative rules, or other applicable regulations.
- 5. A Custom Plan is valid for six-months from date of approval. A Custom Plan is not eligible for renewal, and no Design Options are allowed.
- 6. A Custom Plan may be converted to a Design Master Plan as follows:
 - a. Plans converted from "Custom" to "Design Master" must meet the same criteria for a Design Master Plan.
 - b. A plan application must be submitted prior to the expiration date of the Custom Plan.
 - c. The fee for the conversion is the difference between the plan review fee previously paid for the "Custom Plan" submittal and the plan review fee that would have been paid if the project was originally submitted as a "Design Master Plan."
 - d. A converted "Custom Plan" may only be valid for a total of one year from the original approval date of the "Custom Plan." (The conversion essentially adds six months to the plan, but allows the plan to be eligible for renewal)
 - e. Any plan changes or Design Options submitted with a plan conversion request will be reviewed at current per-hour rate.

Required Construction Documents

The Program is responsible for reviewing and approving plans for prefabricated buildings including, but not limited to, the floor to the roof, the exterior walls, and everything in between. Specific information can be found here regarding required construction documents for each of these code disciplines or construction elements. The cover sheet for each plan package must list the name and edition of the Oregon adopted specialty code the construction documents comply with. If the project is intended for review under the tristate agreement, the plan package must include code and edition, and all required plans and specifications for each state the project is intended to be reviewed for.

- Structural
- Energy efficiency (including COMcheck compliance reports)
- Mechanical
- Plumbing
- Electrical
- Revisions to submitted plans
- Changes to approved plans
- Notice to Local Enforcement Agency (NLEA)

Structural

Construction documents for a structural plan package must include the following:

Cover sheet:

- Project identification.
- Structural construction documents must show edition of either the Oregon Structural Specialty Code and/or the Oregon Residential Specialty Code as applicable.
- Oregon-approved design professional identified.
- List:
 - Intended use
 - Occupancy classification
 - Type of construction
 - Seismic zone
 - Wind speed and exposure
 - Ground snow loads
 - Square footage
 - Energy zone
 - Occupant load
 - Fire sprinklers
 - Fire alarms
 - General building height
 - Number of stories
 - Code standard and code edition must be provided for each state when project is submitted for review under the tristate agreement

Site plan (where applicable): Show proposed new prefabricated building and any existing buildings or structures, all property lines with dimensions, all streets, easements, and setbacks. Show all required parking, accessible parking and aisles, accessible signage, stairs and ramps, Show North Arrow. Relevant documentation must be provided for any building intended to be installed in a flood hazard zone or an area that is required to comply with adopted fire hardening building code standards.

Floor plan: Show all rooms, with their use, overall dimensions and locations of all structural elements and openings. Show all doors and windows and provide door and window schedules, or other required information. Show all fire assemblies with approved design numbers and construction methods, draft stops and area occupancy separations if applicable. Show and delineate in detail all fixtures that are required to be accessible. Show interior finish schedule. Show a ceiling plan indicating ceiling elevations and materials proposed, means of egress, fire life safety plan in accordance with the Oregon Structural Specialty Code.

Framing plans and roof framing plans: Show all structural members, their sizes and species, methods of attachment, all hardware, location and materials for walls, shear walls, floors and roofs.

Exterior elevations: Show all views. Show all vertical dimensions and heights. Show all openings and their sizes, and identify all materials.

Building sections and wall sections: Show materials of construction, detail non-rated and fire-rated assemblies and fire rated penetrations with listed assembly numbers. Show all height dimensions. For fire rated assemblies, show the approved design number, and the construction methods from the approved design number on the plans for all to follow.

Structural calculations: Provide structural calculations for the entire structural system of the project, stamped, dated and signed by an appropriately Oregon licensed engineer or architect.

Energy efficiency: Plans must be of sufficient clarity to indicate the location, nature and extent of the work proposed. Oregon-approved design professional identified. Details must include insulation materials and their R-Values, fenestration U-Factors, and Solar Heat Gain Coefficient (SHGC), system design criteria, mechanical equipment type, sizes and efficiencies, economizer description, system controls, duct sealing, duct and pipe insulation, daylight areas on floor plan, lighting fixture schedules, continuous air barrier sealing details, and COMcheck compliance reports.

Toilet facilities in certain occupancies: Portable classrooms (E Occupancy classification) and temporary construction offices (B Occupancy classification) may utilize alternatives to comply with toilet facility requirements in OSSC Chapter 29.

Portable classrooms (E Occupancy):

- **Option 1:** The use of adjacent facilities on the same site is preapproved as an alternate method for portable classrooms not larger than three (3) single-story modules. Plans submitted for the project must clearly indicate that OSSC Chapter 29 fixture requirements will be provided via adjacent facilities on the same site and within 300 feet.
- **Option 2:** A project that includes more than three (3) single-story modules will be considered on a project-specific basis. A request must be submitted in writing to the Division with applicable documentation. Plans must clearly indicate that OSSC Chapter 29 fixture requirements will be provided via adjacent facilities on the same site and within 300 feet.

Temporary Construction Offices (B Occupancy classification):

Portable restrooms are allowed to be used as an alternative to permanent, built-in sanitary facilities for a B Occupancy constructed to be used as temporary construction offices, and other similar temporary uses. The applicant must:

- Clearly indicate on the plans that the intended use of the structure is a temporary construction office, or similar temporary use; and
- Clearly indicate on the plans that OSSC Chapter 29 fixture requirements will be provided via portable restroom facilities. **

Mechanical

Mechanical construction documents must show the entire mechanical system. Plans must be of sufficient clarity to indicate the location, nature and extent of the work proposed. Identify the Oregon-approved design professional.

Mechanical construction documents must also show edition of either the Oregon Mechanical Specialty Code or the Oregon Residential Specialty Code as applicable.

- Include all units and the following for each:
 - Sizes
 - Mounting details
 - All duct work and duct sizes
 - Indicate all fire dampers/smoke dampers where required
- Provide the following information:
 - UL listing for through/membrane penetrations in fire walls
 - Equipment schedules based on BTU's and horsepower
 - Duct insulation R-value
 - Outdoor air calculations
 - Combustion air calculations for indoor appliances
 - Energy calculations

^{**}An exception in the code exists for toilet facilities for a B Occupancy used as a temporary construction office, or similar uses provided there are adjacent facilities as specified in the code.

- Exhaust calculations and makeup air calculations for commercial exhaust hoods
- Manufacturer's installation instructions must be provided where the use of heat pump is intended
 for heating purposes. Documentation must demonstrate that the heat pump will provide adequate
 heat on the coldest design day, or a supplemental heat source is required.
- Show the following on the construction documents:
 - Edition of Oregon Mechanical Specialty Code
 - Equipment on roof and clearances
 - Supply and return air diffuser locations
 - All exhaust hoods
 - Grease duct enclosures
 - Condensate piping drainage locations
- Specify if any of the following apply:
 - Programmable thermostats
 - Hazardous locations and materials used.
 - Use of plenums
- Identify any installations to be completed at the job site.

Plumbing

Plumbing plan review is only required for complex structures. OAR 918-780-0040 identifies those plumbing systems identified as being complex. Applicants choosing to utilize this plan review exemption on a prefabricated building that contains a plumbing system must clearly identify this on a plan cover sheet or other official plan documents. If the Program determines that the plumbing system is not exempt from plan review, the applicant must provide all required construction documents and pay applicable plan review fees. Exemption from plan review does not exempt any plumbing installations from complying with applicable Oregon Plumbing Specialty Code provisions, statutes, rules, or other requirements.

Construction documents must be of sufficient clarity to indicate the location, nature and extent of the work proposed. Identify the Oregon-approved design professional.

- Plumbing construction documents must show:
 - Edition of Oregon Plumbing Specialty Code
 - All fixtures
 - Required minimum fixture calculation
 - Piping size and materials
 - Slopes
 - Bracing
 - Roof drainage piping, overflows, scuppers and calculations
 - All backflow protection with approved standards
- Provide the following information:
 - Isometric drawings for drain, waste and vent, and water
 - UL listing for through/membrane penetrations in fire walls
 - Pipe insulation R-values
 - Details for water heaters
 - Fixtures schedule
- Specify hazardous locations and materials used
- Identify any installations to be completed at the job site

Electrical

Electrical plan review is only required for complex structures. OAR 918-311-0040 identifies those electrical systems identified as being complex. Applicants choosing to utilize this plan review exemption on a prefabricated building that contains an electrical system must clearly identify this on a plan cover sheet or other official plan documents. If the Program determines that the electrical system is not exempt from plan review, the applicant must provide all required construction documents and pay applicable plan review fees. Exemption from plan review does not exempt any electrical installations from complying with applicable Oregon Electrical Specialty Code provisions, statutes, rules, or other requirements.

Construction documents must be of sufficient clarity to indicate the location, nature and extent of the work proposed. Identify the name and valid license number of the person who prepared the electrical plan. This may either be an Oregon-approved design professional registered or licensed for the scope of work included in the electrical design or may be an Oregon licensed supervising electrician (provide the license number and expiration date). (See OAR chapter 918, division 311)

- Electrical construction documents must show:
 - Edition of Oregon Electrical Specialty Code
 - All electrical fixtures (interior, and exterior)
 - Wiring sizes and circuiting
 - Conduit types and sizes
 - Grounding
 - Panel schedules
 - Single line diagrams
 - Load calculations and fixture schedules
 - Warning placards
- Provide the following information:
 - Energy calculations.
 - UL listing for through/membrane penetrations in fire walls.
 - Power plans
 - Lighting plans
- Specify hazardous locations and materials used
- Identify any installations to be completed at the job site

Revisions (during plan review)

All changes must be identified with a "delta symbol" and "clouded" on revised drawings. Only those drawings pertaining to the revisions are required to be re-submitted for review. A cover letter explaining the changes must be included. A complete resubmittal of the project is a customer's choice. However, a plans examiner may choose to re-review the entire re-submittal, which could add additional plan review time and trigger additional plan review fees.

Changes to approved plans

No changes may be made to Program-approved plans without prior Program approval. Applicable applications, forms, construction documents, and fees must be submitted and approved prior to any work being covered or approved. The registered business is responsible for any costs or delays associated with opening concealed construction for the purposes of determining code compliance.

Notice to local enforcement agency (NLEA)

Prefabricated buildings are intended to be substantially completed by the manufacturer at their manufacturing facility. The Program allows for certain construction elements to be completed at the installation site. Manufacturers intending to have construction elements completed at the installation site must indicate this by checking the "incomplete structure" box on the plan application and submitting a completed Notice to Local Enforcement Agency (NLEA) application at the time of plan submittal. Program approval of any construction elements on an NLEA application is required. The Program reserves the right to deny any construction element associated with an NLEA application that exceeds the limitations of the Program or that is outside the scope of the Program.

Typical construction elements are listed on the NLEA application and there are provisions for a manufacturer to request approval of other construction elements associated with design, size, or transportation restrictions.

An NLEA is not intended to facilitate substantial construction of a prefabricated building at the installation site.

Do not include in the NLEA application those elements that are standard inspection items for every prefabricated building installation permitted and inspected by a local building department as specified in OAR 918-674-0015(5). If the manufacturer intends to add additional information along with their plan submittal that includes standard site inspection items or other information, that information must be separate from the actual NLEA construction elements and must be labeled as "Additional Information provided by the manufacturer."

The following are common construction elements listed on an NLEA application:

- 1. A **hinged or raised roof assembly** not completed at the factory by design specifically because of height restrictions during transport. Typically includes raising a hinged roof assembly on-site, installing pony wall above the ridge beam, extending vents through the roof, and completing end shear panels.
- 2. A **piggy-back or cap-truss** not installed at the factory by design specifically because of height restrictions during transport. Typically includes adding the trusses on site, extending vents through the roof, completing the roof sheathing, and completing the roofing and end shear panels.
- 3. Other **on-site roof framing** by design specifically because of height or overhang restrictions during transport. Typically includes roof over framing to an adjacent structure and truss installations at the center module of a triple wide structure.
- 4. Prefabricated **structures containing more than one section or more than one story**. This item is self-explanatory.
- 5. **Plumbing fixtures that are** not installed at the factory because of design, size or transportation limitations. This typically occurs at the mate-lines but may include completion of under-floor plumbing.
- 6. **HVAC equipment** (not outside the building) and not installed at the factory by design specifically because of height or width restrictions during transport.
- 7. **Fire alarm and visual alarm** completed on-site. Conduit is typically installed and inspected in the factory, but the wiring and final installation occurs by appropriately licensed contractors at the job site.
- 8. Fire sprinkler completion on-site.
- 9. Limited **kitchen equipment** including Type I and II Hood installation on-site. This should not include kitchen counters/cabinetry and equipment installed on-site.
- 10. Completion of fire-resistive wall and ceiling construction across mate-lines.
- 11. **Gas piping installations** on-site, limited to risers. Specify that a pressure test is required.
- 12. Completion of **draft-stop construction** across mate-lines.
- 13. Field installed headers at mate-lines.
- 14. Field installed overhangs.
- 15. Required toilet facilities when located in an adjacent building on the same property.
- 16. Kitchen counters/cabinetry and equipment on site.

The manufacturer is required to attach a valid copy of the Program-approved NLEA to the inside of the window closest to the entrance door, or adjacent to the entrance door of the building. A valid copy of the Program-approved NLEA must also be provided to the local building department as part of the site installation permit process in OAR 918-674-0015(5). An NLEA application is not valid unless it has been approved by the Program.

If an NLEA must be submitted or amended after plans have been approved by the Program, the manufacturer is required to submit an NLEA application to the Program and obtain approval. This includes, but is not limited to, any circumstances that are outside the control of the manufacturer like shortages of materials, equipment, or fixtures. For an amended NLEA application, please indicate the changes from the original approved NLEA. An amended NLEA application must be reviewed and receive Program approval to be valid and prior to any work being covered or approved. The manufacturer is responsible for any costs or delays associated with opening concealed construction for the purposes of determining code compliance.

An NLEA is not required for:

- 1. Any site-specific work that will be performed by an installer (contractor) under a local permit.
- 2. Foundations.
- 3. Local utility (electrical, plumbing, gas, etc.)
- 4. Two separate structures connected together.

Inspection of NLEA items

A manufacturer, their designee, or an owner is responsible for ensuring that the local building department is notified that an Oregon-approved prefabricated building is being installed in their jurisdiction. If the prefabricated building has construction elements to be inspected at the installation site, the manufacturer, their designee, or an owner must provide a copy of the Program-approved NLEA to the local building department, and provide any and all necessary information or documents to the local building department to complete the inspection of the construction elements on the NLEA.

Manufacturers may request that NLEA construction elements be inspected by the Program instead of the local building department. Prior authorization is required. If the Program is involved at the installation site for the purposes of issuing Oregon insignia of compliance or inspecting NLEA construction elements, the Program has express authority to visually inspect the building to ensure compliance with Oregon laws and Program-approved plans.

Calculating permit and plan review fees

Plan review fees for prefabricated buildings are determined by first calculating a permit fee amount. Once the permit fee is calculated a percentage of the permit fee is the plan review fee. An example of how to calculate permit fees for the purposes of determining plan review fees is provided below. If you have questions or need additional assistance, please contact Program staff by email at plans.prefab@dcbs.oregon.gov or by phone at 503-378-8096.

Plan review fee amounts established on the Plan Review and Permit Fee Worksheet must be transferred to the Plan Review Application. The Plan Review Application and the Plan Review and Permit Fee Worksheet must be submitted with fee payment and when submitting a plan package. Permit fees and surcharges are not required to be paid at the time of plan submittal. Additional information about permit fees and surcharges is covered after the plan review fee calculation section.

Plan review and permit fee worksheet

- 1. Use the Prefabricated Structure Plan Review and Permit Fee Worksheet (form 2961).
- 2. Fill in Lines 1 through 4 (building use, building occupancy classification, construction type, and building size.
- 3. Choose one of the building valuation options from Line 5.
- 4. Put that building valuation amount on Line 6.

- 5. Determine if the project is a "Design Master Plan" or "Custom Plan." for the purposes of completing either Lines 7 through 8 or Lines 9 through 10. Refer to the example Plan Review and Permit Worksheet below.
- 6. Complete the structural permit fee methodology calculation using the example below for the purposes of determining structural plan review fee.
- 7. Complete the remainder of the Plan Review and Permit Fee Worksheet by first calculating permit fee amounts and then calculating the plan review fee amounts for mechanical, electrical and plumbing (as applicable).

Example: Structural permit fee calculation methodology

Example plan review and permit fee worksheet

This example is based on the following criteria and building valuation:

- Example project is a "Custom Plan."
- Example building valuation data: (Lines 1 − 4):
 - Building use = Office
 - Building occupancy classification from the OSSC = Group B occupancy or "B"
 - Type of construction from the OSSC = V-N
 - Square footage of building = 1,770
- Example building valuation amount is based on Table 1-S (Table 1-S is attached to the Plan Review and Permit Fee Worksheet). Locate "Offices" under "Occupancy & Type" and construction type V-N.
- The fee amount for this occupancy and type is \$55.44 per square foot.
- Multiply the dollar amount per square foot (\$55.44) and the square footage of the building (1,770). This equals \$98,128.80 (Total Building Valuation). Enter this amount on Line 6.
- This example project is a Custom Plan. Use Table 1-PF "Permit Fees -Custom Plan" (Table 1-PF is attached to the Plan Review and Permit Fee Worksheet) and locate the dollar amount range for \$98,128.80. That range covers valuation amounts between \$50,001 to \$100,000.
- Within a valuation range there are fee amounts listed, and methodologies used to determine the structural permit fee amount. The methodology is as follows:

Example Structural Permit Fee Calculation Methodology for Table 1 PF

Process	Outcome	Methodology
Valuation range	\$50,001 to \$100,000	Based on an example valuation amount of \$98,128.80
First fee increment amount	\$367.90 (Line 7a)	For the first \$50,000 of the total valuation amount (\$98,128.80)
Additional amount (Step 1)	\$48,128.80	\$98,128.80 (valuation) minus \$50,000 (from the first fee increment) = \$48,128.80
Additional amount (Step 2)	48.13	\$48,128.80 (additional amount from Step1) divided by \$1,000 (multiplier) = 48.13 (value)
Additional amount fee	\$187.71 (Line 7b)	48 (value from Step 2) multiplied by \$3.90 (additional fee rate) = \$187.71
Structural permit fee total	\$555.61 (Line 7c)	\$367.90 (first fee increment) plus \$187.71 (additional amount fee) = \$555.61

Structural plan review fee calculation

 The structural plan review is determined by calculating 65% of the structural permit fee. Using the example amounts above, calculate the plan review fee as follows and put this amount on Line 11 of the Plan Review and Permit Fee Worksheet:

\$555.61 (permit fee amount) X 0.65 (65%) = \$361.15 (structural plan review fee amount).

 The structural plan review fee amount must be transferred to Line 1 of the Plan Review Application. Note: If the project was a Design Master Plan use the applicable valuation table and lines for a Design Master Plan (Table 2-PF Design Master Plan)

Permit and plan review fees for other code disciplines

Applicable plan review fees are calculated based equipment, fixtures, devices, etc. installed in a prefabricated building. In each of the remaining disciplines calculate the permit fee amount first then calculate the plan review fee, which is a percentage of the permit fee. Note the following:

- A prefabricated building requiring a fire and life safety plan review uses the structural permit fee amount as the
 basis for determining the fire and life safety plan review fee. A fire and life safety plan review fee is 40% of the
 calculated structural permit fee amount.
- An electrical plan review has a set hourly fee amount with a minimum of one hour. If more than one hour of
 plan review time is required, additional fees will be requested. Electrical permit fees will only need to be
 calculated if the customer intends to pay permit fees in advance.
- Plan review fees for these applicable code disciplines must be transferred to the appropriate line on the Plan Review Application.
- Plan review fee amounts are totaled on Line 52.
- On the example Plan Review and Permit Fee Worksheet (referenced above), the plan review fee amounts are colored green.

Permit fees: Oregon law establishes a statewide system for building construction activity that is based on the issuance of a permit for the type and scope of construction work performed. Under this system permit fee amounts are intended to cover the cost of required inspections. This system has been administered differently when it comes to prefabricated building construction. No actual building permit is issued for the factory construction work regulated by the Program.

The Program charges inspection fees two ways.

- "Hourly" inspection option for Program required inspections based on an hourly rate for actual inspection costs
 established for each code discipline being inspected (travel time plus inspection time portal to portal) billed
 after inspections are completed, or
- "Permit fee" inspection option for Program required inspections based on pre-paying permit fee amounts calculated from the Plan Review and Permit fee Worksheet. Certain restrictions apply to the "permit fee" option. See below.

Paying permit fees is a customer choice. The Program cannot determine for any customer which choice is better. The Program can review the Plan Review and Permit Fee Worksheet and answer questions based on fee amounts calculated.

The number of inspections allowed is based on the type of inspection specified in the applicable Oregon adopted specialty code, Oregon law, or other requirement.

Surcharge fees: Oregon laws establish additional fees that must be collected on certain construction activity. Surcharges are collected at a rate of 12 percent of the permit fee amount, or 12 percent of the inspection fee amount if paying hourly rate.

- Paying permit and surcharge fees at time of plan submittal means:
 - Inspection fees and applicable state surcharge amounts for a particular job are calculated and included when a project is submitted for plan review.
 - Permit fees apply only to inspections for the project the fees were paid for.
 - Additional inspection fees may be charged if the maximum number of Program required inspections allowed are exceeded. Additional fee amounts are established in administrative rules.
 - When permit fees are paid for a Design Master Plan, the permit fee amounts only apply to the first building manufactured. Inspection fees will be billed for additional buildings built under that Design Master Plan.
 - Permit and surcharge fee amounts are totaled on Line 53 of the Plan Review and Permit Fee
 Worksheet, make sure to transfer permit fee and surcharge fee amounts paid at time of plan
 submittal to the Plan Review Application.

- On the example plan review and permit fee worksheet (referenced above), the permit and surcharge fee amounts are colored red.
- Permit and surcharge fees are not allowed to be paid for projects submitted under the tri-state agreement. Inspection fees will be charged by the state program where the prefabricated building is manufactured according to that state's established procedures.
- Not paying permit and surcharge fees at time of plan submittal means:
 - Inspection fees and applicable state surcharges are calculated based on actual inspection and travel time (portal-to-portal) for each inspection type (cover inspection or final inspection) for that building after the inspection is completed.
 - Inspection reports completed during a given time period are totaled together and the registered business is billed for the inspection fees and surcharge fees for each building inspected during that time period.
- Total fees to pay goes on Line 54 of the Plan Review and Permit Fee Worksheet. If only plan review fees
 are being paid at time of plan submittal, do not include any calculated permit and surcharge fee amounts
 on Line 54 of the Plan Review and Permit Fee Worksheet. A sample Plan Review and Permit Fee
 Worksheet is provided above.

Oregon insignia of compliance (for prefabricated buildings)

An Oregon insignia of compliance is a tag (this is gold or yellow in color) attached to a prefabricated building indicating the prefabricated building has been manufactured in compliance with Oregon adopted specialty codes, Oregon laws, rules, or other requirements. Insignia of compliance are required to be applied for when a plan package is submitted regardless of the plan type. Submit a completed insignia application along with applicable fees for each building. Each module or section of a building requires an individual insignia. For example: a triple-wide building would require three insignias.

Use the Prefabricated Structures Insignia of Compliance Application (form 2619) to apply for Oregon insignia for a project.

Examples of typical applications:

- Single building insignia application
- Multiple buildings insignia application
- Multi-wide building insignia application example

Oregon insignia of compliance will only be affixed to a building after an approved final inspection of a building at the manufacturing facility for those buildings manufactured in Oregon, or for buildings manufactured in the State of Idaho or State of Washington manufactured under the tristate agreement. Oregon insignia of compliance are sent to the State of Idaho or the State of Washington for those manufacturers located in these states who are receiving shared plan review and inspection services under the tristate agreement. The state offices administering the factory-built structures program in those states will perform required inspections and issue Oregon insignias following final approval on behalf of the State of Oregon prior to the building being shipped to Oregon.

Manufacturers located in Idaho or Washington utilizing shared plan review and inspection services under the tristate agreement may not ship a prefabricated building to Oregon without final inspection and without Oregon insignia of compliance attached to the building. Prior approval from the Oregon Prefabricated Structures Program must be obtained if a building must ship before all required inspections have been completed and Oregon insignia of compliance is issued. Oregon insignia of compliance will be issued at the installation site upon approval of final inspection for manufacturers on an Oregon-approved Compliance Control Program. If an insignia of compliance application is not received with a plan package, the manufacturer must apply for Oregon insignia of compliance prior to shipping the building from the manufacturing facility.

Prefabricated buildings that receive Oregon insignia of compliance are expected to remain in compliance with Program-approved plans to maintain the validity of the Oregon insignia of compliance for the purposes of sale, rent, lease or installation in Oregon. Alterations to an Oregon-approved prefabricated must be approved by the Program to maintain the validity of the Oregon insignia of compliance. See the Alterations section of webpage for more information.

Lost or damaged insignia may be replaced provided the applicant provides proof that the prefabricated building was originally an Oregon-approved prefabricated building and that no alterations have been performed without prior approval from the Prefabricated Structures Program. Contact Program staff for additional information.

Inspection options available to manufacturers

Program required inspections, which are those inspections specified in Oregon adopted specialty codes, Oregon law, or other requirements, must be completed by Program inspection staff or may be performed as specified in the tristate agreement between Oregon, Idaho, and Washington. Inspections by other entities, such as nationally recognized third-party inspection services, are not allowed to replace Program required inspections. The location of a manufacturing facility and how the manufacturer constructs their prefabricated buildings determines how the Program can best provide inspection services to manufacturers. Below are inspection options the Program currently offers.

Once an inspection path is established manufacturers are expected to continue using that inspection path and comply with Program requirements. Manufacturers are not permitted to choose a different inspection path without prior Program approval. Manufacturers are not permitted to switch back-and-forth between inspection paths on a project-by-project basis.

Factory inspections

- Factory inspections are conducted for manufacturers located in Oregon, Idaho or Washington that
 construct prefabricated buildings using closed construction that conceal construction elements (like
 plumbing or electrical installations) that require cover inspections and a final inspection prior to the
 issuance of an Oregon insignia of compliance before the building leaves the manufacturing facility.
- Factory inspections performed in Idaho or Washington are conducted as specified in the tristate agreement.
- The Program has the authority to perform factory inspections outside of Oregon, however, this option will only be used at the Program's discretion and should not be construed as a standard allowance.

Remote Virtual Inspection Program (currently a pilot program)

- Manufacturers located outside Oregon, Idaho or Washington that construct prefabricated buildings using
 closed construction that conceal construction elements (like plumbing or electrical installations) that require
 cover inspections before the building leaves the manufacturing facility may apply to use the Remote Virtual
 Inspection Program (currently a pilot program).
- Under this program the manufacturer must comply with Program eligibility requirements. The Remote Virtual Inspection Program is a live inspection conducted remotely with Program inspection staff and appropriately licensed or certified individuals at the manufacturing facility. For more information about this program email Program staff at: plans.prefab@dcbs.oregon.gov.
- When all Program required cover inspections have been approved the building may be delivered to Oregon.
- Final inspections of the factory construction will be performed by the Program when the building arrives in Oregon. If the final inspection is approved, Oregon insignia of compliance will be issued to the building. If the building is not being delivered directly to the installation site, the inspection must be completed at an alternate location. Manufacturers that consistently fail to complete required inspections of prefabricated buildings may lose their authorization to be on the remote virtual inspection pilot program, or may be subject to civil penalties, or they may lose the ability to deliver their prefabricated buildings to Oregon.
- The Program reserves the right to rescind the use of the Remote Virtual Inspection Program for failure to comply with Program requirements.
- The Program may, at any time, end the pilot program. Any manufacturer authorized to use this pilot program will be provided prior notice and flexibility to complete projects submitted while the pilot program was in effect.

Compliance Control Program (for prefabricated buildings)

- A Compliance Control Program is an alternative compliance path for manufacturers that build prefabricated buildings using closed construction but do not conceal certain aspects of construction (like plumbing or electrical installations). Surface-mounted plumbing or electrical installations are not considered concealed construction.
- This program is primarily offered to manufacturers that construct equipment enclosures or other nonhabitable buildings. Buildings that allow persons in the building for maintenance purposes only are not considered habitable.
- Under this program the manufacturer must submit and obtain Program approval of a Quality Control Manual (QC Manual). See below
- Manufacturers are authorized to complete factory construction and deliver the prefabricated building to Oregon for Program required inspections at the installation site.
- A final inspection must be performed by the Program when the building arrives in Oregon. If the final
 inspection is approved, Oregon insignia of compliance will be issued. If the building is not being delivered
 directly to the installation site, the inspection must be completed at an alternate location. Manufacturers
 that consistently fail to complete required inspections of prefabricated buildings may lose their authorization
 to be on a compliance control program, or be subject to civil penalties, or may lose the ability to deliver their
 prefabricated buildings to Oregon.
- The Compliance Control Program is administered and enforced by the Oregon Prefabricated Structures Program and is not associated with or part of the tristate agreement.

Elements of a quality control manual (QC manual)

A Quality Control Manul (QC Manual) outlines the method of controlling the construction, fabrication, assembly and erection of a prefabricated building, including storage and use of various materials, to ensure compliance with Program requirements and Oregon adopted specialty codes for the regulation of prefabricated buildings. A Quality Control Manual (QC Manual) must include, but is not limited to, the following items:

- Cover page
- Table of contents
- Introduction
- Organization chart
- Scope of the quality control program
- Quality control procedures
- Production flow chart, including departments and station-by-station check points
- List of suppliers and contact information
- Any and all third-party test reports
- Any and all listing approvals
- List of construction materials
- Any and all material test reports
- · Quality control forms
- Copy of inspection traveler (equivalent)

Note: Provide documentation for all welders, to include testing and certification documentation though an approved testing and certification agency per Section 1704 of the Oregon Structural Specialty Code where special inspections as required by Section 1704.2.5.2.

Application

Submitting the compliance control manual:

- Use the <u>Prefabricated Structure Plan Review Application (form 2557)</u> to submit a compliance control manual for review.
- 2. Complete the "Manufacturer Information" section at the top of the application.
- 3. Submit the application electronically, *without* the payment information, to plans.prefab@dcbs.oregon.gov.
- 4. The manual will not be reviewed until the payment has been processed.



Submitting payment: The manual review fee is \$400 (noted at the bottom of the "Fees" section of the application). Submit the application along with payment as specified under "payment options" below.

Compliance control manual approval: Once the compliance control manual, application, and payment are received, program staff will review the manual and if approved, it is stamped, and a copy is returned to the manufacturer. If the manual is incomplete or needs additional information, program staff will notify the manufacturer.

Once a compliance control manual is approved it remains valid unless there is a change in company ownership, name, or substantial changes to the manufacturing processes described in the approved manual.

Resubmission: If there is a change in company ownership, name, or any substantial changes to manufacturing processes described in an approved manual, the manufacturer must resubmit the manual with the appropriate changes.

The process for resubmission is the same as described above, however, the resubmission fee for review is \$200.

Payment options: Payment for services is limited to the following:

- **By mail:** Submit completed applications with a check or a credit card number to the mailing address located on the form.
- **By secure fax:** Submit completed applications with a credit card number to the "**secure fax**" number located form. Faxing to any other fax machine will cause delays and other fax machines may not be located in secure locations. Allow 3- 5 business days for payment cashiering. Do not email applications or forms with credit card information on them.

Note: DO NOT submit applications, forms, or fees for plans or insignias if your business does not have a valid Program registration. Services will not be provided, and fees will be refunded.

Inspections: Manufacturers receiving plan review and inspection services from the Oregon Prefabricated Structures Program for prefabricated buildings required to have an Oregon insignia of compliance affixed to the building are responsible for ensuring that Program-required inspections are completed for any building constructed by the manufacturer. These requirements apply regardless of any contractual agreement a manufacturer establishes with another party (i.e. retailer, installer, or building owner).

Inspection requests must be submitted as follows:

- All requests for Program inspections must be submitted a minimum of 48 hours in advance of the
 requested date of inspection. Specific times of day requests are not permitted. Program inspection staff will
 try to accommodate unique requests but are not required to do so.
- Manufacturers of prefabricated buildings manufactured outside the State of Oregon constructed under a
 Remote Virtual Inspection Program or a Compliance Control Program must request an inspection when the
 building arrives in Oregon and has electrical power supplies or plumbing connections, etc. necessary to
 complete required inspections.
- All inspection requests must be submitted to the Program using the <u>Prefabricated Structures Inspection</u> Request form (form 4934).

The completed inspection request form must be emailed to: prefab.inspections@dcbs.oregon.gov.

- Any questions, comments, or concerns regarding Program inspections must be emailed to: prefab.inspections@dcbs.oregon.gov.
- Inspection of a prefabricated building must be completed no later than 90 days following the expiration date of the plan approval for which the building was constructed to.
- Insignia of compliance not issued to a building due to a manufacturer's failure to complete the inspection
 process are voided in the Program's database. These buildings are no longer valid because the inspection
 process was not completed and can never be issued Oregon insignia of compliance. Manufacturers that
 demonstrate a pattern of failing to comply with Program inspection requirements may be denied Program
 services is the future.
- Prefabricated buildings intended to be delivered to a holding facility or staging area must be inspected before the 90-day period described above ends. Provisions must be made at the holding facility or staging area for the Program to complete required inspections.
- Manufacturers failing to comply with Program inspection requirements may be denied use of the Program services for failing to comply with Program requirements.
- Do not request a final inspection if Oregon insignia of compliance has not yet been applied for, or if insignias for projects submitted under the tristate agreement have not been received by the Program.
- Inspection fees are billed to the registered business at the rates established in OAR 918-674-0155, unless permit fees have been paid in advance.