



## **GUIDELINES ON REPLICABLE BUILDINGS**

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### **A NATIONAL STREAMLINING INITIATIVE: A MODEL DOCUMENT FOR SINGLE STATEWIDE PLAN REVIEW AND APPROVAL PROCESS FOR REPLICABLE BUILDINGS**

#### **NEEDS STATEMENT – REPLICABLE BUILDING PROJECT**

As owners, architects, builders, and engineers continue to leverage technology and systems to increase their efficiencies, regulatory efficiency must also continue to advance. Implementing a building document review process that can examine and verify that replicable construction documents comply with the current applicable *International Codes* could save considerable municipal and county resources and time by eliminating repetitive reviews by those local jurisdictions. Although a state level type of “plan certification” would not address local issues that differ from the applicable *International Codes*, local jurisdictions would then be able to utilize their resources to focus on reviews of complex and high risk projects. By coupling a “global” review of replicable documents with a “local” review of unique jurisdictional requirements, replicable buildings that utilize this optional regulatory review process could be constructed with greater consistency and more cost effectively.

Natural disasters have shown that there is a need for mass review of homes and business after a catastrophe so that people can put their lives back together in a timely manner.

Allowing owners, architects, builders, and engineers to submit a design, with its various facades and options, could allow for a more thorough review by plan examiners, reduced construction times, fewer in-field change orders, more meaningful inspections, and quicker occupancy of the finished buildings.

The Replicable Building Review concept has the potential to avail additional expertise to the jurisdiction through an “expert” review process similar to the present use of evaluation reports to assure code compliance of a particular product. Replicable building design reviews, like evaluation reports, have the potential to produce more thorough and uniform results. The “expert” review process will be invaluable to those jurisdictions that have statewide adoption of the *International Codes*. One of the major benefits of statewide adoption of the *International Codes* is the establishment of consistent code provisions for local jurisdictions to enforce. The concept of consistent enforcement is very important to national corporations and franchise chains that wish to construct similar or identical buildings across the country. Although it seems logical that statewide code adoption would lead to consistent enforcement across the state, individual enforcement by local jurisdictions often dilutes the goal of consistent enforcement. The Replicable Building Review process will greatly enhance the consistency of code application for replicable buildings, and support consistent enforcement of statewide codes while maintaining local jurisdictional authority.

Ultimately, The Replicable Building Review process will be a win for both owners and local jurisdictions. The Replicable Building Review process will enhance public safety through a more uniform review process and will conserve local resources through the elimination of repetitive reviews on “transportable” plans. The benefit to owners will be reduced time between permit submittal and construction mobilization.

## **DEFINITION - REPLICABLE BUILDINGS**

Buildings regulated by this code that have been reviewed and deemed code compliant by the *International Code Council or an approved 3<sup>rd</sup> party agency*, may be accepted by the governing authority adopting this code. Such buildings may be built in any jurisdiction adopting this code without a complete plan review, but would be reviewed for compliance with local amendments.

## **WHAT CONSTITUTES REPLICABLE DESIGN?**

A Replicable Building Design is:

- A proposed design, whether it be a new building or remodel, based on a given prototype to be built in a variety of locations while still maintaining the overall design parameters outlined below.
- A Replicable Building Design shall have the same use, occupancy, construction type, fire resistance, fire protection system, means of egress, and accessibility regardless of location.
- The building form shall be of similar height and square footage.
- The Replicable Building Design will incorporate the same general (acceptable) structural design and address various regional conditions such as wind, hurricane, snow, and seismic loads.
- The Replicable Building Design shall have the same basic mechanical, electrical, and plumbing systems.
- The Replicable Building Design shall include options for various exterior finish materials, veneers, and details based on regional architectural styles. However, changes to the facade will have no impact on the operation, function or life-safety requirements of the building. Where the interior décor is different in color or pattern, the same materials shall be used.
- The Replicable Building Design shall be reviewed by the local jurisdiction within the context of the site and other applicable, locally adopted, development regulations and standards.

Exceptions to Replicable Design:

1. Design adjustments are too significant to address various regional conditions, such as Wind, Hurricane, Snow, and Seismic Loads.
2. More than an xx% adjustment to the design height or square footage in order to accommodate local requirements such as planning/zoning, development agreements and design image issues.
3. These systems may be modified to accommodate local conditions and requirements such as energy efficiency, ventilation, climatic and local codes.

**WEAKNESSES IN EXISTING REGULATIONS AND LEGISLATION**

A PROJECT TEAM SUBWORK GROUP REVIEWED EXISTING LEGISLATION AND REGULATION AND FOUND:

- None of the existing legislation/regulation adequately defines what a “replicable building” is and how it is addressed.
- Most programs that do exist mandate that only single statewide plan reviews will be done for buildings built to most stringent climatic, water, energy and other zones within that state.
- All existing replicable building legislation is only applicable in states with a pre-emptive statewide building code. Therefore, Replicable Building Review would be limited to some 20 states
- Provisions do not adequately address some builder/owner issues including ability to have different facades on buildings and the diverse orientation of a prototype building on a particular site (e.g. left/ right hand versions of same plan or compass orientation for energy calculations).
- No provisions exists allowing jurisdictions to put Replicable Building Review in place in wake of major disaster to stimulate reconstruction.

## **SEE ATTACHMENT A FOR DESCRIPTION OF EXISTING LEGISLATION/ REGULATION REVIEWED FOR THIS GUIDE**

### **PROCESS METHODOLOGY**

A building permit can be issued after all other applicable local requirements have been met and if the State accepts third party review from a reputable source such as the International Code Council or an approved third party that is certified by the state or locality. The approval documents must list the code editions utilized for the review, the name(s) of the reviewer(s), the certifications of the reviewer, and a plan review check list signed by the reviewer. A geo-tech soils report from a professionally registered engineer with local knowledge must certify to the appropriateness of the foundation system in the approved plans for the site specific soils conditions and in accordance with local ordinances.

Licensing and / or certification must be appropriate for all locations and include such personnel as architects, engineers, specialty consultants, construction professionals and trades, geo-tech soils and other applicable reports, and special inspectors (e.g. structural steel, concrete, etc.)

### **FINALE**

In this era of “faster, less expensive and better,” transforming the development and building construction process has become a priority for many governmental jurisdictions. A government’s development process already utilizes a system of checks and balances derived from adopted rules and regulations. This is accomplished by making sure that the plans are prepared and construction is completed in accordance with the will of the governmental entity. The entire development process begins and ends with the jurisdictional authority where legal sanction is given to a construction project.

These functions are aimed at maintaining and protecting the life safety and community welfare of the jurisdiction. The authority to regulate construction development through the application of codes and ordinances is a valid and proper exercise of civil governance in developing sustainable communities. The legal and regulatory requirements that impact the development process have become a political necessity and a moral obligation of the regulating entity. However, in recent years, there have been major advances in technologies and shifts in market trends. Construction practices have allowed for similar design and building types, creating building prototypes.

While all the requirements being imposed by these functions are warranted, it is the workflow systems that are sometimes redundant and ambiguous. This redundancy or ambiguity makes it confusing or time consuming for an owner or owner's agent to navigate through the government's development process. The option of utilizing Replicable Buildings Review allows for a State Commission or jurisdiction to objectively assess its systems and consider the benefits of streamlined processes, effective workflows, efficient utilization of manpower, overall cost savings and, through these, infinitely improved customer service.

There are many ways to manage a government's development process; one size does not fit all.

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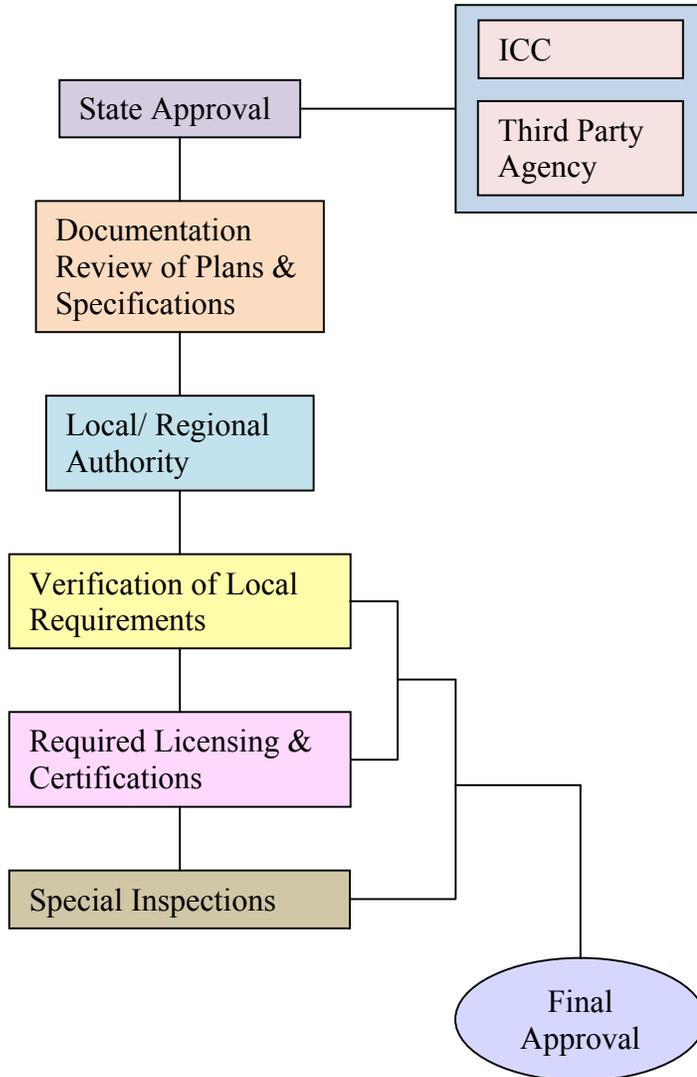
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**ATTACHMENT A – SUMMARY OF RELEVANT LEGISLATION/ REGULATION  
REVIEWED FOR THIS DRAFT GUIDELINE**



**FROM OREGON STATE STATUTES:**

**(STATE BUILDING) CODE COMMISSION – SPECIFIC POWERS**

The (State Building) Commission may provide rules for plan review and approval of new prototype buildings or prototype modifications for projects owned by private entities that maybe replicated throughout the state. The rules must allow for review of plans for prototype buildings to be performed by a public or private entity with oversight by the State Building Commission. The Commission may charge reasonable fees to cover the administrative costs of the program. Such approved plans for prototype buildings or prototype remodels shall be exempt from further review, except for changes to the prototype design and site plans due to local exceptions and

other site specific conditions. As provided for in this document, prototype buildings are exempt from any locally adopted amendment to any part of the adopted International Building Code. Construction or erection of such prototype buildings is subject to local permitting and inspections pursuant to this part.

**REGULATIONS ON REPLICABLE BUILDINGS – REVIEW OF PLANS AND SPECIFICATIONS TO DETERMINE COMPLIANCE**

The (State Building) Commission may, upon an application setting forth a set of plans and specifications that will be utilized in one or more municipalities to acquire building permits, review and approve the application for the construction or erection of any building or structure if such set of plans meets the requirements of the state building code. All costs incurred by the Commission for the examination of such plans and specifications or any plans and specifications shall be paid by the applicant. The plans and specifications, or any plans and specifications required to be submitted to a state agency, shall be submitted to the Commission who shall examine the instruments and, if necessary, distribute them to the appropriate state agencies for scrutiny regarding adequacy as to fire safety, life safety, and other appropriate features.

The applicant shall submit plans and specifications to the local building official prior to application for a building permit. The local building official shall review the plans for those features required by local ordinances or by any site-specific, geographic, geologic, or climatic code requirements. A local building official shall issue a building permit upon application and presentation to the local building official of such a set of plans and specifications bearing the approval of the director (State Department of Consumer and Business Services Building Codes Division) if the requirements of all other ordinances are satisfied. The director or local building official may assess such fees as necessary to cover the reasonable costs incurred to ensure the compliance of the plans with the state building code.

The (State Building) Commission shall develop rules addressing the plan review fee assessed to similar buildings without significant modifications including provisions for use of building systems as specified in the approved documents. Additional plan review fees associated with similar plans must be based on costs commensurate with the direct and indirect costs of the service.

**MASTER REVIEWER PROGRAM – PLAN REVIEW AND VERIFICATIONS OF DOCUMENTATION**

The Master Reviewer Program provides for a single review specifically by allowing a Master Builder to perform the plan review themselves. A Master Reviewer may perform all plan review and required verifications for which government review or inspection has been waived by a building official. The Master Reviewer shall maintain copies of all documents and reports required by the government granting the waiver and provide those copies to the building official.

To maintain the requirements and the status of a Master Reviewer is left up to the local building official and the building department as to whether or not to allow waivers to Master Reviewers submitting for building in their jurisdiction. In addition this program requires local jurisdictions to perform 10% inspections of all such construction.

**SCHEDULE OF PERMITS:** The applicant for a permit for a building; structure or electrical, gas, mechanical, or plumbing system or alterations requiring a permit shall pay the fee set forth by a fee schedule adopted by the municipality. When submittal documents are required to be submitted by this chapter, a plan review fee shall be required. The plan review fee shall be established by the fee schedule adopted by the municipality.

***Exemption:*** The fee schedule adopted by the municipality may exempt minor work from plan review fees.

**From Minnesota Statutes:**

**FEES COMMENSURATE WITH SERVICE:** Fees established by the municipality must be by legal means and must be fair, reasonable, and proportionate to the actual cost of the service for which the fee is imposed.

**BUILDING PERMIT VALUATIONS:** The applicant for a permit shall provide an estimated permit value at the time of application. Permit valuations shall include total value of all construction work, including materials and labor, for which the permit is being issued, such as electrical, gas,

mechanical plumbing equipments, and permanent systems. Building permit valuation shall be set by the building official.

**Exceptions:** Building permits valuations for the following structures shall be based on the valuation of on-site work only.

**BUILDING PERMIT FEES:** This section shall be established by the jurisdiction.

**PLAN REVIEW FEES FOR SIMILAR PLANS:** When submittal documents for similar plans are approved, plan review fees shall not exceed 25 percent of the normal building permit fee established and charged by the jurisdiction for the same structure.

#### **PLAN REVIEW OF SIMILAR PLANS**

A. Any number of similar buildings may be built from a master plan if:

1. Plan review fees have been paid for the master plan;
2. A code change has not occurred that impacts the design of a master plan
3. The similar buildings have the same physical dimensions and structural design as the master plan;

**EXCEPTION:** The following modifications to the master plan are not considered to be significant modifications, and built to the International Building Code that are three stories or less in height.

- a) Foundation types to include walkout, lookout, and full basement;
  - b) Foundation materials to include poured concrete, masonry units and wood;
  - c) Roof design changed by a revised truss plan approved by the building official;
  - d) Bays or cantilevered floor areas;
  - e) Decks and porches;
  - f) Other modifications approved by the building official;
4. Occupancy groups other than those identified in the exceptions listed in part, must be in the same type of construction and occupancy classification and must have the same exit system;

**EXCEPTION:** Minor changes to the exit access; and

5. The similar plan is based on a master plan for which the municipality has issued a permit within the last 12 months.
- B. Plan Review fees for similar building plans must be based on the costs commensurate with the direct and indirect cost of the service, but must not exceed 25% of the normal building permit fee established and charged by the municipality for the same structure.
- C. The plan review fee charged for similar building plans applies to all buildings regulated by the code regardless of the occupancy classification under a program specified in the Statutes.
- D. The applicant must submit a new plan set and other information as required by the building official for each building reviewed as a similar building.

#### **CONTINUOUS REMODELS**

1. Annual permit - In lieu of an individual permit for each alteration to an already approved electrical, gas, mechanical, or plumbing installation, the building official may issue an annual permit upon application for the permit to any person, firm, or corporation regularly employing one or more qualified trade persons in the building, structure, or on the premises owned or operated by the applicant for the permit.

2. Annual permit records - The person to whom an annual permit is issued shall keep detailed record of alterations made under the annual permit. The building official shall have access to the records at all times or the records shall be filed with the building official as designated.

**Note:** In addition to the Oregon and Minnesota state statutes referenced above, the work group on this project also conducted extensive reviews of statutes from: Florida, Michigan, Nevada, New Jersey, Utah, Virginia, and Wisconsin