

ERIN MENDENHALL
Mayor



DEPARTMENT of COMMUNITY
and NEIGHBORHOODS
Blake Thomas
Director

CITY COUNCIL TRANSMITTAL


Lisa Shaffer, Chief Administrative Officer

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Date Received: 2/16/2021

Date sent to Council: 2/16/2021

TO: Salt Lake City Council
Amy Fowler, Chair

DATE: January 20, 2021

FROM: Blake Thomas, Director, Department of Community & Neighborhoods



SUBJECT: Building Inspections on buildings being built off-site Title 18.08.040

STAFF CONTACT: Orion Goff, CBO, Building Official, Director - Building Services and Civil Enforcement, 801-535-6681, orion.goff@slcgov.com

DOCUMENT TYPE: Ordinance – Additional Subsection

RECOMMENDATION: Adopt the proposed Addition to Subsection to Title 18.08.040

BUDGET IMPACT: None

BACKGROUND/DISCUSSION: Recently, Salt Lake City has experienced an increased interest in allowing buildings to be installed on sites throughout the City that are not being built on the site where they will be installed. The impetus for this interest may be in relationship to a new ADU ordinance recently passed by City Council as well as an increase in interest in innovative ways to provide affordable housing. These buildings are commonly referred to as ‘modular buildings’ or ‘factory-built-buildings’ (FBB). They are not manufactured homes or mobile homes as both of those types of homes are built on axles with a permanent frame and are built to U.S. Department of Housing and Urban Development (HUD) standards. Manufactured and mobile homes will not be affected by this ordinance change.

Currently, the City Code requires that; *The Building Official shall.....perform the following duties....., inspect all work authorized by any permit, to assure compliance with provisions of this title or amendments thereto, approving or condemning such work in whole or in part, as conditions require;* This requirement has been identified as a real burden for those interested in

providing the actual units to be built offsite as most of them are produced out of state in previously established factories. As there is no building code based, statewide regulation for this building type, state law specifically allows local jurisdictions to adopt their own ordinance to effectively regulate them.

Currently, The International Code Council (ICC) is working with the national board that oversees the regulation of that industry, The Modular Building Institute (MBI) Two jointly developed, standards are working their way through the ANSI approved adoption process. They are attached to this transmittal for reference.

The documents are referred to as: ***“ICC/ MBI Standard for Off-Site Construction 1200, 1205: Planning, Design, Fabrication and Assembly” and the Standard for Off-Site Construction: Inspections and Regulatory Compliance.*** These standards may be approved for adoption in time for the next statewide code adoption cycle here in Utah, which historically, has been accomplished statewide, with Utah State Amendments, every third calendar year. The documents are a comprehensive means to regulate the permitting and installation of the proposed modular or factory-built buildings in local jurisdictions nationwide.

We are recommending that The City Council consider adopting these documents and their successors as a reference, to be used locally by multiple providers. It will provide a well-vetted and orderly process for permitting, inspecting and approving these buildings. It may also be a viable approach to facilitate affordable housing quickly throughout the city.

Amend Section 18.08.040

- This Title specifically addresses the duties of the City Building Official.

PUBLIC PROCESS: None

EXHIBITS:

Exhibit 1: “ICC/ MBI Standard for Off-Site Construction 1200, 1205: Planning, Design, Fabrication and Assembly” and the Standard for Off-Site Construction: Inspections and Regulatory Compliance.

Exhibit 2: Recommendation letter from ICC

Exhibit 3: Recommendation letter from MBI

ICC/MBI Standard for Off-Site Construction: Inspection and Regulatory Compliance

FOREWORD

[The information contained in this foreword is not part of this American National Standard (ANS) and has not been processed in accordance with ANSI's requirements for an ANS. As such, this foreword may contain material that has not been subjected to public review or a consensus process. In addition, it does not contain requirements necessary for conformance to this standard.]

This Standard includes componentized, panelized and modularized elements and will not apply to HUD Manufactured Housing.

Introduction

In February of 2019 the International Code Council (ICC) and the Modular Building Institute (MBI) initiated a joint project to write standards for the planning, design, fabrication, assembly, inspection and regulatory compliance of off-site and modular construction. A standard development committee was created, and the first meeting of that committee was in July of 2019. The scope of this standard is to provide minimum requirements to safeguard the public health, safety, general welfare and address societal and industry challenges for the inspection and regulatory compliance of off-site and modular construction.

Off-site construction techniques continue to gain favor among contractors as a departure from conventional construction processes. The off-site industry has evolved from a re-locatable modular manufacturing sector into more of a building delivery sector. In the simplest of terms, off-site (or modular) construction entails the planning, design, fabrication and assembly of building elements at a location other than the location where they were fabricated. Large components of a structure can be assembled in a factory-like setting and transported to the building site for final assembly. Subsequently, the finished construction is required to comply with the model building code adopted by the local authority having jurisdiction. This Standard addresses the inspection, approval and regulatory compliance of off-site residential and commercial construction components and their assembly and completion at the final building site such as: permitting; in-plant and on-site final inspections; third party inspections; the role of Industrialized Building Departments, state modular programs and the Authority Having Jurisdiction.

The consensus process of ICC for promulgating standards is accredited by ANSI. The Off-Site and Modular Construction Standard Consensus Committee, identified as IS-OSMC, is a balanced committee formed and operated in accordance with ICC rules and procedures.

Development

This is the first edition of the International Code Council (ICC) and Modular Building Institute's (MBI) *Standard for Off-Site Construction: Inspection and Regulatory Compliance*. This standard was developed by the ICC/MBI Off-Site and Modular Construction Standard Consensus Committee (IS-OSMC) that

operates under ANSI Approved ICC Consensus Procedures for the Development of ICC Standards. The consensus process of ICC for promulgating standards is accredited by ANSI. The Off-Site and Modular Construction Standard Consensus Committee, identified as IS-OSMC, is a balanced committee formed and operated in accordance with ICC rules and procedures.

The meetings of the ICC/MBI IS-OSMC Consensus Committee were open to the public and interested individuals and organizations from across the country participated. The technical content of currently published documents on off-site and modular construction, including documents of the National Institute of Building Sciences (NIBS) and American Institute of Architects (AIA) was reviewed and considered by the committee. The information from these documents helped form a basis for the regulations installed in this standard, but the exact provisions adopted by the committee were determined based upon the scope and intent of this standard. The requirements of ICC/MBI 1205 are based on the intent to establish provisions consistent with the scope of the ICC family of codes and standards that are written to adequately protect public health, safety, and welfare; provisions that do not necessarily increase construction costs; provisions that do not restrict the use of new materials, products or methods of construction; and provisions that do not give preferential treatment to particular types or classes of materials, products, or methods of construction.

Adoption

ICC/NSSA 1205 *Standard for Off-Site Construction: Inspection and Regulatory Compliance* is available for adoption and use by jurisdictions throughout the United States. Its use within a governmental jurisdiction is intended to be accomplished through adoption by reference in accordance with proceedings establishing the jurisdiction's laws. At the time of adoption, jurisdictions should insert the appropriate information in provisions requiring specific local information, such as the name of the jurisdiction.

Interpretations

Requests for Formal Interpretations on the provisions of ICC 1205-202x should be addressed to: ICC, Central Regional Office, 4051 West Flossmoor Road, Country Club Hills, IL 60478.

Maintenance – Submittal of Proposals

All ICC standards are periodically updated as required by ANSI. Proposals for revising this edition are welcome. Please visit the ICC website at www.iccsafe.org for the official "Call for Proposals" announcement. A proposal form and instructions can also be downloaded from www.iccsafe.org.

ICC, its members and those participating in the development of ICC 1205-202x do not accept any liability resulting from compliance or noncompliance with the provisions of 1205-202x. ICC does not have the power or authority to police or enforce compliance with the contents of this standard. Only the governmental body that enacts this standard into law has such authority.

International Code Council / Modular Building Institute Off-Site and Modular Construction Standard Consensus Committee (IS-OSMC)

Consensus Committee Scope: The ICC/MBI Off-Site and Modular Construction Standard Consensus Committee (IS-OSMC) shall have primary responsibility for minimum requirements to safeguard the public health, safety and general welfare through requirements for off-site and modular construction.

This standard was processed and approved for submittal to ANSI by the ICC/MBI Off-Site and Modular Construction Standard Consensus Committee (IS-OSMC). Committee approval of the standard does not necessarily imply that all committee members voted for its approval.

Representatives on the Consensus Committee are classified in one of three voting interest categories. The committee has been formed to achieve consensus as required by ANSI Essential Requirements. At the time it approved this standard, the IS-OSMC Consensus Committee consisted of the following members:

Manufacturer (a) - Builder (b) - Standards Promulgator/Testing Laboratory (c) - User (d) - Utility (e) - Consumer (f) - Public Segment (g) - Government Regulator (h) - Insurance (I)

John Barrot, P.E., LEED AP [d], Arup, New York, NY

Kenneth Bland, P.E. [c], American Wood Council, Leesburg, VA

Jeffrey M. Brown, MCP [h], Virginia Dept of Housing and Community Development, Richmond, VA

Vaughan Buckley [b], Vaughan Buckley Construction, Philadelphia, PA

Ryan McIntosh [b], Silver Creek Industries, Perris, CA

Jay K. Daniels [a], Sunbelt Modular, Phoenix, AZ

Tom Hardiman, CAE [d], Modular Building Institute, Charlottesville, VA

Nick Mosley [a], California Tiny House, Inc., Fresno, CA

Kelly Kelly [h], TX Department of Licensing and Regulation, Austin, TX

Chuck Michalesko [a], Deluxe Building Solutions, LLC, Berwick, PA

Jonathon Paradine [h], State of Michigan/Bureau of Construction Codes, Lansing, MI

Dennis C. Pilarczyk, Jr., P.E., CWI [c], American Institute of Steel Construction, Garner, NC

Norman C. Wang [h], Maryland Department of Labor, Baltimore, MD

Ralph Tavares, P.E. [d], R&S Tavares Associates, Inc., San Diego, CA

David R. Tompos, P.E. [c], NTA Inc., Nappanee, IN

Committee Secretary, **Karl Aittaniemi, P.E.**, Director of Standards, Codes and Standards Development, International Code Council, Country Club Hills, IL

Voting Membership in Each Category

Category	Number
Manufacturer (a)	3
Builder (b)	2
Standards Promulgator / Testing Laboratory (c)	3
User (d)	3
Utility (e)	

Consumer (f)	
Public Segment (g)	
Government Regulator (h)	4
Insurance (I)	
TOTAL	15

Interest Categories

Manufacturer: Individuals assigned to the Manufacturer Interest category are those who represent the interests of an entity, including an association of such entities that produces an assembly or system subject to the provisions within the committee scope.

Builder: Individuals assigned to the Builder Interest category are those who represent the interests of an entity, including an association of such entities that builds, installs or maintains an assembly or system subject to the provisions within the committee scope.

Standards Promulgator/Testing Laboratory: Individuals assigned to the Standards Promulgator/Testing Laboratory Interest category are those who represent the interests of an entity, including an association of such entities that provides independent standards promulgation or laboratory testing of an assembly or system subject to the provisions within the committee scope.

User: Individuals assigned to the User Interest category are those who represent the interests of an entity, including an association of such entities, which is subject to the provisions or voluntarily utilize the provisions within the committee scope, including designers, architects, consultants and building owners.

Utility: Individuals assigned to the Utility category are those who represent the interests of an entity, including an association of such entities, which supplies power or water or accepts wastewater from an assembly or system subject to the provisions within the committee scope.

Consumer: Individuals assigned to the Consumer Interest category are those who represent the interests of an entity, including an association of such entities that represent the ultimate purchaser of the assembly or system subject to the provisions within the committee scope.

Public Segment: Individuals assigned to the Public Segment Interest category are those who represent the interests of an entity, including an association of such entities that represent a particular group of the public that benefits from the assembly or system subject to the provisions within the committee scope.

Government Regulator: Individuals assigned to the Government Regulator Interest category are those who represent the interests of an entity, including an association of such entities, representing the entities that promulgate or enforce the provisions within the committee scope.

Insurance: Individuals assigned to the Insurance Interest category are those who represent the interests of an entity, including an association of such entities, that insure subject to the provisions or voluntarily utilize the provisions within the committee scope, including insurance related inspection agencies.

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CHAPTER 1

APPLICATION AND ADMINISTRATION

SECTION 101 ADMINISTRATIVE PROVISIONS

101.1 Purpose. The purpose of this standard is to provide minimum requirements to safeguard public health, safety, general welfare and to address societal and industry challenges for the inspection and regulatory compliance of off-site construction. This standard is intended for adoption by government agencies and organizations for use in conjunction with model codes to achieve uniformity in the inspection and regulatory compliance of off-site construction.

101.2 Scope. This standard applies to planning, design, fabrication and assembly of off-site construction.

101.3 Provisions for Compliance. This standard provides the minimum requirements for off-site construction. In lieu of these provisions, or where these provisions are not applicable, accepted engineering methods and practices in accordance with the appropriate sections of the International Building Code or the International Residential Code as applicable for the intended use of the structure shall be permitted to be used. Where requirements are not provided by this standard, the applicable provisions of the construction codes adopted by the authority having jurisdiction (AHJ) shall apply to the off-site and modular construction.

101.4 Compliance alternative. Nothing in this standard is intended to prevent the use of designs, technologies or products as alternatives to any prescriptions in this standard, provided equivalence is demonstrated and approved by the authority having jurisdiction.

101.5 Referenced standards. The specific year, date and editions of the standards referenced by this standard are listed in Chapter 8.

SECTION 102 GENERAL REQUIREMENTS

102.1 General. Off-site construction shall comply with the general requirements of this chapter.

102.2 Planning Considerations. Projects which include off-site construction shall identify and consider the following:

1. Entities of the AHJ at the project's location.
2. The AHJ's specific requirements on review and approval of construction documents of off-site components.
3. The AHJ's specific requirements on inspections of off-site components.

4. Potential restrictions on a project due to manufacturing process of off-site components.
5. Restrictions due to transportation limitations of off-site components.
6. Impacts of sequencing of installation of off-site components at project site.
7. Restrictions at site on the use of cranes.
8. Responsibilities of entities involved, including registered design professionals, manufacturers, installers of off-site components, and general contractors.

102.3 Specific Requirements of Authorities Having Jurisdiction Over Off-site Construction. The project shall comply with the requirements of the AHJ over off-site construction. When there is an existing state-wide Modular (or Industrialized) Buildings Program, the project shall comply with both state and local jurisdiction's requirements on plan approval and inspections of off-site components in manufacturing plant and at project site. Where there is no existing state-wide Modular (or Industrialized) Buildings Program, the local jurisdiction shall be consulted regarding requirements of plan approval and inspections of off-site components in manufacturing plant and at project site.

102.4 Responsible Parties. The authority having jurisdiction shall request identification of the responsible parties for the following:

1. Registered design professionals for onsite and off-site elements.
2. Off-site manufacturer of off-site construction.
3. Onsite assembly of off-site elements, including volumetric modular units and panelized constructions.
4. Site-built elements, including any items shipped loose to the site by the off-site manufacturer.

102.5 Qualifications. References to each chapter and section that has qualification requirements shall pertain to designers and constructors.

SECTION 103 SUBMITTAL DOCUMENTS

103.1 General. The submittal documents shall be in accordance with IBC Section 107 - Submittal Documents and the construction documents shall meet the following requirements:

1. The construction documents shall comply with the requirements of AHJ regarding off-site components. A state-wide Modular Buildings Program shall advise where separation of off-site components from site-built components in a set of construction documents are required.
2. Appropriate delineation of off-site and site-built components shall be achieved. Graphical representations on drawing sheets shall clearly distinguish the off-site components from the site-built components.
3. A Key Plan for off-site components shall be provided; all off-site components delivered to the site shall be identified with unique numbers. Proposed locations of cranes shall be provided on the Key Plan.
4. A construction sequencing plan for off-site components shall be provided.
5. Mate lines shall be identified, using a manner consistent to that used for column grid lines.
6. Specifications for off-site components shall be provided.
7. Shop drawings shall be approved by the registered design professional.
8. Documents shall be reviewed by any third party or special inspectors against submitted permit drawings.

103.2 Non-site-specific buildings. A non-site-specific building shall be identified as not having an available address on construction documents. The construction documents for non-site-specific buildings shall meet with the requirements of the AHJ.

103.3 Construction documents for panelized systems. The construction documents for panel systems shall include:

1. Wind design data.
2. Earthquake design data.
3. Special loads.
4. Systems and components requiring special inspections.

5. Transportation requirements assumed in the design of the panels.
6. Hoisting requirements assumed in the design of the units.
7. Statement on the sequence of construction.
8. Details of connections for panels to the building structure.
9. Details of connections for panel to panel attachments.

103.4 Construction documents for all other systems. The construction documents addressed by this standard shall include:

1. Size, section and relative locations of structural members with floor levels, column centers and offsets dimensioned.
2. Floor live load.
3. Roof live load.
4. Roof snow load data.
5. Wind design data.
6. Earthquake design data.
7. Geotechnical information.
8. Flood design data.
9. Special loads.
10. Systems and components requiring special inspections.
11. Transportation requirements assumed in the design of the units.
12. Hoisting requirements assumed in the design of the units
13. Statement on the sequence of construction.

SECTION 104 INSPECTIONS

104.1 General. Inspections include both in-plant inspections and on-site inspections. Documentation identifying individuals or parties responsible for the inspection of installations and components shall be identified and provided to the AHJ prior to the commencement of an inspection process.

104.2 In-plant Inspections. In-plant inspections shall verify that constructions are in compliant with the approved construction documents.

104.3 On-site Inspections. On-site inspections shall verify installation is compliant with approved manufacturer's instructions and connections performed on site are compliant with approved construction documents. When on-site inspections are conducted by AHJ, inspection procedures prescribed by the AHJ shall be followed. When on-site inspections are conducted by other than the AHJ, the scope of such inspections shall be consistent with section **102.4 Responsible Parties**.

On-site connections which require inspections shall include:

1. Inter-connections between off-site components installed at site.
2. Connections between off-site components and adjoining site-built components, including the building structure.
3. Other connections involving off-site components which require inspections by the AHJ.
4. Connections of "shipped loose off-site items" installed at site.

CHAPTER 2 DEFINITIONS

SECTION 201 GENERAL

201.1 General. For the purposes of this standard, the terms listed in Section 202 shall have the indicated meaning.

201.2 Undefined terms. The terms not specifically defined in this standard or in standards referenced herein shall have ordinarily accepted meanings such as the context implies.

SECTION 202 DEFINITIONS

Abbreviations. The following abbreviations, when used in this standard, shall have the following meanings, unless the context clearly indicates otherwise.

- (1) DRA—Design Review Agency.
- (2) IAF—International Accreditation Forum.
- (3) IAS--International Accreditation Service.
- (4) IBC – International Building Code.
- (5) ICC--International Code Council, Inc.
- (6) ICC-ES--International Code Council Evaluation Services.
- (7) IEBC – International Existing Building Code.
- (8) IECC – International Energy Conservation Code.
- (9) IFGC – International Fuel Gas Code.
- (10) IMC – International Mechanical Code.
- (11) IPC – International Plumbing Code.
- (12) IRC – International Residential Code.
- (13) NEC – National Electrical Code.
- (14) NFPA--National Fire Protection Association.
- (15) PAC—Pacific Accreditation Forum.
- (17) SECO – State Energy Conservation Office.

(19) TPI—Third-party inspector.

(20) TPIA—Third-party inspection agency.

(21) TPSI—Third-party site inspector.

100 PERCENT INSPECTION. Inspection of each module, modular component or panelized system at every stage of construction including the framing, mechanical, plumbing, electrical, energy compliance systems, and system testing.

ALTERATION. Any construction, other than ordinary repairs of the house or building, to an existing modular building, modular component or panelized system after the manufacturer has attached the certification label. Industrialized housing or buildings that have not been maintained shall be considered altered.

ALTERATION DECAL. Certification issued by the third-party inspection agency to an industrialized installer or retailer to be permanently attached to a modular building indicating that alterations have been constructed to meet or exceed the applicable building code requirements and is in accordance with this standard.

APPLICABLE BUILDING CODE. The versions of the building code that have been adopted by the state or jurisdiction in which an industrialized house or building is to be constructed.

ASSEMBLY. A collection of modular components assembled into a whole or partial module or modular building.

AUTHORITY HAVING JURISDICTION (AHJ). Organization, political subdivision, office or individual charged with the responsibility of administering and enforcing the provisions of the applicable building code. The authority having jurisdiction shall include a state agency or local building department.

BUILDING SHELL. The structural framework, exterior walls and cladding that make up the building envelope, excluding the electrical, mechanical or plumbing systems.

BUILDING THERMAL ENVELOPE. The basement walls, exterior walls, floor, roof and any other building elements that enclose conditioned space or provide a boundary between conditioned space and exempt or unconditioned space.

CERTIFICATION LABEL. A decal, insignia, or alteration decal.

CLOSED CONSTRUCTION. A modular building, modular component, or assembly manufactured in such a manner that all portions cannot be readily inspected at the installation site without disassembly, damage or destruction thereof.

COMPLIANCE ASSURANCE PROGRAM. Procedures that state the guiding principles and define the framework for ensuring that construction documents approved by a design review agency, or that modular buildings inspected by a third-party inspection agency, comply with the applicable building codes.

COMPLIANCE CONTROL PROGRAM. A manufacturer's system, documentation, and methods of ensuring that modular buildings, modular components, and panelized systems, including their manufacture, storage, handling, transportation and erection conform with the approved construction documents and applicable building codes.

CONSTRUCTION DOCUMENTS. Designs, plans, and specifications, including written, graphic, and pictorial documents, prepared or assembled for describing the design, location and physical characteristics of the elements of a modular building necessary to show compliance with the applicable building codes.

DATA PLATE. A plate attached by the manufacturer or installer, to a modular building, or modular component that contains identifying information allowing code officials or end users to determine if the structure is suitable for installation in their jurisdiction, location, or project.

DECAL. The approved form of certification issued by the authority having jurisdiction, to be permanently attached to the modular building, modular component or panelized system indicating that it has been constructed to meet or exceed the applicable building code requirements.

DESIGN PACKAGE. The aggregate of all construction documents, including on-site documentation, and the compliance control program, to be submitted by the manufacturer to the design review agency, or required by the design review agency for compliance review. A design package shall include model- or project-specific plans and calculations, typical system packages and calculations, or any combination thereof. Unique on-site construction details and site-specific foundation drawings prepared for specific projects are not a part of the design package.

DESIGN REVIEW AGENCY. An organization, private or public, determined by the authority having jurisdiction to be qualified by reason of facilities, personnel, experience, and demonstrated reliability to review the design package and certify compliance to the applicable building codes.

EQUIPMENT BUILDING, OR SHELTER. A type of building used to house equipment where the building is generally occupied during the installation and maintenance of the equipment housed in the building.

FINAL ON-SITE INSPECTION REPORT. A report issued by an approved third-party inspector, or a record of final inspection issued by the authority having jurisdiction, indicating that the inspection of the on-site construction was successful in accordance with the applicable building codes.

INDUSTRIALIZED BUILDING. A commercial structure that is constructed in one or more modules, or constructed using one or more modular components, built at a location other than the commercial site and is designed to be used as a commercial building when the module or modular component is transported to the commercial site and erected or installed.

INDUSTRIALIZED HOUSING. A residential structure that is designed for the occupancy of one or more families, is constructed in one or more modules, or constructed using one or more modular components, built at a location other than the permanent site and is designed to be used as a permanent residential structure when the module or modular component is transported to the permanent site and erected or installed on a permanent foundation system.

INDUSTRIALIZED INSTALLER. An entity who:

(1) is engaged in or responsible for the assembly, connection, on-site construction and erection of modular buildings or modular components at the building site;

(2) who is engaged in, or responsible for, the alteration or recertification of modular buildings.

INDUSTRIALIZED RETAILER. An entity who sells, leases, or offers to sell or lease to the public modular buildings, panelized systems or modular components.

INSIGNIA. The approved form of certification issued by the authority having jurisdiction to the manufacturer to be attached to the modular building, modular component or panelized system indicating that it has been constructed to meet or exceed the applicable building code requirements.

INSTALLATION. The assembly of a modular building, modular component or panelized system on site and the process of affixing the modular building, modular component or panelized system to land, a foundation, footings or an existing building

INTEGRATION. Act or process of coordinating the independent work of two or more manufacturers to merge a building shell for a modular building with the electrical, mechanical, and plumbing systems and equipment prior to delivery to the installation site.

INTEGRATOR. A manufacturer who installs or integrates electrical, mechanical, or plumbing systems and equipment into the building shell prior to delivery of the modular building to the installation site, but who does not construct the building shell.

MANUFACTURER. The entity responsible for the manufacturing of assemblies, panelized systems, modular buildings, or modular components.

MANUFACTURING PLANT. The location other than the building site, at which modular buildings, modular components, modules or tiny houses are assembled or manufactured prior to transport to the final construction site.

MANUFACTURING PLANT, PRIMARY. A facility that completes the construction or fabrication of a modular building, modular component, or module which was begun in the subsidiary manufacturing plant.

MANUFACTURING PLANT, SUBSIDIARY. A facility that constructs or fabricates portions of a modular building, modular component or module before it is moved to the primary manufacturing plant for completion.

MODULAR BUILDING. Industrialized housing and buildings.

MODULAR COMPONENT. A sub-assembly, subsystem, or combination of elements, including panelized systems, building shells or bathroom pods, for use as a part of a modular building that is not structurally independent, but is a part of structural, plumbing, mechanical, electrical, fire protection, or other systems affecting life safety.

MODULE. A three-dimensional, volumetric section of a modular building designed and approved to be transported as a single section independent of other sections, to a site for on-site construction.

NON-SITE-SPECIFIC BUILDING. A building for which the permanent site location is unknown at the time of construction.

OFF-SITE CONSTRUCTION. A modular building, modular component, panelized system or tiny house which is designed and constructed in compliance with this standard and is wholly or in substantial part fabricated or assembled in manufacturing plants for installation - or assembly and installation - on a building site and has been manufactured in such a manner that all parts or processes cannot be inspected at the installation site without disassembly, damage to, or destruction thereof.

ON-SITE CONSTRUCTION. Preparation of the site, foundation construction, assembly and connection of the modules or modular components, affixing the modular building to the permanent foundation, connecting the modular buildings together, completing all site-related construction in accordance with the construction documents and details.

OPEN CONSTRUCTION. A modular building, modular component, panelized system or tiny house manufactured in such a manner that all portions can be readily inspected at the building site without disassembly, damage or destruction thereof.

ORDINARY REPAIRS. The removal and replacement of existing materials, elements, equipment, or fixtures using like or the same new materials, elements, equipment, or fixtures that serve the same purpose.

PANELIZED SYSTEM. Wall, roof or floor components that are constructed at a location other than the building site in a manner that prevents the construction from being inspected at the building site without disassembly, damage or destruction thereof.

PERMANENT FOUNDATION SYSTEM. A foundation system for modular buildings designed to meet the applicable building code. In a permanent foundation system, anchorage of the building to the foundation is provided to resist the uplift and sliding forces that result from the application of the prescribed loads. The use of ground anchors or earth augers to resist uplift or sliding forces is not considered a permanent foundation.

PERSON. An individual, partnership, company, corporation, association, or any other legal entity, however organized.

PUBLIC. The people of the state, including individuals, companies, corporations, associations or other groups, however organized, and governmental agencies.

QUALITY ASSURANCE. Monitoring and inspection tasks performed by an agency or firm other than the manufacturer to ensure that the materials provided, and work performed by the manufacturer meets the requirements of the approved construction documents and referenced standards.

QUALITY CONTROL. Controls and inspections implemented by the manufacturer, as applicable, to ensure the material provided and work performed meet the requirements of the approved construction documents and referenced standards.

REGISTERED DESIGN PROFESSIONAL. An individual who is registered or licensed to practice their design profession as defined by the statutory requirements of the professional registration laws of the state or jurisdiction in which the project is to be constructed.

REGISTRANT. A person who is registered in accordance with this standard or the applicable states statutory requirements as a manufacturer, an industrialized installer, industrialized retailer, a design review agency, a third-party inspection agency, a third-party inspector, or a third-party site inspector.

RELOCATABLE BUILDING. A partially or completely assembled building constructed and designed to be reused multiple times and transported to different building sites.

REPLICABLE INDUSTRIALIZED BUILDING. A modular building utilizing a prototypical design developed for application in multiple locations with minimal variation or modification.

RESIDENTIAL STRUCTURE. Housing designed in accordance with the International Residential Code for occupancy and use as a residence by one or more families.

SPECIAL CONDITION NOTES. Notes on the construction documents that alert the local building official of items that shall be verified by the local building official for conformance to the applicable building codes.

STATION. A defined area within a manufacturing plant in which one or more work activities and inspections has been assigned to take place.

STRUCTURE. That which is built or constructed from the assembly of one or more modules or modular components designed to be used together to form a completed modular building.

THIRD-PARTY INSPECTION AGENCY. An approved person or entity determined by this standard or applicable states statutory requirements to be qualified by reason of facilities, personnel, experience, demonstrated reliability, and independence of judgment to inspect industrialized housing, buildings, and portions thereof for compliance with the construction documents, compliance control program, and applicable codes.

THIRD-PARTY INSPECTOR. An approved person determined by applicable statutory requirements to be qualified by reason of experience, demonstrated reliability, and independence of judgment to inspect modular buildings, and portions thereof, for compliance with the construction documents, compliance control program, and applicable building code. A third-party inspector works under the direction of a third-party inspection agency.

THIRD-PARTY SITE INSPECTOR. An approved person determined by applicable statutory requirements to be qualified by reason of experience, demonstrated reliability, and independence of judgment to inspect construction of the foundation and installation of modular buildings, and portions thereof, for compliance with the construction documents and the applicable code.

TINY HOUSES. A dwelling that is designed and constructed in accordance with the IRC with additional requirements as specified in IRC Appendix Q.

UNIQUE ON-SITE CONSTRUCTION DETAILS. Construction details that are not part of, or that differ from, the manufacturer's approved on-site construction details. Unique on-site construction details include additions that affect the code compliance of the house or buildings such as car ports, garages, porches, decks, and stairs.

CHAPTER 3 PLAN APPROVALS AND INSPECTION PROCEDURES

SECTION 301 GENERAL

301.1 Scope. Provisions of this chapter shall apply to off-site construction and shall include any on-site connection details and instructions for items installed on site. In order to obtain plan approval, the manufacturer shall be required to provide documentation to the AHJ. Documents shall consist of plans, specifications, calculations, test results, product evaluation reports and critical manufacturer's instruction, and other documentation which describe in detail the product and manufacturing processes employed to produce off-site buildings or components. The documents shall also include plans and details for site completed portions of the project which require direct interface with the modular completed portions.

301.2 Remote Virtual Inspections. The AHJ shall have the option to conduct remote virtual inspections (RVI). Except for Unmanned Aerial Vehicles (drone), the camera shall be operated by the permit holder at the direction of the inspector. The inspector shall have the ability to communicate directly with the camera operator to perform a thorough inspection of the project. The response of the camera operator to the directions of the inspector shall be verified by live video feed. State and local requirements shall be followed as if in-person inspections are being conducted.

SECTION 302 GENERAL REQUIREMENTS FOR PLAN APPROVAL

302.1 Plans, specifications, calculations, and other documentation. Where required by the AHJ, construction documents and other documentation shall bear the signature and seal of a Registered Design Professional. If the registered design professional is the same firm as the third-party inspection or design agency, that relationship must be disclosed to the AHJ.

302.2 Structural calculations cover page. The structural calculations cover page shall be dated, identified with the project information, and shall include an index and signed by a Registered Design Professional.

302.3 Name and location. Documents shall indicate the name and location of the manufacturer, registered design professional, or other entity submitting the plans.

302.4 Drawing cover sheet. The following shall be included on the drawings cover sheet:

1. List of design firms and professionals used for the project including the business address and phone number with the listing.
2. An index for the drawing set.
3. The use and occupancy classification.

4. The applicable codes.

302.5 Insignia of approval. Drawings shall indicate the location of the insignia of approval.

302.6 Details, lists, or tables. Drawings shall provide details, lists, or tables delineating the aspects of the project that are constructed and installed in the factory and in the field, with a clear delineation of scope on the AHJ inspection responsibilities.

302.7 Note of revisions. Drawings shall provide a note that any revisions made to the certified unit on site shall be submitted to and inspected by the AHJ to assure code compliance.

302.8 Space for stamp of approval. Each sheet shall include a blank space in the lower right corner for the stamp of approval. The blank space shall not be less than 3" wide by 3" high, except it may be a minimum of 3" x 3" for building component and building system plans.

302.9 Modular building layout and sequencing plan. Construction documents shall include a layout plan of modular building and a sequencing plan. Location of cranes shall also be identified.

SECTION 303 GENERAL BUILDING AND ARCHITECTURAL

303.1 Table, schedule or schematic identifier. A combination of one or more table, schedule or schematic shall be provided to identify the following requirements:

1. Use and occupancy classifications.
2. Type of construction.
3. Building area, number of occupants.
4. Building height in feet and stories.
5. Methods used for height and area increases.
6. Fire-rating requirements for the building elements and any minimum separation distance requirements.
7. Structural Design Loads:
 - 1.1 Roof live and dead load.
 - 1.2 Floor live and dead load.
 - 1.3 Design wind speed and exposure.

1.4 Seismic design criteria and risk category.

1.5 Ground and roof snow load.

1.6 Climatic design zones.

303.2 Floor plan and elevation. Floor plans and typical elevations shall be provided with dimensions and notations showing compliance with space requirements including room areas, horizontal dimensions, location of space relative to finished grade level, ceiling height and overall building height.

303.3 Cross sections. Cross sections and interior elevations shall be provided to identify major building components.

303.4 Details of all finished materials. Details of finished materials shall be provided. For example, flashing material and gauge to be used such as at openings and at penetrations through roofs.

303.5 Attic access and attic ventilation. Attic access and attic ventilation shall be provided. Where attic access is provided, attic floor loading criteria shall be indicated.

303.6 Exterior wall. Information on exterior wall including weather barrier, roof, and any required rated assemblies shall be provided in accordance with the **IBC Section** for information on exterior wall envelope.

303.7 Interior wall. Information on interior wall and floor/ceiling material including any required fire resistance rated assemblies shall be provided.

303.8 Door and window schedule. A door and window schedule shall be provided which identifies the following:

1. Dimensions. Example: emergency escape and rescue requirements. Required and provided light and ventilation where applicable.
2. Data satisfying the applicable Energy Conservation Construction Code. Required and provided design pressure where applicable.

SECTION 304 BUILDING ACCESSIBILITY

304.1 General. If accessibility provisions are not a requirement for the project a statement identifying the code qualifying exception shall be provided.

304.2 Detail sheets. Typical detail sheets for required accessible features and facilities for the modular portions of the project shall be provided.

304.3 Scaled clearances. Typical scaled clearances visible on plans, in the areas where accessibility is required applicable building code shall be provided.

SECTION 305 FIRE SAFETY

305.1 Fire and smoke protection features. The construction documents shall provide the information specified in Section **XXX**.

1. Types of construction.
2. Fire-resistance rating of building elements.
3. Fire-resistance rated assemblies.
4. Fire-resistant joint systems.
5. Through-penetration firestop systems.
6. Submit methods of determining fire-resistance such as listed assemblies, test reports and engineering analysis.
7. Construction Documents shall be provided with information on how to meet the requirements for the concealed spaces created between off-site components.

305.2 Fire-resistance rated assemblies. A separate sheet that shows detail for fire-resistance rated assemblies including reference to listing, test report, engineering analysis or methodology used to determine the fire-resistance rating shall be provided and shall include the following:

1. Applicable rated assemblies detailed including separation from unit to unit, unit to common spaces, shafts, plumbing, HVAC, stair and elevator.
2. Plans shall identify applicable fire-resistance rated locations.

305.3 Life safety plan. Where required by the AHJ, a life safety plan to describe the means of egress including details that describe aisles, exits, corridors, passageways, travel distance, and stairway enclosures shall be provided.

305.4 Flame spread and smoke developed classifications. Flame spread and smoke developed classifications for interior finish materials shall be provided.

305.5 Draft stops and fire blocking. Locations of required draft stops and fire blocking including the identification of how provisions are satisfied shall be provided.

305.6 Opening protectives in fire resistance rated systems and assemblies. Details for opening protectives in fire-resistance rated systems and assemblies including reference to listings for required doors, windows, frames and hardware to complete the opening protective requirements shall be provided.

305.7 Fire protection systems. Drawings for fire protection systems including sprinkler systems, standpipes, fire alarms, and detection systems where required in modular portions of the project shall be provided.

SECTION 306 MECHANICAL SYSTEMS

306.1 Equipment location, size, and material specifications. The location, size, and material specifications for equipment and components provided by the manufacturer as part of the factory-installed portion of the project shall be provided including electric heating systems; hydronic heating systems, heating, ventilating and air-conditioning systems, water reclamation systems and appliances.

306.2 Heat loss calculation. Where required by the AHJ, a room by room heat loss calculation shall be provided.

306.3 Ratings and manufacturer's listings. Input/output ratings and manufacturer's listing requirements shall be provided for equipment and appliances provided by the manufacturer as part of the factory installed portion of the project.

306.4 Method to supply combustion air. The method to supply combustion air shall be provided where applicable.

306.5 Ventilation air. The method for providing ventilation air shall be provided.

306.6 Make-up air. The method for providing make-up air shall be provided where applicable.

306.7 Flues, vents, and chimneys. The location of flues, vents and chimneys shall be provided including the clearances from air intakes, combustible materials, and other vents and flues, where applicable.

306.8 Manufacturers data. Manufacturers data, instructions and listing information for the installation of fuel burning equipment shall be provided including specific details on the drawings, where applicable.

SECTION 307 PLUMBING AND GAS SYSTEMS

307.1 Drawings of the plumbing system. Drawings of the plumbing system, DWV and water lines shall be provided including the size of piping, fitting locations, traps, vents, cleanouts and valves.

307.2 Site installed plumbing. All plumbing on drawings to be site installed shall be identified.

307.3 Plumbing materials. Plumbing materials shall be identified.

307.4 Locations of all equipment. Locations of all equipment, appliances, and safety controls to be installed shall be shown.

307.5 Gas line sizing. Gas line sizing information including developed length and pressure rating shall be shown.

SECTION 308 ELECTRICAL SYSTEM

308.1 General. Equipment manufacturer's instructions shall be provided as part of the factory-installed components of the project.

308.2 Load calculations for service and feeders. Load calculations for service and feeders shall be provided.

308.3 Main disconnect and over current protective devices. The size, rating, and location of the main disconnect and over current protective devices shall be shown and identified.

308.4 Locations of outlets, junction boxes, fixtures and appliances. The locations of outlets, junction boxes, fixtures, and appliances including required locations of GFCI protection shall be shown and identified.

308.5 Lighting plan. A lighting plan shall be provided. Exterior and interior lighting locations shall be shown. Required smoke detecting alarm device locations and circuitry shall be identified.

308.6 Wire type and size. The wire type and size shall be provided.

SECTION 309 ENERGY CONSERVATION SYSTEM

309.1 Compliance with mandatory energy code requirements. Details and calculations to show compliance with mandatory energy code requirements shall be provided.

309.2 Building thermal envelope. Drawings and details of materials and assemblies which describe the building envelope shall be provided.

SECTION 310 STRUCTURE

310.1 Load listings. Listing of all loads upon which design is based shall be provided. The listing shall include items listed in section 1603 of the International Building Code.

1. Dead loads.
2. Live loads.
3. Ground snow load and roof snow load.
4. Seismic design category and assumed soil site classification.
5. Risk category.
6. Wind speed and exposure category.

310.2 Engineering analysis. An engineering analysis for gravity and lateral loads to support the selection of all structural members and connections in compliance with applicable codes shall be provided.

310.3 Design calculations. Design calculations shall:

1. Identify reference standards and/or code tables, present design methodology in a step-by-step reviewable format.
2. Include applicable design loads and load paths.
3. Demonstrate compliance with maximum load parameters, alternatively, provide calculations for varying design parameters/varying load conditions.
4. If the design is using a prescriptive method of design clearly identify the source utilized.

310.4 Specifications of materials. Specifications of materials shall identify the grade, species and specifications of wood materials, the evaluation report, or specification for steel materials.

310.5 Details of structural elements and subsystems. Details of structural elements and subsystems, including framing details, spacing, size, connections and fasteners shall be provided. This includes:

1. Engineered roof details.
2. Truss specifications data sheet.
3. Truss or rafter uplift connections provided ice shield underlayment.
4. Attachment of roof coverings.
5. Braced wall lines identified on the drawings.
6. Specifications for shear walls and diaphragms.
7. Structural adequacy of shear walls and diaphragms confirmed.
8. Locations and specs for hold down devices.
9. Column and post schedule.
10. Header and beam schedule.
11. Continuity of uplift resistance confirmed.
12. Details of module integration.
13. Wind-borne debris protection, as applicable.
14. Floor specifications.
15. Connections of all framing members.

310.6 Blocking plan and foundation loads imposed by modules. The resulting uniform and concentrated load vectors for magnitude and direction imposed by the modules on suggested foundations plan shall be provided. All loads, both gravity and lateral loads due to wind and seismic, shall be identified.

310.7 Foundation plans. Where required by the AHJ, foundation plans and details of connections of modules to foundations shall be provided by a registered design professional. This information includes:

1. Allowable soil bearing pressure.
2. Concrete strength appropriate for specified hold-down device.

3. Locations and specifications for hold-down devices.

SECTION 311 CONNECTIONS

311.1 On-site connections. On-site connections including module-to-module interconnection details and instructions and connections from site-built elements to the modules or components such as canopies and awnings, shall be provided. Building system documentation shall contain variations or a range of variations for one or more elements of modular or component described in the building system documentation, provided that the approved building system documentation conforms to the applicable requirements of the applicable codes and standards under each variation or set of variations within the range of variations. Any material deviation from variations contained within the approved building system documentation shall be approved by the evaluation agency, consistent with this chapter, prior to the start of construction. Where building system documents are utilized, the specific elements utilized in the submittal shall be referenced on the construction documents.

311.2 Information of on-site connections. Construction documents shall include details of the following types of connections:

1. Inter-connections between off-site components at site.
2. Connections and attachments between off-site components and site-built building assemblies.
3. Connections and attachments between off-site components and site-built building assemblies.
4. Connections between all construction components connected and completed at the site, including fire rated architectural elements such as walls, floors, ceiling, roofs, and structural/non-structural, mechanical, plumbing, electrical, communications, fire protection, technology, HVAC systems and assemblies.

311.3 Manufacturer's instructions. On-site connections shall follow approved manufacturer's instructions, where applicable.

SECTION 312 INSPECTION PROCEDURES

312.1 General. Typical inspections for projects with off-site components include in-plant and on-site.

312.2 In-Plant inspections. In-plant inspections that are conducted by employees of a Third-Party Inspection Agency shall verify that constructions are in compliance with the approved construction documents. The Third-Party Inspection Agency shall inspect each modular unit in a phase of construction to verify that construction is in compliance with the approved construction documents.

CHAPTER 4 THIRD-PARTY INSPECTION AGENCIES

SECTION 401 GENERAL

401.1 Evaluation agency. Manufacturers that use an evaluation agency, other than the state, to perform in-plant inspections, evaluate quality control procedures, approve engineering manuals, and approve plans, shall have such agency request approval from the state. The request shall contain the signature of a responsible officer, owner, or partner of the submitting third party agency. Approval requests shall contain the following requirements:

1. Name and address of the entity making application.
2. Disciplines for which the third-party inspection agency seeks approval.
3. A list of key personnel indicating their primary functions or duties.
4. The number of years the entity has actively engaged in the business for which it seeks approval.
5. A statement by the evaluation agency that it shall adhere to the requirements of the state regulations.
6. A copy of the evaluation agency's International Accreditation Service Board (IAS) or other approved accreditation certificate.
7. A copy of the registered design professional certification for any employee that shall be responsible for plan review and approval work.
8. A copy of the professional license or International Code Council (ICC) plan review certification for all employees that shall be performing plan review. The plan reviewer must only review plan and specific disciplines in the area in which they are certified. Either residential or commercial (ICC Level III plan review certification). Unlicensed plan reviewers shall work directly under the supervision of a Professional Engineer or Architect or ICC Level III certified plan reviewer.
9. A copy of the professional license or ICC inspector certifications for personnel that shall be performing in-plant inspections. The inspector shall only inspect in areas in which they are certified either residential ICC Level I or commercial ICC Level II. A Certified residential ICC Level I inspector is qualified to inspect dwelling portions of commercial units but not structural or common areas.
10. A statement that the evaluation agency is independent and does not have any actual or potential conflict of interest and is not affiliated with, influenced by, or controlled by any present or potential client manufacturer in any manner that might affect its capacity to render service or reports of findings objectively and without bias.

11. A statement that the evaluation agency shall review each design as required for plan approval and identify deficiencies on a corrective action report item by item with citations to the standards. The evaluation agency shall verify that deficiencies have been corrected prior to issuing acceptance. The evaluation agency shall signify approval of a design by placing its stamp of approval or authorized signature on each page and submit a copy to the state and manufacturer, or local jurisdiction where no state program exists.
12. A statement that the evaluation agency shall perform an initial plant certification and document a written certification report to the manufacturer and state. The initial plant certification shall require 100 percent inspection of the aspects of construction on not less than one module or modular component and verify that the manufacturer has a functioning quality assurance process. This inspection shall be made by one or more qualified engineers who have reviewed the approved design and by an inspector qualified with the proper ICC certifications. If the initial module or modular component fails to conform with the design or standard, additional modules or modular components shall be inspected until the evaluation agency is satisfied that the manufacturer complies to the approved design, the standards, and the quality assurance manual.
13. A statement that for on-going inspections the evaluation agency shall inspect each module in a phase of construction to verify that the quality assurance process is in compliance with the initial manufacturing plant certification. If the evaluation agency finds deficiencies, additional action shall be taken to assure the quality assurance process is in compliance with the initial manufacturing plant certification.
14. A statement that for on-going inspections the evaluation agency shall determine the frequency of inspection of a modular component or panelized system as necessary to assure the quality assurance process is functioning in compliance with the initial manufacturing plant certification. If the evaluation agency finds deficiencies, additional action shall be taken to assure the quality assurance process is in compliance with the initial manufacturing plant certification.
15. The evaluation agency shall provide to the manufacturer, a written or electronic inspection report after each inspection identifying each deficiency to the standard or approved designs. The evaluation agency shall only issue labels after all deficiencies have been corrected.
16. A procedure for maintaining records to control the agency's certification marks.
17. A procedure to identify all module or modular components produced and inspections performed.
18. The inspection body shall have insurance to cover liabilities arising from possible errors and omissions from its operations.

401.2 Quality assurance administrator. The quality assurance administrator shall be a Registered Design Professional with not less than two years of actual or supervisory experience in modular or component products, and not less than two years of experience in the quality assurance function.

401.3 Quality assurance supervisor. The quality assurance supervisor shall have not less than two years of experience as an inspector in the modular or component industry.

401.4 Unlicensed inspector. An unlicensed inspector shall be considered an inspector in training and must receive a professional license or ICC inspector certification within two years of the date of employment. The third-party inspection agency shall have an inspector training procedure that is to be monitored by the state or the accreditation agency. The training shall be done by a licensed professional or a certified ICC inspector.

SECTION 402 PERFORMANCE EVALUATION OF EVALUATION AGENCIES

402.1 General. The state or accreditation agency shall monitor the reliability of each evaluation agency at any reasonable time, with or without prior announcement. Each examination shall investigate the application of evaluation procedures, including construction documents, test results, and analysis of compliance assurance programs. Copies of each report shall be sent to the evaluation agency. Evaluation agencies shall be notified of any deficiencies and of the manner in and time by which such deficiencies must be eliminated. The evaluation agency shall provide a plan of corrective action (POCA) not more than 20 days to the state or accreditation agency outlining the steps to be taken to eliminate the deficiency. The state or accreditation agency shall evaluate the POCA, through monitoring, and determine if the POCA eliminated the deficiency or if further action shall be necessary.

CHAPTER 5 REQUIREMENTS FOR COMPLIANCE ASSURANCE PROGRAM

SECTION 501 GENERAL

501.1 General. The Quality Assurance manual shall be submitted on 8-1/2" x 11" paper bound into a comprehensively indexed booklet or electronic equivalent. The cover shall have the words "Compliance Assurance Program" and identify the manufacturer, inspection and evaluation agencies.

501.2 Revision to the manual. A procedure for revision to the manual shall be outlined.

501.3 Permission for inspection. The manufacturer shall provide the state or third-party inspection agency with a signed document that allows the state or third-party inspection agency to inspect the manufacturing plants, products and building sites at a reasonable time without prior announcement.

501.4 Organizational chart and key personnel. A graphic organizational chart of the company indicating the various departments, including management and production shall be provided including a list of key personnel by title in charge of the Compliance Assurance Program and management personnel by title and job description.

501.5 Manufacturing plant layout. A schematic plan of the manufacturing operation showing location and testing stations for mandatory inspections shall be provided.

501.6 Station by station description. A detailed list of work performed at each station shall be provided.

501.7 Inspection procedure. An outline of inspection and test procedures, including accept/reject criteria and mandatory inspection characteristics shall be provided. The procedure shall identify the frequency of inspection and how nonconformances are remedied.

501.8 Inspection checklist. A detailed list of work performed at each station and sign-offs shall be provided.

501.9 Training. A procedure for training the management individuals involved in quality control and employees shall be provided. The procedure should include training to the approved documents.

501.10 Internal auditing. A procedure on auditing the quality assurance process and how non-conformances are evaluated and remedied, and a plan of corrective action (POCA) procedure shall be provided.

501.11 Construction documents. A procedure on how documents including revisions are approved shall be provided. A procedure to assure that all construction documents conform to the approved building system shall be provided.

501.12 Manufacturing records. A method of keeping manufacturing records, site operations, storage preservation and access to these records shall be outlined identifying length of time records are kept.

501.13 Serial numbering. A system to serial-number the modules and modular components shall be outlined.

501.14 Testing and inspection equipment. Procedures for testing and use of inspection equipment shall be provided. This shall include the schedule of maintenance inspection and calibration of the equipment.

501.15 Storage of module. A procedure for storage of modules, both at manufacturing plant, other storage points and after delivery to site shall be provided.

501.16 Packing for shipping. Procedures for packing, packaging, storage, and transportation and related inspections shall be provided.

501.17 Forms. Forms to be used as part of the Quality Assurance Program and a written procedure on how the forms are used shall be provided.

SECTION 502 MATERIALS CONTROL

502.1 Inspection of materials. The procedure for the inspection of materials at point of receipt and at the point of use on the production line shall be outlined.

502.2 Protection of materials. An explanation of how materials are stored for protection from damage and deterioration shall be provided. Materials shall be stored in accordance with the manufacturer's instructions.

502.3 Rejected materials. A procedure for the segregation and disposal of rejected materials shall be outlined.

SECTION 503 CERTIFICATION LABEL

503.1 General. A procedure for certification label control and month end reporting shall be provided. Certification label shall be purchased by the manufacturer. The certification label shall not be attached to the module or modular component until inspection and approval by the third-party inspection agency.

503.2 Final Inspection and labeling. Procedures for final inspection, identification, and labeling shall be provided.

CHAPTER 6 AUTHORITIES HAVING JURISDICTION

SECTION 601 GENERAL

601.1 Registration of manufacturers and modular builders. Manufacturers and modular builders shall not engage in any business activity relating to the construction or location of modular buildings without being approved by the Authority Having Jurisdiction. A manufacturer shall not construct for the state or locality until the manufacturing plant has been approved in accordance with this standard.

601.2 Requirements for modular builders. Requirements for modular builders are as follows:

1. The modular builder shall certify at the time of registration that the alteration, foundation and installation of modules installed under the registration shall be constructed in accordance with the building codes, the construction documents, department rules and shall be inspected in accordance with the codes where the building is to be located.
2. Subcontractors or persons responsible for the electrical, plumbing, and HVAC construction to complete the installation or alteration shall be licensed by the applicable state statutes and are not required to be registered as modular builders.
3. A person who purchases a modular building or modular component for private use and who assumes responsibility for all or part of the construction relating to the installation or alteration of the modular building shall file for a permit and not register as a modular builder.
4. The approval of a manufacturer or modular builder shall be valid for not more than one year and must be renewed prior to or upon expiration.
5. Each separate manufacturing plant shall be approved. A manufacturing facility is separate if it is not on property that is contiguous to a registered manufacturing plant.
6. An approved manufacturer or modular builder shall notify the department in writing not more than 10 days if:
 - 6.1 The corporate or firm name is changed.
 - 6.2 The main address of the registrant is changed.
 - 6.3 There is a change in not less than 25 percent of the ownership interest of the company in not more than a 12-month period. A change in ownership shall require a new registration if the new owners do not accept responsibility for units constructed under the previous owners.
 - 6.4 The location of any manufacturing plant is changed.

6.5 A new manufacturing plant is established.

6.6 There are changes in principal officers of the firm.

6.7 A modular builder transfers or sells a module or modular component to another modular builder or manufacturer takes possession of units previously reported as shipped to a modular builder.

6.8 An application for original registration or renewal shall be rejected if any information contained on, or submitted with, the application is incorrect or incomplete. The certificate of registration shall be revoked or suspended for violations of this standard.

601.3 Inspection and enforcement. The AHJ is designated as the representative for the enforcement of this standard and shall act as the building official for registered buildings. The AHJ shall have authority to make inspections during reasonable hours at the manufacturing plants and at building sites where modular buildings are installed. The AHJ shall have authority to issue inspection reports for correction of violations caused by the manufacturer.

601.4 List of approved third-party inspection agencies. The AHJ shall maintain a list of approved third-party inspection agencies. Each manufacturer producing modular buildings shall contract with one or more inspection agencies for evaluation, monitoring and inspection services. The contract shall delineate the services to be provided by the inspection agency. The inspection agency shall notify the AHJ not more than 30 days of signing a new contract or terminating an existing contract with any manufacturer.

601.5 Right of entry and examination by AHJ. The AHJ shall have access, during reasonable hours, to enter a modular building upon permission of any person who has authority or shares the use, access, or control over the building, or upon request from local officials having jurisdiction, for examination as to compliance with this standard.

601.6 Notice of violation. Wherever the administrator shall find any violation of this standard, the administrator shall order the owner or designee of the owner to bring the building into compliance with the notice.

601.7 Limitation of manufacturer's liability. The manufacturer of a registered modular building shall not be required to remedy violations caused by on-site work by others not under the manufacturer's control or violations involving components and materials furnished by others and not included with the registered modular building.

601.8 Duties and responsibilities of building officials. Duties and responsibilities of building officials in the installation or erection of a registered modular building shall be responsible to conduct the following:

1. Verify through inspection that the registered modular building displays the required certification label and the label of the third-party inspection agency.

2. Verify through inspection that the registered modular building has not been damaged in transit to a degree that would render it unsafe. If the building has been damaged, the building official is authorized to require tests for tightness of plumbing systems and gas piping and an operational test to ensure that all luminaries and receptacles are operable.
3. Prevent the use or occupancy of a registered modular building that in the opinion of the building official contains a serious defect or imminent safety hazard and notify the AHJ immediately.
4. Notify the state program administrator if applicable of any apparent violations of this standard to include defects and noncompliance.

CHAPTER 7
THIRD-PARTY INSIGNIA, IDENTIFICATION, AND DATA PLATES

SECTION 701
GENERAL

701.1 Third-Party Agency Certification insignia and identification. Modular components or modules of an approved modular building shall be marked with an insignia or other identification supplied by the third-party inspection agency that includes the name and address of the third-party inspection agency and the certification label number.

701.2 Mounting of insignia. The insignia or identification shall be affixed so that it cannot be removed without destroying it. The insignia shall be affixed or applied in the vicinity of the electrical distribution panel or in another location that is readily accessible for inspection. Where a building is comprised of more than one modular component or module, the required insignia shall have the option of being furnished as a single label for the entire building provided each module is marked by the third-party inspection agency in a clearly identifiable manner provided with or on the insignia.

701.3 Insignia control. The insignia shall be under direct control of the third-party inspection agency until applied by the manufacturer to the modules or modular components that comply with this chapter. The manufacturer shall not acquire insignia from other sources. Each inspection agency shall keep a list of the serial numbers of insignia issued to each manufacturer's plant such that a copy of the record can be submitted to the administrator upon request.

701.4 Manufacturer's data plate. A manufacturer's data plate shall be provided for each dwelling unit or building. The following information shall be placed on a permanent manufacturer's data plate as identified on the cover sheet of the plans and in a location that is readily accessible for inspection. The compliance assurance agency shall approve the form and location of the data plate and shall insure that the data plate is complete with the following information:

1. Manufacturer's name and address.
2. Compliance assurance agency certification number.
3. Serial number of each module of the building.
4. Serial number of the state registration seal.
5. Date of manufacture of the building.
6. List of codes and standards under which the building was evaluated and constructed and the type of construction and occupancy classification under those codes and standards.
7. Design live roof load, design floor live load, design wind speed, and design ground snow load, seismic design, and risk category.

8. Thermal resistance (“R”) values.
9. Special conditions or limitations concerning the use of the building under the codes and standards applicable to the building. A list of such conditions or limitations that are furnished separately with the building shall satisfy this requirement.
10. Special instructions for handling, installation and erection of the building. A list of such instructions that are furnished separately with the building shall satisfy this requirement.
11. Designation of electrical service ratings, directions for water and drain connections and, where applicable, identification of permissible type of gas for appliances.

701.5 Records retention. The manufacturer shall maintain copies of the data plate and reports of inspection, tests and any corrective action taken for not less than a period of 10 years from the date of manufacture of the building.

CHAPTER 8 REFERENCED STANDARDS

This chapter lists the standards that are referenced in various sections of this document. The standards are listed herein by the promulgating agency of the standard, the standard identification, the effective date and title, and the section or sections of this document that reference the standard.

Promulgating Agency And Standard Reference Number	Title	Referenced in code section number
IBC - 2018	International Building Code	101.3, 310.1
IRC - 2018	International Residential Code	101.3, 202

International Code Council

December 11, 2021

Chair Chris Wharton
City Council
Salt Lake City, UT

Dear Chair Wharton & Members of the Council,

We understand that Salt Lake City is in the process of updating its ordinances to support the use of off-site construction. The International Code Council and the Modular Building Institute have recognized the challenges many communities face in delivering affordable housing and the role off-site construction can play in helping address those needs. Off-site construction can also support achievement of sustainability and jobsite safety goals. To that end, we have initiated development of two standards to help communities and the industry more readily capture the benefits of off-site construction while also assuring local building codes and the safety they provide are maintained.

ICC/MBI Standard 1200: Standard for Off-Site Construction: Planning, Design, Fabrication, and Assembly and *ICC/MBI Standard 1205: Standard for Off-Site Construction: Inspection and Regulatory Compliance* capture best practices for the effective use of off-site construction. The standards are developed by a diverse committee of subject matter experts under procedures to assure consensus, transparency and due process. We encourage you to look to these standards in development of your off-site construction requirements.

While these standards are not set to be finalized until mid-2021, we are pleased to provide a copy of the first public review drafts and work with you to capture their key components in the interim, leading to adoption of the standards upon publication.

As you may know, the International Code Council develops model building codes, including the International Building Code and International Residential Code, which serve as the basis for Utah's construction codes. The Code Council also provides communities with solutions supporting implementation of those codes and other community safety, sustainability and resilience policies. The Modular Building Institute is the international non-profit trade association representing modular construction.

We appreciate the opportunity to work with you to address this critical need and support the delivery of safe, sustainable and resilient buildings and communities.

Sincerely,

cc: Orion Goff, Building Official

December 11, 2020

Salt Lake City Council
451 South State Street
Room 304
Salt Lake City, UT

Dear Salt Lake City Council Members,

As the trade association for the Modular Building Industry, we recommend an interim policy be adopted, as presented by Mr. Orion Goff, to remove barriers to allow for a more consistent path for the use of modular construction in Salt Lake City.

This interim policy is based on the core content from ICC/ANSI standard 1200 and 1205 (currently under development) that allows third-party plan review and inspection for construction done off site. We recommend this interim language until such time as the standard is published, anticipated in September 2021.

As the Vice-Chair of the working group for ICC/ANSI 1200 and 1205, and in my role as the Executive Director for the Modular Building Institute, I am confident that this standard will create additional opportunities to provide housing in Salt Lake City and do so in a manner that ensures quality and safety.

We have many companies that would look favorably upon this new policy for future projects in Salt Lake City. The adoption of these new guidelines would greatly enhance the working relationship and processes for the city, Mr. Goff and his team, and our industry.

I highly encourage adoption of this policy change by Mr. Goff and his department. We appreciate the work his team has done to discuss this issue at length and look forward to working with him and the city to help meet your building needs with our growing modular industry. Thank you for your consideration.

Sincerely,



Tom Hardiman
Executive Director

SALT LAKE CITY ORDINANCE
No. _____ of 2021

(Amending Sections 18.08.040 and 18.32.020 of the *Salt Lake City Code*
relating to modular building construction and inspections)

An ordinance amending Sections 18.08.040 and 18.32.020 of the *Salt Lake City Code*
relating to modular building construction and inspections.

WHEREAS, *Salt Lake City Code* Section 18.08.040 authorizes the Salt Lake City
Building Official to perform inspections of “all work authorized by any permit, to assure
compliance with” Title 18 of the code relating to buildings and construction; and

WHEREAS, modular building units are often built in a location other than where such
units are installed; and

WHEREAS, like factory-built housing, modular units can be inspected off site to ensure
that they are built in accordance with industry standards; and

WHEREAS, the International Code Council and the Modular Building Institute have
prepared a modular construction standard titled, *ICC/ MBI Standard for Off-Site
Construction: Planning, Design, Fabrication and Assembly*, which is anticipated to be adopted
as part of an upcoming building code adoption; and

WHEREAS, Salt Lake City adopting this standard now will allow more cost effective of
methods of construction, including construction of accessory dwelling units, and ensure that such
structures are built to industry standards; and

WHEREAS, after a public hearing on this matter, the city council has determined that
adopting this ordinance is in the city’s best interests.

NOW, THEREFORE, be it ordained by the City Council of Salt Lake City, Utah:

SECTION 1. Amending the Text of Salt Lake City Code Section 18.08.040. That Section 18.08.040, of the *Salt Lake City Code* (Buildings and Construction: Organization: Building Official; Powers and Duties) shall be amended to read as follows:

18.08.040: BUILDING OFFICIAL; POWERS AND DUTIES:

The building official shall maintain public office hours necessary to efficiently administer the provisions of this title and related titles and amendments thereto, and shall perform the following duties:

- A. Maintain an official register of all persons, firms or corporations lawfully entitled to carry on or engage in the businesses regulated by this title to whom a current license has been issued by the department of contractors of the state;
- B. Issue permits to properly licensed, bonded and registered persons, firms or corporations for work to be done within the scope of this title;
- C. Administer and enforce the provisions of this title in a manner consistent with the intent thereof, and inspect all work authorized by any permit, to assure compliance with provisions of this title or amendments thereto, approving or condemning such work in whole or in part, as conditions require;
- D. Issue a certificate of approval or certificate of occupancy for all work approved by him/her;
- E. Condemn and reject all work done or being done, or materials used or being used which do not in all respects comply with the provisions of this title and amendments thereto;
- F. Order changes in workmanship and/or materials essential to obtain compliance with all provisions of this title;
- G. Investigate any construction or work regulated by this title and issue such notice and orders which are necessary to prevent or to correct dangerous or unsanitary conditions;
- H. Recommend revocation of licenses to the state department of business regulation for cause;
- I. Authorize any utility to make necessary connections for power, water or gas to all applicants for such power or water in the city, when the installation and all facets of the construction or remodel project conform to this title; and
- J. Verify that buildings not built on site in Salt Lake City (Factory Built Buildings) are built, inspected, and installed in accordance with the "*ICC/ MBI Standard for Off-Site Construction: Planning, Design, Fabrication and Assembly*", or its successor document. In order for the building official to allow occupancy of qualifying structures, units delivered on site must be provided with a permanently affixed tag identifying the technical code versions, with Utah State Amendments, under which they were built. Individuals making the inspections must be certified and licensed Building Inspectors in the State of Utah.

SECTION 2. Amending the Text of Salt Lake City Code Section 18.32.020. That Section 18.32.020, of the *Salt Lake City Code* (Buildings and Construction: Building Regulations: Building Code and Standards Adopted) shall be amended to read as follows:

18.32.020: BUILDING CODE AND STANDARDS ADOPTED:

The edition of the uniform building code, as adopted by the Utah uniform building code commission as the construction standard to be adhered to by subdivisions of the state (section 58-56-4, Utah Code Annotated, or its successor section) is adopted by Salt Lake City, together with the following chapters of the appendix to the uniform building code:

Chapter 3 Division IV - Requirements For Group R, Division 4 Occupancies;

Chapter 11 Division I - Site Accessibility;

Chapter 11 Division II - Accessibility For Existing Buildings;

Chapter 15 Reroofing;

Chapter 16 Division I - Snow Load Design;

Chapter 16 Division III - Earthquake Regulations For Seismic Isolated Structures;

Chapter 31 Division II - Membrane Structure;

Chapter 33 Excavation And Grading; and

ICC/ MBI Standard for Off-Site Construction: Planning, Design, Fabrication and Assembly, or its successor document.

Hereafter, all references in this code to the uniform building code shall mean the said edition adopted by the Utah uniform building code commission. One copy of the uniform building code shall be filed for use and examination by the public in the office of the city recorder.

SECTION 3. Effective Date. This ordinance shall become effective on the date of its first publication.

Passed by the City Council of Salt Lake City, Utah, this _____ day of _____, 2021.

CHAIRPERSON

ATTEST:

CITY RECORDER

Transmitted to the Mayor on _____.

Mayor's Action: _____ Approved. _____ Vetoed.

MAYOR

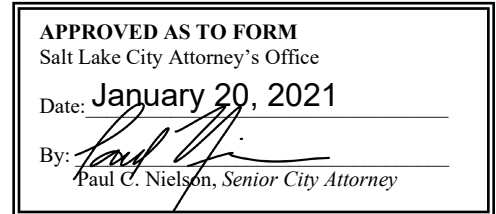
ATTEST:

CITY RECORDER

(SEAL)

Bill No. _____ of 2021.

Published: _____.



LEGISLATIVE DRAFT

SALT LAKE CITY ORDINANCE
No. _____ of 2021

(Amending Sections 18.08.040 and 18.32.020 of the *Salt Lake City Code*
relating to modular building construction and inspections)

An ordinance amending Sections 18.08.040 and 18.32.020 of the *Salt Lake City Code*
relating to modular building construction and inspections.

WHEREAS, *Salt Lake City Code* Section 18.08.040 authorizes the Salt Lake City
Building Official to perform inspections of “all work authorized by any permit, to assure
compliance with” Title 18 of the code relating to buildings and construction; and

WHEREAS, modular building units are often built in a location other than where such
units are installed; and

WHEREAS, like factory-built housing, modular units can be inspected off site to ensure
that they are built in accordance with industry standards; and

WHEREAS, the International Code Council and the Modular Building Institute have
prepared a modular construction standard titled, *ICC/ MBI Standard for Off-Site
Construction: Planning, Design, Fabrication and Assembly*, which is anticipated to be adopted
as part of an upcoming building code adoption; and

WHEREAS, Salt Lake City adopting this standard now will allow more cost effective of
methods of construction, including construction of accessory dwelling units, and ensure that such
structures are built to industry standards; and

WHEREAS, after a public hearing on this matter, the city council has determined that
adopting this ordinance is in the city’s best interests.

NOW, THEREFORE, be it ordained by the City Council of Salt Lake City, Utah:

LEGISLATIVE DRAFT

27 SECTION 1. Amending the Text of Salt Lake City Code Section 18.08.040. That Section
28 18.08.040, of the *Salt Lake City Code* (Buildings and Construction: Organization: Building
29 Official; Powers and Duties) shall be amended to read as follows:

30 **18.08.040: BUILDING OFFICIAL; POWERS AND DUTIES:**

31 The building official shall maintain public office hours necessary to efficiently administer the
32 provisions of this title and related titles and amendments thereto, and shall perform the
33 following duties:

- 34
- 35 A. Maintain an official register of all persons, firms or corporations lawfully entitled to carry
36 on or engage in the businesses regulated by this title to whom a current license has been
37 issued by the department of contractors of the state;
 - 38 B. Issue permits to properly licensed, bonded and registered persons, firms or corporations
39 for work to be done within the scope of this title;
 - 40 C. Administer and enforce the provisions of this title in a manner consistent with the intent
41 thereof, and inspect all work authorized by any permit, to assure compliance with
42 provisions of this title or amendments thereto, approving or condemning such work in
43 whole or in part, as conditions require;
 - 44 D. Issue a certificate of approval or certificate of occupancy for all work approved by
45 him/her;
 - 46 E. Condemn and reject all work done or being done, or materials used or being used which
47 do not in all respects comply with the provisions of this title and amendments thereto;
 - 48 F. Order changes in workmanship and/or materials essential to obtain compliance with all
49 provisions of this title;
 - 50 G. Investigate any construction or work regulated by this title and issue such notice and
51 orders which are necessary to prevent or to correct dangerous or unsanitary conditions;
 - 52 H. Recommend revocation of licenses to the state department of business regulation for
53 cause;
 - 54 I. Authorize any utility to make necessary connections for power, water or gas to all
55 applicants for such power or water in the city, when the installation and all facets of the
56 construction or remodel project conform to this title; and
 - 57 J. Verify that buildings not built on site in Salt Lake City (Factory Built Buildings) are
58 built, inspected, and installed in accordance with the “ICC/ MBI Standard for Off-Site
59 Construction: Planning, Design, Fabrication and Assembly”, or its successor document.
60 In order for the building official to allow occupancy of qualifying structures, units
61 delivered on site must be provided with a permanently affixed tag identifying the
62 technical code versions, with Utah State Amendments, under which they were built.
63 Individuals making the inspections must be certified and licensed Building Inspectors in
64 the State of Utah.
- 65
66

LEGISLATIVE DRAFT

67 SECTION 2. Amending the Text of Salt Lake City Code Section 18.32.020. That Section
68 18.32.020, of the *Salt Lake City Code* (Buildings and Construction: Building Regulations:
69 Building Code and Standards Adopted) shall be amended to read as follows:

70 **18.32.020: BUILDING CODE AND STANDARDS ADOPTED:**

71
72 The edition of the uniform building code, as adopted by the Utah uniform building code
73 commission as the construction standard to be adhered to by subdivisions of the state (section
74 58-56-4, Utah Code Annotated, or its successor section) is adopted by Salt Lake City,
75 together with the following chapters of the appendix to the uniform building code:

76
77 Chapter 3 Division IV - Requirements For Group R, Division 4 Occupancies;

78
79 Chapter 11 Division I - Site Accessibility;

80
81 Chapter 11 Division II - Accessibility For Existing Buildings;

82
83 Chapter 15 Reroofing;

84
85 Chapter 16 Division I - Snow Load Design;

86
87 Chapter 16 Division III - Earthquake Regulations For Seismic Isolated Structures;

88
89 Chapter 31 Division II - Membrane Structure;

90
91 Chapter 33 Excavation And Grading; and

92
93 ICC/MBI Standard for Off-Site Construction: Planning, Design, Fabrication and Assembly,
94 or its successor document.

95
96 Hereafter, all references in this code to the uniform building code shall mean the said edition
97 adopted by the Utah uniform building code commission. One copy of the uniform building
98 code shall be filed for use and examination by the public in the office of the city recorder.
99

100 SECTION 3. Effective Date. This ordinance shall become effective on the date of its
101 first publication.

102 Passed by the City Council of Salt Lake City, Utah, this _____ day of _____, 2021.

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106 _____
CHAIRPERSON

LEGISLATIVE DRAFT

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ATTEST:

CITY RECORDER

Transmitted to the Mayor on _____.

Mayor's Action: _____ Approved. _____ Vetoed.

MAYOR

ATTEST:

CITY RECORDER

(SEAL)

Bill No. _____ of 2021.

Published: _____.