



Board of Building Standards

CONFERENCE MEETING AGENDA

DATE: APRIL 26, 2024
TIME: 10:00 AM
LOCATION: TRAINING RM 1, 6606 TUSSING RD, REYNOLDSBURG, OHIO 43068
[Join the meeting now](#)

Call to Order

Roll Call

Public Hearing – Amendments Group CII (102)

[Proposed Boiler and Elevator Rules | Ohio Department of Commerce](#)

To provide testimony at the public hearing, you must attend in-person. Written comments may be submitted to BBS@com.ohio.gov.

Consideration of Minutes

[MIN-1](#) March 22, 2024 Meeting Minutes

Certification Hearing

[CH-1](#) Certification Hearing

Committee Reports

[CR-1](#) Certification Committee Report
[CR-2](#) Education Committee Report
[CR-3](#) Code Committee Report
CR-4 Committee-of-the-Whole

Ratification of Board Recognized Accreditation Bodies, Conformity Assessment Bodies & Industry Trade Association Certification Programs

No items for consideration

Building Department Support & Oversight

[RE-1](#) April Building Department Report
[RE-2](#) Complaint Summary Report

Public Comments

Old Business

[OB-1](#) Amendments Group 102 (Proposed IU Rules) - Action to file rules with JCARR upon receipt of CSI Office recommendations
OB-2 Amendments Group 103 (Proposed Certification Rules) - Action to initiate eNotification & file the proposed rules with CSI Office

New Business

Compensate Board Members for Work Performed at their Regular Rate

Future Meeting Schedule

May 31, 2024	September 27, 2024
June 28, 2024	November 15, 2024
August 16, 2024	December 20, 2024

Motion to Adjourn

File Attachments for Item:

MIN-1 March 22, 2024 Meeting Minutes

MINUTES
BOARD OF BUILDING STANDARDS
CONFERENCE MEETING & CERTIFICATION HEARING
March 22, 2024

The Board of Building Standards Conference Meeting was called to order at 10:00 a.m., Friday, March 22, 2024 at 6606 Tussing Road, Reynoldsburg, Ohio, Chairman Timothy Galvin presiding.

Ms. Regina Hanshaw, Executive Secretary, called the roll and reported that the following Board members were present:

Gregory Barney, Industrialized Units
Julienne Cromwell, Structural Engineer
Joseph F. Denk, Jr., Mechanical Engineer
Timothy P. Galvin, General Contractor, Chair
John Johnson, Construction Materials
Don Leach, Attorney
Terry McCafferty, Public Member
Christopher Miller, Renewable Energy
John Pavlis, Homebuilder, Vice-Chair
Bailey Stanbery, Homebuilder
Jeff Tyler, Architect
Christie Ward, Mayor

The following members were absent:

Jeff Samuelson, Architect
Paul Yankie, Energy Conservation

The following staff members were present:

Megan Foley, Certification Program Administrator
Debbie Ohler, Construction Codes Administrator
Jay Richards, Assistant Construction Codes Administrator
Mike Regan, IU Plans Examiner
Robert Johnson, Assistant Construction Codes Administrator
Pam Butts, Office Assistant
Bruce Culver, Assistant Construction Codes Administrator
Laura Borso, Building Department Administrator
Jacob Erwin, AAG
Max Ekey, AAG

A quorum of the Board was present.

The following visitors were present:

John Johnson, Tacoma

CONSIDERATION OF THE MINUTES

Mr. Pavlis moved and Mr. McCafferty seconded to approve the minutes of the February 23, 2024 Certification Hearing and Conference Meeting.

Chairman Galvin called for the ayes and nays.

Motion carried unanimously.

CERTIFICATION HEARING

Chairman Galvin opened the hearing to hear testimony on the individuals and building departments appearing on the Final Certification Hearing Agenda in the Board's Meeting Packet at the Hearing tab. Ms. Foley informed the Board that the individuals and departments appear on the hearing agenda have been reviewed by the Certification Committee and determined to meet the requirements of certification.

COMMITTEE REPORTS

CR-1 Certification Committee Report

Mr. Leach gave the committee’s report included in the Board’s Meeting packet at Tab CR-1:

The Certification Committee met on March 21st, 2024, at 10:00 AM in the BBS Library, 6606 Tussing Road, with the following members present: Mr. Leach, Mr. McCafferty, Mr. Barney, Ms. Cromwell, Mr. Stanbery, Mr. Tyler, and Mayor Ward. Board Chairman Timothy Galvin was also present. The Committee makes the following recommendations, included in the March 22nd Board Packet at Tab CR-1, for the Board’s consideration.

Also present at the meeting were board staff, Megan Foley, and Rob Johnson. Guests Charles Huber attended the meeting virtually to observe.

Recommend the following applications be approved following a certification hearing effective immediately unless otherwise noted on the certification hearing agenda:

Cert ID	Name	Certification Granted
	Andres, John	Residential Building Inspector
4858	Barkas, Jeffrey	Residential Building Official
9321	Bell, Robert	Building Inspector
96	Benson, John	Electrical Safety Inspector* Residential Building Official
9324	Centineo, John	Plumbing Inspector Plumbing Plans Examiner
5995	Dedic, Juraj	Residential Building Official
9329	Edwards, Edwin	Electrical Safety Inspector*
5176	Elmi, Eric	Building Plans Examiner
	Entwhistle, Matthew	Building Plans Examiner Residential Plans Examiner
9323	Francis, Shad	Residential Plans Examiner
9091	Graham, Sean	Residential Building Official Residential Plans Examiner Residential Building Inspector
9070	Hittle, Matthew	Plumbing Plans Examiner
	Jansen, Andrew	Plumbing Inspector Plumbing Plans Examiner
	Keil, Mark	Building Inspector Residential Building Inspector
8546	Kelly, Martin	Electrical Safety Inspector Alternative Trainee Plan approved
5522	Maddama, Damian	Mechanical Inspector
922	Martin, Charles	Plumbing Plans Examiner Mechanical Plans Examiner
9333	Merrick, David	Building Official
	Mershimer, Richard	Building Inspector Residential Building Inspector
9334	Miller, Michael	Residential Building Official Residential Plans Examiner Residential Building Inspector Residential Industrialized Unit Inspector
9322	O'Donnell, Todd	Residential Building Inspector
9330	Pugh, Tyler	Electrical Safety Inspector Alternative Trainee Plan approved

1264	Rose, Dennis	NonResidential Industrialized Unit Inspector Residential Industrialized Unit Inspector
9196	Rudyak, Andriy	Residential Building Inspector
1381	Smerek, David	Mechanical Inspector Fire Protection Inspector NonResidential Industrialized Unit Inspector
	Smith, Joshua	Electrical Safety Inspector*
9317	Smith, Kristen	Electrical Safety Inspector Alternative Trainee Plan approved
8974	Taylor, Ted	Plumbing Plans Examiner
	White, Trevor	Plumbing Inspector

*Electrical Safety Inspectors must complete examinations prior to issuance of interim certification

** Denotes approval conditioned on receipt of forms or fees or other conditions.

Building Department Certifications

Lockington - New NonResidential and Residential Subdepartment of Shelby County
 Exceptions: Plumbing, Med Gas

Thurston - New NonResidential Subdepartment of Fairfield County
 Exceptions: Plumbing, Med Gas

Personnel Certification Applications

Recommend the following applications be denied, additional information be requested, or other action as noted:

Francis, Shad - BPE

Certification ID: 9323

Current certifications- none

Committee Recommendation: Applicant is invited to attend April 25 committee meeting virtually or in person to discuss experience with commercial construction documents.

Sizler, Keith - BI

Certification ID: 9318

Current certifications- none

Committee Recommendation: Request additional information on commercial structural experience, recommend MI, RBI as alternatives to requested certification.

Stanich, Brian - BI

Certification ID: 8590

Current certifications- PI

Committee Recommendation: Request additional information on specific commercial structural experience, or applicant may be approved as BI trainee with sponsor, supervisor documents.

Horvath, Louis - BI, PI

Certification ID: 9335

Current Certifications: None

Committee Recommendation: Request additional information on plumbing installation experience and commercial structural experience.

New Business

None this month

Old Business

Certification rules: updated committee on feedback, discussion of timing of effective date, outreach activities.

Mr. Leach moved and Mr. McCafferty seconded to approve the recommendations of the committee.

Chairman Galvin called for the ayes and nays.

Motion carried unanimously.

CR-2 Education Committee Report

Mr. McCafferty gave the committee's report included in the Board's Meeting packet at Tab CR-2:

The Education Committee met on March 21st, 2024 at 10:00 AM in the BBS Library, 6606 Tussing Road, with the following members present: Mr. McCafferty, Mr. Stanbery, Mr. Barney, Ms. Cromwell, Mr. Tyler, and Mayor Ward. Board Chairman Timothy Galvin was also present.

Also present at the meeting were board staff Megan Foley and Rob Johnson. Charles Huber attended the meeting virtually to observe,

The Committee makes the following recommendations, included in the March 22nd, 2024 Board Packet at Tab CR-2, for the Board's consideration.

Courses approved with modification or special circumstances, or denied, as stated.

The Basics of Fireblocking (Code Consultation and Plan Review Services)

All certifications (1 hour)

Committee Recommendation: Administrative approval ratified.

Appliances (2023 NEC) (Independent Electrical Contractors of Greater Cincinnati)

All certifications (4 hours)

ESIAC Recommendations: All recommended approval, but one recommended 2 hours credit and one recommended 3 hours credit, and one recommended approval as is.

Committee Recommendation: Course approved for 2 hours continuing education credit.

Box Fill (2023 NEC) (Independent Electrical Contractors of Greater Cincinnati)

All certifications (4 hours)

ESIAC Recommendations: All recommended approval, but one recommended 2 hours credit and one recommended 3 hours credit, and one recommended approval as is.

Committee Recommendation: Course approved for 3 hours continuing education credit.

Conductor Types, Ampacities, and Correction Factors (2023 NEC) (Independent Electrical Contractors of Greater Cincinnati)

All certifications (4 hours)

Staff Notes:

ESIAC Recommendations: All recommended approval, but one recommended 2 hours credit and one recommended three hours credit, and one recommended approval as is.

Committee Recommendation: Course approved for 3 hours continuing education credit.

Voltage Drop (2023 NEC) (Independent Electrical Contractors of Greater Cincinnati)

All certifications (4 hours)

ESIAC Recommendations: All recommended approval, but one recommended 2 hours credit and one recommended 3 hours credit, and one recommended approval as is.

Committee Recommendation: Course approved for 2 hours continuing education credit.

Air Sampling Smoke Detection (Edwards/Kidde)

All certifications (4 hours)

Committee Recommendation: References are to UL 268 7th Edition (2018). The 2024 OBC referenced standard is UL 268 6th Edition (amendments through 2016). This course does not reflect current Ohio referenced standards, course not recommended for approval.

Fire Alarm Design (IEC of Greater Cincinnati)

All certifications (12 hours)

Committee Recommendation: Course references 2018 IBC, current 2024 OBC is based on the 2021 IBC. Recommend changes to reflect current code, course to be administratively approved upon receipt.

Modification to Existing Systems (SWOBOA)

All certifications (1 hour)

Committee Recommendation: Course based on 2025 NFPA 13, not an adopted referenced standard in Ohio, and instruction is based on the differences between NFPA 13 (2022) and NFPA13 (2025) Since this is not based on current code, approval not recommended.

Courses approved without modification:

2024 Code Consistency Symposium (Molnar)(Five-Counties Building Officials Association)

All certifications (2 hours)

Emergency Responder Radio Communication Systems Explained (Edwards/Kidde)

All certifications (2 hours)

Practical NEC 2023 Training (Pool LLC)

All certifications (10 hours)

2024 Ohio Building Code (HalfMoon Education)

All certifications (7 hours)

Acceptance Testing for Water-Based Fire Protection Systems (SWOBOA)

All certifications (3 hours)

Significant Changes NFPA 13 2016-2022 (SWOBOA)

All certifications (2 hours)

Dwelling Circuit Requirements (2023 NEC) (Independent Electrical Contractors of Greater Cincinnati)

All certifications (4 hours)

Grounding and Bonding (2023 NEC) (Independent Electrical Contractors of Greater Cincinnati)

All certifications (4 hours)

Mr. McCafferty moved and Mr. Stanbery seconded to approve the recommendations of the committee.

Chairman Galvin called for the ayes and nays.

Motion carried unanimously.

CR-3 Code Committee Report

Mr. Denk gave the committee's report included in the Board's Meeting packet at Tab CR-3:

The Code Committee met on March 21, 2024 with the following members present: Ms. Cromwell, Mr. Denk, Mr. Johnson, Mr. Miller, Mr. Pavlis, Mr. Stanbery, and Mr. Tyler. Board Chairman, Mr. Galvin, was also present.

The committee report is included in the March 22, 2024 Board Meeting Packet at tab CR-3 for the Board's consideration.

March 21, 2024 Code Committee Meeting

Call to Order

The meeting was called to order by Mr. Denk at 1:10 P.M.

Approval of Minutes

Mr. Stanbery moved to approve the minutes of the Code Committee meeting held on February 22, 2024. Mr. Tyler seconded. The motion passed unanimously.

Petitions

No items for consideration

Recommendations of the Residential Construction Advisory Committee

No items for consideration

Old Business

City of Union Determination of Conflict

Mr. Miller summarized the City of Union's position on the local ordinance 1312.03(e) that has been in place since December 12, 2022, and prohibits concrete masonry unit (CMU) foundations for most new residential building construction. Mr. Miller moved that the ordinance is in direct conflict with the Residential Code of Ohio (RCO) and that it is not necessary to protect the health and safety of the public, is not economically reasonable and has an unwarranted negative impact on the building owner. Mr. Johnson seconded. After committee discussion, the motion passed unanimously.

Proposed Code Change – OBC Section 907.5.2.2.3

Remains tabled.

Use of Glass Fiber Reinforced Polymer (GFRP) in structural concrete

Ms. Cromwell shared that she has talked with professionals that have used the product, with rebar suppliers, with contractors, with engineers, and with academia involved in FRP research, but has not been able to talk to a couple of key folks yet. She would like to talk with ACI 440.11 committee members as she thought that ACI was proposing additional changes to the IBC language. She is leaning toward allowing it as optional with limitations as previously drafted and as published in the 2024 IBC. She and other engineers are hesitant to specify it because of the lack of ductility, lack of flexibility during installation, the inability to shape it on the job site, and the forced increase in size of the members. She believes that she will have her research complete by the April meeting, but she will contact staff when she has finished researching and is ready for us to invite ACI to the Code Committee meeting for additional discussion. No action was taken.

New Business

RCO Chapter 34 (Electrical) Update

Ms. Hanshaw explained to the committee that we withdrew a recently filed RCO rule that inadvertently omitted an intended Ohio change that exempts sump pumps from GFCI protection. The proposed fix is scheduled to go into effect on April 15th along with the proposed update to the 2023 National Electrical Code. No action was taken.

Adjourn

Mr. Miller moved to adjourn at 2:20 P.M. Mr. Johnson seconded. The motion passed unanimously.

Mr. Denk moved and Mr. Miller seconded to approve the recommendations of the committee.

Chairman Galvin called for the ayes and nays.

Motion carried unanimously.

CR-4 Committee-of-the-Whole

Ms. Hanshaw stated that the draft certification rules were sent out for initial stakeholder input and that a stakeholder meeting is scheduled for April 5.

**RATIFICATION OF BOARD RECOGNIZED ACCREDITATION BODIES,
CONFORMITY ASSESSMENT BODIES & INDUSTRY TRADE ASSOCIATION
CERTIFICATION PROGRAMS**

AB-1 QAI Laboratories, Medley, FL – Testing Laboratory & QAI Laboratories, Nokomis, FL – Testing Laboratory

Mr. Rob Johnson presented the applications for ratification of testing laboratories QAI Laboratories, Medley, FL and Nokomis, FL.

In accordance with the Board initiative to update its list of Conformity Assessment Bodies under rules 4101:1.1-01 and 4101:7.7-01 and, after having submitted the required documents, Mr. Denk moved to ratify the accreditations of the QAI Laboratories Inc. Medley, Florida and QAI Laboratories, FL, Nokomis FL for testing lab. Mr. Johnson seconded.

Chairman Galvin called for the ayes and nays.

Motion carried unanimously.

BUILDING DEPARTMENT SUPPORT AND OVERSIGHT

RE-1 March Building Department Report

Ms. Borso presented the March Building Department Report:

March 2024 Department Visit Status Report

Board Staff conduct building department visits to engage building officials in discussion regarding the administration of their departments and to obtain feedback for the Board. Specifically, Board Staff inquire on the status of plan review and inspection turnaround times, protocols, policies and processes of the department, software systems used, current and projected activity, department funding and fees, relationships with fire departments, administration and elected officials, the issuance of plan approvals, adjudication orders, certificates of occupancy, and appeals.

The following Building departments were visited since the last Board update:

Kettering	Pickerington	Pepper Pike
Lyndhurst	Miamisburg	

Administrative and enforcement activity has remained strong. With the continued upgrading of software/computer systems, more departments are implementing 100% digital submissions. If submitted, paper submissions are scanned for the plan examiners, ensuring documents can be accepted in any format. Some building departments are allowing fire to access to their software for plan review recommendations electronically, saving time in the approval process.

There is a concern regarding the lack of certified inspectors to fill vacant positions. Departments are looking at alternative solutions to address this issue, such as, adjusting pay scales, implementing in house training, and joining forces with surrounding building departments.

An inquiry was made as to the possibility of adding a plan review class for continuing education purposes as well as other topics of technical chapters from the RCO. Other ideas include the introduction of classes for the builder/contractor industry to learn and understand the requirements for submitting plans that comply with the residential codes. A suggestion was made to add a 2-year program for inspectors. First year completed at a community college, with the 2nd year providing hands on training with a certified department.

Officials appreciate the access to the new electronic subscription through ICC. High praise has been given for the training available on the BBS website.

Building officials visited express appreciation for the discussions as it allows them to ask questions of Board staff and to establish rapport.

PUBLIC COMMENTS

There were no public comments.

OLD BUSINESS

OB-1 Action on Amendments Group 101 (2019 RCO Amendments) – Resubmit final file of corrected rule 4101:8-34-01 and rule 4101:8-44-01 upon expiration of JCARR jurisdiction

Mr. Richards stated that in 2022 the RCAC recommended the adoption of the 2020 National Electrical Code and during stakeholder input we received comments requesting adoption of the 2023 edition instead. Based on these comments and recommendation of the RCAC, the Board moved forward with the rule development of the proposed amendments to the Residential Code of Ohio including the adoption of the 2023 National Electrical Code effective March 1. However, prior to the effective date, we were made aware of a misunderstanding of a provision in the electrical code affecting sump pumps. We withdrew the rules to make the correction and the revised rules are scheduled to be heard by JCARR on Monday. Mr. Richards requested direction to final file the corrected rules upon expiration of JCARR jurisdiction.

Mr. Denk moved and Mr. Johnson seconded to direct staff to electronically resubmit final file of corrected rules amending the 2019 Residential Code of Ohio to reference the 2023 National Electric Code as amended with the appropriate agencies after JCARR jurisdiction has ended and with an effective date of April 15th, 2024.

Chairman Galvin called for the ayes and nays.

Motion carried unanimously.

Ms. Hanshaw stated the withdrawing the rules between board meetings was unusual and that Board Staff consulted with the Board Chair and Vice-Chair prior to withdrawing the rules because it was a good opportunity to make the correction prior to the rules going into effect.

Assistant Attorney General Jacob Erwin introduced the new AAG assigned to the Board Max Ekey.

NEW BUSINESS

NB-1 City of Union Determination of Conflict

Ms. Hanshaw stated that the Revised Code gives the Board authority to review local ordinances for conflict with the Residential Code of Ohio. The purpose of this authority is to ensure that the Residential Code of Ohio is the uniform code for residential construction in the State. The process also gives the Board room to review whether a local ordinance should be incorporated into the code if its necessary for health, safety and welfare. Ms. Hanshaw stated that last year the Board was approached by a builder in the City of Union with concerns regarding a local ordinance that limits the use of concrete block in foundations. Rob contacted the building department to find out whether they were willing to work with us to resolve the potential conflict, but they appeared very attached to the ordinance. As a result, we started the process for a formal determination of conflict which began with review by the RCAC at its November meeting. Representatives from the City attended the RCAC meeting virtually and provided background information and reasoning for the ordinance and the RCAC members were able to ask questions. Following discussions, the RCAC did recommend to the Board that the ordinance was conflict with the residential code and it was not necessary for health and safety. Then at the February Code Committee meeting the same representatives attended and similar discussions were had, and City representatives gave a presentation that focused primarily on concerns with the durability of the materials. However, the position of the RCAC and discussions by the Code Committee is that the issue appears to be more of a maintenance issue rather than material issue and the ordinance unnecessarily limits without technical justification methods and materials permitted by the residential code. At its meeting yesterday, the Code Committee accepted the recommendation of the RCAC and determined the ordinance is in conflict with the Residential Code of Ohio and is not necessary for health and safety. Ms. Hanshaw stated that based on the Code Committee's action a formal determination of conflict was drafted which is in the packet. If the Board accepts the Committee's recommendation the determination will be sent to City notifying them of the Board's action and as a result the ordinance is invalid and unenforceable.

Mr. Denk moved to accept the recommendations of the Residential Construction Advisory Committee and the Code Committee that the City of Union Ordinance Section 1312.03(e) directly conflicts with technical provisions in the Residential Code of Ohio by prohibiting construction materials and methods permitted by the Code, and that the Ordinance is not necessary to protect the health and safety of the public, is not economically reasonable and has an unwarranted negative financial impact on a building owner. Mr. Denk further moved to direct the Executive Secretary to notify the City of Union of the Board's determination and that as a result the Ordinance is deemed invalid and may not be enforced pursuant to Revised Code Section 3781.01. Mr. Miller seconded.

Chairman Galvin called for the ayes and nays.

Motion carried unanimously.

COMPENSATE BOARD MEMBERS FOR WORK PERFORMED AT THEIR REGULAR RATE

Ms. Hanshaw reported that board members had performed committee and board work for the amount of hours, including board meetings, as follows:

Mr. Barney	16	Mr. Miller	16
Ms. Cromwell	16	Mr. Pavlis	16
Mr. Denk	16	Mr. Samuelson	0
Mr. Galvin	24	Mr. Stanbery	16
Mr. Johnson	16	Mr. Tyler	16
Mr. Leach	16	Ms. Ward	16
Mr. McCafferty	16	Mr. Yankie	0

Mr. McCafferty moved and Mr. Johnson seconded to compensate board members for the work performed at their regular rate.

Chairman Galvin called for the ayes and nays.

Motion carried unanimously.

FUTURE MEETINGS

April 26, 2024	September 27, 2024
May 31, 2024	November 15, 2024
June 28, 2024	December 20, 2024
August 16, 2024	

ADJOURNMENT

Mr. Stanbery moved and Mr. Johnson seconded to adjourn. The Board adjourned at 10:20 a.m.

Timothy Galvin, Chairman
Board of Building Standards

Regina Hanshaw, Executive Secretary
Board of Building Standards

File Attachments for Item:

CH-1 Certification Hearing



APRIL 26, 2024

CERTIFICATION HEARING AGENDA

Notice is hereby given that the Board of Building Standards will convene for a certification hearing in accordance with the rules of the Board at 10:00 AM, April 26th, 2024, at the Board of Building Standards, Training Room 1, 6606 Tussing Road, Reynoldsburg, Ohio 43068

The purpose of the hearing is to hear testimony from anyone wishing to speak to the proposed certification of building departments, local boards of building appeals, and building department personnel.

Cert ID	Name	Certification Approved
8979	Aigner, Kristopher	Building Inspector**
9321	Bell, Robert	Mechanical Inspector Residential Building Official
9374	Bugansky, John	Residential Mechanical Inspector
223	Casini, Norman	Building Inspector
9350	Copley, Jeremy	Electrical Safety Inspector*
9323	Francis, Shad	Building Plans Examiner
6247	Fritz, Jason	Mechanical Inspector
9369	Gaghan, Thomas	Residential Building Inspector
9359	Glauner, Jay	Building Inspector Trainee Residential Building Inspector Trainee Alternative trainee plan approved
589	Hanson, Emily	Plumbing Plans Examiner
9381	Heaton, Jason	Building Official Building Plans Examiner Building Inspector
9346	Jack, John	Electrical Safety Inspector*
9362	Kehl, Travis	Building Inspector Residential Building Official
755	Kellenbauer, Michael	Building Inspector Residential Building Official Residential Building Inspector

5659	Lloyd, John	Building Official Building Plans Examiner Building Inspector Residential Building Official Residential Plans Examiner Residential Building Inspector
5354	Morgano, Leonardo	Residential Building Inspector Building Inspector Trainee Mechanical Inspector Trainee Plumbing Inspector Trainee Alternative trainee plan approved
8885	Morrison, Eric	Residential Building Inspector
9372	Murray Jr., James	Building Official Master Plans Examiner
9357	Ogilvie, Alix	Building Official Master Plans Examiner Building Inspector Residential Building Official
9348	Peterson, Roger	Electrical Safety Inspector Trainee Building Inspector Trainee Residential Building Official Residential Building Inspector
8881	Picha, Kenneth	Residential Building Inspector
2174	Rupert, Darryl	Mechanical Plans Examiner Fire Protection Plans Examiner
2182	Sanders, Jesse	Building Inspector Trainee Mechanical Inspector Trainee
9371	Scopilliti, Frank	Plumbing Inspector
9318	Sizler, Keith	Mechanical Inspector Residential Building Inspector
9360	Spratt, Richard	Plumbing Inspector
8590	Stanich, Brian	Residential Building Inspector
9384	Staunton, Liam	Residential Building Inspector
9361	Todaro, Michael	Residential Building Official**
6083	Vagnone, James	Electrical Safety Inspector
4768	Ward, Michael	Mechanical Inspector

*Electrical Safety Inspectors must complete examinations prior to issuance of interim certification

** Denotes approval conditioned on receipt of forms or fees or other conditions.

Building Department Certifications

Middleport Ohio - New Residential Building Department
Contract with Washington County for all code enforcement.

Exceptions: Plumbing by Washington County Public Health

File Attachments for Item:

CR-1 Certification Committee Report



BOARD OF BUILDING STANDARDS

CERTIFICATION COMMITTEE MEETING REPORT

The Certification Committee met on April 25th, 2024, at 10:00 AM in the BBS Library, 6606 Tussing Road, with the following members present: Mr. Leach, Mr. McCafferty, Ms. Cromwell, Mr. Samuelson, Mr. Stanbery, and Mr. Tyler. The Committee makes the following recommendations, included in the April 26th Board Packet at Tab CR-1, for the Board’s consideration.

Also present at the meeting were board staff, Regina Hanshaw, Megan Foley, Laura Borso, and Rob Johnson. Guests Shad Francis and Roger Peterson attended virtually to discuss their applications, and Dan Spada attended virtually to support Roger Peterson’s application. Charles Huber attended the meeting virtually to observe.

Recommend the following applications be approved following a certification hearing effective immediately unless otherwise noted on the certification hearing agenda:

Cert ID	Name	Certification Approved
8979	Aigner, Kristopher	Building Inspector**
9321	Bell, Robert	Mechanical Inspector Residential Building Official
9374	Bugansky, John	Residential Mechanical Inspector
223	Casini, Norman	Building Inspector
9350	Copley, Jeremy	Electrical Safety Inspector*
9323	Francis, Shad	Building Plans Examiner
6247	Fritz, Jason	Mechanical Inspector
9369	Gaghan, Thomas	Residential Building Inspector
9359	Glauner, Jay	Building Inspector Trainee Residential Building Inspector Trainee Alternative trainee plan approved
589	Hanson, Emily	Plumbing Plans Examiner
9381	Heaton, Jason	Building Official Building Plans Examiner Building Inspector
9346	Jack, John	Electrical Safety Inspector*
9362	Kehl, Travis	Building Inspector Residential Building Official

755	Kellenbauer, Michael	Building Inspector Residential Building Official Residential Building Inspector
5659	Lloyd, John	Building Official Building Plans Examiner Building Inspector Residential Building Official Residential Plans Examiner Residential Building Inspector
5354	Morgano, Leonardo	Residential Building Inspector Building Inspector Trainee Mechanical Inspector Trainee Plumbing Inspector Trainee Alternative trainee plan approved
8885	Morrison, Eric	Residential Building Inspector
9372	Murray Jr., James	Building Official Master Plans Examiner
9357	Ogilvie, Alix	Building Official Master Plans Examiner Building Inspector Residential Building Official
9348	Peterson, Roger	Electrical Safety Inspector Trainee Building Inspector Trainee Residential Building Official Residential Building Inspector
8881	Picha, Kenneth	Residential Building Inspector
2174	Rupert, Darryl	Mechanical Plans Examiner Fire Protection Plans Examiner
2182	Sanders, Jesse	Building Inspector Trainee Mechanical Inspector Trainee
9371	Scopilliti, Frank	Plumbing Inspector
9318	Sizler, Keith	Mechanical Inspector Residential Building Inspector
9360	Spratt, Richard	Plumbing Inspector
8590	Stanich, Brian	Residential Building Inspector
9384	Staunton, Liam	Residential Building Inspector
9361	Todaro, Michael	Residential Building Official**
6083	Vagnone, James	Electrical Safety Inspector
4768	Ward, Michael	Mechanical Inspector

*Electrical Safety Inspectors must complete examinations prior to issuance of interim certification

** Denotes approval conditioned on receipt of forms or fees or other conditions.

Building Department Certifications

Middleport Ohio - New Residential Building Department
Contract with Washington County for all code enforcement.
Exceptions: Plumbing by Washington County Public Health

Personnel Certification Applications

Recommend the following applications be denied, additional information be requested, or other action as noted:

Peterson, Roger - BI, ESI, RBO, RBI

Certification ID: 9348

Current certifications: None, FSI since 2001

Committee recommendation: BI trainee approved upon receipt of forms, ESI

Trainee approved, as well as RBO and RBI

Lane, Carl - BI, MI

Certification ID: 9345

Current certifications: None

Committee Recommendation: Request additional information on mechanical and commercial structural experience.

Ream, Joseph - BI

Certification ID: 9358

Current Certifications: None

Committee Recommendation: Request additional information on experience in the context of special inspections, building department support for Building Inspector Trainee certification.

Sizler, Keith - BI

Certification ID: 9318

Current certifications- none

Committee Recommendation: Mechanical Inspector and Residential Building Inspector certifications approved. Request additional information on commercial structural experience, or building inspector trainee.

Stanich, Brian - BI

Certification ID: 8590

Current certifications- PI

Committee Recommendation: Request additional information on specific commercial structural experience, or applicant may be approved as BI trainee with sponsor, supervisor documents.

Todaro, Michael - RBO

Certification ID: 9361

Current certifications: None

Committee Recommendation: Certification approved pending receipt of detail on experience (work performed on projects listed in application.)

Aigner, Kristopher - BI

Certification ID: 8979

Current certifications- ESI, RBI

Committee Recommendation: Approved pending receipt of forms and fees.

Collins, Thomas - BI

Certification ID: 8931

Current certifications: PI, PPE, RBI

Committee Recommendation: Request additional information on commercial structural experience, or recommend BI trainee.

Dinunzio, Andrew - RBO

Certification ID: 9377

Current certifications: None

Committee Recommendation: Request additional information on contractor or superintendent responsibility for all approvals, inspections, or recommend RBI.

Gaghan, Thomas - BI

Certification ID: 9369

Current certifications: None

Committee Recommendation: Request additional information on commercial structural experience.

Sizler, Keith - BI additional information

Certification ID: 9318

Current certifications- none

Committee Recommendation: Request additional information on specific commercial structural experience, or applicant may be approved as BI trainee with sponsor, supervisor documents.

New Business

Complaint Summary Report – City of Fairfield.

Old Business

Certification rules: updated committee on feedback, discussion of timing of effective date, outreach activities.

File Attachments for Item:

CR-2 Education Committee Report



BOARD OF BUILDING STANDARDS

EDUCATION COMMITTEE MEETING REPORT

The Education Committee met on April 25th, 2024 at 10:00 AM in the BBS Library, 6606 Tussing Road, with the following members present: Mr. McCafferty, Mr. Stanbery, Ms. Cromwell, Mr. Samuelson, and Mr. Tyler.

Also present at the meeting were board staff Megan Foley.

The Committee makes the following recommendations, included in the April 26th, 2024 Board Packet at Tab CR-2, for the Board’s consideration.

Courses approved with modification or special circumstances, or denied, as stated.

Air Sampling Smoke Detection (Edwards/Kidde)
All certifications (4 hours)
Committee Recommendation: Ratify administrative approval.

Fire Alarm Design (Edwards/Kidde)
All certifications (12 hours)
Committee Recommendation: Ratify administrative approval

The OPC and Its Place in OBC Chapter 1; Part 1 (Franklin County Public Health)
All certifications (7 hours)
Committee Recommendation: Approve for Chapter 1/Code Administration credit.

The Tiny House, Building It Right (International Code Council)
All certifications (3 hours)
Committee Recommendation: Approve with caveat that this course does not present current Ohio codes and is presented for informational purposes only.

Courses approved without modification:

2021 IBC Exit Systems (International Code Council)
All certifications (3 hours)

2021 IEBC Essentials (International Code Council)
All certifications (6 hours)

2023 NEC Code Updates (Miami Valley Building Officials Association)
All certifications (3 hours)

2024 OBC/NFPA 13 Fire Sprinkler Design, Plan Review, and Inspection Full Course
(Associated Consulting Solutions)
All certifications (6 hours)

2024 OBC/NFPA 13 Fire Sprinkler Design, Plan Review, and Inspection Part A
(Associated Consulting Solutions - Flanik)
All certifications (3 hours)

2024 OBC/NFPA 13 Fire Sprinkler Design, Plan Review, and Inspection Part B
(Associated Consulting Services - Flanik)
All certifications (3 hours)

Building Code Round Table (Vandalia)
All certifications (two sessions at 2 hours each)

Changes in the 2023 NEC (Independent Electrical Contractors of Greater Cincinnati)
All certifications (8 hours)

GFCIs, Ground Fault Protection, and AFCIs (Matthews Electrical Services)
All certifications (4 hours)

Modifications to Existing Sprinkler Systems (SWOBOA)
All certifications (1 hour)

NEC 2023 Emergency and Egress Lighting (Electrical League of Ohio)
All certifications (4 hours)

Significant Changes to Accessibility; OBC Chapter 11 and 2017 A117.1 (ICC PCPA)
All certifications (6 hours)

Solar PV and the 2023 NEC Part 1 (Matthews Electrical Services)
All certifications (3 hours)

Solar PV and the 2023 NEC Part 2 (Matthews Electrical Services)
All certifications (3 hours)

Substantial Damage Determinations Part 1 (Ohio Building Officials Association)
All certifications (3 hours)

Substantial Damage Determinations Part 2 (Ohio Building Officials Association)
All certifications (3 hours)

Fire Sprinkler Systems (RTF Fire Protection)
All certifications (4 hours)

File Attachments for Item:

CR-3 Code Committee Report



CODE COMMITTEE RECOMMENDATIONS

The Code Committee met on April 25, 2024 with the following members present: Ms. Cromwell, Mr. Denk, Mr. Miller, Mr. Pavlis, Mr. Stanbery, Mr. Samuelson, Mr. Tyler and Mr. Yankie.

The committee report is included in the April 26, 2024 Board Meeting Packet at tab CR-3 for the Board's consideration.

April 25, 2024 Code Committee Meeting

Call to Order

The meeting was called to order by Mr. Denk at 1:00 P.M.

Approval of Minutes

Mr. Stanbery moved to approve the minutes of the Code Committee meeting held on March 21, 2024. Mr. Miller seconded. The motion passed unanimously.

Petitions

No items for consideration

Recommendations of the Residential Construction Advisory Committee

No items for consideration

Old Business

Use of Glass Fiber Reinforced Polymer (GFRP) in structural concrete

Ms. Cromwell shared that she has talked with professionals that have used the product, with rebar suppliers, with contractors, with engineers, and attended presentation provided by Jay Pease with Owens Corning about GFRP in structural concrete. She invited representatives from ACI, Kerry Sutton and Will Gold, to join the code committee to address questions about the ACI 440.11 standard. Ms. Cromwell and other committee members asked several questions about the performance of the GFRP bar in concrete, its service life, compatibility with steel reinforced concrete, shear strength, use in repairs, testing, failure warning indicators, performance assurance, design complexity, and limitations within the standard. Mr. Tyler asked about the need for additional education for the building code enforcement community and Mr. Denk asked about the likelihood of misapplication of GFRP concrete in a design. Ms. Crowell agrees that there will be a learning curve for all and that the misapplication of GFRP concrete in a design is better addressed with a standard than without one. While challenges remain because of the lack of ductility, lack of flexibility during installation, the inability to shape it on the job site, and the forced increase in size of the members, Ms. Cromwell is of the opinion that inclusion of the standard is imperative with limitations as a starting point. The code committee continues

to table this issue and suggested to the petitioners that they resubmit their petition with revisions to the allowed seismic design categories, limitations of use in existing construction and additional special inspections required under Chapter 17.

Proposed Code Change – OBC Section 907.5.2.2.3

Ms. Hanshaw reviewed the status of a proposed change to OBC Section 907.5.2.2.3. She indicated that a copy was sent to the SFM for comment, and we are waiting reply. This item remains tabled.

Amendments Group 103 (Proposed IU Rules)

Ms. Hanshaw presented the two comments from the eNotification period for the proposed industrialized unit rules and the actions taken by the Board's staff to address those comments. A meeting was held with the Ohio Manufactured Homes Association explaining that the rules are codifying what the existing IU program already does, provides transparency about the process, and clarifies inspection options available to manufacturers. In response to Mr. Barney's comment, Section (B) of rule 4101:10-9-01 was modified to be more consistent with the Board's new Certification Rules.

New Business

Cities of Cincinnati, Dayton, Columbus, & Cleveland DOE Grant Application Assistance

Ms. Hanshaw reviewed a draft copy of a letter to Cincinnati, Dayton, Columbus and Cleveland providing explanation regarding the authority to adopt building energy codes, activities not regulated under those energy codes and limitations on local government to mandate specific construction standards different than the requirements of the Ohio building codes. This letter is intended to assist in a grant application to the US Department of Energy. Mr. Miller moved to send the letter to the municipalities identified. Mr. Yankee seconded. The motion passed unanimously.

Adjourn

Mr. Miller moved to adjourn at 2:20 P.M. Mr. Tyler seconded. The motion passed unanimously.

File Attachments for Item:

RE-1 April Building Department Report

Building Department Support and Oversight

April 2024 Department Visit Status Report

Board Staff conduct building department visits to engage building officials in discussion regarding the administration of their departments and to obtain feedback for the Board. Specifically, Board Staff inquire on the status of plan review and inspection turnaround times, protocols, policies and processes of the department, software systems used, current and projected activity, department funding and fees, relationships with fire departments, administration and elected officials, the issuance of plan approvals, adjudication orders, certificates of occupancy, and appeals.

The following Building departments were visited since the last Board update:

Barberton
Brook Park
Cincinnati - investigation
Cuyahoga Heights
Newburgh Heights – investigation

Administrative and enforcement activity has remained strong. With the continued upgrading of software/computer systems, more departments are implementing 100% digital submissions. If submitted, paper submissions are scanned for the plan examiners, ensuring documents can be accepted in any format. Some building departments are allowing fire to access to their software for plan review recommendations electronically, saving time in the approval process.

There is a concern regarding the lack of certified inspectors to fill vacant positions. Departments are looking at alternative solutions to address this issue, such as, adjusting pay scales, implementing in house training, and joining forces with surrounding building departments.

An inquiry was made as to the possibility of adding a plan review class for continuing education purposes as well as other topics of technical chapters from the RCO. Other ideas include the introduction of classes for the builder/contractor industry to learn and understand the requirements for submitting plans that comply with the residential codes. A suggestion was made to add a 2-year program for inspectors. First year completed at a community college, with the 2nd year providing hands on training with a certified department. High praise has been given for the training available on the BBS website.

Officials appreciate the access to the new electronic subscription through ICC and enjoyed the book distribution which allowed for one on one interactions.

Building officials visited express appreciation for the discussions as it allows them to ask questions of Board staff and to establish rapport.

File Attachments for Item:

RE-2 Complaint Summary Report

Fairfield Building Department/Leland Rosato, Building Official

On January 26th, 2024, a complaint was received from Mr. William Collins, the owner of the property located at 5830 Windermere Ln, Fairfield OH alleging that a City zoning inspector and a property maintenance inspector had entered the building without authorization to do so and claiming that stop work orders were an act of retaliation against him and his workers.

According to records, the zoning inspector and the property maintenance supervisor visited the site on two occasions, January 10th, 2024, and January 24th, 2024. They are not Board-certified inspectors but represent those City entities. They inspected the property, and observed and documented the work being conducted by Mr. Collins' construction workers who were installing a new roofing system and new windows on the residential structure. This resulted in the Zoning and Property maintenance departments issuing 'Notices of Violations & Orders' to be served to the owner on January 10th, 18th, and 25th. They also notified the building official to determine if approvals (building permits) had been secured prior to the commencement of the work.

The Fairfield building official, Leland Rosato, confirmed with Board staff that no approvals had been applied for this work prior to his issuance of an adjudication order to stop work on January 25, 2024, and cause the owner to secure approval for the alterations of the owner's residential building in accordance with the residential code. These orders were sent to the owner and posted on the building as an official notice to stop work as evidenced by pictures provided by the complainant. The order was authorized and signed by Mr. Rosato.

The complainant also provided that his understanding was that Mr. Williams, zoning inspector and Mr. Timpe, property maintenance supervisor, were acting as building department representatives since they indicated that building approvals (permits) were required from the building department. Their enforcement activity was communicated as violations to the ordinances. Mr. Collins alleged that a conflict existed in the enforcement even though it was properly enforced by the building official as the authority having jurisdiction who cited the Residential code of Ohio via Chapter 13-Building Code of the City ordinances. Records from the zoning and property maintenance department had shown that they cited the Fairfield ordinances for violations for property maintenance per their case listed as 'BCV-24-2'. Since these activities demonstrated separate enforcement action, no conflict exists with the Boards rules.

The record also indicates that the owner had immediately complied on January 25, 2024 by securing approvals 'permits' for the roofing and window replacement work from the building department, and has continued the work of revitalizing the property since that time under those approvals.

Board staff determined that though the enforcement process began by the investigatory activity of the zoning and property maintenance inspectors, they rightfully communicated these observations to the certified building official for enforcement under the building code. The complainant had mistakenly assumed that Mr. Williams and Mr. Timpe were part of the building department enforcement since the city has named the division as the 'Building and Zoning' division and has alleged a conflict in that enforcement. Board staff contacted the Fairfield building department who provided their documentation of the enforcement and found no violations to the Board's certification rules.

Based on the review of the information, Board staff has established that the building department has performed its duty and responsibility properly by enforcing the residential building code of Ohio and that no violations of Mr. Rosato's actions are in violation of the Boards certification rules.

Recommendation: Dismiss complaint.

File Attachments for Item:

OB-1 Amendments Group 103 (Proposed IU Rules) - Action to file rules with JCARR upon receipt of CSI Office recommendations

4101:10-1-01 Title and scope.

(A) **Title.** Rules 4101:10-1-01 to 10-10-01 of the Administrative Code are designated as the “Ohio Industrialized Unit Rules” for which the designation “IU Rules” may be substituted. Where applicable, the technical provisions found in rules 4101:1-2 to 4101:1-35 of the Administrative Code (the “Ohio Building Code” - Chapters 2-35), rules 4101:2-2 to 4101:2-15 of the Administrative Code (the “Ohio Mechanical Code” - Chapters 2-15), rules 4101:3-2 to 4101:3-15 of the Administrative Code (the “Ohio Plumbing Code” - Chapters 2-15) and rules 4101:8-2 to 4101:8-44 (the “Residential Code of Ohio” - Chapters 2-44) are used by this code and are hereby incorporated by reference.

(1) **Rules of construction.** The following rules of construction are to be applied to rules 4101:1-2 to 4101:1-35 of the Administrative Code, rules 4101:2-2 to 4101:2-15 of the Administrative Code, rules 4101:3-2 to 4101:3-15 of the Administrative Code and rules 4101:8-2 to 4101:8-44 of the Administrative Code:

(a) All references to the “International Building Code,” “International Mechanical Code,” “International Plumbing Code,” and “International Residential Code” mean the “Ohio Building Code,” “Ohio Mechanical Code,” “Ohio Plumbing Code,” and “Residential Code of Ohio,” respectively, unless otherwise noted.

- (i) References to “this code” in rules 4101:1-1 to 4101:1-35 of the Administrative Code mean the “Ohio Building Code.” References to “building code” in divisions 4101:1, 4101:2, 4101:3 and 4101:8 of the Administrative Code mean “Ohio Building Code.”
- (ii) References to “this code” in rules 4101:2-1 to 4101:2-15 of the Administrative Code mean the “Ohio Mechanical Code.” References to “mechanical code” in divisions 4101:1, 4101:2, 4101:3 and 4101:8 of the Administrative Code mean “Ohio Mechanical Code.”
- (iii) References to “this code” in rules 4101:3-1 to 4101:3-15 of the Administrative Code mean the “Ohio Plumbing Code.” References to “plumbing code” in divisions 4101:1, 4101:2, 4101:3 and 4101:8 of the Administrative Code mean “Ohio Plumbing Code.”

- (iv) References to “this code” in rules 4101:8-1 to 4101:8-44 of the Administrative Code mean the “Residential Code of Ohio.” References to “residential building code” in divisions 4101:1, 4101:2, 4101:3 and 4101:8 of the Administrative Code mean “Residential Code of Ohio.”
 - (b) The phrase "applicable energy conservation code referenced in Chapter 13" is substituted for "International Energy Conservation Code" in divisions 4101:1, 4101:2 and 4101:3 of the Administrative Code.
 - (c) Except as otherwise noted and in rule 4101:1-34-01 of the Administrative Code, “Chapter 34” is substituted for “International Existing Building Code.”
 - (d) The terms “approval” or “approvals” are substituted for “permit” or “permits,” respectively, when referring to documentation indicating compliance with this code.
 - (e) The phrase “manufacturer’s representative” is substituted for “owner’s authorized agent.”
 - (f) Except as otherwise noted, “board of building standards” is substituted for “fire code official.”
 - (g) The phrase “board of building standards” is substituted for “code official.”
 - (h) The provisions of this code are mandatory whether or not the term “shall” is used.
- (B) **Scope.** The provisions of the “IU Rules” shall apply where an application for authorization is submitted for the construction of *industrialized units*. As provided in division (B) of section 3791.04 of the Revised Code, no plans or specifications shall be authorized or inspection given unless the *industrialized unit* represented by those plans or specifications would, if constructed or equipped according to those plans or specifications, comply with Chapters 3781. and 3791. of the Revised Code and the applicable rules adopted by the board of building standards.
- (1) **Exceptions:**
- (a) A manufactured home as defined by division (C)(4) of section 3781.06 of the Revised Code or a mobile home as defined by division (O) of section 4501.01 of the Revised Code.
 - (b) Amusement rides and portable electric generators and wiring supplying carnival and amusement rides regulated by the Ohio

department of agriculture pursuant to Chapter 993. of the Revised Code.

- (c) Floating structures that have been issued a “Hull Identification Number” (HIN) and a vessel registration from the Ohio department of natural resources division of parks and watercraft.
- (d) Portable mobile vehicles which have been issued a “Vehicle Identification Number” (VIN) by the United States department of transportation. The vehicles have wheels and license plates and are intended for transportation on the public streets and highways. Examples of the exempt vehicles include, but are not limited to, recreational vehicles, book mobiles, blood mobiles, mobile medical imaging units, mobile concession trailers, network television transmission and production trailers used at sporting events, mobile restroom facilities, mobile pet grooming units, etc.
- (e) Primitive transient lodging structures as defined in rule 4101:1-2-01 of the Administrative Code with only provisions for sleeping, with no building services equipment, piping, or electrical wiring system and not greater than 400 sq. ft. in area.
- (f) Intermodal shipping or freight containers, moving containers, storage containers, if used exclusively as a storage container and are unaltered or alterations that do not constitute closed construction.
- (g) Mobile computing units as defined in section 3781.06 of the Revised Code.
- (h) One-story, detached, accessory structures to dwellings where the accessory structure is without building services and used as tool and storage sheds, playhouses, playground structures or similar uses, provided the floor area does not exceed two hundred square feet (18.58 m²).
- (i) An *industrialized unit*, installed at the site of intended use, as a portion of an existing building having a certificate of occupancy. Per paragraph (D)(4) of rule 4101:10-3-01 of the Administrative Code, the identification of the structural entity as an *industrialized unit* ends and structure becomes an integral part of an existing building regulated as an existing building or structure.
- (j) A valid *industrialized unit* that has been constructed but not installed at the site of intended use and the board of building standards’ authorization has been invalid for a period exceeding two years, the

identification of the structure as an *industrialized unit* ends and the structure is regulated as an existing structure.

- (k) Materials, devices, products, appliances, equipment or methods of construction for which the board has recognized the conformity assessment body and the accreditation agency pursuant to section 114 of rule 4101:1-1-01 of the Administrative Code and in accordance with one of the following:
- (i) Materials, devices and products used in accordance with their listing recognized by the board of building standards per section 114.3.1.
 - (ii) Alternative materials, products, equipment and methods of construction in accordance with their evaluation service report recognized by the board of building standards per section 114.3.2.
- (l) Individual composite *panels* with integrated structural components constructed in accordance with section 1704 of the “Ohio Building Code.” This exception is not applicable to composite panels that include building services components or systems as concealed elements in the *panel*.
- (m) Individual insulated spandrel panels using foam plastic insulation conforming to the provisions of section 2603 of the “Ohio Building Code” or section 316 of the “Residential Code of Ohio” as applicable between facing sheets where all materials used are visible at the finished edge of the spandrel panel.
- (2) **Intent.** The “IU Rules” apply to *industrialized units* used in the construction of *residential buildings* and *non-residential buildings*. To the extent of the construction documents submitted to the board, the *industrialized units* are to be in conformance with the applicable building code based on the occupancy type, intended use, and design criteria.
- (3) **Jurisdictional authority.** Buildings that include the installation of an *industrialized unit* are regulated under the rules of the board. The board of building standards has the authority to enforce the “IU Rules” with the *industrialized unit* manufacturer, applicant for authorization and within the manufacturing plant.
- (a) **Manufacturer submission for authorization.** Before a manufacturer constructs an *industrialized unit*, the manufacturer is to receive an *authorization* from the board of building standards in

accordance with paragraph (B) of rule 4101:10-3-01 and rule 4101:10-4-01 of the Administrative Code. Before a manufacturer transports an *industrialized unit*, the unit is to have an *insignia* applied in accordance with paragraph (D) of rule 4101:10-3-01 of the Administrative Code.

- (b) **Building owner submission for approval.** Where the building owner or owner's representative proposes to include the installation of an *industrialized unit* in the construction, addition, alteration, repair or the change of occupancy or use of a building, the owner is to identify the intent to use an *industrialized unit* on the construction documents submitted for approval to the department with the authority to enforce the rules of the board in the jurisdiction in accordance with rule 4101:1-1-01 of the Administrative Code for non-residential buildings or rule 4101:8-1-01 of the Administrative Code for residential buildings.
- (c) **Work without approval.** A unit, manufactured off-site, of closed construction, and arrives at the site of intended use without an *insignia* issued by the board of building standards is work constructed without approval and will be regulated at the site of intended use by the individual with the authority to enforce the rules of the board in the jurisdiction in accordance with rule 4101:1-1-01 of the Administrative Code for non-residential buildings or rule 4101:8-1-01 of the Administrative Code for residential buildings.
- (4) **Materials, systems and methods of construction.** Materials, products, assemblies or methods of construction used in the construction of an *industrialized unit* are to be approved by the board of building standards. The provisions of section 114 of rule 4101:1-1-01 of the Administrative Code describes the approval process intended in accordance with division (C) of section 3781.10 of the Revised Code and are hereby incorporated by reference.
- (5) **Industrialized units may exceed requirements.** An owner or a manufacturer may exceed the requirements of this code in compliance with paragraph (C)(5) of rule 4101:10-4-01 of the Administrative Code.
- (C) **Role of the Board.** Pursuant to 3781.10 of the Revised Code, the board of building standards shall adopt rules and issue authorizations for *industrialized units* that are in compliance with the requirements of these rules and the Revised Code. The board of building standards may designate

a representative to administer the program, oversee plans examinations, issue authorizations and adjudication orders, render interpretations of the rules of the board as they relate to industrialized units and conduct other administrative duties necessary to enforce these rules.

4101:10-2-01 Definitions.

- (A) **Definitions.** Unless otherwise expressly stated, the following words and terms are to, for the purposes of this code, have the meanings shown in this section.
- (1) **Interchangeability.** Words used in the present tense include the future; words stated in the masculine gender include the feminine and neuter; the singular number includes the plural and the plural, the singular.
 - (2) **Defined in other codes.** Where terms are not defined in this code and are defined in the “International Energy Conservation Code,” “International Fuel Gas Code,” fire code, building code, mechanical code, ~~or~~ plumbing code, or the “Residential Code of Ohio” such terms are to have the meanings ascribed to them as in those codes.
 - (3) **Terms not defined.** Where terms are not defined through the methods authorized by this section, such terms are to have ordinarily accepted meanings such as the context implies.
- (B) **Defined terms.**
- (1) **Approval.** The action by the building official of the department with jurisdiction in accordance with rule 4101:1-1-01 or 4101:8-1-01 of the Administrative Code.
 - (2) **Approved.** Determined by the authority having jurisdiction to be in compliance with the rules of the board.
 - (3) **Authorization.** The board of building standards’ action which provides a manufacturer the license to build industrialized units based on the construction documents for the industrialized unit submitted to and *approved* by the board of building standards.
 - (4) **Building.** Any structure utilized or intended for supporting or sheltering any occupancy, function, or activity. This includes, but is not limited to, structures built or used for the shelter, occupancy, enclosure or support of persons, animals, or chattels. For the purposes of the “IU Rules,” the term “building” is to be construed as followed by the words “or portion thereof.”
 - (5) **Building, existing.** A building regulated by the Ohio building code or the residential code of Ohio, as applicable, that has been erected and for which a certificate of occupancy has been issued or can be issued in accordance with section 111.4 of rule 4101:1-1-01 or 4101:8-1-01, as applicable.

- (6) **Building, non-residential.** Any building that is not a residential building, industrialized unit, manufactured home or mobile home.
- (7) **Building, residential.** A one-family, two-family, or three-family dwelling house, and any accessory structure incidental to that dwelling house. "Residential building" does not include a manufactured home as defined by division (C)(4) of section 3781.06 of the Revised Code, or a mobile home as defined by division (O) of section 4501.01 of the Revised Code.
- (8) **Closed construction.** An assembly of materials or products manufactured in such a manner that its structural, plumbing, electrical, environmental control, or fire protection elements or components are concealed and are not readily accessible for inspection at the site of its erection, without disassembly, damage, or destruction. Closed construction includes assemblies where only one of the components is not accessible for inspection.
- (9) **Compliance assurance program.** Procedures that state the guiding principles and define the framework for ensuring that construction documents with authorization by the board of building standards, or that industrialized units inspected by a third-party inspection entity, comply with the applicable rules of the board.
- (10) **Equipment unit.** A type of industrialized unit that is an enclosed, single unit assembly for the purposes of separating, from other portions of the building, the plumbing, mechanical, electrical or fire protection systems or operations in support of building services where access into the unit is limited and controlled to authorized personnel only and where the assembly as a whole is not otherwise listed in accordance with a referenced standard.
- (11) **Industrialized unit.** A prefabricated component, building unit or assembly comprised of closed construction, manufactured at a location remote from the site of intended use, with an insignia issued by the board of building standards and transported to a building site for its installation and subsequent use as part of a building structure, building services system (equipment, piping, wiring, etc.), or both. *Industrialized units may be modular units, panelized units or equipment units and can be installed on the site of intended use as an independent unit, as part of a group of units, or incorporated with standard construction methods to form a completed structural entity.*

- (12) **Insignia.** An official label provided by the board of building standards with a unique number that distinguishes each *modular unit* or *panelized unit* of an authorized *industrialized unit* from all other units manufactured.
- (13) **Inter-connection.** Point of attachment between an *industrialized unit* and any building components or systems, designed by others, and constructed at the site of intended use.
- (14) **Intra-connection.** Point of attachment between two or more modular units or panelized units required to complete the *industrialized unit* as authorized where the connection is completed at the site of intended use.
- (15) **Manufacturing plant.** The location at which the *modular units*, *panelized units* or *equipment units* are assembled or manufactured prior to transport to the site of intended use.
- (16) **Mate line.** The plane at which *intra-connections* or *inter-connections* are made.
- (17) **Modular unit.** A type of industrialized unit that is a building unit or assembly that is designed and authorized as a volumetric section having occupiable space or spaces of an industrialized unit. A modular unit can be transported to the site of intended use as a whole unit or broken down.
- (18) **Module.** A three-dimensional, volumetric section of a modular unit that is transported as a single section, independent of other sections, to a site of intended use for installation in a building.
- (19) **Panel.** A distinct, sectional element in a panelized unit.
- (20) **Panelized unit.** A type of industrialized unit that is a component used as a surface or edge defining component (e.g. floor, wall or roof) and the component itself does not have space that can be occupied.
- (21) **Registered Design Professional.** Any architect holding a certificate issued under section 4703.10 of the Revised Code, any landscape architect holding a certificate issued under section 4703.36 of the Revised Code, or any engineer holding a certificate issued under section 4733.14 of the Revised Code.
- (22) **Third-party inspection entity.** An individual under contract with the manufacturer or a company under contract with the manufacturer or a building department designated by the board of building standards and under contract with the manufacturer where the individual or personnel of the organization holds a valid certification recognized by

the board of building standards that confirms the authority to inspect the scope of work included in the industrialized unit. Certifications recognized by the board of building standards include certifications identified in rule 4101:10-9-01 of the Administrative Code.

(C) Variations of defined terms. Such terms as heart modules or cores, modules, modulars, service cores, prefabs, sectional or sectionalized, panels or panelized construction, and specific terms including "prefabricated-subassembly, -building, -unit, -unit service equipment" may reference an *industrialized unit*. The units may be self-sufficient or interdependent as a unit or group of units to form a complete *industrialized unit*; and when used together or incorporated with standard construction methods, form a completed building.

4101:10-3-01 Manufacturer's participation.

- (A) **Manufacturer's participation in the industrialized unit program.** Every manufacturer participating in Ohio's *industrialized unit* program are to comply with paragraphs (A)(1) through (A)(4) of this rule prior to making application for *authorization* of an *industrialized unit*.
- (1) **Registration information.** The manufacturer is to register with the board of building standards. For the purpose of registration, the manufacturer is to provide the following information at a minimum:
- (a) Manufacturer's name, and
 - (b) Address of the manufacturing plant where the unit is constructed, and
 - (c) Contact name, phone number and email, and
 - (d) Identification of the *third-party inspection entity* recognized by the board of building standards that will perform in-plant inspections in accordance with paragraphs (A)(5) to (A)(7) and (C) to (C)(3) of this rule, and
 - (e) A statement of acknowledgement from the third-party inspection entity indicating that they have a contractual relationship with the manufacturer to perform the inspections. The statement shall include the name(s) and board certification(s) of the individual(s) who will be assigned to perform the inspections.
- (2) **Manufacturing plants in Ohio.** A manufacturer with a manufacturing plant in Ohio may request the board of building standards to designate a *third-party inspection entity* of the state for the purpose of performing required third-party inspections. The board may designate either the certified personnel of the local building department certified to enforce the rules of the board for the jurisdiction in which the manufacturing plant is located or the superintendent of the division of industrial compliance. The manufacturer is responsible for payment of any fees charged by a local certified building department or the division of industrial compliance in connection with review and inspection of an *industrial unit* pursuant to rule 4101:10-8-01 of the Administrative Code.
- (3) **Changes is registration information.** Whenever changes occur to company name, ownership, subsidiary status, address or change in the manufacturer's management personnel who are responsible for making

policy concerning quality control, the manufacturer is to notify the board immediately and in writing. The manufacturing plant(s) affected by the change will be subject to a plant evaluation inspection.

(4) Accessing industrialized unit program functions. The board of building standards utilizes an electronic portal to conduct the official business of the *industrialized unit* program. No paper submissions or payments will be accepted. After registration is complete, the board will provide the manufacturer with access to the board of building standards' industrialized unit portal. The manufacturer and the board of building standards will use the portal for interactions including but not limited to:

- (a) Making application for board of building standards' industrialized unit authorization including submission of construction documents and any substantive revisions or amendments.
- (b) Access to correction letter containing items of non-compliance and adjudication orders issued.
- (c) Response to correction letter including resubmission of revised construction documents or intent to appeal.
- (d) Access to authorized construction documents for download.
- (e) Payment of fees.
- (f) Request for insignia(s).
- (g) Upload of shipping log(s).
- (h) Other forms of communication are available and may be used for general information sharing.

(5) Manufacturing plant evaluation. Before a manufacturer can begin construction of industrialized units authorized by the board of building standards, an initial manufacturing plant evaluation inspection is to be conducted by the *third-party inspection entity* identified in the manufacturer's registration with the board. An evaluation is to occur for each plant in which an *industrialized unit* with authorization from the board of building standards is being assembled and the evaluation is to assess the following:

- (a) Compliance with chapter 5 of the "1205 Standard for Off-site construction: Inspection and Regulatory Compliance, 2021 edition" as published by the International Code Council/Modular Building Institute. The manufacturer has a compliance assurance program in place to address quality

- control and where required participation in quality assurance to maintain acceptable control of materials and processes used in the manufacture of *industrialized units* to ensure conformance with the approved construction documents.
- (b) The manufacturer's facility has necessary, adequate and appropriate spaces for production, storage, packaging, shipping, employees, etc. that are equipped (machinery, movers, platforms, cranes, tools, etc.) and supported with building services (utilities) of a reasonable manner for the manufacture of the authorized industrialized unit.
 - (c) The plant evaluation inspection is to include all subassembly plants supplying the manufacturer, as the board may deem necessary.
 - (d) The necessary facilities and personnel to perform in plant testing as required by the applicable code provision or as may be required by the board of building standards as evidence of compliance. Test methods are to be as specified in the applicable building code or by other recognized test standards. In the absence of recognized and accepted test methods, the testing procedures used are to be approved by the board of building standards. Tests are to be performed by a conformity assessment body recognized by the board in accordance with paragraph (B)(4) of rule 4101:10-1-01 and section 114 of rule 4101:1-1-01 of the Administrative Code. Reports of all required in plant testing is to be retained by the manufacturer. Reports of those tests required by the board of building standards are to be submitted to and will be retained by the board for the period required for retention of public records.
 - (e) Record and maintain a list of the *industrialized unit authorizations* for which the plant evaluation is applicable.
 - (f) The *third-party inspection entity* is to provide a summary of the initial plant evaluation to the board of building standards indicating the manufacturer's compliance with paragraphs (B)(5) to (B)(5)(e) of this rule of the Administrative Code.
- (6) **Frequency of evaluation.** In addition to the initial manufacturing plant evaluation, a manufacturer is to notify the *third-party inspection entity* that a review of the manufacturing plant evaluation is needed anytime one or more of the following occurs:

- (a) The manufacturer has received a new *authorization*. The review of plant evaluation applies only to the manufacturing plant at which the unit is to be assembled.
 - (b) The *industrialized unit* is assembled at a different plant location. The review of plant evaluation applies only to the manufacturing plant at which the unit is to be assembled.
 - (c) The manufacturing plant has not produced an *industrialized unit* authorized by the board of building standards in the preceding five (5) years.
 - (d) The manufacturer has made substantive change in their compliance with chapter 5 of the “1205 Standard for Off-site construction: Inspection and Regulatory Compliance, 2021 edition” as published by the International Code Council/Modular Building Institute.
 - (e) The manufacturer has made an alteration or addition to the manufacturing plant such that the previous plant evaluation is incomplete, irrelevant or otherwise inaccurate.
 - (f) A current manufacturing plant evaluation is the combination of the initial manufacturing plant evaluation and any amendments, revisions or replacement resulting from compliance with paragraphs (D)(6)(a) to (D)(6)(e) of this rule.
- (7) **Evaluation records.** The manufacturer is to maintain a current manufacturing plant evaluation for each *industrialized unit authorization*.
- (a) Where multiple industrialized unit authorizations are assembled at the same manufacturing plant and the manufacturing plant evaluation is sufficient for all industrialized units, the manufacturer need maintain only one current manufacturing plant evaluation.
 - (b) The current plant evaluation is to include a list of all the authorizations for which the plant evaluation is applicable.
 - (c) The *third-party inspection entity* is to retain a historical record of the manufacturing plant evaluation for the immediately preceding five (5) years.
 - (d) Manufacturing plant evaluations are to be made available to the board of building standards upon request.
- (8) **Suspension of participation.** Where a manufacturer demonstrates a pattern of violating the rules of the board, the board of building

standards may suspend the manufacturer's participation in the program which includes but is not limited to refusing to accept applications for authorization, processing requests for insignias and revoking existing authorizations in accordance with paragraph (B)(4) of this rule. Notice of a suspension of participation will be provided in writing to the manufacturer and will include the extent of the suspension and the conditions under which participation may be restored.

(B) Authorization required. Any manufacturer who intends to manufacture, produce or assemble an *industrialized unit* must first make application for *authorization* to the board of building standards. The application for *authorization*, including revisions and renewals for existing *authorizations*, are to be submitted to the board of building standards together with required construction documents in accordance with this paragraph and the fee required in rule 4101:10-8-01 of the Administrative Code. Only the person holding an *authorization* may apply to the board for a revision or renewal of the approval.

(1) Board's authorization. The board, upon determination of compliance in accordance with paragraph (D)(2) of rule 4101:10-4-01 of the Administrative Code, shall issue an *authorization* to the applicant.

(a) Industrialized units authorized by the board may be used anywhere in Ohio subject to the conditions for their use and application as indicated in the approval.

(b) The manufacturer may assemble, produce or manufacture duplications, including any variations identified in the approved construction documents, of the industrialized unit with a valid authorization.

(c) The authorization does not include approval for use associated with the following activities, locations or equipment unless specifically noted in the design criteria:

(i) Used to accommodate the manufacture, sales or storage of fireworks, or

(ii) Placement in a flood hazard area, or

(iii) Used in a facility that requires approval from the Ohio Department of Rehabilitation and Correction, or

(iv) Requires approval from the elevator section, division of industrial compliance, or

- (v) Requires approval from the boiler section, division of industrial compliance.
- (2) **Conditions of authorization.** In addition to any design criteria established by the manufacturer for an industrialized unit, the board of building standards may also establish other conditions or limitations of the board of building standards' *authorization* to coordinate with the site of intended use. Such conditions or limitations may include, but are not limited to:
 - (a) Panel, module or equipment unit;
 - (b) Enclosed or unenclosed;
 - (c) Conditioned or unconditioned;
 - (d) Accessible or non-accessible; or
 - (e) Any other unique stipulations as needed.
- (3) **Revisions to authorization.** Prior to or during fabrication but before transport, any changes to board approved construction documents affecting the conditions illustrated or described in the *authorization* are required to be submitted for review and determination of compliance with the rules of the board as either an amendment of the existing *authorization* or as an application for a new *authorization*.
- (4) **Revocation of authorization.** Upon failure of the holder of an *authorization* to comply with the conditions of the *authorization* and the "IU Rules," the board, on its own motion, may order a hearing in accordance with section 119.03 of the Revised Code to revoke an existing *authorization*.
- (5) **Expiration of authorization.** An *authorization* is valid for up to one year after the effective date of rules of board adopting a subsequent model-code based edition of the applicable building code.
 - (a) **Exception:** An industrialized unit where manufacture started under a valid *authorization* issued by the board and was not transported to a building site of intended use but stored at a manufacturer's or dealer's facility, can be installed in Ohio as an industrialized unit for a maximum of two years after the effect on the date of the subsequent model-code based edition of the applicable building code. After this two-year time period, the unit's *insignia* has expired and is to be regulated as a moved or relocated existing structure in accordance with the applicable building code provisions.

- (b) **Renewal of expired authorization.** The holder of an expired authorization may renew the authorization by making application for a new authorization and submitting construction documents which include a cover letter requesting a renewal of the expired authorization, with revisions as needed and clearly identified, that are in compliance with the rules of the board that are in effect on the date of the application for industrialized unit authorization.
- (6) **Applicable rules to be enforced.** Except as otherwise provided by these rules, the board of building standards exercises authorization authority to accept, review and approve construction documents and audit inspections, related to the manufacture of industrialized units, using the rules of the board that are in effect on the date of the application for an industrialized unit authorization.
- (7) **Alteration of an authorized industrialized unit after transport.** The alteration of an industrialized unit at the site of intended use is permitted provided the building owner makes application to the building department with jurisdiction and receives approval for the alterations from the certified building official or other individual with the authority to enforce the rules of the board in the jurisdiction.
- (C) **Inspection required.** After issuance of an authorization by the Board and construction commences, the manufacturer shall have the unit(s) inspected by a third-party inspection entity to confirm that construction of the units is consistent with the approved construction documents in accordance with this section.
- (1) **Initial inspections.** The manufacturer is required to notify the third-party inspection entity identified in the manufacturer's registration with the board that the initial industrialized unit constructed in accordance with an authorization is ready for required inspections listed in rule 4101:10-4-01 and are to provide ready access to all the module(s) or panel(s) of the industrialized unit for inspection. Where the inspection of the first three industrialized units has demonstrated that the manufacturer's quality control program is capable of assuring that the industrialized units produced are built in accordance with the construction documents approved by the board, the manufacturer may proceed in accordance with paragraph (2) of this section for inspections of subsequent industrialized units of similar use, size and method of

construction as determined by the board for which an authorization has been issued by the board of building standards. When in the course of inspections of the initial industrialized unit, the third-party inspection entity identifies items of non-conformance with the approved construction documents, the items are to be corrected and the next unit(s) are to be inspected in accordance with this section until no further items of non-conformance have been identified in subsequent units. Records of initial inspections, including items of non-conformance and corrective action, are to be maintained by the third-party inspection entity and provided to the board upon request.

(2) Subsequent reduced inspections. Where the initial inspections of industrialized units have demonstrated that the manufacturer's compliance assurance program is capable of assuring that the industrialized units produced are built in accordance with the construction documents approved by the board and no further items of non-conformance have been identified by the inspector in accordance with paragraph (1) of this section, then the manufacturer may choose to self-perform required inspections of each module or panel of subsequent industrialized units. Such inspections are to be performed by an employee of the manufacturer who is certified by the board of building standards in accordance with rule 4101:10-9-01 of the Administrative Code to inspect the scope of construction under the authorization. Records of such inspections, including items of non-conformance and corrective action, are to be maintained by the manufacturer and provided to the board upon request. For manufacturers that produce five or more units of any authorized industrialized units, the third-party inspection entity is to visit the manufacturing plant, at random times at least four times per year, and conduct inspections of units intended for Ohio, audit the manufacturer's plant evaluation and compliance assurance program and review the record of inspections.

(a) Exception: Where the manufacturer does not self-perform required inspections, the third-party inspection entity is to perform at least one on-site inspection of "open" construction of each subsequent industrialized unit. The inspection is to include but is not limited to the rough framing and the rough building services inspections. Inspection of individual modules or panels of the same industrialized unit inspected at different phases of completion is acceptable provided at least one module or panel

allows for rough framing inspection and one allows for rough building services inspection. Records of inspections completed under this exception, including items of non-conformance and corrective action, are to be maintained by the third-party inspection entity and provided to the board upon request.

- (3) **Increased inspections.** Notwithstanding the above, upon notification by a third-party inspection entity to the board and the manufacturer that the compliance assurance program of a manufacturer does not sufficiently ensure compliance with the approved construction documents, or on the Board's own motion, increased inspection frequency may be ordered by the Board so that each assembly or component will be inspected by the third-party inspection entity. These inspections are to continue until an inspection demonstrates that the manufacturer's control of the materials and processes used is sufficient to ensure that the units are constructed in accordance with the approved construction documents. Records of such inspections, including items of non-conformance and corrective action, are to be maintained by the third-party inspection entity and provided to the Board upon request.
- (4) **Remote inspections.** All inspections are to be in-plant except that a third-party *inspection entity* may provide remote virtual inspection when the *third-party inspection entity* has an established program for conducting remote inspections where directed by the inspector, recorded and conducted in real time.
- (D) **Insignia required.** Each *modular unit* or *panelized unit* or *equipment unit* of an authorized *industrialized unit* must have an insignia applied.
- (1) **Insignia acquisition.** An insignia is to be obtained from the board for each industrialized unit module or panel to be used within the state of Ohio.
- (2) **Insignia placement.** The insignia is to be affixed to each unit, in the location identified in the authorized construction documents, after a determination is made by the *third-party inspection entity* that the unit is constructed in accordance with the construction documents authorized by the board.
- (a) For industrialized units inspected per paragraph (C)(1) of this rule, the insignia cannot be applied until after the final inspection is completed by the 3rd party and is satisfactory.
- (b) For industrialized units inspected per paragraph (C)(2) of this rule, the manufacturer is extended the authority to apply the insignia to the self-inspected units provided the 3rd party audit of

- inspections and process is kept in good standing and increased inspections are not required.
- (c) For industrialized units inspected per paragraph (C)(3) of this rule, the Board has the authority and discretion to direct who is to apply insignias, under what conditions, for how long and the conditions under which the manufacturer can earn the right to apply insignias.
- (3) **Insignia signifies.** An insignia, applied to the unit, constitutes final approval of the unit as compliant with the requirements of the applicable building code.
- (4) **Insignia expiration.** An insignia expires at either of the following events:
- (a) After the building owner receives a certificate of occupancy for the building in which the industrialized unit with this specific insignia is installed.
- (b) After two years from the effective date of the subsequent model-based building code.
- (5) **Assemblies without insignia.** Modules, panels or equipment units constructed without an *authorization* or arriving at the site of intended use without an *insignia* from the board of building standards are not *industrialized units*.
- (E) **Adjudication orders required.** When the board of building standards denies any authorization or takes action in response to findings of non-compliance with the rules of the board, such action is to be initiated by issuing an adjudication order, prior to seeking any remedy, civil or criminal.
- (1) **Response to orders.** The person receiving an order shall exercise their right to appeal within thirty (30) days of the issuance of the order, comply with the order, or otherwise be released from the order by the board of building standards.
- (2) **Time limitation of application.** If construction documents have been reviewed for compliance with the rules of the board, an adjudication order has been issued to the manufacturer, and the manufacturer has neither exercised the right to appeal pursuant to paragraph (F) of this rule nor resubmitted corrected documents, the application for authorization is invalid six months from the date of the issuance of the adjudication order. Any fees accrued for plan review are the responsibility of the manufacturer and are due upon receipt of notice of expired application.

- (F) **Appeals** Adjudication hearings shall be in accordance with sections 119.09 to 119.13 of the Revised Code. Requests for hearing is to be within thirty (30) days of the issuance date of an adjudication order. Unless otherwise provided in the order, the Ohio board of building appeals conducts adjudication hearings on orders issued pursuant to these rules.

4101:10-4-01 Authorizations.

- (A) **Application for authorization.** The manufacturer or manufacturer’s representative is to submit application for authorization and any submittals necessary in accordance with paragraphs (C) to (C)(7) of this rule to demonstrate compliance with the appropriate provisions of the applicable building codes as described in paragraphs (B) to (B)(3) of this rule. The application for *authorization* is an online, fillable form provided by the board of building standards at the electronic portal.
- (B) **Compliance standard.** Construction documents are to demonstrate that the design and construction of the units are in compliance with the rules of the board including but not limited to the applicable referenced building codes based on the intended use and occupancy type in which the industrialized unit is intended to be incorporated.
- (1) **Industrialized unit for non-residential buildings.** Industrialized units intended for installation in non-residential buildings shall comply with the applicable provisions of the “Ohio Building Code”, “Ohio Mechanical Code”, “Ohio Plumbing Code” and other codes and standards referenced in those codes as listed in rule 4101:1-35-01, rule 4101:2-15-01 or rule 4101:15-01 of the Administrative Code.
- (2) **Industrialized unit for residential buildings.** Industrialized units intended to be used exclusively for one-, two-, or three- family dwellings shall comply with the applicable provisions of the “Residential Code of Ohio for One-, Two-, and Three- Family Dwellings” and other codes and standards referenced in that code as listed in rule 4101:8-44-01 of the Administrative Code.
- (3) **Products, materials and methods of construction used.** Any material, product, assembly or method of construction used in the construction of an industrialized unit shall be approved by the board of building standards. The provisions of paragraph (B)(4) of rule 4101:10-1-01 of the Administrative Code describe the product, material and method of construction approval process intended by the board of building standards in accordance with division (C) of section 3781.10 of the Revised Code.
- (C) **Submittals.** With the application for authorization and fee, construction documents are to be submitted to the board of building standards through the

board's electronic portal under a registered manufacturer. The construction documents include design drawings and may include, but are not limited to, evaluation service reports, manufacturer's installation instructions, and test reports. The construction documents are to comply with this paragraph and rule 4101:10-5-01 of the Administrative Code:

(1) Information on construction documents. Construction documents are to be provided as electronic media documents. Construction documents are to illustrate or describe all essential elements of the structure or assembly and details of intra- and inter-connections. Construction documents are to be dimensioned, coordinated and of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that the *industrialized unit* will conform to the provisions of this code. Construction documents, adequate for the scope of the project, is to include information necessary to determine compliance with the applicable referenced building code including but not limited to the building, mechanical, plumbing, fire, electrical, energy, fuel gas codes and where applicable the residential building code.

(a) General information, design criteria and orientation.

(i) **Design criteria.** Identify the conditions at the site of intended use that are necessary for the installation of the industrialized unit, the applicable codes, referenced standards, climatic and geographic conditions, all occupancy classification(s), type(s) of construction, the overall area of the industrialized unit, the maximum design occupant load, the structural design loads, the seismic design category and site class that control the design. Include specific conditions or design criteria that will prohibit the installation without additional alteration of the industrialized unit at the site of intended use and approval by the local building official including the following as applicable:

(a) **Unit type an integration.** Identify the type of unit proposed and the intended manner of integration at the site of intended use. Integration is one of the following:

(i) **Detached industrialized unit.** Where intended to be a stand-alone industrialized unit, identify the industrialized unit as detached and the minimum fire separation distance required.

(ii) **Attached industrialized unit.** Where intended to be an attached industrialized unit, identify the industrialized

- unit as attached and identify the specific conditions required of the building construction to which the industrialized unit can be attached.
- (b) **Floodplain unit.** Declare the unit as not designed for installation in a flood hazard zone; or, where the unit is intended for installation in a flood hazard zone, identify the flood hazard area for which the unit is designed.
 - (c) **Seasonal use unit.** Where the structure is identified and designed for seasonal use (May-September), compliance with thermal envelope requirements of the energy conservation provisions are not required.
 - (d) **Hazardous materials.** Where the industrialized unit is intended to store, process or otherwise contain hazardous materials, identify the hazardous material, classification type and quantity stored, processed or otherwise used.
- (ii) **Scope of work.** Each portion of the design represented in the construction documents are to be identified in one of three categories of work:
- (a) **Category 1 Factory assembled.** Work completed at the manufacturing facility under the board's industrialized unit authorization and inspected by the *third-party inspection entity*. Unless otherwise stated as category 2 or category 3 work, the design represented in the submitted construction documents is category 1.
 - (b) **Category 2 Site assembled.** Work completed at the site of intended use regarding modules or panels assembled at the manufacturing plant under the board's industrialized unit authorization. This work is to be inspected by the building department with the authority to enforce the rules of the board in the jurisdiction in accordance with the industrialized unit authorization and section 108 of rule 4101:1-1-01 or section 108 of rule 4101:8-1-01 of the Administrative Code as applicable.
 - (c) **Category 3 Building owner provided.** Work completed at the site of intended use necessary to accept the installation of the industrialized unit. This work is under the approval and inspection of the building department with the authority to enforce the rules of the board in the jurisdiction. The

manufacturer is not required to include any technical detail for category 3 scope of work.

- (iii) **Index.** A table of contents identifying the drawings, specifications and other product information included in the construction documents with a method to locate the information within the set of construction documents.
- (iv) **Orientation.** Provide appropriate code appellations of all spaces, identification of the type and location of illustrations, and a legend of notations/symbology used to orient the relationship between illustrations and reference related information that further illustrates or describes the industrialized unit’s compliance with the “IU Rules.”
- (b) **Structural integrity and load path.** Provide a complete description of the structural system, materials, components and details that complete the load path, of the industrialized unit including the resultant loads that have to be resisted by on-site construction.
- (c) **Fire-safety.** As required under the applicable referenced code, provide fire safety information within the construction documents to address the following:
 - (i) **Means of egress.** All modular units are to comply with the means of egress provisions in rule 4101:1-10-01 of the Administrative Code for non-residential buildings and rule 4101:8-3-01 of the Administrative Code for residential buildings. Equipment units need not comply with the means of egress provisions; however, the documents are to indicate the occupancy limit, have posted signage on exterior near point(s) of access and describe the method of access control.
 - (ii) **Fire and smoke protection systems and features.** All modular units are to comply with the fire and smoke protection provisions in chapter 4101:1 for non-residential buildings and chapter 4101:8 for residential buildings. Include identification, description, performance, listing or other compliance indicators for fire protection systems or features as required or provided as part of the industrialized unit including but not limited to:
 - (a) Minimum fire separation distance from other buildings or structures.
 - (b) Fire area delineation as well as the type(s), performance and details of the separation assemblies.

that the owner of the building is responsible for completing any on-site inspections with applicable state and/or local regulatory agencies.

- (h) **Energy Conservation.** Unless otherwise exempt, demonstrate energy conservation through prescriptive compliance or an energy compliance alternative recognized in the applicable referenced building code. Where energy conservation compliance is demonstrated through a method other than the prescriptive method, provide supporting documentation that illustrates the conditions at the site of intended use that can result in compliant energy conservation.
- (i) **Connections.** Construction documents are to describe all essential elements of the industrialized unit and details of intra-connections and inter-connections including but not limited to:
- (i) Structural members to each other and to site built construction;
 - (ii) Site utilities where a direct connection is provided;
 - (iii) Building service equipment and piping;
 - (iv) Electrical wiring systems;
 - (v) Plumbing and other sanitary systems;
 - (vi) Mechanical heating, cooling and ventilation systems; and
 - (vii) any other equipment whether installed at the site or in the manufacturing facility.
- (2) **Amended construction documents.** If substantive changes to the industrialized unit are contemplated after first document submission, or during assembly, those changes must be submitted to the board of building standards for review and authorization prior to those changes being executed.
- (3) **Alternative materials and methods of construction and equipment.** For approval of a device, material or assembly that does not conform to the prescriptive requirements in the applicable referenced building code, the construction documents may demonstrate compliance as an alternative material or method of construction in accordance with section 114.3.2 of rule 4101:1-1-01 of the Administrative Code.
- (4) **Alternative engineered design.** The design, documentation, inspection, testing and approval of an alternative engineered system shall comply with paragraphs (B)(4)(a) to (B)(4)(c) of this rule.
- (a) **Design criteria.** An alternative engineered design is to conform to the intent of the provisions of this code and is to provide an equivalent level of quality, strength, effectiveness, fire resistance, durability and safety. Materials, equipment or components are to be designed and

installed in accordance with the manufacturer's installation instructions.

- (b) **Submittal.** The registered design professional is to indicate on the application that the system is an alternative engineered design. The approval and permanent approval records are to indicate that an alternative engineered design was part of the approved installation. Where special conditions exist, the board of building standards is authorized to require additional construction documents to be prepared by a registered design professional.
- (c) **Technical data.** The registered design professional is to submit sufficient technical data to substantiate the proposed alternative engineered design and to prove that the performance meets the intent of this code.
 - (i) **Exception:** Approval of alternative materials, products, assemblies and methods of construction in accordance with section 114.3.2 of rule 4101:1-1-01 of the Administrative Code.
- (5) **Non-required work.** Any component, building element, equipment, system or portion thereof not required by the applicable building code is to be permitted to be installed as a partial or complete system provided that it is constructed or installed in accordance with applicable building code to the extent of the installation.
- (6) **Evidence of responsibility.** Where required construction documents, are submitted for review as required under paragraph (C) of this rule, the design documents are to bear the identification of the person primarily responsible for their preparation.
 - (a) **Seal requirements.** Construction documents are to bear the seal of a registered design professional pursuant to section 3791.04 of the Revised Code.
 - (i) **Exceptions:** The seal of a registered design professional is not required on construction documents for:
 - (a) Buildings or structures classified as one-, two-, or three-family dwellings and accessory structures;
 - (b) Energy conservation design for buildings or structures classified as one-, two-, or three-family dwellings;
 - (c) Fire protection system designs submitted under the signature of an individual certified in accordance with section 107.4.4 of rule 4101:1-1-01;

- (d) Industrialized units subject to sections 3781.06 to 3781.18 and 3791.04 of the Revised Code where the board of building standards determines that the proposed work does not involve the technical design analysis of work affecting public health or general safety in the following areas: means of egress, structural, mechanical, electrical, plumbing, or fire protection.
- (b) **Sealed construction documents.** Construction documents which have been prepared by an Ohio registered design professional who prepared the same as conforming to the requirements of the rules of the board pertaining to design loads, stresses, strength, and stability, or other requirements involving technical analysis, need be examined only to the extent necessary to determine conformity of such construction documents with other requirements of the rules of the board.
- (c) **Technical design analysis.** For the purpose of paragraph (C)(6) of this rule, technical design analysis is defined as the development of integrated solutions using analytical methods in accordance with established scientific and engineering principles.
- (D) **Authorization process.** When construction documents have been submitted to the board of building standards for review and *authorization* as an *industrialized unit*, the board shall cause the construction documents to be examined for compliance with the rules of the board to the extent of the scope of the *industrialized unit*. The examiner is to first determine whether the construction documents being reviewed are adequate as required in paragraph (A) of this rule. If so, the examiner is to review the construction documents to determine compliance with the rules of the board.
- (1) **Limits of examination.**
- (a) The board of building standards' review of the construction documents submitted is based on the scope of work shown or described.
- (b) The design criteria identified in the construction documents are to be relevant to locations in Ohio and establish controls over the site of intended use where the industrialized unit may be installed. Design criteria may exceed conditions in Ohio per section (B)(5) of rule 4101:10-3-01.

- (c) Authorization is not required for the following work; however, this work is to comply with all applicable provisions of the rules of the board:
- (i) Building:
- (a) One-story, detached, structures used as Group S-2 storage or Group U structure and similar uses provided no building services are installed and the floor area does not exceed one hundred twenty square feet (11.15 m²).
 - (b) Water tanks supported directly upon grade if the capacity does not exceed five thousand gallons (18,927 L) and the ratio of height to diameter or width does not exceed two to one.
 - (c) Finishes, cabinetry, decorative elements not regulated by the rules of the board.
 - (d) Above-ground storage tanks as defined in rule 4101:1-2-01 of the Administrative Code and the associated tank foundations.
- (ii) Electrical:
- (a) Electrical equipment used for radio and television transmissions except equipment and wiring for power supply, and the installations of towers and antennas.
 - (b) The installation of any temporary system required for the testing or servicing of electrical equipment or apparatus.
 - (c) Electrical wiring, devices, appliances, apparatus or equipment operating at less than twenty-five volts and not capable of supplying more than fifty watts of energy, unless specifically addressed in this code.
 - (d) Process equipment and the associated wiring on the load side of the power disconnect to the equipment.
- (iii) Gas:
- (a) Appliances and equipment used for heating, cooling or ventilation, exclusively or in combination, and where the appliance or equipment is portable in nature.
 - (b) Process equipment, including the associated tanks, foundations, and process piping.
 - (c) For combination building services and process piping systems, the process piping located on the process equipment side of the control valve which separates the

process from the building services piping is exempt from approval.

(iv) Mechanical:

(a) Appliances and equipment used exclusively or in combination for heating, cooling or ventilation and where the appliance or equipment is portable in nature.

(b) Process equipment including the associated tanks, foundations, and process piping. For combination building services/process or power piping systems, the power or process piping located downstream of the control valve which separates the process from the building services piping is exempt from approval.

(v) Plumbing:

(a) Process equipment including the associated tanks, foundations, and process piping.

(b) For combination building services and process piping systems, the process piping located on the process equipment side of the control valve which separates the process from the building services piping is exempt from approval.

(2) **Plan review, compliance with rules of the board.** If the construction documents are determined to comply with the rules of the board, the examiner is to communicate the findings and recommend the conditions and type of authorization to the board's designee.

(a) **Board's authorization.** The board's designee is to evaluate the examiner's recommendations; and when the construction documents have been determined to conform to the applicable provisions of the rules of the board, the board's designee is to provide any additional limitation and stamp such plans with the board's industrialized unit seal as the authorization in accordance with section (B) of rule 4101:10-3-01 of the Administrative Code.

(b) **Locked authorization.** The board is to lock the authorized construction documents and save the documents under the registered manufacturer's account in the board's industrialized unit database. The authorized construction documents are available for download through the registered manufacturer's electronic portal.

(c) **Posting.** The authorized construction documents are to be available at manufacturer's facility during the manufacturing process of the

industrialized unit. The manufacturer is to provide access to and use of the authorized construction documents by the *third-party inspection entity* for the required inspections during manufacture.

(3) Plan review, items of noncompliance.

(a) Corrections letter. The plans examiner for the board of building standards is to communicate items of non-compliance as a corrections letter via the electronic portal until such time as an authorization can be issued. From the items on the correction letter, an adjudication order can be either requested by the manufacturer or deemed necessary by the board.

(b) Adjudications orders. When issued, every adjudication order is to contain the following information:

- (i) Clearly identify the rules of the board violated;
- (ii) Specifically indicate which detail, installation, site preparation, material, appliance, device, addition, alteration to structures, construction documents, assemblages or procedures are necessary to change to comply with the order;
- (iii) Include notice of the procedure for appeal and right to a hearing if requested within thirty days of the mailing of the order. The order is to also indicate that, at the hearing, the manufacturer may be represented by counsel, present arguments or contentions orally or in writing, and present evidence and examine witnesses appearing for or against the manufacturer;
- (iv) Specify a reasonable period of time in which to bring the item(s) on the order into compliance;
- (v) The order is to be sent to the manufacturer and manufacturer's representatives.

(4) Time limitation of plan review. The board of building standards will review submittals and issue an authorization, a correction letter or an adjudication order in accordance with these rules within thirty (30) days of the date of application.

(5) Order of plan review. Construction documents submitted for authorization is to be examined for compliance with the rules of the board in the order received, except unless otherwise consented to by the manufacturers affected by deferred examination, or pursuant to an alternative schedule implemented by the board's designee providing for order of plan review based on project size or other rational basis. No alternative schedule may give preferential treatment to any one individual, organization or industry.

- (6) **Inadequate construction documents.** If construction documents are determined to be incomplete or inadequate for examination, the examiner is to report the findings to the applicant pursuant to paragraph (D)(3) of this rule. The examiner is to examine the construction documents to the extent possible and identify what information from this rule and rule 4101:10-5-01 of the Administrative Code is missing and needed to complete the required examination.
- (7) **Resubmitted documents.** If construction documents are resubmitted in response to an adjudication order or correction letter, the review for compliance is limited to determining that the item(s) of non-compliance, and any work affected, has been corrected.
- (8) **Authorized construction document sets.** Construction documents are kept on the board's industrialized unit database and are available for download through the electronic portal by the manufacturer or with the manufacturer's permission. The board is to maintain the construction documents in accordance with its records retention schedule.
- (9) **Abandoned applications.** Applications will be considered abandoned if the manufacturer fails to respond to a correction letter or other written communication from the board requesting information within six (6) months from the date of the letter or communication. Abandoned applications are no longer valid and any fees accrued for plan review are the responsibility of the manufacturer and are due upon receipt of notice of the abandoned application.
- (E) **Required inspections.** Unless otherwise permitted under paragraph (C)(2) of rule 4101:10-3-01 of the Administrative Code, the *authorization* is to include a list of required inspections as determined by the Board from the following list:
- (1) **Plant evaluation.** In-plant evaluation in accordance with paragraphs (A)(5) to (A)(6)(e) of rule 4101:10-3-01 of the Administrative Code that affirms the current plant evaluation is sufficient for manufacture of the authorized industrialized unit and the *compliance assurance program* is available during the manufacturing process.
- (2) **Rough framing.** Floor, floor/ceiling, wall, roof/ceiling, diaphragms, over framing, and other structural system components as included in the industrialized unit authorization.

- (3) **Rough building services.** HVAC, plumbing, electrical, fuel gas, fire protection, medical gas, and other building service systems components as included in the industrialized unit authorization.
- (4) **Weather resistance.** Roof covering, siding, water resistive barrier, flashing, ice barrier, vapor retarder, exterior windows and doors, thermal envelop and other materials used to protect the structure from water, moisture, vapor intrusion and energy conservation as included in the industrialized unit authorization.
 - (a) **Exception.** Industrialized units that are intended for installation inside another structure which provides the required weather resistance.
 - (b) **Thermal envelope.** The thermal envelop includes but is not limited to insulation, air barrier, air leakage, duct leakage, leakage testing, and other materials as included in the industrialized unit authorization.
 - (c) **Leakage in multi-module industrialized units.** For industrialized units that are assemblies of multiple modules at the site of intended use, the air leakage testing and duct leakage testing, where required, is to be completed at the site of intended use.
- (5) **Insignia of a subassembly.** Where an industrialized unit is assembled utilizing industrialized unit subassemblies, the inspection agency is to verify that the subassembly is a valid industrialized unit.
- (6) **Testing and reports.** Verification that required testing has been completed, records are maintained including testing results and correction of unsatisfactory results. Testing is complete when required testing demonstrates the construction is satisfactory as tested.
- (7) **Final.** A final inspection is of materials, components and construction that is readily visible after construction of the industrialized unit is complete including, but not limited to, finish materials, doors, glazing, cabinetry, millwork, hardware, fixtures, appliances, equipment, luminaires, devices, alarms, sensors, cover plates, etc. as included in industrialized unit.
- (8) **On-site inspections.** A list of inspections conducted at the site of intended use by the department with the authority to enforce the rules of the board in the jurisdiction including but not limited to intra-connections of modules or panels for structural system, building services, thermal envelope and finishes as well as inter-connections to site built construction and/or utilities as applicable.

4101:10-5-01 Construction documents.

- (A) **Organization of construction documents.** Construction documents are to provide required information as prescribed in paragraph (C) of rule 4101:10-4-01 of the Administrative Code and this rule. Information required to determine compliance will be searched first in the document illustrations, schedules, specifications and reports as described in paragraphs (B) to (L) of this rule. To assist in efficient plan review, the construction documents are to be prepared, to the greatest extent possible, in conformity with paragraphs (B) to (L) of this rule, as applicable, based on the requested authorization:
- (B) **Design scope and criteria**
- (1) **Cover sheet.** Provide identification of manufacturer, facility of manufacture, unique model identification, evidence of responsibility for the design and, either on the cover sheet or the next sheet, the following information:
- (a) **Design criteria.** Identify the conditions at the site of intended use that are necessary for the installation of the industrialized unit. Including but not limited to:
- (i) Type of industrialized unit and manner of integration.
 - (ii) Site conditions and restriction(s).
 - (iii) Specialty or limited use(s).
 - (iv) Hazardous materials and the quantity of each used or stored.
- (b) **Scope of work.** Each portion of the design represented in the construction documents is to be identified in one of three categories of work:
- (i) Category 1 Factory assembled.
 - (ii) Category 2 Site assembled.
 - (iii) Category 3 Building owner provided.
- (c) **Index.** List of all documents included in the submittal and a method of location.
- (2) **Overview of installation.** Provide the information necessary to connect the industrialized unit to on-site construction including load path continuation, utility type, size and quantity, egress continuation, alarm and communication system as required and any additional unique requirements necessary to support, supply or connect the industrialized unit.

- (3) **Exception.** Specific site address or building owner information related to the intended initial installation is not required.

(C) **Horizontal sections.**

- (1) **Floor plans.** Provide configuration layout drawings of all horizontal floor and floor-ceiling systems with all walls and partitions shown including but not limited to full height, partial height, structural and non-structural walls, major openings, and references to other details, sections, elevations, accessibility and *matelines*. Floor plans are to show all relevant information such as door swings, stairs and ramps, windows, shafts, all portions of the means of egress, plumbing fixtures, built-in fixtures, special equipment, vertical transportation, etc., and be sufficiently dimensioned to describe all relevant space sizes. Spaces are to be identified by appropriate code appellations. The number of occupants to be accommodated in each industrialized unit and in all rooms and spaces of the industrialized unit are to be designated on construction documents;
- (2) **Roof plan.** Where exposed to weather, provide a roof plan showing roof outline, overall dimensions, slope of roof, drainage, reference to other details, roof covering materials, penetrations through roof, and roof-mounted equipment;

(D) **Vertical Sections.**

- (1) **Exterior elevations.** For modules with vertical surfaces exposed to weather, provide exterior elevations showing and identifying major elements, material indications, windows, doors, louvers and all other openings, grade lines, floor lines, the bottom of module, top of foundation, top of wall/module/roof bearing, top of roof, mate lines for intra- and inter-connections, references to other details and vertical dimensions to these elements.
- (2) **Module sections.** Vertical dimensions, elevations of the top of structural components and finish floor lines, materials, footings and foundations, reference to other details, ceiling lines, and major mechanical services.
- (3) **Wall Sections.** Face of wall dimensions to other components, vertical dimensions from foundations to parapet relating all elements to top of structural elements, all connection methods, wall, ceiling, floor, foundation, and roof materials and construction details.
- (4) **Interior elevations.** Vertical dimensions to critical elements, references to other details, openings in walls, wall finishes, built-in items, accessibility, and locations of switches, thermostats, and other wall-

mounted equipment.

- (E) **Exterior envelope.** Where exposed to weather, the exterior envelope described in sufficient detail to determine compliance with this code and the referenced standards. Details are to be provided which describe flashing, intersections with dissimilar materials, corners, end details, control joints, intersections at roof, eaves, or parapets, means of drainage, water-resistive membrane details around openings, location and type of vapor retarders, window and door “U”-values, and insulation location and “R”-values. The supporting documentation is to fully describe the exterior wall system, which was tested, where applicable, as well as the test procedure used.
- (F) **Schedules.** Information or tables that describe the room finishes, doors, windows, and door hardware and controls. Wall and floor materials are to be described by cross hatching (with explanatory key), by notation, or by other clearly understandable method.
- (G) **Structure.** Provide complete description of the structural system including size and location of all structural elements and the values of live, wind, snow, rain and seismic loads used in the design of the industrialized unit and other data as required to fully describe the structural system. The resultant loads at the points of inter-connection with on-site construction are to be provided.
- (H) **Building services systems.** Provide complete description of the building services (plumbing, mechanical, fuel gas and electrical) systems, fire protection systems and medical gas systems that are part of the industrialized unit that may include but is not limited to:
- (1) **Plumbing.**
 - (a) Materials and general routing and sizes of all piping, joints and fittings;
 - (b) Location and type of plumbing fixtures and equipment;
 - (c) Plumbing schematics and isometrics;
 - (d) Insulation “R”-values;
 - (2) **Mechanical.**
 - (a) Materials and general routing and sizes of all ductwork, vents, and louvers;
 - (b) Location and type of heating, ventilation, air conditioning, and other mechanical equipment;
 - (c) Insulation “R”-values;
 - (d) Materials and general routing and sizes of all fuel gas piping and valves;

- (3) Electrical wiring.
 - (a) Location and type of all lighting and controls;
 - (b) Location and type of all power equipment and devices;
 - (c) Type and size of all electrical conductors and overcurrent protection.
- (4) Fire protection systems.
 - (a) Areas of protection.
 - (b) Fire alarm system.
 - (c) Fire suppression system occupancy hazard classification and required water supply data.
- (I) **Energy conservation.** Where energy conservation compliance is demonstrated through a method other than the prescriptive method, provide supporting documentation like energy analysis compliance software reports.
- (J) **Hazardous materials.** Where use, storage or production of hazardous materials is intended, provide information regarding the operations; the types, quantities, and arrangement of flammable, combustible, or hazardous materials proposed to be produced, used, dispensed, or stored in the facility; material safety data sheets for hazardous materials produced, used, or stored in the facility; the commodity and arrangement of high piled or rack storage, control areas, etc.
- (K) **Material, component or system reports.** Where alternative materials, components, systems or methods of construction are proposed, provide the evaluation reports or other recognized technical analysis information to support compliance with the applicable building code requirements.
- (L) **Panelized units.** Where the *industrialized unit* is a *panelized unit*, all of the above information is required, as applicable, based on the scope of the requested *authorization* except floor plans and roofs plans. The elevations and sections required in paragraphs (D)(1) to (D)(4) of this rule are to be provided for the panel in lieu of the volume bounded by the panel. For *panelized units*, any volumes, spaces or rooms created by their use including but not limited to the means of egress, accessibility, lighting, power, hvac systems, etc. are to be approved by the building official having authority to enforce the applicable building code for the jurisdiction where the *industrialized unit* is installed.

4101:10-6-01 Transport.

- (A) **Transport to site of intended use.** Industrialized units may be shipped in structurally complete units ready for installation in the building structure or in knock-down and packaged form for assembly at the site.
- (B) **Shipping Reports required.** After an *insignia* has been affixed, the manufacturer is to record the use of the *insignia* in shipping records which are to keep, at a minimum, record of:
- (1) The shipping *insignia* number;
 - (2) Ohio board of building standards' industrialized unit group assigned project file number appearing on the board-authorized construction documents;
 - (3) The date the *insignia* was affixed to the individual unit;
 - (4) Name and address of the construction inspector and inspection agency.
 - (5) Manufacturer's unit serial number;
 - (6) Manufacturer's model number;
 - (7) Dealer name and address (applicable where a dealer is used) and;
 - (8) Site installation destination address and owner's/purchaser's name.
- (C) **Submit record to the board.** Shipping records are to be submitted to the board of building standards through the electronic portal no later than thirty days following departure from the factory.
- (D) **Document submission to building departments.** The manufacturer is to provide the construction documents, authorized by the board, to the owner or owner's representative for purposes of design, code compliance or approval prior to placing the *industrialized unit* on site.
- (E) **Protect from damages.** Manufacturer is to protect the *industrialized unit* from damage during transport and installation. Causes of damage including but are not limited to movement (loading, unloading, transporting), weather, installation and activities of construction prior to installation into the building at the site of intended use.
- (F) **Manufacturer responsibility.** The manufacturer maintains responsibility over all work completed in the factory until the unit is approved for first occupancy and is responsible to rectify any damages or deviations from the authorized construction documents. Damages or deviations can be identified

either in the field or at the place of manufacture. The manufacturer is to submit to the board such periodic reports, notifications and information as required by board procedures or may be requested by the board.

4101:10-7-01 Relocation and reauthorization.

- (A) **Existing buildings with industrialized unit.** Where a previously authorized *industrialized unit* is removed from the initial installation with the intent to relocate or replace the unit, one of the following conditions applies:
- (1) **Relocated building.** Where the unit is removed for the purpose of direct relocation, with or without repairs, alterations or a change of occupancy at the site of intended reuse, the owner is to comply with the requirements for a moved existing structure and make application to the building department with the authority to enforce the rules of the board in the jurisdiction where the unit is to be relocated for approval of the scope of work in compliance with the applicable building code.
 - (2) **Replacement modules.** Where the unit is removed for the purpose of replacement with a new unit, both (A)(2)(a) and (A)(2)(b) of this rule apply:
 - (a) **The owner is to make application and get approval from the building department with the authority to enforce the rules of the board in the jurisdiction for either:**
 - (i) a repair in accordance with the existing approval, in the same configuration, and not less safe, or
 - (ii) a replacement, with or without alteration, in accordance with the requirements for new construction and not less safe.
 - (b) **The manufacturer is to make application to the board of building standards for authorization of either:**
 - (i) An industrialized unit used as an alteration to an existing building and is constructed in accordance with the current building codes, or
 - (ii) An industrialized unit, used as a repair to an existing building and is constructed in accordance with a specifically identified, previously authorized industrialized unit.
- (B) **Reauthorization.** Where the unit is removed for the purpose of relocation and includes proposed repair, alteration or a change of occupancy to the previously authorized unit, the unit can be reauthorized by the board and receive a new *insignia* provided the repair, alteration or change of occupancy is:
- (1) **completed by an industrialized unit manufacturer registered with the board, and**

- (2) the manufacturer makes application to the board and submits construction documents describing the proposed modifications, with fee, for authorization, and
- (3) performed in an off-site location, and
- (4) performed in accordance with construction documents authorized by the board of building standards.

4101:10-8-01 Fees.

- (A) **Fees.** All costs associated with *industrialized unit* request for authorization applications, processing, construction document review, inspections and insignias shall be in accordance with this rule.
- (1) **Exception.** Ohio career technical schools and Ohio community colleges that manufacture an *industrialized unit* as part of a certified curriculum using third-party inspectors designated by the board of building standards are permitted to have fees waived.
- (B) **Applications.** Each initial application or revision submittal to the board is to be accompanied by a nonrefundable fee of one hundred thirty-five dollars, designated by the board to include:
- (1) application processing fee;
(2) one-hour minimum plan review fee; and
(3) other costs, when incurred, such as mailing and check processing.
- (C) **Evaluation of construction documents.** All costs of application processing, evaluation of construction documents and other required documentation submitted to the board is to be paid by the manufacturer. Where the review for authorization exceeds one hour, the manufacturer is charged an additional plan review fee at the rate of one hundred dollars per hour (\$100/hr) in half hour increments for the total time required to complete the review for authorization.
- (D) **Plant evaluation and inspection costs.** All costs of plant evaluations and inspections is to be paid by the manufacturer of the *industrialized unit* including travel, food, lodging, and administrative costs.
- (E) **Insignias.** The fee for an insignia is as follows:
- (1) An insignia applicable to a *modular unit* or *equipment unit* for use in the state of Ohio is fifty dollars per *module* or *equipment unit* (any preassembled combination of walls to floor, ceilings, roof, and other such components) transported as a whole unit or broken down.
- (2) An insignia applicable to a *panelized unit* for use in the state of Ohio is one dollar for each twenty square feet of surface area of preassembled individual components (wall, floor, ceiling or roof sections, and other such components) intended to be shipped to the site and attached to other components at the site of intended use.

- (F) **Tests.** Tests required by the board to be performed to determine compliance pursuant to paragraph (A)(5)(d) of rule 4101:10-3-1 of the Administrative Code, is to be conducted at no expense to the board. Costs associated with any required testing or research necessary to provide evidence of compliance is to be the responsibility of the manufacturer.

4101:10-9-01 Certifications, inspector.

- (A) **Third-party inspector certification.** Individuals performing the required inspections of an *industrialized unit* at the *manufacturing plant* are to be certified as one of the following:
- (1) An individual with valid certification(s) issued by the board of building standards under rule 4101:7-3-01 of the Administrative Code for inspection of building, plumbing, mechanical, fire protection and electrical systems.
 - (2) An individual with valid certification for inspection of building, plumbing, mechanical, fire protection and electrical systems from the “*International Code Council*” recognized by the board of building standards.
- (B) **Duties.** Individuals certified to perform inspections have the authority to conduct required inspections of the construction of the *industrialized unit* at the *manufacturing plant* to verify that the construction is in accordance with the authorized construction documents as follows:
- (1) A person with a level 4 combination inspector certification issued by the board of building standards (e.g. building inspector, mechanical inspector, plumbing inspector, fire protection inspector and electrical safety inspector) or an equivalent combination inspector certification from the “*International Code Council*” is permitted to inspect all building and building service systems of any *industrialized unit*.
 - (2) Persons with level 3 inspector certifications issued by the board of building standards for an inspector specialization (e.g. building inspector, mechanical inspector, plumbing inspector, fire protection inspector or electrical safety inspector) or equivalent inspector certification from the “*International Code Council*” are permitted to inspect the scope of work of an *industrialized unit* intended for residential or non-residential buildings to the extent of their level 3 or national inspector certification(s).
 - (3) Persons with a level 2 residential code official certification (e.g. residential building official, residential plans examiner or residential building inspector) or equivalent residential certification from the “*International Code Council*” are only permitted to inspect the building or building service systems of *industrialized units* intended for residential buildings to the extent of their level 2 or national residential inspector certification(s).
- (C) **Conflict of interest.** Except as provided in paragraph (C)(2) of rule 4101:10-3-01 of the Administrative Code, no certified person who contracts for inspection services with a manufacturer of an industrialized unit shall perform

inspection services which would require that person to exercise authority or make an evaluation of any work furnished by said inspector or by a private contractor that employs said inspector on a full-time, part-time, or incidental basis. Further, such certified person shall not engage in conduct that is prohibited or considered a conflict of interest pursuant to Chapter 102. of the Revised Code.