Capital Development Board
Building a Better Illinois

ILLINOIS

CAPITAL DEVELOPMENT BOARD

BOARD BOOK

Chicago
Collinsville
Springfield

JB PRITZKER, GOVERNOR

JIM UNDERWOOD, EXECUTIVE DIRECTOR

BOARD MEMBERS

Eileen Rhodes, Chair
Pam McDonough, Vice Chair
Tamakia J. Edwards
Saul Morse
Beverly Potts
Glyn Ramage
Hipolito (Paul) Roldan

CAPITAL DEVELOPMENT BOARD

January 9, 2024

The meeting of the Capital Development Board is being held in

Chicago, 555 W. Monroe Street

Springfield, Wm. G. Stratton Building, 401 S. Spring, 3rd Floor

Collinsville, Il Dept of Transportation, 1102 East Port Plaza

Or via WebEx

LOGIN: https://illinois.webex.com/

Call: 312-535-8110 ACCESS CODE: 2630 387 7740 PASSWORD: Jan24

Public questions for the Board can be submitted through WebEx at the time for Public Comment or submitted by email to Sally.Finney@illinois.gov

Staff Contact: Heather Parks 217-782-8729 or Sally Finney 217-782-8726

Call To Order

1. Roll Call of Members
2. Confirmation of a Quorum

Preliminary Items

3. Approval of the Agenda
4. Approval of December 12, 2023, Minutes 1-5
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Region 1

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Region 2

9. Single Bid – DOC – Logan Correctional Center.....67-70
10. Modification – BHE – Western Illinois University 71-73

Region 3

11. Single Bid – DNR – Lewis & Clark Historic Site.....74-78

12. Architecture/Engineering Selections Recommendation from PSB 306...79-80
13. Design Build 81-82

Informational Items

Executive Session

`Capital Development Board_____

Subject: Meeting minutes for December 12, 2023

The meeting of the Capital Development Board was held in person in Chicago, Collinsville, and Springfield.

The following Board members were present in Chicago:

Eileen Rhodes, Chair
Pam McDonough, Vice Chair
Paul Roldan
Tamakia Edwards

The following Board member was present in Collinsville:

Glyn Ramage

The following Board members were present in Springfield:

Beverly Potts
Saul Morse

The following were present in Chicago:

Amy Romano, CDB
Blanca Rivera, CDB
Brent Lance, CDB
Darnita Lee, CDB
Jim Underwood, CDB
Jesse Martinez, CDB
Karla Springer, CDB
Latoya Watson, CDB
Lisa Hennigh, CDB
Mark Jones, CDB
Sally Finney, CDB
Tim Patrick, CDB

The following were present in Springfield:

Chris MacGibbon, CDB
Craig Butler, CDB
David Ealey, CDB
Heather Parks, CDB
Joel Meints, CDB
Marcy Joerger, CDB
Paul Kmett, CDB
Pat Randle, CDB

The following were present via WebEx:

Amber Dooley, CDB
Amber Evans, CDB
Charla Travis, CDB
Drew Stephenson, CDB
Heather Oxley, CDB
Jamie Booker, CDB
Jill Bohm, CDB
Kathryn Martin, CDB
Katrina Grzegorski, CDB-CIO
Ken Morris, CPO
Kenneth Watkins, CDB
Kyle Beachy, CDB
Lauren Grenlund, CDB
Lauren Noll, CDB
Linda Norbut Suits, CDB
Luke Montgomery, CDB

Marcy Joerger, CDB
Matt McHenry, CDB
Medeny Guy, CDB
Natasia McDade, CDB
Paula Sorensen, CDB
Maribel Acevedo, CDB
Matthew Trewartha, CDB
Michael McGuire, CDB
Nicole Scott, CDB

The meeting was called to order at 11:00 a.m.

Sally Finney took roll call. Chair Rhodes, Pam McDonough, Tamakia Edwards, Saul Morse, Glyn Ramage, and Paul Roldan were present.

Pam McDonough moved, and Glyn Ramage seconded a motion to approve the agenda. Chair Rhodes called for a vote, and the motion was approved unanimously.

Saul Morse moved, and Pam McDonough seconded a motion to approve the minutes from November 14, 2023. Chair Rhodes called for a vote, and the motion was approved unanimously.

Ms. Romano, General Counsel, swore in new board member Tamakia Edwards. Chair Rhodes congratulated Ms. Edwards on joining the Capital Development Board.

Ms. Rivera presented the following Single Bid:

Single Bid – CMS – Chicago Medical Center Office & Medical Building
CDB Project No. 250-510-018
Secure Electrical Vaults
Drive Construction, Inc.
Single Bid……$754,000

Pam McDonough moved, and Paul Roldan seconded a motion to approve the Single Bid. Chair Rhodes called for a vote, and the motion was approved unanimously.

Mr. Rivera presented the following Modification:

Modification – DHS – Shapiro Developmental Center
CDB Project No. 321-100-131
Replace Heating and Cooling Return Systems
Knight E/A, Inc.
Modification…… $459,400

Pam McDonough moved, and Tamakia Edwards seconded a motion to approve the Modification. Chair Rhodes called for a vote, and the motion was approved unanimously.

Mr. Ealey presented the following Modification:

Modification – CMS – Springfield Office Space

CDB Project No. 250-000-022 Phase 2
Renovate Building for Office Space
Moreno Architects Ltd.
Modification……. $526,844

Pam McDonough moved, and Glyn Ramage seconded a motion to approve the Modification. Chair Rhodes called for a vote, and the motion was approved unanimously.

Mr. Ealey presented the following Proceed Orders:

Proceed Order – CMS – State Armory
CDB Project No. 250-042-006 Phase 1
Renovate the State Armory
William Brothers Construction Inc.
Proceed Order……...$380,000.

Saul Morse moved, and Pam McDonough seconded a motion to approve the Proceed Order. Chair Rhodes called for a vote, and the motion was approved unanimously.

Proceed Order – CMS – State Armory
CDB Project No. 250-042-006 Phase 1
Renovate the State Armory
William Brothers Construction Inc.
Modification…… $1,250,000

Saul Morse moved, and Tamakia Edwards seconded a motion to approve the Modification. Chair Rhodes called for a vote, and the motion was approved unanimously.

Mr. Patrick presented the following Proceed Order:

Proceed Order – DHS – Choate Mental Health and Development Center
CDB Project No. 321-015-098
Construct New Boiler Building and Upgrade Electrical System
Fager-McGee Commercial Construction Inc.
Proceed Order ……...$500,000

Pam McDonough moved, and Glyn Ramage seconded the motion to approve the Proceed Order. Chair Rhodes called for a vote, and the motion was approved unanimously.

Mr. Ealey presented the following Modification:

Modification – SOS – Capitol Complex
CDB Project No. 750-000-007

Replace Cooling Towers and Chillers
Introba, Inc.
Modification……$432,342

Saul Morse moved, and Tamakia Edwards seconded a motion to approve the Modification. Chair Rhodes called for a vote, and the motion was approved unanimously.

Mr. Lance presented the following A/E Selections from PSB 305:

1.	040-010-130	Department of Veterans' Affairs Replace Rooftop Building Air Conditioning Units – Nielson Dining Illinois Veterans' Home - Quincy 1. RTM Engineering Consultants, LLC 2. Introba Inc. 3. Architechnics, Inc.	Appropriation: $2,483,700 Project Cost: $2,483,700
2.	040-020-078	Department of Veterans' Affairs Relocate Central Kitchen Illinois Veterans' Home – Manteno 1. Carlile Architects LLC 2. Valdes Engineering Company 3. Fox & Fox Architects, LLC	Appropriation: $5,067,300 Total Cost: $5,067,300

Pam McDonough moved, and Tamakia Edwards seconded a motion to approve the A/E Selections from PSB 305. Chair Rhodes called for a vote, and the motion was approved unanimously.

Mr. Patrick presented the Single Bid Award and Change Order for Board Authorization Proceed Order.

Mr. Lance presented the Best Interest of the State/Informational Item.

Mr. Martinez gave an update on BEP.

Pam McDonough moved, and Saul Morse seconded a motion to move into Executive Session. Chair Rhodes called for a vote, and the motion was approved unanimously.

Regular Session reconvened at 12:23 p.m.

Mr. Kmett presented a Request for Authorization to Initiate Litigation, CDB Project No. 120-255-025, Roof Replacement at Shawnee Correctional.

Pam McDonough moved, and Tamakia Edwards seconded a motion to approve the Request for Authorization to Initiate Litigation at Shawnee Correctional. Chair Rhodes called for a vote, and the motion was approved unanimously.

After the Semi-Annual Review of the Closed Session Minutes (5 ILCS 120/2(c)(21)) in Executive Session, Ms. Romano, General Counsel, recommended the following Executive Session Minutes to be opened.

Executive Session Meeting Minutes Recommended to Be Opened:

23-1
23-4
23-5
23-6
23-7

Ms. Romano also recommended the following Executive Session Verbatim Recordings to Be Destroyed:

21-10
22-1
22-2

Tamakia Edwards moved, and Saul Morse seconded a motion to approve the recommendations of Ms. Romano. Chair Rhodes called for a vote, and the motion was approved unanimously.

Ms. Romano presented Personnel Action Resolution 23-04 Executive Director Salary (5 ILCS 120/2(c)(1)).

Paul Roldan moved, and Saul Morse seconded the motion to approve the Executive Directors Salary. Chair Rhodes called for a vote, and the motion was approved unanimously.

Pam McDonough moved and Tamika Edwards seconded a motion to adjourn. Chair Rhodes called for a vote, and the motion was approved unanimously.

The meeting was adjourned at 12:27 p.m.

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EXECUTIVE MINUTES

TO: **Capital Development Board**

FROM: **Robert Coslow, Professional Services Administrator**

DATE: **January 9, 2024**

RE: **Illinois Energy Conservation Code Rules (71 IAC 600)**

The Capital Development Board ("CDB") is proposing amended administrative rules. Pursuant to 2 Ill. Adm. Code 1650.410, CDB is requesting Board approval for the revised rules summarized below:

The rules before the Board today are a result of Public Act 102-0662 Energy Transition Act (formerly CEJA) that was passed September 15, 2021. This Act requires CDB to develop an Illinois Stretch Energy Code for Residential and Commercial buildings by the end of 2023.

The Illinois Stretch Energy Code amendments were unanimously approved by the Illinois Energy Conservation Advisory Council on December 18, 2023.

Title 71 Part 600 of the Ill. Adm. Code is being modified to incorporate the new Illinois Stretch Energy Code Amendments and to make minor revisions to administrative and procedural requirements of the Illinois Energy Conservation Advisory Council.

Key Items Regarding the Illinois Stretch Energy Code:

Creation of the Illinois Stretch Energy Code is required by the Energy Efficient Building Act to be available to municipalities by 6/30/24.

Commercial Stretch Energy Code is required for State Funded Facilities.

Commercial and Residential Stretch Energy Codes are **optional** for municipalities.

Minimum energy efficiencies (expressed as a site energy index) are set by the Energy Efficient Building Act. Credits in the Stretch Code were reviewed by PNNL to verify compliance with the Act.

TITLE 71: PUBLIC BUILDINGS, FACILITIES, AND REAL PROPERTY
CHAPTER I: CAPITAL DEVELOPMENT BOARD
SUBCHAPTER d: ENERGY CODES

PART 600
ILLINOIS ENERGY ~~CONSERVATION~~ CODES

Commented [CR1]: Re-titling now that this Part includes 2 energy codes.

SUBPART A: GENERAL

Section
600.100 Definitions
600.110 Adoption and Modification of the Code
600.120 Illinois Energy Conservation Advisory Council
600.125 Illinois Energy Conservation Advisory Council Meetings
600.130 Revisions to the Code

Commented [CR2]: New Section covering meeting procedures.

SUBPART B: STATE FUNDED FACILITIES

Section
600.200 Illinois Commercial Stretch Energy Code~~Standards for State Funded Facilities~~
600.210 Exemptions
600.220 Compliance

Commented [CR3]: Revised requirements for State Funded Facilities. The IL Energy Conservation Code is no longer an option. IL Stretch Energy Code is a requirement for State Funded Facilities.

SUBPART C: PRIVATELY FUNDED COMMERCIAL FACILITIES

Section
600.300 Illinois Energy Conservation Code~~Standards for Privately Funded Commercial Facilities~~
600.305 Illinois Commercial Stretch Energy Code
600.310 Exemptions
600.320 Local Jurisdiction
600.330 Compliance
600.340 Application to Home Rule Units

Commented [CR4]: Re-titling to show both Codes.

SUBPART D: RESIDENTIAL BUILDINGS

Section
600.400 Illinois Energy Conservation Code~~Standards for Residential Buildings~~
600.405 Illinois Residential Stretch Energy Code
600.410 Exemptions
600.420 Local Jurisdiction
600.430 Compliance
600.440 Application to Home Rule Units

Commented [CR5]: Re-titling to show both Codes.

600.APPENDIX A Illinois Energy Conservation Code Amendments to the ~~Supplanted and Additional 2021~~ International Energy Conservation Code ~~Sections~~
600.APPENDIX B Illinois Commercial Stretch Energy Code Amendments to the International Energy Conservation Code
600.APPENDIX C Illinois Residential Stretch Energy Code Amendments to the International Energy Conservation Code.

Commented [CR6]: Appendix A is the IL Energy Conservation Code Amendments which go into effect 1/1/24.

Commented [CR7]: Appendices B&C are the Illinois Stretch Energy Code Amendments.

AUTHORITY: Implementing and authorized by the Capital Development Board Act [20 ILCS 3105] and the Energy Efficient Building Act [20 ILCS 3125].

SOURCE: Adopted by emergency rulemaking at 28 Ill. Reg. 11355, effective July 26, 2004, for a maximum of 150 days; emergency rules expired December 22, 2004; adopted at 29 Ill. Reg. 777, effective January 1, 2005; new Part adopted by emergency rulemaking at 29 Ill. Reg. 5736, effective April 8, 2005, for a maximum of 150 days; emergency expired September 4, 2005; emergency rulemaking repealed at 29 Ill. Reg. 6093, effective April 18, 2005, for a maximum of 150 days; emergency expired September 14, 2005; old Part repealed at 29 Ill. Reg. 16414 and new Part adopted at 29 Ill. Reg. 14790, effective April 8, 2006; amended at 31 Ill. Reg. 14422, effective October 9, 2007; emergency amendment at 33 Ill. Reg. 12407, effective August 18, 2009, for a maximum of 150 days; amended at 33 Ill. Reg. 16702, effective November 23, 2009; emergency rulemaking at 34 Ill. Reg. 2582, effective January 29, 2010, for a maximum of 150 days; emergency expired June 27, 2010; amended at 34 Ill. Reg. 11398, effective July 26, 2010; amended at 37 Ill. Reg. 789, effective January 11, 2013; amended at 37 Ill. Reg. 12822, effective July 23, 2013; amended at 40 Ill. Reg. 2754, effective January 20, 2016; amended at 43 Ill. Reg. 8707, effective August 5, 2019; amended at 47 Ill. Reg. 17974, effective November 27, 2023.

SUBPART A: GENERAL

Section 600.100 Definitions

Definitions of terms in the International Energy Conservation Code, incorporated by reference in Subpart C of this Part, apply, as do the following definitions:

"Act" means the Capital Development Board Act [20 ILCS 3105].

"Authority Having Jurisdiction" or "AHJ" means the organization, office or individual responsible for approving equipment, materials, an installation or procedure.

"CDB" or "Board" means the Illinois Capital Development Board.

"Commercial Facility" means any building except a building that is a residential building as defined in the EEB Act. [20 ILCS 3125/10]

"Council" means the Illinois Energy Conservation Advisory Council appointed under Section 600.120 and whose purpose it is to recommend modifications to the Illinois Energy Conservation Code.

"EEB Act" means the Energy Efficient Building Act [20 ILCS 3125].

"IECC" means the International Energy Conservation Code.

"Illinois Energy Conservation Code"~~ or "Code"~~ means:

~~With respect to the State facilities covered by Subpart B:~~

~~This Part, all additional requirements incorporated within Subpart B (including the 2021 International Energy Conservation Code that encompasses ASHRAE 90.1, including all published errata but excluding published supplements) and any statutorily authorized adaptations to the incorporated standards adopted by CDB;~~

Commented [CR8]: IL Energy Conservation Code will no longer be an option for State Funded Facilities.

With respect to the privately funded commercial facilities covered by Subpart C Section 600.300:

This Part, all additional requirements incorporated within Subpart C (including the 2021 International Energy Conservation Code that encompasses ASHRAE 90.1, including all published errata but excluding published supplements, and any statutorily authorized adaptations to the incorporated standards adopted by CDB; and

With respect to the residential buildings covered by Subpart D Section 600.400:

This Part, all additional requirements incorporated within Subpart D (including the 2021 International Energy Conservation Code, including all published errata but excluding published supplements) and any statutorily authorized adaptations to the incorporated standards adopted by CDB.

"Illinois Commercial Stretch Energy Code" or "Commercial Stretch Code" means:

Commented [CR9]: New definition for the IL Commercial Stretch Energy Code. Note reference to 2024 IECC.

With respect to the State facilities covered by Subpart B and privately funded commercial facilities covered by Subpart C Section 600.305:

This Part, all additional requirements incorporated within Subparts B and C (including the 2024 International Energy Conservation Code Commercial Provisions that encompasses ASHRAE 90.1, including all published errata but excluding published supplements) and any statutorily authorized adaptations to the incorporated standards adopted by CDB;

"Illinois Residential Stretch Energy Code" or "Residential Stretch Code" means:

Commented [CR10]: New definition for the IL Residential Stretch Energy Code. Note reference to 2021 IECC.

With respect to the residential buildings covered by Subpart D Section 600.405:

This Part, all additional requirements incorporated with Subpart D (including the 2021 International Energy Conservation Code Residential Provisions, including all published errata but excluding published supplements) and any statutorily authorized adaptations to the incorporated standards adopted by CDB.

"Municipality" means any city, village or incorporated town. [20 ILCS 3125/10]

"Residential Building" means a detached one-family or 2-family dwelling or any building that is 3 stories or less in height above grade that contains multiple dwelling units, in which the occupants reside on a primarily permanent basis, such as a townhouse, a row house, an apartment house, a convent, a monastery, a rectory, a fraternity or sorority house, a dormitory, and a rooming house; provided, however, that when applied to a building located within the boundaries of a municipality having a population of 1,000,000 or more, the term "residential building" means a building containing one or more dwelling units, not exceeding 4 stories above grade, where occupants are primarily permanent. [20 ILCS 3125/10]

"State Funded Building" means and includes buildings under the jurisdiction of each officer, department, board, commission, institution and body politic and corporate of the State, including the Illinois Building Authority, and any other person expending or encumbering State or federal funds by virtue of an appropriation or other authorization by the General Assembly or federal authorization or grant. This includes State funded *housing, hospitals, penitentiaries, laboratories, educational facilities, administrative facilities, recreational facilities, environmental equipment and parking facilities* [20 ILCS 3105/4.01].

(Source: Amended at 47 Ill. Reg. 17974, effective November 27, 2023)

Section 600.110 Adoption and Modification of the Illinois Energy Conservation Code

a) The purpose of the Illinois Energy Conservation Code is to implement Section 15 of the Energy Efficient Building Act [20 ILCS 3125] that requires CDB to officially adopt, as a minimum requirement for ~~State and~~ commercial structures and as a minimum and maximum requirement for residential buildings, the 2021 International Energy Conservation Code, including all published errata but excluding any published supplements, to apply that Illinois Energy Conservation Code to all commercial and residential structures in Illinois, and to assist local code officials with enforcing the requirements of the Illinois Energy Conservation Code. The 2021 Illinois Energy Conservation Code will become effective on January 1, 2024~~adoption of this rulemaking~~.

b) The purpose of the Illinois Stretch Energy Code is to implement Section 55 of the Energy Efficient Building Act [20 ILCS 3125] that requires CDB to officially adopt, as a minimum requirement for State facilities, commercial structures and residential buildings in municipalities that have adopted the Illinois Stretch Energy Code, an energy code that meets the site energy indexes as outlined in Section 55 of the Energy Efficient Building Act.

Commented [CR11]: New purpose statement for the Stretch Code.

c~~b~~) ~~This Code as described in Subpart B (State facilities) is effective July 26, 2004.~~ The~~This~~ Illinois Energy Conservation Code as described in Subpart C (privately-funded commercial facilities) is effective April 8, 2007. The Illinois Energy Conservation Code as described in Subpart D (residential buildings) is effective January 29, 2010. The Illinois Stretch Energy Code as described in Subparts B, C and D (State facilities, privately-funded commercial facilities and residential buildings) is effective upon adoption.

Commented [CR12]: Stretch Code will take effect after Rule process. Anticipated by 7/1/24.

d~~c~~) Application of the Codes

1) State Facilities. The Illinois Commercial Stretch Energy Code as described in Subpart B of this Part applies to *all projects to which an energy conservation code is applicable that are authorized or funded in any part by the Board after July 1, 2024.* [20 ILCS 3125/55]~~all State facilities for which money has been appropriated or authorized by the General Assembly.~~

Commented [CR13]: Commercial Stretch Energy Code applies to all State Facilities per referenced statute.

2) Privately Funded Commercial Facilities and Residential Buildings. The Illinois Energy Conservation Code or the Illinois Stretch Energy Code if adopted by the local municipality as described in Subparts C and D of this

Part applies *to any new building or structure in this State for which a building permit application is received by a municipality or county.* [20 ILCS 3125/20]

A) *Additions, alterations, renovations or repairs to an existing building, building system or portion thereof shall conform to the provisions of the Code as they relate to new construction without requiring the unaltered portion of the existing building or building system to comply with the Code.* [20 ILCS 3125/20(c)]

B) All exceptions listed in the Code related to additions, alterations, renovations or repairs to an existing building are acceptable provided the energy use of the building is not increased.

ce~~d~~) This Code, together with the standards incorporated by reference in this Part, has the force of a building code and is administrative law applicable in the State of Illinois.

(Source: Amended at 47 Ill. Reg. 17974, effective November 27, 2023)

Section 600.120 Illinois Energy Conservation Advisory Council

a) The Executive Director of the Capital Development Board shall appoint an Advisory Council. The Council shall be composed of the Executive Director or his or her authorized representative, who shall serve as Chairman ex-officio, and 16 additional members appointed by the Executive Director. The appointed members shall consist of 1 person representing the Illinois Environmental Protection Agency; 2 persons representing the residential construction contracting industry; 2 licensed architects; 1 licensed mechanical engineer; 1 licensed electrical engineer; 2 persons representing local code officials; and 2 persons representing the construction contracting industry; 1 representative from a group that represents environmental justice; 1 representative of a nonprofit or professional association advocating for the environment; 1 energy-efficiency advocate with technical expertise in single-family residential buildings; 1 energy-efficiency advocate with technical expertise in commercial buildings; and 1 energy-efficiency advocate with technical expertise in multifamily buildings, such as an affordable housing developer. Members of the Council shall be appointed for 4 year terms. The members appointed by the Executive Director shall serve for the term of their appointments or until their successors are appointed and may be reappointed upon expiration of the term. Any member appointed to fill a vacancy occurring prior to the expiration of the term for which his or her predecessor was appointed shall be appointed for a full term.

Commented [CR14]: The IL Energy Conservation Code applies to all Commercial and Residential buildings in the State unless the Stretch Code has been adopted by the local municipality, in which case, the Stretch Code replaces the IL Energy Conservation Code.

Commented [CR15]: Clarifies participation of members pending reappointment.

b) Nine members of the Council shall constitute a quorum. The Chairman shall only vote to break a tie or when necessary to establish a quorum.

c) The purpose of the Council shall be to recommend modifications to the Illinois Energy Conservation Code and the Illinois Stretch Energy Code.

d) Members of the Council shall serve without compensation but shall be reimbursed for reasonable travel expenses necessarily incurred in the performance of their duties.

(Source: Amended at 47 Ill. Reg. 17974, effective November 27, 2023)

Section 600.125 Illinois Energy Conservation Advisory Council Meetings

a) Public comment will be allowed at the end of each meeting for a period not to exceed 30 minutes or at other times as designated by the Chair. Each person making a public comment will be given up to 3 minutes of uninterrupted time to speak.
b) The Chair may impose other time restrictions as may be necessary to accommodate all persons wishing to make comment.
c) Public comment is not permitted except at designated times unless requested by the Chair.
d) Public comment that is deemed by the Chair to be disruptive to the meeting and prevents the Council from accomplishing its business in an efficient manner, will not be allowed.
e) The council is not required to answer or respond to any public comment.

Commented [CR16]: New language providing guidelines for public comment.

Section 600.130 Revisions to the Code

This Code may be revised by the Capital Development Board on its own volition or pursuant to recommendations of the Illinois Energy Conservation Advisory Council and in accordance with the Illinois Administrative Procedure Act [5 ILCS 100].

SUBPART B: STATE FUNDED FACILITIES

Section 600.200 Illinois Commercial Stretch Code~~Standards for State Funded Facilities~~

Commented [CR17]: Requires Commercial Stretch Code for State Funded Facilities.

a) The 2024~~21~~ IECC, including published errata but excluding published supplements, available from the International Code Council at 200 Massachusetts Ave, NW Suite 250, Washington DC 20001, phone: 1-888-ICC-SAFE (422-7233), www.iccsafe.org, is hereby incorporated into the Illinois Commercial

Stretch Energy ~~Conservation~~ Code, as described in this Subpart as applicable to State funded facilities, with the modifications outlined in subsection (c).

b) All incorporations by reference in this Section are of the cited standards as they existed on the date specified. These incorporations include no later editions or amendments.

c) Modifications to IECC
Under Section 55~~15~~ of the EEB Act, when applying the Commercial Stretch Code to State funded facilities, CDB may modify the incorporated standards to meet the site energy index specified in the EEB Act.~~respond to the unique economy, population distribution, geography and climate of Illinois, as long as the objectives of the EEB Act are maintained.~~ Modifications, additions or omissions to the IECC are specified in Appendix B~~A~~ and are rules of the CDB and are not requirements of the IECC.

(Source: Amended at 47 Ill. Reg. 17974, effective November 27, 2023)

Section 600.210 Exemptions

a) *The following buildings are exempt from the Code:*

1) *Buildings otherwise exempt from the provisions of a locally adopted building code and buildings that do not contain a conditioned space;*

2) *Buildings that do not use either electricity or fossil fuel for comfort conditionings;*

3) *Historic buildings listed on the National Register of Historic Places or the Illinois Register of Historic Places*, and those buildings that are designated by authorized personnel as historically significant;

4) *Other buildings specified as exempt by the IECC.*

b) *For purposes of determining whether an exemption authorized under subsection (a)(2) applies, a building will be presumed to be heated by electricity, even in the absence of equipment used for electric comfort heating, whenever the building is provided with electrical service in excess of 100 amps, unless the code enforcement official determines that this electrical service is necessary for purposes other than providing electric comfort heating.* [20 ILCS 3125/20]

(Source: Amended at 43 Ill. Reg. 8707, effective August 5, 2019)

Section 600.220 Compliance

Compliance with the Illinois Commercial Stretch Energy ~~Conservation~~ Code for State facilities as described by this Subpart B shall be demonstrated by submission of one of the following:

a) Buildings certified in compliance with Passive House Institute (PHI) or Passive House Institute U.S. (PHIUS) programs;~~the compliance forms published in the ASHRAE 90.1 User's Manual;~~

~~b) Compliance Certificates generated by the U.S. Department of Energy's COMCheck code compliance tool; or~~

be) the seal of the Architect/Engineer as required by Section 14 of the Illinois Architecture Practice Act [225 ILCS 305], Section 12 of the Structural Engineering Licensing Act [225 ILCS 340] and Section 14 of the Illinois Professional Engineering Practice Act [225 ILCS 325].

(Source: Amended at 43 Ill. Reg. 8707, effective August 5, 2019)

SUBPART C: PRIVATELY FUNDED COMMERCIAL FACILITIES

Section 600.300 Illinois Energy Conservation Code~~Standards for Privately Funded Commercial Facilities~~

a) The 2021 IECC, including published errata but excluding published supplements, available from the International Code Council at 200 Massachusetts Ave, NW Suite 250, Washington DC 20001, phone: 1-888-ICC-SAFE (422-7233), www.iccsafe.org, is hereby incorporated into the Illinois Energy Conservation Code, as described in this Subpart as applicable to privately funded commercial facilities, with the modifications outlined in subsection (c).

b) All incorporations by reference in this Section are of the cited standards as they existed on the date specified. These incorporations include no later editions or amendments.

c) Modifications to IECC
Under Section 15 of the EEB Act, when applying the Code to privately funded commercial facilities, CDB may modify the incorporated standards to respond to the unique economy, population distribution, geography and climate of Illinois, as long as the objectives of the EEB Act are maintained. Modifications, additions or omissions to IECC are specified in Appendix A and are rules of the CDB and are not requirements of the IECC.

Commented [CR18]: New compliance option per statute and removal of options that do not have a Stretch Code capability.

(Source: Amended at 47 Ill. Reg. 17974, effective November 27, 2023)

Section 600.305 Illinois Commercial Stretch Energy Code

Commented [CR19]: New Stretch Code requirements for Commercial Facilities.

a) The 2024 IECC, including published errata but excluding published supplements available from the International Code Council at 500 New Jersey Avenue NW, 6th Floor, Washington DC 20001, phone: 1-888-ICC-SAFE (422-7233), www.iccsafe.org, is hereby incorporated into the Illinois Commercial Stretch Energy Code, as described in this Subpart as applicable to privately funded commercial facilities, with the modifications outlined in subsection (c).

b) All incorporations by reference in this Section are of the cited standards as they existed on the date specified. These incorporations include no later editions or amendments.

c) Modifications to the IECC
Under Section 55 of the EEB Act, when applying the Code to privately funded commercial facilities, CDB shall modify the incorporated standards to meet the site energy index specified in the EEB Act. Modifications, additions or omissions to the IECC are specified in Appendix B and are rules of the CDB and are not requirements of the IECC.

Section 600.310 Exemptions

a) The following buildings are exempt from the Code:

1) *Buildings otherwise exempt from the provisions of a locally adopted building code and buildings that do not contain a conditioned space;*

2) *Buildings that do not use either electricity or fossil fuel for comfort conditioning;*

3) *Historic buildings listed on the National Register of Historic Places or the Illinois Register of Historic Places, and those buildings that are designated by authorized personnel as historically significant;*

4) *Other buildings specified as exempt by the IECC.*

b) *For the purposes of determining whether an exemption* authorized under subsection (a)(2) *applies, a building will be presumed to be heated by electricity, even in the absence of equipment used for electric comfort heating, whenever the building is provided with electrical service in excess of 100 amps, unless the code*

enforcement official determines that this electrical service is necessary for purposes other than providing electric comfort heating. [20 ILCS 3125/20]

(Source: Amended at 43 Ill. Reg. 8707, effective August 5, 2019)

Section 600.320 Local Jurisdiction

a) Construction projects involving privately funded commercial facilities and for which a municipality or county requires a building permit must comply with the Illinois Energy Conservation Code or the Illinois Stretch Energy Code if adopted by the municipality if the project involves new construction, addition, alteration, renovation or repair. *In the case of any addition, alteration, renovation or repair to an existing commercial structure, the Code* as described by this Subpart C *applies only to the portions of that structure that are being added, altered, renovated or repaired.* [20 ILCS 3125/20(a)]

b) The local authority having jurisdiction (AHJ) shall establish its own procedures for enforcement of the Illinois Energy Conservation Code and/or the Illinois Commercial Stretch Energy Code. The AHJ is authorized to enforce an energy ~~building~~ code that differs with the Illinois Energy Conservation Code or the Illinois Commercial Stretch Energy Code as described in this Subpart C, but any standards applied by an AHJ must be at least as stringent as the Code as described in this Subpart C.

c) *A unit of local government that does not regulate energy efficient building standards is not required to adopt, enforce or administer the Code; however, any energy efficient building standards adopted by a unit of local government must comply with the Act. If a unit of local government does not regulate energy efficient building standards, any construction, renovation or addition to buildings or structures is* still *subject to the provisions contained in the Act.* [20 ILCS 3125/20(d)]

(Source: Amended at 40 Ill. Reg. 2754, effective January 20, 2016)

Section 600.330 Compliance

a) Compliance with the Illinois Energy Conservation Code as described by this Subpart C (applicable to commercial facilities) shall be determined by the local authority having jurisdiction (AHJ). Minimum compliance shall be demonstrated by submission of one of the following:

~~b) Minimum compliance shall be demonstrated by submission of:~~

1) the compliance forms published in the ASHRAE 90.1 User's Manual; or

2) Compliance Certificates generated by the U.S. Department of Energy's COMcheck code compliance tool; or

3) other comparable compliance materials that meet or exceed, as determined by the authority having jurisdiction, the compliance forms published in the ASHRAE 90.1 User's Manual or the U.S. Department of Energy's COMcheck code compliance tool; or

4) the seal of the Architect/Engineer as required by Section 14 of the Illinois Architecture Practice Act [225 ILCS 305], Section 12 of the Structural Engineering Licensing Act [225 ILCS 340] and Section 14 of the Illinois Professional Engineering Practice Act [225 ILCS 325].

b) Compliance with the Illinois Commercial Stretch Energy Code as described by this Subpart C (applicable to commercial facilities) shall be determined by the local authority having jurisdiction (AHJ). Minimum compliance shall be demonstrated by submission of one of the following:

1) Buildings certified in compliance with Passive House Institute (PHI) or Passive House Institute U.S. (PHIUS) programs;

2) The code official shall be permitted to approve specific computer software, worksheets, compliance manuals and other similar materials that meet the intent of this code; or

3) the seal of the Architect/Engineer as required by Section 14 of the Illinois Architecture Practice Act [225 ILCS 305], Section 12 of the Structural Engineering Licensing Act [225 ILCS 340] and Section 14 of the Illinois Professional Engineering Practice Act [225 ILCS 325].

Commented [CR20]: New compliance methods for the Commercial Stretch Energy Code.

(Source: Amended at 33 Ill. Reg. 16702, effective November 23, 2009)

Section 600.340 Application to Home Rule Units

Section 45(d) of the EEB Act *is a denial and limitation of home rule powers and functions under subsection (i) of Section 6 of Article VII of the Illinois Constitution on the concurrent exercise by home rule units of powers and functions exercised by the State. Nothing in* Section 45(d) of the EEB Act, *however, prevents a unit of local government from adopting an energy efficiency code or standards for commercial buildings that are more stringent than the Code under* the EEB *Act.* [20 ILCS 3125/45(d)]

(Source: Amended at 47 Ill. Reg. 17974, effective November 27, 2023)

SUBPART D: RESIDENTIAL BUILDINGS

Section 600.400 Illinois Energy Conservation Code~~Standards for Residential Buildings~~

a) The 2021 IECC, including published errata but excluding published supplements, available from the International Code Council at 200 Massachusetts Ave, NW Suite 250, Washington DC 20001, phone: 1-888-ICC-SAFE (422-7233), www.iccsafe.org, is hereby incorporated into the Illinois Energy Conservation Code, as described in this Subpart as applicable to residential buildings, with the modifications outlined in subsection (c).

b) All incorporations by reference in this Section are of the cited standards as they existed on the date specified. These incorporations include no later editions or amendments.

c) Modifications to IECC
Under Section 15 of the EEB Act, when applying the Code to residential buildings, CDB may modify the incorporated standards to respond to the unique economy, population distribution, geography and climate of Illinois, as long as the objectives of the Act are maintained pursuant to that statutory authority. Modifications, additions or omissions to IECC are specified in Appendix A and are rules of the CDB and are not requirements of the IECC.

(Source: Amended at 47 Ill. Reg. 17974, effective November 27, 2023)

Section 600.405 Illinois Residential Stretch Energy Code

a) The 2021 IECC, including published errata but excluding published supplements available from the International Code Council at 500 New Jersey Avenue NW, 6th Floor, Washington DC 20001, phone: 1-888-ICC-SAFE (422-7233), www.iccsafe.org, is hereby incorporated into the Illinois Residential Stretch Energy Code, as described in this Subpart as applicable to residential buildings, with modifications outlined in subsection (c).

b) All incorporations by reference in this Section are of the cited standards as they existed on the date specified. These incorporations include no later editions or amendments.

c) Modifications to the IECC
Under Section 55 of the EEB Act, when applying the Code to privately funded residential buildings, CDB shall modify the incorporated standards to meet the

Commented [CR21]: New Stretch Code requirements for Residential buildings.

site energy index specified in the EEB Act. Modifications, additions or omissions to the IECC are specified in Appendix C and are rules of the CDB and are not requirements of the IECC.

Section 600.410 Exemptions

a) The following buildings are exempt from the Code:

1) *Buildings otherwise exempt from the provisions of a locally adopted building code and buildings that do not contain a conditioned space;*

2) *Buildings that do not use either electricity or fossil fuel for comfort conditioning;*

3) *Historic buildings listed on the National Register of Historic Places or the Illinois Register of Historic Places, and those buildings that are designated by authorized personnel as historically significant;*

4) *Other buildings specified as exempt by the IECC.* [20 ILCS 3125/20]

b) *For the purposes of determining whether an exemption* authorized under subsection (a)(2) *applies, a building will be presumed to be heated by electricity, even in the absence of equipment used for electric comfort heating, whenever the building is provided with electrical service in excess of 100 amps, unless the code enforcement official determines that this electrical service is necessary for purposes other than providing electric comfort heating.* [20 ILCS 3125/20(b)(2)]

(Source: Added at 34 Ill. Reg. 11398, effective July 26, 2010)

Section 600.420 Local Jurisdiction

a) Construction projects involving residential buildings and for which a municipality or county requires a building permit must comply with the Illinois Energy Conservation Code or the Illinois Residential Stretch Energy Code if adopted by the municipality if the project involves new construction, addition, alteration, renovation or repair. *In the case of any addition, alteration, renovation or repair to an existing residential structure, the Code* as described by this Subpart D *applies only to the portions of that structure that are being added, altered, renovated or repaired.* [20 ILCS 3125/20(a)]

b) The local authority having jurisdiction (AHJ) shall establish its own procedures for enforcement of the Code.

c) *A unit of local government that does not regulate energy efficient building standards is not required to adopt, enforce or administer the Code; however, any energy efficient building standards adopted by a unit of local government must comply with the Act. If a unit of local government does not regulate energy efficient building standards, any construction, renovation or addition to buildings or structures is still subject to the provisions contained in the Act.* [20 ILCS 3125/20(d)].

(Source: Amended at 47 Ill. Reg. 17974, effective November 27, 2023)

Section 600.430 Compliance

a) Compliance with the Illinois Energy Conservation Code as described by this Subpart D (applicable to residential buildings) shall be determined by the local AHJ. Minimum compliance shall be demonstrated by submission of one of the following:

~~b) Minimum compliance shall be demonstrated by submission of:~~

1) Compliance Certificates generated by the U.S. Department of Energy's REScheck code compliance tool; or

2) Other comparable compliance materials that meet or exceed, as determined by the AHJ, U.S. Department of Energy's REScheck code compliance tool; or

3) The seal of the architect/engineer as required by Section 14 of the Illinois Architecture Practice Act [225 ILCS 305], Section 12 of the Structural Engineering Licensing Act [225 ILCS 340] and Section 14 of the Illinois Professional Engineering Practice Act [225 ILCS 325].

b) Compliance with the Illinois Residential Stretch Energy Code as described by this Subpart D (applicable to residential buildings) shall be determined by the local AHJ. Minimum compliance shall be demonstrated by submission of one of the following:

1) Buildings certified in compliance with Passive House Institute (PHI) or Passive House Institute U.S. (PHIUS) programs;

2) The code official shall be permitted to approve specific computer software, worksheets, compliance manuals and other similar materials that meet the intent of this code; or

3) the seal of the Architect/Engineer as required by Section 14 of the Illinois Architecture Practice Act [225 ILCS 305], Section 12 of the Structural Engineering Licensing Act [225 ILCS 340] and Section 14 of the Illinois Professional Engineering Practice Act [225 ILCS 325].

Commented [CR22]: New compliance methods for the Residential Stretch Energy Code.

(Source: Added at 34 Ill. Reg. 11398, effective July 26, 2010)

Section 600.440 Application to Home Rule Units

Commented [CR23]: Multiple edits to match statute.

a) *No unit of local government, including any home rule unit, may regulate energy efficient building standards for residential buildings in a manner that is either less or more stringent than the* standards established in this Subpart D.

b) *The following entities may regulate energy efficient building standards for residential or commercial buildings in a manner that is more stringent than the provisions contained in this* Subpart D:

1) *a unit of local government, including a home rule unit, that has, on or before May 15, 2009, adopted or incorporated by reference energy efficient building standards for residential or commercial buildings that are equivalent to or more stringent than the 2006 IECC;*

2) *a unit of local government, including a home rule unit, that has, on or before May 15, 2009, provided to the Capital Development Board, as required by Section 10.18 of the Capital Development Board Act* [20 ILCS 3105], *an identification of an energy efficient building code or amendment that is equivalent to or more stringent than the 2006 IECC; and*

3) *a municipality with a population of 1,000,000 or more.* ~~[20 ILCS 3125/45(b)]~~

4) *a municipality that has adopted the Illinois Stretch Energy Code* [20 ILCS 3125/45 (b)]

c) *No unit of local government, including any home rule unit or unit of local government that is subject to State regulation under the Code as provided in Section 15 of the EEB may enact any annexation ordinance or resolution, or require or enter into any annexation agreement, that imposes energy efficient building standards for residential or commercial buildings that are either less or more stringent than the energy efficiency standards in effect, at the time of construction, throughout the unit of local government, except for the Illinois Stretch Energy Code.* [20 ILCS 3125/45(c)]

(Source: Amended at 43 Ill. Reg. 8707, effective August 5, 2019)

Section 600.APPENDIX A Supplanted and Additional 2021 International Energy Conservation Code Sections

Commented [CR24]: This is an existing Appendix in the Rule. The only change is shown below.

The following Code sections shall be referenced in place of the corresponding 2021 IECC sections.

CHAPTER 1 [RE]
SCOPE AND ADMINISTRATION

SECTION R102
ALTERNATIVE MATERIALS DESIGN AND METHODS
OF CONSTRUCTION AND EQUIPMENT

R102.1.1 Above Code Programs. No unit of local government, including any home rule unit, may regulate energy efficient building standards for residential building in a manner that is either less or more stringent than the standards established pursuant to this Code. Buildings shall be considered to be in compliance with this code when those buildings also meet the requirements identified in Table R405.2 and the building thermal envelope is greater than or equal to levels of efficiency and solar heat gain coefficients (SHGC) in Tables 402.1.1 and 402.1.3 of the 2009 International Energy Conservation Code.

However, the following entities may regulate energy efficient building standards for residential buildings in a manner that is more stringent than the provisions contained in this Code:

i) A unit of local government, including a home rule unit, that has, on or before May 15, 2009, adopted or incorporated by reference energy efficient building standards for residential buildings that are equivalent to or more stringent than the 2006 International Energy Conservation Code;

ii) A unit of local government, including a home rule unit, that has, on or before May 15, 2009, provided to the Capital Development Board, as required by Section 10.18 of the Capital Development Board Act, an identification of an energy efficient building code or amendment that is equivalent to or more stringent than the 2006 International Energy Conservation Code; ~~and~~

iii) A municipality with a population of 1,000,000 or more~~.~~;and

iv) A municipality that has adopted the Illinois Stretch Energy Code.

Commented [CR25]: New category per statute.

Section 600.APPENDIX B Supplanted and Additional 2024 International Energy Conservation Code Sections

The following Code sections shall be referenced in place of the corresponding 2024 IECC sections.

CHAPTER 1 [CE] SCOPE AND ADMINISTRATION

User note:

About this chapter: Chapter 1 *establishes the limits of applicability of the code and describes how the code is to be applied and enforced.* ***Chapter 1*** *is in two parts: Part 1—Scope and Application and Part 2—Administration and Enforcement.* ***Section C101,*** *identifies what buildings, systems, appliances and equipment fall under its purview and references other I-Codes as applicable. Standards and codes are scoped to the extent referenced.*

The code is intended to be adopted as a legally enforceable document and it cannot be effective without adequate provisions for its administration and enforcement. The provisions of ***Chapter 1*** *establish the authority and duties of the code official appointed by the authority having jurisdiction and also establish the rights and privileges of the design professional, contractor and property owner.*

PART 1—SCOPE AND APPLICATION

SECTION C101
SCOPE AND GENERAL REQUIREMENTS

C101.1 Title. This code shall be known as the 2023 Illinois Commercial Stretch Energy ~~Conservation~~ Code ~~of [NAME OF JURISDICTION]~~, and shall mean:~~be cited as such. It is referred to herein as "this code."~~

With respect to the State facilities covered by 71 Ill. Adm. Code 600.Subpart B:

This Part, all additional requirements incorporated within Subpart B (including the 2024 International Energy Conservation Code Commercial Provisions, including all published errata but excluding published supplements that encompass ASHRAE 90.1-2022), and any statutorily authorized adaptations to the incorporated standards adopted by CDB are effective 7/1/24.

With respect to the privately funded commercial facilities covered by 71 Ill. Adm. Code 600.Subpart C:

This Part, all additional requirements incorporated within Subpart C (including the 2024 International Energy Conservation Code Commercial Provisions, including all published errata and excluding published supplements that encompass ASHRAE 90.1-2022), and any statutorily authorized adaptations to the incorporated standards adopted by CDB is effective upon adoption by a Municipality and takes the place of the Illinois Energy Conservation Code with respect to commercial buildings.

No unit of local government, including any home rule unit, may regulate energy efficient building standards for commercial buildings in a manner that is less stringent than the standards established pursuant to this Illinois Commercial Stretch Energy Code.

C101.2 Scope. This code applies to the design and construction of buildings not covered by the scope of the IECC – Residential Provisions.

C101.2.1 Appendices Provisions in the appendices shall not apply unless specifically adopted.

Commented [CR26]: This is an entirely new Appendix in the Rule. All text (other than red strike-thru) will be added to the Rule. The edits shown are revisions to the 2024 IECC.

Commented [CR27]: Defines the Title of the new Commercial Stretch Code

Commented [CR28]: Defines the application of the Commercial Stretch Code to State Facilities including 2024 IECC.

Commented [CR29]: Defines the application of the Commercial Stretch Code to Privately Funded Commercial Facilities including 2024 IECC.

Commented [CR30]: Defines the Stretch Code as a "minimum" requirement per statute.

C101.3 Intent. The International Energy Conservation Code - Commercial Provisions provide market-driven, enforceable requirements for the design and construction of commercial buildings, providing minimum efficiency requirements for buildings that result in the maximum level of energy efficiency that is safe, technologically feasible, and life cycle cost effective, considering economic feasibility, including potential costs and savings for consumers and building owners, and return on investment. Additionally, the code provides jurisdictions with supplemental requirements, including ASHRAE 90.1, and optional requirements that lead to achievement of zero energy buildings, presently, and through glidepaths that achieve zero energy buildings by 2030 and on additional timelines sought by governments, and achievement of additional policy goals as identified by the Energy and Carbon Advisory Council and approved by the Board of Directors. Requirements contained in the code will include, but not be limited to, prescriptive- and performance-based pathways. The code may include non-mandatory appendices incorporating additional energy efficiency and greenhouse gas reduction resources developed by the Code Council and others. The code will aim to simplify code requirements to facilitate the code's use and compliance rate. The code is updated on a three-year cycle with each subsequent edition providing increased energy savings over the prior edition. This code is intended to provide flexibility to permit the use of innovative approaches and techniques to achieve this intent. This code is not intended to abridge safety, health or environmental requirements contained in other applicable codes or ordinances.

C101.4 Compliance. ~~*Residential buildings* shall meet the provisions of IECC—Residential Provisions.~~ *Commercial buildings* shall meet the provisions of ~~IECC—Commercial Provisions.~~ the *Illinois Commercial Stretch Energy Code* covered by 71 Ill. Adm. Code 600 Subpart C. The local authority having jurisdiction (AHJ) shall establish its own procedures for enforcement of the Illinois Commercial Stretch Energy Code. Minimum compliance shall be demonstrated by submission of:

C101.4.1 Compliance materials. The *code official* shall be permitted to approve specific computer software, worksheets, compliance manuals and other similar materials that meet the intent of this code.~~:~~or

C101.4.2 Professional Seals. The seal of the architect/engineer as required by Section 14 of the Illinois Architectural Practice Act [225 ILCS 305], Section 12 of the Structural Engineering Licensing Act [225 ILCS 340] and Section 14 of the Illinois Professional Engineering Practice Act [225 ILCS 325].

Commented [CR31]: Enforcement and compliance is left to the AHJ similar to the IL Energy Conservation Code.

SECTION C102
APPLICABILITY

C102.1 Applicability. Where, in any specific case, different sections of this code specify different materials, methods of construction or other requirements, the most restrictive shall govern. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall govern.

C102.1.1 Mixed residential and commercial buildings. Where a *building* includes both *residential building* and *commercial building* portions, each portion shall be separately considered and meet the applicable provisions of Illinois Commercial Stretch Energy Code or the Illinois Residential Stretch Energy Code.~~IECC—Commercial Provisions or IECC—Residential Provisions.~~

Commented [CR32]: Requires mixed use buildings to comply with the applicable Stretch Code.

C102.2 Other laws. The provisions of this code shall not be deemed to nullify any provisions of local, state or federal law.

C102.3 Applications of references. References to chapter or section numbers, or to provisions not specifically identified by number, shall be construed to refer to such chapter, section or provision of this code.

C102.4 Referenced codes and standards. The codes and standards referenced in this code shall be those listed in **Chapter 6**, and such codes and standards shall be considered as part of the requirements of this code to the prescribed extent of each such reference and as further regulated in Sections C102.4.1 and C102.4.2.

C102.4.1 Conflicts. Where conflicts occur between provisions of this code and referenced codes and standards, the provisions of this code shall apply.

C102.4.2 Provisions in referenced codes and standards. Where the extent of the reference to a referenced code or standard includes subject matter that is within the scope of this code, the provisions of this code, as applicable, shall take precedence over the provisions in the referenced code or standard.

C102.5 Partial invalidity. If a portion of this code is held to be illegal or void, such a decision shall not affect the validity of the remainder of this code.

PART 2—ADMINISTRATION AND ENFORCEMENT
SECTION C103
ALTERNATIVE MATERIALS, DESIGN AND METHODS OF CONSTRUCTION AND EQUIPMENT

C103.1 General. The provisions of this code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by this code, provided that any such alternative has been *approved*. The *code official*

shall have the authority to approve an alternative material, design or method of construction upon the written application of the *owner* or the *owner*'s authorized agent. The *code official* shall first find that the proposed design is satisfactory and complies with the intent of the provisions of this code, and that the material, method or work offered is, for the purpose intended, not less than the equivalent of that prescribed in this code in quality, strength, effectiveness, *fire resistance*, durability, energy conservation and safety. The *code official* shall respond to the applicant, in writing, stating the reasons why the alternative was *approved* or was not *approved*.

C103.1.1 Above code programs. ~~The code official or other authority having jurisdiction shall be permitted to deem a national, state or local energy efficiency program as exceeding the energy efficiency required by this code.~~ Buildings certified in compliance with Passive House Institute (PHI) or Passive House Institute U.S. (PHIUS) programs, or buildings that comply with Appendix CC, shall be deemed to meet the requirements of this code where such buildings also meet the ~~Buildings approved in writing by such an energy efficiency program shall be considered to be in compliance with this code. The~~ requirements identified in Table C407.2(1). ~~shall be met.~~

Commented [CR33]: Allows Passive House as an above code program per statute.

SECTION C104
CODE COMPLIANCE AGENCY

C104.1 Creation of enforcement agency. The [INSERT NAME OF DEPARTMENT] is hereby created and the official in charge thereof shall be known as the authority having jurisdiction (AHJ). The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.

C104.2 Appointment. The authority having jurisdiction (AHJ) shall be appointed by the chief appointing authority of the jurisdiction.

C104.3 Deputies. In accordance with the prescribed procedures of this jurisdiction and with the concurrence of the appointing authority, the authority having jurisdiction (AHJ) shall have the authority to appoint a deputy authority having jurisdiction (AHJ), other related technical officers, inspectors and other employees. Such employees shall have powers as delegated by the authority having jurisdiction (AHJ).

SECTION C105
CONSTRUCTION DOCUMENTS

C105.2.2 Electrification system. The construction documents shall provide details for additional electric infrastructure, including branch circuits, conduit, pre-wiring, panel capacity, and electrical service capacity, as well as interior and exterior spaces designated for future electric equipment, in compliance with the provisions of this code.

Commented [CR34]: Requires "electric readiness" provisions to be shown on the drawings.

SECTION C107
INSPECTIONS

C107.2.5 Electrical system. Inspection shall verify lighting system controls, components, ~~and~~ meters, and electric infrastructure as required by the code, approved plans and specifications. Where an electrical energy storage system area is required, inspections shall verify space availability and pathways to electrical service.

Commented [CR35]: Requires "electric readiness" provisions to be inspected.

SECTION C202

GENERAL DEFINITIONS

COMMERCIAL COOKING APPLIANCE. Appliances used in a commercial food service establishment for heating or cooking food. For the purpose of this definition, a commercial food service establishment is where food is regularly prepared for sale or is prepared on a scale that is by volume and frequency not representative of domestic household cooking.

ELECTRIC VEHICLE CAPABLE SPACE (EV CAPABLE SPACE). An automobile parking space provided with electrical infrastructure~~, such as, but not limited to,~~ including raceway or cable assemblies, ~~cables,~~ electrical capacity, and electrical distribution equipment space, necessary for connection to an EVSE.

REPLACEMENT COST. The cost to construct or replace an entire *building* with equal quality, construction type, and square footage, at current construction market labor and material rates.

SUBSTANTIAL IMPROVEMENT. Any *repair*, reconstruction, rehabilitation, *alteration*, *addition* or other improvement of a building or structure, the cost of which equals or is more than 50 percent of the market value *replacement cost* of the structure before the improvement or repair is started. Where the structure has sustained *substantial damage*, as defined in the International Building Code, any repairs are considered substantial improvement regardless of the actual *repair* work performed. Substantial improvement does not include the following:

1. Improvement of a *building* ordered by the code official to correct health, sanitary or safety code violations and that are the minimum necessary to assure safe living conditions.
2. *Alteration* of a *historic building* where the *alteration* will not affect the designation as a historic structure.

Commented [CR36]: Forces the determination of "substantial" to be based on replacement cost. This avoids inconsistencies across jurisdictions that use other methods such as assessed value.

SECTION C401
GENERAL

C401.2 Application. Commercial buildings shall comply with Section C401.2.1 or C401.2.2.

C401.2.1 Commercial buildings shall comply with one of the following:

1. Prescriptive Compliance. The Prescriptive Compliance option requires compliance with Sections C402 through C406 and Section C408. Dwelling units and sleeping units in Group R-2 buildings shall be deemed to be in compliance with this chapter, provided that they comply with Section R406.

2. Simulated Building Performance. The Simulated Building Performance option requires compliance with Section C407.

Exception: Additions, alterations, repairs and changes of occupancy to existing buildings complying with Chapter 5.

C401.2.2 ASHRAE 90.1. Commercial buildings shall comply with the requirements of ANSI/ASHRAE/IES 90.1, Appendix CI, and the requirements of the sections indicated within Table C401.2.2

TABLE C401.2.2 REQUIREMENTS FOR ASHRAE 90.1 COMPLIANCE

SECTION[a]	TITLE
New Construction	
C405.4	Horticultural lighting
C405.14	Electric Vehicle Power Transfer Infrastructure
C405.16	Electrical energy storage system
C405.18	Electric infrastructure
Additions and Alterations	
C502.3.7	Additional energy efficiency credits
C503.3.4	Mechanical system acceptance testing
C503.3.5	Duct testing
C503.3.6	Controls
C503.3.7	System sizing
C503.6	Additional energy efficiency credits
C505.1.3	Additional energy efficiency for changes of occupancy

a. Reference to a code section includes all the relative subsections as indicated in the table.

Commented [CR37]: Requires the ASHRAE 90.1 compliance method to also meet noted provisions in the IECC.

SECTION C402
BUILDING THERMAL ENVELOPE REQUIREMENTS

C402.5.1.3 Fenestration Orientation.

Commented [CR38]: Added to Stretch Code to be consistent with IL Energy Conservation Code.

The vertical fenestration shall comply with equation either (a) or (b)

a. $AW \leq (AT)/4$ and $AE \leq (AT)/4$

b. $AW \times SHGCW \leq (AT \times SHGCC)/5$ and $AE \times SHGCE \leq (AT \times SHGCC)/5$

where

Aw = west-oriented vertical fenestration area (oriented within 45 degrees of true west to the south and within 22.5 degrees of true west to the north in the northern hemisphere)

Ae = east-oriented vertical fenestration area (oriented within 45 degrees of true east to the south and within 22.5 degrees of true east to the north in the northern hemisphere)

AT = total *vertical fenestration area*

SHGCC = SHGC criteria in Table C402.5

SHGCE = SHGC for *east-oriented fenestration*

SHGCW = SHGC for *west-oriented fenestration*

Exceptions:

1. *Buildings* with shade on 75% of the *east-* and *west-oriented vertical fenestration areas* from permanent projections, *existing buildings*, existing permanent infrastructure, or topography at 9 a.m. and 3 p.m., respectively, on the summer solstice (June 21).

2. *Alterations* and additions with no increase in *vertical fenestration area*.

3. *Buildings* where the *west-oriented* and *east-oriented vertical fenestration area* does not exceed 20% of the *gross wall area* for each of those façades, and *SHGC* on those facades is no greater than 90% of the criteria in Table C402.5.

SECTION C405
ELECTRICAL POWER AND LIGHTING SYSTEMS

C405.4 Horticultural lighting. Permanently installed luminaires shall have a *photosynthetic photon efficacy* of not less than 1.7 µmol/J for horticultural lighting in greenhouses and not less than ~~1.9~~ 2.2 µmol/J for all other horticultural lighting. Luminaires for horticultural lighting in greenhouses shall be controlled by a device that automatically turns off the luminaire when sufficient daylight is available. Luminaires for horticultural lighting shall be controlled by a device that automatically turns off the luminaire at specific programmed times.

Exception: Cannabis facilities subject to 410 ILCS 705/10-45- the Cannabis Regulation and Tax Act

Commented [CR39]: Increases efficiency of lighting and provides an exception for cannabis facilities in accordance with statute.

C405.14.2 EV Capable Spaces. Each EV capable space used to meet the requirements of Section C405.14.1 shall comply with the following:

1. A continuous raceway or cable assembly shall be installed between an enclosure or outlet located within 3 feet (914 mm) of the EV capable space and electrical distribution equipment.
2. Installed raceway or cable assembly shall be sized and rated to supply a minimum circuit ~~capactiy~~ capacity in accordance with C405.14.5.
3. The electrical distribution equipment to which the raceway or cable assembly connects shall have dedicated overcurrent protection device space and electrical capacity to supply a calculated load in accordance with Section C405.14.5.
4. The enclosure or outlet and the electrical distribution equipment directory shall be marked: "For electric vehicle supply equipment (EVSE)."

C405.14.6 EVSE Installation. EVSE shall be installed in accordance with NFPA 70 and shall be listed and labeled in accordance with UL 2202 or UL 2594. EVSE shall be accessible in accordance with the 2024 edition of the International Building Code Section 1107.

C405.16 Electrical energy storage system. Buildings shall comply with Section C405.16.1 or Section C405.16.2. Buildings shall comply with Section C405.16.3.

Commented [CR40]: Several changes in this section to make sure that buildings with ESS systems and buildings with ESS provisions both have to meet the same fire code requirements. Also added NFPA 855 as a compliance alternative per OSFM suggestion.

C405.16.1 Electrical energy storage system (ESS) capacity. Each building shall have one or more ESS with a total rated energy capacity and rated power capacity as follows:

1. ESS rated energy capacity (kWh)≥1.0 x Installed On-site Renewable Electric Energy System Rated Power (kWDC)
2. ESS rated power capacity (kW)≥0.25 x Installed On-Site Renewable Electric Energy System Rated Power (kWDC).

Where installed, DC coupled battery systems shall meet the requirements for rated energy capacity alone.

C405.16.2 Electrical energy storage system ready. Each building shall have one or more reserved ESS-ready areas to accommodate future electrical storage ~~in accordance with Sections C405.16.2 through C405.16.2.4~~.

C405.16.3 Electrical energy storage installed or ready area. Areas where ESS is installed and ESS-ready areas shall comply with Sections C405.3.1 through C405.3.4.

C405.16.~~2~~3.1 ESS installed or ~~-~~ready location. Each ESS installed or ~~-~~ready area shall be located in accordance with either Section 1207 of the 2024 International Fire Code or NFPA 855. For the purposes of locating and designing means of egress, ESS-installed or ready areas shall comply with either i) means of egress requirements for H-Occupancies of the 2024 International Fire Code or ii) Sections 7.2.1.4.2(3) and 7.11 of NFPA 101 (2015).

C405.16.~~2~~3.2 ESS installed or ~~-~~ready minimum area requirements. Each ESS installed or ~~-~~ready area shall be sized in accordance with the spacing requirements of (i) either Section 1207 of the 2024 edition of the International Fire Code or NFPA 855 and (ii) the UL9540 or UL9540A designated rating of the planned system. Where rated to UL9540A, the area shall be sized in accordance with the manufacturer's instructions.

C405.16. ~~2~~3.3 Electrical distribution equipment. The onsite electrical distribution equipment shall have sufficient capacity, rating, and space to allow installation of overcurrent devices and circuit wiring in accordance with NFPA 70 for actual or future electrical ESS installation complying with the capacity criteria of Section C405.16. ~~2~~3.4.

C405.16. ~~2~~3.4 ESS installed or ~~-~~ready minimum system capacity. Compliance with ESS-ready requirements in Sections C405.16.3~~2~~.1 through C405.16.3~~2~~.3 shall be based on a minimum total energy capacity and minimum rated power capacity as follows:

1. ESS rated energy capacity (kWh) ≥ gross conditioned floor area of the three largest floors (ft2) x 0.0008 kWh/ft2
2. ESS rated power capacity (kWh) ≥ gross conditioned floor area of the three largest floors (ft2) x 0.0002 kWh/ft^2

C405.18 Electric infrastructure. New group R-2 occupancies that use fossil fuels for space heating, *service water heating*, cooking, or clothes drying shall install electric infrastructure in accordance with C405.18.1 through C405.18.5 and Section C105.2.2.

Commented [CR41]: R-2 occupancies (4 or more story apartments, dorms, etc) must have electric infrastructure for space heating, water heating, cooking and clothes drying.

C405.18.1 Space heating. Locations with piping for fossil fuel warm-air furnaces and fossil fuel boilers shall comply with Section C405.18.1.1 or C405.18.1.2, as applicable.

Exception to C405.18.1: Where a branch circuit exists for space cooling equipment with the capacity to serve heat pump space heating equipment sized in accordance with the requirements of Section C403.1.1.

C405.18.1.1 Low-capacity space heating. Locations of fossil fuel warm-air furnaces with capacity less than 225,000 Btu/hr (65.9kW) and boilers with a capacity less than 300,000 Btu/hr (88kW) shall be provided with an individual branch circuit in accordance with all of the following:

1. The branch circuit conductors shall terminate within 6 ft (2 m) of the location of the space heating equipment and shall be in a location with *ready access*.
2. The branch circuit shall be sized to serve heat pump space heating equipment sized in accordance with the requirements of Section C403.1.1, and
3. The branch circuit overcurrent device and the termination of the branch circuit shall be labeled “For future heat pump space heating equipment.”

C405.18.1.2 Other space heating equipment. Locations of fossil fuel space heating equipment not covered under C405.18.1.1 shall be provided with a raceway in accordance with all of the following:

1. The raceway shall be continuous from a branch circuit panel to a junction box located within the same space as the equipment or, where the equipment is located on the exterior of the building, within 3 ft (1m) of the equipment.
2. The junction box, raceway, bus bar in the electric panel and conductors serving the electrical panel shall be sized to serve electric space heating equipment sized to serve the same load as the fossil fuel space heating equipment.
3. The electrical panel shall have sufficient reserved physical space for branch circuit overprotection devices sized to serve electric equipment sized to serve the same load as the fossil fuel space heating *appliance*,
4. The point of origin and the termination of the raceway shall be labeled “For future heat pump space heating equipment.”

C405.18.2 Water heating. Locations with piping for fossil fuel water heaters shall comply with Section C405.18.2.1 or C405.18.2.2, as applicable.

C405.18.2.1 Low-capacity water heating. Locations of fossil fuel water heaters with an input rating of less than 300,000 Btu/hr (88kW) shall comply with all of the following:

1. An individual 30 ampere, 208/240-volt branch circuit shall be provided and terminate within 6 ft (2 m) of the water heater and shall be in a location with *ready access*.
2. The branch circuit overcurrent protection device and the termination of the branch circuit shall be labeled "For future electric water heater".

3. The space for containing the future water heater shall have a height of not less than 7 ft (2 m), a width of not less than 3 ft (1 m), a depth of not less than 3ft (1 m) and with a volume of not less than 700 ft3 (20 m3).

Exception to C405.18.2.1: Where the space containing the water heater provides for air circulation sufficient for the operation of a heat pump water heater, the minimum room volume shall not be required.

C405.18.2.2 Other water heating. Locations of fossil fuel water heating equipment not covered by Section C405.18.2.1 shall be provided with a raceway in accordance with all of the following:

1. The raceway shall be continuous from an electric panel to a junction box located within the same space as the equipment or, where the equipment is located on the exterior of the building, within 3 ft (1m) of the equipment.

2. The junction box, raceway, and bus bar in the electric panel and conductors serving the electric panel shall be sized to accommodate electric water heating equipment sized to serve the same load as the fossil fuel water heating equipment.

3. The electric panel shall have sufficient reserved physical space for branch circuit overprotection devices sized to serve electric water heating equipment sized to serve the same load as the fossil fuel water heating equipment.

4. The point of origin and termination of the raceway shall be labeled "For future electric water heating appliance".

C405.18.3 Non-commercial cooking. Locations of fossil fuel ranges, cooktops and ovens that are not *commercial cooking appliances* shall be provided with a dedicated individual branch circuit in accordance with all of the following:

1. The branch circuit shall be rated for 208/240-volts and not less than 50 amps.

2. The branch circuit shall terminate within 3 ft (1 m) of the appliance and shall be in a location with *ready access*.

3. The point of origin and termination of the branch circuit shall be labeled "For future electric cooking appliance".

C405.18.4 Clothes drying. Locations with piping for fossil fuel clothes drying equipment shall comply with C405.18.4.1 or C405.18.4.2, as applicable.

C405.18.4.1 Residential drying. Locations of fossil fuel clothes drying appliances serving individual *dwellings units* shall be provided with a dedicated individual branch circuit in accordance with all of the following:

1. The branch circuit shall be rated for 208/240-volts and not less than 30 amps.

2. The branch circuit shall terminate within 3 ft (1 m) of the appliance and shall be in a location with *ready access*.

3. The point of origin and termination of the branch circuit shall be labeled "For future electric clothes drying appliance".

C405.18.4.2 Non-residential drying. Locations of fossil fuel clothes drying appliances not covered by Section C405.18.4.1 shall be provided with a raceway in accordance with all of the following:

1. The raceway shall be continuous from an electric panel to a junction box located within the same space as the appliance.

2. The junction box, raceway, electric panel bus bar and conductors serving the electric panel shall be sized to serve electric clothes drying appliances having the same drying capacity as the fossil fuel appliance.

3. The electric panel shall have sufficient reserved physical space for branch circuit overprotection devices sized to serve electric clothes drying appliances sized to serve the same load as the fossil fuel clothes drying appliances.

4. The point of origin and termination of the raceway shall be labeled "For future electric clothes drying appliance".

C405.18.5 Onsite Transformers. Enclosed spaces and underground vaults containing onsite electric transformers on the *building* side of the electric utility meter shall have sufficient space to accommodate transformers sized to serve the additional electric loads identified in C405.18.1, C405.18.2, C405.18.3 and C405.18.4.

SECTION C406
ADDITIONAL EFFICIENCY, RENEWABLE, AND LOAD MANAGEMENT REQUIREMENTS

C406.1.1 Additional energy efficiency credit requirements. Buildings shall comply with measures from C406.2 to achieve not less than the number of required efficiency credits from Table C406.1.1(1) based on building occupancy group and climate zone including any energy credit adjustments in accordance with C406.1.1.1. Where a project contains multiple occupancies, the total required energy credits from each building occupancy shall be weighted by the gross conditioned floor area to determine the weighted average project energy credits required. Accessory occupancies shall be included with the primary occupancy group for purposes of Section C406.

Exceptions:

1. Portions of buildings devoted to manufacturing or industrial use.

2. Where a building achieves more renewable and load management credits in Section C406.3 than are required in Section C406.1.2, surplus credits shall be permitted to reduce the required energy efficiency credits as follows:

ECCred = EECtbt - [the lesser of: (SRLMlim, SRLMadj X [RLMach – RLMreq])]

EECred = Reduced required energy efficiency credits

EECtbl = Required energy efficiency credits from Table C406.1.1(1)

SRLMlim = Surplus renewable and load management credit limit from Table C406.1.1(2)

SRLMadj = 1.0 for all-electric or all-renewable buildings (excluding emergency generation) 0.7 for buildings with fossil fuel equipment (excluding emergency generation)

RLMach = Achieved renewable and load management credits from SectionC406.3

RLMreq = Required renewable and load management credits from Section C406.1.2

TABLE C406.1.1(2)
LIMIT TO ENERGY EFFICIENCY CREDIT CARRYOVER FROM RENEWABLE AND LOAD MANAGEMENT CREDITS

	CLIMATE ZONE																		
BUILDING OCCUPANCY GROUP	0A	0B	1A	1B	2A	2B	3A	3B	3C	4A	4B	4C	5A	5B	5C	6A	6B	7	8
R-2, R-4, AND I-1	5	5	5	5	5	5	5	24	19	5	22	18	5	5	19	5	5	5	5
I-2	16	14	11	8	6	5	5	10	6	8	14	10	17	26	29	21	21	22	39
R-1	7	5	8	5	19	5	32	40	41	24	41	42	17	37	41	5	24	15	22
B	7	5	5	8	6	6	14	26	31	23	29	34	19	35	45	5	19	17	27
A-2	18	16	14	15	13	9	11	23	32	5	23	23	5	5	26	5	5	5	5
M	5	5	5	5	5	5	5	5	20	5	5	5	5	5	5	5	5	5	5

Commented [CR42]: EEB Act does not allow renewable energy offsets to count towards the required site energy index.

E	13	13	18	16	17	14	21	35	40	25	43	29	23	32	27	11	17	25	5
S-1 AND S-2	5	5	5	5	5	5	5	5	13	5	17	20	5	35	23	5	5	11	40
All Other	5	5	5	5	5	5	5	7	17	5	10	7	5	6	11	5	5	5	5

SECTION C407
SIMULATED BUILDING PERFORMANCE

C407.2 Mandatory requirements. Compliance based on total building performance requires that a proposed design meet all of the following:

1. The requirements of the sections indicated within Table C407.2(1).

2. A~~n annual energy cost~~ site energy use that is less than or equal to the percent of the ~~annual energy cost~~ site energy use (~~PAECP~~SEUC) of the standard reference design calculated in Equation 4-32. ~~Energy prices shall be taken from a source approved by the code official, such as the Department of Energy, Energy Information Administration's State Energy Data System Prices and Expenditures reports. Code officials shall be permitted to require time-of-use pricing in energy cost calculations.~~ The reduction in ~~energy cost~~ site energy use of the proposed design associated with on-site and off-site renewable energy shall not be included in the total site energy use.~~more than 5 percent of the total energy cost. The amount of renewable energy purchased from off-site sources shall be the same in the standard reference design and the proposed design.~~

~~**Exceptions:**~~

~~1. Jurisdictions that require site energy (1 kWh = 3413 Btu) rather than energy cost as the metric of comparison.~~
~~2. Where energy use based on source energy expressed in Btu or Btu per square foot of conditioned floor area is substituted for the energy cost, the energy use shall be calculated using source energy factors from Table C407.2(2) For electricity, U.S. locations shall use values eGRID subregions. Locations outside the United States shall use the value for "All other electricity" or locally derived values.~~

PSEUC ~~PAEC~~ = 100 x (0.80 +0.25- ECr/1000) (Equation 4-32)

PSEUC ~~PAEC~~ = Percentage of ~~annual energy cost~~ site energy use applied to standard reference design
ECr= Energy efficiency credits required for the building in accordance with Section C406.1 (do not include load management and renewable credits)

Modify Table C407.2(1) as follows:

TABLE C407.2(1)
REQUIREMENTS FOR SIMULATED BUILDING PERFORMANCE

SECTION[a]	TITLE
Envelope	
C402.5.1.3	Fenestration Orientation

a. Reference to a code section includes all the relative subsections except as indicated in the table.

Commented [CR43]: Converts "energy cost" metric to "site energy use" to be consistent with statute.

Commented [CR44]: Adds Fenestration Orientation requirements to the Simulated Building Performance method to be consistent with other compliance methods.

Modify Table C407.4.1(1) as follows:

TABLE C407.4.1(1)

SPECIFICATIONS FOR THE STANDARD REFERENCE AND PROPOSED DESIGNS

Vertical fenestration other than opaque doors	Area 1. The proposed vertical fenestration area; where the proposed vertical fenestration area is less than 40 percent of the above-grade wall area. 2. 40 percent of above grade wall area; where the proposed vertical fenestration area is 40 percent or more of the above grade wall area 3. Fenestration orientation shall comply with C402.5.1.3	As proposed
	U-factor: as specified in Table C402.5	As proposed
	1. SHGC: as specified in Table C402.5 except that for climates with no requirement (NR) SHGC = 0.40 shall be used. 2. Fenestration SHGC shall comply with C402.5.1.3	As proposed
	External shading and PF: none	As proposed

SECTION C503
ALTERATIONS

C503.6 Additional credit requirements for alterations. Alterations that are substantial improvements shall comply with measures from Sections C402.5 and C405.18 and meet a site EUI by building type in accordance with ASHRAE Standard 100 Table 7-2a. Replacement cost shall be determined by a registered design professional or approved agency and approved by the code official. ~~C406.2, Section C406.3, or both to earn the number of required credits specified in Table C406.1.1 based on building occupancy group and climate zone.~~ Where a project contains multiple occupancies, ~~credits specified in Table C406.1.1 for each building occupancy~~ site EUI requirements shall be weighted by the gross conditioned floor area to determine the weighted average ~~credits~~ site EUI required. Accessory occupancies, other than Groups F or H, shall be included with the primary occupancy group for the purposes of this section.

Commented [CR45]: Defines who can determine "replacement cost". Also uses ASHRAE 100 for EUI instead of IECC.

Exceptions:

1. Alterations that do not contain conditioned space.
2. Portions of buildings devoted to manufacturing or industrial use.
3. Alterations to buildings where the building after the alteration complies with Section C407.
4. Alterations that are permitted with an addition complying with Section C502.3.7.
5. Group R occupancies that achieve an ERI score of 80 or below without on-site renewable energy included in accordance with RESNET/ICC 301, for each dwelling unit.

SECTION C505
CHANGE OF OCCUPANCY OR USE

C505.1.3 Additional energy efficiency for changes of occupancy. Where a space is converted from one occupancy type to another occupancy type, it shall comply with Section C406.1.1.1.

Exception:

1. *Alterations* complying with Section C503.6.
2. Where no less than 50 percent of the peak space heating and peak water heating load of the *building* is served by heat pump equipment.

Commented [CR46]: Provides an incentive to use heat pumps instead of fossil fuel space heating in alterations involving a chance in occupancy.

Appendix CI
Total Building Performance Pathway

CI101 Scope. This section establishes criteria for *buildings* that demonstrate compliance using total building performance utilizing site energy in accordance with Section 4.2.1.1 of ANSI/ASHRAE/IESNA 90.1.

CI102 Compliance based on site energy. *Buildings* shall comply with ANSI/ASHRAE/IESNA 90.1 as modified by this section.

CI102.1 Terms. For the purposes of compliance with this appendix, terminology in ANSI/ASHRAE/IESNA 90.1 shall be modified as follows:

1. Replace references to energy cost with references to site energy in Sections G1.2.2, G1.3.2, G2.1, G2.5 and G2.4.2 section heading.

2. *baseline building performance* shall be defined as "the annual site *energy* ~~cost~~ for a *building* design intended for use as a baseline for rating above-standard design or when using the *Performance Rating Method* as an alternative path for minimum standard compliance in accordance with Section 4.2.1.1."

3. *proposed building performance* shall be defined as **"**the annual site *energy* calculated for a *proposed design*."

CI102.2 Section 4.2.1.1. Section 4.2.1.1 shall be replaced with the following:

New *buildings* shall comply with Section 4.2.2 through 4.2.5 and either the provisions of
a. Sections 5, "Building Envelope"; 6, "Heating, Ventilating, and Air Conditioning"; 7, "Service Water Heating"; 8, "Power"; 9, "Lighting"; 10, "Other Equipment"; and 11, "Additional Efficiency Requirements,"or
b. Normative Appendix G, "Performance Rating Method."

When using Normative Appendix G, the Performance Index (Site Energy) of new *buildings*, *additions* to *existing buildings*, and/or *alterations* to *existing buildings* shall be less than or equal to the Performance Index Target (PI_t) when calculated in accordance with the following:

$$PI_t = [BBUE + (BPF_{site} \times BBRE) - PRE] / BBP$$

Where

PI = Performance Index (Site *Energy*) calculated in accordance with Section G1.2.
BBUE = baseline *building* unregulated site *energy*, the portion of the annual site *energy* of a *baseline building design* that is due to *unregulated energy use*.
BBRE = baseline *building* regulated site *energy*, the portion of the annual site *energy* ~~cost~~ of a *baseline building design* that is due to *regulated energy use*.
BPF = *building* performance factor from Table 4.2.1.1. For *building* area types not listed in Table 4.2.1.1 use "All others." Where a *building* has multiple *building* area types, the required BPF shall be equal to the area-weighted average of the *building* area types based on their *gross floor area*. Where a project includes an *existing building* and an *addition*, the required BPF shall be equal to the area-weighted average, based on the *gross floor area*, of the *existing building* BPF determined as described in Section 4.2.1.3 and the *addition* BPF from Table 4.2.1.1
BBP = baseline *building* performance.
PBP = *proposed building performance*, including the reduced, annual site *energy* associated with all *on-site renewable energy* generation systems.
PBP_{nre} = *proposed building performance* without any credit for reduced annual *energy* from *on-site renewable energy* generation systems.
PBP_{pre} = *proposed building performance*, excluding any *renewable energy system* in the *proposed design* and including an *on-site renewable energy system* that meets but does not exceed the requirements of Section 10.5.1.1 modeled following the requirements for a *budget building design* in Table 12.5.1.
PRE = PBP*nre* – PBP*pre*

When (PBP*pre* – PBP)/BBP > 0.05, new *buildings*, *additions* to *existing buildings*, and/or *alterations* to *existing buildings* shall comply with the following:

$$PCSEI + [(PBPnre - PBP)/BBP] - 0.05 < PCSEIt$$

When (PBP*pre* – PBP)/BBP > 0.05, new *buildings*, *additions* to *existing buildings*, and/or *alterations* to *existing buildings* shall comply with the following:

$$PCI + [(PBPpre - PBP)/BBP] - 0.05 < PCIt$$

Commented [CR47]: Converts the ASHRAE 90.1 Total Building Performance Pathway from an "energy cost" metric to a "site energy index" metric as required by statute.

Informative Notes:
1. PBP*nre = proposed building performance*, no renewable *energy*
2. PBP*pre = proposed building performance*, prescriptive renewable *energy*
3. PRE = prescriptive renewable *energy*

CI102.3 Building performance factors. Table 4.2.1.1 Building Performance Factor (BPF) shall be replaced with Table CI102.3.

Table CI102.3 Building Performance Factors (BPF), Site *Energy*

***Building* Area Type**	**Climate Zone**	
	4A	**5A**
Multifamily	0.61	0.56
Healthcare/hospital	0.62	0.65
Hotel/motel	0.65	0.63
Office	0.47	0.49
Restaurant	0.66	0.69
Retail	0.47	0.52
School	0.42	0.44
Warehouse	0.38	0.46
All others	0.55	0.57

CI102.4 Section G1.2.2. Section G1.2.2 shall be replaced with the following:

The performance of the *proposed design* is calculated in accordance with provisions of this appendix using the following formula:
Performance Site *Energy* Index = *Proposed building performance/Baseline building performance*

Both the *proposed building performance* and the *baseline building performance* shall include all end-use load components within and associated with the *building* when calculating the Performance Site *Energy* Index.

CI102.5 Section G1.3.2. Item a. in Section G1.3.2 shall be replaced as follows, and item r. added as follows:

a. The following documentation shall be submitted to the *rating authority*: The *simulation program* used, the version of the *simulation program*, and the results of the *energy* analysis including the calculated values for the baseline *building* unregulated site *energy* (BBUE), baseline *building* regulated site *energy* (BBRE), *Building* Performance Factor (BPF), *baseline building performance*, the *proposed building performance*, Performance Site *Energy* Index (PCSEI), and Performance Site *Energy* Index Target (PIt).

p. For any exceptional calculation methods employed, document the predicted *energy* savings by *energy* type, the site *energy* savings, a narrative explaining the exceptional calculation method performed, and theoretical or empirical information supporting the accuracy of the method.

CI102.6 Section G2.4.2. Section G2.4.2 shall be renamed "Annual Site Energy." The informative note for sections G2.4.2 and G2.4.2.2 shall be removed. The first sentence in section G2.4.2. shall be replaced with the following:

The *baseline building performance* and *proposed building performance* shall be determined using conversion factors in Table CI103.6

Table CI103.6 Units of Fuel to Site *Energy* Conversion Factors

***Building* Project *Energy* Source**	**Units**	**Site *energy* Btu/unit (W-h/unit)**
Electricity	kWh	3,412
Natural Gas	*Therm (GJ)*	100,000 (277,778)
Propane	*Therm (GJ)*	100,000 (277,778)
Distillate fuel oil	Gallon (L)	137,600 (10,651)

CI102.7 Section G2.5. Section G2.5, item e shall be replaced with the following:

e. The Performance Site *Energy* Index calculated with and without the exceptional calculation method.

Section 600.APPENDIX C Supplanted and Additional 2021 International Energy Conservation Code Sections

The following Code sections shall be referenced in place of the corresponding 2021 IECC sections.

PART 1—SCOPE AND APPLICATION

SECTION R101
SCOPE AND GENERAL REQUIREMENTS

R101.1 Title. This code shall be known as the 2023 Illinois Residential Stretch Energy ~~*Conservation*~~ Code or "this Code" ~~of [NAME OF JURISDICTION]~~ and shall mean: ~~be cited as such. It is referred to herein as "this code."~~

With respect to the residential buildings covered by 71 Ill Adm Code 600 Subpart D:

This Part, all additional requirements incorporated within Subpart D (including the 2021 International Energy Conservation Code Residential Provisions, including all published errata but excluding published supplements) and any statutorily authorized adaptations to the incorporated standards adopted by CDB is effective upon adoption by a Municipality and takes the place of the Illinois Energy Conservation Code with respect to residential buildings.

No unit of local government, including any home rule unit, may regulate energy efficient building standards for residential buildings in a manner that is less stringent than the standards established pursuant to this Illinois Residential Stretch Energy Code.

R101.2 Scope. This code applies to *residential buildings*, *building* sites and associated systems and equipment.

R101.2.1 Appendices. Provisions in the appendices shall not apply unless specifically adopted.

R101.3 Intent. This code shall regulate the design and construction of *buildings* for the effective use and conservation of energy over the useful life of each building. This code is intended to provide flexibility to permit the use of innovative approaches and techniques to achieve this objective. This code is not intended to abridge safety, health or environmental requirements contained in other applicable codes or ordinances.

R101.4 Applicability. Where, in any specific case, different sections of this code specify different materials, methods of construction or other requirements, the most restrictive shall govern. Where there is a conflict between a general require- ment and a specific requirement, the specific requirement shall govern.

R101.4.1 Mixed residential and commercial buildings. Where a *building* includes both *residential building* and *commercial building* portions, each portion shall be separately considered and meet the applicable provisions of the Illinois Commercial Stretch Code or the Illinois Residential Stretch Code. ~~IECC Commercial Provisions or IECC—Residential Provisions.~~

R101.5 Compliance. *Residential buildings* shall meet the provisions of the *Illinois Residential Stretch Code* covered by 71 Ill Adm. Code 600 Subpart D. The local authority having jurisdiction (AHJ) shall establish its own procedures for enforcement of the Illinois Residential Stretch Code. ~~IECC—Residential Provisions. *Commercial buildings* shall meet the provisions of IECC—Commercial Provisions.~~ Minimum compliance shall be demonstrated by submission of:

R101.5.1 Compliance materials. The *code official* shall be permitted to approve specific computer software, worksheets, compliance manuals and other similar mate- rials that meet the intent of this code~~.~~; or

R101.5.2 Professional Seals. The seal of the architect/engineer as required by Section 14 of the Illinois Architectural Practice Act [225 ILCS 305], Section 12 of the Structural Engineering Licensing Act [225 ILCS 340] and Section 14 of the Illinois Professional Engineering Practice Act [225 ILCS 325].

SECTION R102
ALTERNATIVE MATERIALS, DESIGN AND METHODS OF CONSTRUCTION AND EQUIPMENT

R102.1 General. The provisions of this code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by this code, provided that any such alternative has been approved. The *code official* shall have the authority to approve an alternative material, design or method of construction upon the written application of the owner or the owner's authorized agent. The code official shall first find that the proposed design is satisfactory and complies with the intent of

Commented [CR48]: This is an entirely new Appendix in the Rule. All text (other than red strike-thru) will be added to the Rule. The edits shown are revisions to the 2021 IECC.

Commented [CR49]: Defines the title of the new Residential Stretch Code.

Commented [CR50]: Defines the application of the new Residential Stretch Code to Residential Buildings including the 2021 IECC.

Commented [CR51]: Sets the Stretch Code as a minimum requirement per statute.

Commented [CR52]: Clarifies that appendices are optional.

Commented [CR53]: Requires mixed use buildings to comply with the applicable Stretch Code.

Commented [CR54]: Enforcement and compliance is left to the AHJ similar to the IL Energy Conservation Code.

the provisions of this code, and that the material, method or work offered is, for the purpose intended, not less than the equivalent of that prescribed in this code for strength, effectiveness, fire resistance, durability, energy conservation and safety. The *code official* shall respond to the applicant, in writing, stating the reasons why the alternative was *approved* or was not *approved*.

R102.1.1 Above code programs. ~~The *code official* or other authority having jurisdiction shall be permitted to deem a national, state or local energy efficiency program to exceed the energy efficiency required by this code. *Buildings approved* in writing by such an energy effi- ciency program shall be considered to be in compliance~~
Buildings certified in compliance with the Passive House Institute (PHI) or Passive House Institute U.S. (PHIUS) Passive Building Standards programs or buildings that comply with Appendix RC shall be deemed to meet the requirements with this code where such buildings also meet the requirements identified in Table R405.2 and the *building thermal envelope* is greater than or equal to levels of efficiency and solar heat gain coefficients (SHGC) in Tables 402.1.2~~1~~ and 402.1.3 ~~of the 2009 *International Energy Conserva tion Code*~~.

Commented [CR55]: Allows Passive House as an above code program per statute.

PART 2—ADMINISTRATION AND ENFORCEMENT

SECTION R103
SCOPE AND ADMINISTRATION

R103.2 Information on construction documents. Construction documents shall be drawn to scale on suitable material. Electronic media documents are permitted to be submitted where *approved* by the *code official*. Construction documents shall be of sufficient clarity to indicate the location, nature and extent of the work proposed, and show in sufficient detail pertinent data and features of the *building*, systems and equipment as herein governed. Details shall include the following as applicable:

1. Energy compliance path.
2. Insulation materials and their *R*-values.
3. Fenestration *U*-factors and *solar heat gain coeffi- cients* (SHGC).
4. Area-weighted *U*-factor and *solar heat gain coeffi- cients* (SHGC) calculations.
5. Mechanical system design criteria.
6. Mechanical and service water-heating systems and equipment types, sizes and efficiencies.
7. Equipment and system controls.
8. Duct sealing, duct and pipe insulation and location.
9. Air sealing details.

R103.2.1 Building thermal envelope depiction. The *building thermal envelope* shall be represented on the construction documents.

R103.2.2 Solar-ready system. Where a solar-ready zone is provided, the construction documents shall provide details for dedicated roof area, structural design for roof dead and live load, ground snow load, and routing of conduit or pre-wiring from *solar-ready zone* to electrical service panel or plumbing from *solar-ready zone* to *service water heating* system.

Commented [CR56]: Requires information for solar-ready systems to be shown on the drawings.

SECTION R105
INSPECTIONS

R105.1 General. Construction or work for which a permit is required shall be subject to inspection by the *code official* or his or her designated agent, and such construction or work shall remain visible and able to be accessed for inspection purposes until *approved*. It shall be the duty of the permit applicant to cause the work to remain visible and able to be accessed for inspection purposes. Neither the *code official* nor the jurisdiction shall be liable for expense entailed in the removal or replacement of any material, product, system or building component required to allow inspection to validate compliance with this code.

R105.2 Required inspections. The *code official* or his or her designated agent, upon notification, shall make the inspections set forth in Sections R105.2.1 through R105.2.5.

R105.2.1 Footing and foundation inspection. Inspections associated with footings and foundations shall verify compliance with the code as to *R*-value, location, thickness, depth of burial and protection of insulation as required by the code and *approved* plans and specifications.

R105.2.2 Framing and rough-in inspection. Inspections at framing and rough-in shall be made before application of interior finish and shall verify compliance with the code as to: types of insulation and corresponding *R*-values and their correct location and proper installation; fenestration properties such as *U*-factor and SHGC and proper installation; air leakage controls as required by the code; and *approved* plans and specifications.

R105.2.3 Plumbing rough-in inspection. Inspections at plumbing rough-in shall verify compliance as required by the code and *approved* plans and specifications as to types of insulation and corresponding *R*-values and protection, and required controls. Where

the solar-ready zone is installed for solar water heating, inspections shall verify pathways for routing of plumbing from solar-ready zone to service water heating system.

Commented [CR57]: Requires inspections for solar-ready zone plumbing.

R105.2.4 Mechanical rough-in inspection. Inspections at mechanical rough-in shall verify compliance as required by the code and *approved* plans and specifications as to installed HVAC equipment type and size, required controls, system insulation and corresponding *R*- value, system air leakage control, programmable thermo- stats, dampers, whole-house ventilation, and minimum fan efficiency.
Exception: Systems serving multiple dwelling units shall be inspected in accordance with Section C105.2.4.

R105.2.5 Electrical rough-in inspection. Inspections at electrical rough-in shall verify compliance as required by the code and the approved plans and specifications as to the locations, distribution, and capacity of the electrical system. Where the solar-ready zone is installed for electricity generation, inspections shall verify conduit or pre-wiring from solar-ready zone to electrical panel.

Commented [CR58]: Requires electrical rough-in inspections including solar-ready zone provisions.

R105.2.65 Final inspection. The *building* shall have a final inspection and shall not be occupied until *approved*. The final inspection shall include verification of the installation of all required *building* systems, equipment and controls and their proper operation and the required number of high-efficacy lamps and fixtures.

R105.3 Reinspection. A *building* shall be reinspected where determined necessary by the *code official*.

R105.4 Approved inspection agencies. The *code official* is authorized to accept reports of third-party inspection agencies not affiliated with the *building* design or construction,

SECTION R202
GENERAL DEFINITIONS

APPROVED SOURCE. An independent person, firm or corporation, *approved* by the building official, who is competent and experienced in the application of engineering principles to materials, methods or systems analyses.

AUTOMOBILE PARKING SPACE. A space within a building or private or public parking lot, exclusive of driveways, ramps, columns, office and work areas, for the parking of an automobile.

DEMAND RESPONSE SIGNAL. A signal that indicates a price or a request to modify electricity consumption for a limited time period.

DEMAND RESPONSIVE CONTROL. A control capable of receiving and automatically responding to a *demand response signal*.

ELECTRIC VEHICLE (EV). An automotive-type vehicle for on-road use, such as passenger automobiles, buses, trucks, vans, neighborhood electric vehicles, and electric motorcycles, primarily powered by an electric motor that draws current from a building electrical service, *EVSE*, a rechargeable storage battery, a fuel cell, a photovoltaic array, or another source of electric current.

ELECTRIC VEHICLE READY SPACE (EV READY SPACE). An *automobile parking space* that is provided with a branch circuit and either an outlet, junction box or receptacle, that will support an installed *EVSE*.

ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE). Equipment for plug-in power transfer including the ungrounded, grounded and equipment grounding conductors, and the electric vehicle connectors, attached plugs, personal protection system and all other fittings, devices, power outlets or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the *electric vehicle*.
SOLAR-READY ZONE. A section or sections of the roof or building overhang designated and reserved for the future installation of a solar photovoltaic or solar thermal system.

GAS HEAT PUMP SPACE HEATING SYSTEM. Gas heat pump space heating systems consist of an outdoor combustion unit and heat exchanger(s) inside the building. The outdoor combustion unit is installed outside the building envelope and uses the heat of combustion to drive a refrigeration cycle that pumps heat into the building. Annual fuel utilization efficiencies (AFUE) greater than 120% and 140% are achieved by pumping the heat of combustion and additional heat from the ambient air into the building. The heat is then distributed indoors via forced air hydronic air handler(s), via floors and other radiant systems, or through combinations of forced air and radiant systems.

RESIDENTIAL BUILDING. ~~For this code, includes detached one and two family dwellings and townhouses as well as Group R-2, R-3 and R-4 buildings three stories or less in height above grade plane~~Means a detached one-family or two-family dwelling or any building that is three stories or less in height above grade that contains multiple dwelling units, in which the occupants reside on a primarily permanent basis, such as a townhouse, a row house, an apartment house, a convent, a monastery, a rectory, a fraternity or

sorority house, a dormitory, and a rooming house; provided, however, that when applied to a building located within the boundaries of a municipality having a population of 1,000,000 or more, the term "RESIDENTIAL BUILDING" means a building containing one or more dwelling units, not exceeding four (4) stories above grade, where occupants are primarily permanent.

SECTION R401
GENERAL

R401.1 Scope. This chapter applies to residential buildings.

R401.2 Application. Residential buildings shall comply with ~~Section R401.2.5 and~~ either Sections R401.2.1, R401.2.2, or R401.2.3 ~~or R401.2.4~~.
Exception: Additions, *alterations*, repairs and changes of occupancy to existing buildings complying with Chapter 5.

R401.2.1 Prescriptive Compliance Option. The Prescriptive Compliance Option requires compliance with Sections R401 through R404 and R408.

R401.2.2 Total Building Performance Option. The Total Building Performance Option requires compliance with Section R405.

R401.2.3 Energy Rating Index Option. The Energy Rating Index (ERI) Option requires compliance with Section R406.

R401.2.4 Tropical Climate Region Option. The Tropical Climate Region Option requires compliance with Section R407.

~~**R401.2.5 Additional energy efficiency.** This section establishes additional requirements applicable to all compliance approaches to achieve additional energy efficiency.~~
~~1. For buildings complying with Section R401.2.1, one of the additional efficiency package options shall be installed according to Section R408.2.~~
~~2. For buildings complying with Section R401.2.2, the building shall meet one of the following:~~
~~2.1 One of the additional efficiency package options in Section R408.2 shall be installed without including such measures in the proposed design under Section R405; or~~
~~2.2 The proposed design of the building under Section R405.2 shall have an annual energy cost that is less than or equal to 95 percent of the annual energy cost of the standard reference design.~~
~~2.3 For buildings complying with the Energy Rating Index alternative Section R401.2.3, the Energy Rating Index value shall be at least 5 percent less than the Energy Rating Index target specified in Table R406.5.~~

~~The option selected for compliance shall be identified in the certificate required by Section R401.3.~~

Commented [CR59]: Reflects a change from using Additional Energy Efficiency (R401.2.5) in the IECC to using a Credit Table approach (R408) to ensure target site energy indexes are being met.

R401.3 Certificate. A permanent certificate shall be *
completed by the builder or other *approved* party and posted on a wall in the space where the furnace is located, a utility room or an *approved* location inside the *building*. Where located on an electrical panel, the certificate shall not cover or obstruct the visibility of the circuit directory *label*, service disconnect *label* or other required labels. The certificate shall indicate the following:

1. The predominant *R*-values of insulation installed in or on ceilings, roofs, walls, foundation components such as slabs, *basement walls*, *crawl space walls* and floors and ducts outside *conditioned spaces*.
2. *U*-factors of fenestration and the *solar heat gain coefficient* (SHGC) of fenestration. Where there is more than one value for any component of the building envelope, the certificate shall indicate both the value covering the largest area and the area weighted average value if available.
3. The results from any required duct system and building envelope air leakage testing performed on the building.
4. The types, sizes and efficiencies of heating, cooling and service water-heating equipment. Where a gasfired unvented room heater, electric furnace or baseboard electric heater is installed in the residence, the certificate shall indicate "gas-fired unvented room heater," "electric furnace" or "baseboard electric heater," as appropriate. An efficiency shall not be indicated for gas-fired unvented room heaters, electric furnaces and electric baseboard heaters.
5. Where on-site *photovoltaic panel* systems have been installed, the array capacity, inverter efficiency, panel tilt and orientation shall be noted on the certificate.
6. For buildings where an Energy Rating Index score is determined in accordance with Section R406, the Energy Rating Index score, both with and without any on-site generation, shall be listed on the certificate.
7. The code edition under which the structure was permitted, and the compliance path used~~.~~ and where applicable, the additional efficiency measures selected for compliance with R408.

Commented [CR60]: Adds additional efficiency measures to the Certificate.

SECTION R403
SYSTEMS

Commented [CR61]: Adds requirements for Demand Responsive Thermostats for space heating and water heating.

R403.1 Controls. Not less than one thermostat shall be provided for each separate heating and cooling system. The primary heating or cooling system serving the dwelling unit shall comply with Sections R403.1.1, R403.1.2, and R403.1.3.

R403.1.1 Programmable thermostat. The thermostat controlling the primary heating or cooling system of the *dwelling unit* shall be capable of controlling the heating and cooling system on a daily schedule to maintain different temperature set points at different times of day and different days of the week. This thermostat shall include the capability to set back or temporarily operate the system to maintain *zone* temperatures of not less than 55°F (13°C) to not greater than 85°F (29°C). The thermostat shall be programmed initially by the manufacturer with a heating temperature setpoint of not greater than 70°F (21°C) and a cooling temperature setpoint of not less than 78°F (26°C).

R403.1.2 Heat pump supplementary heat. Heat pumps having supplementary electric-resistance heat shall have controls that, except during defrost, prevent supplemental heat operation when the heat pump compressor can meet the heating load.

R403.1.3 Demand responsive thermostat. The thermostat shall be provided with a *demand responsive control* capable of communicating with the Virtual End Node (VEN) using a wired or wireless bi-directional communication pathway that provides the homeowner the ability to voluntarily participate in utility demand response programs, where available. The thermostat shall be capable of executing the following actions in response to a *demand response signal*:

1. Automatically increasing the zone operating cooling set point by the following values: 1°F (0.5°C), 2°F (1°C), 3°F (1.5°C), and 4°F (2°C).
2. Automatically decreasing the zone operating heating set point by the following values: 1°F (0.5°C), 2°F (1°C), 3°F (1.5°C), and 4°F (2°C).

Thermostats controlling single stage HVAC systems shall comply with Section R403.1.2.1. Thermostats controlling variable capacity systems shall comply with Section R403.1.2.2. Thermostats controlling multi-stage HVAC systems shall comply with either Section R403.1.2.1 or R403.1.2.2. Where a *demand response signal* is not available the thermostat shall be capable of performing all other functions.
Exception: Assisted living facilities.

R403.1.3.1 Single stage HVAC system controls. Thermostats controlling single stage HVAC systems shall be provided with a demand responsive control that complies with one of the following:

1. Certified OpenADR 2.0a VEN, as specified under Clause 11, Conformance
2. Certified OpenADR 2.0b VEN, as specified under Clause 11, Conformance
3. Certified by the manufacturer as being capable of responding to a *demand response signal* from a certified OpenADR 2.0b VEN by automatically implementing the control functions requested by the VEN for the equipment it controls
4. IEC 62746-10-1
5. The communication protocol required by a controlling entity, such as a utility or service provider, to participate in an automated demand response program
6. The physical configuration and communication protocol of CTA 2045-A or CTA-2045-B

R403.1.3.2 Variable capacity and two stage HVAC system controls. Thermostats controlling variable capacity and two stage HVAC system shall be provided with a *demand responsive control* that complies with the communication and performance requirements of AHRI 1380.

R403.5.4 Demand responsive water heating Electric storage water heaters with a rated water storage volume of 40 gallons (150L) to 120 gallons (450L) and a nameplate input rating equal to or less than 12kW shall be provided with demand responsive controls in accordance with Table R403.5.4 or another equivalent approved standard.
Exceptions:

1 Water heaters that are capable of delivering water at a temperature of 180°F (82°C) or greater.
2 Water heaters that comply with Section IV, Part HLW or Section X of the ASME Boiler and Pressure Vessel Code.
3 Water heaters that use 3-phase electric power

TABLE R403.5.4
DEMAND RESPONSIVE CONTROLS FOR WATER HEATING

Equipment Type	Controls	
	Manufactured Before 7/1/2025	Manufactured On or After 7/1/ 2025

Electric storage water heaters	AHRI Standard 1430-2022 (I-P) or ANSI/CTA-2045-B Level 1 and also capable of initiating water heating to meet the temperature set point in response to a demand response signal.	AHRI Standard 1430-2022 (I-P)

SECTION R404
ELECTRICAL POWER AND LIGHTING SYSTEMS

R404.4 Electric Vehicle Power Transfer Infrastructure. New automobile parking spaces for one- and two-family dwellings and townhouses shall be provided in accordance with this section. All other new *residential* parking facilities shall be provided with electric vehicle power transfer infrastructure in accordance with Section C405.14 of the Illinois Commercial Stretch Energy Code.

R404.4.1 Quantity. Each *dwelling unit* with a designated attached or detached garage or other onsite private parking provided adjacent to the *dwelling unit* shall be provided with one *EV ready space*.

R404.4.2 EV Ready Spaces. Each branch circuit serving *EV ready spaces* used to comply with Section R404.4 shall comply with all of the following:

1. Terminate at an outlet or enclosure located within 3 feet (914 mm) of each *EV ready space* it serves.
2. Be sized for a minimum EV charging load of 7.2 kVA.
3. The panelboard or other electrical distribution equipment directory shall designate the branch circuit as "For electric vehicle supply equipment (EVSE)" and the outlet or enclosure shall be marked "For electric vehicle supply equipment (EVSE)."
4. Where a circuit is shared or managed, it shall be in accordance with NFPA 70.

Commented [CR62]: Requires an EV Ready space in new dwelling units.

R404.5 Electric readiness. Systems using fossil fuel: water heaters, household clothes dryers, conventional cooking tops, conventional ovens and space heating equipment shall comply with the requirements of Sections R404.5.1 through R404.5.5

Commented [CR63]: Requires electric readiness for appliances even if fossil fuel appliances are used.

R404.5.1 Cooking products. An individual branch circuit outlet with a rating not less than 240-volts, 40-amperes shall be installed, and terminate within three feet of conventional cooking tops, conventional ovens or cooking products combining both.

Exception: Cooking products not installed in an individual dwelling unit.

R404.5.2 Household Clothes Dryers. An individual branch circuit outlet with a rating not less than 240-volts, 30-amperes shall be installed, and terminate within three feet (304 mm) of each household clothes dryer.

Exception: Clothes dryers that serve more than one dwelling unit and are located outside of a dwelling unit.

R404.5.3 Water heaters. Locations of fossil fuel water heaters shall comply with all of the following:

1. An individual branch circuit outlet with a rating not less than either 240-volts, 30-amperes shall be installed, and terminate within three feet (304 mm) of each fossil fuel water heater.
2. The space for containing the future water heater shall have a height of not less than 7 ft (2 m), a width of not less than 3 ft (1 m), a depth of not less than 3ft (1 m) and with a volume of not less than 700 ft3 (20 m3).

Exception:

1. Water heaters in a centralized water heating system serving multiple dwelling units in an R-2 occupancy which comply with Section C405.17.
2. Where the space containing the water heater provides for air circulation sufficient for the operation of a heat pump water heater, the minimum room volume shall not be required.

R404.5.4 Combustion space heating. A designated exterior location(s) in accordance with the following:

1. Natural drainage for condensate from cooling equipment heat pump operation or a condensate drain located within 3 feet (914 mm), and
2. A dedicated branch circuit in compliance with IRC Section E3702.11 based on heat pump space heating equipment sized in accordance with R403.7 and terminating within 3 feet (914 mm) of the location with no obstructions. Both ends of the branch circuit shall be labeled "For Future Heat Pump Space Heater."

R404.5.5 Electrification-ready circuits. The unused conductors required by Sections R404.5.1 through R404.5.4 shall be labeled with the word "spare." Space shall be reserved in the electrical panel in which the branch circuit originates for the installation of an overcurrent device. Capacity for the circuits required by Sections R404.5.1 through R404.5.4 shall be included in the load calculations of the original installation.

R404.6 Renewable energy infrastructure. The building shall comply with the requirements of R404.6.1 or R404.6.2.

Commented [CR64]: Requires electrical provisions for future solar systems.

R404.6.1 One- and two- family dwellings and townhouses. One- and two-family dwellings and townhouses shall comply with Sections R404.6.1.1 through R404.6.1.4.

Exceptions:

1. A dwelling unit with a permanently installed on-site renewable energy system.
2. A dwelling unit with a solar-ready zone area that is less than 500 square feet (46 m^2) of roof area oriented between 110 degrees and 270 degrees of true north.
3. A dwelling unit with less than 500 square feet (46m^2) of roof area oriented between 110 degrees and 270 degrees of true north.
4. Dwelling units where 50 percent of the solar-ready area is shaded from direct-beam sunlight by natural objects or by structures that are not part of the building for more than 2500 annual hours between 8:00 a.m. and 4:00 p.m.

R404.6.1.1 Solar-ready zone area. The total area of the solar-ready zone shall not be less than 250 square feet (23.2 m^2) and shall be composed of areas not less than 5.5 feet (1676 mm) in one direction and not less than 80 square feet (7.4 m^2) exclusive of access or set back areas as required by the *International Residential Code*.

Exception: Dwelling units in townhouses three stories or less in height above grade plane and with a total floor area less than or equal to 2,000 square feet (186 m^2) per dwelling shall be permitted to have a solar-ready zone area of not less than 150 square feet (14 m^2).

R404.6.1.2 Obstructions. Solar-ready zones shall be free from obstructions, including but not limited to vents, chimneys, and roof-mounted equipment.

R404.6.1.3 Electrical service reserved space. The main electrical service panel shall have a reserved space for a dual pole circuit breaker and shall be labeled "For Future Solar Electric." The reserved space shall be at the opposite (load) end of the busbar from the primary energy source.

R404.6.1.4 Electrical interconnection. An electrical junction box shall be installed within 24 inches (610 mm) of the main electrical service panel and shall be connected to a capped roof penetration sleeve or a location in the attic that is within 3 feet (914 mm) of the solar-ready zone by a minimum 1 inch (25 mm) nonflexible metallic conduit or permanently installed wire as approved by the code official. Where the interconnection terminates in the attic, location shall be no less than 12 inches (35 mm) above ceiling insulation. Both ends of the interconnection shall be labeled "For Future Solar Electric".

R404.6.2 Group R occupancies. Buildings in Group R-2, R-3 and R-4 shall comply with Section C405.15 of the Illinois Commercial Stretch Energy Code.

SECTION R405
TOTAL BUILDING PERFORMANCE

R405.1 Scope. This section establishes criteria for compliance using total building performance analysis. Such analysis shall include heating, cooling, mechanical ventilation and service water-heating energy only.

R405.2 Performance-based compliance. Compliance based on total building performance requires that a *proposed design* meets all of the following:

1. The requirements of the sections indicated within Table R405.2.
2. The proposed total building thermal envelope UA, which is the sum of the U-factor times assembly area, shall be ~~greater~~ less than or equal to the building thermal envelope UA using the prescriptive U-factors from Table R402.1.2 multiplied by 1.10 in accordance with Equation 4-1.~~levels of efficiency and solar heat gain coefficients in Table R402.1.1 or R402.1.3 of the 2009 *International Energy Conservation Code*.~~

   $UA_{Proposed\ design} \leq 1.10 \times UA_{Prescriptive\ reference\ design}$ (Equation 4-1)

~~3.~~ ~~An~~ The site energy use ~~annual energy cost~~ of the *proposed design* ~~that is~~ shall be less than or equal to 71 percent ~~the annual energy cost~~ of the site energy use of the *standard reference design*. ~~Energy prices shall be taken from a source *approved* by the *code official*, such as the Department of Energy, Energy Information Administration's State Energy Data System Prices and Expenditures reports. Code officials shall be permitted to require time-of- use pricing in energy cost calculations.~~

~~**Exception:** The energy use based on source energy expressed in Btu or Btu per square foot of conditioned floor area shall be permitted to be substituted for the energy cost. The source energy multiplier for electricity shall be 3.16. The source energy multiplier for fuels other than electricity shall be 1.1.~~

Commented [CR65]: Section is revised from an "energy cost" metric to a "site energy use" metric per statute and increases the stringency of the proposed design to meet the site energy indexes in the statute.

TABLE R405.2
REQUIREMENTS FOR TOTAL BUILDING PERFORMANCE

SECTION[a]	TITLE
General	
R401.2.5	Additional energy efficiency
R401.3	Certificate
Building Thermal Envelope	
R402.1.1	Vapor retarder
R402.2.3	Eave baffle
R402.2.4.1	Access hatches and doors
R402.2.10.1	Crawl space wall insulation installations
R402.4.1.1	Installation
R402.4.1.2	Testing
R402.5	Maximum fenestration *U*-factor and SHGC
Mechanical	
R403.1	Controls
R403.3, including R403.3.1, except Sections R403.3.2, R403.3.3 and R403.3.6	Ducts
R403.4	Mechanical system piping insulation
R403.5.1	Heated water circulation and temperature maintenance systems
R403.5.3	Drain water heat recovery units
R403.6	Mechanical ventilation
R403.7	Equipment sizing and efficiency rating
R403.8	Systems serving multiple dwelling units
R403.9	Snow melt and ice systems
R403.10	Energy consumption of pools and spas
R403.11	Portable spas
R403.12	Residential pools and permanent residential spas
Electrical Power and Lighting Systems	
R404.1	Lighting equipment
R404.2	Interior lighting controls
R404.4	Electric Vehicle Power Transfer Infrastructure
R404.5	Electric readiness
R404.6	Renewable energy infrastructure

a. Reference to a code section includes all the relative subsections except as indicated in the table.

Commented [CR66]: Adds additional requirements to the Total Building Performance compliance option to be consistent with other compliance options.

SECTION R406
ENERGY RATING INDEX COMPLIANCE ALTERNATIVE

Commented [CR67]: Several changes to the ERI compliance method including converting from an "energy cost" metric to a "site energy use" metric, electric readiness provisions similar to other compliance methods, and mechanical ventilation rates are aligned with ANSI standards.

R406.1 Scope. This section establishes criteria for compliance using an Energy Rating Index (ERI) analysis.

R406.2 ERI compliance. Compliance based on the ERI requires that the rated design meets all of the following:

1. The requirements of the sections indicated within Table R406.2.
2. Maximum ERI of Table R406.5.

TABLE R406.2
REQUIREMENTS FOR ENERGY RATING INDEX

SECTION[a]	TITLE
General	
R401.2.5	Additional efficiency packages
R401.3	Certificate
Building Thermal Envelope	
R402.1.1	Vapor retarder
R402.2.3	Eave baffle
R402.2.4.1	Access hatches and doors
R402.2.10.1	Crawl space wall insulation installation
R402.4.1.1	Installation
R402.4.1.2	Testing
Mechanical	
R403.1	Controls
R403.3 except Sections R403.3.2, R403.3.3 and R403.3.6	Ducts
R403.4	Mechanical system piping insulation
R403.5.1	Heated water calculation and temperature maintenance systems
R403.5.3	Drain water heat recovery units
R403.6	Mechanical ventilation
R403.7	Equipment sizing and efficiency rating
R403.8	Systems serving multiple dwelling units
R403.9	Snow melt and ice systems
R403.10	Energy consumption of pools and spas
R403.11	Portable spas
R403.12	Residential pools and permanent residential spas
Electrical Power and Lighting Systems	
R404.1	Lighting equipment
R404.2	Interior lighting controls
R404.4	Electric Vehicle Power Transfer Infrastructure
R404.5	Electric readiness
R404.6	Renewable energy infrastructure

a. Reference to a code section includes all the relative subsections except as indicated in the table.

~~**R406.3 Building thermal envelope.** Building and portions thereof shall comply with Section R406.3.1 or R406.3.2.~~

R406.3.1 On-site renewables are not included. **Building thermal envelope.** Where on-site renewable energy is not included for compliance using the ERI analysis of Section R406.4, t The proposed total building thermal envelope UA, which is sum of *U*- factor times assembly area, shall be less than or equal to the building thermal envelope UA using the prescriptive *U*-factors from Table R402.1.2 multiplied by 1.105 in accordance with Equation 4-21. The area-weighted maxi- mum fenestration SHGC permitted in Climate Zones 0 through 3 shall be 0.30.

UAProposed design <= 1.105 × UAPrescriptive reference design

(Equation 4-21)

R406.3.2 On-site renewables are included. Where on- site renewable energy is included for compliance using the ERI analysis of Section R406.4, the *building thermal envelope* shall be greater than or equal to the levels of efficiency and SHGC in Table R402.1.2 or Table R402.1.4 of the 2018 *International Energy Conservation Code*.

R406.4 Energy Rating Index. The Energy Rating Index (ERI) shall be determined in accordance with ANSI/RESNET/ICC 301 The mechanical ventilation rates used for the purpose of determining the ERI shall not be construed to establish minimum ventilation requirements for compliance with this code. except for buildings covered by the *International Resi- dential Code*, the ERI reference design ventilation rate shall be in accordance with Equation 4-2.

Ventilation rate, CFM = (0.01 × total square foot area of house) + [7.5 × (number of bedrooms + 1)]

Energy used to recharge or refuel a vehicle used for transportation on roads that are not on the building site shall not be included in the *ERI reference design* or the *rated design*. For compliance purposes, any reduction in energy use of the rated design associated with on-site renewable energy shall not exceed 5 percent of the total energy use.

R406.5 ERI-based compliance. Compliance based on an ERI analysis requires that the *rated proposed design* and confirmed built dwelling be shown to have an ERI less than or equal to the appropriate value indicated in Table R406.5 when compared to the *ERI reference design*.

TABLE R406.5
MAXIMUM ENERGY RATING INDEX

Climate Zone	Energy Rating Index Without Combustion Equipment[a]	Energy Rating Index With Combustion Equipment[b]
4	54	51
5	55	50

a. Any building that contains no *combustion equipment*.

b. Any building that contains *combustion equipment*.

SECTION R408
ADDITIONAL EFFICIENCY REQUIREMENTS PACKAGE OPTIONS

Commented [CR68]: Section R408 has many changes primarily intended to ensure the proposed building meets the site energy index per statute. Heat pumps are the preferred method of space and water heating.

R408.1 Scope. This section establishes additional efficiency requirements package options to achieve additional energy efficiency in accordance with Section R401.2.15. *Buildings* shall comply with either Section R408.2 or Section R408.3

R408.2. Heat pump equipment and air tightness option. Buildings shall comply with all of the following:

1. Heating and cooling equipment shall be electric heat pump equipment. In Climate Zone 5A, air-source heat pumps shall meet the following requirements for cold climate heat pumps:
   1.1. COP at 5°F (-15°C) ≥ 1.75
   1.2 Percent of heating capacity at 5°F (-15°C) ≥ 70% of that at 47°F (8.34°C)
2. Water heating equipment shall be a heat pump water heater.
3. The measured air leakage shall be less than or equal to 2.0 ACH50 with either an Energy Recovery Ventilator (ERV) or Heat Recovery Ventilator (HRV) with a sensible heat recovery efficiency (SRE) no less than 70 percent at 32°F (0°C) at an airflow greater than or equal to design airflow. The SRE shall be determined from a listed value or from interpolation of listed values. Construction documents shall include documentation of the SRE.

R408.32 Additional energy efficiency credit requirements package options. Additional efficiency package options for compliance with Section R401.2.1 are set forth in Sections R408.2.1 through R408.2.5. measures shall be selected from Table R408.3 that meet or

Commented [CR69]: 29 Credits are required to comply with the Code. Many options are listed to give owners flexibility in how to get 29 credits.

exceed a total of 29 credits. Five additional credits shall be selected for dwelling units with greater than 5,000 square feet (465 m2) of living space floor area located above grade plane. Each measure selected shall meet the relevant subsections of Section R408 and receive credit as specified in Table R408.3 for the specific Climate Zone. Interpolation of credits between measures shall not be permitted.

TABLE R408.3
CREDITS FOR ADDITIONAL ENERGY EFFICIENCY

Measure Number	Measure Description	Credit Value	
		CZ 4	CZ 5
R408.3.1.1 (1)	≥ 2.5% reduction in total UA	1	1
R408.2.1.1 (2)	≥ 5% reduction in total UA	2	3
R408.3.1.1 (3)	> 7.5% reduction in total UA	2	3
R408.3.1.2	0.22 U-factor windows	3	4
R408.3.2 (1)	High performance cooling system option 1	3	3
R408.3.2 (2)	High performance cooling system option 2	3	2
R408.3.2 (3)	High performance gas furnace option 1	5	7
R408.3.2(4)	High performance gas furnace option 2	4	5
R408.3.2(5)	High performance electric heat pump system option 1	21	31
R408.3.2 (6)	High performance electric heat pump system option 2	22	32
R408.3.2 (7)	Ground source heat pump	23	33
R408.3.2 (8)	High performance gas heat pump space heating system option 1	8	11
R408.3.2 (9)	High performance gas heat pump space heating system option 2	11	16
R408.3.3 (1)	Fossil fuel service water heating system	3	2
R408.3.3 (2)	High performance heat pump water heating system	8	6
R408.3.3 (3)	Solar hot water heating system	6	6
R408.3.3 (4)	Compact hot water distribution	2	2
R408.3.4 (1)	More efficient distribution system	10	12
R408.3.4 (2)	100% of ducts in conditioned space	12	15
R408.3.4 (3)	Reduced total duct leakage	1	1
R408.3.5 (1)	2 ACH50 air leakage rate with ERV or HRV installed	10	13
R408.3.5 (2)	2 ACH50 air leakage rate with balanced ventilation	4	5
R408.3.5 (3)	1.5 ACH50 air leakage rate with ERV or HRV installed	12	15
R408.3.5 (4)	1 ACH50 air leakage rate with ERV or HRV installed	14	17
R408.3.6	Energy Efficient Appliances	1	1

R408.32.1 Enhanced envelope ~~performance~~ option. ~~The total *building thermal envelope* UA, the sum of *U*-factor times assembly area, shall be less than or equal to 95 percent of the total UA resulting from multiplying the *U*-factors in Table R402.1.2 by the same assembly area as in the proposed building. The UA calculation shall be performed in accordance with Section R402.1.5. The area-weighted average SHGC of all glazed fenestration shall be less than or equal to 95 percent of the maximum glazed fenestration SHGC in Table R402.1.2.~~ The building thermal envelope shall meet the requirements of Section R408.3.1.1 or R408.3.1.2.

R408.3.1.1 Enhanced envelope performance UA. The proposed total building thermal envelope UA shall be calculated in accordance with Section R402.1.5 and shall meet one of the following:

1. Not less than 2.5 percent of the total UA of the building thermal envelope.
2. Not less than 5 percent of the total UA of the building thermal envelope.
3. Not less than 7.5 percent of the total UA of the building thermal envelope.

R408.3.1.2 Improved fenestration. Vertical fenestration shall meet a U-factor equal to or less than 0.22.

R408.32.2 More efficient HVAC equipment performance option. Heating and cooling *equipment* shall meet one of the following efficiencies:

Options:

~~1. Greater than or equal to 95 AFUE natural gas furnace and 16 SEER air conditioner.~~
~~2. Greater than or equal to 10 HSPF/16 SEER air source heat pump.~~
~~3. Greater than or equal to 3.5 COP ground source heat pump.~~

1. Greater than or equal to 6.9 SEER2 and 13.4 EER2 air conditioner.
2. Greater than or equal to 15.2 SEER2 and 10 EER2 air conditioner.
3. Greater than or equal to 96 AFUE natural gas furnace.
4. Greater than or equal to 92 AFUE natural gas furnace.
5. Greater than or equal to 8.1HSPF2/16 SEER2 electric air source heat pump.
6. Greater than or equal to 8.5 HSPF2/16.9 SEER2 electric air source heat pump.
7. Greater than or equal to 3.5 COP ground source heat pump.
8. Greater than or equal to 120 AFUE gas heat pump space heating system. The gas heat pump space heating system shall not be configured to provide cooling.
9. Greater than or equal to 140 AFUE gas heat pump space heating system. The gas heat pump space heating system shall not be configured to provide cooling.

For multiple cooling systems, all systems shall meet or exceed the minimum efficiency requirements in this section and shall be sized to serve 100 percent of the cooling design load. For multiple heating systems, all systems shall meet or exceed the minimum efficiency requirements in this section and shall be sized to serve 100 percent of the heating design load. In Climate Zone 5A, air-source heat pumps shall meet the following requirements for cold climate heat pumps:

1. COP at 5°F (-15°C) ≥ 1.75
2. Percent of heating capacity at 5°F (-15°C) ≥ 70% of that at 47°F (8.34°C)

R408.32.3 Reduced energy use in service water-heating option. The hot water system shall meet one of the following efficiencies:

1. Greater than or equal to 0.82 EF fossil fuel service water-heating system.
2. Greater than or equal to 2.9~~0~~ UEF electric service water-heating system.
3. Greater than or equal to 0.4 solar fraction solar water-heating system.
4. Compact hot water distribution. For Compact Hot Water Distribution system credit, the volume shall store not more than 16 ounces of water in the nearest source of heated water and the termination of the fixture supply pipe when calculated using section R408.3.3.1 and documented in compliance with Section R408.3.3.2.

R408.3.3.1 Water volume determination. The water volume in the piping shall be calculated in accordance with this section. Water heaters, circulating water systems and heat trace temperature maintenance systems shall be considered to be sources of heated water. The volume shall be the sum of the internal volumes of pipe, fittings, valves, meters and manifolds between the nearest source of heated water and the termination of the fixture supply pipe. The volume in the piping shall be determined from Table R408.3.3.1. The volume contained within fixture shutoff valves, within flexible water supply connectors to a fixture fitting and within a fixture fitting shall not be included in the water volume determination. Where heated water is supplied by a recirculating system or heat-traced piping, the volume shall include the portion of the fitting on the branch pipe that supplies water to the fixture.

TABLE R408.3.3.1
INTERNAL VOLUME OF VARIOUS WATER DISTRIBUTION TUBING
OUNCES OF WATER PER FOOT OF TUBE

NOMINAL SIZE (inches)	COPPER TYPE M	COPPER TYPE L	COPPER TYPE K	CPVC CTS SDR 11	CPVC SCH 40	CPVC SCH 80	PE- RT SDR 9	COMPOSITE ASTM F1281	PEX CTS SDR 9
3/8	1.06	0.97	0.84	N/A	1.17	-	0.64	0.63	0.64
1/2	1.69	1.55	1.45	1.25	1.89	1.46	1.18	1.31	1.18
3/4	3.43	3.22	2.90	2.67	3.38	2.74	2.35	3.39	2.35
1	5.81	5.49	5.19	4.43	5.53	4.57	3.91	5.56	3.91
1 1/4	8.70	8.36	8.09	6.61	9.66	8.24	5.81	8.49	5.81
1 1/2	12.18	11.83	11.45	9.22	13.20	11.38	8.09	13.88	8.09
2	21.08	20.58	20.04	15.79	21.88	19.11	13.86	21.48	13.86

For SI: 1 foot = 304.8 mm, 1 inch = 25.4 mm, 1 liquid ounce = 0.030L, 1 oz/ft^2 = 305.15 g/m^2.
N/A = Not available

R408.3.3.2 Water volume documentation. Where compliance with Section R408.3.3(5) is required, construction documentation or final field inspection shall verify that the compact hot water distribution system meets the prescribed limit in Section R408.3.3(5) with one of the following:

1. Referencing ounces of water per foot of tube on plans as per Table R408.3.3.1.
2. Referencing ounces of water per foot of tube installed as per Table R408.3.3.1.
3. In accordance with Department of Energy's Zero Energy Ready Home National Specification (Rev. 07 or higher) footnote on Hot water delivery systems.

R408.32.4 More efficient duct thermal distribution system option. The thermal distribution system shall meet one of the following efficiencies:

~~1. 100 percent of ducts and air handlers located entirely within the *building thermal envelope*.~~

~~2.~~1. 100 percent of ductless thermal distribution system or hydronic thermal distribution system located completely inside the *building thermal envelope*.

~~3.~~2. 100 percent of duct thermal distribution system located in conditioned space as defined by Section R403.3.2.

3. When ducts are located outside conditioned space, the total leakage of the ducts, measured in accordance with R403.3.5, shall be in accordance with one of the following:
   - 3.1. Where the air handler is installed at the time of testing, 2.0 cubic feet per minute (0.94 L/s) per 100 square feet (9.29 m) of conditioned floor area.
   - 3.2 Where the air handler is not installed at the time of testing, 1.75 cubic feet per minute (0.83 L/s) per 100 square feet (9.29 m) of conditioned floor area.

R408.32.5 Improved air sealing and efficient ventilation system option. ~~The measured air leakage rate shall be less than or equal to 3.0 ACH50, with either an Energy Recovery Ventilator (ERV) or Heat Recovery Ventilator (HRV) installed. Minimum HRV and ERV requirements, measured at the lowest tested net supply airflow, shall be greater than or equal to 75 percent Sensible Recovery Efficiency (SRE), less than or equal to 1.1 cubic feet per minute per watt (0.03 m^3/min/watt) and shall not use recirculation as a defrost strategy. In addition, the ERV shall be greater than or equal to 50 percent Latent Recov- ery/Moisture Transfer (LRMT).~~ The measured air leakage rate shall be one of the following:

1. Less than or equal to 2.0 ACH50, with either an Energy Recovery Ventilator (ERV) or Heat Recovery Ventilator (HRV) installed.
2. Less than or equal to 2.0 ACH50, with balanced ventilation as defined in Section 202 of the 2021 *International Mechanical Code*.
3. Less than or equal to 1.5 ACH50, with either an ERV or HRV installed.
4. Less than or equal to 1.0 ACH50, with either an ERV or HRV installed.

Minimum HRV and ERV requirements, measured at the lowest tested net supply airflow, shall be greater than or equal to 75 percent Sensible Recovery Efficiency (SRE), less than or equal to 1.1 cubic feet per minute per watt (0.03 m3/min/watt)

and shall not use recirculation as a defrost strategy. In addition, the ERV shall be greater than or equal to 50 percent Latent Recovery/ Moisture Transfer (LRMT).

R408.3.6 Energy efficient appliances. Appliances installed in a dwelling unit shall meet the product energy efficiency specifications listed in Table R408.3.6, or equivalent energy efficiency specifications. The three appliance types from Table R408.3.6 shall be installed for compliance with this section.

TABLE R408.3.6 MINIMUM EFFICIENCY REQUIREMENTS: APPLIANCES

Appliance	Efficiency Improvement	Test Procedure
Refrigerator	Maximum Annual Energy Consumption (AEC) No greater than 620 kWh/yr	10 CFR 430, Subpart B, Appendix A
Dishwasher	Maximum Annual Energy Consumption (AEC) No greater than 270 kWh/yr	10 CFR 430, Subpart B, Appendix C1
Clothes Washer and Clothes Dryer	Maximum Annual Energy Consumption (AEC) for Clothes Washer[a] No greater than 130 kWh/yr Integrated Modified Energy Factor (IMEF) > 1.84 cu.ft/kWh/cycle	10 CFR 430 Subpart B, Appendix J2 and 10 CFR 430, Subpart B, Appendices D1 and D2

a. Credit for Clothes Washer and Clothes Dryer pair is based on Clothes Washer efficiency.

CHAPTER 6[RE]
REFERENCED STANDARDS

ASME	American Society of Mechanical Engineers Two Park Avenue New York, NY 10016-5990
BPVC	*Boiler and Pressure Vessel Code*
CTA	Consumer Technology Association Technology & Standards Department 1919 S Eads Street Arlington VA 22202
ANSI/CTA-2045-B – 2018	Modular Communications Interface for Energy Management
ANSI/CTA-2045-A – 2018	Modular Communications Interface for Energy Management
IEC	IEC Regional Centre for North America 446 Main Street 16th Floor Worcester MA 01608
IECIEC Regional Centre for North America.	IEC 62746-10-1 - 2018: Systems interface between customer energy management system and the power management system - Part 10-1: Open automated demand response
OpenADR	OpenADR Alliance 111 Deerwood Road, Suite 200 San Ramon CA 94583

OpenADR OpenADR Alliance.	OpenADR 2.0a and 2.0b – 2019: Profile Specification Distributed Energy Resources
AHRI	Air-Conditioning, Heating, & Refrigeration Institute 2111 Wilson Blvd, Suite 500 Arlington VA 22201
AHRI 1380-2019 AHRI 1430-2022 (I-P)	Demand Response through Variable Capacity HVAC Systems in Residential and Small Commercial Applications Demand Flexible Electric Storage Water Heaters

SECTION R502
ADDITIONS

R502.3 Prescriptive compliance. *Additions* shall comply with Sections R502.3.1 through R502.3.54.

R502.3.1 Building envelope. New *building* envelope assemblies that are part of the *addition* shall comply with Sections R402.1, R402.2, R402.3.1 through R402.3.5, and R402.4.

Exception: New envelope assemblies are exempt from the requirements of Section R402.4.1.2.

R502.3.2 Heating and cooling systems. HVAC ducts newly installed as part of an *addition* shall comply with Section R403.

Exception: Where ducts from an existing heating and cooling system are extended to an *addition*.

R502.3.3 Service hot water systems. New service hot water systems that are part of the *addition* shall comply with Section R403.5.

R502.3.4 Lighting. New lighting systems that are part of the *addition* shall comply with Section R404.1.

R502.3.5 Additional Efficiency Requirements. *Additions* shall comply with sufficient measures from Table R408.3 to achieve not less than 10 credits. *Alterations* to the existing building that are not part of the *addition*, but permitted with the *addition*, shall be permitted to be used to achieve this requirement.

Exceptions:

1. Additions that increase the building's total conditioned floor area by less than 25 percent.
2. Additions that do not include the addition or replacement of equipment covered in Sections R403.5 or R403.7.
3. Additions that do not contain conditioned space.
4. Where the addition alone or the existing building and addition together comply with Section R405 or R406.

Commented [CR70]: Additions required to achieve more credits to ensure compliance with the site energy index per statute.

SECTION R503
ALTERATIONS

R503.1.1.2 Roof Replacement. Insulation shall comply with Section R402.1. Alternatively, where limiting conditions prevent compliance with Section R402.1, an *approved* design that minimizes deviation from Section R402.1 shall be provided for the following alterations:

1. Roof replacements or a roof *alteration* that includes removing and replacing the *roof covering* where the *roof assembly* includes insulation entirely above the roof deck, where limiting conditions require use of an *approved* design to minimize deviation from Section R402.1 for a Group R-2 *building*, a registered design professional or other *approved source* shall provide *construction documents* that identify the limiting conditions and the means to address them.

R503.1.2 Heating and cooling systems. New heating and cooling and duct systems that are part of the alteration shall comply with Section R403 and this section. HVAC ducts newly installed as part of an *alteration* shall comply with **Section R403**. Alterations to heating, cooling and duct systems shall comply with this section.

~~**Exception:** Where ducts from an existing heating and cooling system are extended to an *addition*.~~

R503.1.2.1 Ducts. HVAC ducts newly installed as part of an alteration shall comply with Section R403.

Exception: Where ducts from an existing heating and cooling system are extended to an *addition*.

R503.1.2.2 System sizing. New heating and cooling equipment that is part of an *alteration* shall be sized in accordance with Section R403.7 based on the existing building features as modified by the *alteration*.

Exception: Where it has been demonstrated to the *code official* that compliance with this section would result in heating or cooling equipment that is incompatible with the remaining portions of the existing heating or cooling system.

R503.1.2.3 Duct leakage. Where an *alteration* includes any of the following, ducts shall be tested in accordance with Section R403.3.5 and shall have a total leakage less than or equal to 12.0 cubic feet per minute (339.9 L/min) per 100 square feet (9.29 m^2) of conditioned floor area:

1. Where 25 percent or more of the registers that are part of the duct system are relocated.
2. Where 25 percent or more of the total length of all ducts in the system are relocated.
3. Where the total length of all ducts in the system is increased by 25 percent or more.

Exception: Duct systems located entirely inside a conditioned space in accordance with Section R403.3.2.

R503.1.2.4 Controls New heating and cooling equipment that are part of the *alteration* shall be provided with controls that comply with Sections R403.1 and R403.2.

Commented [CR71]: An exception for roof replacements with limiting conditions on the roof is added to permit less insulation than otherwise required. Language is consistent with IL Energy Conservation Code.

Commented [CR72]: Several requirements to ensure that new HVAC in Alterations is as efficient as possible. Including sizing equipment instead of matching existing size, more stringent duct leakage and better controls.

APPENDIX RB

SOLAR-READY PROVISIONS—DETACHED ONE- AND TWO- FAMILY DWELLINGS AND TOWNHOUSES

The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.

User note:

About this appendix: *Harnessing the heat or radiation from the sun's rays is a method to reduce the energy consumption of a building. Although Appendix RB does not require solar systems to be installed for a building, it does require the space(s) for installing such systems, providing pathways for connections and requiring adequate structural capacity of roof systems to support the systems.*

SECTION RB101 SCOPE

RB101.1 General. These provisions shall be applicable for new construction where solar-ready provisions are required.

SECTION RB102 GENERAL DEFINITION

SOLAR-READY ZONE. A section or sections of the roof or building overhang designated and reserved for the future installation of a solar photovoltaic or solar thermal system.

SECTION RB103 SOLAR-READY ZONE

RB103.1 General. New detached one- and two-family dwellings, and townhouses with not less than 600 square feet (55.74 m^2) of roof area oriented between 110 degrees and 270 degrees of true north shall comply with Sections RB103.2 through RB103.8.

Exceptions:

1. New residential buildings with a permanently installed on-site renewable energy system.
2. A building where all areas of the roof that would otherwise meet the requirements of Section RB103 are in full or partial shade for more than 70 percent of daylight hours annually.

RB103.2 Construction document requirements for solar- ready zone. Construction documents shall indicate the solar- ready zone.

RB103.3 Solar-ready zone area. The total solar-ready zone area shall be not less than 300 square feet (27.87 m^2) exclu- sive of mandatory access or setback areas as required by the *International Fire Code*. New townhouses three stories or less in height above grade plane and with a total floor area less than or equal to 2,000 square feet (185.8 m^2) per dwell- ing shall have a solar-ready zone area of not less than 150 square feet (13.94 m^2). The solar-ready zone shall be composed of areas not less than 5 feet (1524 mm) in width and not less than 80 square feet (7.44 m^2) exclusive of access or setback areas as required by the *International Fire Code*.

RB103.4 Obstructions. Solar-ready zones shall be free from obstructions, including but not limited to vents, chimneys, and roof-mounted equipment.

RB103.5 Shading. The solar-ready zone shall be set back from any existing or new permanently affixed object on the building or site that is located south, east or west of the solar zone a distance not less than two times the object's height above the nearest point on the roof surface. Such objects include, but are not limited to, taller portions of the building itself, parapets, chimneys, antennas, signage, rooftop equip- ment, trees and roof plantings.

RB103.6 Capped roof penetration sleeve. A capped roof penetration sleeve shall be provided adjacent to a solar-ready zone located on a roof slope of not greater than 1 unit verti- cal in 12 units horizontal (8 percent slope). The capped roof penetration sleeve shall be sized to accommodate the future photovoltaic system conduit, but shall have an inside diame- ter of not less than 1¼ inches (32 mm).

RB103.7 Roof load documentation. The structural design loads for roof dead load and roof live load shall be clearly indicated on the construction documents.

RB103.8 Interconnection pathway. Construction docu- ments shall indicate pathways for routing of conduit or plumbing from the solar-ready zone to the electrical service panel or service hot water system.

RB103.9 Electrical service reserved space. The main elec- trical service panel shall have a reserved space to allow installation of a dual pole circuit breaker for future solar electric installation and shall be labeled "For Future Solar Electric." The reserved space shall be positioned at the oppo- site (load) end from the input feeder location or main circuit location.

RB103.10 Construction documentation certificate. A permanent certificate, indicating the solar-ready zone and other requirements of this section, shall be posted near the electrical distribution panel, water heater or other conspicu- ous location by the builder or registered design professional

Commented [CR73]: Appendix is removed since the requirements are integral to the main body of the Stretch Code.

APPENDIX RD ALL-ELECTRIC RESIDENTIAL BUILDINGS

Commented [CR74]: Optional Appendix for All Electric Buildings.

The provisions contained in this appendix are not mandatory unless specified as such in the jurisdiction's adopting ordinance.

User note: ***About this chapter:*** *Appendix RD provides jurisdictions adopting the 2023 Illinois Stretch Energy Code the option to require all-electric residential buildings and to promote electrification in existing buildings in support of policy goals to reduce carbon emissions and improve the health and safety of buildings.*

RD101
GENERAL

RD101.1 Intent. The intent of this Appendix is to amend the Illinois Stretch Energy Code to reduce greenhouse gas emissions and improve the safety and health of buildings by not permitting combustion equipment in new buildings.

RD101.2 Scope. This appendix applies to residential buildings. Section RD103 applies to new residential buildings. Section RD104 applies to existing residential buildings.

RD102
GENERAL DEFINITIONS

ALL-ELECTRIC BUILDING. A building that contains no *combustion equipment*, or plumbing for *combustion equipment*, installed within the building, or building site.

APPLIANCE. A device or apparatus that is manufactured and designed to utilize energy and for which this code provides specific requirements.

COMBUSTION EQUIPMENT. Any equipment or *appliance* used for space heating, service water heating, cooking, clothes drying and/or lighting that uses *fuel gas* or *fuel oil*.

EQUIPMENT. Piping, ducts, vents, control devices and other components of systems other than appliances that are permanently installed and integrated to provide control of environmental conditions for buildings. This definition shall also include other systems specifically regulated in this code.

FUEL GAS. A natural gas, manufactured gas, liquified petroleum gas or a mixture of these.

FUEL OIL. Kerosene or any hydrocarbon oil having a flash point not less than 100°F (38°C).

SECTION RD103
NEW RESIDENTIAL BUILDINGS

RD103.1 Application. Residential buildings shall be *all-electric buildings* and comply with either Section R401.2.1, R401.2.2, or R401.2.3.

SECTION RD104
EXISTING RESIDENTIAL BUILDINGS

RD104.2 Cooling equipment. New and replacement unitary air conditioners shall be electric heat pump equipment sized and configured to provide both space cooling and space heating. Any other space heating systems that serve the same zone shall be configured as supplementary heat in accordance with Sections R403.1.2

and RD104.3.

Exception: Where a space heating system serves multiple dwelling units the system is not required to be configured to supplementary heat.

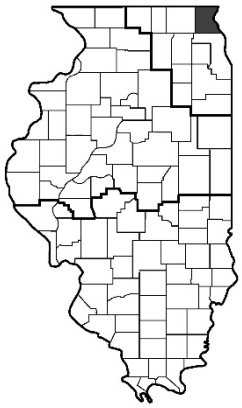
RD104.3 Heat pump supplementary combustion equipment. Heat pumps having *combustion equipment* or electric resistance equipment for supplementary space or water heating shall have controls that limit supplemental heat operation to only those times when one of the following applies:

1. The heat pump is operating in defrost mode.
2. The vapor compression cycle malfunctions.
3. For space heating systems, the thermostat malfunctions.
4. For space heating systems, the vapor compression cycle cannot provide the necessary heating energy to satisfy the thermostat setting.
5. For water heating, the heat pump water heater cannot maintain an output water temperature of at least 120°F (49°C) New supplementary space and water heating systems for heat pump equipment shall not be permitted to have a heating input capacity greater than the heating input capacity of the heat pump equipment.

State of Illinois
Capital Development Board **Request for Board Approval of Change Order**

Project Number: 810-056-024

Description: Construct Student Services/ Adult Education Center Waukegan Campus
College of Lake County
Grayslake, Lake County, IL



Using Agency: Illinois Community College Board

Architect/Engineer: Legat Architects
1125 Tristate Parkway, Suite 730
Gurnee, IL

Total Project Budget: $47,902,700.00
Unobligated Funds: $12,081,049.68
Total Spent to Date: $34,854,101.91
Percent Complete: 99%

Project Manager: Mark Jones

Project History: The College of Lake County is a 1,789,742 square foot, 19-building campus constructed in 1969.

The scope of work for this project provides for constructing an approximately 118,000 square foot Student Services and Adult Education Learning Center, including 46,000 square feet of classroom and laboratory space, 12,000 square feet for office space, and 15,000 square feet for general use and support space. The scope of work also provides for renovating approximately 10,300 square feet of space that will be vacated by the relocation of staff and students, installing site utilities, and constructing sidewalks, roadways, parking areas, landscaping, and providing site lighting and signage.

This project has had unique challenges from the start. The global pandemic delayed the receipt of bids and the start of construction. The impact on the construction industry was widespread and continues to affect the marketplace today. Material production dropped and shipping and transportation was significantly altered. Certain elements, materials, components, and manpower became difficult to acquire. Even through these challenges, George Sollitt has performed diligently and professionally to try and stay on schedule.

Description of RFP Change: This change order will be classified as a time extension and will provide compensation for the additional contract completion time for the project.

Delays to the contractual scheduled completion date of 9/23/22 for buildings A, B, and D were well beyond George Sollitt's control and every effort was made to lessen the impact on the project. Specifically, George Sollitt worked overtime on critical trades as needed and worked out of sequence to maintain progress and lessen delays. George Sollitt also incurred cost impacts to their general conditions specific to buildings A, B and D thru December 15, 2022.

Requested Action: We are requesting board approval of change order G-077R1 in the amount of $287,419.50 to provide compensation to the contractor for the additional time necessary to complete the project due to the unforeseen conditions listed above.

Contractor	Trade	Change Order Amount	Original Contract	% Change
The George Sollitt Construction Co.	General	$287,419.50	$30,427,490.00	.95%
Total All Change Orders		$287,419.50	$30,427,490.00	.95%

MEMORANDUM

DATE: December 19, 2023

TO: Tim Patrick – Construction Administrator

FROM: Mark Jones - Project Manager

RE: Request for Board Approval of Request for Proposal and Change Order
810-056-024
Construct Student Services/ Adult Education Center Waukegan Campus
College of Lake County
Grayslake, Lake County, Illinois

The College of Lake County is a 1,789,742 square-foot, 19 building campus constructed in 1969. The scope of work provides for constructing an approximately 118,000 square foot Student Services and Adult Education Learning Center, including 46,000 square feet of classroom and laboratory space: 12,000 square feet for office space, and 15,000 square feet for general use and support space. The scope of work also provides for renovating approximately 10,300 square feet of space that will be vacated by the relocation of staff and students, installing site utilities, and constructing sidewalks, roadways, parking areas, landscaping, and providing site lighting and signage.

This project has had unique challenges from the start. The global pandemic delayed the receipt of bids and the start of construction. The impact on the construction industry has been widespread and continues to affect the marketplace today. Material production dropped and shipping and transportation was significantly altered. Certain elements, materials, components, and manpower became difficult to acquire.

In a follow up to their Construction Schedule Update through July 31, 2022, issued on August 1, 2022, The George Sollitt Construction Company formally requested CDB revise the Substantial Completion date for Exterior Improvements/Sitework from September 23, 2022, to November 15, 2022, and for the New Building A from September 23, 2022, to December 15, 2022. The reasons for this request are summarized as follows: early unforeseen impacts to the project, particularly to foundation work, delays in delivery and subsequent installation of Fire Rated Curtainwalls, discovery of undocumented concrete paving below existing asphalt and concrete on Madison Street and the existing Plaza, delay in delivery of access control hardware, fabric and glass operable partition supplier Hufcor went out of business earlier this summer and could no longer supply the approved and previously ordered partitions, custom light fixtures for the project could not be released until field measuring and mock-ups took place, particularly on the 4th and 5th Floors, the lead times on these from date of release grew considerably and some weren't delivered onsite until late Fall, manpower shortages throughout the local construction industry coupled with continuing Covid related onsite absences over the summer months have meant delays getting trades such as roofing, painting, flooring, and other finishes scheduled and completed when requested. Material escalation costs particularly on metal products for the project over the last 18 months have severely impacted contractors' ability to procure the products on time. We have witnessed this with the coiling and smoke doors and the delay in their delivery and installation has meant delays to the drywall and taping contractor on all floors. Supply chain delays on various materials, HVAC systems couldn't be started until the finished flooring was completed on most of the floors to avoid dust collecting in the coils of the chilled beams. Due to the delays listed above Sollitt indicated it will be late September before mechanical systems on the air side would be up and running.

While the above impacts delayed turnover of the building for Owner occupancy until late Fall 2022, all Owner Furniture and security/intercom systems etc. were installed as needed during October and November. Partial Substantial Completions were requested for individual areas as needed to accommodate this. Sollitt was able to complete the Testing and Balancing and Commissioning of systems completed, as well as the Building LEED Flush Out and most of the Punch List undertaken prior to the Final Substantial Completion and the College moving in.

In summary, Sollitt believes these delays to the contractual scheduled completion date of 9/23/22 for the Buildings A, B, and D were well beyond their control and every effort has been made to lessen their impact on the project. Specifically, Sollitt worked overtime on critical trades as needed and worked out of sequence to maintain progress and lessen the delays. Sollitt also incurred cost impacts to their General Conditions specific to Building A, B and D thru December 15, 2022.

Our recommendation is for the approval of the Request for Proposal and Change Order for The George Sollitt Construction Company in the amount of $287,419.50.

State of Illinois
CAPITAL DEVELOPMENT BOARD

REQUEST FOR PROPOSAL & CHANGE ORDER

Date: 1/19/2023
Revised 9/5/2023

RFP Number: 077R1

1. (Contractor's Name, Address, Telephone, Fax & Attention)

The George Sollitt Construction Company
790 N. Central Avenue
Wood Dale, IL 60191
(630)860-7333 Fax ( ) -
Attn: Kieran McAleer e-mail: kmcaleer@sollitt.com

CDB Project #: 810-056-024
CDB Project Name: Student Services/Adult Education Center
& Location: College of Lake County - Waukegan Campus

CDB Contract #: 21041081
Contract Work: General Construction

2. REQUEST for change by: GC

CDB contemplates making certain changes, additions and deletions to the work to be performed under the subject Contract. Unless otherwise indicated in the description of change, accompanying drawings and specifications, all work required shall conform to the contract documents. The Contractor is required to submit within 14 calendar days from the date herein a proposal and a detailed breakdown for this change. The proposal shall be submitted in accordance with CDB's format and the General Conditions.

3. REASON for change:

See attached letter dated August 30, 2023 from the general contractor, George Sollitt Construction Company, explaining the reasons they are requesting a change in the substantial completion date for this project. Legat Architects has also provide a letter dated March 2, 2023 with additional information.

4. DESCRIPTION of change including reference to drawings and specifications revised, new drawings and specifications issued.

Change the dates of Completion as follows:

a. Partial Substantial Completion: Alternate G2: August 18, 2021
b. Partial Substantial Completion: Main building, parking garage (excluding the Northeast stair tower), and site work (excluding landscaping): January 15, 2023.
The attached letter from the GC clarifies additional labor and material costs for September 22, 2022 through January 15, 2023.
c. Partial Substantial Completion: Parking garage Northeast stair tower: February 15, 2023
d. Overall Substantial Completion: May 31, 2023
e. Final Completion: December 31, 2023

5. OTHER CONTRACTS affected by this change. List Contractor's name, contract work, RFP number and amount.

IMPORTANT NOTICE
Disclosure of this information is mandatory in accordance with the Standard Documents for Construction. Failure to complete this will prevent payment for work completed and/or be a material breach of contract.

6. CONSIDERATION:
Work to be accomplished in of RFPCO. Calendar Days from Approval

NOTE: Unless specifically indicated above, this does not extend the contract time.

The Contract Sum is INCREASED by the total sum of.....$ ~~307,587.28~~ $287,419.50

KRA 12/18/23

7. The change described above and on accompanying drawings and specifications and the Contractor's proposal (if applicable) are hereby incorporated by reference and made a part hereof. Having reviewed the above and determining the amount to be fair and proper the undersigned:

RECOMMEND issuance of a change order
A/E Firm Name Legat Architects
BY _____ signature

COORDINATING CONTRACTOR or CONSTRUCT. MANAGER
BY Kieran McAleer signature

CONTRACTOR DATE 9/7/23
BY Kieran McAleer print name
Kieran McAleer signature
Snr Project Manager title

APPROVE as to form and content:
USING AGENCY name College Of Lake County
BY Michael L Welch signature

CDB PM APPROVE
M. Jones signature

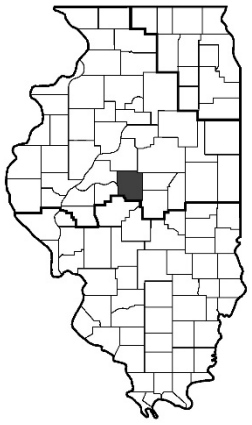
CDB APPROVE change order DATE _____
BY _____ print name
_____ signature
_____ title

8. FOR CDB USE ONLY | Type of Change | % Assess | Package No. | CO Date | CO No. | CO AMOUNT add (deduct) $

Revised August 2008

CDB Project No. 120-135-070

Upgrade Ash Handling System
Logan Correctional Center
Lincoln, Logan County, IL



Subject: Single Bid Award

CDB Project Manager: Heather Oxley

Project History:
The coal conveyance system at the power plant building has been deteriorating for some time. The scope of work for this project includes upgrades to the existing drag chain feeder system on the coal conveyor and repairs to the structural steel in the coal bunkers. Work also includes replacing the existing coal yard hopper and feeder system. A new screw ash conveyor system shall be installed at each boiler ash pit and a drag-chain type ash conveyor system which will convey boiler bottom ash from each boiler's ash pit to a truck/dumpster located on a new concrete driveway will also be installed. This work will allow the Logan Correctional Center to be compliant with Illinois Environmental Protection Agency (IEPA) regulations.

Requested Action:
Bids were received on October 17, 2023, and a single bid was received for the general trade. Fourteen plan rooms and eighteen contractors held drawings for the project.

This is an atypical project for Central Illinois. Most contractors indicated that they were either too busy or did not have enough experience with a conveyance system project when we contacted them to determine their interest in bidding. The contractors were concerned that the age of the plant combined with the scope of work was outside their normal expertise.

Architect/Engineer: Middough Inc.
700 Commerce Dr. Suite 200
Oak Brook, IL 60523
630-756-7203

TRADE	BASE BID	ESTIMATE	% DIFFERENCE
General	$3,599,000.00	$2,688,100.00	+33.89%

Both the A/E and the CDB Staff recommend that the award be made to:

PJ Hoerr Inc.
107 North Commerce Place
Peoria, IL 61604

General Trade Work: $3,599,000.00

December 13, 2023

To: James Cockrell, Regional Manager CDB Region Two
From: Heather Oxley, CDB Project Manager
Project: 120-135-070
Description/Location: Upgrade/Replacements Ash Handling System
Logan County Correctional
Lincoln, Logan County, Illinois

RE: Single Bidder

On Tuesday, October 17, 2023, the bids were opened for Project #120-135-070 Upgrade Ash Handling System at Logan Correctional Center in Logan County.

One (1) bid was received by the Capital Development Board. The bid tabulation summary for the above referenced project is:

	A/E Estimate	Bidder #1 – PJ Hoerr
Base Bid Amount	$2,942,920.00	$3,599,000.00

The Boiler House (C2818) contains three (3) coal-fired boilers and one (1) propane boiler to provide. The scope of work specifies the upgrade of the existing ash collection system for the three (3) coal-fired boilers. Upgrades to the coal conveyor existing drag chain feeder system and repairs to the structural steel in the coal bunkers are included in this project.

The contractor shall replace the existing coal yard hopper and feeder system. A new screw ash conveyor system shall be installed at each boiler ash pit and a drag chain type ash conveyor system which will convey boiler bottom ash from each boiler's ash pit to a truck/dumpster located on a new concrete driveway, north of the existing building. Replace structural steel at existing coal conveyor system. The contractor shall provide electrical power for all new equipment to be installed inside and outside the Boiler House. Prior to the start of the bottom ash collection upgrades, the contractor shall make repairs to the existing propane tank and Boiler #4 so that the Using Agency can provide process steam to the Correctional Center while the coal-fired boilers are out of service.

Bids were received on 10.17.23. PJ Hoerr, the Single Bidder for this General Trade project was the only Contractor who showed serious interest. Bid Documents were issued to 14 Plan Rooms and 18 Contractors received the Bid Documents.

This is an atypical project for Central Illinois. Most Contractors when contacted for status of interest in bidding, were either too busy or did not have enough experience with a conveyance system project. Contractors did not want this project to be their first due to age of the Power Plant combined with the scope. Therefore AE Middough and CDB PM are asking that this project be awarded to PJ Hoerr Inc.

Respectfully,

Heather Oxley
Region Two Senior Project Manager
Capital Development Board

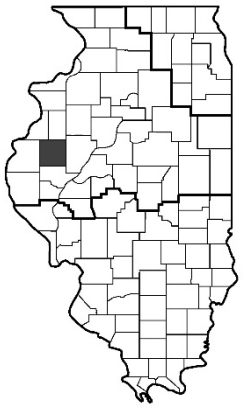
Source	Name	CDB Prequalified	Address	Contact name	Contact phone	Contact email	Transmittal Issue?	Bid Docs delivered	Addendum delivered	Attend Pre Bid	Intending to Bid?	Last Communication
PLAN ROOM												
Plan Room	African American Contractors Association		P.O. Box 19670, Chicago, IL 60619	Michael Sharees	773.891.3090	aacanatlassoc@gmail.com		Yes	1, 2, 3, 4			
Plan Room	Assoc. of Asian Construction Enterprises		712 W. Root St., Chicago, IL 60609	Perry Nakachi	847.525.9693	nakmancorp@aol.com		Yes	1, 2, 3, 4			
Plan Room	Black Contractors United		12000 S. Marshfield Ave., Calumet Park, IL 60827		708.389.5730	bcunewera@att.net		Yes	1, 2, 3, 4			
Plan Room	Central IL Plan Room				217.679.1077	plans@ciplanroom.com		Yes	1, 2, 3, 4			
Plan Room	Construct Connect - GA		30 Technology Prkwy. South, Ste. 100, Norcross, GA 30092	Content (Processing Center)	513.645.8004	content@ConstructConnect.com		Yes	1, 2, 3, 4			
Plan Room	Construct Connect - OH		3825 Edwards Rd., Ste. 800, Cincinnati, OH 45209	Jessica Shipp (Secondary)	513.458.8581	Jessica.shipp@constructconnect.com		Yes	1, 2, 3, 4			
Plan Room	Keith Navale Planning (Dodge Data & Analytics)		7265 Kenwood Road, Cincinnati, OH 45236	Keith Navale	413.340.0543	keith.navale@construction.com		Yes	1, 2, 3, 4			
Plan Room	Federation of Women Contractors		4210 W. Irving Park Rd., Chicago, IL 60641	Debby Gidley	312.360.1122	fwcchicago@aol.com		Yes	1, 2, 3, 4			
Plan Room	Greator Peoria Contractors & Suppliers		1811 W. Altorfer, Peoria, IL 61615		309.692.5710	info@gpcsa.org		Yes	1, 2, 3, 4			
Plan Room	Hispanic American Construction Industry Ent. Assoc.		650 W. Lake St., Ste. 415, Chicago, IL 60661		312.575.0389 cell 630.501.7448	jcalahorrano@haciaworks.org		Yes	1, 2, 3, 4			
Plan Room	Latin American Chamber of Commerce		3512 W. Fullerton Ave., Chicago, IL 60647	D. Lorenzo Padron	773.252.5211	d.lorenzopadron@laccusa.com	Bad Email	No	--			
Plan Room	Northern IL Building Contractors Assoc.			Pat Lamb	815.229.5636	info@nibca@build		Yes	1, 2, 3, 4			
Plan Room	Quincy Plan Room		201 Broadway, Quincy, IL 62301		217.222.0558	sandym@michelmann.us		Yes	1, 2, 3, 4			
Plan Room	Roseland Community Collaborative		4655 S. King Dr., Ste. 203, Chicago, IL 60653		312.391.9054	RoselandCC@yahoo.com	Bad Email	No	--			
BIDDERS												
Contractor	Alberici Construction, Inc.	Yes	8800 Page Avenue St. Louis, MO 63114	Kristin Kalous	314.733.2427	kkalous@alberici.com		Yes	1, 2, 3, 4	No		10/2 - Left vm for Kristin (found correct ph #)
Contractor	Berglund Construction	Yes	3301 Fields S. Crive Champaign, IL 61822	Kevin Berglund Fred Berglund	219.331.5470 c 773.374.1000	kberglund@berglundco.com fberglund@berglundco.com		Yes Yes	1	No	NO	10/2 - spoke to Kevin Berglund - sent him the info & info for site walkthru 10/2 Kevin emailed they are passing on this
Contractor	CAD Construction Inc.	Yes	508 E. Pearl St., Unit A-1, Tremont, IL 61568	Nate Zeltwanger	309.925.2092	nate@cadconstructioninc.com		Yes	1, 2, 3, 4	No		10/2 left msg w/Brandy for Nate - he will be bk in the ofc after a site visit today
Contractor	CCC Holdings, Inc.	Yes	18660 Graphics Dr., Ste. 200, Tinley Park, IL 60477	Tina Royse	773.359.6591	troyse@ccc-chicago.com		Yes	1	No	NO	10/2 left vm for Tina - Tina was told they will not be looking at this bid - she has no reason 9/21/23 contacted A-E for info
Contractor	Coltrane Systems	Yes	1800 E. Adams St., Springfield, IL 62703 1661 Jody Industrial Dr., St. Louis, MO 63132	Ken Brandt	314.852.3119 c 314.644.4700 x510	kbrandt@coltranesystems.com		Yes	1, 2, 3, 4	No		10/3 Rec'd info for Ken from CBD
Contractor	Core Construction Services of IL, Inc.	Yes	601 SW Water Street, Ste. 101, Peoria, IL 61602	Andrew Arnold	309.404.4700	andrewarnold@coreconstruction.com		Yes	1	No	NO	10/2 left vm for Andrew 10/2 Andrew called bk - not bidding anything for CBD rt now - too swamped
Contractor	Diamond Design & Construction, Inc.	Yes	20088 Shaker Lake Rd., Bloomington, IL 3003 E. Oakland Ave., Bloomington, IL 61704		309.662.8899	info@diamonddesignconstruction.com		No	--	No		9/8 A-E contacted contractor about interest in project
Contractor	Evans Construction Co.	Yes	1900 E. Washington St., Springfield, IL 62703	Don Evans	217.525.1456 p 217.306.0386 c	don@evansconst.com		Yes	1, 2, 3, 4	No		10/2 Spoke w/Tracy - Don is on vacation (only 1 handling this) left a vm for Don
Contractor	Felmley-Dickerson Co.	Yes	803 E. Lafayette St., Bloomington, IL 61701	Jim Meek	309.828.4317	jimmeek@fdco.com		Yes	1, 2, 3, 4	No		10/2 left a vm for Jim
Contractor	Harold O'Shea Builders, Inc.	Yes	3401 Constitution Drive Springfield, IL 62711	Mike O'Shea	217.522.2826	mikeoshea@osheabuilders.com		Yes	1	No	NO	10/2 spoke to John Feekes - not bidding - has prior commitments
Contractor	Hein Construction	Yes	9130 N. Industrial Road Peoria, IL 61615	Dolton (estimating)	309.691.4774	ciaron@heinconstruction.com		Yes	1	No	NO	10/2 spoke to Dolton - they don't go out towards Lincoln - ignored this - not bidding
Contractor	Henson Robinson Company	Yes	3550 Great Northern Avenue Springfield, IL 62711	John Terneus Norissa Stetter	217.544.8451	jterneus@henson-robinson.com nstetter@henson-robinson.com		Yes	1, 2, 3, 4	No	Yes	9/13 John emailed w/conf. - Yes, we plan to bid 9/8 - John indicated attending pre-bid
Contractor	Johnco Construction, Inc.	Yes	107 W. First St., Mackinaw, IL 61755	Paul Berns	309.359.3000 ext 2 309.354.1134	paulberns@johncoconstruction.com		Yes	1, 2, 3, 4	No		10/2 left a vm for Paul
Contractor	Laverdiere Construction, Inc.		4055 W. Jackson, Macomb, IL 61455	Billy Cramer Jodi Anderson (ofc asst)	309.333.2868 309.837.1258 o 309.833.4993 f	BCramer@lavconinc.com Janderson@lavconinc.com		Yes	1, 2, 3, 4	No		10/5 Jodi Anderson emailed - req to recv. Updates - she processes all incoming bidding info. 10/3 Rec'd info for Ken from Emil
Contractor	Otto Baum	Yes	866 N. Main St Morton, IL		309.266.7114	info@ottobaum.com		No	--	No		9/8 A-E contacted contractor about interest in project
Contractor	P.J. Hoerr, Inc.	Yes	107 N. Commerce Pl., Peoria, IL 61604	Craig Smith Mike	309.688.9567	craig@pjhoerr.com mikew@pjhoerr.com		Yes	1, 2, 3, 4	Yes	Yes	10/5 Craig Smith emailed confirmation - bidding 10/2 left a vm for Craig on confirmation of bidding
Contractor	Pals Electric, Inc.	Yes	12900 N. 1775th Rd., Teutopolis, IL 62467 (P.O. Box 662)	Kevin Barnes	217.857.3683	kevin@palselectricinc.com		Yes	1, 2, 3, 4	No		10/2 Kevin out til Wed., spoke w/Chad - he will follow up w/Kevin & hv him get bk to me. Kevin did a walkthru on Fri since they are doing work out there 9/27 Kevin requested the Bidders list Contacted A-E for info on 09/21/23
Contractor	Ringland-Johnson Construction	Yes	1725 Huntwood Dr., Cherry Valley, IL 61016	Sarah Seaberg	815.339.0708	Sseaberg@ringland.com		No	--	No	NO	10/9 Sarah emailed - not bidding this one - keep on list for future projs. 9/8 contacted about interest in project
Contractor	RD Lawrence Construction	Yes	603 N. Amos Avenue Springfield, IL 62702	Caitlin Goetz Jeremy Meats	217.787.1384	cgoetz@rdlawrence.com jmeats@rdlawrence.com info@rdlawrence.com		Yes	1	No	NO	10/2 spoke to Caitlin - not bidding, they are too slammed w/work rt now & will contact us if that changes
Contractor	River City Construction, LLC	Yes	~~101 Hoffer Lane, East Peoria, IL 61611~~ 1509 N. Main St., Benton, IL 62812	~~Josh Sanders~~ Kent Kampwerth	~~309.694.3120~~ 618.435.2612	kkampwerth@rcclc.com		Yes	1, 2, 3, 4	No		10/2 Called the E. Peoria office - Kent K. is at the Benton office - called and left a vm for Kent
Contractor	United Contractors Midwest, Inc.	Yes	1501 N. Cottage St., Bloomington, IL 61701	Andrew Hill	217.546.6192 o 309.827.0091	andrew.hill@ucm.biz contact@ucm.biz		Yes	1, 2, 3, 4	No		10/5 Andrew Hill emailed me - will send him all info 10/2 called for estimating - told me Andrew Hill for the proj. - left a vm

State of Illinois
Capital Development Board

Request for Board Approval of Modification to Professional Services Agreement

Project Number: 818-010-096

Description: Construct Performing Arts Center
Western Illinois University
Macomb, McDonough County, IL



Using Agency: Western Illinois University

Architect/Engineer: Cannon Design
225 North Michigan Ave, Suite 110
Chicago, IL 60601

Total Project Budget: $118,545,170.00
Unobligated Funds: $ 6,215,461.00
Total Spent to Date: $ 38,828,127.33
Percent Complete: 20%

Project Manager: Heather Oxley

PROJECT HISTORY: Western Illinois University is a 110-building campus established in 1899.

The scope of work for this project provides for the construction of an approximately 100,000 square foot performing arts center, including a 900-seat performance auditorium and convocation center for recitals, lectures, graduation ceremonies, and local art and civic functions.

PURPOSE OF THIS AGREEMENT MODIFICATION: This modification will provide for additional funding for in-shop steel testing and inspection during fabrication and installation and any additional construction testing as needed.

The original contract was negotiated before design started, therefore, when the original contract was negotiated, the full scope for steel inspections and additional construction testing was not known and was not fully included in the design. Cannon Design did include a budget for construction testing services; however, it was unknown at the time how many consultants/vendors would be needed to complete the project. These additional funds are necessary to continue steel and other construction testing and inspection through completion of the project to ensure building stability.

SUBJECT AGREEMENT AMENDED AS FOLLOWS:

Fee Description	Total Obligation per Original Agreement	Total Amount of Previous Modifications	Total Obligation Prior to this Modification	Total Amount of this Modification	Total Agreement Obligation including this Modification
Basic Services Fee	$743,905.00	$4,471,036.00	$5,214,941.00	$.00	$5,214,941.00
Additional Services	$.00	$1,635,625.00	$1,635,625.00	$12,250.00	$1,647,875.00
Contract Administration Fee	$22,300.00	$183,000.00	$205,300.00	$300.00	$205,600.00
On-Site Representative Reimbursement	$.00	$324,000.00	$324,000.00	$.00	$324,000.00
Sub-Soil Investigation	$.00	$15,000.00	$15,000.00	$.00	$15,000.00
Construction Testing	$.00	$371,273.00	$371,273.00	$.00	$371,273.00
Construction testing	$.00	$.00	$.00	$255,413.00	$255,413.00
LEED Document Review Fee	$.00	$10,000.00	$10,000.00	$.00	$10,000.00
Site Survey	$.00	$5,000.00	$5,000.00	$.00	$5,000.00
Travel Expenses	$.00	$72,450.00	$72,450.00	$.00	$72,450.00
TOTALS	$766,205.00	$7,087,384.00	$7,853,589.00	$267,963.00	$8,121,552.00

December 19, 2022

To: James Cockrell, Regional Manager CDB Region Two
From: Heather Oxley, CDB Project Manager
Project: 818-010-096
Description/Location: Construct Center for Performing Arts
Western Illinois University
Macomb, McDonough County, Illinois

RE: Contract Modification Eight Steel Testing During Fabrication

Per Cannon Design and CDB Project Manager:

Additional services requested By AE Cannon Design for Steel Inspections and Testing at two different off Construction Site Fabrication Facilities. This Inspection and Testing work will be completed by Terracon, the project's testing and inspection Vendor who is contracted and supervised by Cannon Design.

When the original contract was negotiated, Steel Inspections and Testing off project construction site were not included in original contract between Cannon Design, and Terracon. Per Cannon Design, this happened because the original contract was negotiated before Design started. Cannon Design did not know how Construction was going to be handled at that time.

However, Cannon Design had a budget amount for testing services. The project is using that money now to keep Steel Inspections on track. Project is 55% through budget amount. That funding will run out before June 2024.

The Steel Testing and Inspection is critical to the project for building stability and life safety of occupants.

The funds for steel testing are budgeted for the remainder of the project and will cover other areas as needed.

Standard Certifications January 2023 are hereby incorporated into Contract.

Respectfully,

Heather Oxley
Region Two Project Manager Capital Development Board

MODIFICATION

State of Illinois

CAPITAL DEVELOPMENT BOARD

Professional Services Agreement

Modification Number: **8**
Project Number: **818-010-096**
Date: December 22, 2023

Firm Name, Address
OWP/P Cannon Design, Inc.
225 N Michigan Ave., #1100
Chicago, IL 60601

Project Information
Performing Arts Center
Western Illinois University - Macomb, McDonough County
Macomb, McDonough County, Illinois

This Modification Establishes a Full Service Agreement

Agreement Date: 2020-09-17 Contract: 21000610

Scope/Purpose of this agreement modification: The scope of Modification 8 provides for additional funding for Steel Testing. This additional testing will comprise in -shop steel testing and inspection during steel fabrication and installation. Steel Testing was not included in the original agreement as it was not known exactly what the scope would be before Project Design started. Steel Testing is critical to the project for building stability and life safety of occupants. Additional services from Cannon are also required for testing documentation and processing.

The Standard Certifications dated January 2023 are hereby incorporated into this contract.

Subject agreement amended as follows: teel ix A - M7 with Appendix A - M8

AGREEMENT SUMMARY

Fee Description	Total Obligation Per Original Agreement	Total Amount of Previous Modifications	Total Obligation prior to this Modification	Total Amount of this Modification	Total Agreement Obligation including this Modification
Basic Services Fee	$743,905.00	$4,471,036.00	$5,214,941.00	$.00	$5,214,941.00
Additional Services	$.00	$1,635,625.00	$1,635,625.00	$12,250.00	$1,647,875.00
Contract Administration Fee,	$22,300.00	$183,000.00	$205,300.00	$300.00	$205,600.00
On-Site Representative Reim	$.00	$324,000.00	$324,000.00	$.00	$324,000.00
Sub-Soil Investigation	$.00	$15,000.00	$15,000.00	$.00	$15,000.00
Construction Testing	$.00	$371,273.00	$371,273.00	$.00	$371,273.00
Construction testing	$.00	$.00	$.00	$255,413.00	$255,413.00
LEED Document Review Fee	$.00	$10,000.00	$10,000.00	$.00	$10,000.00
Site Survey	$.00	$5,000.00	$5,000.00	$.00	$5,000.00
Travel Expenses	$.00	$72,450.00	$72,450.00	$.00	$72,450.00
TOTALS	$766,205.00	$7,087,384.00	$7,853,589.00	$267,963.00	$8,121,552.00

Prepared by: _____ Heather Oxley Date

By: _____ Using Agency approval Date

AE Firm name: OWP/P Cannon Design, Inc.

By: _____ AE's Authorizing Representative Date

Reviewed: _____ Contract Executive Date

Print AE name, Title: _____

Approved by: _____ Regional Manager Date

By: _____ Fiscal Date

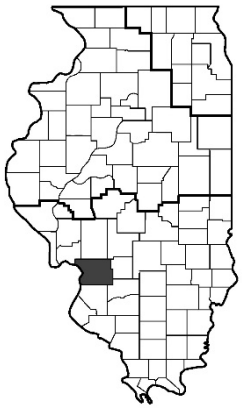
Approved by: _____ Legal Date

Final CDB authorization _____ Date

Print name/title _____

CDB Project No. 104-140-003

Renovate Visitor's Center/ Building Systems
Lewis & Clark Historic Site
Hartford, Madison County, IL



Subject: Single Bid Award

CDB Project Manager: Daniel Johnson

Project History:
The scope of work for this project provides for replacing portions of the exterior cedar siding, cleaning the limestone and brick veneer, painting all exterior cedar siding, sealing joints / seams in the existing standing seam roof, and repairing interior finishes damaged by water infiltration. It also provides for upgrades to the heating, cooling, and ventilation systems throughout the building along with disconnecting power to the existing relief fan and providing a new single point connection to the new relief fan. Wall mounted exterior light fixtures and the data device will be removed and replaced. The track lighting in the exhibition hall will be removed, replaced, and expanded. New visual projection equipment will be installed in the theater, as well as the lighting in the gallery; integral automated lighting controls will be installed for both.

Requested Action:
Bids were received on October 31, 2023, and a single bid was received for the electrical trade. Five bids were received for the general trade. Three (3) electrical contractors, six (6) general contractors, and seven (7) plan rooms held drawings for the project.

This was the second time this project had bid. The first bid was held on June 27, 2023, and a single bid was received for both the general and electrical trades and both bids were over the A/E estimate. The using agency, CDB, and the A/E determined that the best solution was to rebid the project and work to garner more interest in bidding.

Architect/Engineer: Evan Lloyd Associates, Inc.
1630 South Sixth Street
Springfield, IL 62703
217-789-7011

TRADE	BASE BID + ALT 1	ESTIMATE	% DIFFERENCE
Electrical	$263,690.00	$156,796.00	+68.17%

Both the A/E and the CDB Staff recommend that the award be made to:

Pyramid Electrical Contractors, Inc.
300 Monticello Place
Fairview Heights, IL 62208

Electrical Work: $263,690

MEMORANDUM

DATE: December 19, 2023

TO: David Ealey

FROM: Daniel Johnson

RE: Single Bid
104-140-003
Renovate Visitor's Center/ Building Systems
Lewis & Clark Historic Site, Hartford, Madison County, IL

Project Team: Evan Lloyd Associates, Inc. Tyler Stephens

CDB working with Evan Lloyd Associates put the Lewis & Clark Visitor's Center project out for bid in May/ June of 2023. We only received a single bid for both the General and Electrical packages and both bids were over the AE Estimate. The using agency, CDB, and the AE agreed that a re-bid would be the best solution based on the feedback the AE received from the contractors interested in the project.

The project was re-advertised with no changes to the bid documents for late October and early November 2023, respectively. The Electrical Bid was received on October 31, 2023. We received a single bid and it was about 70% over the AE Estimate. We received the General Bid on November 14, 2023. We received five (5) bids and the lowest bidders were about 45% over the AE Estimate. Although both bids were over the AE Estimate, CDB had enough available funds for the project to move forward.

The AE has been in contact with the potential contractors requesting information on the bidders and lack there-of. The following are what they believe are the contributing factors to the single bid:

1. Several contractors stated they just had too much work and would not be able to take on the project.
2. Several contractors stated they did not have or were unable to get enough laborers to perform the work.
3. Several contractors stated they had concerns over working around any museum displays and insurance for any displays damaged during construction.
4. The AE did not update their PPCB and estimate during the re-bid and therefore did not account for labor material increases.

November 28, 2023

Daniel Johnson
Capital Development Board
401 South Spring, 3rd Floor
Springfield, Illinois 62704

RE: Renovate Visitor Center/Building Systems
Lewis and Clark State Historic Site
Madison County, Illinois
COB Project No.: 104-140-003 (Ph 1)

Mr. Johnson,

I have reviewed the Project Proposed Project Cost Budget (PPCB) Estimate and the actual Bid Tabulation for the above-referenced project. The base bid estimate for this project, delivered to the project manager with our final submission (Bid documents), was $171,930.30 and the Alternate Bid estimate was $7,996.00, We have calculated our estimate for the combined base and alternate bids is less than the submitted apparent low bid by app. 46%.

Pyramid Electric
Base Bid: $257,850.00

There was only one electrical bidder. Evan Lloyd Associates made every effort to create a competitive bidding environment by reaching out to numerous electrical contractors directly including Wissehr Electric, GRP Mechanical, Guarantee Electric, JF Electric, Brown Electric, Clinton Electric, Electrico Inc., Keith Martin Electric Inc., Kohrmann Electric, MAC Electric, MC Electric, and Russell Electric. In addition to Evan Lloyd's efforts, the bidding documents were available via various plan rooms serving the entire State of Illinois including Southern IL Builders, Construct Connect, Dodge Connect, Reed Construction, Greater Peoria Contractors, Bid Tool, and Central Illinois Plan Room.

Material increases were a factor due to the time between our last estimate (03/06/2023) and the bid date of 10/31/2023. Other factors that may be involved in our estimate being low:

A) We did not include a painting number in our estimate. In slightly relocating the track lighting, touch up was included. The work will be required from a man-lift and is around museum displays. This will require more labor than we had estimated.
B) The electrical work required will be required to be performed from a man-lift and will be around museum displays. This will require more labor than we had estimated.
C) Available labor likely also factored into the additional cost.
D) We did not update our estimate prior to the re-bid.

I had a brief discussion with Pyramid Electric after the first bid to discuss these items and feel they encapsulate the difference between our estimate and the bid numbers.

If you have any questions or comments, feel free to call me.

Sincerely,

Michael Mitchell, PE
Project Engineer
RTM Engineering Consultants

521 W. Main Street, Suite 250 | Belleville, IL 62220 | Phone: 618.277.5200 | Fax: 618.277.5227
www.rtmec.com

Capital Development Board for Illinois - Illinois Department of Natural Resources **ELA 19-075**
Renovate Visitor's Center / Building System
Lewis & Clark State Historical Site
Hartford, Madison County, Illinois
CDB # 104-140-003 **Bid Opening: General - November 14, 2023 @ 2:00 p.m.**
DNR # 4-20-008 **Electrical - October 31, 2023 @ 2:00 p.m.**
Prepared By: Evan Lloyd Architects, 1630 South Sixth Street, Springfield, Illinois 62703 (217)789-7011

	Company	Address	Contact	Phone	Email	Addenda 1	Addenda 2	Addenda 3
1	Dodge Data & Analytics	7265 kenwood Road, Suite 200 Cincinnati, OH 45236			support@construction.com			
2	Reed Construction Data	30 Technology Parkway South, Suite 100 Norcross, GA			rcdcentralnews@reedbuisness.com			
	Construct Connect	30 Technology Parkway South, Suite 100 Norcross, GA	Michael Stubbs	770.417.4000 513.645.8004	content@constructconnect.com			
	Greater Peoria Contractors & Suppliers Assoc.	1800 West Altorfer Peoria, IL 61615			info@gpcsa.org			
	Capitol Blueprint	1313 South 1st St. Springfield, IL 62074			jobs@capitolblueprint.com			
	Springfield Reprographics	1620 S. 5th Street Springfield, IL 62703	Steve Wakefield		service@sprigfieldrepro.com			
	Southern Illinois Builders Assoc.	1468 Green Mount Road PO Box 1390, O'Fallon, IL 62223	Stephanie Foster	618.624.9055	dmr@siba.agc.org			
	IDNR		John Cronin		john.cronin@illinois.gov			
	Blinderman		Stephen Harlovic		sharlovic@blinderman.com			
	Heartland Services		Ken J.	618-357-3850	kenj@heartlandservicesinc.com			
	Pointer Electric		Eric Pointer	618-498-2333	pointerelectric@gtec.com			
	IDNR		Michael Rhodes		michael.w.rhodes@illinois.gov			
	The 4th Distribution		Sam Stidwell		info@the4thdistribution.com			
	Bid Tool				plans@bidtool.net			
	Bruce Unterbrink Construction		Bruce Unterbrink	(618) 664-4005	buci@sbcglobal.net			
	IDNR		Brad Winn		brad.winn@illinois.gov			
	Camp Electric		Jonathan Wolff	618-462-9287	jwolff@campelectric.com			
	Lake Contracting			(618) 824-6522				
	Holland Construction			618-277-8870				
	Contegra			618-931-3500				
	Litteken Construction			618-526-2174				

SUBJECT: ***Staff Recommendations for Board Selection of Architect/Engineers***

Project Number	Firm/Job Description	Estimated Total Project Cost
040-010-131	Replace Roofing Systems Department of Veterans' Affairs Illinois Veterans' Home at Quincy - Adams County *RECOMMENDED FIRMS IN ALPHA ORDER:* Architechnics, Inc. Design Mavens Architecture PLLC GreenAssociates Inc	$6,152,900

A/E SELECTION COMMITTEE RECOMMENDATIONS
1/9/2024

CDB PROJECT NO: 040-010-131

PROJECT DESCRIPTION: Replace Roofing Systems

PROJECT LOCATION: Department of Veterans' Affairs
Illinois Veterans' Home at Quincy - Adams County

APPROPRIATION AMOUNT: $6,152,900

ESTIMATED TOTAL PROJECT COST: $6,152,900

PROJECT SCOPE OF WORK:

The Illinois Veterans' Home at Quincy is a 209 acre, 48-building facility constructed in 1886.

The scope of work provides for removing and replacing approximately 140,000 square feet of roofing, including all attendant accessories. The work also provides for painting, repairs, and restoration of historic elements.

Hazardous materials may be encountered.

The State Historic Preservation Office should be consulted during every phase of this project.

The A/E is encouraged to include independent cost estimators on their teams to verify estimates are in line with current market conditions to avoid project bids that exceed the available funding for the project. A/E estimates should be updated and verified at each stage of the project in accordance with the Design and Construction Manual. Designers are reminded that their Professional Services Agreements make them responsible for providing a design that is within budget and they can be held responsible for redesign of the project should bids received exceed project funding.

A combined MBE/WBE goal of 20 percent is applicable to the A/E team. Some level of participation from both MBE and WBE firms is required to satisfy this goal (this requires including one or more MBE AND one or more WBE firms on the team).

A VBE/PBE goal of 3 percent is applicable to the A/E team.

PROFESSIONAL SERVICES BULLETIN VOLUME: 306

SUBJECT: ***Board Concurrence/Design-Build***

Project Number	Firm/Job Description	Estimated Total Project
630-442-057	Construct Materials Lab Department of Transportation Administration/Hanley Building- Springfield, Sangamon County *SHORTLISTED FIRMS IN ALPHA ORDER:* ▪ Core Construction Services of Illinois, Inc. ▪ Korte Construction Company, dba The Korte Company ▪ Walsh Construction Company, LLC	$63,400,098

A/E SELECTION COMMITTEE RECOMMENDATIONS
01/09/2024

CDB PROJECT NO: 630-442-057

PROJECT DESCRIPTION: Construct Materials Lab

PROJECTLOCATION: Department of Transportation
Administration/Hanley Building - Springfield, Sangamon County

PUBLISHED PROJECT BUDGET: $63,400,098

PROJECT SCOPE OF WORK:
The Administration/Hanley Building is a 5-building facility established in 1965.

The scope of work includes preparing program statement/scope development package followed by the bridging documents for the Design-Build project.

Elements of the project will include construction of an approximately 67,000 square foot building to consolidate the departments of the Bureau of Materials, Bureau of Research, and District 6 Laboratories into one new Materials Laboratory and Training Center at the Hanley Building campus. The facility includes a high-bay central laboratory core with shared circulation, surrounded by administrative services, and also may include, but is not limited to, incidental uses such as hazardous chemical storage and laboratory storage. There will be exterior sidewalks and paving to include approximately 50 parking spaces.

CHANGE ORDER FOR BOARD AUTHORIZED PROCEED ORDER

Project Number	Project Description	Proceed Order Number	Total Amount of Proceed Order	Board Date Approved	Total Amount of Associated Change Order(s) & Date Executed	Value of Change Order Work Completed
830-030-162	University of Illinois Chicago – Construct a Computer Design Research and Learning Center – Chicago, Cook County, IL	G-43	$3,683,199.43	9/13/2022	G-43.1 $96,999.75 12/19/2023 G-43.2 $62,974.16 2/1/2023 G-43.3 $80,383.33 12/13/2023 **TOTAL TO DATE: $240,357.24**	2.63% 1.71% 2.18% **6.53%**

EMERGENCY PROJECT PROCEED ORDER/CHANGE ORDER REPORT

Project Number	Project Description	Proceed Order or Change Order Number	Total Amount of this Proceed Order, RFP or Mod & Date Executed	Total Amount of Associated RFPs/Mods & Date Executed	Percentage of RFP/Mod Work Completed
120-050-062	Illinois Department of Corrections - East Moline Correctional Center – Repair/Replace Tunnels – East Moline, Rock Island County, IL	PO G-1	$1,100,000.00 12/12/2023	N/A	20%
120-175-148	Illinois Department of Corrections – Menard Correctional Center – Emergency Boiler House Repairs and Upgrades – Menard, Randolph County, IL	CO H-4	$1,500,000.00 12/11/2023	N/A	10%
630-552-002	Illinois Department of Transportation – Nashville Maintenance Storage Facility – Emergency Repair of Three Buildings – Nashville, Washington County, IL	CO G-3	$179,468.38 12/26/2023	N/A	100%

SUBJECT: ***Best Interest of the State Selection / Informational Item***

Project Number	Firm/Job Description	Estimated Total Project Cost
830-030-157	Exterior Repairs/Window Replacement - College of Med and Clinic Sciences University of Illinois University of Illinois - Chicago, Cook County *SELECTED FIRM:* McGuire Igleski & Associates, Inc.	$4,909,012

CDB PROJECT NO: 830-030-157

PROJECT DESCRIPTION: Exterior Repairs/Window Replacement - College of Med and Clinic Sciences

PROJECT LOCATION: University of Illinois
University of Illinois - Chicago, Cook County

PROJECT AMOUNT: $4,909,012

PROJECT SCOPE OF WORK:

The University of Illinois at Chicago is an 11,413,396 square foot, 106-building campus constructed in 1910.

The scope of work provides for upgrading the exterior on the College of Medicine and the Clinical Sciences Building, including replacing windows, repairing distressed and deteriorated masonry, tuckpointing, replacing steel and masonry lintels, limestone panels, trim and various masonry anchorage devices, rebuilding brick corners and replacing embedded steel anchors and pins.

ARCHITECT/ENGINEER: McGuire Igleski & Associates, Inc. (28352)
Evanston, IL 60201

SUBJECT: ***Emergency Selection / Informational Item***

Project Number	Firm/Job Description	Estimated Total Project Cost
120-215-071	Emergency Assessment and Repair/Replace Roofing System Department of Corrections Sheridan Correctional Center - LaSalle County *SELECTED FIRM:* StudioK Architecture, LLC	$100,000
630-314-008	Emergency Assessment and Repair of Fire Damage to the Maintenance Building Department of Transportation District 4: Peoria West Team Section Headquarters - Edwards, Peoria County *SELECTED FIRM:* Mode Architects, P.C.	$400,000

CDB PROJECT NO: 120-215-071

PROJECT DESCRIPTION: Emergency Assessment and Repair/Replace Roofing System

PROJECT LOCATION: Department of Corrections
Sheridan Correctional Center - LaSalle County

PROJECT AMOUNT: $100,000

PROJECT SCOPE OF WORK:

The Resident Building C-2 (C0839) is a 9,600 square foot, 1-story building established in 1979.

The scope of work includes, but is not limited to, the inspection and repair or replacement of the existing roofing system and related accessories damaged from a fire on Resident Unit C-2, CDB Building Number C0839, at Sheridan Correctional Center.

ARCHITECT/ENGINEER: StudioK Architecture, LLC (35146)
Princeton, IL 61356

CDB PROJECT NO: 630-314-008

PROJECT DESCRIPTION: Emergency Assessment and Repair of Fire Damage to the Maintenance Building

PROJECT LOCATION: Department of Transportation
District 4: Peoria West Team Section Headquarters - Edwards, Peoria County

PROJECT AMOUNT: $400,000

PROJECT SCOPE OF WORK:
The Maintenance Building (D0437) is a 19,275 square foot, one-story building established in 1981.

The scope of work provides for repair and replacement of items damaged during a fire in maintenance bays 1-3 (1 common area), including wiring devices, light fixtures, water heaters, water piping, unit heaters, overhead doors, door motors and tracks, including all related conduit, wiring, water piping, gas piping, and other fire damaged items. The entire area is to be cleaned and finishes restored to their pre-fire condition. The work also provides for immediate repairs to the x-bridging in the steel bar joists to stabilize the roof. Roof replacement and repairs will be done under a separate contract.

ARCHITECT/ENGINEER: Mode Architects, P.C. (29890)
Chicago, IL 60654

Illinois Capital Development Board

Art-in-Architecture Program

Fact Sheet

WHAT IS ART-IN-ARCHITECTURE?

The Art-in-Architecture program, administered by the Capital Development Board, enriches communities and provides "for the promotion and preservation of the arts by securing suitable works of art for the adornment of public buildings constructed or subjected to major renovation by the State or which utilize State funds, and thereby reflecting the diverse cultural heritage of Illinois, with emphasis on the works of Illinois artists." 20 ILCS 3105/14

WHAT IS PUBLIC ART?

The Art-in-Architecture legislation defines art as:

- Paintings
- Prints
- Sculptures
- Graphics
- Mural decorations
- Stained glass
- Statues
- Bas reliefs
- Ornaments
- Fountains
- Ornamental gateways
- or other creative works that reflect form, beauty, and aesthetic perceptions.

HOW IS THE PROGRAM FUNDED?

The Art-in-Architecture (AIA) enabling legislation directs that "the Capital Development Board (CDB) shall set aside 1/2 of 1 percent of the amount authorized and appropriated for construction or reconstruction of each public building financed in whole or in part by State funds."

WHO IS ELIGIBLE TO APPLY FOR A COMMISSION?

All professional artists living and working in Illinois are eligible to apply for commission opportunities. The staff, faculty, or employees of the using agency are not eligible to apply.

HOW ARE COMMISSIONS ANNOUNCED?

AIA commissions are announced on the Commission Opportunities section of the CDB website.

HOW IS WORK SELECTED?

Artists are selected and commissions are awarded based upon the recommendations of a Fine Art Review Committee made up of representatives of the Illinois Arts Council and Illinois State Museum, the project architect, and a representative of the using agency where the artwork will be located.

WHAT IS A FINE ART REVIEW COMMITTEE (FARC)

The FARC is appointed on a project-by-project basis to review and recommend artists and/or works of art for final selection. This group is subject to the Open Meetings Act. Its members are unpaid and must complete State of Illinois Ethics Training requirements. It is made up of the

- designing architect
- Illinois Arts Council designee
- Illinois State Museum designee
- using agency designee
- AIA Coordinator (non-voting)

The final selection is made by the Chair of the Illinois Arts Council.

WHERE CAN I FIND MORE INFORMATION?

The AIA Policy and Procedure Manual, contracts, contact information and other details can be found on the Capital Development Board website.

www.illinois.gov/cdb/professionalgrowth/art

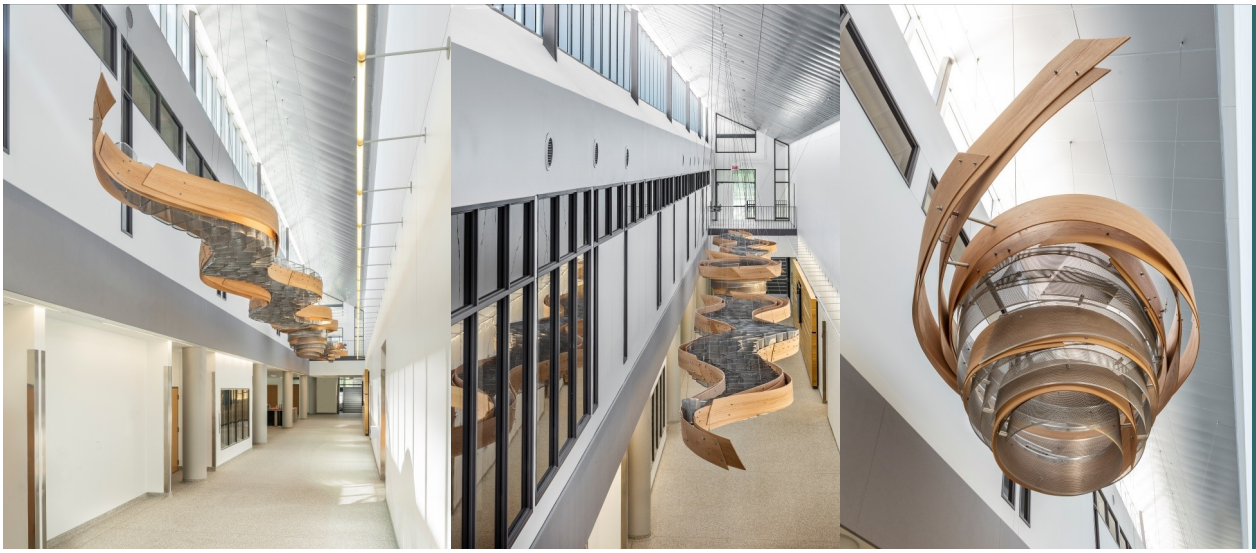
Art-in-Architecture Completed Projects

User: Chicago Veterans Home
Location: Chicago
Title: *Hand to Hand*
Artist: Indira Johnson
Budget: $281,000.00
Description: Sculpted and hand-painted fiberglass panels. Each panel marks the entrance to a group living area within the Veterans Home.
Size: each panel is ~15' x 5.5'

User: Lincoln's Challenge Academy
Location: Tuscola
Title: *Course Correction*
Artist: Krivanek + Breaux Art + Design
Budget: $120,000.00
Description: Hinged aluminum powder-coated panels with words evoking the Academy mission
Size: 40' x 7' x 1.5'

Art-in-Architecture Completed Projects

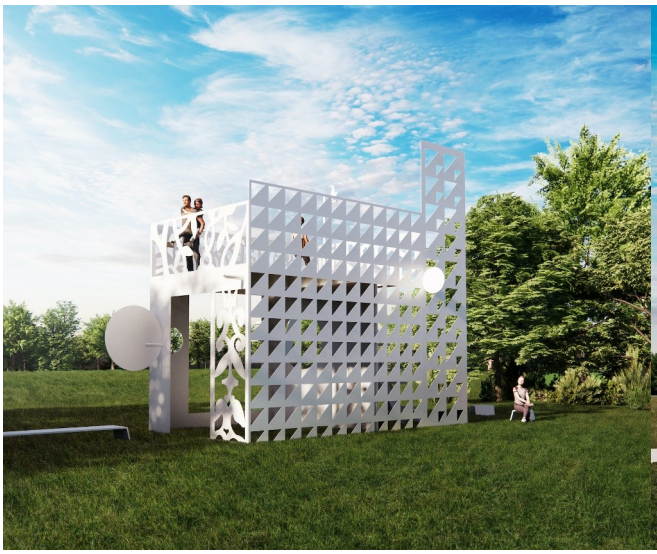
User: Southern Illinois University
Location: Murphysboro
Title: *Velocity*
Artist: John Medwedeff
Budget: $178,250.00
Description: Welded and painted stainless steel
Size: 27' x 22' x 10'



User: Olive-Harvey College/ City Colleges of Chicago
Location: Chicago
Title: *Conveyor*
Artist: Barbara Cooper
Budget: $194,715.00
Description: White oak veneer and perforated steel
Size: 122' x 5' x 7'

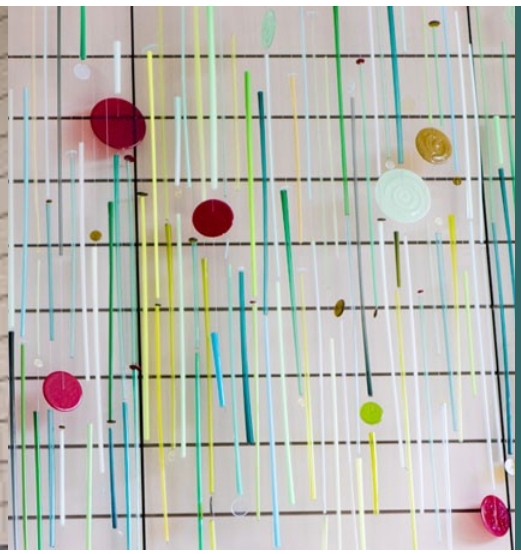
User: College of Lake County
Location: Grayslake
Title: *Mystery Molecules*
Artist: Lynn Basa
Budget: $81,800.00
Description: Fiberglass spheres and printed vinyl mural affixed to CMU substrate
Size: 25' x 18' x 1'

Art-in-Architecture Completed Projects



User: Governors State University/Nathan Manilow Sculpture Park
Location: University Park
Title: *Avian Station*
Artist: Bernard Williams
Budget: $54,000.00
Description: In progress. Painted steel sculpture/bird watching platform
Size: 22' x 12' x 22'

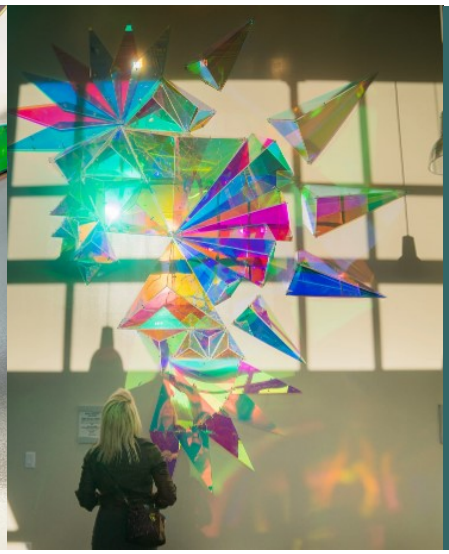
User: Parkland College Student Services Center
Location: Champaign
Title: *Taking Flight*
Artist: Ann Coddington
Budget: $72,710.00
Description: 505 slip-cast, glazed, ceramic birds hung from atrium ceiling with steel cable. The 12 species of birds were cast from woven string bird forms
Size: 35' x 20' x 8'



User: University of Illinois Electrical & Computer Engineering Building
Location: Urbana
Title: *Rhythm & Measure*
Artist: Holly Wolf-Mattick
Budget: $54,970.00
Description: Hand-blown glass tubes and hot-worked discs hanging on cables that are suspended from metal panels on a terracotta wall
Size: 14' x 36' x .75'

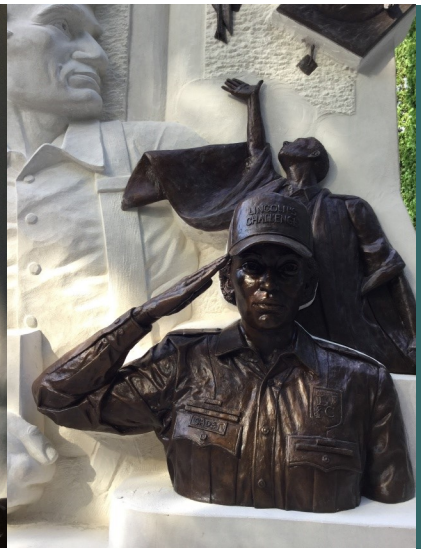
Art-in-Architecture Completed Projects





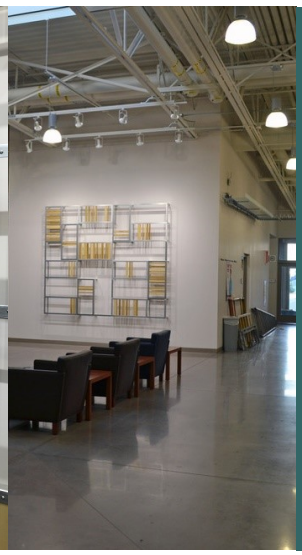
User: Spoon River College
Location: Canton
Title: *Emergence*
Artist: Davis McCarty
Budget: $17,500.00
Description: Three-dimensional acrylic and dichroic film forms with fractal shapes routed into the acrylic
Size: 35' x 14' x .75'





User: Lincoln's Challenge Academy
Location: Tuscola
Title: *E Pluribus Unum*
Artist: David Seagraves
Budget: $58,000.00
Description: Carved Indiana limestone bust of Abraham Lincoln and cast bronze images of LCA cadets
Size: 8' x 5' x 1'





User: Parkland College Applied Technology Center
Location: Champaign
Title: *Composite: 12*
Artist: Jason Peot
Budget: $41,000.00
Description: Aluminum, wood, and light sculpture that represents the 12 counties and their populations that make up the College District
Size: 8' x 9.5' x .33'

Art-in-Architecture Completed Projects

User: University of Illinois Integrated Bioprocessing Research Lab
Location: Urbana
Title: *Poetics of Process*
Artist: Lynn Basa
Budget: $100,000.00
Description: 3/8" epoxy terrazzo floor of leaf forms in yellow, blue, and green that coalesce and transform from organic to geometric shapes
Size: ~1200 square feet

User: University of Illinois Lincoln Hall
Location: Urbana
Title: *City Rain*
Artist: Suzanne Keith Loechl
Budget: $10,000.00
Description: A five-part, oil-on-board painting series
Size: Various. Total installation is 4' x 12'

User: University of Illinois Lincoln Hall
Location: Urbana
Title: *LifeSaver Movement in e*
Artist: Yvette Kaiser Smith
Budget: $30,000.00
Description: Crocheted fiber-glass roving panels coated with hard finish polyester resin. Each panel +contains five binary numbers.
Size: Thirty panels. Each panel is ~30" x 29" x 3"

Art-in-Architecture Completed Projects

User: Abraham Lincoln Presidential Museum
Location: Springfield
Title: *Beacon of Endurance*
Artist: Krivanek + Breaux Art + Design
Budget: $210,000.00
Description: A beacon that both symbolizes and articulates Lincoln's significance to American life and culture in his own words and words chosen by the community.
Size: 24'x15'x16'