

Public Protection Cabinet

Department of Housing, Buildings and Construction Division of Building Code Enforcement, Manufactured Housing Section

Kentucky Industrialized Building System

(KIBS) Program

Plan Submission Application Guide

Current Kentucky Codes

The 2013 Kentucky Building Code 3rd Edition became effective April 1, 2015. The 2013 Kentucky Residential Code 2nd Edition became effective October 1, 2014. The 2014 National Electric Code became effective October 1, 2014. * Other current codes listed in Chapter 35 and K13 of the 2013 KBC and Chapter 43 of the 2013 KRC.

PREFACE

This guide is a tool to help a new manufacturer prepare submittals under the Kentucky Industrialized Building System (KIBS) program for the Commonwealth of Kentucky. This guide will also aid in the New Model plan submittal and plan resubmittal process. This guide will list items needed to be illustrated on the construction documents, calculation of the plan review fee and other items needed for plan approval. If you need additional information, please call or write the Manufactured Housing Section at:

Department of Housing, Buildings & Construction Division of Building Code Enforcement Manufactured Housing Section Kentucky Industrialized Building System Program 101 Sea Hero Road, Suite 100 Frankfort, Kentucky 40601-5412 Phone # 502-573-1795 Fax # 502-573 1059 Web site: www.dhbc.ky.gov

What is a KIBS: See the two descriptions below per the KBC and KRS 198B.010

Kentucky Building Code Definitions: Kentucky Industrialized Building System (KIBS)

- **Industrialized Building System or Building System** As defined in KRS 198B.010(16) and shall apply to buildings of any size or use, all or any component parts of which are of closed construction made from precast concrete panels or precut wood sections fabricated to individual specifications in an off-site manufacturing facility and assembled in accordance with manufacturer's instructions. (Section 202, 2013 KBC)
- <u>Modular Home</u> An industrialized building system which is designed to be used as a residence which is not a manufactured or mobile home. (Section 202, 2013 KBC)

KRS 198B.010

(16) "Industrialized Building System" means any structure or component thereof which is wholly or in substantial part fabricated in an off-site manufacturing facility for installation or assembly on a permanent foundation at the building site. (Kentucky Revised Statute KRS 198B.010 (16)).

How to apply as a manufacturer for the KIBS program:

To submit plans under the Kentucky Industrialized Building System KIBS program, an Application Form (DHBC #40-01) (link below) as a manufacturer of Kentucky Industrialized Building Systems shall be completed. Submit 1 copy of the a KIBS Plan Application Form (link below). Submit 2 copies of the Quality Assurance Manuals for review, manuals shall demonstrate compliance with the currently adopted Kentucky Building Code in effect and may include all models and factories under the ownership of the manufacturer, company, corporation or LLC as noted in the manuals. A Kentucky recognized third party inspection agency shall be listed during application for in factory inspection of all modular construction.

These forms may be found on line at: http://www.dhbc.ky.gov/fp/mhs/mhsformspubs.htm

Upon approval of the submitted manuals an alphanumeric number shall be assigned to identify the manufacturer. One copy of the approved manual will be electronically scanned and archived to remain in this office for use in model plan reviews and will not be returned. One copy will be will be stamped "Released For Construction" with a date and returned to the manufacturer.

Plan Submission Process

The aforementioned Application Form (DHBC #40-01), KIBS Plan Application Form, Copies of the Quality Assurance Manuals and the plan review fee shall all be submitted at the same time. In addition, one copy of the Kentucky Industrialized Building System (KIBS) Model Plan Application Form, and two (2) copies of the complete plans with model options included, for each model (KIBS) to be manufactured for sale in the Commonwealth of Kentucky shall be submitted. All model submittals shall have the appropriate plan review fee included with the application and plan submittal. A model plan review and approval must be conducted prior to construction of that model. This form KIBS Plan Application (*attached*) is online at http://www.dh.ky.gov/fp/mhs/mhsformspubs.htm.

Plan Review Fees shall be calculated by Table 121.3.1 of the 2013 Kentucky Building Code. All other fees shall be calculated per Section 121 of the 2013 Kentucky Building Code.

Model review fees shall be calculated as a product of the Total Square Footage multiplied by the fixed cost based upon the buildings Use Group. There shall be a minimum fee of \$285.00 for each model review or the calculated fee, whichever is greater. All other fees shall be in accordance with Chapter 121 of the 2013 KBC.

Payment for the review fees by check shall be made payable to Kentucky State Treasurer and forwarded to the KY Manufactured Housing Section.Payment Options Forms are available on line at http://www.dh.ky.gov/fp/mhs/mhsformspubs.htm

Use Group Fee Multipliers:

(Assembly: 0.16 s/f), (Business: 0.15 s/f), (Day Care: 0.15 s/f), (Educational: 0.15 s/f), (High Hazard: 016 .s/f), (Factory/Industrial: 0.15 s/f), (Institutional: 0.16 s/f), (Mercantile: 0.15 s/f), (Residential: 0.15 s/f), (Storage: 0.15 s/f) and (Utility/Miscellaneous: 0.13 s/f).

This form includes **Type "A"** which is for Modular Housing One and Two Family Dwellings and **Type "B"** which is Commercial Modular Units, including all use groups other than Modular Housing.

KIBS Model Plan Review Checklist

Architectural Plans

Note: The Manufacturer's Systems Manual shall not be accepted as a substitution for the information required on the plan submittal.

A Kentucky design professional seal and signature shall be used when a design professional is required.

Two (2) copies of the plans, shop drawings and specifications in specific detail and in conformity with good architectural and engineering practice shall be submitted for each specific model KIBS Unit. Plans shall demonstrate compliance with the current Kentucky Building Code.

NOTE: The following shall be included in the plans. Kentucky Code Design Criteria and notes including:

- Cover page
- A title block
- Type of Construction
- Use Group
- List all fire protection systems
- List all design loads for the building

- List all design options (No updating options permitted for a model once the model has been approved)
- Earthquake Design Data Details
- Energy calculations worksheet forms (available at www.energycodes.gov.)
- Drawings shall be dimensioned or scaled.
- Mechanical equipment cut-sheets.

NOTE: Details may be shown on more than one drawing

- 1. Dimensioned building plans showing use of all areas
- 2. Foundations, floor plans and elevations
- 3. A cross section showing construction details through one typical wall from footing to including roof framing

- 4. Structural framing details and notes for all walls brace walls shear walls floors, ceilings, footings foundation piers, columns and blocking locations, anchoring locations and design.
- 5. Roof details and truss drawings (KY Engineer Required for all truss drawings)
- 6. Fastening schedule including unit to foundation and specifications for fasteners
- 7. Door schedule including hardware schedule window and glazing schedule
- 8. Interior finish schedule with documentation of maximum flame spread ratings

- 9. Fire rated assemblies and documentation of the required rating
- 10. All special structures (sky lights, roof, panels, and awnings)
- 11. All accessibility features
- 12. Complete information for all special occupancy requirements
- 13. Dimensioned location of aisles, halls, corridors, storage, systems, industrial equipment etc.
- 14. Any items that are not to be constructed or installed on in the factory shall be listed on the plans as "*installed on site* or *on site by others*". The preferred listing place is on the cover sheet but not required. Failure to list this on the plans may generate a correction note and result in model approval delays.

HVAC Details:

 Mechanical equipment design, placement, air balance schedules and specifications, outside air provisions, ductwork materials, duct layout and duct specifications shall be required on the plans if installed in the factory. HVAC and Exhaust System designs specified on the plans as "in field by others" are the responsibility of the manufacturer for layout; duct sizing and minimum performance specifications required to meet codes and shall be included in the plans. All mechanicals including the HVAC system installed on site shall be installed by a KY Licensed Contractor.

Other mechanical items to illustrate:

- Ventilation design and exhaust systems (including clothes dryer, range hood and toilet room exhaust) and terminations.
- Fireplaces, chimneys and vents illustrated on the plans shall have installation/construction specifications, combustion air provisions and methods provided.

Electrical Details:

1. Indicating lighting, receptacles, motors and equipment, smoke detectors(including battery backup) and smoke alarms, power ventilation, service entrance locations panel size, location and number of proposed circuits, location of all exits and means of egress lighting. A symbol legend shall be included.

Plumbing Details:

- 1. Indicating piping layout and riser diagrams number,
- 2. Type and location of hot water heater drain pan and piping for pan to outside
- 3. Fire stopping and fire blocking details.
- 4. Access panels shall be included

<u>NOTE:</u> Approvals for Kentucky Plumbing Systems require a separate submittal and approval. Regarding plumbing plans and factory inspections contact the Division of Plumbing at: <u>www.dhbc.ky.gov/plb</u> or at 502-573-0397

<u>System Plans</u>

Fire Protection Systems details:

1. When required or illustrated as a provided system on the design plans, two sets of shop drawings shall be submitted. A separate application and separate fee shall accompany the drawings for approval. Shop drawings, shall include manufacturers cut sheets and specification Sequence of operations for all Fire Suppression Systems, Fire Alarm Systems and special systems for all fire protection. A Fire Suppression Design Criteria (FSDC) worksheet with tentative system demand shall be submitted with shop drawings.

NOTE: Design drawings, Shop drawings for <u>All Fire Protection Systems</u> shall bear the seal of a certificate holder and a suppression contractor licensed in the state of Kentucky.

The following, systems require additional system submittals, fees and approvals:

- (a) Fire Alarm System (Smoke alarms shall be shown on the electrical plan)
- (b) Fire Suppression System (Sprinkler, Foam, Clean Agent, CO2, Halon, etc.)
- (c) Range Hood/Exhaust System Shop drawings to Building Code Enforcement
- (d) Range Hood Extinguishing Systems

For Applications and fee information contact: Department of Housing Buildings and Construction Division of Building Code Enforcement 101 Sea Hero Road, Suite 100 Frankfort, Kentucky 40601-5412 Phone # 502-573-0373 Fax # 502-573 1059

- (e) Gasoline, LP, Fuel Oil Tanks, etc Fuel Installation within the modular submitted to State Fire Marshal's Office, Hazardous Materials Section:
- (f) Boilers-to, within the modular submitted to State Fire Marshal's Office, Boiler Section:

For Applications and fee information contact: Department of Housing Buildings and Construction Division of Building Code Enforcement Manufactured Housing Section 101 Sea Hero Road, Suite 100 Frankfort, Kentucky 40601-5412

Phone # 502-573-1708 - Boiler Bureau Phone # 502-573-1702 – Hazardous Materials Fax # 502-573 1004

NOTE: The installation of these systems <u>in the factory</u> shall be installed and tested by a competent installing contractor and inspected by the 3rd party inspection agency. The final hook up and on site inspection shall be conducted by:

Department of Housing Buildings and Construction Division of Building Code Enforcement Manufactured Housing Section 101 Sea Hero Road, Suite 100 Frankfort, Kentucky 40601-5412 Phone # 502-573-1795 Fax # 502-573 1059

Procedures for submitting corrected architectural and system plans:

All plans that need correction and resubmitting for re-review must be corrected. Red line drawings are not permitted. Two complete sets of corrected drawings will be submitted along with a cover letter with a "Resubmittal" listed on it. The cover letter will list the KIBS number, Model Name, Model Number and Manufacturer of the model being resubmitted. Itemizing and identifying on the cover letter the location of the corrections in the plans will help to speed the re-review process.

The corrected plans will be reviewed and approved or disapproved accordingly, stamped "Released for Construction" signed and dated by the plans examiner along with the corrected plans and returned to the manufacturer. The original disapproved plans shall be shredded.



Site Placement Criteria

Be advised that all Previous Model Plan Approvals that were approved under older codes are "Expired" and shall not be installed without a new model approval under the current building code.

Single Family Dwellings

<u>NOTE</u>: The Department of Housing, Buildings & Construction (DHBC) Manufactured Housing Section, and KIBS Program has no authority for site placement of single family dwellings or over a local jurisdiction for single family dwelling site placement.

All approved Type "A" modular units or Single Family Dwelling Model to be shipped into the Commonwealth of Kentucky shall have a Notification of Shipment Form (attached) filled out and sent to this office a minimum of 2 weeks prior to shipment. Upon receipt of the above information the Manufactured Housing Section will notify the Local Building Official that an approved Modular Single Family Dwelling will be shipped to their jurisdiction. It is the responsibility of the <u>owner</u> or the builder/dealer acting as the responsible agent for the owner to obtain all required local permits prior to the beginning of any site work in preparation for the delivery of the modular home.

"Notification of Shipment" for Model Plan Approved using any Previous Model Codes will not be accepted.

All Other Occupancies

NOTE: TYPE "B" Units: It is the responsibility of the <u>owner</u> or the builder/dealer acting as the responsible agent for the owner to submit to this office a KIBS Site Application and obtain all State Site Approvals and local permits prior to the beginning of any site work in preparation for the delivery of the Modular Building. All work requiring on-site inspections shall remain accessible and exposed for inspection purposes.

Any unit<u>shipped without a Kentucky "M" Seal</u> will be the manufacturer's responsibility.

Kentucky Seals and Inspection Forms will only be sold to Accepted Third Party Inspection Agencies.

<u>Accepted Third Party Inspection Agency's Inspectors</u> (Employee) shall inspect, be responsible for verification of the construction as being installed per the Kentucky Building Code requirements and for attaching the <u>Kentucky "M" Seals</u> to <u>Each New Unit</u> for shipment into the Commonwealth of Kentucky.

<u>The Original Copy</u> of the <u>Inspection Forms</u> (a statement of inspections) shall be <u>Signed and Dated</u> by the <u>Accepted Third Party Inspection Agency's Inspector</u> and forwarded to the Manufactured Housing Section on the last day of each month.

Note: New <u>IBC Labels</u> will not be accepted in the Commonwealth of Kentucky.

We realize that the procedures described herein will not be suitable for every project. If a problem occurs, this office is available to assist you. Please contact the Plans Examiner at:

Department of Housing, Buildings & Construction Division of Building Code Enforcement Manufactured Housing Section

> 101 Sea Hero Road, Suite 100 Frankfort, Kentucky 40601-5412 Phone # 502-573-1795 Fax # 502-573 1059 www.dhbc.ky.gov



UNBRIDLED SPIRIT



DHBC #40-01 ORG. 3/08

DEPARTMENT OF HOUSING, BUILDINGS AND CONSTRUCTION DIVISION OF BUILDING CODE ENFORCEMENT MANUFACTURED HOUSING SECTION 101 SEA HERO ROAD, SUITE 100 FRANKFORT, KENTUCKY 40601-5412 PHONE (502) 573-1795 FAX (502) 573-1059

		Application for 7 Industrialized Building Systems (KII	BS)		
The undersigned hereby makes application for Qualification as a Manufacturer of Kentucky Industrialized Buildings.					
NAME:	Title:	Signature:			
COMPANY NAME*	:	PHONE NUMBER:			
ADDRESS:		P.O.BOX:			
CITY STATE ZIP: _		E-MAIL:			
Kentucky Regist	ered Design Professional (co	ntact information):			
NAME:		PHONE NUMBER:			
ADDRESS:		P.O. BOX:			
CITY STATE ZIP: _		E-MAIL:			
Kentucky Appro	ved Third Party Inspection	Agency:			
AGENCY NAME:		PHONE:			
ADDRESS:		P.O. BOX:			
CITY STATE ZIP:		E-MAIL:			
uni this Ap	ts for Kentucky Industrialized Bu application or shall be provided provals for Plumbing Systems req	als, and Ouality Assurance Manuals for single uldings and/or Modular Single Family Homes in whole on each plan submittal. uire a separate submittal and an inspection b ubmission of plumbing plans and factory inspe	<u>must accompany</u> <u>v a Kentucky Plumbing</u>		

*For information on how to register a business entity with the Commonwealth of Kentucky, please contact the Economic Development Business Clearinghouse at 1-800-626-2250 or search <u>www.ky.gov.</u>

Division of Plumbing at 502-573-0397 or www.dhbc.ky.gov/plb.





DEPARTMENT OF HOUSING, BUILDINGS AND CONSTRUCTION DIVISION OF BUILDING CODE ENFORCEMENT MANUFACTURED HOUSING SECTION 101 SEA HERO ROAD, SUITE 100 FRANKFORT, KENTUCKY 40601-5412 PHONE (502) 573-1795 FAX (502) 573-1059

KIBS MODEL APPLICATION FORM

This form to be completed by Manufacturer's Representative. Please CHECK ONE:							
Residential Modular Homes (One or Two-Family Dwellings other than HUD Manufactured Home)							
Commercial Modular Units (All Use Groups other than 1 or 2 family dwellings.)							
USE:							
MANUFACTURER INFORMATION							
NOTE: Complete the following information for the manufacturer or indicate your Kentucky assigned KIBS factory number,							
(a 3 digit number with A or B suffix assigned by the Office during first model submittal) here:							
MANUFACTURER'S NAME:							
MAILING ADDRESS:							
CITY/STATE/ZIP:							
FACTORY LOCATION:							
NAME OF FACTORY REPRESENTATIVE:	PHONE NUMBER:						
MODULAR BUILDING INFORMATION							
ROPOSED MODEL NAME:MODEL #:							
OVERALL BUILDING SIZE:	WIDTHLENGTH						
AREA PER FLOOR:NUMBER OF FLOOR LEVELS:							
TOTAL AREA IN BUILDING:	TOTAL AREA IN BUILDING:						
TOTAL NUMBER OF BLDG. MODULES OR UNITS	S:SIZE OF UNITS:	W x	L				
MODEL PLAN SUBMISSION CHECKLIST Note: Please check each item included with your Model Plan All of this information is required with the Model Plan Submission.							
Cover Letter or Letter of Transmittal	Framing Plans & Construction Details	Manufacturers Systems Manuals shall not be consider substitution for the information required on the plan Submit		not be considered as			
Plans drawn to minimum scale of $^{1}/_{8}$ " = 1'-0"	Specifications						
Title Sheet	Mechanical (HVAC) Plans & Details	The minimum distance between any c Industrialized Building and any other building one inch (20' 1"). Any reduction in this dista					
Foundation Plan or Blocking Points Plan	Electrical Plan(s)						
Floor Plan(s)	Energy Calculations	prior to shipment of the unit.					
4 Exterior Elevation Views	Plan Review / Inspection Fee (Calculated Per Table 122.3.1 of the 2013 Kentucky Building Code or a	Please be advised all previous model pla the model has not been resubmitted for c under the new codes.					
Design Loads, Seismic, Wind, Snow, Live &	Minimum of \$285.00 whichever fee is greater) Make			our review and approval			
Dead Loads	check payable to the Kentucky State Treasurer.	REDUCTION OF 11/2 INCH PLATE THICKNESS FOR ANCHO BOLTS IS NOT ACCEPTABLE IN KENTUCKY. USE THICKE PLATE OR ALTERNATE ANCHORING SYSTEM.		KNESS FOR ANCHOR			
Traverse or Cross-section detail Door, Window & Hardware Schedules				TUCKY. USE THICKER			
Interior Finish Schedules				SYSTEM.			



Replace with MANUFACTURER'S

The "Manufacturer" shall notify Manufactured Housing Section with not less than two- (2) weeks notice of the scheduled shipment. After the Manufactured Housing Section has issued a model plan approval, the manufacturer may ship an unlimited number of the units to Kentucky provided an approved 3^{rd} Party Inspection Agency has made a factory inspection, issued a Kentucky label and certified that each unit is in substantial compliance with the current codes adopted by Kentucky and in effect at the time of construction.

LETTERHEAD OR LOGO HERE

"Notification of Shipment"

Date:		
Submitters Name:	Phone Number:	
KIBS Number:	Owner/Buyer's Name:	
Model Name:	Current Mailing Address:	
Model Number:	City/ State/ Zip:	
Model Serial Number;	Phone Number:	
Kentucky "M" Seal Number:	Site Address:	
3rd Party Inspection Agency:	City:	
Dealer Name:	County:	
Phone Number:	Lot No.:	
Dealer Mailing Address:	Name of Local Building Code Official:	
City/ State/ Zip:		
Scheduled Delivery Date:		

NOTE: TYPE "A" Units: Upon receipt of the above information the Manufactured Housing Section will notify the Local Building Official that an approved Modular Single Family Dwelling will be shipped to their jurisdiction. It is the responsibility of the <u>owner</u> or the builder/dealer acting as the responsible agent for the owner to obtain all required local permits prior to the beginning of any site work in preparation for the delivery of the modular home.

NOTE: TYPE "B" Units: It is the responsibility of the <u>owner</u> or the builder/dealer acting as the responsible agent for the owner to submit to this office a KIBS Site Application and obtain all State Site Approvals and local permits prior to the beginning of any site work in preparation for the delivery of the Modular Building.

