

# Ohio Manufactured Homes Permit Checklist

1. Building permit application form.
2. Electrical permit application form.
3. Gas permit application form.
4. Copy of zoning approval.

Minimum of two copies each, divided into two complete sets of plans.

5. Site plan.
6. Copy of current installer license.
7. Copy of production order.
8. Photographs of Manufactured Home ID plate.
9. A.) Foundation & anchorage plans sealed & signed by State of Ohio Architect or Engineer.  
**OR**  
B.) Provide a copy of the alternative method approved by the OMHC –using OMHC tables, circle pier spacing requirements.
10. Copy of the Manufactured Home Installation Manual bearing the Federal Manufactured Housing Construction & Safety Standards stamp or HUD stamp. Highlight which options being used. (Helpful to identify when multiply tie down options are available).
11. If home is being altered, a copy of the alteration plan sealed & signed by an Ohio Certified Engineer or Architect and DAPIA report.
12. Additions to the home will require the Ohio Engineer or Architect sealed plans & DAPIA report.
13. Check local State of Ohio Certified Residential Building Department for their requirements.
14. Check with local Health Department for necessary plumbing, water, or sanitary permits.

**BUILDING PERMIT APPLICATION FORM**

Comment: Zoning permit, construction plans, specifications & calculations shall be submitted for approval and will be incorporated into and become the approved permit documents.

Project: \_\_\_\_\_ Name of Owner: \_\_\_\_\_

Address: \_\_\_\_\_ Lot Number: \_\_\_\_\_ Bldg. #: \_\_\_\_\_

Township/City: \_\_\_\_\_ Parcel ID#: \_\_\_\_\_ Zoning Permit # \_\_\_\_\_ Date: \_\_\_\_\_

Estimated Construction Cost: \$ \_\_\_\_\_

Name of Contact Person: \_\_\_\_\_ Contact Person Address: \_\_\_\_\_

Contact Person Phone #: \_\_\_\_\_ **\*\*Call back # for inspection time:** \_\_\_\_\_

Fax #: \_\_\_\_\_ E-Mail: \_\_\_\_\_

Name of Contractor: \_\_\_\_\_ Contractor's Address: \_\_\_\_\_

Contractor's Phone #: ( ) \_\_\_\_\_ Fax #: ( ) \_\_\_\_\_

E-Mail: \_\_\_\_\_

Print Applicant's Name: \_\_\_\_\_ Signature: \_\_\_\_\_ Date \_\_\_\_\_

**RESIDENTIAL INFORMATION**

**INFORMATION FOR ONE, TWO OR THREE FAMILY CONSTRUCTION  
AND ACCESSORY BUILDINGS**

NEW: \_\_\_\_\_ ALTERATION: \_\_\_\_\_ ADDITION: \_\_\_\_\_ Manufactured Home \_\_\_\_\_  
Industrialized Unit \_\_\_\_\_

Total Square Feet of Habitable Space: \_\_\_\_\_ \*Total Square Feet of Non-Habitable Space: \_\_\_\_\_ \*\*

Number of bathrooms: \_\_\_\_\_ Number of decks: \_\_\_\_\_ Number of fireplaces: \_\_\_\_\_

such as lower level, ground & second floor. \*\*Such as garage, covered porches & basements.

Accessory structures: \_\_\_\_\_ Total Square Feet: \_\_\_\_\_

**COMMERCIAL INFORMATION**

**CONSTRUCTION INCLUDING FOUR FAMILY RESIDENTIAL BUILDINGS  
AND ACCESSORY STRUCTURES**

NEW: \_\_\_\_\_ ALTERATION: \_\_\_\_\_ ADDITION: \_\_\_\_\_ INDUSTRIALIZED UNIT \_\_\_\_\_

Group & Total Square Feet: \_\_\_\_\_ Use Group & Total Square Feet: \_\_\_\_\_

**GREENE COUNTY  
DEPARTMENT OF BUILDING REGULATION  
ELECTRICAL PERMIT APPLICATION FORM**

CASH \_\_\_\_\_  
CHECK # \_\_\_\_\_  
PERMIT# \_\_\_\_\_

667 DAYTON-XENIA ROAD, XENIA, OHIO 45385 (937) 562-7420; FAX (937) 562-7425 Web: www.co.greene.oh.us

(1) PROJECT NAME: _____	(2) ELECTRICAL CONTRACTOR: _____
PROJECT ADDRESS: _____	NAME: _____
PLAT: _____ LOT: _____	ADDRESS _____
TOWNSHIP/CITY: _____	CITY/STATE: _____ ZIP: _____
PHONE: _____	PHONE: _____
	INSPECTION CALL-BACK# _____
	FAX #: _____
	E-MAIL: _____

(3) CLASS OF OCCUPANCY: DWELLING \_\_\_\_\_ MULTIPLE DWELLING \_\_\_\_\_ COMMERCIAL \_\_\_\_\_  
INDUSTRIAL \_\_\_\_\_ OTHER \_\_\_\_\_

(4) TYPE OF INSTALLATION: NEW \_\_\_\_\_ REPLACEMENT \_\_\_\_\_ EXTENSION \_\_\_\_\_  
GENERATOR \_\_\_\_\_ WINDMILL \_\_\_\_\_ SOLAR \_\_\_\_\_ OTHER \_\_\_\_\_ (May require Manufactured Specs. or Engineering)

**\*PROVIDE SERVICE ONE LINE DIAGRAM SHOWING FAULT CURRENT, GROUNDING POINT WITH WIRE SIZE, CABLE SIZE WITH WIRING METHOD AND MAIN FUSE OR BREAKER SIZE. EXCEPTION: 1,2,3 FAMILY LESS THAN 400 AMPS.**

(5) BASIC FEE:..... \$35.00..... <b>\$35.00</b>	MOVE A METER..... \$17.00... _____
(6) NEW SERVICE, 399 AMPS OR LESS.\$17.00 ea..... _____	RECONNECT..... \$17.00... _____
NEW SERVICE, 400 TO 600 AMPS...\$29.00 ea. .... * _____	SWIMMING POOL..... \$17.00... _____
NEW SERVICE, 601 TO 800 AMPS...\$41.00 ea..... * _____	MOTOR EQUIP DISCONNECT..\$17.00... _____
NEW SERVICE, 801 TO 1000 AMPS...\$53.00 ea..... * _____	
NEW SERVICE, OVER 1000 AMPS...\$65.00 ea. .... * _____	
ALTERNATIVE ENERGY <del>\$15</del> \$35.00 ea..... _____	
SERVICE CHANGE/ UPGRADE .....\$17.00..... _____	MOTOR STARTERS..... \$11.00.... _____
TEMPORARY POLE/ SERVICE ..... \$17.00..... _____	COMBINATION STARTERS .... \$9.00 .... _____
NO. OF CIRCUITS .....\$1.00 ea..... _____	SINGLE OPENING ..... \$17.00.... _____ (EX. HOT TUB; CEILING FAN, ONE DEVICE BOX)
SUB FEED PANELS..... \$11.00 ea..... _____	
ROUGH INSPECTIONS.....\$17.00 ea. .... _____	<b>TOTAL: \$ _____</b>
FINAL INSPECTIONS..... \$17.00 ea. .... _____	<b>*ADD 3% STATE FEE ON COMMERCIAL JOBS</b>
ADDITIONS, ALTERATIONS, OR EXTENSION OF EXISTING WIRING...\$17.00..... _____	<b>*ADD 1% STATE FEE ON RESIDENTIAL JOBS</b>

PERMIT ISSUED TO INSTALL ELECTRICAL EQUIPMENT AND/OR WIRING WITHIN THE JURISDICTION OF THE OFFICE OF BUILDING REGULATION, GREENE COUNTY, OHIO, SUCH INSTALLATION SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE, LATEST EDITION, THE PROVISIONS OF OBOA AND THE OHIO BUILDING CODE.

SIGNATURE OF APPLICANT / DATE

**GREENE COUNTY  
DEPARTMENT OF BUILDING REGULATION  
GAS LINE PERMIT APPLICATION FORM**

CASH \_\_\_\_\_  
CHECK # \_\_\_\_\_  
PERMIT# \_\_\_\_\_

667 DAYTON-XENIA ROAD, XENIA, OHIO 45385 (937) 562-7420; FAX (937) 562-7425; Web: www.co.greene.oh.us

(1) PROJECT NAME: _____	(2) GAS LINE CONTRACTOR:
PROJECT ADDRESS: _____	NAME: _____
PLAT: _____ LOT #: _____	ADDRESS _____
TOWNSHIP/CITY: _____	CITY/STATE: _____ ZIP: _____
PHONE: _____	PHONE: _____
	INSPECTION CALL-BACK # _____
	FAX #: _____
	E-MAIL: _____

(3) CLASS OF OCCUPANCY: DWELLING \_\_\_\_\_ MULTIPLE DWELLING \_\_\_\_\_ COMMERCIAL \_\_\_\_\_  
INDUSTRIAL \_\_\_\_\_ OTHER \_\_\_\_\_

(4) TYPE OF INSTALLATION: NEW \_\_\_\_\_ REPLACEMENT \_\_\_\_\_ EXTENSION \_\_\_\_\_

(5) CONSTRUCTION: SLAB \_\_\_\_\_ CRAWL \_\_\_\_\_ BASEMENT \_\_\_\_\_ ROOF TOP \_\_\_\_\_ OTHER \_\_\_\_\_

(6) FUEL: NATURAL GAS \_\_\_\_\_ LPG \_\_\_\_\_ OTHER \_\_\_\_\_

(7) BASIC FEE:..... \$30.00..... **\$30.00**

(8) COMMERCIAL GAS PIPING ..... \$70.00 ..... ( Inside \_\_\_\_\_ Underground \_\_\_\_\_ )  
(UP TO 12 METERS; \$5.00 EACH ADD. METER)

(9) COMMERCIAL PROPANE TANK..... \$30.00 ..... ( Inside \_\_\_\_\_ Underground \_\_\_\_\_ )

(10) COMMERCIAL GAS LINE (RECONNECT) \$36.00..... ( Inside \_\_\_\_\_ Underground \_\_\_\_\_ )  
(UP TO 12 METERS; \$5.00 EACH ADD. METER)

(11) RESIDENTIAL NATURAL GAS .....\$22.00 ..... ( Inside \_\_\_\_\_ Underground \_\_\_\_\_ )

(12) RESIDENTIAL GAS LINE (RECONNECT)....\$14.00 .....

(13) RESIDENTIAL PROPANE TANK ..... \$12.00 .....

(14) RESIDENTIAL PROPANE PIPING ..... \$12.00 .....

TOTAL: \$ \_\_\_\_\_ **ADD 3% STATE FEE ON COMMERCIAL JOBS**  
**ADD 1% STATE FEE ON RESIDENTIAL JOBS**

PLANS AND CALCULATIONS MUST BE SUBMITTED FOR APPROVAL AND SHALL BECOME A PART OF THIS APPLICATION AND PERMIT RECORD (FOR COMMERCIAL JOBS ONLY).

\_\_\_\_\_  
SIGNATURE OF APPLICANT / DATE

**APPLICATION FOR ZONING CERTIFICATE**

CERTIFICATE OF EXEMPTION       SIGN PERMIT      Date filed: \_\_\_\_\_ Application No. \_\_\_\_\_  
 RESIDENTIAL                       USE COMPLIANCE      Fee paid \$ \_\_\_\_\_ Check number \_\_\_\_\_  
 BUSINESS OR INDUSTRIAL       HOME OCCUPATION      Bank \_\_\_\_\_

**NOTE: (1) NEW CONSTRUCTION AND ADDITIONS REQUIRE ONE COMPLETE SET OF CONSTRUCTION DRAWINGS AND SEWAGE DISPOSAL SYSTEM PLANS. (2) INSPECTION MUST BE REQUESTED BY APPLICANT.**

Zoning District \_\_\_\_\_ PUD # \_\_\_\_\_ Book \_\_\_\_\_ Page \_\_\_\_\_ Parcel \_\_\_\_\_

1. Location of Property \_\_\_\_\_ Lot. No. \_\_\_\_\_ Subdivision \_\_\_\_\_

2. Name of Land Owner \_\_\_\_\_ Phone \_\_\_\_\_  
Address \_\_\_\_\_

3. Occupant \_\_\_\_\_

4. Name of Contractor \_\_\_\_\_ Phone \_\_\_\_\_  
Address \_\_\_\_\_

5. Proposed Use (Type) \_\_\_\_\_ Building: Use \_\_\_\_\_  
 New Construction \_\_\_\_\_ Addition \_\_\_\_\_ Accessory Building \_\_\_\_\_ Fence \_\_\_\_\_  
 Residence \_\_\_\_\_ No. Bd. Rm. \_\_\_\_\_ No. of Units \_\_\_\_\_ Other \_\_\_\_\_ Industry \_\_\_\_\_

6. Sign \_\_\_\_\_ Size \_\_\_\_\_ Location of Sign \_\_\_\_\_ Owner Consent \_\_\_\_\_  
 Type \_\_\_\_\_ Construction type \_\_\_\_\_ Number of Faces \_\_\_\_\_

7. Required plans shall be drawn to scale \_\_\_\_\_ of the lot, exact sizes and locations of existing buildings on the lot, and the location of \_\_\_\_\_ or alterations.

Type of lot: Through \_\_\_\_\_ cul-de-sac \_\_\_\_\_

a) Main road frontage \_\_\_\_\_ from side of road \_\_\_\_\_ minimum allowed \_\_\_\_\_ feet

b) Depth of lot \_\_\_\_\_ of way \_\_\_\_\_ feet

c) Side yard clearance: \_\_\_\_\_ side \_\_\_\_\_ feet minimum allowed \_\_\_\_\_ feet  
 \_\_\_\_\_ side \_\_\_\_\_ feet minimum allowed \_\_\_\_\_ feet

d) \_\_\_\_\_ feet

e) \_\_\_\_\_ above the established grade h) Rear yard clearance \_\_\_\_\_ feet minimum allowed \_\_\_\_\_ feet

8. Structure \_\_\_\_\_ and area. Height by definition \_\_\_\_\_

Number of Stories \_\_\_\_\_ Basement \_\_\_\_\_ finished \_\_\_\_\_ unfinished \_\_\_\_\_

Lower Level \_\_\_\_\_ square feet Decks \_\_\_\_\_ square feet Decks \_\_\_\_\_

First floor \_\_\_\_\_ square feet Garage \_\_\_\_\_ square feet Car garage \_\_\_\_\_

Second floor \_\_\_\_\_ square feet Other \_\_\_\_\_ square feet Off street parking \_\_\_\_\_ No. spaces \_\_\_\_\_

Total \_\_\_\_\_ square feet

9. New sewage permit required \_\_\_\_\_ number \_\_\_\_\_ BZA approval required \_\_\_\_\_ Case Number \_\_\_\_\_

10. Remarks: \_\_\_\_\_

Authority to make application \_\_\_\_\_ Surveyor certification required: yes \_\_\_\_\_ no \_\_\_\_\_  
Date Received \_\_\_\_\_

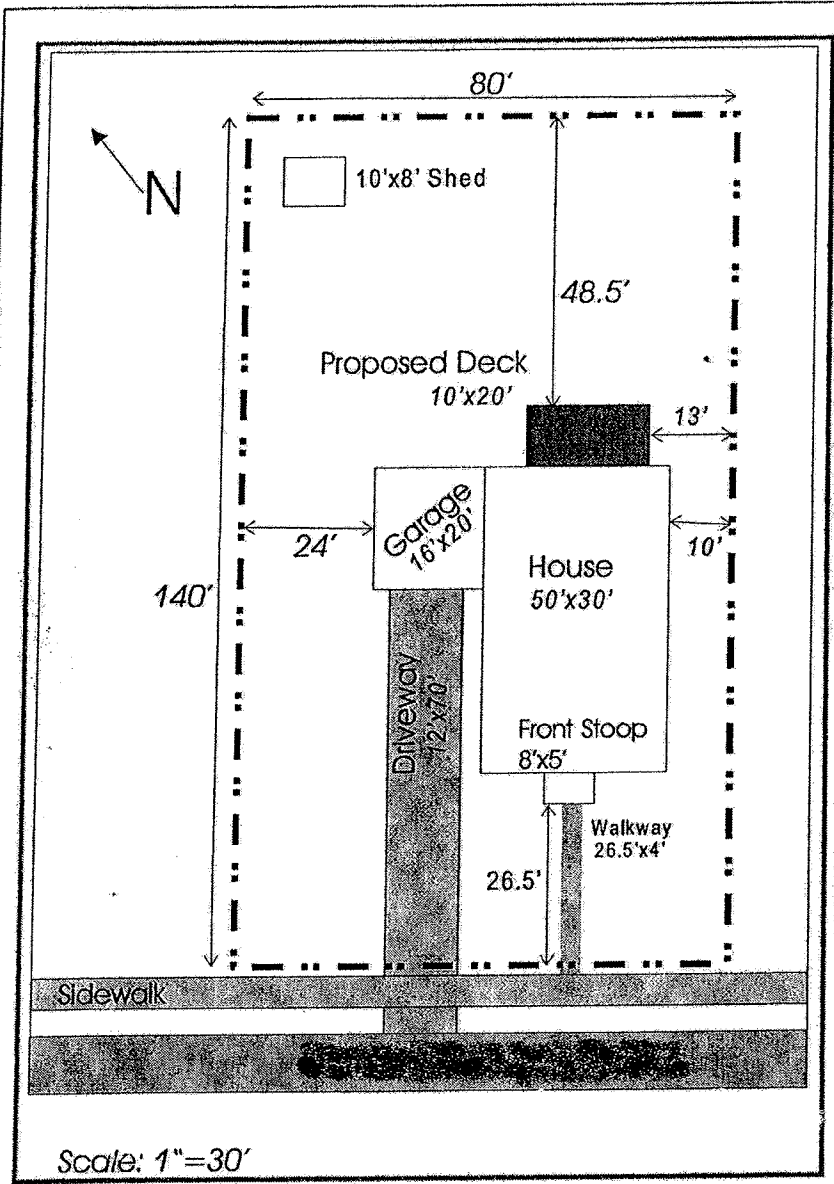
I hereby certify that all of the information supplied in this application and attachments hereto are true and correct to the best of my knowledge, information and belief. I hereby consent to the inspection of the subject property and of any buildings or structures to be constructed thereon by the township zoning inspector. I hereby acknowledge that I understand that if the construction or use described in the zoning certificate has not begun within six (6) months from the date of issuance, said zoning certificate shall become null and void.

Applicant's Signature \_\_\_\_\_ Date \_\_\_\_\_ Witness \_\_\_\_\_

Date inspection called for: \_\_\_\_\_ Date Inspected \_\_\_\_\_

Upon the basis of Application No. \_\_\_\_\_, the information contained within is made a part hereof, the proposed usage is \_\_\_\_\_ found to be in accordance with the Township Zoning Resolution and is hereby \_\_\_\_\_.

Date of Application ruled on \_\_\_\_\_ 20 \_\_\_\_\_



**SITE PLAN**

**SAMPLE COVERAGE CALCULATION**

**Existing:**

House (50'x30')	1,500 sqft.
Garage ((16'x20')	320 sqft.
Drive (12'x70')	840 sqft.
Front Stoop (8'x5")	40 sqft.
<u>Front Walk (26.5'x4')</u>	<u>106 sqft.</u>
Total	2,806 sqft.

Lot Size (140'x80')    11,200 sqft.

**Existing Coverage (2806/11,200) x 100 = 25%**

**Proposed:**

<i>Proposed Deck (10'x20')</i>	<i>200 sqft.</i>
House (50'x30')	1,500 sqft.
Garage ((16'x20')	320 sqft.
Drive (12'x70')	840 sqft.
Front Stoop (8'x5")	40 sqft.
<u>Front Walk (26.5'x4')</u>	<u>106 sqft.</u>
Total	3,006 sqft.

Lot Size (140'x80')    11,200 sqft.

**Proposed Coverage (3006/11,200) x 100 = 27%**

**OHIO MANUFACTURED HOMES COMMISSION**

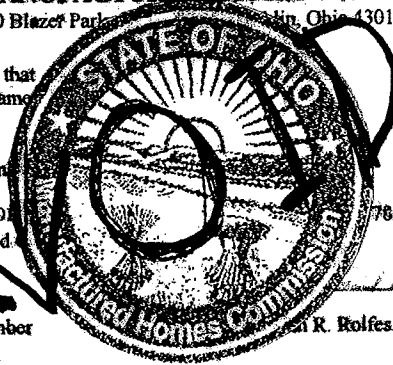
5650 Blazer Park Cincinnati, Ohio 43017

Be it known that  
Company Name

License Number

Is licensed, Ohio Revised Code 1307.01 of the

Control Number



R. Rolfes, Chairman

Sales Order Inquiry  
PRODUCTION ORDER PRINTED

10/30/09 14:14:42

Serial/Co:  
Drawing :  
Sales Rep:  
Sold To :

Model Year:

Home Co: 18 Plant:

Ship To:  
Same As Sold To

RADCO Numbers			
Company		Unit	Serial
Floor	A	RADCO#	1481084
Floor	B	RADCO#	1481083

To Ship Week Of:  
Ordered. . . . :  
Scheduled On Ln:  
On Line. . . . :  
Off Line . . . . :  
Ready to Ship. :  
Invoiced . . . . :  
Shipped . . . . :  
Dispatched . . . :

F12=Cancel

Enter=Return

Bottom

Sales Tax: \$ .00  
DPU No COD Yes

F3=Exit F5=Unit Info Inq  
Enter=Detail

F6=Print (no prices) F8=RADCO#

F12=Return

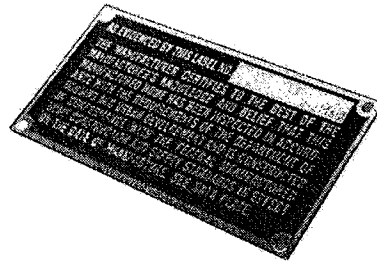
[home](#) | [about ibts](#) | [certifications](#) | [corporate capabilities](#) | [testimonials](#) | [inspection i-code](#) | [manufactured home label verification](#) | [career](#) | [branch offices](#) | [contact us](#) | [employee portal](#)

## HUD Certification Labels

### Certification Label (Commonly Referred to as the "HUD Label")

All transportable sections of manufactured homes built in the U.S. after June 15, 1976 are labeled. The label is the manufacturer's certification that the home section is built in accordance with the U.S. Department of Housing and Urban Development's Construction and Safety Standards in effect on the date the home was manufactured. HUD Standards include Body and Frame Requirements, Thermal Protection, Plumbing, Electrical, Fire Safety, and other aspects of the home.

Each Certification Label has a unique label number and is two inches (2") by four inches (4") in size. The label number consists of three letters followed by a number of six or more digits. The three letters designate the Production Inspection Primary Inspection Agencies (PIA) that issued the Certification Label to the manufacturer.



The Certification Label is permanently affixed to the exterior of each transportable section. The label is located one foot (1') up and away from the left rear corner (facing forward; the tow bar end indicates the front of the section).



The Certification Label number can become necessary when placing the home in a manufactured home community, or may be demanded by insurance underwriters or by lenders when the home is purchased or refinanced. However, over the life of the home, the Certification Label is sometimes inadvertently removed. This could have occurred when the home was sited, installed on a foundation, re-sided, or for other legitimate reasons. HUD does not reissue lost or missing labels once the home has been sold. In these cases, Certification Label Verification can be provided.

This verification is issued by IBTS, HUD's contractor, and is acceptable in lieu of a replacement label. Labeling information for all homes built under the Federal Program since June 15, 1976 is maintained by IBTS.

For further information, please see our Certification Label Inquiry page.

## (A) General.

- (1) Foundations for manufactured home installations shall be designed and constructed in accordance with this subpart and shall be based on site conditions, home design features, and the loads the home was designed to withstand as shown on the home's data plate.
- (2) Foundation systems that are not pier and footing type configurations may be used when verified by engineering data and designed in accordance with this rule and consistent with the design loads of the MHCSS. Pier and footing specifications, that are different than those provided in this rule, such as block size, metal piers, section width, loads, and spacing, may be used when verified by engineering data that comply with this rule and are capable of resisting all design loads of the MHCSS.
- (3) Details, plans, and test data shall be designed and certified by an Ohio registered professional engineer or registered architect, and shall not take the home out of compliance with the MHCSS.
- (4) Alternative foundation systems. Alternative foundation systems or designs are permitted when they do not take the home out of compliance with MHCSS and when they are in accordance with either of the following:
  - (a) Engineered foundation systems or designs shall be manufactured and installed in accordance with their listings by a nationally recognized testing agency based on a nationally recognized testing protocol; or
  - (b) System designs shall be prepared by an Ohio registered professional engineer or a registered architect in accordance with acceptable engineering practice.

## (B) Flood hazard areas.

- (1) In flood hazard areas, the foundation, anchoring and support systems shall be capable of resisting loads associated with design flood and wind events, and homes shall be installed on foundation supports that are designed and anchored to prevent floatation, collapse or lateral movement of the structure. The manufactured home shall be installed in accordance with the manufacturer's instructions where available. If the foundation system being used is not covered by the manufacturer's instructions, the foundation system shall be designed by an Ohio registered professional engineer or registered

architect.

- (2) Where manufacturer's installation instructions do not address flood loads or flood hazard areas, the requirements of the authority having jurisdiction, the floodplain authority, FEMA 85, 44 C.F.R. 60.3(a) to (e), other provisions of 44 C.F.R.60 referenced by those paragraphs, Chapter 1521.7 of the Revised Code, and division Chapter 1501:22 of the Administrative Code shall govern.
- (3) In manufactured home parks, manufactured homes shall be installed in accordance with rules 3701-27-07 to 3701-27-07.5 and 3721-27-08.2 of the Administrative Code.

(C) Piers.

- (1) General. The piers used shall be capable of transmitting the vertical live and dead loads to the footings or foundation.
- (2) Acceptable piers, materials specification.
  - (a) Piers are permitted to be concrete blocks; hardwood or other listed and approved shims, spacers or caps or with pressure-treated wood shims, spacers or caps with a water borne preservative, in accordance with American wood preserver's association (AWPA) "Standard U1 for Use Category 4B" ground contact applications; or adjustable metal or concrete piers.
  - (b) Manufactured piers shall be listed or labeled for the required vertical load capacity, and, where required by design, for the appropriate horizontal load capacity. Manufactured piers shall be installed with an approved footing and in accordance with their listing or pier manufacturer's installation instructions.
- (3) Design requirements.
  - (a) Load bearing capacity. The load bearing capacity for each pier shall be designed to included consideration for the dimensions of the home, the design dead and live loads, the spacing of the piers, and the way the piers are used to support the home.
  - (b) Center beam/mating wall support shall be required for multi-section homes and designs shall be consistent with tables 3.2 and 3.3 of this rule and figures 3E, 3F and 3G of this rule.

## (4) Pier loads.

- (a) Design support configurations and footing sizes for the pier loads, pier spacing, and roof live loads shall be in accordance with tables 3.1, 3.2, and 3.3 and the MHCSS. Other pier and footing designs are permitted in accordance with the provisions of Chapter 4781.7 of the Revised Code.

**Table 3.1 – Frame Blocking Only/Perimeter Support Not Required At Openings**

Pier Spacing	Roof Live Load (psf)	Location	Load (lb)
4 ft 0 in.	20	Frame	2900
	30	Frame	3300
	40	Frame	3600
6 ft 0 in.	20	Frame	4200
	30	Frame	4700
	40	Frame	5200
8 ft 0 in.	20	Frame	5500
	30	Frame	6200
	40	Frame	6900
10 ft 0 in.	20	Frame	6800
	30	Frame	7600
	40	Frame	8500

**Notes:**

1. See 4781-6-02.3(2)(e) and (f) for cast-in-place footing design using the noted loads.
2. Table 3.1 is based on the following design assumptions: maximum 16 ft. normal section width (15 ft actual width), 12" eave, 10" I-beam size, 300 lb. pier dead load, 10 psf roof dead load, 6 psf floor dead load, 35 plf wall dead load, and 10 plf chassis dead load.
3. Interpolation for other pier spacing is permitted.
4. The pier spacing and loads shown in the above Table do not consider flood or seismic loads and are not intended for use in flood or seismic hazard areas. In those areas, the foundation support system is to be designed by a professional engineer or architect.

**Table 3.2 – Frame Plus Perimeter Blocking / Perimeter Support Not Required At Openings**

Maximum Pier Spacing	Roof Live Load (psf)	Location	Load (lb)
4 ft 0 in.	20	Frame	1,400
		Perimeter	1,900
		Mating	3,200
	30	Frame	1,400
		Perimeter	2,300
		Mating	3,800
	40	Frame	1,800
		Perimeter	2,600
		Mating	4,400
6 ft 0 in.	20	Frame	1,900
		Perimeter	2,700
		Mating	4,700
	30	Frame	1,900
		Perimeter	3,300
		Mating	5,600
	40	Frame	1,800
		Perimeter	3,700
		Mating	6,500

Maximum Pier Spacing	Roof Live Load (psf)	Location	Load (lb)
8 ft 0 in.	20	Frame	2,400
		Perimeter	3,500
		Mating	6,100
	30	Frame	2,400
		Perimeter	4,200
		Mating	7,300
	40	Frame	2,400
		Perimeter	4,800
		Mating	8,500
10 ft 0 in.	20	Frame	2,800
		Perimeter	4,300
		Mating	7,600
	30	Frame	2,900
		Perimeter	5,100
		Mating	9,100
	40	Frame	2,900
		Perimeter	6,000
		Mating	10,600

**Notes for Table 3.2:**

1. See 4781-6-02.3C(3) and (4) for wall placement blocking design by using the noted loads.
2. Mating wall perimeter piers and footings only required under full height masonry walls supporting roof loads.
3. Table 3.2 is based on the following design assumptions: masonry 14 ft normal spacing; width (1) ft actual width, 12" over, 10" T-beam (also 300 lb; pier dead load, 10 psf roof dead load, 5 psf floor dead load, 35 psf wall dead load, and 10 psf ultimate dead load.
4. Interpolation for other pier spacing is permitted.
5. The pier spacing and loads shown in the above Table do not consider load or ultimate loads and are not intended for use in field or ultimate hazard areas. In these areas, the foundation support system is to be designed by an Ohio registered professional engineer or architect.

**Table 3.3 – Ridge Beam Spacing Footing Capacity**

Mating Wall Opening (ft)	Roof Live Load (psf)	Pier and Footing Load (lb)
5	20	1,200
	30	1,600
	40	1,900
10	20	2,300
	30	3,100
	40	3,800
15	20	3,200
	30	4,700
	40	5,800
20	20	4,700
	30	6,200
	40	7,500
25	20	5,800
	30	7,800
	40	9,700
30	20	7,000
	30	9,300
	40	11,600
35	20	8,100
	30	10,900
	40	13,600

**Notes:**

- See 4781-6-02.3(2)(e) and (f) for cast-in-place footing design by using the noted loads.
- Table 3.3 is based on the following design assumptions: maximum 16 ft. nominal section width (13 ft. actual width), 10" I-beam size, 300 lb. pier dead load, 10 psf roof dead load, 6 psf floor dead load, 33 psf wall dead load, and 10 psf chassis dead load.
- Loads listed are maximum column loads for each section of the manufactured home.
- Interpolation for maximum allowable pier and column loads is permitted for mate-line openings between those shown in the Table.
- The pier spacing and loads shown in the above Table do not consider flood or seismic loads and are not intended for use in flood or seismic hazard areas. In those areas, the foundation support system must be designed by an Ohio registered professional engineer or registered architect.

- (b) Manufactured piers shall be rated at least to the loads required to safely support the dead and live loads as required by this rule and the installation instructions for those piers shall be consistent with tables 3.1, 3.2 and 3.3 of this rule.

**(D) Pier configuration.**

- Concrete blocks. Installation instructions for concrete block piers shall be developed in accordance with the following provisions and shall be consistent with figures 3A and 3B of this rule.
  - Load-bearing concrete blocks meeting ASTM C-90 shall be used and shall have nominal dimensions of at least eight inches by eight inches by sixteen inches and an average net area minimum compressive strength for three units of nineteen hundred psi;
  - The concrete blocks shall be stacked with their hollow cells aligned vertically; and
  - When piers are constructed of blocks stacked side by side, each layer shall

be at right angles to the preceding one, as shown in figure 3B of this rule.

(2) Caps.

(a) Structural loads shall be evenly distributed across capped hollow block piers, as shown in figures 3A and 3B of this rule.

(b) Caps shall be solid concrete or masonry at least four inches in nominal thickness, or hardwood lumber at least two inches nominal in thickness; or be corrosion-protected minimum one-half inch thick steel; or be of other listed materials. ACQ treated lumber shall not have direct contact with I-beams. Roofing felt, six mil plastic, or equal may be used as a barrier between ACQ caps and the I-beam.

(c) All caps shall be of the same length and width as the piers on which they rest.

(d) When split caps are used on double-stacked blocks, the caps shall be installed with the long dimension across the joint in the blocks below.

(3) Gaps. Any gaps that occur during installation between the main chassis beam and foundation support system shall be filled.

(a) Nominal four inch by six inch by one inch shims are permitted to be used to level the home and fill any gaps between the base of the main chassis beam and the top of the pier cap.

(b) Shims shall be used in pairs as shown in figures 3A and 3B of this rule and shall be driven in tightly so that they do not occupy more than one inch of vertical height.

(c) Hardwood plates no thicker than two inches nominal in thickness or four inches nominal concrete block must be used to fill any remaining vertical gaps.

~~(c) Hardwood plates no thicker than two inches shall be used to fill in remaining vertical gaps.~~

(d) Gap fill materials, not made of masonry, shall not exceed three inches, by a combination of nominal two by eight wood block and one set of one inch wood wedges or shims.

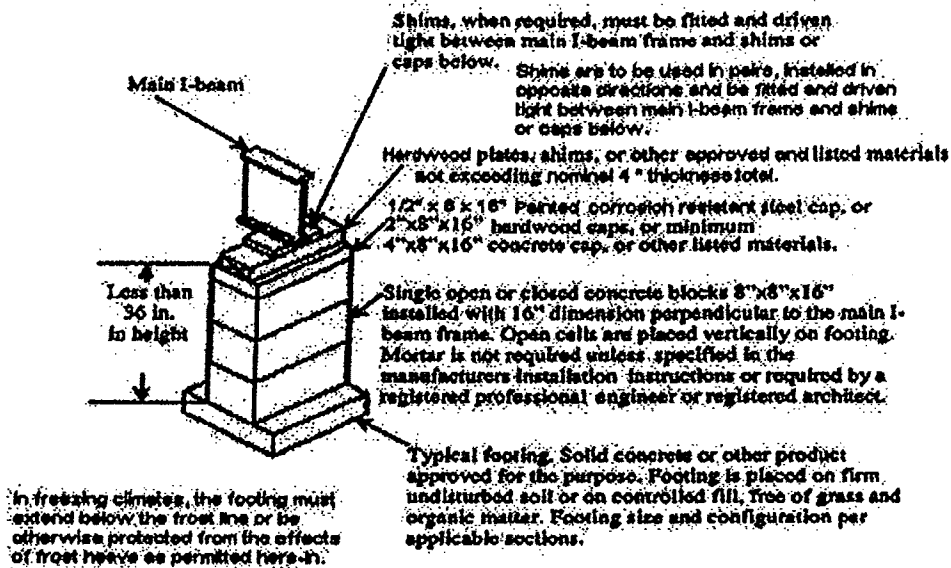
- (4) Manufactured pier heights. Manufactured pier heights shall be selected so that the adjustable risers do not extend more than two inches when finally positioned.

(E) Clearance under homes.

- (1) A minimum clearance of twelve inches shall be maintained between the lowest member of the main frame (I-beam or channel beam) and the grade under all areas of the home. ~~No more than twenty five per cent of the lowest member of the main frame of the home shall be less than eighteen inches above grade.~~
- (2) ~~A minimum clearance of eight inches shall be maintained between the bottom of the lowest wood framing member and the exterior grade.~~

(F) Design procedures for concrete block piers.

- (1) Frame piers less than thirty-six inches high.
  - (a) Frame piers less than thirty-six inches high shall be permitted if constructed of single, open, or closed-cell concrete blocks, eight inches by eight inches by sixteen inches, when the design capacity of the block is not exceeded.
  - (b) The frame piers shall be installed so that the long sides are at right angles to the supported I-beam, as shown in figure 3A of this rule.
  - (c) The concrete blocks shall be stacked with their hollow cells aligned vertically and shall be positioned at right angles to the footings.
  - (d) Horizontal offsets from the top to the bottom of the pier shall not exceed one-half inch.
  - (e) Mortar is not required unless specified in the installation instructions or required by an Ohio registered professional engineer or registered architect. Where mortar is required, minimum type S mortar shall be used.

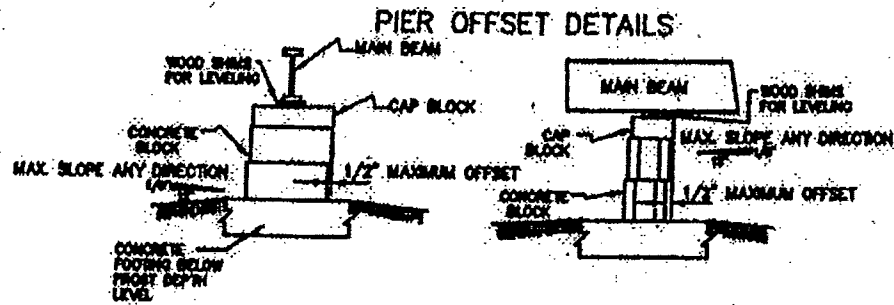
**Figure 3 A - Typical Footing and Pier Installation, Single Concrete Block.**

(2) Frame piers thirty-six inches to sixty-seven inches high and corner piers.

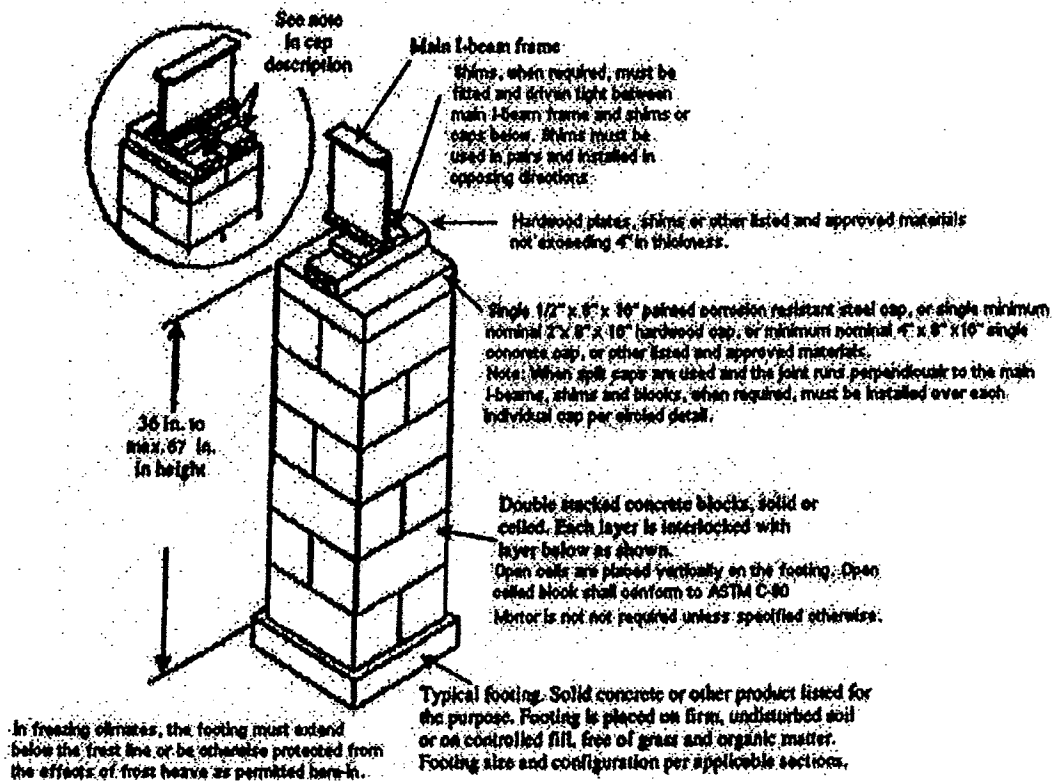
(a) All frame piers between thirty-six and sixty-seven inches high and corner piers over three blocks high shall be constructed out of double, interlocked concrete blocks as shown in figureFigure 3B of this rule, when the design capacity of the block is not exceeded. Mortar is not required for concrete block piers unless otherwise specified in the installation instructions or required by an Ohio registered professional engineer or registered architect. Where mortar is required minimum type S mortar shall be used.

(b) Horizontal offsets from the top to the bottom of the pier shall not exceed one-half inch.

(3) Pier tolerances. Piers shall be plumb and level with tolerances per figure 3D of this rule.

**Figure 3D - Pier Offset Details****Notes:**

1. Footing must be large enough to allow for full contact between the blocks and the footing.
2. All footings shall have a minimum thickness of 8" and must extend below the local frost line or have equivalent frost heave protection.

**Figure 3B - Typical Footing and Pier Installation, Double Stack Concrete Block**

- (4) All piers over sixty-seven inches high. Unless the manufacturer's installation instructions specifically contains a design, piers Piers over sixty-seven inches high shall be designed by an Ohio registered professional engineer or registered architect in accordance with acceptable engineering practice. Mortar is not required for concrete block piers unless otherwise specified by the design. Where mortar is required, minimum type S mortar shall be used.

(G) Perimeter support piers.

- (1) Piers required at mate-line supports, perimeter piers, and piers at exterior wall openings shall be permitted to be constructed of single open-cell or closed-cell concrete blocks, with nominal dimensions of eight inches by eight inches by sixteen inches, to a maximum height of fifty-four inches, as shown in figure 3A of this rule, when the design capacity of the block is not exceeded.

- (2) Piers used for perimeter support shall be installed with the long dimension parallel to the perimeter rail.

(H) Manufactured piers.

Manufactured piers shall be listed and labeled and installed to the pier manufacturer installation instructions. See this rule for additional requirements.

(I) Piers over sixty-seven inches high~~Elevated homes.~~

Piers over sixty-seven inches high must be designed by an Ohio registered professional engineer or registered architect, in accordance with acceptable engineering practice. ~~When more than one-fourth of the area of a home is installed so that the bottoms of the main frame members are more than sixty-seven inches above the top of the footing, the home stabilizing devices shall be designed by the manufacturer or an Ohio registered professional engineer or registered architect in accordance with acceptable engineering practice. A design for a single pier over sixty-seven inches does not meet the requirements for an overall foundation design for a manufactured home with one-fourth area over sixty-seven inches.~~

(J) Pier location and spacing.

- (1) The location and spacing of piers depends upon the dimensions of the home, the live and dead loads, the type of construction (single- or multi-section), I-beam size, soil bearing capacity, footing size, and such other factors as the location of doors or other openings.
- (2) Mate-line and column pier supports shall be in accordance with this rule and consistent with figures 3E to 3G of this rule.

**SECTIONAL MANUFACTURED HOME  
INSTALLATION MANUAL**

**EXAMPLE**

*John's Manufactured Homes*

R A D C O FEDERAL MANUFACTURED  
HOUSING CONSTRUCTION  
& SAFETY STANDARDS  
07  
10/20/2008  
APPROVED

*Johns Manufactured Homes  
1234 N. Anystreet  
Xenia, Ohio 45385*

Serial Number: \_\_\_\_\_

## § 3282.203 DAPIA services.

[top](#)

(a) Each manufacturer shall have each manufactured home design and each quality assurance manual which it intends to follow approved by a DAPIA under §3282.361. The manufacturer is free to choose which DAPIA will evaluate and approve its designs and quality assurance materials manufacturer may obtain design and quality assurance manual approval from a single DAPIA regardless of the number of plants in which the design and quality assurance manual will be followed. A manufacturer may also obtain approval for the same design and quality assurance manual from more than one DAPIA. The choice of which DAPIA or DAPIAs to employ is left to the manufacturer.

(b) The manufacturer shall submit to the DAPIA such information as the DAPIA may require in order to carry out design approvals. This information shall, except where the manufacturer demonstrates to the DAPIA that it is not necessary, include the following:

(1) Construction drawings and/or specifications showing structural details and layouts of frames, floors, walls and roofs, and chassis; material specifications, framing details, door locations, etc., for each floor plan proposed to be manufactured,

(2) Structural analysis and calculations, test data and/or other accepted engineering practices used by the manufacturer to validate the design,

(3) Complete heat loss calculations for each significant variation of home design,

(4) Floor plans showing room arrangement and sizes, window sizes, emergency exits and locations, locations of smoke alarms, fixed appliance range hoods, and other standards related aspects of the manufactured home that can be shown on the floor plans,

(5) Diagrams of the fuel supply system, potable water system and drain, waste and vent systems. The diagrams shall specify the types of materials used, types of fittings and methods of installing required safety equipment,

(6) Wiring diagrams, including circuit allocation of electrical load and branch circuit calculations, a table of the branch circuit protection provided, the type of wiring used, and wiring methods,

(7) Details showing the design of air supply and return systems,

(8) Details of chassis construction, components, connections and running gear including rating capacities of tires,

(9) A list of fixed and portable appliances furnished with the manufactured home, including type of appliance, rating of appliance, and applicable minimum and maximum performance ratings and/or energy requirements,

(10) Detailed manufacturer installation instructions including specifications and procedures for the erection and hook-up of the home at its permanent location, and

(11) Reports of all tests that were run to validate the conformance of the design to the standards.

(c) The manufacturer shall submit to the DAPIA such information as the DAPIA may require in order to carry

out quality assurance manual approvals. At a minimum, this information shall include the quality assurance manual for which approval is sought. That manual shall include the manufacturer's quality assurance program, an organizational chart showing the accountability, by position, of the manufacturer's quality control personnel, a description of production tests and test equipment required for compliance with the standards, a station-by-station description of the manufacturing process, a list of quality control inspections required by the manufacturer at each station, and identification by title of each person who will be held accountable for each quality control inspection.

(d) Manufacturers may be required to furnish supplementary information to the DAPIA if the design information or the quality assurance manual is not complete or if any information is not in accordance with accepted engineering practice.

(e) When a manufacturer wishes to make a change in an approved design or quality assurance manual, the manufacturer shall obtain the approval of the DAPIA which approved the design or manual prior to production for sale. The procedures for obtaining such approval are set out in §3282.361.

(f) The information to be submitted to a DAPIA under §3282.203 (b) and (c) may be prepared by the manufacturer's staff or outside consultants, including other DAPIAs. However, a DAPIA may not perform design or quality assurance manual approvals for any manufacturer whose design or manual has been created or prepared in whole or in part by members of the DAPIA's organization or of any affiliated organization.

(g) Each manufacturer shall maintain a copy of the drawings, specifications, and sketches from each approved design received from a DAPIA under §3282.361(b)(4) in each plant in which manufactured homes are being produced to the design. Each manufacturer shall also maintain in each manufacturing plant a copy of the approved quality assurance manual received from a DAPIA under §3282.361(c)(3) that is being followed in the plant. These materials shall be kept current and shall be readily accessible for use by the Secretary or other parties acting under these regulations.

[41 FR 19852, May 13, 1976, as amended at 67 FR 12818, Mar. 19, 2002]