Application Procedures

- *A nonrefundable $25 application fee is due at the time of application
- *A nonrefundable $40 plan review fee is due at the time of application
- Submit a zoning permit from your township (necessary in most townships)
- Building Permit Fees (to be paid at the time the permit is issued)
  - $75 base fee plus $3 per 100 sq ft
  - $50 base fee plus $3 per 100 sq ft (for electric, if applicable)
- *All fees (plan review, application and permit fees) will be assessed a 1% fee collected on behalf of the Ohio Board of Building Standards.
- Health Department site plan approval for properties with well and septic systems

Plan Submittals
(Two complete sets must be submitted)

- Site plans showing pole building, lot lines, other structures on the property, septic system and well location
- Submit floor plans (for each floor if applicable) will show pole locations, hole footing diameters, beam locations, all partitions or support for structure above and all header sizes.
- Window and door openings must be shown
- A wall section showing the footing, poles, horizontal wall supports, wall coverings, top beams, trusses or rafters and joists and roof sheathing and/or roof coverings and knee bracing
- The footing size large enough to support the loads above must be shown, see table 324.3
- The plan should show all fastening of all structural members adequate to support the loads to be placed on them, see table 324.4.7
- The method of wind bracing must be shown
- If engineered trusses are to be used a note indicating this should be placed on the plans and the engineer stamped truss drawings made available at the structural inspection.
- The design loads to be used for sizing structure are as follows:
  - 48” Minimum from finished grade to top of pole footing per RCO 324.3
  - Soil bearing capacity; min1500 lbs. per sq. ft. without soils test
  - Roof snow load or live load 20 lbs. per sq. ft
  - Wind speed 90 mph
  - Rafter or truss top chord dead load 10 lbs. per sq. ft.
  - Ceiling joist or truss bottom chord dead load 10 lbs. per sq. ft.
  - Ceiling joist or truss bottom chord live load 20 lbs. per sq. ft. and deadload of 10 lbs per sq. ft. See table 301.5.
- Garage floors must be concrete and sloped per Table 309.1 of the 2013 RCO

TO SCHEDULE AN INSPECTION

Call (937) 645-3019

You must have your building permit # and address to schedule inspections
SECTION 324
POST FRAME ACCESSORY STRUCTURES

324.1 Post frame accessory structures. The following requirements serve as minimum standards for post and frame structures within all of the following structural limitations:

1. Residential accessory structures,
2. Single story,
3. Solid exterior structural sheathing or metal roof, and solid wall panels,
4. No attic storage (attic storage would require engineered design trusses),
5. Maximum building width of thirty six feet including the overhang,
6. Maximum wall height of sixteen feet,
7. Maximum mean roof height of twenty feet, and
8. Maximum post spacing of eight feet (unless truss sits directly on post).

Post and frame structures and portions thereof outside the above structural limitations of this standard shall be accompanied by structural calculations as required by the residential building official or designed under the provisions of Section 116.2 of the Residential Code of Ohio (RCO). Post and frame structures shall comply with the structural design requirements of Section 301 of the RCO.

324.2 Definition. Post frame accessory structures consist of primary members (wood posts, beams & single span roof trusses or ceiling joists and. rafters) and secondary members (wood roof purlins, wall girts, bracing & sheathing) where all loads are transmitted from the sheathing and the secondary members to the primary members which transfer all combined loads to the soil through vertical posts bearing on footings embedded in the ground. See Figure 324.

324.3 Footings and foundations. Footings and foundations shall comply with applicable provisions of Section 401. Post frame structures shall have poured in-place concrete footings installed below all posts. The top of the footing shall be a minimum of 48 inches below finished grade and have footing diameters complying with Table 324.3.

| TABLE 324.3 |
| POST FRAME PIER FOOTING DIAMETERS a,b,c,d |
| Building width (length of truss) including overhang (feet) | 24 | 28 | 32 | 36 |
| Diameter (inches) | 20# roof snow load | 18 | 20 | 22 | 22 |
| Diameter (inches) | 30# roof snow load | 18 | 22 | 24 | 26 |

- Pier footing thickness shall be a minimum one-half of the diameter of the footing.
- Based upon 2000 PSF soil bearing capacity and truss loads of 20 or 30 PSF live or snow load top chord, 10 PSF dead load top chord, 5 PSF dead load on the bottom chord with no live load on the bottom chord.
- Fractional widths shall be rounded to the next higher pier footing diameter.
- Table not to be used in Ohio case study areas.

324.4 Column and wall construction. Columns shall be three (3) ply unspliced, reinforced spliced or solid wood and shall not be less than 4 inch by 6 inch nominal size. Columns shall comply with the requirements of Section 319 and shall be restrained to prevent lateral displacement.

324.4.1 Uplift protection. Columns shall have uplift protection by the following methods:
1. Two 2 x 6 x 12 inch column uplift protection blocks attached to each side of the base of the column. The column uplift blocks shall be placed horizontally, attached per Table 324.7 and comply with Section 319;
2. 12 inch high, concrete collar poured on top of footing around the post, with 2-1/2 x 9 inch rebar placed through the post at 3 inches and 9 inches from bottom of post in opposite directions. The rebar ends must be 3/4 inches from the soil. See Figure 324.1; or
3. Each truss or rafter must have an uplift hanger as per Figure 324.

324.4.2 Column spacing. The maximum spacing for columns shall be (eight) 8 feet on center (unless truss sits directly on post).

324.4.3 Skirt boards. Skirt boards shall be treated lumber meeting the requirements of Section 319 and attached per Table 324.7.

324.4.4 Wall girts. Wall girts shall be not less than 2x4 inches nominal and spaced not more than twenty-four (24) inches on center.

324.4.5 Load bearing beams and headers. Load bearing beams and headers shall comply with Table 502.5.(1).

Exceptions:
1. Bearing beams are not required if the trusses or ceiling joists and rafters bear directly on the columns.
2. Openings on the gable end walls supporting a door or roof total load not exceeding 25 square feet per lineal feet of wall area that require beams or headers must be sized per Table 324.4.5.
324.4.6 Bracing. Wall bracing shall be provided to resist all racking and shearing forces and must comply with the applicable provisions of Section 602.10 or by installing 2 X 6 diagonal braces between two adjoining columns at 8 feet on center or multiple spacing totaling a minimum 8 feet on center where the post spacing design is less than 8 feet on center. The diagonal brace shall be placed from the top header or girt to the next adjoining column at the skirt board. The bracing shall be placed or installed on each side of the building and shall be minimum of 25 feet on center and within 12 feet of the end of the building and attached to the wall girts and columns per Table 324.7. Any splices of the diagonal brace required due to excessive length, must lap over two consecutive wall girts.

324.4.7 Beams supporting trusses or rafters and ceiling joists attachment to columns. Bearing beams supporting roof trusses or rafters and ceiling joists shall be connected to the columns by one of the following methods:

1. Bolts that are 1/2 inch diameter through-bolted to the side of the column;
2. Bolts that are 1/2 inch diameter, directly attached to a 3-ply column net, enclosing the truss or rafter at the top of column; or
3. Other fasteners with minimum shear or withdraw values stated in Table 324.4.7.
324.4.7.1 Number of fasteners. The minimum numbers of through bolts or other fasteners with minimum shears or withdraw values required per Table 324.4.7.

<table>
<thead>
<tr>
<th>Shear or withdraw (pounds) 20 lb. snow load</th>
<th>Building Width (Length of Truss) including overhang (feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>24</td>
</tr>
<tr>
<td>Shear or withdraw (pounds) 30 lb. snow load</td>
<td>3360</td>
</tr>
<tr>
<td>Number of Bolts, 20 lb. snow load</td>
<td>2</td>
</tr>
<tr>
<td>Number of Bolts, 30 lb. snow load</td>
<td>4320</td>
</tr>
</tbody>
</table>

Table 324.4.7: BEAM OR TRUSS CONNECTION AT COLUMNS MINIMUM FASTENERS OR TOTAL SHEAR OR WITHDRAW VALUES

324.5 Roof purlins. Roof purlins shall be a minimum of 4 x 2 SPF framed flat for spans up to 4 feet, and 4 x 2 SPF framed on edge for spans up to 8 feet.

324.6 Knee bracing. A 2 x 6 brace shall extend from the column to the top chord of the truss or rafter adjacent to the post at a 45 degree angle. The vertical distance down from the bottom chord of the truss or ceiling joist to the point where the brace attaches to the columns shall be in compliance with Table 324.5 as shown on Figure 324. Trusses or rafters must be spaced such that they align with the column intervals. Attachment of knee brace shall be per Table 324.7.

324.7 Attachment details. Structural fastener details for post and frame buildings shall comply with Table 324.7.

324.8 Roof trusses. Engineered roof trusses, where used, shall be accompanied by drawings sealed by the registered design professional responsible for their preparation and shall be submitted to the residential building official for approval prior to the framing inspection.

### Table 324.6: Knee Brace Vertical Distance

<table>
<thead>
<tr>
<th>WALL HEIGHT</th>
<th>VERTICAL DIMENSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>8'-0&quot; and 9'-0&quot;</td>
<td>1&quot;</td>
</tr>
<tr>
<td>10'-0&quot; and 11'-0&quot;</td>
<td>2&quot;</td>
</tr>
<tr>
<td>12'-0&quot; and 13'-0&quot;</td>
<td>3&quot;</td>
</tr>
<tr>
<td>14'-0&quot; through 16'-0&quot;</td>
<td>4&quot;</td>
</tr>
</tbody>
</table>

### Table 324.7: Structural Fasteners

<table>
<thead>
<tr>
<th>Description of Building Element</th>
<th>Number and Type of Fastener</th>
<th>Attachment Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uplift blocking to column</td>
<td>5-16d Hot Dipped Galvanized</td>
<td>Each block</td>
</tr>
<tr>
<td>Skirt board to column</td>
<td>2-16d Hot Dipped Galvanized</td>
<td>Face nail</td>
</tr>
<tr>
<td>Wall gir to column</td>
<td>2-16d Hot Dipped Galvanized</td>
<td>Face nail</td>
</tr>
<tr>
<td>Diagonal bracing to column</td>
<td>2-16d Hot Dipped Galvanized</td>
<td>Face nail</td>
</tr>
<tr>
<td>Diagonal bracing to skirt boards</td>
<td>2-10d Hot Dipped Galvanized</td>
<td>Face nail</td>
</tr>
<tr>
<td>Diagonal bracing to wall girts</td>
<td>2-16d</td>
<td>Face nail</td>
</tr>
<tr>
<td>Knee brace to column</td>
<td>3-16d Hot Dipped Galvanized</td>
<td>Face nail</td>
</tr>
<tr>
<td>Knee brace to top chord of truss or rafter</td>
<td>3-10d</td>
<td>Face nail</td>
</tr>
<tr>
<td>Knee brace to bottom chord of truss or ceiling joist</td>
<td>3-10d</td>
<td>Face nail</td>
</tr>
<tr>
<td>Roof purlin to truss or rafter with span of 2' or 4'</td>
<td>2-16d</td>
<td>Face nail</td>
</tr>
<tr>
<td>Roof purlin to truss or rafter with span of 8'</td>
<td>Mechanical fastener with uplift protection greater than 225 lbs.</td>
<td>Per manufacturer Installation manual</td>
</tr>
</tbody>
</table>

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