

Village of Round Lake Building Department



442 North Cedar Lake Road • Round Lake, IL 60073 • 847-546-0963 • Fax 847-546-1872

DECK REGULATIONS

This guide is not a substitute for any Village Ordinances or related documents, but is intended to supplement their use. Always consult the appropriate Village Ordinances for more detailed information.

Approved building permits become invalid unless work commences within 180 days of the issue date or when no inspections have been conducted within 180 days. .

Call JULIE at 811 for location of utilities prior to digging.

No change to the approved plans is authorized without prior written approval by the code official and only the approved submitted documents are authorized by the issuance of the permit.

Permit application guidelines:

Please submit the following to the Round Lake Building Department for the plan review:

- Building permit application.
- Homeowner's Association approval letter if applicable.
- Two copies of the plat of survey dimensionally locating the deck with respect to the property lines and any buildings on the site.

Two copies of the deck plans drawn to scale, include the following:

- A Plan view (see figure 8 for example) of the deck showing post, joist and beam placement. The plan view shall indicate all electrical lines, meter locations, pedestals, windows, and window wells, exhaust vents or other items located within the construction area.
- Elevation view as seen from the sides and front. (see figure 1 and 6 for examples)
- Details drawings of the stairs, hand rail, and guardrails.
- Detail drawing showing the attachment to the house including the flashing.
- Complete material list, including all lumber, fasteners, and connectors.

Drawings must indicate all dimensions, be neat, readable, and to scale (1/4 inch to one foot preferred).

Deck location:

1. Decks are not allowed to be constructed in a drainage or utility easement.
2. Decks shall be maintained in the same side yard setbacks as is required for the principle structure.
3. Overhead utility lines shall be at least 10 feet above any fixed surface and not closer than 3 feet from any edge of the deck.
4. Deck shall not block any required egress windows, service equipment, or vents. Planning should include a review of all hazards including window locations.
5. Observe location of all windows and glass doors.
6. For decks in which mowing under may be difficult, vegetation should be removed and the area covered with a landscape fabric and gravel.

Construction guidelines:

1. Materials required: Decks shall be constructed using approved treated wood, naturally decay resistant wood (redwood, cedar, or similar product) or listed and approved composite products. Nail and screws: Use only approved corrosion resistant fasteners such as stainless or hot dipped galvanized. Aluminum is not allowed in contact with treated wood products.
2. Pier holes shall be a minimum of 42 inches below grade and filled with concrete. A minimum 8 inch anchor bolt is required to be placed in the concrete pier. Posts are not to be installed below grade. Minimum post size shall be 4 inches by 4 inches. Minimum pier foundation diameter shall be 10 inches. All post to beam connections shall be made with galvanized or other approved corrosion resistant framing connectors. Pre-cast concrete pads placed on top of finished grade for deck supports are not permitted. See figure 7 for post connection to foundation.
3. All decks shall be designed to support a live load of 40 pounds per square foot.
4. When the deck is attached to the house: All connections between the deck and dwelling shall be flashed. Flashing shall be provided using a corrosion resistant material. Aluminum is not allowed in contact with treated wood products. Ledger board shall be attached as prescribed in Table 502.2.2.1 below or other methods approved by the Building Official. Joists must be attached to the ledger board with joist hangers.

TABLE R502.2.2.1
FASTENER SPACING FOR A SOUTHERN PINE OR HEM-FIR DECK LEDGER
AND A 2-INCH NOMINAL SOLID-SAWN SPRUCE-PINE-FIR BAND JOIST^{c, f, g}
 (Deck live load = 40 psf, deck dead load = 10 psf)

JOIST SPAN	6'-0" and Less	6'-1" to 8'-0"	8'-1" to 10'-0"	10'-1" to 12'-0"	12'-1" to 14'-0"	14'-1" to 16'-0"	16'-1" to 18'-0"
Connection Details	On-Center Spacing of Fasteners ^{d, e}						
1/2" diameter lag screw with 15/32" maximum sheathing ^a	30	23	18	15	13	11	10
1/2" diameter bolt with 15/32" maximum sheathing	36	36	34	29	24	21	19
1/2" diameter bolt with 15/32" maximum sheathing and 1/2" stacked washers ^{b, h}	36	36	29	24	21	18	16

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square foot = 0.0479kPa.

- A. The tip of the lag screw shall fully extend beyond the inside face of the band joist.
- B. The maximum gap between the face of the ledger board and face of the wall sheathing shall be 1/2".
- C. Ledgers shall be flashed to prevent water from contacting the house band joist.
- D. Lag screws and bolts shall be staggered in accordance with Section R502.2.2.1.1.
- E. Deck ledger shall be minimum 2" x 8" pressure-preservative-treated No.2 grade lumber, or other approved materials as established by standard engineering practice.
- F. When solid-sawn pressure-preservative-treated deck ledgers are attached to a minimum 1 inch thick engineered wood product (structural composite lumber, lami-nated veneer lumber or wood structural panel band joist), the ledger attachment shall be designed in accordance with accepted engineering practice.
- G. A minimum 1 x 9 1/2 Douglas Fir laminated veneer lumber rimboard shall be permitted in lieu of the 2-inch nominal band joist.
- H. Wood structural panel sheathing, gypsum board sheathing or foam sheathing not exceeding 1 inch in thickness shall be permitted. The maximum distance between the face of the ledger board and the face of the band joist shall be 1 inch.

5. Refer to figures 2, 3, and 4 for ledger board fastening pattern.
6. Cantilevers, overhanging joist and beams: Joist should not cantilever past beams by more than two feet, nor should beams overhang post by more than one foot unless a special design is approved.
7. Posts shall not be notched more than 25% of the required thickness. Beams and joist shall not be notched more than one sixth of their required depth.
8. Decks located more than 18 inches above grade shall be provided with a guardrail not less than 36 inches in height. Balusters shall be spaced so that a 4 inch sphere cannot pass through. All guardrails, regardless of the deck height, shall be a minimum of 36 inches high. (See Figure 1 for examples of guardrail examples.)
9. Open sides of stairs with a rise of 18 inches or more shall have guardrails not less than 34 inches in height measured vertically from the nosing of the treads. Balusters along stairway shall be spaced so that a 4-3/8 inch sphere cannot pass through.
10. Decks with 3 or more risers require a handrail on at least one side of the stairs.
11. Handrail height, measured vertically from the sloped plan adjoining the tread nosing, or finish surface of ramp slope, shall not be less than 34 inches and not more than 38 inches. (see figure 6)
12. Handrail grip size. Handrails with a circular cross section shall have an outside diameter of at least 1 1/4 inches and not greater than 2 inches. If the handrail is not circular it shall have a perimeter dimension of at least 4 inches and not greater than 6 1/4 inches with a maximum cross section of dimension of 2 1/4 inches. (see figure 5 for examples)

13. Handrails must be continuous for full length of flight, from a point directly above the top riser to a point directly above the lowest riser. Handrail ends shall be returned or terminated at newel posts.
14. The stair risers shall not vary more than 3/8" from the smallest to the greatest. Maximum stair riser is 7 3/4 inches. Minimum stair tread is 10 inches.
15. Open risers are permitted provided that the opening between treads does not exceed or permit the passage of a 4" diameter sphere.
16. The opening between adjacent treads is not limited on stairs with a total rise of 30" or less.
17. All stairways shall be provided with landings the width of the stairs and at least 36 inches in the direction of travel, measured from the nosing of the last tread.
18. Stairway shall be provided with illumination.

Required Inspections:

**CALL THE BUILDING DEPT. AT 847-546-0963 FOR INSPECTIONS
24 HOURS NOTIFICATION REQUIRED PRIOR TO INSPECTION**

1. Piers inspection: after the holes for the piers are dug and prior to pouring any concrete.
2. Rough inspection: after the deck is framed and prior to installing decking.
3. Final inspection: when the deck is completed.

It is the contractor's and ultimately the owner's responsibility to know the village code provisions. The owner or his agent is responsible for constructing all permitted work in compliance with village codes. Failure to identify any aspect of the proposed design not in compliance with the village code during plan review does not relieve the owner of the obligation to achieve full village code compliance. The Code Official cannot list all code sections on the drawings or documents.

Additional Resources:

The following websites may provide additional information to assist you with your deck project.

1. Prescriptive deck construction based on the 2006 building code:
<http://www.awc.org/Publications/DCA/DCA6/DCA6-09.pdf>
2. Stairway construction and specifications based on the 2006 building code:
<http://www.stairways.org>

Illustrated Examples

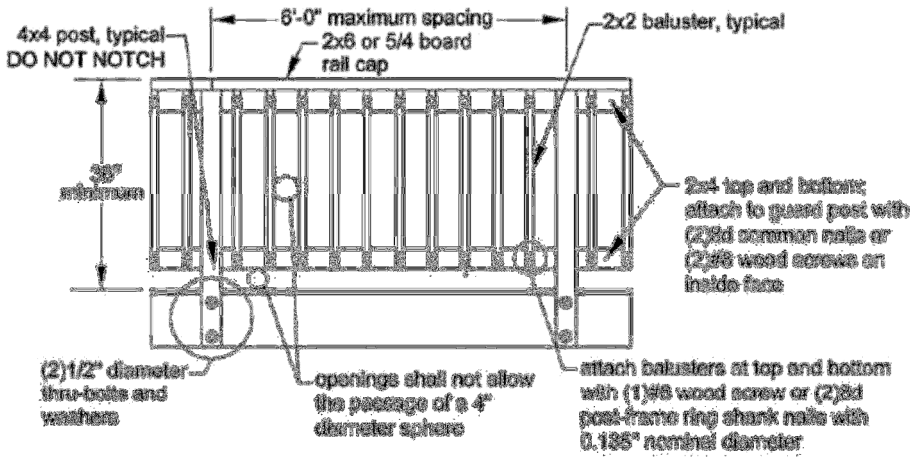


Figure 1

HANDRAIL CIRCULAR
1-1/4 MIN / 2IN. MAX
DIAMETER

HANDRAIL THAT IS NOT
CIRCULAR MUST HAVE A
PERIMETER OF 4 IN. MIN /
6-1/4 IN. MAX WITH A
MAXIMUM CROSS SECTION
OF 2-1/4 INCHES

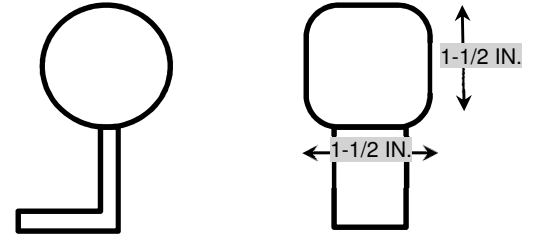


Figure 5

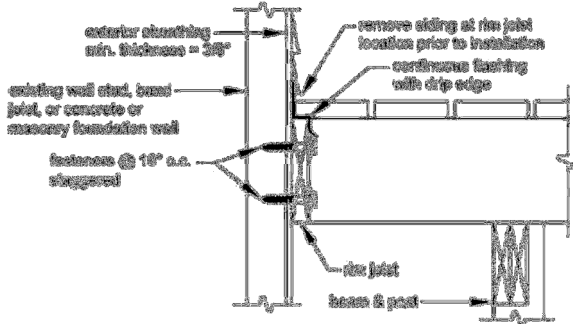


Figure 2

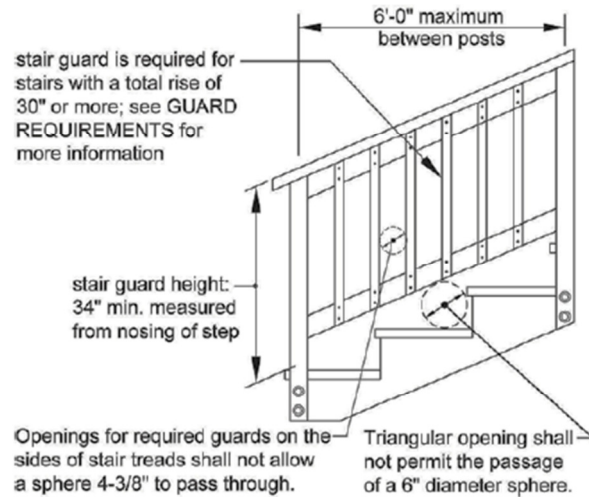


Figure 6

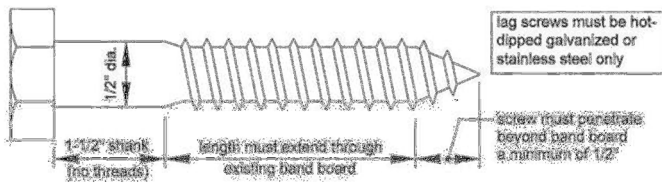


Figure 3

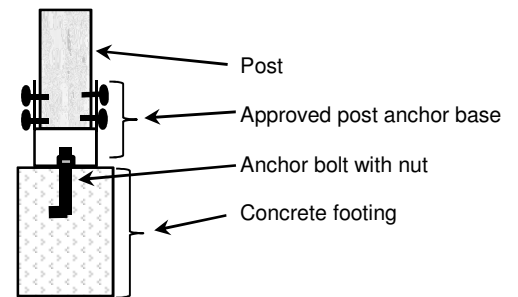


Figure 7

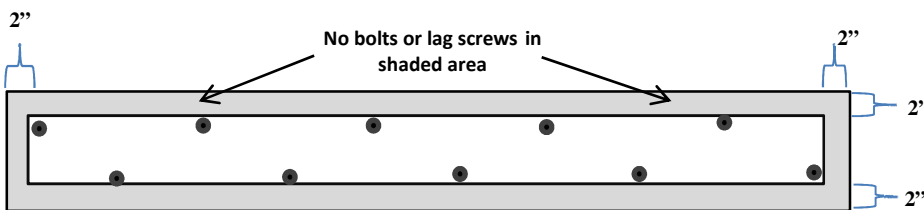


Figure 4

Bolts or lag screws staggered high/low
with on-center spacing in accordance with
table R502.2.2.1

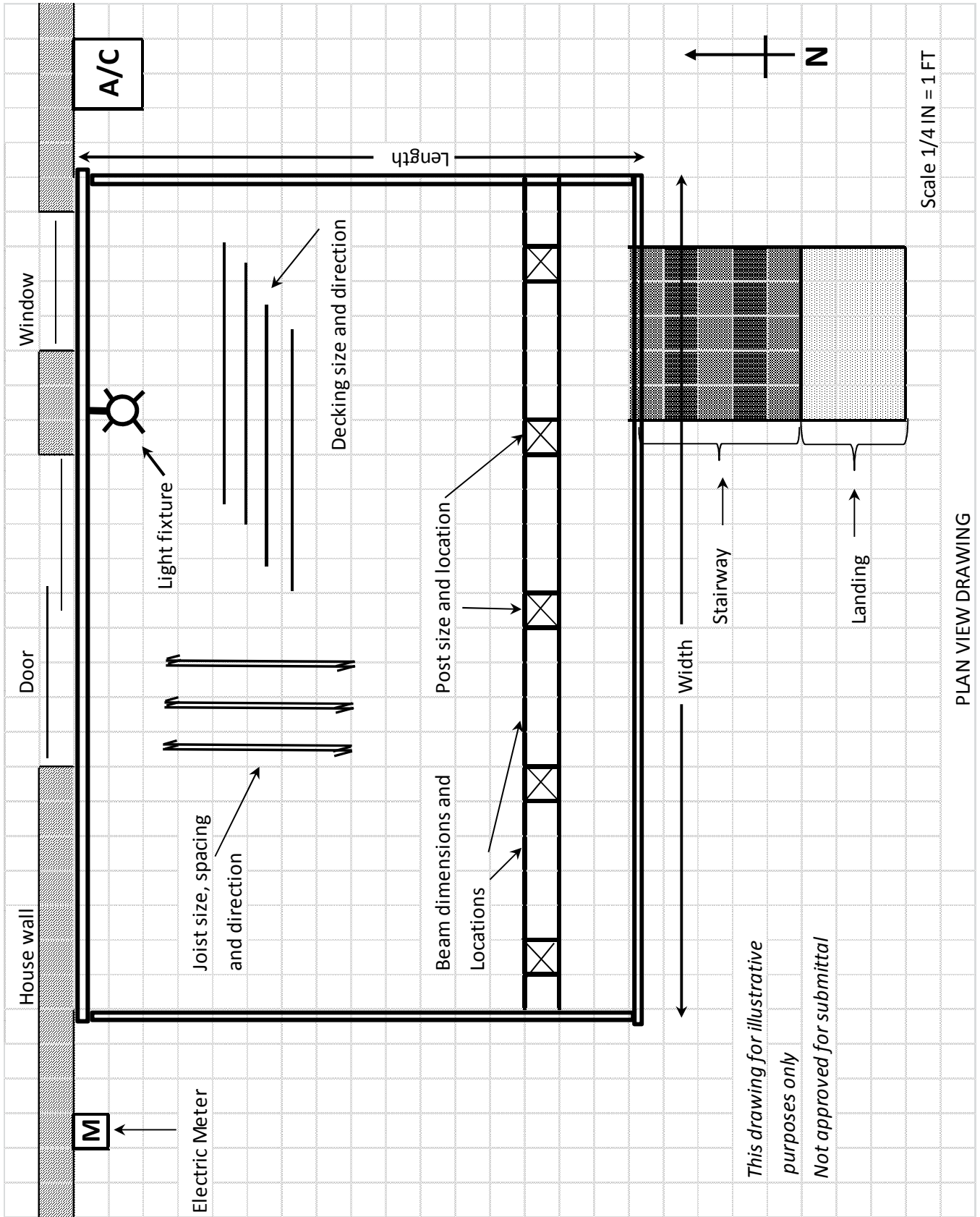


Figure 8