CITY OF LAUREL DECK PERMIT APPLICATION

This booklet provides the homeowner and the contractor with information on obtaining a deck permit in the City of Laurel. Questions should be referred to the Office of the Fire Marshal.

■ APPLICATION PROCESS

The first step in the process is to obtain the deck permit guidelines and application from the Office of the Fire Marshal at the Laurel Municipal Center. It is important that the applicant do this before beginning any construction because building and zoning codes differ between jurisdictions and periodically change. Work completed prior to a plan review by the City may not meet City Code and may need to be redone.

The details of the deck design should be prepared following the guidelines for plan drawings and structural elements that are provided in this booklet.

The next step is to get the approval for the deck from other required regulatory bodies, such as a homeowners' association. Some decks will need a variance from the City Board of Appeals if they do not meet required setbacks, and others may require a permit from the Historic District Commission if the site is in the Historic District.

The final step is the submission of the **complete** application, with the appropriate fee and requirements listed on page 2, to the Office of the Fire Marshal. The plans are then forwarded to a planner for their review and then to the Chief Building Official for structural review. When the permit is ready, the applicant is contacted by phone.

■ CONTRACTOR'S OBLIGATION

If a contractor will be building the deck, the application must include the builder's Maryland Home Improvement Commission License number. Complex or nonstandard designs may require the stamp of a Maryland registered engineer or architect.

■ QUALITY OF CONSTRUCTION

Although safety is the primary concern, the structural design, workmanship, and quality of construction materials are all subject to review by the City's building inspectors. Field changes to permit drawings must

be approved before including the changes in the construction. Any other conditions placed on the permit must also be met.

■ SUBMISSION CHECKLIST FOR DECK PERMIT

The complete application should include the following:

- Application for Deck Permit
- Application Fee
- Maryland Home Improvement Commission License information (if applicable)
- House Location Plat with deck drawn to scale (2 copies)
- Historic Area Work Permit (if applicable)
- Board of Appeals Resolution (if applicable)
- Plan drawings (two sets) **HOME DEPOT AND LOWES PLANS ARE NOT ACCECPTABLE**
- Elevations
- Plan View

Plans should include:

- Overall deck size
- Beam size and spacing
- Spacing between house and beam
- Post size and spacing
- Height of deck above grade
- Joist size and spacing
- Joist connection to ledger and beam
- Footing size, depth and method (see example)
- Ledger attachment to house
- Boltsize, types and spacing
  - at house
  - at post/beam
  - at guardrail
- Nailtypes (i.e., galvanized)
- Sizeand type of decking
- Size and spacing of guardrail posts
- Size, type and spacing of guardrail pickets or enclosures
- Height of guardrail
- Sizeof guardrail top
- Cantilever length (beam overhang past post)
- Cantilever length (joist overhang past beam)
- Post/beam connection
- Type wood (e.g., pressure treated wood, approved hard wood)

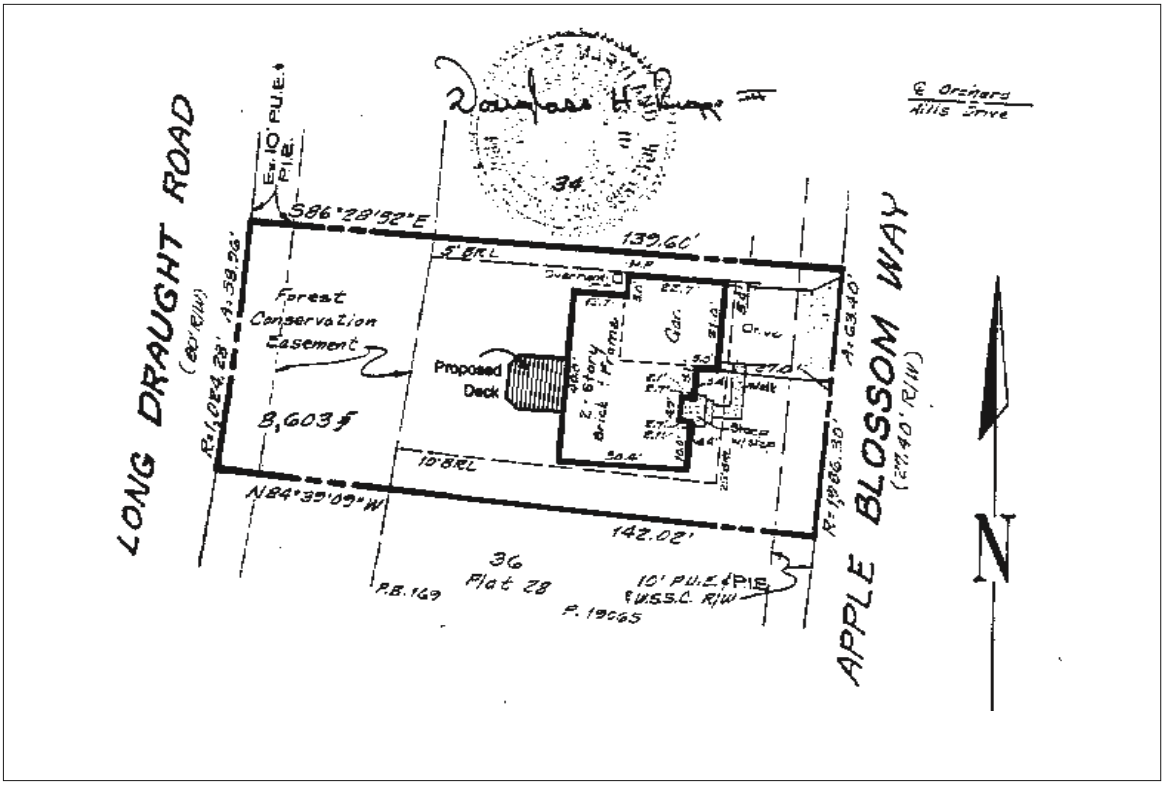
PLANS

Required materials to be submitted with the application include a copy of the house location plat and 2 sets of actual working drawings. Samples follow.

■ HOUSE LOCATION PLAT

An example of a house location plat is shown below. This plat is usually included with settlement documents received at the time the house is purchased. Copies of a house location plat can also be obtained from the Prince Georges Land Records Office.

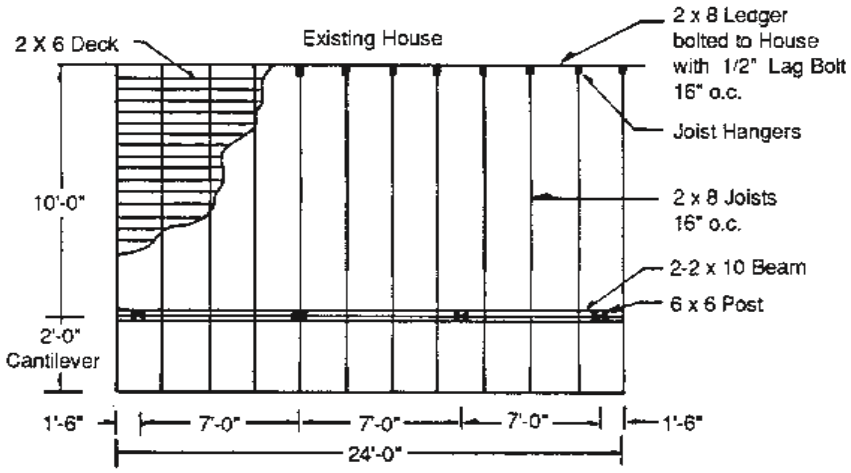
The deck must be drawn **to scale** on the house location plat, and **preferably in red**. Decks may not be built over easements and are subject to certain setback requirements. Should the deck encroach into a setback or required yard restriction, it will need a variance and the review of the Board of Appeals.



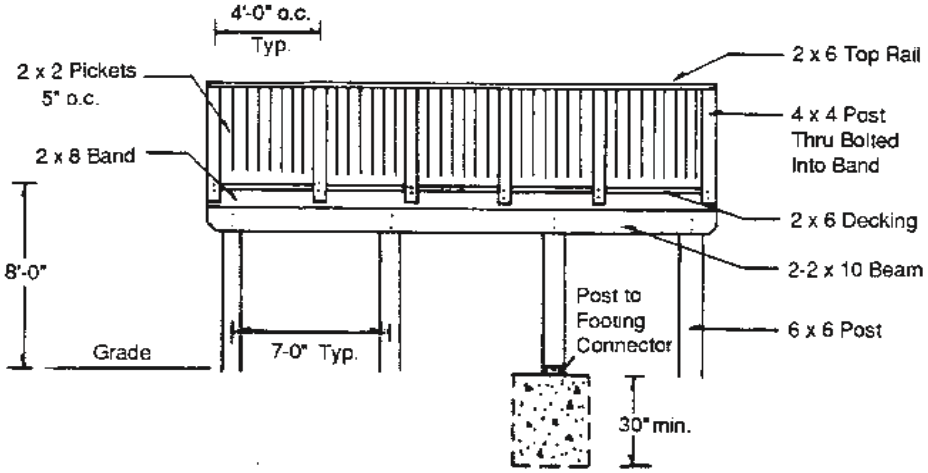
HOUSE LOCATION PLAT SAMPLE

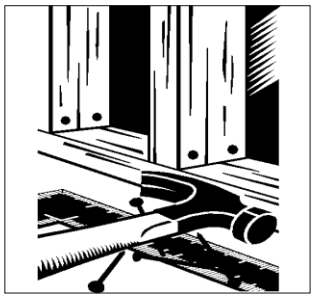
■ **PLAN VIEW: ATTACHMENT TO HOUSE MUST BE FIELD VERIFIED IF NOT FREESTANDING. ½" CARRIAGE BOLTS WITH NUTS AND WASHERS REQUIRED**

SAMPLE



■ **ELEVATION VIEW** **SAMPLE**





STRUCTURAL ELEMENTS

Detailed working drawings must be submitted with the application. The following pages provide guidelines for determining the size of structural elements. The checklist on page two identifies the details which should be included on the drawings to assure an accurate submission. Any questions should be referred to the Office of the Fire Marshal.

Decks constructed according to this handout are not approved for future hot tub installations.

■ DECK FRAMING

MAXIMUM SPANS FOR DECK JOISTS

Joist Size (inches)	Joist Spacing (inches) 12"	16"	24"
2 x 6	9' - 3"	8' - 0"	6' - 6"
2 x 8	12' - 3"	10' - 7"	8' - 8"
2 x 10	15' - 7"	13' - 6"	11' - 0"
2 x 12	18' - 0"	16' - 5"	13' - 5"

Note: (1) Above table is based on 60 pounds per square foot live load plus 10 pounds per square foot dead load.
(2) Lumber grade is Southern Pine No.2 or better, 1 percent moisture content.

Maximum Joist Cantilever

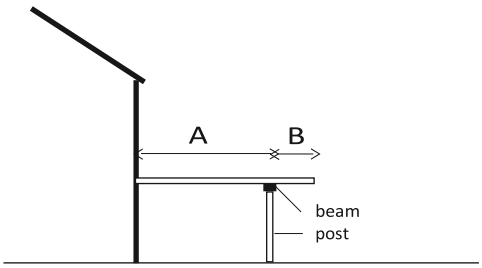
If joists are at maximum span, use 3:1 ratio to determine allowable cantilever; i.e., for every 3 feet out from the house, the cantilever length is 1 foot. The maximum cantilever cannot exceed 4 feet.

BEAM LOADING AND POST SPACING

Beam Size (inches)	Beam Loading (L) 4	5	6	7	8	9	10	11	12	13	14	15	16	Max. Beam Cantilever
	Maximum Post Spacing (feet)													
2 - 2 x 6	5	5	5	4	4	4	4	4	4	4	4	4	4	1' - 0"
3 - 2 x 6	7	7	6	6	5	5	5	4	4	4	4	4	4	1' - 3"
2 - 2 x 8	7	7	7	6	6	5	5	5	4	4	4	4	4	1' - 8"
3 - 2 x 8	9	9	8	8	7	7	6	6	6	5	5	5	5	2' - 0"
2 - 2 x 10	9	9	9	8	7	7	6	6	5	5	5	4	4	2 '- 0"
3 - 2 x 10	11	11	11	9	9	9	8	8	7	7	7	6	6	2' - 6"
2 - 2 x 12	11	11	10	10	8	8	8	7	7	6	6	5	5	2' - 6"
3 - 2 x 12	13	13	13	11	11	10	10	9	9	9	8	8	8	3' - 0"
4 - 2 x 6	8	8	7	7	6	6	5	5	5	5	4	4	4	1' - 6"
4 - 2 x 8	10	10	9	9	8	8	7	7	7	6	6	6	6	2' - 3"
4 - 2 x 10	12	12	12	11	11	10	9	9	8	8	8	7	7	2' - 3"
4 - 2 x 10	14	14	14	13	13	12	12	12	12	10	10	9	9	3' - 0"

TO DETERMINE BEAM LOADING AND POST SPACING

1. Single Beam Deck



To find beam loading (L) for a single beam deck, divide the distance A (house to middle of beam) by 2 and add the length of the cantilever.

L = (_____) + _____) ÷ 2
beam A B

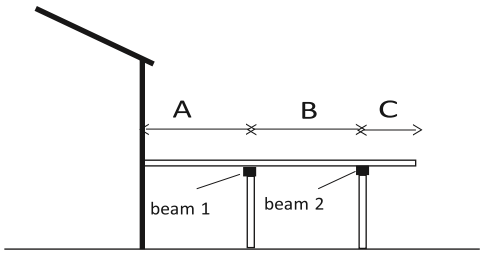
Example: If A = 10 feet and B = 2 feet, then L = 7.

(10 2) + 2 = ÷ 7

To find post spacing refer to BEAM LOADING AND POST SPACING table.

Example: If plans call for 2 - 2 x 10 beam, and L = 7, then the post spacing is a maximum of 8 feet.

2. Double Beam Deck



BEAM 1

To find beam loading (L) for beam 1, add the distances A (house to center of beam 1) and B (beam 1 to beam 2) and divide by 2.

L = (_____ + _____) ÷ 2

A: house to beam

B: beam to beam

Example: If A = 6 feet and B = 8 feet, then beam loading L = 7.

(6 + 8) ÷ 2 = 7

To find beam spacing refer to BEAM LOADING AND POST SPACING table.

Examples: If plans call for a 2 - 2 x 8 beam, and L = 7, then post spacing is a maximum of 6 feet. If the beam is 2 - 2 x 10, and L = 7, then post spacing is a maximum of 8 feet.

BEAM 2

To find beam loading (L) for beam 2, divide the distance B (beam1 to beam 2) by 2 and add the length of the cantilever (C).

L = (_____ ÷ 2) + _____

Beam loading

B: beam to beam

C: cantilever

Example: If B = 8 feet and C = 2 feet, then beam loading L = 6.

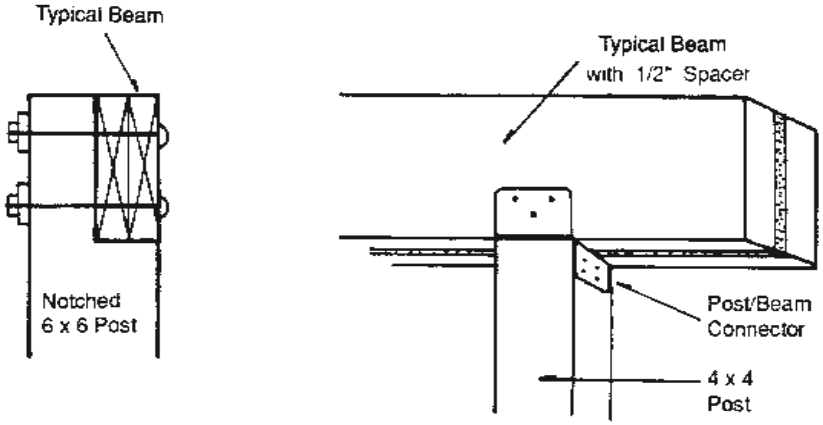
(8÷ 2) + 2 = 6

To find post spacing refer to BEAM LOADING AND POST SPACING table.

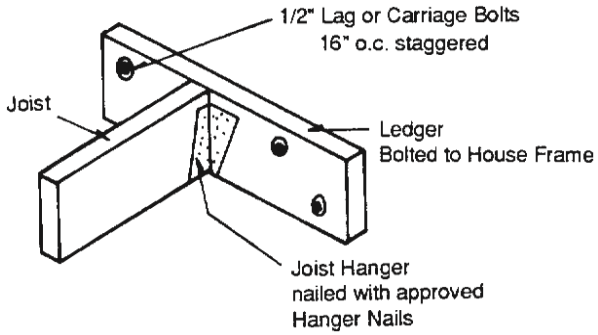
Examples: If plans call for a 2 - 2 x 8 beam, and L = 6, then the post spacing for beam B is a maximum of 7 feet.
If the beam is 2 - 2 x 10, and L = 6, then post spacing for beam B is a maximum of 9 feet.

■ FRAMING CONNECTIONS

POST/BEAM CONNECTION



JOIST/LEDGER CONNECTION



ATTACHMENT OF THE DECK TO THE HOUSE

Decks may not be attached to house cantilevers, bay windows, or chimneys, and must be securely fastened to structural components of the house. When attaching a deck to a house with manufactured wood joist or plywood band board, solid wood blocking must be installed behind the band board and the deck fastened with 1/2" carriage bolts through this blocking. If the house floor framing cannot be determined or if the band board is not accessible the deck shall be self-supported.

FLASHING

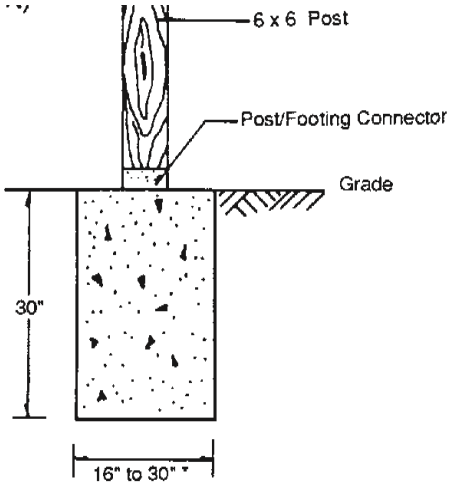
Flashing shall be installed where the deck attaches to a wall or floor system.

Note: ACQ (Alkaline Copper Quaternary) pressure treated lumber shall not be in contact with any materials made from or containing aluminum. **POSTS AND ANY OTHER FRAMING MEMBERS IN CONTACT WITH THE GROUND SHALL BE LABLED "FOR GROUND CONTACT"**

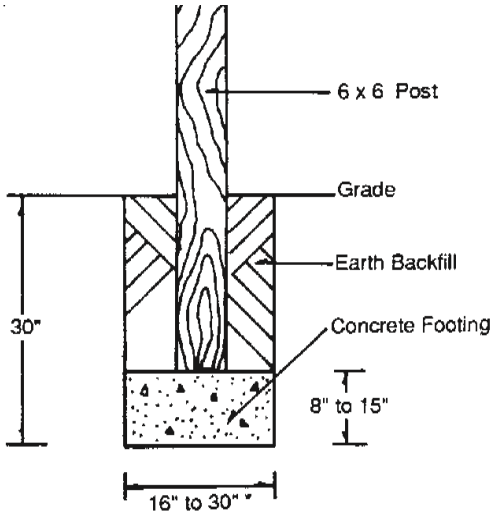
HEADERS

Deck framing around a bay window or chimney will require the use of a header beam. Headers must be doubled and attached to double joists with approved heavy duty beam hangers. In general, properly constructed headers may span six feet unsupported by posts.

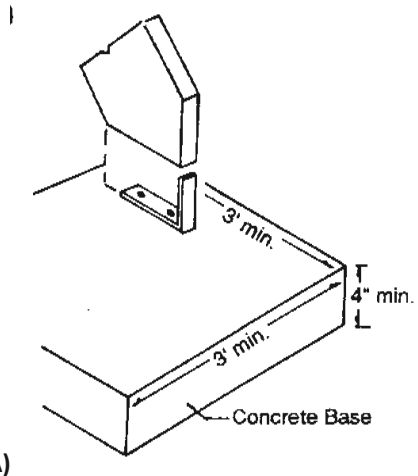
■ FOOTINGS



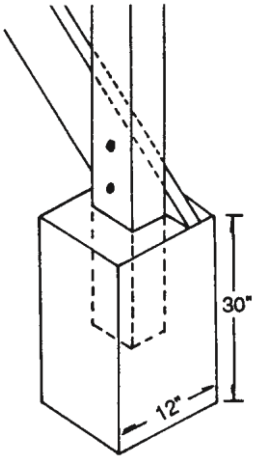
MAIN DECK FOOTINGS **A)** **B)**



* Footing width dependent on deck design.



LANDING AND STAIR FOOTINGS **A)** **B)**



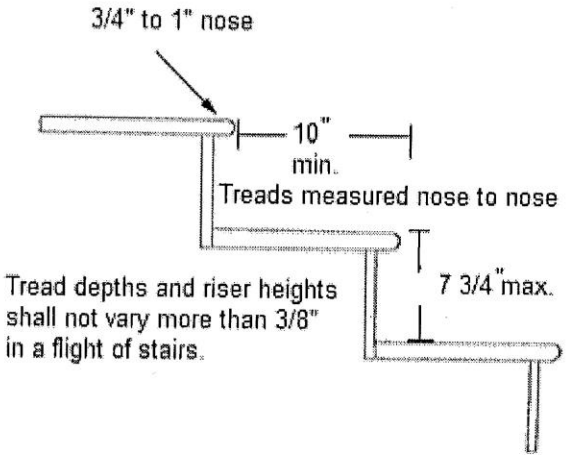
Landing and stair footings may be reduced to 12" x 12" x 8".

■ STAIR LANDING OPTIONS

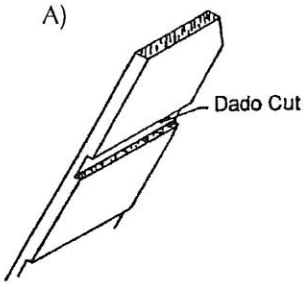
Attach stringer to concrete landing Set bottom handrail post as shown or set stringer into cement into 12" x 30" footer.

■ STAIR STRINGER

DIMENSIONS AND DESIGN OPTIONS



A)



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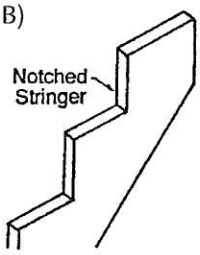
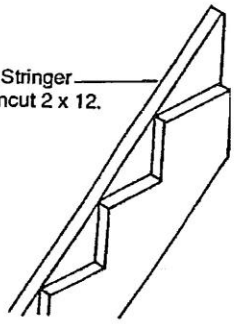


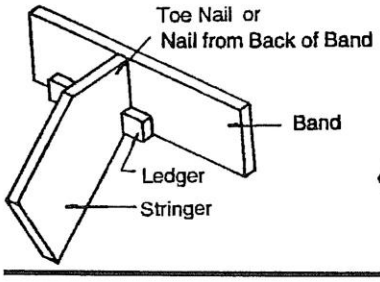
C)



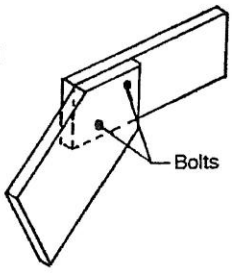
This method eliminates need for intermediate posts on 3-foot wide stairs to second story decks.

ATTACHMENT TO DECK OPTIONS

A)



B)



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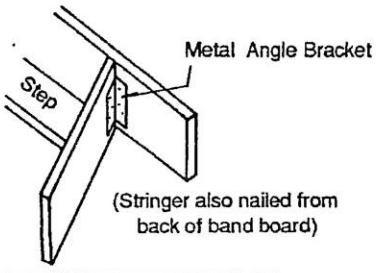
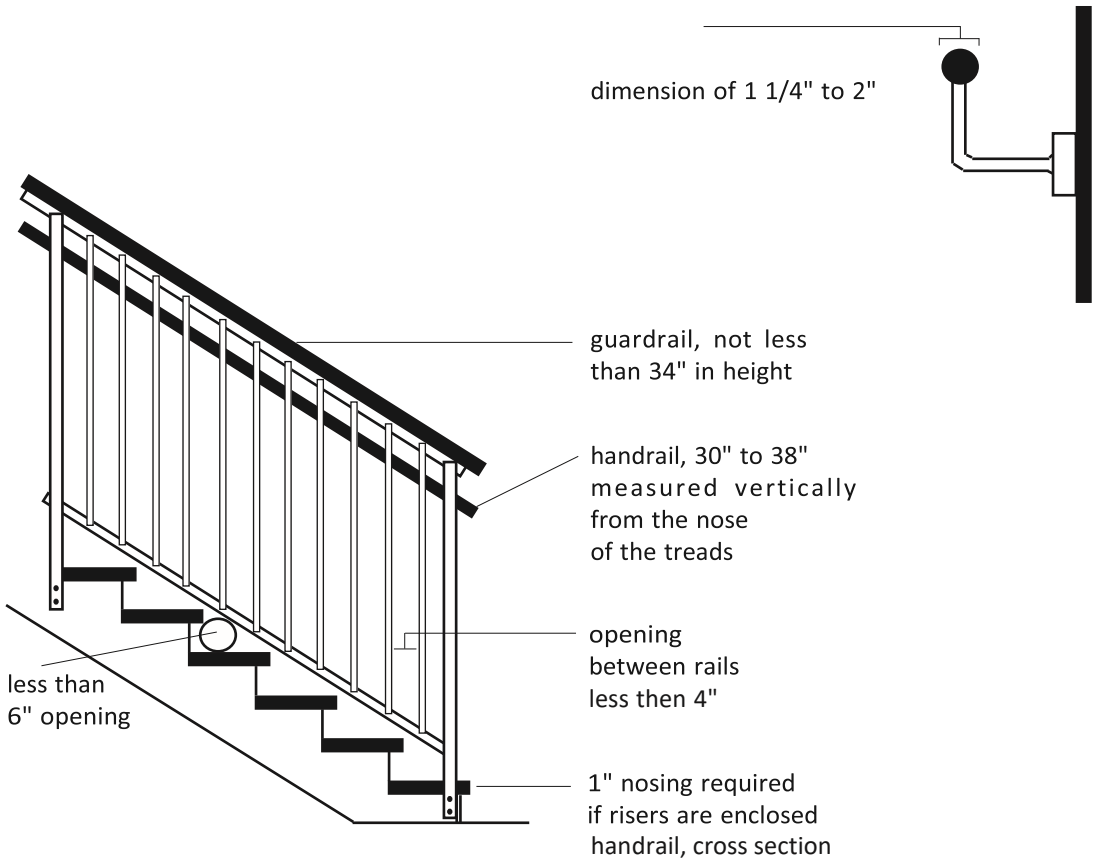


■ RAILINGS AND GUARDRAILS

Handrails shall be installed on stairs with three or more risers. The handrail height shall be between 30 and 38 inches measured vertically from the nose of the treads. Handrails shall be graspable with a cross section dimension of 1 1/4 inches to 2 inches.

Guardrails are required on decks constructed 30 inches or more above grade. The required guardrail height is 36 inches measured from the floor of the deck. Openings in the rails should not allow the passage of a 4-inch or larger diameter object. Guardrails shall be constructed to withstand a 200-pound horizontal load. Lattice and other similar designs may not be able to withstand a 200-pound load and may be subject to evaluation by an engineer hired by the permit applicant. Guardrails shall not have an ornamental pattern that would provide a ladder effect.

Open sides of stairs 30 inches or greater from grade shall have a guardrail not less than 34 inches in height measured vertically from the nosing of the stairs. A graspable handrail is required in addition to the guardrail.



INSPECTIONS

Inspections are a very important part of the building permit process. It is the responsibility of the permit applicant to ensure that the inspections have been requested and approval obtained from the City building inspector at each stage of the project.

■ FOOTING INSPECTIONS

This inspection should be done **after** the footings have been excavated and **prior** to placement of concrete.

■ FRAMING INSPECTIONS

This inspection is required only if the deck is less than 3 feet above the ground. It should be done **after** the beam(s) and joists are completed, but **before** the decking is installed. The inspector will verify conformance with plans and applicable codes.

■ FINAL INSPECTION

This inspection is made **after** the entire deck is completed. If the permit expires before this inspection is conducted, the applicant will be required to pay an additional new permit fee.

Note: Should the complexity of the design require additional inspections not indicated above, the plan reviewer will note such on the applicant's permit.

Inspections may be scheduled by calling 301-725-5300 extension 2238 Monday thru Friday 9:00AM TO 5:00 PM

REMEMBER TO CALL MISS UTILITY BEFORE YOU DIG
1-800-257-7777