

3338 Coolidge Berkley, Michigan 48072 (248) 658-3320 FAX (248) 658-3321 www.berkleymich.org

BUILDING PERMIT APPLICATION

Application for a permit to: Commercial Residential Dem	no New Construction	Addition Alteratio	n SPRINKLED Y / N
Describe Proposed Project:			
Work being done at:			
Address:		_ Day Telephone	ə:
Name of Property Owner:			ew Structure:
Zoning: Subdivision:		Lot No.:	Lot Size:
Contractor/Applicant:			
Company Name:			
License Holder:			
Address:	City:	Sta	te/Zip:
Telephone:	EMAIL Addres	s:	
Estir	mated Cost of Construction: By	Applicant: \$	
Plan review fees must be paid before the construction cost. Cancelled part Requirements: A copy of your insurance must be on file.	plan reviews will not be re	funded.	ingner based on commination of
Residential: Two (2) sets of plans, mini Commercial: Two (2) sets of plans, se			e with 1980, PA299.
PDF of plans	are required to be submitt	ted to: building@ber	kleymich.net
I agree to repair any damage done to	public or private property.		
"This permit is granted on the exp ordinances of this jurisdiction incl and may be revoked at any time up	luding the zoning ordinand	ce, regulating the cor	nstruction and use of buildings,
Signature	Print N	Name	
Refund Policy: Upon request, all cance refund of \$25.00. Permit fees will not be			6 of the permit costs with a minimum
Department use only: USE GROUP	CONST. TYPE	Value by Departm	nent: <u>\$</u>
Approved	Not Approved	Date Fee:	
Permit Number:		Inspe	ctions:
Stipulations:			:stration: Review:
Received by	 Date	Total:	

CONTRACTOR PERMITS

Company Name:				
Street Address:				
City:	State:		Zip:	
License Number:	_ Expiratio	n Date:		
Drivers License Number:		DOB:		
Federal Employer ID Number or Reason for Exemption:				
Workers Comp Insurance Carrier or Reason for Exemption:				
MESC Employer Number or Reason for Exemption:				
"Section 23a of the state construction codes 125.1523a of the Michigan Compiled Laws, pr requirements of this state relating to person v Violations of section 23a are subjected to civ	ohibits a person who perform wo	from conspiring	to circumvent the licensing	ure.
A copy of your certificate of insurance must be	oe on file with the	e building divisio	on before any permits will be is	sued.
Signature of Contractor		Date sigr	ned	
Ţ	HOMEOWNER P	ERMITS		
Name:				
Street Address:				
City:	State:		Zip:	
Drivers License Number:		DOB:		
Telephone Number:	Email:			
Section 23a of the state construction codes a 125.1523a of the Michigan Compiled Laws, prequirements of this state relating to person Violations of section 23a are subjected to civil Homogypor guarantees that work is being do	ohibits a person who perform woo il fines."	from conspiring k on residential	to circumvent the licensing building or a residential struct	
Homeowner guarantees that work is being do out; also this will not be a rented property. Signature of Homeowner	nie by Homeown	Date sigr	·	zu



3338 Coolidge Hwy Berkley, MI 48072 248-658-3320 Fax: 248-658-3301 www.berkleymich.org

CITY OF BERKLEY, MICHIGAN MINIMUM REQUIREMENTS WOODEN DECKS AND PORCHES

In order to establish the minimum requirements for building a wooden deck or porch it is necessary to understand the terminology used in their construction. Please read the following definitions carefully before proceeding any further:

CONCRETE FOOTINGS: Supports that carry the weight of the deck and holds the deck posts in

place. The code requires that they be a minimum of 42 inches below grade. Post anchors, if used, should be made of galvanized steel to

resist corrosion.

POSTS Members that transfer the weight of the deck to the footings. They are

attached to post anchors with galvanized nails, and to the beams with lag

screws.

BEAMS The main structural supports for the deck usually made from a pair of 2 x

8 or 2 x 10 boards attached to the deck posts.

LEDGER A board, generally a 2 x 8 or larger, depending on the size of the deck

that anchors an attached deck to the house. Ledgers support one end of

all joists.

JOISTS Members that support the decking. For an attached deck the joists are

fastened at one end to the ledger and at the other end to the header joists. The outside joists and the header joist may be covered with a facing board for appearance. ALL JOISTS MUST BE SUPPORTED BY

EITHER JOIST HANGERS OR AN EQUIVALENT SYSTEM.

DECKING The boards that make up the floor of the deck. They are attached to the

joists with galvanized nails or screws.

RAILING The railing consists of four parts: the top and bottom rails, railing posts

and balusters. The railing posts must be attached to the header and outside joists. The balusters are located between the bottom rail and top rail (cap); horizontal spacing between these members shall be a maximum of four inches (4"). HANDRAILS are required on every set of stairs having four or more risers. GUARDRAIL is required on all porches, balconies, decks or raised floor surfaces located more than

thirty inches (30") above grade.

STAIRWAY A pair of stringers fastened to the side of the deck, and a series of treads

attached to the stringers.

It is recommended that all the wood that is used for outside projects be either "naturally durable" such as redwood or cedar or "pressure treated" for resistance to water. It is required that any wood that comes in contact with the ground or is located less than eight inches (8") from the ground, that any beam closer than twelve inches (12") to the ground and that any joist closer than eighteen inches (18") to the ground be "naturally durable or pressure-treated".

All fastening devices, nails, lag screws, joist hangers, post anchors, etc. should be made of galvanized steel or an equivalent corrosion resistant material.

Span Limit Tables for Deck Lumber

4 x 12 (two 2x12s)

Recommended Post Size:

Chose post size by finding the load area for the deck. To find the load area, multiply the distance between beams by the distance between posts. For example, on a deck that has one beam spaced 10 feet from the ledger, with posts spaced 7 feet apart, the load area is 70.

Maximum beam span depends on the size of the beams and their spacing. For example, a deck with a 4x8 beam, and joists that span 12 feet should have posts that are no more ;than 7 feet apart.

Load Area

Multiply distance between beams (feet) times the distance between posts (feet)

Deck Height	48	72	96	120	144	
Up to 6 ft	4 x 4	4 x 4	6 x 6	6 x 6	6 x 6	
More than 6 ft	6 x 6	6 x 6	6 x 6	6 x 6	6 x 6	

Maximum Beam Span Between Posts:

Joist Span				
Beam Size	6 ft	8 ft	10 ft	12 ft
4 x 6 (two 2x6s)	8 ft	7 ft	6 ft	5 ft
4 x 8 (two 2x8s)	10 ft	9 ft	8 ft	7 ft
4 x 10 (two 2x10s)	12 ft	11 ft	10 ft	9 ft

13 ft

12 ft

11 ft

14 ft

Maximum Joist Span Between Supports:

Maximum joist span between supports depends on the size of the joists and the spacing between joists. For example, a deck with 2x8 joists spaced 16~ apart requires supports no more than 1210" apart. On a cantilevered deck, the joists may extend past the beam by a distance equal to one-third the total length of the joists.

Joist Spacing (on center)			
Joist Size	12"	16"	24"
2 x 6	11' 7"	9' 9"	7' 11"
2 x 8	15' 0"	12' 10"	10' 6"
2 x 10	19' 6"	16' 5"	13' 4"

Recommended Decking Span Between __

Joists: Decking boards can be made from a variety of lumber sizes. For a basic deck use 2x4 or 2x6 lumber with joists spaced 16" apart.

Decking Boards	Recommended Span
1x4 or 1x6, laid straight	16"
1x4 or 1x6, laid diagonal	12"
2x4 or 2x6, laid straight	16"
2x4 or 2x6, laid diagonal	12"
2x4, laid on edge	24"

Recommended Railing Sizes: Size of posts, rails, and caps depends on the spacing of the railing posts. For example, if railing posts are spaced 6 feet apart, use 4x4 posts and 2x6 rails and caps.

Space Between Railing Posts	Post Size	Cap Size	Rail Size
2 ft to 3 ft	2 x 4	2 x 4	2 x 4
3 ft to 4 ft	4 x 4	2 x 4	2 x 4
4 ft to 6 ft	4 x 4	2 x 6	2 x 6

Minimum Stair Stringer Sizes:

Size of stair stringers depends on the span of the stairway. For example, if the bottom of the stairway lies 7 feet from the deck, build the stringers from 2 x 12s.

Span of Stairway	Stringer Size
Up to 6 ft	2 x 10
More than 6 ft	2 x 12



CITY OF BERKLEY, MICHIGAN HANDRAIL/GUARDRAIL REQUIREMENTS

Residential handrail and guardrail requirements—other specifications may be required

Stair treads and risers

Riser height—The maximum riser height shall be 8 ¼ inches (210 mm). The riser shall be measured vertically between leading edges of the adjacent treads. The greatest riser height within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm).

Tread depth—The minimum tread depth shall be nine inches (229 mm). The tread depth shall be measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread's leading edge. The greatest tread depth within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm). Winder treads shall have a minimum tread depth of ten inches (254 mm) measured as above at a point 12 inches (305 mm) from the side where the treads are narrower. Winder treads shall have a minimum tread depth of six inches (152 mm) at any point. Within any flight of stairs, the greatest winder tread depth at the 12-inch (305 mm) walk line shall not exceed the smallest by more than 3/8 inch (9.5 mm).

Height

Guards required. Porches, balconies or raised floor surfaces located more than 30 inches (762 mm) above the floor or grade below shall have guards not less than 36 inches (914 mm) in height. Open sides of stairs with a total rise of more than 30 inches (762 mm) above the floor or

grade below shall have guards not less than 34 inches (864 mm) in height measured vertically from the nosing of the treads.

Porches and decks which are enclosed with insect screening shall be provided with guards where the walking surface is located more than 30 inches (762 mm) above the floor or grade below.

Guard opening limitations. Required guards on open sides of stairways, raised floor areas, balconies and porches shall have intermediate rails or ornamental closures which do not allow passage of sphere four inches (102 mm) or more in diameter.

Exceptions:

- 1. The triangular openings formed by the riser, tread and bottom rail of a guard at the open side of a stairway are permitted to be of such a size that a sphere six inches (152 mm) cannot pass through.
- 2. Openings for required guards on the sides of stair treads shall not allow a sphere 4 3/8 inches (107 mm) to pass through.

Height: Handrails shall not be less than 34 inches (864 mm) nor more than 38 inches (965 mm), measured vertically, above the leading edge of the treads or above the finished floor of the landing or walking surfaces.

Exceptions:

- 1. Handrails that form part of a guard shall have a height not less than 34 inches (864 mm) and not more than 42 inches (1067 mm).
- 2. Handrails within individual dwelling units shall not be less than 30 inches (762 mm) nor more than 38 inches (965 mm), measured vertically, above the leading edge of the treads or above the finished floor.

Handrail grip size—All required handrails shall be of one of the following types or provide equivalent grasp ability.

- 1. **Type I--**Handrails with a circular cross section shall have an outside diameter of a least 1 ¼ inches (32 mm) and not greater than two inches (51 mm). If the handrail is not circular it shall have a perimeter dimension of at least four inches (102 mm) and not greater than 6 ¼ inches (160 mm) with a maximum cross section of dimension of 2 ¼ inches (57 mm).
- 2. **Type II**—Handrails with a perimeter greater than 6 ¼ inches (160 mm) shall provide a graspable finger recess area on both sides of the profile. The finder recess shall begin within a distance of ¾ inch (19 mm) measured vertically from the tallest portion of the profile and achieve a depth of a least 5/16 inch (8 mm) within 7/8 inch (22 mm) below the widest portion of the profile. This required depth shall continue for at least 3/8 inch (10 mm) to a level that is not less than 1 ¾ inches (45 mm) below the tallest portion of the profile. The minimum width of the handrail above the recess shall 1 2/4 inches (32 mm) to a rail above the recess shall be 1-¼ inches (32 mm) to a maximum of 2 ¾ inches (70 mm). Edges shall have a minimum radius of 0.01 inches (0.25 mm).

Handrails required on all steps with four (4) or more risers. Guardrails required along open sided walking area (porch or landings) located more than 30 inches above floor or grade below.