

**AURELIUS TOWNSHIP**

**1939 S. Aurelius Road · Mason, Michigan 48854-9729**

**(517) 628-2093 · Fax (517) 628-3989**

*Office hours Tuesday through Friday, 10 a.m. to 3 p.m.*

**PROCEDURES TO BE FOLLOWED TO SECURE A  
RESIDENTIAL DECK PERMIT**

- Step 1: PLANS OR DRAWING OF DECK**
- Step 2: COMPLETE DECK APPLICATION PACKET** available from Township office or on-line at [aureliustwp.org](http://aureliustwp.org)
- Step 3: APPLY FOR and SECURE a Soil Erosion Permit/Waiver from the Ingham County Drain Commissioner's Office, 707 Buhl Avenue, Mason. Phone: 517-676-8395.**
- Step 4: For site approval, project needs to be staked.**

**COST OF PERMIT: \$125.00 (any size)**

**Call the Aurelius Township office at 517-628-2093 to schedule the footing inspection and the final inspection.**

**If you call for an inspection and you are not ready, you will be charged an additional \$50.**

**AURELIUS TOWNSHIP****517-628-2093****APPLICATION FOR PLAN EXAMINATION AND BUILDING PERMIT**

All permit applications must be accompanied by detailed construction and site plans. Multi-Family and all Commercial plans must be signed and sealed by a State of Michigan, Registered Architect, or Engineer.

APPLICANT TO COMPLETE PAGES 1 THROUGH 3

<b>I. LOCATION OF BUILDING</b>				
STREET ADDRESS OF CONSTRUCTION:				
CITY	ZIP	AURELIUS TOWNSHIP	INGHAM COUNTY	
<b>II. IDENTIFICATION</b>				
A. OWNER OR LESSEE				
NAME		ADDRESS		
CITY	STATE	ZIP	PHONE	
EMAIL ADDRESS				
B. ARCHITECT OR ENGINEER				
NAME		ADDRESS		
CITY	STATE	ZIP	PHONE	
LICENSE NUMBER		EXPIRATION DATE		
C. CONTRACTOR				
NAME		ADDRESS		
CITY	STATE	ZIP	PHONE	
FAX NUMBER		EMAIL ADDRESS		
LICENSE NUMBER		EXPIRATION DATE		
FEDERAL EMPLOYER ID NO OR REASON FOR EXEMPTION				
WORKERS COMP INSURANCE CARRIER OR REASON FOR EXEMPTION				
MESC EMPLOYER NO OR REASON FOR EXEMPTION				
<b>III. TYPE OF IMPROVEMENT</b>				
A. DESCRIBE IMPROVEMENT				
<input type="checkbox"/> New building	<input type="checkbox"/> Addition	<input type="checkbox"/> Alteration	<input type="checkbox"/> Repair	<input type="checkbox"/> Wrecking
<input type="checkbox"/> Mobile Home	<input type="checkbox"/> Foundation only	<input type="checkbox"/> Pre-manufacture	<input type="checkbox"/> Relocation	<input type="checkbox"/> Fence
<input type="checkbox"/> Pool	<input type="checkbox"/> Shed	<input type="checkbox"/> Deck	<input type="checkbox"/> Other	

**AURELIUS TOWNSHIP  
SITE OR PLOT PLAN**

N	
W	E
S	

**APPLICANT INFORMATION**

Applicant is responsible for the payment of all fees and charges applicable to this application and must provide the following information.

NAME	TELEPHONE NUMBER
ADDRESS	
CITY	STATE                      ZIP
FEDERAL I.D. NO.	

I hereby certify that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent, and to conform to all applicable laws of the State of Michigan. All information submitted on this application is accurate to the best of my knowledge.

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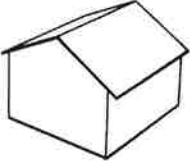
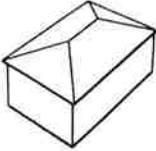
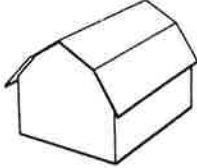
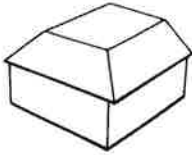
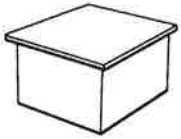
Section 23a of the State Construction Code Act of 1972, Act no. 230 of the Public Acts of 1972, being Section 125.1523a of the Michigan Compiled Laws, prohibits a person from conspiring to circumvent the licensing requirements of this state relating to persons who are to perform work on a residential building or a residential structure. Violators of Section 23a are subject to civil fines.

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TOTAL COST OF IMPROVEMENT \$ \_\_\_\_\_

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

**AURELIUS TOWNSHIP  
BUILDING INFORMATION AND ASSESSING WORKSHEET**

				PERMIT #			
NAME:				DATE			
ADDRESS				PHONE			
CITY			STATE		ZIP		
PARCEL NUMBER							
<b>POLE BARN</b>		<b>SHEDS</b>		<b>EXTERIOR</b>			
	Size: _____ by _____		Size: _____ by _____		Wood		
	Concrete Approach		Wood Frame		Aluminum		
	Finished		Metal Prefab		Vinyl		
	Insulated		Other		Other		
<b>ROOF</b>							
							
							
GABLE		HIP		GAMBREL			
				MANSARD			
				FLAT			
		<b>WINDOWS</b>		<b>SIZE</b>			
	Eavestrough		Many		Large		
	Asphalt Shingles		Average		Average		
	Other		Few		Small		
	Insulation		Wood Sash		Doors		
	Overhang		Metal Sash		Automatic Doors		
<b>PORCHES/DECKS</b>			Vinyl Sash		Common Wall		
	Width		Double Hung		Wall Finish		
	Depth		Casement		Ceiling		
	Type		Storms and Screens		<b>Concrete Approach</b>		
	Covered?		Patio Doors		Size _____ by _____		
<b>PORCHES/DECKS</b>		<b>PORCHES/DECKS</b>		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;"><b>SIZE</b></td> </tr> <tr> <td style="text-align: center;"><b>EST COST</b></td> </tr> </table>		<b>SIZE</b>	<b>EST COST</b>
<b>SIZE</b>							
<b>EST COST</b>							
	Width		Width				
	Depth		Depth				
	Type		Type				
	Covered?		Covered?				

## RESIDENTIAL DECK SPECIFICATIONS

Deck Size: \_\_\_\_\_ ft. x \_\_\_\_\_ ft.

Deck Floor Material: \_\_\_\_\_

Floor Joist Size: \_\_\_\_\_ in. x \_\_\_\_\_ in.

Floor Joist Spacing: \_\_\_\_\_ inches on center

Floor Joist Clear Span: \_\_\_\_\_ ft. \_\_\_\_\_ in.

Floor Joist Cantilever: \_\_\_\_\_ ft. x \_\_\_\_\_ in.

Double Carrier / Beam Size: \_\_\_\_\_ in. x \_\_\_\_\_ in.

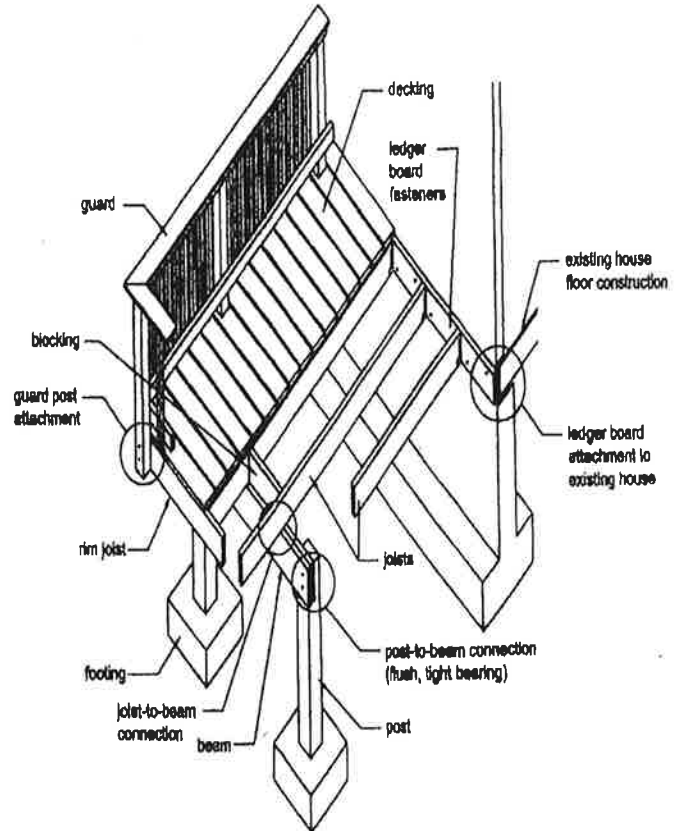
Treated Poles Size: \_\_\_\_\_ in. x \_\_\_\_\_ in.

Post Spacing: \_\_\_\_\_ ft. \_\_\_\_\_ in.

Footings Depth Below Grade: \_\_\_\_\_ in.

Footings: Width \_\_\_\_\_ in. Height \_\_\_\_\_ in.

Is the deck attached to the house? YES / NO



### ***Some requirements of the 2015 Michigan Residential Code Chapter 5, Section R507***

#### **Guards**

- Are required if the floor and stairs measures more than 30 inches above grade.
- Shall have a minimum height of 36 inches for floors and 34 inches for stairs off the nose of the tread.
- Shall be constructed so a 4-inch sphere cannot pass through.

#### **Stairway**

- Shall be a minimum of 36 inches in width.
- Shall have a maximum riser height of 8 1/4 inches and a minimum tread depth of 9 inches.

#### **Handrails**

- Are required on 4 or more risers.
- Shall have a minimum height of 34 inches and a maximum height of 38 inches measured vertically off the nose of the tread.
- Shall be continuous for the full length of the stairway and ends shall be returned to wall or post.
- Type I handrails shall be graspable measuring at least 1 1/4 inches and not greater than 2 inches in diameter unless the perimeter of a noncircular handrail is less than 6 inches, then it is allowed to be 2 1/4 inches in width.
- Type II handrails with a perimeter greater than 6 inches shall provide a graspable finger recess area on both sides of the profile that meets code requirements. The width of the handrail shall be no less than 1 1/4" and not more than 2 1/4".

#### **Spans**

- Joist spacing & spans and beam spans shall meet the requirements of Tables R507.4, R507.5 and R507.6 (*min. 1 1/2" bearing*)

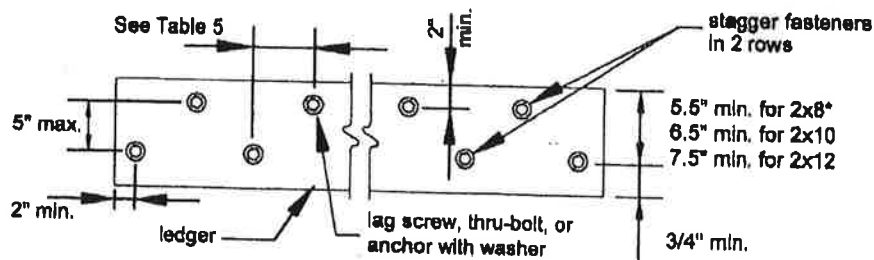
## Joist Spacing (O.C.)

Species	Size	Allowable Span		
		12"	16"	24"
Southern Pine	2x6	9'-11"	9'-0"	7'-7"
	2x8	13'-1"	11'-10"	9'-8"
	2x10	16'-2"	14'-0"	11'-5"
	2x12	18'-0" <sup>7</sup>	16'-6"	13'-6"
Douglas Fir-Larch, Hem-Fir, Spruce- Pine-fire	2x6	9'-6"	8'-4"	6'-10"
	2x8	12'-6"	11'-1"	9'-1"
	2x10	15'-8"	13'-7"	11'-1"
	2x12	18'-0"	15'-9"	12'-10"
Redwood, Western Cedars, Ponderosa Pine, Red Pine	2x6	8'-10"	8'-0"	6'-10"
	2x8	11'-8"	10'-7"	8'-8"
	2x10	14'-11"	13'-0"	10'-7"
	2x12	17'-5"	15'-1"	12'-4"

### FOOTING SIZES FOR DECKS (WITHOUT ROOF)

TOTAL SPAN OF JOISTS BETWEEN SUPPORTS	SUPPORT POST SPACING FOR 1500 LB PER SQUARE FOOT SOIL BEARING CAPACITY						
	4 FEET	6 FEET	8 FEET	10 FEET	12 FEET	14 FEET	16 FEET
4 FEET	4X8	4X10	4X10	6X12	6X14	6X14	6X14
6 FEET	4X10	6X12	6X14	6X14	8X16	8X16	8X18
8 FEET	4X10	6X14	6X14	8X16	8X18	10X20	10X20
10 FEET	6X12	6X14	8X16	8X18	10X20	10X22	10X22
12 FEET	6X14	8X16	8X18	10X20	10X22	12X24	12X24
14 FEET	6X14	8X16	10X20	10X22	12X24	12X26	12X26
16 FEET	6X14	8X16	10X20	12X24	12X26	14X28	14X28

### Ledger Fastener Spacing and Clearances



**See Table 5.**

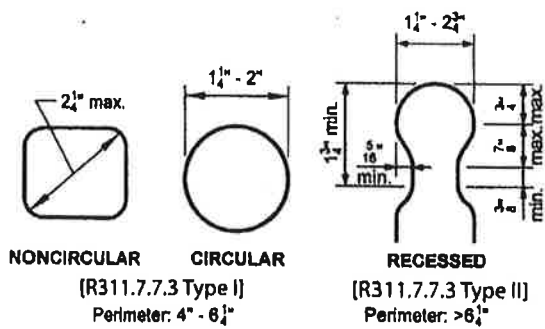
\*Distance can be reduced to 4.5" if lag screws are used or bolt spacing is reduced to that of lag screws to attach 2x8 ledgers to 2x8 band joists (1/2" stacked washers not permitted)

**TABLE 6**

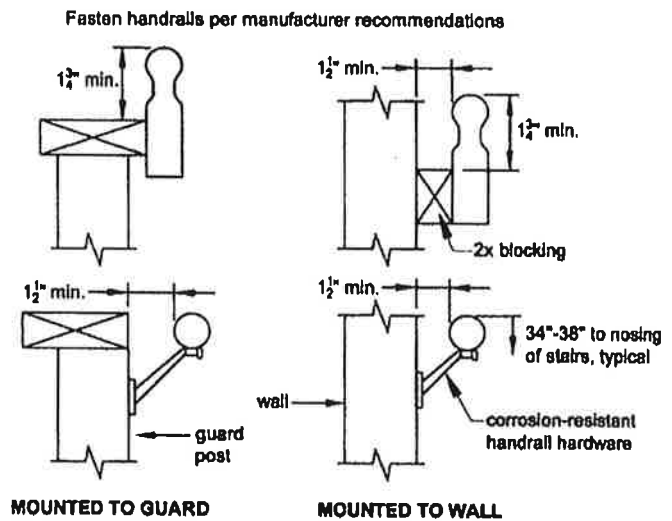
DECK POST SIZE	MAX HEIGHT
4 x 4	8'
4 x 6	8'
6 x 6	14'

**Table 5**

Connection Details	Rim Board or Band Joist	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"
		<b>On-Center Spacing of Fasteners</b>						
$\frac{1}{2}$ " diameter lag screw <sup>1</sup> with $\frac{15}{32}$ " maximum sheathing	1" EWP	24"	18"	14"	12"	10"	9"	8"
	1- $\frac{1}{8}$ " EWP	28"	21"	16"	14"	12"	10"	9"
	1- $\frac{1}{2}$ " Lumber	30"	23"	18"	15"	13"	11"	10"
$\frac{1}{2}$ " diameter bolt with $\frac{15}{32}$ " maximum sheathing	1" EWP	24"	18"	14"	12"	10"	9"	8"
	1- $\frac{1}{8}$ " EWP	28"	21"	16"	14"	12"	10"	9"
	1- $\frac{1}{2}$ " Lumber	36"	36"	34"	29"	24"	21"	19"
$\frac{1}{2}$ " diameter bolt with $\frac{15}{32}$ " maximum sheathing and $\frac{1}{2}$ " stacked washers <sup>2,7</sup>	1- $\frac{1}{2}$ " Lumber	36"	36"	29"	24"	21"	18"	16"

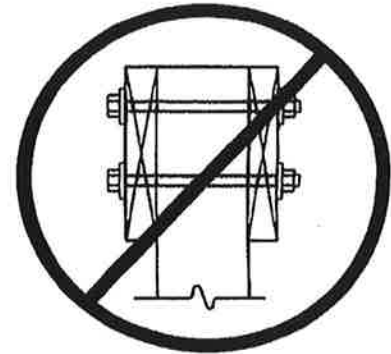
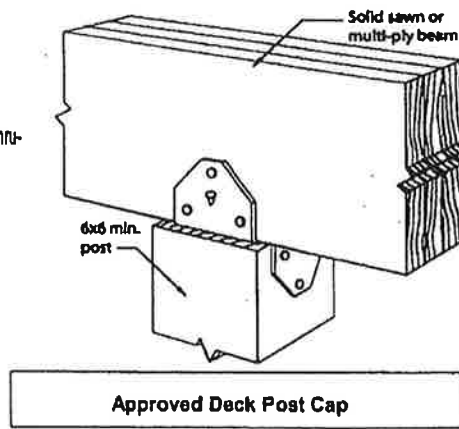
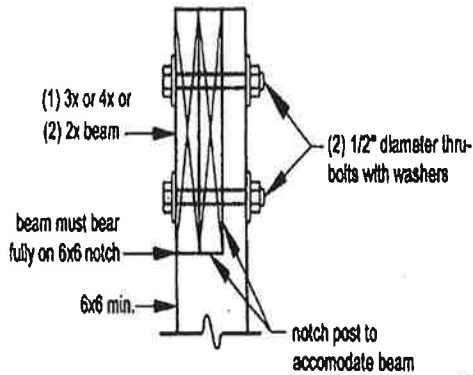


**Handrail Grip Size**



**Handrail Mounting Examples**

# Deck Beam & Floor Joist Spans, Ledger Fastener Spacing and Handrail Detail



## Deck Beam Span Length

Species	Size	Deck Joist Span less than or equal to						
		6'	8'	10'	12'	14'	16'	18'
Southern Pine	2-2x6	6'-11"	5'-11"	5'-4"	4'-10"	4'-6"	4'-3"	4'-0"
	2-2x8	8'-9"	7'-7"	6'-9"	6'-2"	5'-9"	5'-4"	5'-0"
	2-2x10	10'-4"	9'-0"	8'-0"	7'-4"	6'-9"	6'-4"	6'-0"
	2-2x12	12'-2"	10'-7"	9'-5"	8'-7"	8'-0"	7'-6"	7'-0"
	3-2x6	8'-2"	7'-5"	6'-8"	6'-1"	5'-8"	5'-3"	5'-0"
	3-2x8	10'-10"	9'-6"	8'-6"	7'-9"	7'-2"	6'-8"	6'-4"
	3-2x10	13'-0"	11'-3"	10'-0"	9'-2"	8'-6"	7'-11"	7'-6"
	3-2x12	15'-3"	13'-3"	11'-10"	10'-9"	10'-0"	9'-4"	8'-10"
Douglas Fir- Larch, Hem-Fir, Spruce-Pine-Fir, Redwood, Western Cedars, Ponderosa Pine, Red Pine	3x6 or 2-2x6	5'-5"	4'-8"	4'-2"	3'-10"	3'-6"	3'-1"	2'-9"
	3x8 or 2-2x8	6'-10"	5'-11"	5'-4"	4'-10"	4'-6"	4'-1"	3'-8"
	3x10 or 2-2x10	8'-4"	7'-3"	6'-6"	5'-11"	5'-6"	5'-1"	4'-8"
	3x12 or 2-2x12	9'-8"	8'-5"	7'-6"	6'-10"	6'-4"	5'-11"	5'-7"
	4x6	6'-5"	5'-6"	4'-11"	4'-6"	4'-2"	3'-11"	3'-8"
	4x8	8'-5"	7'-3"	6'-6"	5'-11"	5'-6"	5'-2"	4'-10"
	4x10	9'-11"	8'-7"	7'-8"	7'-0"	6'-6"	6'-1"	5'-8"
	4x12	11'-5"	9'-11"	8'-10"	8'-1"	7'-6"	7'-0"	6'-7"
	3-2x6	7'-4"	6'-8"	6'-0"	5'-6"	5'-1"	4'-9"	4'-6"
	3-2x8	9'-8"	8'-6"	7'-7"	6'-11"	6'-5"	6'-0"	5'-8"
	3-2x10	12'-0"	10'-5"	9'-4"	8'-6"	7'-10"	7'-4"	6'-11"
3-2x12	13'-11"	12'-1"	10'-9"	9'-10"	9'-1"	8'-6"	8'-1"	



**AURELIUS TOWNSHIP  
1939 S. AURELIUS ROAD  
MASON, MI 48854  
(517) 628-2093**

## **Property Line Verification**

**I certify that the location of the property line is true and correct as identified to the Zoning Administrator.**

**If the location of the property line is incorrect, I am responsible for identifying the property line and moving the building if necessary.**

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**Signature of property owner**

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**Print name of property owner**

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**Address**

**City**

**State**

**ZIP**

---

**Date**

**Permit #** \_\_\_\_\_

**AURELIUS TOWNSHIP**  
**1939 S. Aurelius Road · Mason, Michigan 48854-9729**  
**(517) 628-2093 · Fax (517) 628-3989**

**REQUIREMENTS FOR DECKS, LANDINGS, STAIRS, GUARDRAILS AND HANDRAILS**

**LANDINGS**

1. There shall be a floor or landing on each side of each exterior door if the stairs serving the door has over two risers. The landing shall not be more than 7 ¾" below the top of the door threshold.
2. The width of the landing shall not be less than the door served and have a minimum of 36" in the direction of the travel.

**STAIRS**

1. The maximum riser height shall be 8 ¼". The greatest riser height shall not exceed the smallest by more than 3/8".
2. The minimum tread depth shall be 9". This is measured from the leading edge of each tread. The greatest tread depth shall not exceed the smallest by more than 3/8".

**GUARDRAILS**

1. Guards are required if the floor of the deck or landing is 30 inches or more off the ground. Guards must be a minimum of 36" high.
2. Open sides of stairs with a total rise of more than 30 inches above the ground below shall have guards not less than 34 inches in height measured vertically from the nosing of the treads.
3. Required guards on open sides of stairways, porches, decks or landings shall have intermediate rails which do not allow passage of a sphere 4 inches or more in diameter.

**HANDRAILS**

1. Handrails shall be provided on at least one side of stairs with four or more risers and be continuous the full length of the stairs.
2. Handrail height shall not be less than 34 inches and not more than 38 inches. The height is measured vertically from the leading edge (nosing) of the tread.
3. Handrails must be gripable and must provide a graspable finger area on both sides. A minimum of 1 ¼" diameter and a maximum of 2 ¾" is required. A solid 2 x 4 or 2 x 6 on edge or laying flat is not a gripable handrail.

## **FOOTING REQUIREMENTS**

- HOLES HAVE TO BE AT LEAST 42" DEEP.
  
- THE BOTTOM OF THE COOKIE HAS TO BE AT LEAST 42".
  
- PUT A BAG OF CEMENT INTO THE HOLE THEN FILL UP WITH DIRT.
  
- 4 X 4 POST HAS TO BE A MINIMUM OF 12" DIAMETER HOLE.
  
- 4 X 6 HAS TO BE A MINIMUM OF 16" DIAMETER HOLE.