DECKS

(1) DEFINITIONS

(A) Deck: Any structure which serves as a raised horizontal platform on floor constructed of wood or other materials, without enclosing walls or roofs.

(B) Attached Deck: Any deck which is physically connected to the principal building or accessory structure.

(C) Detached Deck: Any deck which is not physically attached to the principal building or accessory structure.

(2) SOIL & EXCAVATION REQUIREMENTS FOR DECK PIERS OR FOUNDATIONS

(A) No Pier shall be placed on soil with a bearing capacity of less than 2,000 lbs. per square foot unless the pad support is designed through structural analysis.

(B) All organic material (roots, etc.) shall be cut off at the sidewalls of the borings or trench. All organic and loose material must be removed from the cavity area prior to pouring concrete.

(3) DECK PIERS, PADS AND FOUNDATIONS

(A) General footings, pads or piers shall be of adequate bearing area to safely distribute all live and dead loads to the supporting soil without exceeding the bearing capacity of the soil.

(B) Type and size of concrete pads, piers or foundations.

1. Decks attached to principal buildings.

(a) Concrete Pads - The minimum depth of a pad shall be 48" below grade. The minimum dimensions of this pad shall be 4" in depth and 8" in diameter.

(b) Piers - The minimum depth of concrete piers shall be 48" below grade. The minimum dimension of this pier shall be 8" in diameter. [The concrete pier(s) shall extend a minimum of 6" above grade unless an approved mounting bracket is secured at the top surface of the pier(s).]

(c) Direct burial wood posts shall be placed on a minimum 2" nominal thickness treated plate or other approved materials at a uniform depth below grade. Posts shall be treated to the requirements of the American Wood Preservers' Associates (AWPA) standards C2 and C15. For direct soil contact 4" below grade. Post shall be a minimum of 4' below established grade.

(4) FRAMING

(A) General Requirements

1. Materials - All wood framing used in deck construction shall be pressure treated against decay or shall be a species of wood that is naturally decay resistant or shall be protected from weather.

2. Design Loading Decks shall be designed for a minimum of 40 pound per square foot loading.

(B) Column Posts

1. Column Spacing - Column posts shall be spaced per "Table No. 2".

2. Column Size -

a. All column posts not exceeding six (6) feet in height shall be a minimum of four (4) inches (4x4) nominal thickness.

b. All column posts exceeding six (6) feet in height shall be a minimum of six (6) inches by six (6) inches (6x6) nominal thickness.

3. Lateral Support - Column posts shall be constructed in such a manner or mechanically attached to the deck foundation to resist lateral movement.

(C) Beams

1. Beam Size - All beams shall be sized per "Table No. 2". (See Attached.)

a. Beams, except at otherwise noted in "Table No. 2", SHALL BE A MINIMUM OF TWO (2), TWO (2) INCH THICK MEMBERS OF ONE (1), FOUR (4) INCH THICK MEMBER. (I.E. 2-2x8 OR 1-4x8)

2. Bearing - Beams shall bear directly on the posts and shall be attached by means of approved metal anchors or other approved methods. (ie. Notching of post) Lag screws or bolts are no longer permitted as a means of beam support for the exception of a ledger board as listed below.

3. Ledger Boards - Ledger Board attached directly to the house or other structure may be used to replace a beam or beams. A single member of equal depth to the required size beam shall be used. The ledger board shall be attached with bolts, lag bolts or nails, spaced no less than sixteen (16) inches on center, secured directly into the building structure. Flashing shall be installed between the ledger and building structure.

4. Beams shall not be cantilevered more than twelve (12) inches past the column post.

(D) Joists

1. Joist Size - All deck joists shall be sized and spaced per "Table No. 2".

2. Bearing - Deck joists shall bear a minimum of one and one half (1-1/2) inches on the beam or ledger board. Joists fastened to the face of the beam or ledger shall be attached with approved metal hangers.

3. Bridging - Bridging shall be provided at intervals not exceeding eight (8) feet.

4. Overhanging of Joists - Joists which are at right angles to the supporting beam shall not be cantilevered more than two (2) feet past the supporting beam, unless designed by structural analysis.

(E) Decking

1. Material - All decking material shall be a minimum of one and one quarter (1-1/4) inch thick, nominal thickness. One inch decking may be used provided that the joists are spaced no more than sixteen (16) inches on center.

2. Decking Orientation -

a. Decking shall be installed diagonally or at right angles to the joists.

b. Decking shall be centered over joists with cuts made parallel to joists. No more than two adjacent boards may break joints on the same joist except at ends and at openings.

(F) Guardrails & Handrails

1. Guardrails - All decks which are more than twenty-four (24) inches above grade shall be protected with guardrails.

2. Handrails - Every stairway of more than three (3) risers shall be provided with at least one handrail. Handrails shall be provided on the open sides of stairways.

3. Guardrail and handrail detail -

a. Height - Handrails shall be located at least thirty (30) inches, but not more than thirty-four (34) inches above the nosing of the treads. Guardrails shall be located at least thirty-six (36) inches above the surface of the deck.

b. Open Railings - Open guardrails or handrails shall be provided with intermediate rails or an ornamental pattern to prevent the passage of a sphere with a diameter greater than four (4) inches.

c. Railing Loads - Handrails and guardrails shall be designed and constructed to withstand a 200 pound load applied in any direction.

(G) Stairway, Treads & Risers

1. Risers - Risers shall not exceed eight (8) inches in height measured from tread to tread.

2. Treads - Treads shall be at least nine (9) inches wide, measured horizontally from nose to nose.

3. Variation - There shall be no variation in uniformity exceeding 3/16 inch in the width of a tread or in the height of risers.

4. Stair - Stringers shall be supported in accordance to the same manner as used for the deck.

(H) ALTERNATE PROVISIONS AND METHODS

1. Wood Decks - Wood decks attached to the dwelling may be constructed to the Wisconsin Uniform Dwelling Code standards listed in SPS 321.25

(5) SETBACK REQUIREMENTS

Open decks (without a roof or enclosure) may not exceed one-half (1/2) the distance of the required front, side and rear yard setbacks for the zoning classification of the property.

Permits Applications Shall Include The Following Information:

A. A detailed site plan (copy of a plat of survey) showing the exact location of the deck in relation to the existing building and lot lines. One copy required.

B. DETAILED PLANS SHOWING: 2 copies required

1. Post/foundation layout.
2. Structural framing plan/s.
3. Decking, handrailing and stair details.

Building inspections are to be made at the following states of construction:

1. When post holes are dug, prior to setting posts or pouring concrete.

2. Rough framing, prior to installing decking.

3. Final inspection, when all construction is complete.

PERMIT FEES:
$30.00

Wisconsin Division of Safety and Buildings

Wisconsin Stats. 101.63, 101.73

WISCONSIN UNIFORM BUILDING PERMIT APPLICATION

Instructions on back of second ply. The information you provide may be used by other government agency programs [(Privacy Law, s. 15.04 (1)(m)]

Application No.

Parcel No.

PERMIT REQUESTED ☐ Constr. ☐ HVAC ☐ Electric ☐ Plumbing ☐ Erosion Control Other:

Owner's Name		Mailing Address	Tel.
Contractor's Name: ☐Con ☐Elec ☐HVAC ☐Plbg	Lic/Cert#	Mailing Address	Tel. FAX#
Contractor's Name: ☐Con ☐Elec ☐HVAC ☐Plbg	Lic/Cert#	Mailing Address	Tel. FAX#
Contractor's Name: ☐Con ☐Elec ☐HVAC ☐Plbg	Lic/Cert#	Mailing Address	Tel. FAX#
Contractor's Name: ☐Con ☐Elec ☐HVAC ☐Plbg	Lic/Cert#	Mailing Address	Tel. FAX#

PROJECT LOCATION Lot area Sq. ft. _____ 1/4, _____ 1/4, of Section , T N, R E (or) W

Building Address	Subdivision Name	Lot No.	Block No.
Zoning District(s)	Zoning Permit No.	**Setbacks:** Front ft.	Rear ft. / Left ft. / Right ft.

1. PROJECT
☐ New ☐ Repair
☐ Alteration ☐ Raze
☐ Addition ☐ Move
☐ Other:

2. AREA INVOLVED
Unfin. Bsmt _____Sq Ft
Living Area _____Sq Ft
Garage _____Sq Ft
Deck _____Sq Ft.

3. OCCUPANCY
☐ Single Family
☐ Two Family
☐ Garage
☐ Other:

4. CONST. TYPE
☐ Site-Built
☐ Mfd: ☐ WI UDC ☐ U.S. HUD

5. STORIES
☐ 1-Story
☐ 2-Story
☐ Other:
☐ Plus Basement

6. ELECTRICAL
Entrance Panel Amps: _____
☐ Underground
☐ Overhead

7. FOUNDATION
☐ Concrete
☐ Masonry
☐ Treated Wood
☐ Other:

8. USE
☐ Seasonal
☐ Permanent
☐ Other:

9. HVAC EQUIPMENT
☐ Forced Air Furnace
☐ Radiant Basebd/ Panel
☐ Heat Pump
☐ Boiler
☐ Central Air Cond.
☐ Other:

10. SEWER
☐ Municipal
☐ Sanitary Permit No.:

11. WATER
☐ Municipal Utility
☐ Private On-Site Well

12. ENERGY SOURCE

Fuel	Nat Gas	LP	Oil	Elec	Solid	Solar
Space Htg	☐	☐	☐	☐	☐	☐
Water Htg	☐	☐	☐	☐	☐	☐

☐ Dwelling unit has 3 kilowatt or more in electric space heating equipment capacity.

13. HEAT LOSS
_____ BTU/HR Total Calculated Envelope and Infiltration Losses ("Maximum Allowable Heating Equipment Output" on Energy Worksheet; "Total Building Heating Load" on WIScheck report)

14. EST. BUILDING COST
$ cost of deck

I agree to comply with all applicable codes, statutes and ordinances and with the conditions of this permit; understand that the issuance of the permit creates no legal liability, express or implied, on the state or municipality; and certify that all the above information is accurate. If I am an owner applying for an erosion control or construction permit, I have read the cautionary statement regarding contractor financial responsibility on the reverse side of the last ply. I expressly grant the building inspector, or the inspector's authorized agent, permission to enter the premises for which this permit is sought at all reasonable hours and for any proper purpose to inspect the work which is being done.

APPLICANT'S SIGNATURE _____ **DATE SIGNED** _____

APPROVAL CONDITIONS

This permit is issued pursuant to the following conditions. Failure to comply may result in suspension or revocation of this permit or other penalty. ☐ **See attached for conditions of approval.**

Include the following with permit application:

1. **Post/foundation layout**
2. **Structural framing plan(s)**
3. **Decking, handrails and stair details**

ISSUING JURISDICTION ☐ Town of ☐ Village of ☐ City of ☐ County of ☐ State Inspection Agency #:

Municipality Number of Dwelling Location ___ ___ - ___ ___ ___

FEES:		PERMIT(S) ISSUED	WIS PERMIT SEAL #	PERMIT ISSUED BY:
Plan Review	$_____	☐ Construction ☐ HVAC ☐ Electrical ☐ Plumbing ☐ Erosion Control		Name _____
Inspection	$_____			Date _____ Tel. _____
Wis. Permit Seal	$_____			
Other	$_____			Cert No. _____
Total	**$ 30.00**			

SBD-5823(R.04/02) Distribution: ☐Ply 1 - Issuing Jurisdiction ☐Ply 2 - Municipality Forwards to State If New Dwelling ☐Ply 3 - Inspector ☐Ply 4 - Applicant