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## WISCONSIN UNIFORM DWELLING CODE PLAN REVIEW AND INSPECTION CHECKLIST

Project Address: \_\_\_\_\_

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Owner: \_\_\_\_\_ Permit #: \_\_\_\_\_

Builder: \_\_\_\_\_

Local Requirements (Zoning, Sanitary, Etc.)

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### **Chapter 21 – CONSTRUCTION STANDARDS**

#### **Design**

#### **21.03 Exits, Doors and Hallways**

- \_\_\_\_\_ (1) Min. two exits from first floor
- \_\_\_\_\_ (2)(b) Egress windows from 2<sup>nd</sup> floor bedrooms or two exits from second clear opening floor
- \_\_\_\_\_ (6m) Min. 20" x 24" 46" sill height A.F.F. or platform
- \_\_\_\_\_ (3) Two exits from 3<sup>rd</sup> floor
- \_\_\_\_\_ (4) Lofts  
More than 400 sq. ft. then stairway  
If 400 sq. ft. or less, then ladder okay
- \_\_\_\_\_ (5) Egress windows from basement bedrooms or two exits from floor
- \_\_\_\_\_ (6) If ground floor used for sleeping, then exit to grade and another exit or bedroom egress windows
- \_\_\_\_\_ (7) Doors  
Main exit – 3' x 6'8"  
Second exit – 2'8" x 6'4"  
Sliding exit patio doors min. 2'6" clear
- \_\_\_\_\_ (8) Interior Circulation

- \_\_\_\_\_ One-half of bedrooms – 2'8" x 6'8" door
- \_\_\_\_\_ One full bathroom – 2'8" x 6'8" door
- \_\_\_\_\_ Common use areas – 2'8" door or 2'6" passageway
- \_\_\_\_\_ (9) Hallway – 3' wide
- \_\_\_\_\_ (10)(a) Exit Balconies – treated wood
- \_\_\_\_\_ (10)(b) Guardrail 3' min., intermediate rails
- \_\_\_\_\_ (10)(c) Maximum floor height 15' above grade
- \_\_\_\_\_ (10)(d) Minimum 3' x 3'

#### **21.04 Stairs**

- \_\_\_\_\_ (4) Landings min. 3' in travel direction
- \_\_\_\_\_ (4)(c) Landing between door at head and foot of all stairs except in accordance with 1, 2., 3., or 4.
- \_\_\_\_\_ (3)(a) Handrails on stairs of more than three risers
- \_\_\_\_\_ (3)(a) At least one provided
- \_\_\_\_\_ (3)(a) Provided on all open sides
- \_\_\_\_\_ (3)(b)1. Between 30" and 38" above nosing
- \_\_\_\_\_ (3)(a) To prevent passage of objects over 4" dia.
- \_\_\_\_\_ (3)(b)2. 1 1/2" clearance between rail and wall

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- \_\_\_\_\_ (3)(a) Withstand 200 lb. load in any direction
- \_\_\_\_\_ (3)(c)1. Guardrails at elevation changes of over 24"
- \_\_\_\_\_ (3)(c)2. At least 36" above floor
- \_\_\_\_\_ (3)(a) To prevent passage of objects over 4" dia.
- \_\_\_\_\_ (2) Stairway Details
- \_\_\_\_\_ (2)(a)1. 3' wide
- \_\_\_\_\_ (2)(d) Min. headroom of 6'4"
- \_\_\_\_\_ (2)(b)&(c) Max. riser of 8", min. tread of 9"
- \_\_\_\_\_ (2)(c)3.,4. Winders per code
- \_\_\_\_\_ (2)(a)2. Spiral stairs per code

#### **21.042 Ladders**

- \_\_\_\_\_ Table 21.042 Ladders dimensions

#### **21.045 Ramps**

- \_\_\_\_\_ (1)-(4) Ramps details

#### **21.05 Light and Ventilation**

- \_\_\_\_\_ (1) 8% glazed openings in habitable rooms (bedrooms in basements only)
- \_\_\_\_\_ (2)(a) 3.5% openable windows in all habitable rooms, kitchens and baths (or one air change per hour mech. vent.)
- \_\_\_\_\_ (2)(b) Exhaust hoods terminate outside of dwelling
- \_\_\_\_\_ (4)(a),(b) Crawlspace vented, vapor barrier, organic matter removed
- \_\_\_\_\_ (5) Safety glass in doors and sidelights

#### **21.06 Ceiling Height**

- \_\_\_\_\_ Ceiling height-min. 50% of at least 7'

#### **21.07 Attic and Crawlspace**

- \_\_\_\_\_ Attic or crawlspace access at least 14" x 24"

#### **21.08 Fire Separation and Living Unit Separation**

- \_\_\_\_\_ (1) Tenant separation
- \_\_\_\_\_ (1)(d) Chases and openings
- \_\_\_\_\_ (1) Garage separation per Table 21.08
- \_\_\_\_\_ (1)(a) 45 min. wall and ceiling separation
- \_\_\_\_\_ (1)(c) 20 min. door, solid core or metal

#### **21.085 Fireblocking**

- \_\_\_\_\_ (1)(a) At floor levels

- \_\_\_\_\_ (1)(b) At connections between concealed vertical and horizontal spaces
- \_\_\_\_\_ (1)(c) At top and bottom of stairway stringers

#### **21.09 Smoke Detectors**

- \_\_\_\_\_ (1)(a) One inside each sleeping room
- \_\_\_\_\_ (1)(b) One alarm in the vicinity of each sleeping area
- \_\_\_\_\_ (1)(c) One each floor include basement

#### **21.10 Decay-Resistant Wood**

- \_\_\_\_\_ (2)(b) Joists less than 18" from earth
- \_\_\_\_\_ (2)(c) Girders less than 12" from earth
- \_\_\_\_\_ (2)(d) Sills less than 8" from earth
- \_\_\_\_\_ (2)(e) Siding less than 6" from earth

#### **21.11 Foam Plastic Insulation**

- \_\_\_\_\_ (1)(b) Protected with 15 min. thermal barrier

### **Footings and Foundation Inspection**

#### **21.12 Grade**

- \_\_\_\_\_ Slope away from dwelling

#### **21.13 Excavations**

- \_\_\_\_\_ Proper protection adjacent property

#### **21.14 Excavations For Footing And Foundation**

- \_\_\_\_\_ (1) No excavations below footings unless provisions are taken to prevent collapse
- \_\_\_\_\_ (2) Soil undisturbed or compacted; no organics

#### **21.15 Footings**

- \_\_\_\_\_ (1)(a) Continuous – 4" wider than wall, 8" deep
- \_\_\_\_\_ (1)(b) Column – 2' x 2', 12" deep min.
- \_\_\_\_\_ (1)(c) Trench (footing wall) – 8" wide min.
- \_\_\_\_\_ (1)(d) Chimney and fireplace – 4" on each side, 12" deep min.

#### **21.16 Frost Penetration**

- \_\_\_\_\_ Bottom of footing at least 48" below grade
- \_\_\_\_\_ No footings placed on frozen soil

#### **21.17 Drain Tiles (Where Required)**

- \_\_\_\_\_ (3)(d)4. Exterior tile on 2" gravel, covered with 12" gravel plus 12" out from tile
- \_\_\_\_\_ (3)(b) Basement floor on 4" gravel

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- \_\_\_\_\_ (3)(d)5. Interior tile connected to exterior tile with 3" diameter bleeders every 8' min.
- \_\_\_\_\_ (3)(d)6. Tile to sump pitched 1/8" per ft.
- \_\_\_\_\_ (3)(e) Drain tile discharge per s. Comm 82.36

## 21.18 Foundation

### General

- \_\_\_\_\_ As wide as supported wall
- \_\_\_\_\_ (1)(b)&(c) Lateral support at bottom (slab) and top (anchored floor)
- \_\_\_\_\_ (2) Concrete – per Table 21.18-A – min. 3000 psi concrete
- \_\_\_\_\_ (3)(b)1. Unreinforced masonry per Table 21.18-C
- \_\_\_\_\_ (3)(b)5.,6. Masonry reinforced w/rebar per Table 21.18-D, E, & F
- \_\_\_\_\_ (1)(b) Lateral support at top and base of wall

## 21.20 Concrete Floors

- \_\_\_\_\_ (1) At least 3" thick
- \_\_\_\_\_ (2) 4" base course over clay soils

## 21.205 Wood basement floors

- \_\_\_\_\_ Wood foundation – per NFPA Tech Report #7 – No galvanized fasteners

## Framing Inspection

### 21.22 Floors

- \_\_\_\_\_ (1) Joists sized per span tables (size, grade spacing)
- \_\_\_\_\_ (1)(1m) Sill plates
  - \_\_\_\_\_ Any sill plates anchored
- \_\_\_\_\_ (a)3. Masonry walls – Min. sill plate 2" x wall width or solid top course
- \_\_\_\_\_ (4)(b) Truss joists properly installed (bearing points)
- \_\_\_\_\_ (4)(a)2. Girders or beams sized per Table 21.22-A1 or –A2
- \_\_\_\_\_ (4)(a)2. Beam anchored to posts
  - \_\_\_\_\_ (4) Bearing
- \_\_\_\_\_ (a)1.a. 1 1/2" on wood, 3" on concrete or masonry
- \_\_\_\_\_ (a)1.c. Max. joist tail ends equal to depth of joist
- \_\_\_\_\_ (5) Notching and boring complies with this section

- \_\_\_\_\_ (6) Overhangs
  - \_\_\_\_\_ (6)(a) Max. 2' where floor joists extend over wall
  - \_\_\_\_\_ (6)(b) Lookout joists attached properly
  - \_\_\_\_\_ (7) Floor openings
    - \_\_\_\_\_ Doubled trimmers and headers if header over 4'
    - \_\_\_\_\_ Hangers, beams or partition wall support if header over 6'
    - \_\_\_\_\_ Hangers or ledger for tail joists over 8'
  - \_\_\_\_\_ (8) Floor sheathing per Tables 21.22-B – E
  - \_\_\_\_\_ (8)(a) Plywood deck to have blocking, underlay-ment, wood strip flooring or T&G edges
  - \_\_\_\_\_ (9) Bridging every 8' unless not required

## Walls

### 21.24 Exterior Walls

- \_\_\_\_\_ (1). Permanent weather-resistant wall covering
- \_\_\_\_\_ (2) During construction requirements

### 21.25 Wood Frame Walls

- \_\_\_\_\_ (1)(a) Stud size, grade and spacing per Table 21.25-A
- \_\_\_\_\_ (1)(b) Posts or multiple studs at corners
- \_\_\_\_\_ (1)(b) Corner bracing
- \_\_\_\_\_ (2) Proper top plate
- \_\_\_\_\_ (3)(a) Header size per Tables 21.25-B, C or D
- \_\_\_\_\_ (3)(b) Doubled shoulder stud for headers over 6' in bearing wall
- \_\_\_\_\_ (3)(b)3. Double shoulder stud for headers over 6'
- \_\_\_\_\_ (4) Stud not notched more than 1/3 of depth
- \_\_\_\_\_ (5) Load bearing partition over proper support
- \_\_\_\_\_ (6) Post and columns

### 21.26 Masonry Walls

- \_\_\_\_\_ (1) Proper cold weather work measure
- \_\_\_\_\_ (3) Proper mortar per Table 21.26-A
- \_\_\_\_\_ (7) Masonry Veneers
  - \_\_\_\_\_ (7)(a)1. Max. corbel of 1"

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- \_\_\_\_\_ (7)(a)2. Maintain air space
- \_\_\_\_\_ (7)(a)3. Brick ledge or base flashing
- \_\_\_\_\_ (7)(a)4. Weepholes every 3'
- \_\_\_\_\_ (8) Veneer Anchorage
- \_\_\_\_\_ (8)(a)1. Corrugated ties
  - \_\_\_\_\_ Max. veneer unit size of 1 sq. ft.
  - \_\_\_\_\_ Tie every 2 sq. ft.
  - \_\_\_\_\_ Embedded 2" in joint
- \_\_\_\_\_ (8)(a)2. 1/4" dia. bolts for large units
  - \_\_\_\_\_ Each veneer unit w/3 anchors-or-
  - \_\_\_\_\_ units doweled to each other and
  - \_\_\_\_\_ wall anchor every 6 sq. ft.
- \_\_\_\_\_ (8)(b) Option-adhesive anchorage properly done
- \_\_\_\_\_ (9) Framing member bearing-min. of 3"

### Roofs and Ceilings

#### 21.27 Roof Design

- \_\_\_\_\_ (1) Rafters and joists sized per span tables (size, grade, spacing)
- \_\_\_\_\_ (2) Uplift & suction forces
- \_\_\_\_\_ (3)(a)1. Proper protection from water, 15 lb. felt
- \_\_\_\_\_ (3)(b) Eave protection-for roofs with less than 4:12 pitch
- \_\_\_\_\_ (4)(b) Crickets if chimney over 30" wide

#### 21.28 Framing

- \_\_\_\_\_ (1)(a) 2X ridge board if rafters offset
- \_\_\_\_\_ (2) Anchorage and collar ties every third rafter
- \_\_\_\_\_ (4) Hip & valley rafters 2" wider than commons
- \_\_\_\_\_ (4)(a) Doubled valley rafters unless supported
- \_\_\_\_\_ (5) Trusses
  - \_\_\_\_\_ Wood grade marks per plan
  - \_\_\_\_\_ Proper load rating
  - \_\_\_\_\_ Bearing as indicated
  - \_\_\_\_\_ Diag. supports to end walls as indicated
  - \_\_\_\_\_ Lateral support as indicated
  - \_\_\_\_\_ Lateral support of bottom chord as indicated
  - \_\_\_\_\_ No field modifications

- \_\_\_\_\_ (6) Proper notching and boring of joists
- \_\_\_\_\_ (7) Roof sheathing sized properly
  - \_\_\_\_\_ Edges supported or clipped
  - \_\_\_\_\_ w/proper gap

### Fireplace Requirements

#### 21.29 Masonry Fireplaces

- \_\_\_\_\_ (1) Flue size per Table 21.29
- \_\_\_\_\_ (3) Firebox
  - \_\_\_\_\_ Box of 1/4" metal, listed or 2"
  - \_\_\_\_\_ firebrick
  - \_\_\_\_\_ Walls at least 8" thick
- \_\_\_\_\_ (6) Hearth extension per Table 21.29-1
- \_\_\_\_\_ (11) Combustible trim
  - \_\_\_\_\_ None within 6" of opening
  - \_\_\_\_\_ Combustibles between 6" and 12"
  - \_\_\_\_\_ of opening not to project more than
  - \_\_\_\_\_ 1/8" per inch from opening
- \_\_\_\_\_ (12) Combustible framing 2" away

#### 21.30 Masonry Chimneys – See Chapter 23 Checklist

#### 21.32 Factory-Built Fireplaces

- \_\_\_\_\_ Listed
- \_\_\_\_\_ (1) Installed per listing include clearances
- \_\_\_\_\_ (2) Distances from combustibles
- \_\_\_\_\_ (3) Hearth extension

### Chapter 22 ENERGY CONSERVATION STANDARDS

#### 22.03 Insulation

#### 22.05 Fenestration Certification

#### 22.07 Design Temperatures

#### 22.08 Ventilation and Moisture Control

#### 22.10 22.11 Calculating Loads and Procedures

#### Subchapter VI, Dwelling Envelope Designs

#### 22.21 Envelope Requirements

#### 22.22 Vapor Retarders

#### 22.23 Walls

#### 22.24 Roof and Ceiling

#### Equipment Requirements

#### 22.25 Floors Over Unheated Spaces

#### 22.26 Slab On Grade Floors

#### 22.27 Crawlspace Walls

#### 22.28 Basement Walls

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**22.30 Air Leakage**

**22.32 Recessed Lighting Fixtures**

**22.34 Energy Analysis**

**Chapter 23 – HVAC STANDARDS**

**23.02 Design**

- \_\_\_\_\_ (1) Heating and cooling system design
- \_\_\_\_\_ (2) Distribution systems
- \_\_\_\_\_ (3) Ventilation
- \_\_\_\_\_ (4) Controls

**22.03 Heating System**

**23.04 Equipment**

- \_\_\_\_\_ (1) Furnaces
- \_\_\_\_\_ (1)(b) No unvented combustion heaters
- \_\_\_\_\_ (4) Location

**23.045 Solid-Fuel-Burning Appliances**

- \_\_\_\_\_ (1) Listed appliances
- \_\_\_\_\_ (3) Vented to its own lined masonry chimney or factory-built chimney
- \_\_\_\_\_ (4) Chimney connector
- \_\_\_\_\_ (4)(a) Chimney material
- \_\_\_\_\_ (4)(b) 18" clearance to unprotected combustibles (9" if protected w/sheet metal spaced 1" out)
- \_\_\_\_\_ (4)(d)4. Joints secured with 3 screws or rivets
- \_\_\_\_\_ (4)(d)7. Sized to appliance collar
- \_\_\_\_\_ (4)(e) Not run through any floor, ceiling, window, door or combustible wall or concealed in closet or attic
- \_\_\_\_\_ (4)(e)1. May pass through combustible wall if protected w/thimble of diameter 12" more than connector
- \_\_\_\_\_ (4)(f) Damper installed
- \_\_\_\_\_ (5) Floor protection per Table 23.04-C for 18" all around
- \_\_\_\_\_ (6) Appliance clearance of 36" to combustibles unless listed for less
- \_\_\_\_\_ (6)(b)2. Appliance clearance may be reduced per Table 23.045-E
- \_\_\_\_\_ (9)(a) Duct and plenum clearances per Table 23.045-F

**23.06 Combustion Air**

- \_\_\_\_\_ (1) Scope
- \_\_\_\_\_ (2) Methods for providing air

**23.08 Ductwork**

- \_\_\_\_\_ (1) Ducts not used for other purpose
- \_\_\_\_\_ (1)(a)2. No nonmetallic ducts for kitchen hoods or within 6' of furnace
- \_\_\_\_\_ (2)(b) Underfloor plenums per this section
- \_\_\_\_\_ (4) Underground perimeter ducts insulated to R-5
- \_\_\_\_\_ (7) Proper duct support

**23.09 Dampers, Registers and Grilles**

- \_\_\_\_\_ (1) Backdraft dampers on supply ducts to garage
- \_\_\_\_\_ (2)(b) No return grilles in bathrooms, kitchens, garages

**Subchapter V, Chimneys and Vents**

**23.11 General**

- \_\_\_\_\_ (2) Chimney terminates 3' above roof and 2' above any portion of roof within 10'

**23.12 Masonry Chimneys (See Comm 21.30)**

- \_\_\_\_\_ (1) Shall rest on footing
- \_\_\_\_\_ (1) Min. of 4" thick wall
- \_\_\_\_\_ (2) Flue as big as chimney connector
- \_\_\_\_\_ (3) 4" separation between flues
- \_\_\_\_\_ (6) Cleanout opening
- \_\_\_\_\_ (7) Proper flue liner
- \_\_\_\_\_ (9) Proper clearances – 2" for interior chimneys, 1/2" for exterior chimneys

**23.15 Chimney Connectors**

- \_\_\_\_\_ (2)(a) Not run through any window, door, outside combustible wall, closet or attic
- \_\_\_\_\_ (2)(a)1. May pass through combustible wall if protected with proper thimble
- \_\_\_\_\_ (2)(c) Pitch and length
  - \_\_\_\_\_ - No more than 2 - 45° offsets
  - \_\_\_\_\_ - Horizontal run no more than 75% of chimney's vertical rise
  - \_\_\_\_\_ - Pitched at least 1/4" per foot
- \_\_\_\_\_ (2)(d) No manual damper
- \_\_\_\_\_ (2)(e) Thickness per Table 23.15-A or B
- \_\_\_\_\_ (2)(f) Clearance per Table 23.15-C

**23.155 Multiple Automatic Appliance Venting**

- \_\_\_\_\_ (1) Same fuel type
- \_\_\_\_\_ (1) - Located in same story

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- \_\_\_\_\_ (2) - Y manifold or chimney inlets offset by 12" vertically or at right angles to each other
- \_\_\_\_\_ (3) - Flue and common connector sized to largest feeder connector and 1/2 of smaller connector

**23.156 Condensate Drains**

\_\_\_\_\_ Into sanitary drain system

**23.18 Operation**

\_\_\_\_\_ Appliance manual left at location

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