

- Park Fees
- Plumbing Calc.
- Driveway/Sidewalk
- Erosion Control
- Heating Loss Calc. – window schedule
- Braces wall
- Plot plan
- Diggers Hotline
- Elec. Layout
- HVAC layout
- Cross section
- Util. info sheet
- Storm water sheet

Park Fees

\$1217.45

Building Permit Fee

Tree Planting Fee

Total

Paid

\_\_\_\_\_

Check #

\_\_\_\_\_

Lot #

\_\_\_\_\_

***PLEASE RETURN THIS FOLDER TO  
THE BUILDING INSPECTOR'S OFFICE  
WITH ALL COMPLETED MATERIALS***



**STEVEN T. KITTELSON  
BUILDING INSPECTOR**

**CITY OF STOUGHTON**  
207 S. Forrest Street • Stoughton, WI 53589

Ph. (608) 873-7626  
Mobile (608) 577-1893  
Fax (608) 873-5519  
Email: skittelson@ci.stoughton.wi.us



BUILDING PERMIT NO.: \_\_\_\_\_ Date: \_\_\_\_\_

Parcel No.: \_\_\_\_\_ Lot No.: \_\_\_\_\_

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

Owner: \_\_\_\_\_

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

Excavator: \_\_\_\_\_

Sewer & Water Lateral: \_\_\_\_\_

Concrete Walls: \_\_\_\_\_

Concrete Flatwork: \_\_\_\_\_

Plumber: \_\_\_\_\_

Electrician: \_\_\_\_\_

Heating &/or Air Conditioning: \_\_\_\_\_

Insulation: \_\_\_\_\_

Drywall: \_\_\_\_\_

Inspections:

Sewer & Water: \_\_\_\_\_

Footing: \_\_\_\_\_

Concrete Walls: \_\_\_\_\_

Drain Tile: \_\_\_\_\_

Rough Framing: \_\_\_\_\_

Plumbing – ground: \_\_\_\_\_

Plumbing – rough: \_\_\_\_\_

Electrical rough: \_\_\_\_\_

Electrical service: \_\_\_\_\_

Bath fan venting: \_\_\_\_\_

Insulation: \_\_\_\_\_

Final & Occupancy: \_\_\_\_\_



CITY OF STOUGHTON  
STORMWATER UTILITY SERVICE APPLICATION

**Property**

Address: \_\_\_\_\_  
 Parcel Number: \_\_\_\_\_  
 Owner's Name: \_\_\_\_\_

**Applicant**

Contact Name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Telephone: \_\_\_\_\_

RESIDENTIAL (1-2 FAMILY UNITS ONLY)

NON-RESIDENTIAL (MULTI FAMILY, COMMERCIAL, INDUSTRIAL)

<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> NEW <input type="checkbox"/> ADDITION <input type="checkbox"/> DELETIONS
LOT SIZE (SQ-FT): _____  NUMBER OF UNITS :    1        2        (please circle)	LOT SIZE (SQ-FT): _____  EXISTING IMPERVIOUS AREA (SQ-FT): _____  ADDITIONAL OR REMOVED IMPERVIOUS AREA: (SQ-FT) _____  TOTAL IMPERVIOUS AREA (SQ-FT): _____  EQUIVALENT RUNOFF UNITS (ERU): _____ (3,105 sq.ft. = 1 ERU)
ESTIMATED COMPLETION DATE: _____	ESTIMATED COMPLETION DATE: _____ (If your improvement does not require an occupancy permit then the storm water charge will begin based on the estimated completion date.)
<p>The property owner and/or designated agent hereby certifies that the above information is correct and accurate to the best of their knowledge. The City shall use the information to calculate the Stormwater charge in accordance with Chapter 10 Article V of the Stoughton Code of General Ordinances.</p> <p>Signature: _____</p> <p>Print: _____</p>	

City of Stoughton, Code of General Ordinances. S.10-172 New Construction. A property owner shall be responsible for timely submitting a fully completed and accurate stormwater utility service application at the time a building permit is issued or a site plan review is conducted. The application shall be made on a form prescribed by the City and provided with each application for a building permit or application for site plan review. Failure to submit such stormwater utility service application or providing false information on such form shall constitute a violation of this Chapter. The implementation of stormwater charges shall commence as set forth in this Chapter.

Office Use:



# Standard Erosion Control Plan for 1- & 2-Family Dwelling Construction Sites

According to Chapters SPS 320 & 321 of the Wisconsin Uniform Dwelling Code, soil erosion control information needs to be included on the plot plan which is submitted and approved prior to the issuance of building permits for 1- & 2-family dwelling units in those jurisdictions where the soil erosion control provisions of the Uniform Dwelling Code are enforced. This Standard Erosion Control Plan is provided to assist in meeting this requirement.

**Instructions:**

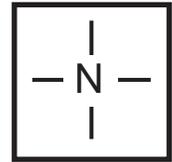
1. Complete this plan by filling in requested information, completing the site diagram and marking appropriate boxes on the inside of this form.
2. In completing the site diagram, give consideration to potential erosion that may occur before, during, and after grading. Water runoff patterns can change significantly as a site is reshaped.
3. Submit this plan at the time of building permit application.

PROJECT LOCATION \_\_\_\_\_

BUILDER \_\_\_\_\_ OWNER \_\_\_\_\_

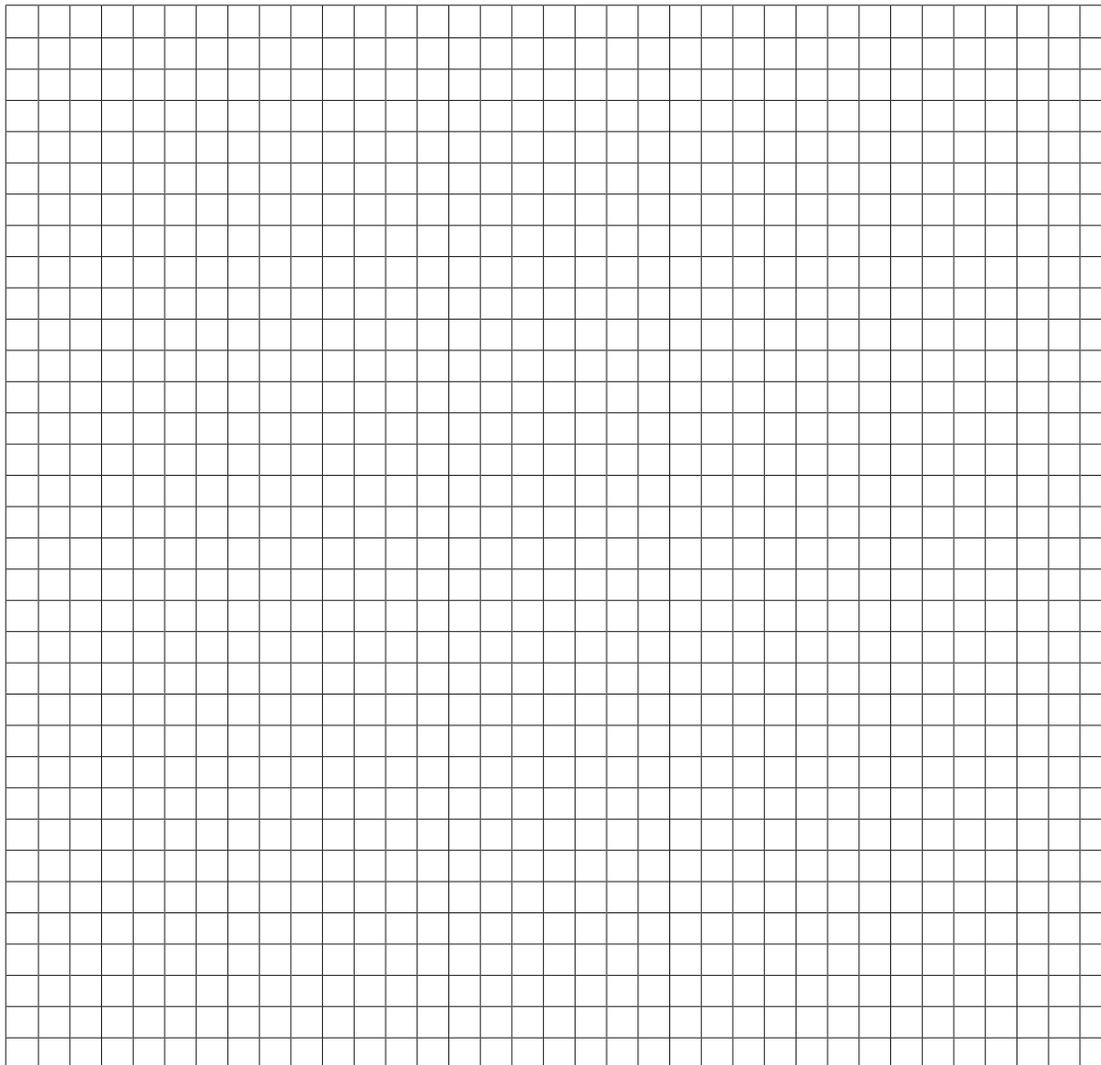
WORKSHEET COMPLETED BY \_\_\_\_\_ DATE \_\_\_\_\_

Please indicate north by completing the arrow.



**SITE DIAGRAM**

Scale: 1 inch = \_\_\_\_ feet



**EROSION CONTROL PLAN LEGEND**

- PROPERTY LINE
- ▶ EXISTING DRAINAGE
- ▶ TD TEMPORARY DIVERSION
- ▶ FINISHED DRAINAGE
- - - LIMITS OF GRADING
- SILT FENCE
- STRAW BALES
- GRAVEL
- VEGETATION SPECIFICATION
- TREE PRESERVATION
- STOCKPILED SOIL

COMPLETED

NOT APPLICABLE

# EROSION CONTROL PLAN CHECKLIST

Check (✓) appropriate boxes below, and complete the site diagram with necessary information.

## Site Characteristics

- |                          |                          |  |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | North arrow, scale, and site boundary. Indicate and name adjacent streets or roadways. |
| <input type="checkbox"/> | <input type="checkbox"/> | Location of existing drainageways, streams, rivers, lakes, wetlands or wells.          |
| <input type="checkbox"/> | <input type="checkbox"/> | Location of storm sewer inlets.  |
| <input type="checkbox"/> | <input type="checkbox"/> | Location of existing and proposed buildings and paved areas.                           |
| <input type="checkbox"/> | <input type="checkbox"/> | The disturbed area on the lot.   |
| <input type="checkbox"/> | <input type="checkbox"/> | Approximate gradient and direction of slopes before grading operations.                |
| <input type="checkbox"/> | <input type="checkbox"/> | Approximate gradient and direction of slopes after grading operations.                 |
| <input type="checkbox"/> | <input type="checkbox"/> | Overland runoff (sheet flow) coming onto the site from adjacent areas.                 |

## Erosion Control Practices

- |                          |                          |  |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Location of temporary soil storage piles.<br>Note: Soil storage piles should be placed behind a sediment fence, a 10 foot wide vegetative strip, or should be covered with a tarp or more than 25 feet from any downslope road or drainageway.   |
| <input type="checkbox"/> | <input type="checkbox"/> | Location of access drive(s).<br>Note: Access drive should have 2 to 3 inch aggregate stone laid at least 7 feet wide and 6 inches thick. Drives should extend from the roadway 50 feet or to the house foundation (whichever is less).   |
| <input type="checkbox"/> | <input type="checkbox"/> | Location of sediment controls (filter fabric fence, straw bale fence or 10-foot-wide vegetative strip) that will prevent eroded soil from leaving the site.  |
| <input type="checkbox"/> | <input type="checkbox"/> | Location of sediment barriers around on-site storm sewer inlets.   |
| <input type="checkbox"/> | <input type="checkbox"/> | Location of diversions.<br>Note: Although not specifically required by code, it is recommended that concentrated flow (drainageways) be diverted (re-directed) around disturbed areas. Overland runoff (sheet flow) from adjacent areas greater than 10,000 sq. ft. should also be diverted around disturbed areas.  |
| <input type="checkbox"/> | <input type="checkbox"/> | Location of practices that will be applied to control erosion on steep slopes (greater than 12% grade).<br>Note: Such practices include maintaining existing vegetation, placement of additional sediment fences, diversions, and re-vegetation by sodding or seeding with use of erosion control mats.  |
| <input type="checkbox"/> | <input type="checkbox"/> | Location of practices that will control erosion on areas of concentrated runoff flow.<br>Note: Unstabilized drainageways, ditches, diversions, and inlets should be protected from erosion through use of such practices as in-channel fabric or straw bale barriers, erosion control mats, staked sod, and rock rip-rap. When used, a given in-channel barrier should not receive drainage from more than two acres of unpaved area, or one acre of paved area. In-channel practices should not be installed in perennial streams (streams with year round flow). |
| <input type="checkbox"/> | <input type="checkbox"/> | Location of other planned practices not already noted.   |

COMPLETED

NOT APPLICABLE

Indicate management strategy by checking (✓) the appropriate box.

## Management Strategies

Temporary stabilization of disturbed areas.

Note: It is recommended that disturbed areas and soil piles left inactive for extended periods of time be stabilized by seeding (between April 1 and September 15), or by other cover, such as tarping or mulching.

Permanent stabilization of site by re-vegetation or other means as soon as possible (lawn establishment).

- Indicate re-vegetation method:  Seed  Sod  Other \_\_\_\_\_
- Expected date of permanent re-vegetation: \_\_\_\_\_
- Re-vegetation responsibility of:  Builder  Owner/Buyer
- Is temporary seeding or mulching planned if site is not seeded by Sept. 15 or sodded by Nov. 15?  Yes  No

Use of downspout and/or sump pump outlet extensions.

Note: It is recommended that flow from downspouts and sump pump outlets be routed through plastic drainage pipe to stable areas such as established sod or pavement.

Trapping sediment during de-watering operations.

Note: Sediment-laden discharge water from pumping operations should be ponded behind a sediment barrier until most of the sediment settles out.

Proper disposal of building material waste so that pollutants and debris are not carried off-site by wind or water.

Maintenance of erosion control practices.

- Sediment will be removed from behind sediment fences and barriers before it reaches a depth that is equal to half the height of the barrier.
- Breaks and gaps in sediment fences and barriers will be repaired immediately. Decomposing straw bales will be replaced (typical bale life is three months).
- All sediment that moves off-site due to construction activity will be cleaned up before the end of the same workday.
- All sediment that moves off-site due to storm events will be cleaned up before the end of the next workday.
- Access drives will be maintained throughout construction.
- All installed erosion control practices will be maintained until the disturbed areas they protect are stabilized.

# EROSION CONTROL REGULATIONS

Erosion control and stormwater regulations can be complex. Local, state and, in some cases, federal regulations may apply. Before construction make sure you have the appropriate permits.

## LOCAL ORDINANCES

Check with your county, city, village, or town for any local erosion control ordinances including shoreland zoning requirements. Except for new 1- & 2-family dwellings, local ordinances may be more strict than state regulations. They may also require erosion control on construction projects not affected by state or federal regulations.

## UNIFORM DWELLING CODE (DEPT. OF COMMERCE)

### CONTROLS REQUIRED

- Silt fences, straw bales, or other approved perimeter measures along downslope sides and side slopes.
- Access drive.
- Straw bales, filter fabric fences or other barriers to protect on-site sewer inlets.
- Additional controls if needed for steep slopes or other special conditions.

### FOR MORE INFORMATION, CONTACT:

- Local building inspector
- Department of Commerce, Safety and Buildings Division, P.O. Box 7970, Madison, Wis. 53707-7970, (608) 267-5113.

## STORMWATER PERMIT (DEPT. OF NATURAL RESOURCES)

### CONTROLS REQUIRED

- Erosion control measures specified in the *Wisconsin Construction Site Best Management Practice Handbook*.
- Measures to control storm water after construction.

### FOR MORE INFORMATION, CONTACT

- Department of Natural Resources, Storm Water Permits, P.O. 7921, Madison, WI 53707-7921, (608) 267-7694.

For more assistance on plan preparation, refer to the Wisconsin Uniform Dwelling Code, the DNR *Wisconsin Construction Site Best Management Handbook*, and UW-Extension publication *Erosion Control for Home Builders*. The *Wisconsin Uniform Dwelling Code* and the *Wisconsin Construction Site Best Management Handbook* are available through the State of Wisconsin Document Sales, (608) 266-3358.

*Erosion Control for Home Builders* (GWQ001) can be ordered through Extension Publications, (608) 262-3346 or the Department of Commerce, (608) 267-4405. A PDF version of *Erosion Control for Home Builders* (GWQ001) and *Standard Erosion Control Plan* are also available at <http://clean-water.uwex.edu/pubs/sheets>

This publication is available from county UW-Extension offices or from Extension Publications, 45 N. Charter St., Madison, WI 53715. (608) 262-3346 or toll-free (877) 947-7827. A publication of the University of Wisconsin-Extension in cooperation with the Wisconsin Department of Natural Resources and the Wisconsin Department of Commerce.



©1999 by the Board of Regents of the University of Wisconsin System. Send inquiries about copyright permission to: Cooperative Extension Publications, 432 North Lake Street, Madison, WI 53706. University of Wisconsin-Extension is an EEO/Affirmative Action employer and provides equal opportunities in employment and programming, including Title IX and ADA requirements.

**GWQ001A Standard Erosion Control Plan for 1 & 2 Family Dwelling Construction Sites**

**DNR WT-458-96**

**R-03-02-2M-10-S**

Editing and design by the Environmental Resources Center, University of Wisconsin-Extension.



Dept of Safety & Professional Services Industry Services Division Wisconsin Stats. 101.63, 101.73	<h2 style="margin: 0;">Wisconsin Uniform Building Permit Application</h2> <p style="margin: 0;"><b>Instructions on back of second ply.</b> The information you provide may be used by other government agency programs [(Privacy Law, s. 15.04 (1)(m))]</p>	Application No.  Parcel No.
---	---	-----------------------------------

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

Owner's Name	Mailing Address	Tel.
Contractor Name & Type	Lic/Cert#	Exp Date
Dwelling Contractor (Constr.)		
Dwelling Contr. Qualifier (The Dwelling Contr. Qualifier shall be an owner, CEO, COB or employee of the Dwelling Contr.)		
HVAC		
Electrical Contractor		
Electrical Master Electrician		
Plumbing		

**PROJECT LOCATION**    Lot area \_\_\_\_\_ Sq.ft.     One acre or more of soil will be disturbed     Town  Village  City of \_\_\_\_\_    \_\_\_\_\_ 1/4, \_\_\_\_\_ 1/4, of Section \_\_\_\_\_, T \_\_\_\_\_ N, R \_\_\_\_\_ E/W

Building Address	County	Subdivision Name	Lot No.	Block No.
Zoning District(s)	Zoning Permit No.	<b>Setbacks:</b>	Front _____ ft.	Rear _____ ft.
			Left _____ ft.	Right _____ ft.

<b>1. PROJECT</b>	<b>3. OCCUPANCY</b>	<b>6. ELECTRIC</b>	<b>9. HVAC EQUIP.</b>	<b>12. ENERGY SOURCE</b>																												
<input type="checkbox"/> New <input type="checkbox"/> Repair <input type="checkbox"/> Alteration <input type="checkbox"/> Raze <input type="checkbox"/> Addition <input type="checkbox"/> Move <input type="checkbox"/> Other:	<input type="checkbox"/> Single Family <input type="checkbox"/> Two Family <input type="checkbox"/> Garage <input type="checkbox"/> Other:	Entrance Panel Amps: _____ <input type="checkbox"/> Underground <input type="checkbox"/> Overhead <b>7. WALLS</b> <input type="checkbox"/> Wood Frame <input type="checkbox"/> Steel <input type="checkbox"/> ICF <input type="checkbox"/> Timber/Pole <input type="checkbox"/> Other:	<input type="checkbox"/> Furnace <input type="checkbox"/> Radiant Basebd <input type="checkbox"/> Heat Pump <input type="checkbox"/> Boiler <input type="checkbox"/> Central AC <input type="checkbox"/> Fireplace <input type="checkbox"/> Other:	<table style="width:100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">Fuel</td> <td style="text-align: center;">Nat Gas</td> <td style="text-align: center;">LP</td> <td style="text-align: center;">Oil</td> <td style="text-align: center;">Elec</td> <td style="text-align: center;">Solid</td> <td style="text-align: center;">Solar Geo</td> </tr> <tr> <td style="text-align: center;">Space Htg</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td style="text-align: center;">Water Htg</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>	Fuel	Nat Gas	LP	Oil	Elec	Solid	Solar Geo	Space Htg	<input type="checkbox"/>	Water Htg	<input type="checkbox"/>																	
Fuel	Nat Gas	LP	Oil	Elec	Solid	Solar Geo																										
Space Htg	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																										
Water Htg	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																										
<b>2. AREA INVOLVED (sq ft)</b>	<b>4. CONST. TYPE</b>	<b>8. USE</b>	<b>10. SEWER</b>	<b>13. HEAT LOSS</b>																												
<table style="width:100%; border-collapse: collapse;"> <tr> <th style="width:10%;"></th> <th style="width:15%;">Unit 1</th> <th style="width:15%;">Unit 2</th> <th style="width:15%;">Total</th> </tr> <tr> <td>Unfin.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Bsmt</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Living Area</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Garage</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Deck/Porch</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Totals</td> <td></td> <td></td> <td></td> </tr> </table>		Unit 1	Unit 2	Total	Unfin.				Bsmt				Living Area				Garage				Deck/Porch				Totals				<input type="checkbox"/> Site-Built <input type="checkbox"/> Mfd. per WI UDC <input type="checkbox"/> Mfd. per US HUD <b>5. STORIES</b> <input type="checkbox"/> 1-Story <input type="checkbox"/> 2-Story <input type="checkbox"/> Other: <input type="checkbox"/> Basement	<input type="checkbox"/> Seasonal <input type="checkbox"/> Permanent <input type="checkbox"/> Other:	<input type="checkbox"/> Municipal <input type="checkbox"/> Sanitary Permit# _____ <b>11. WATER</b> <input type="checkbox"/> Municipal <input type="checkbox"/> On-Site Well	<b>14. EST. BUILDING COST w/o LAND</b> _____ \$ _____ BTU/HR Total Calculated Envelope and Infiltration Losses (available from "Total Building Heating Load" on Rescheck report)
	Unit 1	Unit 2	Total																													
Unfin.																																
Bsmt																																
Living Area																																
Garage																																
Deck/Porch																																
Totals																																

I understand that I: am subject to all applicable codes, laws, statutes and ordinances, including those described on the reverse side of the last ply of this form; am subject to any conditions of this permit; understand that the issuance of this permit creates no legal liability, express or implied, on the state or municipality; and certify that all the above information is accurate. If one acre or more of soil will be disturbed, I understand that this project is subject to ch. NR 151 regarding additional erosion control and stormwater management and the owner shall sign the statement on the back of the permit if not signing below. 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.

I vouch that I am or will be an owner occupant of this dwelling for which I am applying for an erosion control or construction permit without a Dwelling Contractor Certification and have read the cautionary statement regarding contractor responsibility on the second page of this form.

**APPLICANT (Print:)** \_\_\_\_\_ **Sign:** \_\_\_\_\_ **DATE** \_\_\_\_\_

**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.

<b>ISSUING JURISDICTION</b>	<input type="checkbox"/> Town of _____ <input type="checkbox"/> Village of _____ <input type="checkbox"/> City of _____	<input type="checkbox"/> County of _____ <input type="checkbox"/> State _____	State-Contracted Inspection Agency#: _____	Municipality Number of Dwelling Location _____
-----------------------------	---	--	--	--

<b>FEES:</b>	<b>PERMIT(S) ISSUED</b>	<b>WIS PERMIT SEAL #</b>	<b>PERMIT ISSUED BY:</b>
Plan Review    \$ Inspection    \$ Wis. Permit Seal    \$ Other    \$ Total    \$	<input type="checkbox"/> Construction <input type="checkbox"/> HVAC <input type="checkbox"/> Electrical <input type="checkbox"/> Plumbing <input type="checkbox"/> Erosion Control	_____	Name _____ Date _____ Tel. _____ Cert No. _____ Email: _____



# City of Stoughton

## Ordinance 10-2(d) Terrace Tree Planting Guidelines

This form is to be used by the City Forester to help consistently determine the amount of trees needed for each lot or parcel that is required under Ordinance 10-2(d). The goal is to plant the most robust trees, at maturity, that are properly suited for the location for which trees are required and taking into account existing trees that meet the requirements of the ordinance.

**\*Form to be filled out by the City Forester and returned to the Planning Department\***

Name of Parcel Owner: \_\_\_\_\_ Date: \_\_\_\_\_

Address of Parcel: \_\_\_\_\_

Telephone Number of Parcel Owner: \_\_\_\_\_

Scope of Building Project: \_\_\_\_\_

### Terrace Tree Calculation

#### Step 1: Select Terrace Width

<u>Select One</u>	<u>Park Row Width</u>	<u>Tree Size</u>	<u>Tree Spacing</u>
_____	4'-6'	Small	30'
_____	6'-8'	Medium	40'
_____	8' plus	Large	50'

#### Step 2: Calculation to Determine Number of Trees

Total Property Frontage \_\_\_\_\_ divided by tree spacing from above \_\_\_\_\_ = Number of trees \_\_\_\_\_

*\*Round all numbers down to the nearest whole number*

#### Step 3: Existing Trees Identified Within the Right-of-Way

Total number of trees credited that meet the requirements of Ord. 10-2(d): \_\_\_\_\_

#### Step 4: Calculate Payment to the city

Total number of trees required \_\_\_\_\_ x \$300 = \_\_\_\_\_ (Minimum of two trees)

#### Step 5: Number of Trees Recommended to be Planted on Private Property: \_\_\_\_\_

Justification for planting on private property:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Signed property owner consent form if planting on private property: Yes \_\_\_ No \_\_\_

Urban Forester: \_\_\_\_\_ Date: \_\_\_\_\_

Director of Public Works: \_\_\_\_\_ Date: \_\_\_\_\_



# Stoughton *Wisconsin*

207 S. Forrest Street, Stoughton, WI 53589 Phone: (608) 873-6677

---

## APPLICATION FOR PERMIT TO INSTALL, EXPAND, OR RECONSTRUCT A DRIVEWAY/APRON/SIDEWALK IN THE RIGHT-OF-WAY

---

### I. APPLICANT INFORMATION (property owner)

Applicant \_\_\_\_\_ Date of Application \_\_\_\_\_

Applicant Address \_\_\_\_\_

Phone Number \_\_\_\_\_ Email \_\_\_\_\_

---

### II. CONTRACTOR INFORMATION

Contractor Name \_\_\_\_\_ Contact Person \_\_\_\_\_

Phone Number \_\_\_\_\_ Email Address \_\_\_\_\_

---

### III. PROPOSED WORK

#### A. SCHEDULE

Start Date \_\_\_\_\_ Completion Date \_\_\_\_\_

#### B. TYPE OF PROPOSED WORK (check all that apply)

- Driveway: Width at property line \_\_\_\_\_
- Apron: Width at curb \_\_\_\_\_ Width at outer edge of sidewalk \_\_\_\_\_
- Sidewalk: Length in feet \_\_\_\_\_ Width in feet \_\_\_\_\_

*\*Sidewalk thickness shall be 4 inches, 6 inches if through a driveway. Width shall be 5 feet and may taper to match existing sidewalk. Placement shall be within 6 inches outside the property lot line or even with existing. Backfilling around sidewalks shall occur as soon as practical after 7-day cure.*

**All sidewalk/apron/driveway projects shall be constructed according to the City of Stoughton standards.**

**C. DESCRIPTION OF PROPOSED WORK** *(check all that apply)*

- New Installation \_\_\_\_\_
- Repair/Maintenance \_\_\_\_\_
- Replacement \_\_\_\_\_
- Expansion \_\_\_\_\_

**D. ANTICIPATED SURFACE TYPE AND AREA** *(check all that apply)*

- Asphalt
- Concrete

Approximate area of disturbance: \_\_\_\_\_ sq. ft.

---

**IV. PLANS**

Please attach a site plan identifying lot lines and all dimensions

---

**V. FEE**

Please include payment of the \$50 permit fee

---

**VI. CERTIFICATION**

- That Applicant will faithfully comply with the terms of this permit, including any applicable special provisions;
  - That Applicant will comply with all applicable Federal, State of Wisconsin, and City of Stoughton statutes, ordinances, rules and regulations;
  - That Applicant will indemnify, defend and hold the City of Stoughton harmless from any and all claims, liability, loss, damage or expense, including attorneys' fees and the costs of litigation, incurred by the City of Stoughton on account of any injury to or death of any person or any damage to property, or caused by or resulting from any activity or work performed under this permit;
  - That Applicant will purchase and maintain the insurance required pursuant to Attachment A, and will include the City as an additional insured on such policies of insurance;
  - That Applicant at all times must place and maintain the proper signage as outlined in the Manual on Traffic Control Devices (MUTCD);
  - That Applicant will leave the street, sidewalk, alley or terrace in as good or better condition than existed when the work was commenced;
  - That all restoration of the sidewalk and terrace shall be completed within fourteen (14) calendar days of the closing of the excavation;
  - That all such restoration work shall be guaranteed for a period of three (3) years from the date of completion; and
  - That if this proposed work requires a pedestrian detour, Applicant will provide the Department of Planning and Development, seventy-two (72) hours notice prior to commencement of the work
-

**VII. APPLICANT ACKNOWLEDGEMENT & SIGNATURE**

In accepting a permit, the Applicant hereby agrees to comply with the terms and conditions of this permit; agrees to comply with all local, state and federal codes; agrees to perform all work according to good engineering practices; agrees to protect public safety; and agrees to properly restore the right-of-way.

A copy of any permit issued shall be made available at all times by the Applicant at the indicated work site and shall be available for inspection by the Department of Planning and Development upon request.

THE ACCEPTANCE OF THIS PERMIT BY THE APPLICANT CONSTITUTES AN ACKNOWLEDGEMENT AND ACCEPTANCE OF THE TERMS AND CONDITIONS IN THIS PERMIT APPLICATION.

Applicant Signature \_\_\_\_\_

Date \_\_\_\_\_

**ATTACHMENT A**

**Excavation in the Right-of-Way Insurance Requirements**

**General Liability Coverage:**

- Commercial General Liability
  - \$1,000,000 General aggregate
  - \$1,000,000 Products/completed operations aggregate
  - \$1,000,000 Personal injury and advertising injury
  - \$1,000,000 Each occurrence limit

**Note:** Insurance shall be written on an occurrence basis. Claims made form of coverage is **NOT ACCEPTABLE**.

**Insurance must include:**

- Premises and operations liability
- Blanket contractual liability including coverage for joint negligence of the City of Stoughton, its officer, council members, agents, employees authorized volunteers and the named insured
- Personal injury
- Explosion, collapse, and underground coverage
- Products/completed operations
- The general aggregate must apply separately to the project/location

**Business Auto**

- Limits: \$250,000 each person / \$500,000 each accident for bodily injury, and \$100,000 for property damage  
**OR**  
\$500,000 combined single limit for bodily injury and property damage each accident
- Must cover liability for any auto including owned, non-owner, and hired automobile liability

**Workers Compensation (WC) & Employers Liability**

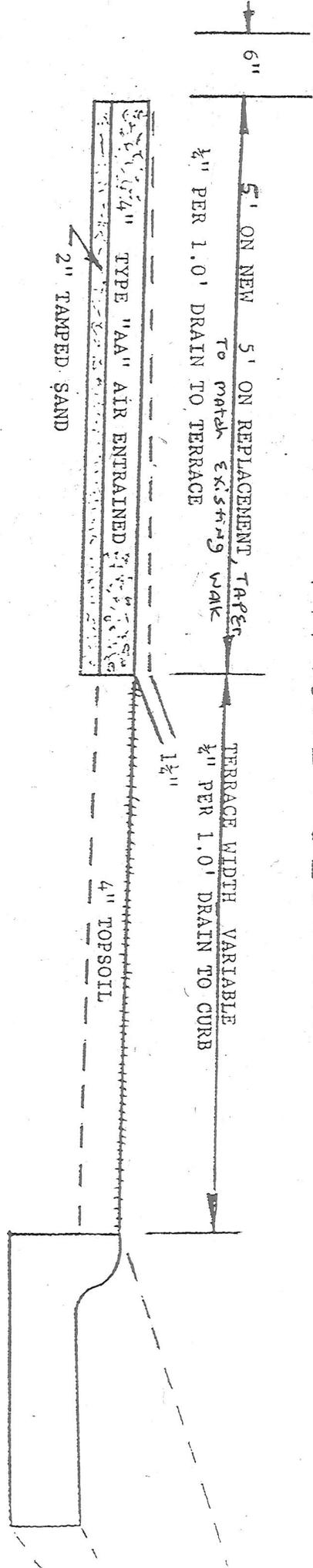
- Must cover for statutory WC and Employers liability limit of:
  - \$100,000 Each accident
  - \$500,000 Disease policy limit
  - \$100,000 Disease each employee

**Builders Risk/ Installation Floater**

- The City of Stoughton will not assume responsibility for loss, including loss of use, for damage to property, materials, tools, equipment, or items of a similar nature.

# CITY OF STOUGHTON SIDEWALK SPECIFICATIONS

## TYPICAL SECTION



MIX

READY-MIX 5 1/2 BAG

3/4" Stone

Water Maximum- 6 Gals. per Sack of Cement  
SLUMP- 4"

THICKNESS AT DRIVEWAY- 6"

Place 4 #4 re-rods below neutral axis at all lateral crossings on new.  
Medium broom finish.

Jointed at 5' intervals and expansion jt. at 25' intervals.



## Chapters SPS 320 to 325

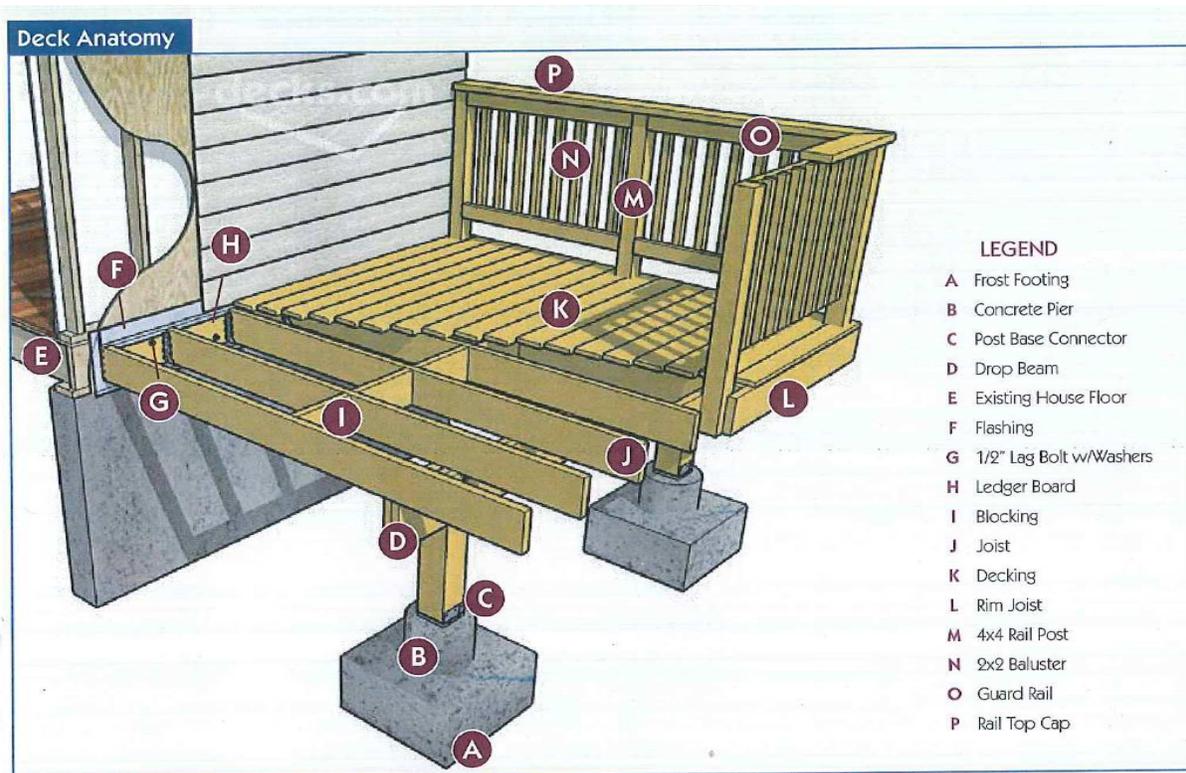
## APPENDIX B

Section	Page	Section	Page
1 GENERAL REQUIREMENTS .....	233	9 LEDGER-BOARD FASTENERS .....	243
2 FOOTINGS, AND POST CONNECTIONS .....	234	10 FREE-STANDING DECKS .....	245
3 POSTS AND POST-TO-BEAM CONNECTIONS .....	236	11 LATERAL SUPPORT .....	246
4 BEAMS .....	237	12 DECKING .....	248
5 JOISTS .....	238	13 GUARD AND POSTS .....	248
6 JOIST-TO-BEAM CONNECTIONS .....	240	14 STAIRS .....	250
7 JOIST HANGERS .....	240	15 FRAMING PLAN .....	254
8 LEDGER ATTACHMENTS .....	241		

## SECTION 1: GENERAL REQUIREMENTS

- All lumber, including for decking, must be pressure-preservative-treated and must be either douglas fir/larch, hemlock/fir, spruce/pine/fir (SPF), or southern pine, of grade #2 or better – unless a naturally durable species such as a western red cedar is used. Lumber in contact with the ground must be rated as “ground-contact.” The lumber must be identified by the grade mark of, or certificate of inspection issued by, a professional lumber-grading or inspection bureau or agency ([www.alsc.org](http://www.alsc.org)).

**Note:** Not all treated lumber is rated for ground contact. See Table C-1 in Appendix C for further information.



- Wood-plastic composites must bear a label indicating their performance criteria and compliance with ASTM D7032.

**Note:** Wood–plastic composites are materials composed of wood fibers or powder that is bound with plastic and used typically as decking and elements of a guard or handrail.

**Note:** When using a wood–plastic composite, exercise caution as some composite members do not have the same capabilities as their equivalent wood sizes.

3. Nails must be threaded, which includes ring–shanked (annular–grooved) and spiral–grooved.
 

**Note:** A 1/8 inch pilot hole is recommended for all toe–nailing locations.
4. All fasteners must be galvanized steel, stainless steel, or approved for use with preservative–treated lumber.
5. Throughout this document, 1/2 inch–diameter bolts and lag screws are specified for various connections. Edge distance and spacing requirements are based on 1/2 inch–diameter fasteners. If larger (or smaller) fasteners are specified, edge distance and spacing need to be adjusted.
6. Carriage–bolts may be substituted where through–bolts are specified, if carriage–bolt washers are installed at the bolt head.
 

**Note:** Carriage–bolt washers have square holes.
7. Hardware, including joist hangers or post anchors, must be galvanized steel with 1.85 ounces of zinc per square foot (G–185 coating), or stainless steel. All fasteners that are used with any hardware must be the same material as the hardware. All hardware must be installed in accordance with any instructions from the manufacturer.
 

**Note:** For galvanized steel, look for product lines such as “Zmax,” “Triple Zinc,” or “Gold Coat.”

**Note:** Galvanized steel is not compatible with stainless steel, which can result in rapid corrosion and structural failure.

**Note:** Hardware and fasteners that are beneath a hot tub which uses salt–water disinfection should be stainless steel, grade 304 or 316.
8. Every deck must have an electrical outlet along the perimeter of the deck and within 6.5 feet of the floor in accordance with NEC section 210.52(E)(3). See ch. [SPS 316](#) of the Wisconsin Administrative Code for requirements about installing electrical wiring.
9. A deck constructed in accordance with these standards is not approved for concentrated loads that exceed 40 pounds per square foot (psf), such as from privacy screens, planters, built–in seating, hot tubs, stairs for multiple–level decks, or from snow–drift loads or sliding–snow loads. Engineering analysis is needed for these loads.
 

**Note:** See Appendix C for features of a deck which are somewhat uncommon or which have more complexity than is addressed in this Appendix – such as design values for joists consisting of western cedar or red pine, framing details around chimneys and bay windows, or ledger boards for metal–plate–connected wood floor trusses. Appendix C also includes reference material, such as more–detailed specifications for fasteners.
10. Specifications for fasteners and hardware. All nails must meet the requirements of ASTM F1667. Wood screws must meet the requirements of ANSI/ASME B18.6.1. Bolts and lag screws must meet the requirements of ANSI/ASME B18.2.1.
 

Fasteners to be hot–dipped galvanized must meet the requirements of ASTM A153, *Standard Specification for Zinc Coating (Hot–Dip) on Iron and Steel Hardware*, Class D for fasteners 3/8” diameter and smaller or Class C for fasteners with diameters over 3/8”.

Fasteners other than nails and timber rivets may consist of mechanically deposited zinc–coated steel with coating weights in accordance with ASTM B695, Class 55, minimum.

Hardware to be hot–dipped prior to fabrication must meet ASTM A653, *Standard Specification for Steel Sheet, Zinc–Coated (Galvanized) or Zinc–Iron Alloy–Coated (Galvannealed) by the Hot–Dip Process*, G–185 coating. Hardware to be hot–dipped galvanized after fabrication must meet ASTM A123, *Specification for Zinc (Hot–Dip Galvanized) Coatings on Iron and Steel Products*.
11. Safety glazing at decks shall be in accordance with the safety glazing requirements of the Uniform Dwelling Code (UDC).

## SECTION 2: FOOTINGS, AND POST CONNECTIONS

Footings must comply with all of the following:

1. Concrete must be used and must have a minimum compressive strength of 3,000 pounds per square inch.

2. Footing size and thickness must be in accordance with Table 1. (See sections 4 and 5 for determining post spacing and joist length.)
3. Post attachments must be in accordance with Figure 1 except expansion anchors are also permitted – and any instructions from the manufacturer of the anchor must be followed.
4. Post anchors must include a 1–inch–minimum base plate. Steel plates are not required.
5. Each post must bear directly over the middle one–third of a footing.
6. Footings must bear on solid ground below the frost penetration level or at least 48 inches below finished grade, whichever is deeper. Bearing onto unprepared fill material, organic soil, alluvial soil, or mud is prohibited. The bearing capacity of the soil is presumed to be at least 2000 pounds per square foot (psf), and must be verified by a building inspector prior to placement of concrete.
7. If the edge of a deck footing is closer than 5 feet to an existing house wall, the footing must bear at the same elevation as the existing footing for that wall.
8. Construction of footings over utility lines or any service pipe is prohibited.

**Note:** Call the utility provider before digging.

**Table 1**  
**FOOTING SIZE (In Inches)<sup>1,2,3</sup>**

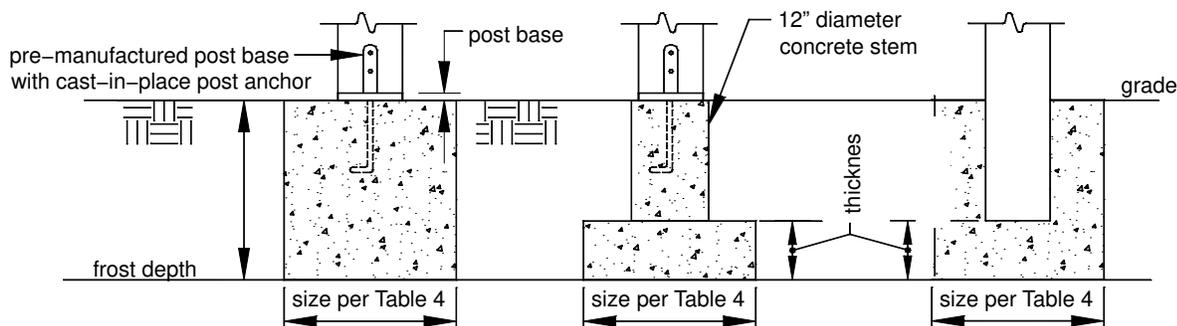
Joist Length		Post Spacing (Measured Center to Center)										
		4'	5'	6'	7'	8'	9'	10'	11'	12'	13'	14'
6'	Corner Footing	8	9	10	11	11	12	12	13	14	14	15
	Intermediate Footing	10	11	12	13	14	15	15	16	17	17	18
	Footing Thickness	6	6	6	6	6	6	6	6	6	6	8
7'	Corner Footing	9	10	11	11	12	13	13	14	15	15	16
	Intermediate Footing	11	12	13	14	15	16	17	17	18	19	19
	Footing Thickness	6	6	6	6	6	6	6	6	8	8	8
8'	Corner Footing	10	10	11	12	13	14	14	15	15	16	17
	Intermediate Footing	12	13	14	15	16	17	18	19	19	20	21
	Footing Thickness	6	6	6	6	6	6	8	8	8	8	8
9'	Corner Footing	10	11	12	13	14	14	15	16	16	17	18
	Intermediate Footing	12	14	15	16	17	18	19	20	20	21	22
	Footing Thickness	6	6	6	6	6	8	8	8	8	8	8
10'	Corner Footing	10	12	12	13	14	15	16	16	17	18	18
	Intermediate Footing	13	14	15	17	18	19	20	21	21	22	23
	Footing Thickness	6	6	6	6	8	8	8	8	8	8	10
11'	Corner Footing	11	12	13	14	15	16	16	17	18	19	19
	Intermediate Footing	13	15	16	17	19	20	21	22	22	23	24
	Footing Thickness	6	6	6	6	8	8	8	8	8	10	10
12'	Corner Footing	11	12	14	15	15	16	17	18	19	19	20
	Intermediate Footing	14	15	17	18	19	20	21	22	23	24	25
	Footing Thickness	6	6	6	8	8	8	8	8	10	10	10
13'	Corner Footing	12	13	14	15	16	17	18	19	19	20	21
	Intermediate Footing	14	16	17	19	20	21	22	23	24	25	26
	Footing Thickness	6	6	6	8	8	8	8	10	10	10	10
14'	Corner Footing	12	13	15	16	17	18	18	19	20	21	22
	Intermediate Footing	15	17	18	19	21	22	23	24	25	26	27
	Footing Thickness	6	6	8	8	8	8	10	10	10	10	10
15'	Corner Footing	12	14	15	16	17	18	19	20	21	22	22
	Intermediate Footing	15	17	19	20	21	23	24	25	26	27	28
	Footing Thickness	6	6	8	8	8	10	10	10	10	10	12
16'	Corner Footing	13	14	15	17	18	19	20	20	21	22	23
	Intermediate Footing	16	18	19	21	22	23	25	26	27	28	29
	Footing Thickness	6	8	8	8	8	10	10	10	10	12	12

<sup>1</sup>All footing sizes are base diameters<sup>2</sup>.

<sup>2</sup>For square footings, insert the diameter (d) into the following formula:  $\sqrt{((d/2)^2 \times \pi)}$ . This number will give you the square dimension and must be rounded up to the nearest inch.

<sup>3</sup>Joist length is the joist span plus any overhang beyond a beam. See section 5.4.

**Figure 1**  
**FOOTINGS**



**SECTION 3: POSTS AND POST-TO-BEAM CONNECTIONS**

Posts must comply with all of the following:

1. The post height, measured from the top of the footing to the underside of the beam, must be in accordance with Table 2.

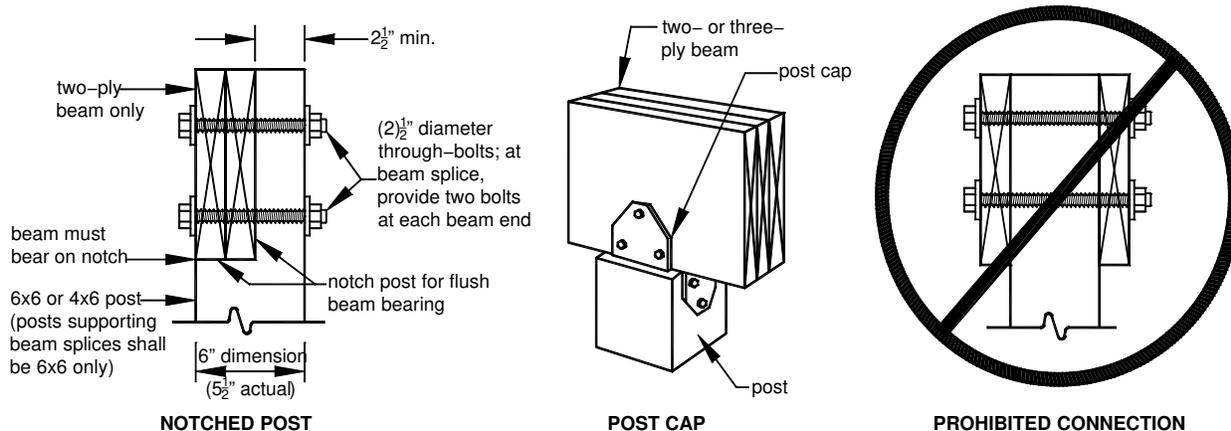
**Table 2**  
**MAXIMUM POST HEIGHT**

Post Size	Maximum Height
4"x4"	6'
4"x6"	8'
6"x6"	14'

2. Any post supporting a beam splice must be a minimum of 6"x6".
3. Beams must be attached to posts by the appropriate methods shown in Figure 2. Toe-nailing of beams to posts is prohibited.
4. Post caps, as shown in Figure 2, must be specifically designed for 2- or 3-ply beams and the post size used. Attachment must be in accordance with the manufacturer's instructions.
5. It is recommended that cut-ends of posts should be field-treated with a wood preservative. These preservatives can be found in the paint department of most hardware or home-center stores.

**Figure 2**

**POST-TO-BEAM CONNECTIONS**

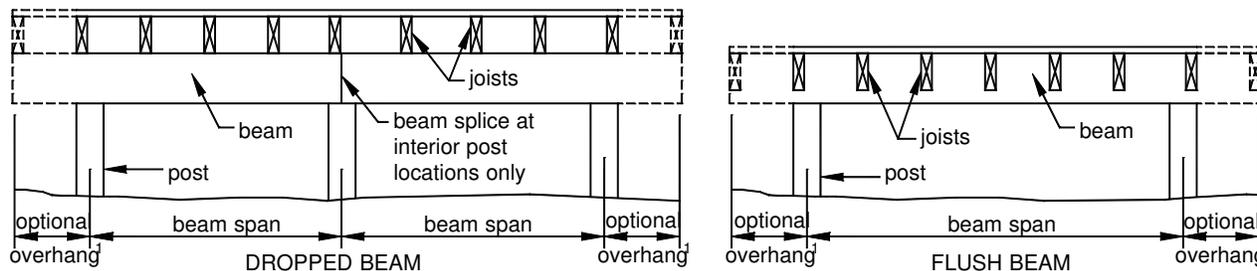


**SECTION 4: BEAMS**

Beams must comply with all of the following:

1. As shown in Figure 3, the beam-span length is measured between the centerlines of 2 adjacent posts and does not include the overhangs.
2. Beam size is determined using Table 3A or 3B. The depth of flush beams must be greater than or equal to the joist depth.
3. Beams may overhang past the center of the post up to one-fourth of the actual beam span, as shown in Figure 3.
4. Where multiple 2x members are used to assemble a beam, the plies of the beam must be fastened in accordance with Figure 4.
5. Pressure-preservative-treated glulam beams are permissible for spans longer than those shown in Table 3. However, a design and plan submission is required during the permit application process.

**Figure 3  
BEAM TYPES**



<sup>1</sup>The maximum length of the overhang is equal to one-fourth of the actual beam span length (0.25 x beam span).

**Table 3A  
MAXIMUM BEAM-SPAN LENGTH<sup>1</sup> FOR DOUGLAS FIR/LARCH<sup>3</sup>, HEM/FIR<sup>3</sup>, SPRUCE/PINE/FIR (SPF)<sup>3</sup>, WESTERN CEDAR, PONDEROSA PINE<sup>4</sup>, AND RED PINE<sup>4</sup>**

Joist Span	(Number of Plies) Beam Size <sup>2</sup> – Inches											
	3x6 (2)2x6	3x8 (2)2x8	3x10 (2)2x10	3x12 (2)2x12	4x6	4x8	4x10	4x12	(3)2x6	(3)2x8	(3)2x10	(3)2x12
≤ 6'	5'-5"	6'-10"	8'-4"	9'-8"	6'-5"	8'-5"	9'-11"	11'-5"	7'-4"	9'-8"	12'-0"	13'-11"
≤ 8'	4'-8"	5'-11"	7'-3"	8'-5"	5'-6"	7'-3"	8'-7"	9'-11"	6'-8"	8'-6"	10'-5"	12'-1"
≤ 10'	4'-2"	5'-4"	6'-6"	7'-6"	4'-11"	6'-6"	7'-8"	8'-10"	6'-0"	7'-7"	9'-4"	10'-9"
≤ 12'	3'-10"	4'-10"	5'-11"	6'-10"	4'-6"	5'-11"	7'-0"	8'-1"	5'-6"	6'-11"	8'-6"	9'-10"
≤ 14'	3'-6"	4'-6"	5'-6"	6'-4"	4'-2"	5'-6"	6'-6"	7'-6"	5'-1"	6'-5"	7'-10"	9'-1"
≤ 16'	3'-1"	4'-1"	5'-1"	5'-11"	3'-11"	5'-2"	6'-1"	7'-0"	4'-9"	6'-0"	7'-4"	8'-6"
≤ 18'	2'-9"	3'-8"	4'-8"	5'-7"	3'-8"	4'-10"	5'-8"	6'-7"	4'-6"	5'-8"	6'-11"	8'-1"

<sup>1</sup>Spans are based on 40 psf live load, 10 psf dead load, normal loading duration, wet service conditions, and deflections of  $\Delta = L/360$  for main span and  $L/180$  for overhang with a 220 lb. point load.

<sup>2</sup>Beam depth must be equal to or greater than joist depth if joist hangers are used (see Figure 8, Option 3).

<sup>3</sup>Incising is assumed.

<sup>4</sup>Design values based on northern species with no incising assumed.

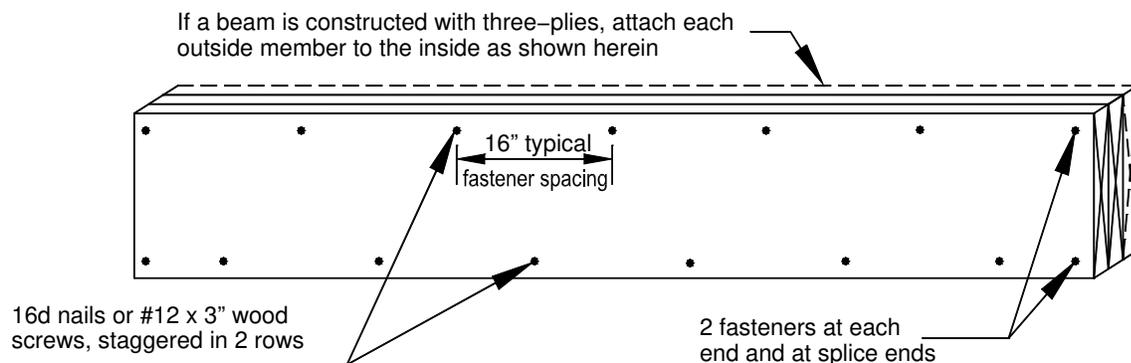
**Table 3B**  
**MAXIMUM BEAM-SPAN LENGTH FOR SOUTHERN PINE<sup>1</sup>**

Joist Span	(Number of Plies) Beam Size <sup>2</sup> – Inches							
	(2) 2x6	(2) 2x8	(2) 2x10	(2) 2x12	(3) 2x6	(3) 2x8	(3) 2x10	(3) 2x12
≤ 6'	6'-11"	8'-9"	10'-4"	12'-2"	8'-2"	10'-10"	13'-0"	15'-3"
≤ 8'	5'-11"	7'-7"	9'-0"	10'-7"	7'-5"	9'-6"	11'-3"	13'-3"
≤ 10'	5'-4"	6'-9"	8'-0"	9'-5"	6'-8"	8'-6"	10'-0"	11'-10"
≤ 12'	4'-10"	6'-2"	7'-4"	8'-7"	6'-1"	7'-9"	9'-2"	10'-9"
≤ 14'	4'-6"	5'-9"	6'-9"	8'-0"	5'-8"	7'-2"	8'-6"	10'-0"
≤ 16'	4'-3"	5'-4"	6'-4"	7'-6"	5'-3"	6'-8"	7'-11"	9'-4"
≤ 18'	4'-0"	5'-0"	6'-0"	7'-0"	5'-0"	6'-4"	7'-6"	8'-10"

<sup>1</sup>Spans are based on 40 psf live load, 10 psf dead load, normal loading duration, wet service conditions, and deflections of  $\Delta = L/360$  for main span and  $L/180$  for overhang with a 220 lb. point load.

<sup>2</sup>Beam depth must be equal to or greater than joist depth if joist hangers are used (see Figure 8, Option 3).

**Figure 4**  
**BEAM ASSEMBLY**

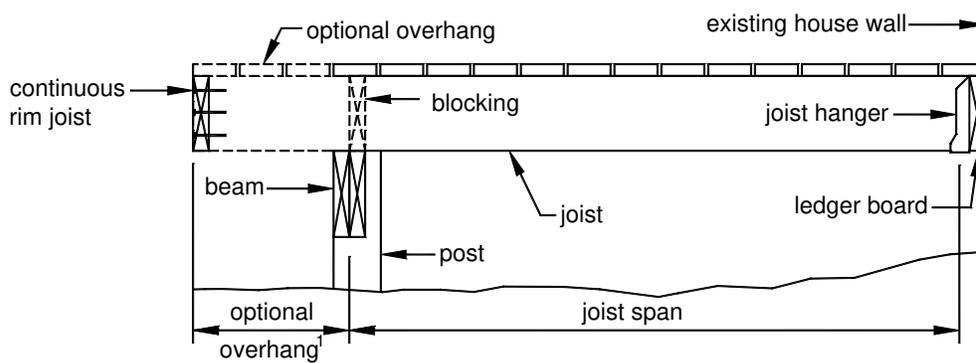


## SECTION 5: JOISTS

Joists must comply with all of the following:

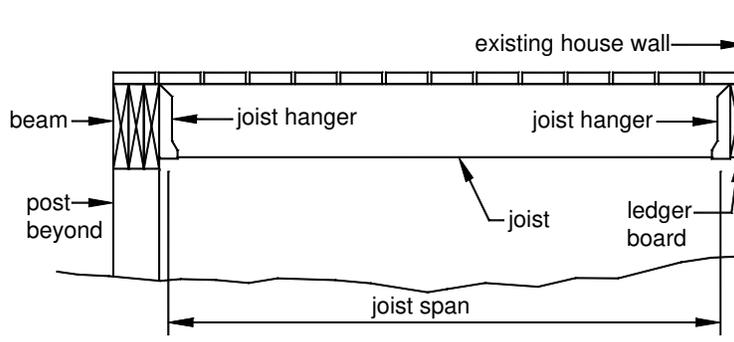
1. The joist-span length is measured between the centerline of bearing at each joist-span end and does not include the overhangs. Use Table 4 to determine the joist size based on span length and joist spacing. See section 12.4 for limits on joist spacing if the decking consists of a wood-plastic composite.
2. See Figures 5 through 7 for joist-span types.
3. Joists must bear at least 3 inches nominal onto beams, unless joist hangers are used in accordance with section 7.
4. Joists may overhang past the center of the beam up to one-fourth of the actual joist span.
5. Provide full-depth 2x blocking or bridging for 2"x10" or deeper joists at intervals not exceeding 8 feet – except the blocking can be reduced to 60% of the height if placed above a beam, for drainage purposes. Attach the blocking or bridging with (3)10d toe-nails at each end.
6. Attach a continuous rim joist as shown in Figures 5 and 7 unless blocking or bridging is provided for each joist at the beam where a joist overhang begins. Attach the rim joist to the end of each joist with (3)10d nails or (3)#10 by 3-inch wood screws.

**Figure 5**  
**JOISTS WITH DROPPED BEAM – DECK ATTACHED AT HOUSE**



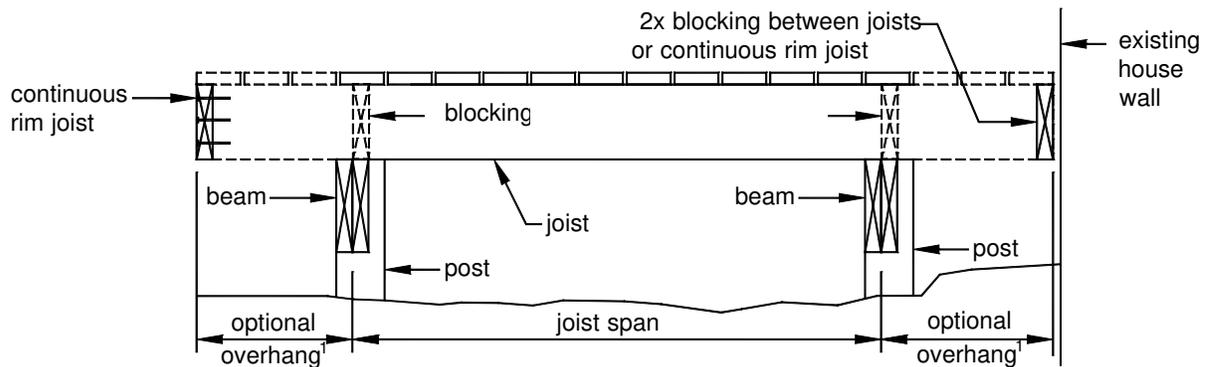
<sup>1</sup>The maximum length of the overhang is equal to one-fourth of the actual joist span length (0.25 x joist span).

**Figure 6**  
**JOISTS WITH FLUSH BEAM – DECK ATTACHED AT HOUSE**



**Figure 7**  
**JOISTS WITH TWO DROPPED BEAMS/FREE-STANDING DECK**

(See section 10 for more information.)



<sup>1</sup>The maximum length of the overhang is equal to one-fourth of the actual joist span length (0.25 x joist span).

**Table 4**  
**MAXIMUM JOIST-SPAN LENGTH<sup>1</sup>**

Joist Spacing (on center)	Joist Size	Douglas Fir/Larch, Hem/Fir, SPF <sup>2</sup>		Southern Pine	
		Without Overhang	With Over- hangs	Without Overhang	With Over- hangs
12"	2"x6"	9'-1"	8'-1"	9'-6"	8'-7"
	2"x8"	12'-6"	9'-5"	13'-1"	10'-1"
	2"x10"	15'-8"	13'-7"	16'-2"	14'-6"
	2"x12"	18'-0"	18'-0"	18'-0"	18'-0"
16"	2"x6"	8'-3"	8'-0"	8'-7"	8'-7"
	2"x8"	11'-1"	9'-5"	11'-10"	10'-1"
	2"x10"	13'-7"	13'-7"	14'-0"	14'-0"
	2"x12"	15'-9"	15'-9"	16'-6"	16'-6"
24"	2"x6"	6'-9"	6'-9"	7'-6"	7'-6"
	2"x8"	9'-1"	9'-1"	9'-8"	9'-8"
	2"x10"	11'-1"	11'-1"	11'-5"	11'-5"
	2"x12"	12'-10"	12'-10"	13'-6"	13'-6"

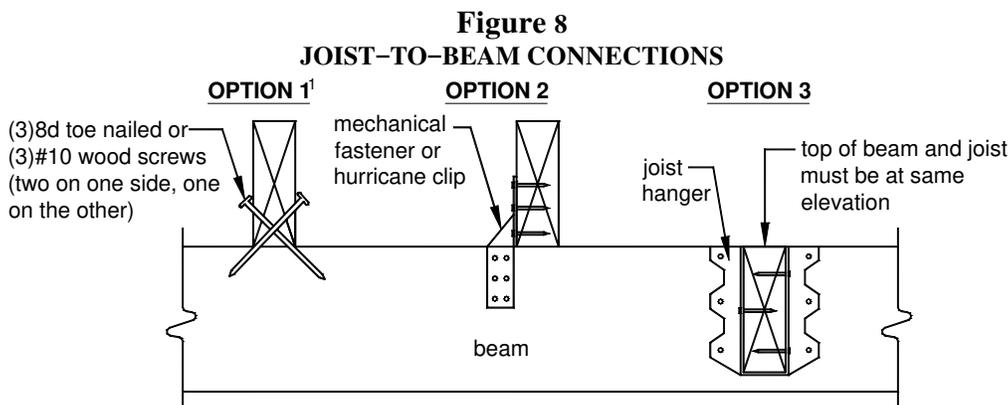
<sup>1</sup>Spans are based on 40 psf live load, 10 psf dead load, normal loading duration, wet service conditions, and deflections of  $\Delta = L/360$  for main span and  $L/180$  for overhang with a 220 lb. point load.

<sup>2</sup>Incising is assumed.

## SECTION 6: JOIST – TO – BEAM CONNECTIONS

Joists must be attached to beams in accordance with Figure 8 and all of the following:

1. Use Options 1 or 2 if joists bear on a dropped beam.
2. Use Option 3 if joists bear at a flush beam; see section 7 for hanger requirements.
3. Mechanical fasteners or hurricane clips must have a minimum capacity of 100 pounds in both uplift and lateral directions. Installation must be in accordance with the manufacturer's instructions.



<sup>1</sup>Option 1 is not allowed on free-standing decks.

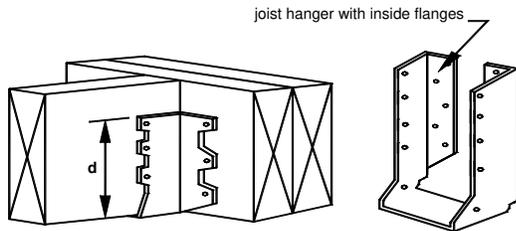
## SECTION 7: JOIST HANGERS

Joist hangers must comply with all of the following:

1. The joist-hanger depth ( $d$ , as shown in Figure 9) must be at least 60 percent of the joist depth.
2. The manufactured width of the joist hanger must accommodate the number of plies being carried.
3. Do not bend hanger flanges to accommodate field conditions.

4. For joist hangers that are fastened to a ledger board, screws which are recommended by the manufacturer must be used. All other fasteners are permitted to be nails. The number of fasteners and the manner in which they are used must be as specified by the manufacturer.
5. Use joist hangers with inside flanges if clearances to the edge of the beam or ledger board dictate.
6. Clip-angles or brackets used to support framing members in lieu of joist hangers are prohibited.
7. Joists must not frame in from both sides of the same beam. Engineering analysis is needed if more beams are needed than are shown in Figures 5 to 7.
8. Each joist hanger must have the minimum capacity listed in Table 5.

**Figure 9**  
**JOIST HANGERS**



**Table 5**  
**JOIST HANGER DOWNLOAD**

Joist Size	Minimum Capacity, lbs
2"x6"	500
2"x8"	500
2"x10"	600
2"x12"	700

## SECTION 8: LEDGER ATTACHMENTS

**General requirements.** Ledger boards must be attached to the existing house in accordance with all of the following and section 9. Compliance is critical to ensure the safety and structural stability of your deck.

1. The ledger-board depth must be greater than or equal to the depth of the deck joists, but not less than a 2"x8".
2. The ledger board must be attached in accordance with one of the conditions shown in Figures 11 through 13 – except if metal-plate-connected wood floor trusses were used in the house, see the text below for manufactured wood trusses.
3. The existing band board on the house must be capable of supporting the deck. If this cannot be verified or if existing conditions differ from the details here, then a free-standing deck or an engineered design is required.
4. The top of the ledger board and the top of the deck joists must be at the same elevation.

**Wood I-joists.** Many homes are constructed with wood I-joists, as shown in Figure 10. Rather than utilize a 2x band board, these systems are often constructed with a minimum 1-inch-thick engineered wood product (EWP) band board capable of supporting a deck. If a minimum 1-inch EWP or 2x band board is not present, then a free-standing deck is required, as addressed in section 10.

**Figure 10: WOOD I-JOISTS**

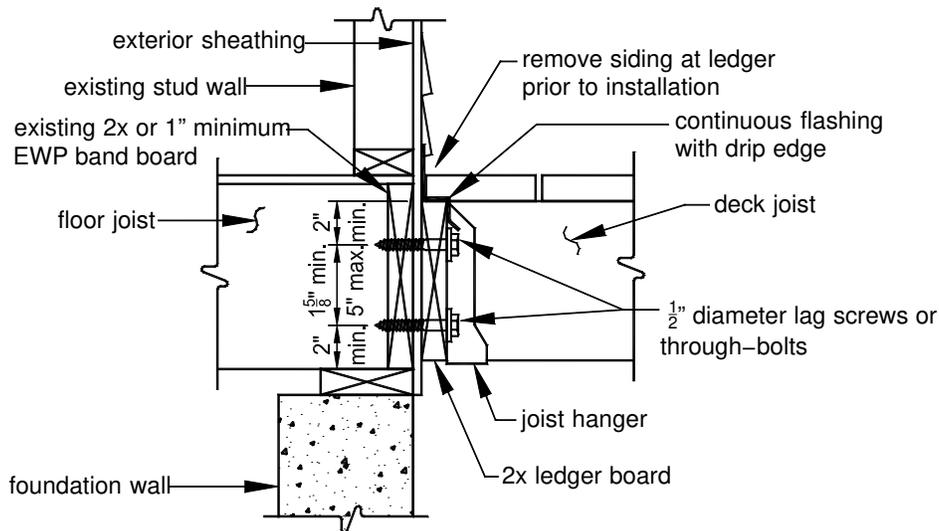
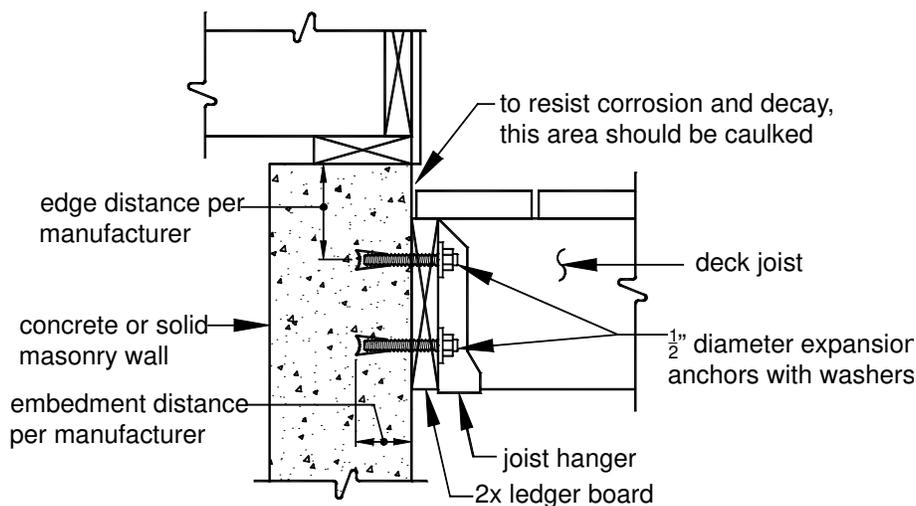


**Manufactured wood trusses.** A metal-plate-connected wood truss (MPCWT) is an engineered, prefabricated structural component that is designed for each specific application. MPCWT systems that are used in residential floors are often installed with a 2"x4" lumber "ribbon" board at the ends of the trusses to tie the ends of the trusses together (see Detail 1 in Appendix C.). The ribbon board, by itself, is not intended to support the deck ledger and deck. Installing a residential deck where the floor for the house uses a MPCWT system must be in accordance with a standard detail provided by the truss designer, a corresponding detail in section 7 of Appendix C, or a full plan submission – unless the deck is free-standing as addressed in section 10.

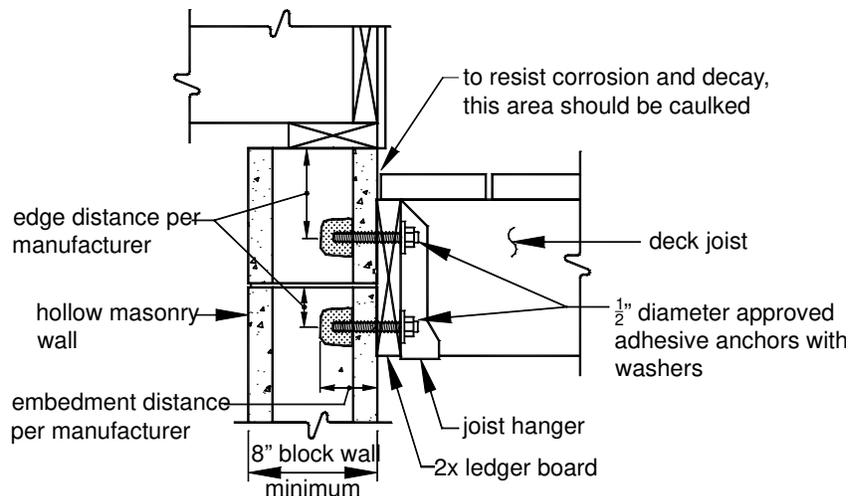
**Siding and flashing.** Flashing must be installed in accordance with all of the following:

1. The exterior finish, such as house siding, must be removed in the area for the ledger board prior to the installation of the ledger board.
2. Continuous flashing with a drip edge, as shown in Figure 11, is required at a ledger board that is attached to wood-framed construction. Caulking is needed with the flashing at a threshold to prevent water intrusion due to splash from the deck or due to melting snow and ice.

3. Flashing must be a corrosion-resistant metal having a minimum nominal 0.019-inch thickness – such as galvanized steel coated with 1.85 ounces of zinc per square foot (G-185 coating), copper (attached using copper nails only), or stainless steel – or must be a UV-resistant plastic recommended by its manufacturer for this use. Do not use aluminum in direct contact with lumber treated with preservatives that contain copper, such as ACQ, copper azole, or ACZA.

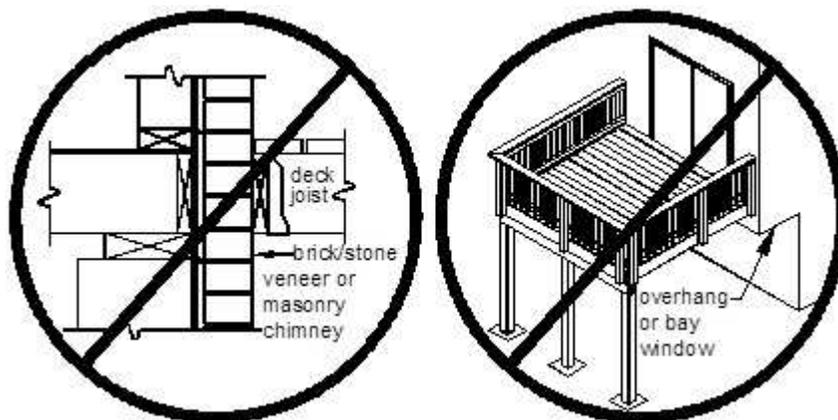
**Figure 11****ATTACHMENT OF LEDGER BOARD TO BAND BOARD OR BAND JOIST****Figure 12****ATTACHMENT OF LEDGER BOARD TO SOLID FOUNDATION**

**Figure 13**  
**ATTACHMENT OF LEDGER BOARD TO HOLLOW FOUNDATION**



**Prohibited ledger attachments.** Attaching a ledger board to or through an exterior veneer such as brick or stone, or to or through a masonry chimney, or to a house overhang – as shown below – are prohibited. In such cases, the deck must be free-standing, as addressed in section 10. Attaching a ledger board to a house overhang is allowed if supported by engineering.

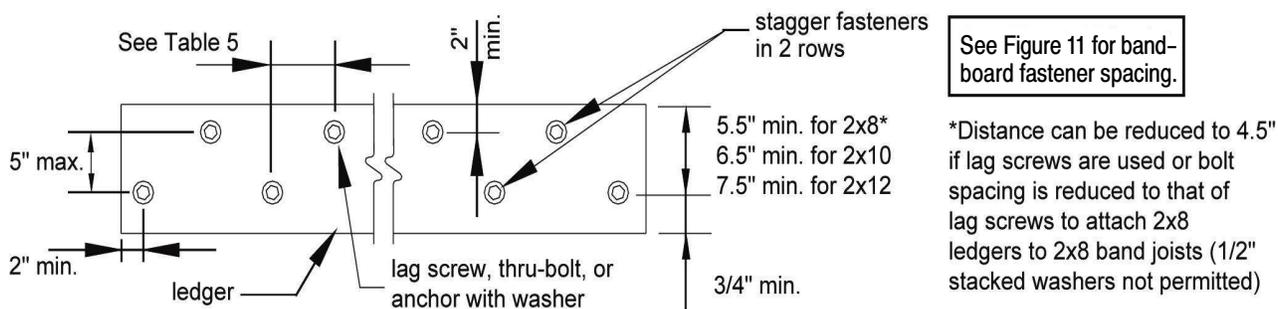
**Figure 14**  
**PROHIBITED LEDGER ATTACHMENTS**



## SECTION 9: LEDGER-BOARD FASTENERS

**General requirements.** Ledger board fasteners must be installed in accordance with this section. Placement and spacing must be in accordance with Figure 15 and Table 6. Only the fastener types listed here are approved for use; lead anchors are prohibited. Adequacy of connections may be verified by local inspectors.

**Figure 15**  
**LEDGER BOARD FASTENER SPACING AND CLEARANCES**



**Table 6**  
**LEDGER BOARD FASTENER SPACING, ON CENTER<sup>1,2,3</sup>**

Fastener	Band Board	Joist Span: less than or equal to						
		6'	8'	10'	12'	14'	16'	18'
Lag screws	1" EWP	24"	18"	14"	12"	10"	9"	8"
	1 1/8" EWP	28"	21"	16"	14"	12"	10"	9"
	2x Lumber	30"	23"	18"	15"	13"	11"	10"
Through-Bolts	1" EWP	24"	18"	14"	12"	10"	9"	8"
	1 1/8" EWP	28"	21"	16"	14"	12"	10"	9"
	2x Lumber	36"	36"	34"	29"	24"	21"	19"
Through-Bolts with 1/2" stacked washers <sup>4,5</sup>	2x Lumber	36"	36"	29"	24"	21"	18"	16"
Adhesive anchors	—	32"	32"	32"	24"	24"	16"	16"

<sup>1</sup>These values are valid for deck ledgers consisting of douglas fir/larch, hem/fir, or southern pine; and for band boards consisting of douglas fir-larch, hem-fir, spruce-pine-fir, southern pine, or engineered wood product (EWP).

<sup>2</sup>Where solid-sawn pressure-preservative-treated deck ledgers are attached to engineered wood products (minimum 1" thick wood structural panel band joist or structural composite lumber including laminated veneer lumber), the ledger attachment must be designed in accordance with accepted engineering practice. These tabulated values are in accordance with that practice and are based on 300 lbs and 350 lbs for 1" and 1 1/8" EWP rim board, respectively.

<sup>3</sup> The thickness of the sheathing over the band board must not exceed 15/32".

<sup>4</sup> The maximum gap between the face of the ledger board and face of the wall sheathing is 1/2".

<sup>5</sup> Wood structural panel sheathing, gypsum board sheathing, or foam sheathing is permitted between the ledger board and the band board. Stacked washers are permitted in combination with wood structural panel sheathing, but are not permitted in combination with gypsum board or foam sheathing. The maximum distance between the face of the ledger board and the face of the band board is 1".

**Through-bolts.** Through-bolts must have a diameter of 1/2 inch. Pilot holes for through-bolts must be 17/32 to 9/16 inches in diameter. Through-bolts must be equipped with washers at the bolt head and nut. Bolts should be tightened 6 to 12 months after construction due to drying and wood shrinkage.

**Expansion anchors.** Expansion or adhesive anchors must be used for attaching a ledger board to a concrete or solid masonry wall, as shown in Figure 12. The bolt or threaded rod of expansion anchors must have a diameter of 1/2 inch, which in some cases may result in needing a 5/8 inch-diameter anchor. Expansion anchors must be installed in accordance with the manufacturer's instructions and must be equipped with washers.

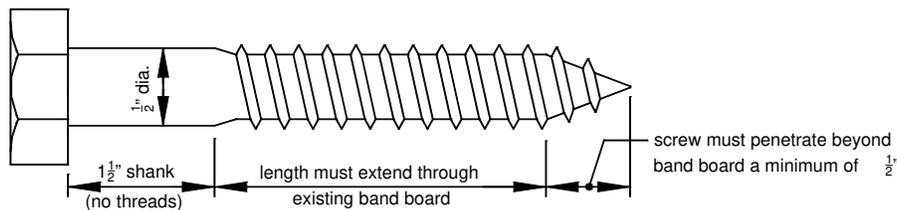
**Adhesive anchors.** Approved adhesive anchors with a 1/2 inch-diameter threaded rod must be used for attaching a ledger board to hollow masonry, as shown in Figure 13. Examples of approved adhesive anchors include the Epcon Acrylic 7 by ITW Ramset/Red Head, and the HY-20 by Hilti. Adhesive anchors are also permitted with concrete or

solid masonry installations. Adhesive anchors must be installed in accordance with the manufacturer's instructions and must be equipped with washers. Adhesive cartridges should remain on the jobsite for inspector verification.

**Lag screws.** The diameter, length, and shank of lag screws must comply with Figure 16. Lag screws must be equipped with washers and be installed in the following sequence:

1. Drill a 1/2 inch-diameter hole in the ledger board and a 5/16 inch-diameter pilot hole into the solid-connection material of the existing house.
2. Insert the lag screw through the ledger board and into the pilot hole by turning. Do not drive with a hammer. Use soap or a wood-compatible lubricant if needed to facilitate tightening.
3. Tighten each lag screw snugly, but do not over-tighten so as to cause wood damage.

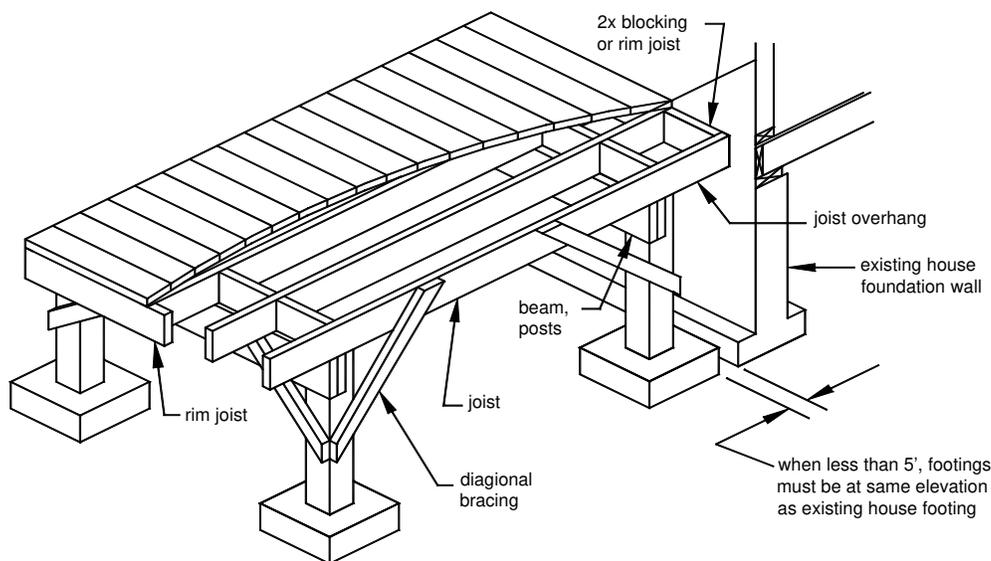
**Figure 16**  
**LAG SCREW**



### SECTION 10: FREE-STANDING

A deck that is free-standing does not utilize the exterior wall of the existing house to support vertical loads. Instead, an additional beam is provided at or offset from the existing house wall, as shown in Figure 17. If the edge of a deck footing is closer than 5 feet to an existing exterior house wall, the footing must bear at the same elevation as the existing wall footing as shown in Figure 17. For a house with a basement, a cylindrical footing (caisson) is recommended to minimize required excavation at the basement wall.

**Figure 17**  
**FREE-STANDING DECK**



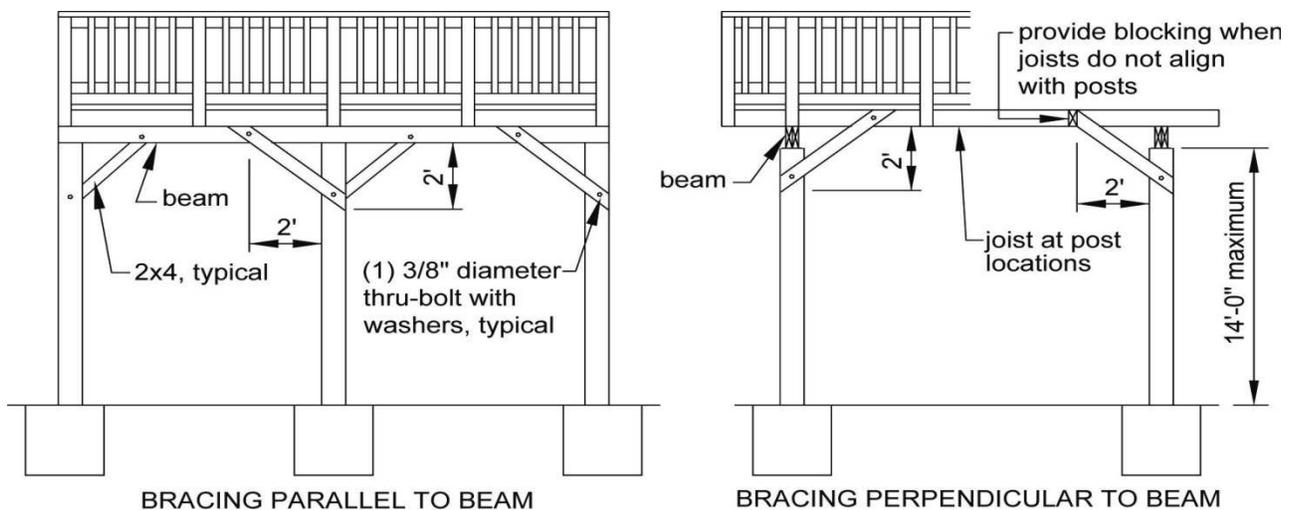
## SECTION 11: LATERAL SUPPORT

A deck that is more than 24 inches above grade must resist lateral loads in accordance with the following:

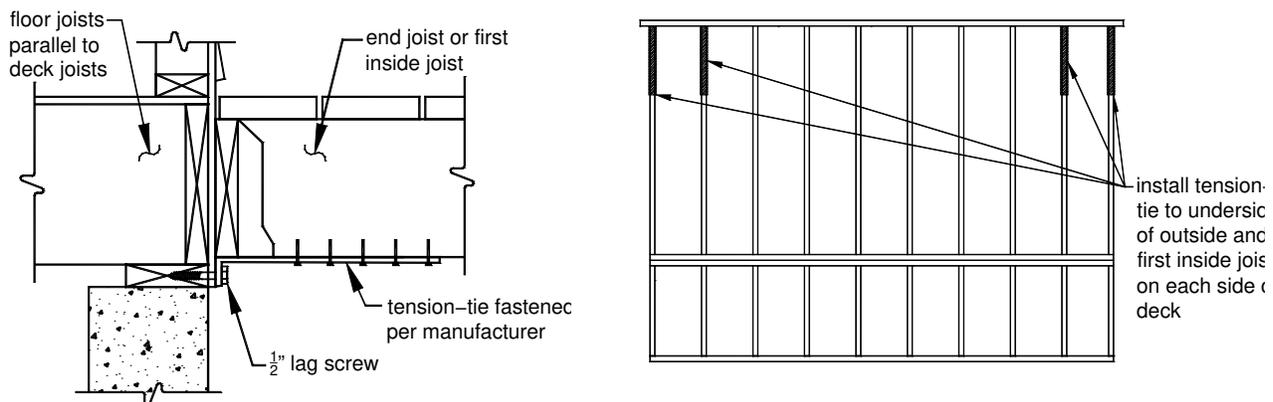
**Diagonal Bracing.** Provide diagonal bracing both parallel and perpendicular to the beam at each post as shown in Figure 18. Where parallel to the beam, the bracing must be bolted to the post at one end and to the beam at the other. Where perpendicular to the beam, the bracing must be bolted to the post at one end and to a joist or blocking between joists at the other. Where a joist does not align with the bracing location, provide blocking between the adjacent joists.

**Exceptions:** Bracing is not required perpendicular to the house for a deck that is attached to the house with both a ledger board under sections 8 and 9 and the connection specified in either Figure 19 or 20. For a free-standing deck that is attached to the house as specified in Figure 21, bracing parallel to the house may be omitted at the beam adjacent to the house. All bracing may be omitted for a deck which is attached to the house in accordance with sections 8 and 9 or Figure 21 and which has all of its decking installed at a 45 degree angle to the deck joists.

**Figure 18**  
**DIAGONAL BRACING REQUIREMENTS**



**Figure 19**  
**TENSION-TIE CONNECTION, WITH LEDGER BOARD**

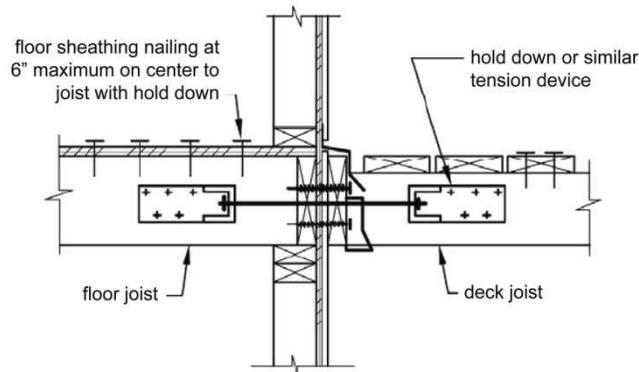


**Tension-tie requirements.** Tension ties, if used instead of perpendicular bracing as described above, must comply with all of the following, but are not permitted for free-standing decks:

1. The deck joists and floor joists must be parallel.
2. At least 4 ties must be installed, at the end joist and first inside joist at each end of the deck as shown in Figure 19. A set of tension-ties must be installed for each structurally independent section of a multi-level deck.
3. Approved tension-ties include the LTS19-TZ from USP or DTT1Z from Simpson Strong-Tie.
4. The minimum capacity of each tension-tie is 750 pounds.

5. Tension ties which are not available in a G-185 zinc coating require a barrier membrane separating the tension tie and the preservative-treated joist. The barrier membrane must be recommended for this location by its manufacturer.
6. Tension-ties must be attached to the underside of the joists in accordance with the manufacturer's instructions. Tension-ties must be attached to the exterior wall with lag screws as shown in Figure 19. Lag screws must penetrate a minimum of 3 inches into the sill plate or top plate of a wood-framed wall.
7. Where attaching to a concrete wall, lags screws may be replaced with adhesive or expansion anchors and a 1/2 inch threaded rod, with a withdrawal capacity of at least 750 pounds. The anchor must be installed in accordance with the manufacturer's instructions.

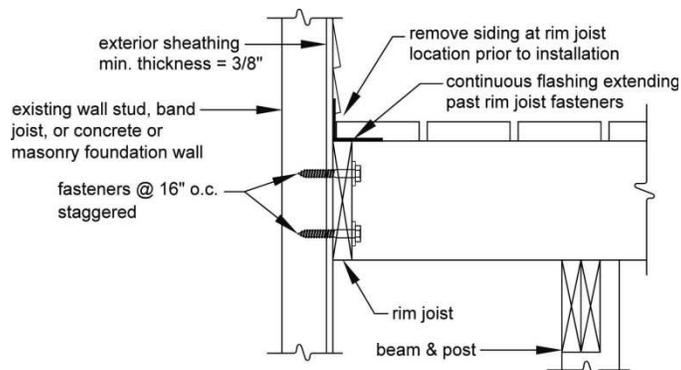
**Figure 20**  
**HOLD-DOWN TENSION DEVICE, WITH LEDGER BOARD**



**Hold-down tension devices.** Hold-down tension devices, if used instead of perpendicular bracing as described above, must be provided in at least 2 locations per deck, and each device must have an allowable-stress-design capacity of at least 1,500 pounds.

**Free-standing deck – attachment to house.** Attach the deck's rim joist to the existing house exterior wall as shown in Figure 21 for a free-standing deck, if diagonal bracing parallel to the house is omitted, as described above. The wall must be sheathed with minimum 3/8 inch wood structural panel sheathing. Use lag screws or through-bolts if fastening to an existing band joist or wall stud; and use expansion or adhesive anchors if fastening to concrete or masonry. Do not attach to brick veneers. Verify this condition in the field prior to utilizing this method. Fasteners must be 16 inches on center and staggered in 2 rows. Flashing over the rim joist is required and must be installed in accordance with the flashing provisions in section 8.

**Figure 21**  
**ATTACHMENT OF FREE-STANDING DECK TO HOUSE FOR LATERAL SUPPORT**

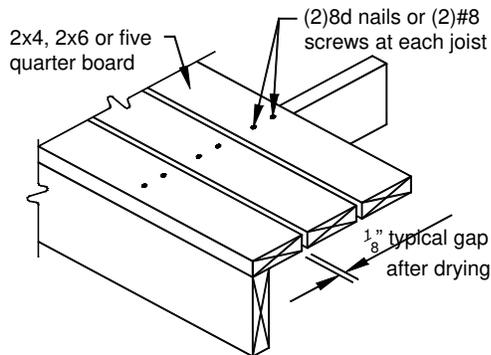


## SECTION 12: DECKING

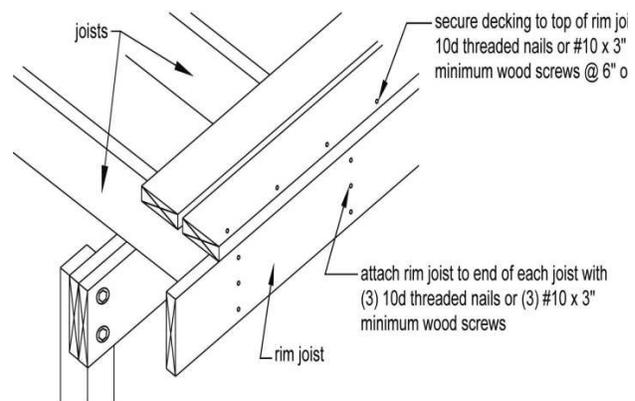
All decking materials must be wood or a wood-plastic composite and must comply with all of the following:

1. Wood decking must be 2x4s, 2x6s, or five-quarter span-rated decking boards. Wood-plastic-composite sizes must be in accordance with the manufacturer's instructions. Plastic decking may be used if it is approved by a professional testing organization for supporting a live load of 40 psf and is installed according to the manufacturer's instructions.
2. Decking must be attached in accordance with Figure 22, and may be placed at an angle of 45 to 90 degrees to the joists unless disallowed in the manufacturer's instructions. If the decking is wet, place it with no gap so that after drying, a  $\frac{1}{8}$ -inch gap is created.
3. Decking may overhang a joist by up to 3 inches unless disallowed in the manufacturer's instructions.
4. The center-to-center joist spacing may be up to 24 inches for wood decking, but may not exceed 16 inches for wood-plastic-composite decking unless specified otherwise by the manufacturer.
5. Each wood decking member must bear on a minimum of 4 joists or intermediate blocking between joists.
6. Placement and attachment of wood-plastic composites must be in accordance with the manufacturer's instructions.
7. Attach the decking to the rim joist in accordance with Figure 23.

**Figure 22**  
**TYPICAL DECKING**



**Figure 23**  
**RIM JOIST CONNECTION**

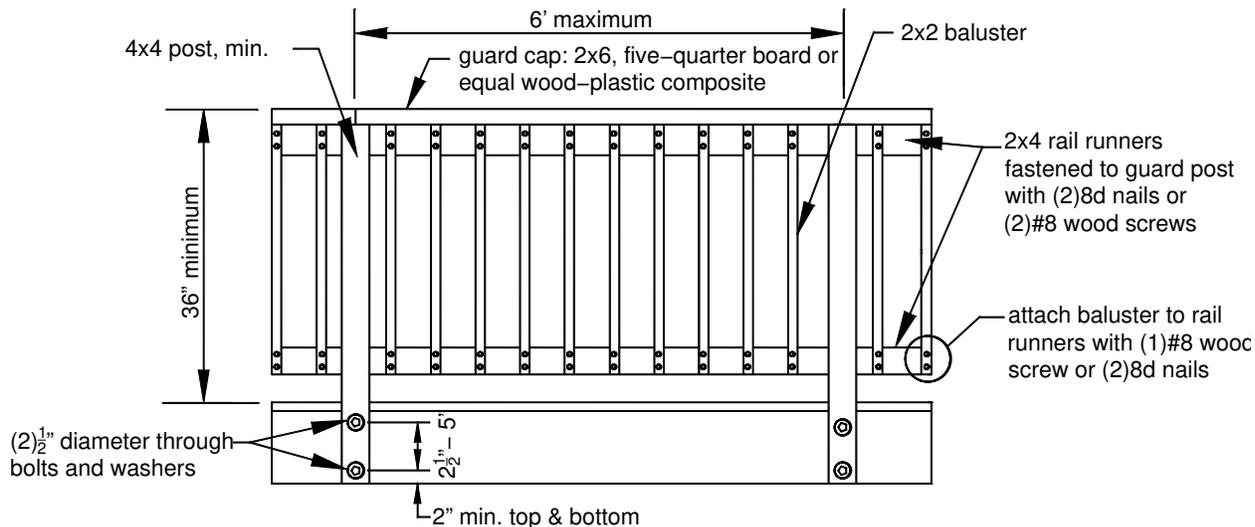


## SECTION 13: GUARD AND POSTS

All open sides of a deck area that is more than 24 inches above grade – at any point within 36 inches beyond the edge of the deck – must have a guard that complies with Figure 24 and with all of the following:

1. Required horizontal guards shall not have openings from the walking surface to the required guard height which allow passage of a sphere 4 inches in diameter, when applying a force of 4 pounds.
2. Required guards at stairs shall not have openings which allow passage of a sphere 4 3/8 inches in diameter, when applying a force of 4 pounds, other than the triangular opening at the side of an open stair formed by the riser, tread, and bottom rail of a guard, which shall not allow passage of a 6 inch sphere, when applying a force of 4 pounds.
3. Wet lumber must be spaced such that when shrinkage due to drying occurs, a compliant opening is maintained.
4. Rope, cable, or a similar non-rigid material may be used instead of balusters if it is strung with maximum openings of 3 1/2 inches and with vertical supports no more than 4 feet apart.
5. The guard and posts must withstand a 200-pound load applied in any direction.
6. Guard-infill components, such as balusters and panel fillers, must withstand a horizontally applied, perpendicular load of 50 pounds on any one-foot-square area.
7. Wood-plastic composites of equivalent dimensions may be substituted for the guard cap and infill elements shown in Figure 24 if the manufacturer's instructions permit this use.

**Figure 24**  
**GUARDS**

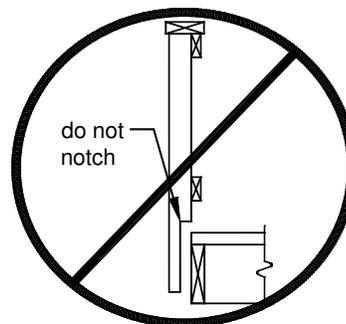


**Guard posts.** Guard posts must be attached to the deck structure in accordance with all of the following:

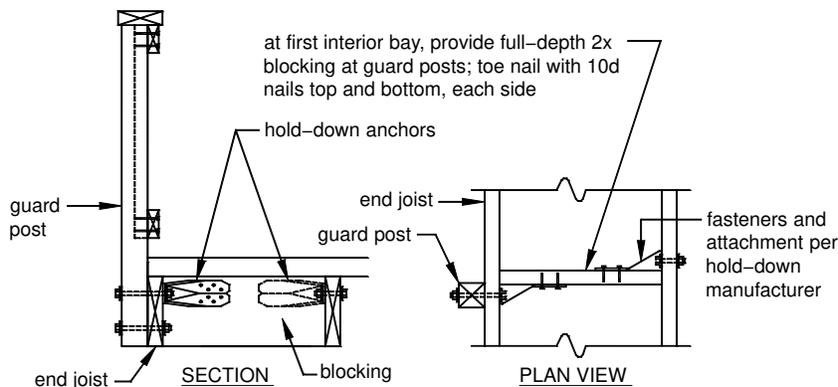
Notching guard posts, as shown in Figure 25, is prohibited.

1. Notching guard posts, as shown in Figure 25, is prohibited.
2. Hold-down anchors must have a minimum capacity of 1,800 pounds.
3. Guard posts may be attached to either side of the end joist or rim joist.
4. Bolt holes for a post must be at least 2 inches from the wood edge, at least 2½ inches apart, and no more than 5 inches apart.
5. Hold-down anchors, as shown in Figures 26 and 27, must be used to attach the guard post to the end joist and rim joist, respectively.

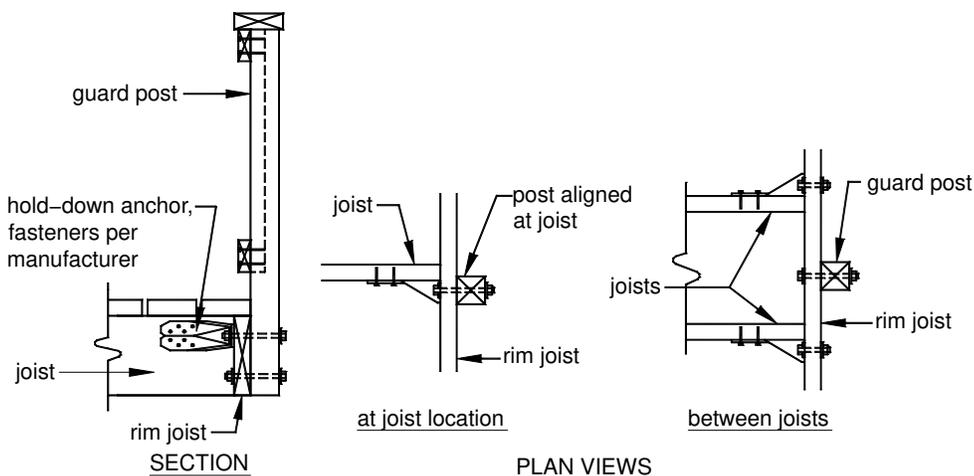
**Figure 25**  
**POST NOTCHING PROHIBITED**



**Figure 26**  
**GUARD POST TO END JOIST**



**Figure 26**  
**GUARD POST TO RIM JOIST**

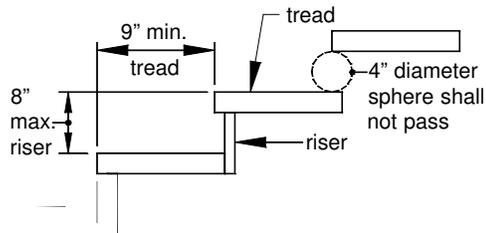


**SECTION 14: STAIRS**

**Stair dimensions.** Stair dimensions must comply with all of the following:

1. The minimum width of a stairway is 36 inches.
2. Handrails and associated trim may project a maximum of 4 1/2 inches into the required width at each side of the stairway. The minimum clear width at and below the handrail, including at treads and landings, cannot be less than 31 1/2 inches where a handrail is installed on one side, and 27 inches where handrails are provided on both sides.
3. Stair geometry and openings must be as shown in Figure 27.

**Figure 27**  
**TREADS AND RISERS**



4. Within a stairway flight, the largest tread depth may not exceed the smallest tread depth by more than 3/8 inch, and the largest riser height may not exceed the smallest riser height by more than 3/8 inch.
5. If the total vertical height of a stairway exceeds 12 feet, an intermediate landing is required and must be constructed as a free-standing deck with flush beams and with posts.
6. Any landing width must equal or exceed the total width of the stairway it serves.

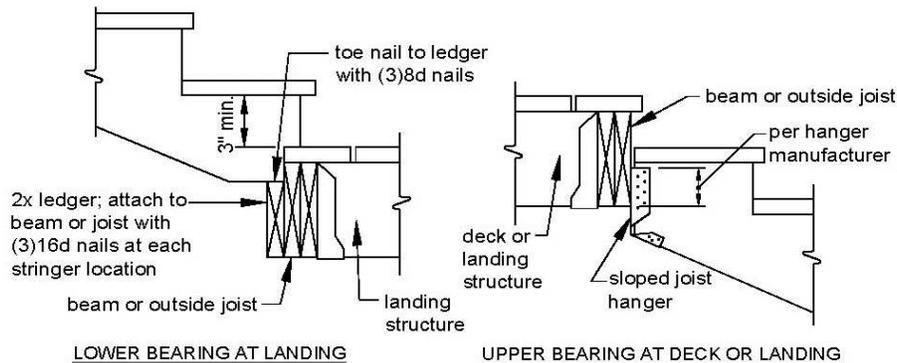
**Stair stringers.** Stringers must comply with all of the following:

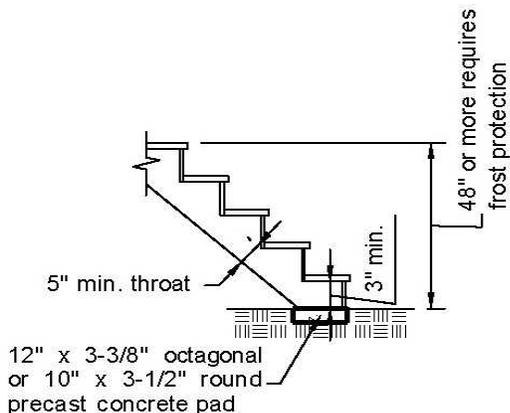
1. Stringers must be sawn or solid 2"x12"s complying with the above tread and riser dimensions.
2. Cut stringers must be spaced no more than 18 inches on center.
3. Stringers must bear on a solid surface, a minimum of 3 1/2 inches thick and 8 inches in diameter, and attach to the deck or a landing in accordance with Figure 28. Prior to placement of solid surface, all loose or organic material shall be removed.
4. Stringer-span length is measured using the horizontally projected distance between the centerlines of bearing at each end.
5. The span length of a cut stringer must not exceed 6 feet-0 inches, and the throat size of cut stringers must not be less than 5 inches, as shown in Figure 29.

**Solid-stringer exception:** Stringers for a stairway that has a width of 36 inches may have a horizontally projected span of up to 13 feet 3 inches if the stairway is framed solely with 2 solid stringers.

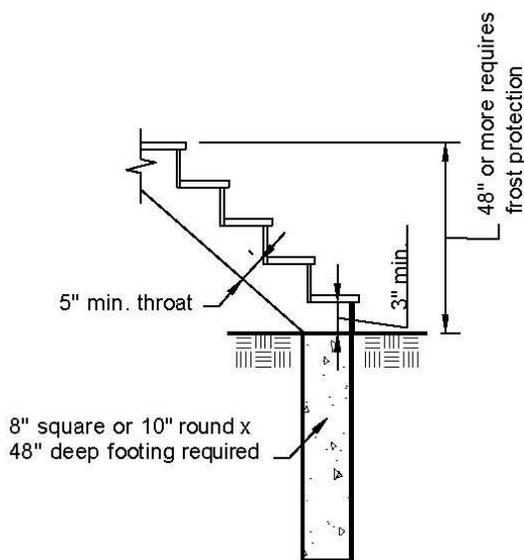
**Intermediate-supported stringers:** If the total stringer length exceeds the above dimensions, a 4"x4" post may be provided to support the stringer and shorten its span length. The 4"x4" post must be notched and bolted to the stringer in accordance with Figure 2. The post must bear over the middle one-third of a footing that is constructed in accordance with Figure 29 and must be attached as shown in Figure 2. An intermediate landing as described above may also be provided to shorten the stringer span.

**Figure 28**  
**STRINGER BEARING**



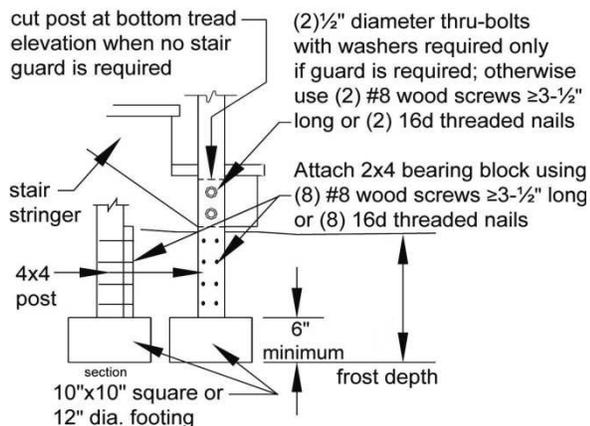


LOWER BEARING AT FOOTING

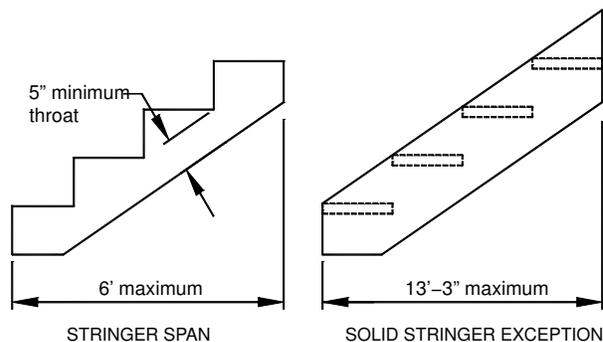


LOWER BEARING AT FOOTING - FROST PROTECTED

**Figure 29**  
**STRINGER BEARING**



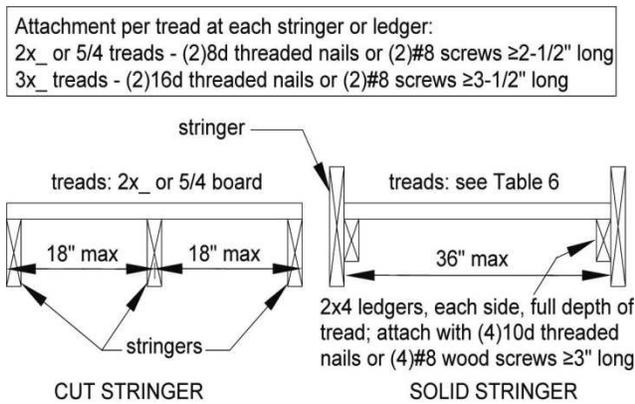
**Figure 30**  
**STRINGER SPAN LENGTH**



**Tread and riser material.** Treads and risers must comply with all of the following:

1. Tread material must be equivalent to the decking specified in section 12 and be attached in accordance with Figure 31, except wood-plastic composites must be attached in accordance with the manufacturer's instructions.
2. Stairs constructed using the solid-stringer exception noted above must have treads constructed of 2x wood material only and be attached in accordance with Figure 30.
3. Risers that are not open (as shown in Figure 27) must be framed with 1x lumber minimum or an manufacturer recommended wood-plastic composite.

**Figure 31**  
**STAIRWAY TREADS**



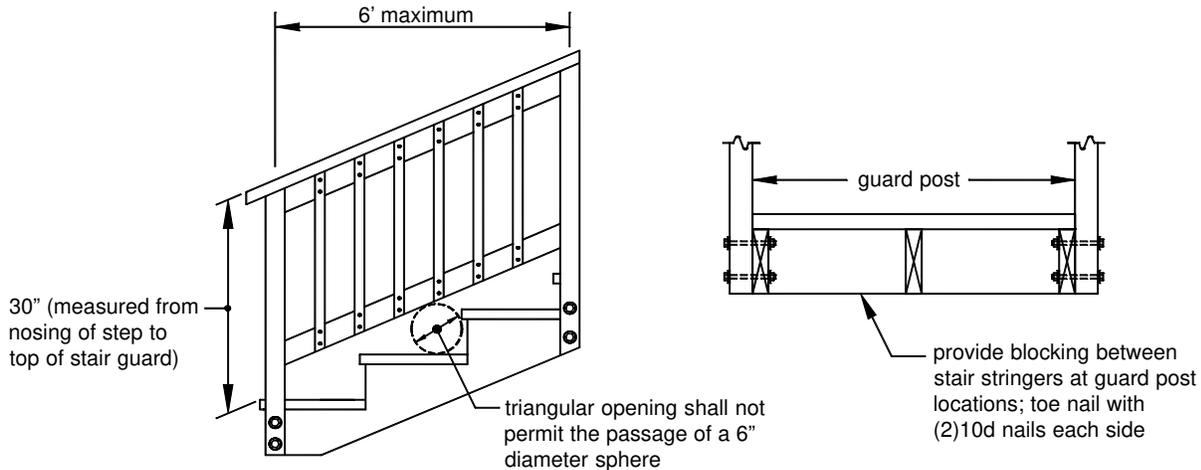
**Table 7**  
**MINIMUM TREAD SIZES<sup>1</sup>**

Species	Cut Stringer	Solid Stringer
Douglas Fir/ Larch, Hem/ Fir, SPF <sup>2</sup>	2x4 or 5/4	2x8 or 3x4
Southern Pine	2x4 or 5/4	2x8
Redwood, West- ern Cedars, Pon- derosa Pine <sup>3</sup> , Red Pine <sup>3</sup>	2x4 or 5/4	2x10 or 3x4

<sup>1</sup> Assumes 300 lb concentrated load, L/288 deflection limit, No. 2 grade, and wet service conditions.  
<sup>2</sup> Incising assumed for refractory species including Douglas fir-larch, hem-fir, and spruce-pine-fir.  
<sup>3</sup> Design values based on northern species with no incising assumed.

**Stair guards.** Guards must be provided on all open sides of stairs consisting of more than 3 risers. Stair guards must comply with section 13 and Figure 32.

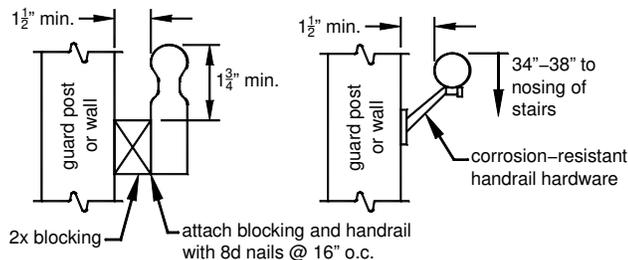
**Figure 32**  
**STAIR GUARDS**



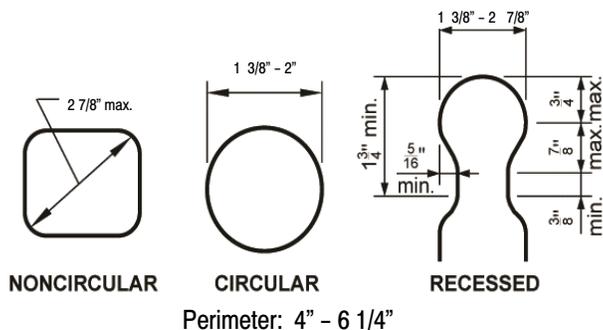
**Stair handrails.** A flight of stairs with more than 3 risers must have at least one handrail that complies with all of the following:

1. The handrail must be located at least 30 inches, but no more than 38 inches above the nosing of the treads – except that a volute, turnout, starting easing, or transition fitting may depart from these dimensions. Measurement must be taken from the nosing to the top of the rail.
2. The handrail must be attached to a stair guard or exterior wall acting as a barrier as shown in Figure 33.
3. The handrail and connecting hardware must be decay- and corrosion-resistant.
4. The handrail must have a smooth surface with no sharp corners and must be graspable, as shown in Figure 34. Recessed sections may be shaped from a 2"x6" or five-quarter board, as shown there.
5. Handrails must run continuously from a point directly over the lowest riser to a point directly over the highest riser.
6. Handrails may be interrupted by guard posts.

**Figure 33  
STAIR HANDRAILS**



**Figure 34  
HANDRAIL GRASPABILITY**

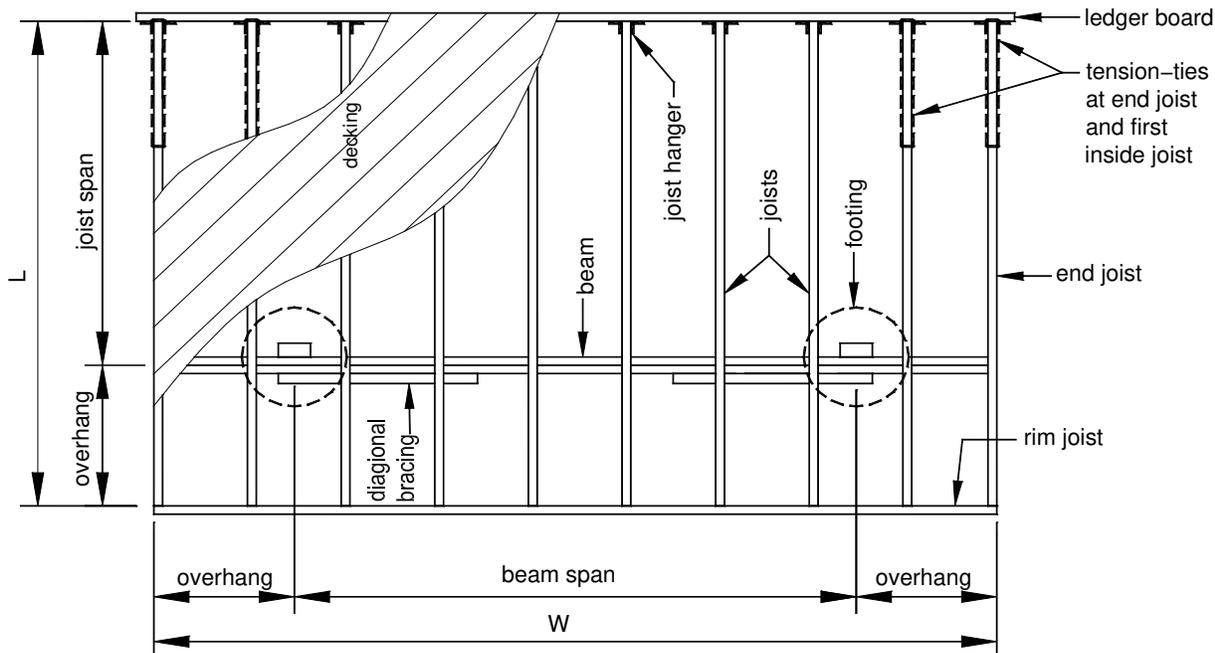


**Spiral stairs.** Stair dimensions above are for standard stairs secured in accordance with methods shown in this appendix. Spiral stairs are allowed at decks when designed in accordance with the provisions of Chapter SPS 321.04. Connection of spiral stairs to decks and the supporting load path shall be designed in accordance with accepted engineering practices and with applicable provisions of the Uniform Dwelling Code.

**SECTION 15: FRAMING PLAN**

A typical framing plan shows a bird’s-eye or plan view of the joist and beam layout; the location of the ledger board, diagonal bracing or hold-down devices, posts, and footings; and the type, size, and spacing of the ledger board fasteners. You can use the sample typical deck framing plan shown on the next page in combination with the requirements in this document to complete your deck.

**Figure 35**  
**TYPICAL DECK FRAMING PLAN**



**Decking:**     2x4     2x6     five-quarter board     wood-plastic composite (per ASTM D 7032)  
 Other decking, evaluation report number: \_\_\_\_\_

**Joists:**    size:     2x6     2x8     2x10     2x12    spacing:     12 in.     16 in.     24 in.  
joist span dimension:    \_\_\_\_\_ ft. - \_\_\_\_\_ in.  
overhang:     Yes     No    overhang dimension:    \_\_\_\_\_ ft. - \_\_\_\_\_ in.  
rim joist:     2x6     2x8     2x10     2x12

**Beam(s):**    number of plies:     2     3    size:     2x6     2x8     2x10     2x12  
overhang:     Yes     No    overhang dimension:    \_\_\_\_\_ ft. - \_\_\_\_\_ in.

**Posts:**    size:     4x4     4x6     6x6    height:    \_\_\_\_\_ ft. - \_\_\_\_\_ in.

**Footings:**    size: \_\_\_\_\_ in.     square     round    thickness: \_\_\_\_\_ in.

**Ledger:**    ledger board size:     2x8     2x10     2x12     Not applicable (free-standing deck)  
fastener:     Through bolt     Lag screw     Wood screw  
 Expansion anchor     Adhesive anchor

**Lateral support:**     Tension-tie     Diagonal bracing, size:     2x  
(not permitted for free-standing deck)

**Deck size:**    L= \_\_\_\_\_ ft. - \_\_\_\_\_ in.    W= \_\_\_\_\_ ft. - \_\_\_\_\_ in.





# Application for Permanent Utility Service

Date: \_\_\_\_\_

## STOUGHTON UTILITIES

600 South Fourth Street  
P.O. Box 383  
Stoughton, WI 53589

Phone: (608) 873-3379

Fax: (608) 873-4878

Email: CustomerService@stoughtonutilities.com

### CUSTOMER & SITE INFORMATION

Applicant Name		Phone	Cell	Email
Service Address/Fire No.	Street	City	Notes	
<u>Site Type</u>		<u>Job Type</u>		
Single-Family Residential	<input type="checkbox"/>	New	<input type="checkbox"/>	
Multi-Family Residential	<input type="checkbox"/>	Upgrade	<input type="checkbox"/>	
Commercial / Industrial	<input type="checkbox"/>	Relocate	<input type="checkbox"/>	

### CONTACT INFORMATION

Owner / Customer	Phone	Cell	Email
Contractor	Phone	Cell	Email
Electrician	Phone	Cell	Email
Plumber	Phone	Cell	Email
Builder	Phone	Cell	Email

### BILLING INFORMATION

<u>Who should be billed during construction</u> Owner <input type="checkbox"/> Contractor <input type="checkbox"/> Builder <input type="checkbox"/> Other <input type="checkbox"/>	Billing Name		
	Billing Address		
	City	State	Zip

### ELECTRIC SERVICE REQUIREMENTS

Date Temporary Service Needed		Date Permanent Service Needed	
<u>Service Type</u>	<u>Phase:</u>	<u>Voltage</u>	<u>Amperage</u>
Overhead <input type="checkbox"/>	Single <input type="checkbox"/>	120/240 <input type="checkbox"/>	100 <input type="checkbox"/>
Underground <input type="checkbox"/>	Three <input type="checkbox"/>	120/208 <input type="checkbox"/>	200 <input type="checkbox"/>
		277/480 <input type="checkbox"/>	400 <input type="checkbox"/>
			Other <input type="checkbox"/> _____ amps

### WATER SERVICE REQUIREMENTS

Date Permanent Service Needed	Notes
<u>Service Size</u>	
5/8" x 3/4" Threaded Meter <input type="checkbox"/>	2" Flange Meter <input type="checkbox"/>
1" Threaded Meter <input type="checkbox"/>	3" Flange Meter <input type="checkbox"/>
1 1/2" Flange Meter <input type="checkbox"/>	4" Flange Meter <input type="checkbox"/>
<u>Private Fire Protection</u>	
Yes <input type="checkbox"/>	Size _____
No <input type="checkbox"/>	
<u>Water Installation Notes</u>	
<ul style="list-style-type: none"> <li>It is prohibited to jump the water meter opening using a straight pipe. The water service is to be left off until a water meter is set by the utility.</li> <li>The meter couplings are to be of the sealable type, and are to be provided and installed by the customer. Consult the utility as to the coupling type and laying length to be used for non-residential or multi-family installations.</li> <li>All water consumption will be billed equivalent sanitary sewer usage charges unless a secondary sewer-exempt meter is installed.</li> </ul>	

### FOR OFFICE USE ONLY

Date Received	Received By	Electric WO No.	Water WO No.	Account No.
<u>Items Received</u>				
Signed Customer Agreement <input type="checkbox"/>	Temporary Application <input type="checkbox"/>	Construction Fees <input type="checkbox"/>	Inspection <input type="checkbox"/>	





## Service Installation Rules for Permanent Electric Service

### STOUGHTON UTILITIES

600 South Fourth Street  
P.O. Box 383  
Stoughton, WI 53589

**Phone:** (608) 873-3379

**Fax:** (608) 873-4878

**Email:** [CustomerService@stoughtonutilities.com](mailto:CustomerService@stoughtonutilities.com)

---

Utility facilities shall consist of those which, in the opinion of the utility, are most cost effective or feasible for the utility to provide adequate service to the customer-owned service entrance facilities. Upon receipt of the prepayment and the inspector's report or wiring affidavit, the utility will schedule the construction project. The customer hereby agrees to pay all utility costs for extending electric service, and to abide by the utility's service rules.

The utility shall not supply wiring in or on a building beyond the necessary service entrance facilities, indoor conduits, building structural supports, and/or accessories as specified by the utility. The customer shall be responsible for all damage to the utility's equipment caused by the customer or the customer's permittees, and for all losses resulting from the interference or tampering therewith, including compensation for consumed energy not recorded upon the meter. Meters are sealed by the utility and such seals shall not be broken or tampered with without the consent of the utility except in cases of emergency. The utility shall be notified immediately after a seal has been broken.

The meter socket and service entrance facilities shall be located at the closest point to the utility's distribution system on the exterior of the building. The utility connects the service entrance wires to the service wires, and no one else shall make these connections without specific approval from the utility, in which case the customer shall assume full responsibility for any damage which may result from making these connections. The utility will not be responsible for damage or injury resulting from unauthorized connection or disconnection of service wires.

The installation charge is equal to the total cost of installation less the average depreciated embedded cost of the distribution system (excluding the transformer and service facilities). The utility shall provide standard overhead services of up to 80 feet, standard underground services of up to 100 feet, and standard design transformers at no charge to the customer. Not more than one service drop or service lateral shall be installed to the same building or utilization point. If the customer requests non-standard facilities, the customer shall pay an advance contribution for that portion of the facilities in excess of the standard design. Additional payment shall be made for abnormally high installation costs such as setting poles, or trenching in rocky soil or high bedrock areas. The title to every extension remains with the utility at all times. The utility reserves the right to add new customers and connect new extensions to an existing extension. The utility shall make the extension over the most direct route that is the least expensive and least environmentally degrading. Access to all utility equipment and infrastructure shall be provided by the customer at all times.

For overhead facilities, the applicant for service shall furnish a right-of-way with clearing rights, adequate for the line extension necessary to service them along a route approved by the utility, without cost to the utility. Clearing shall either be done by the applicant, or be done by the utility, in which case the applicant shall make a contribution in an amount equal to the utility's estimate of the cost thereof, to be paid in advance of the clearing work. The customer will be responsible for all costs incurred due to changes in grade levels that affect the elevation of poles and conductors.

For underground facilities, the applicant shall secure for the utility, without cost to the utility, such easements as the utility may require for the installation, maintenance, or replacement of the underground lateral and distribution line extension. The applicant shall inform the utility of any known or expected underground obstruction near the cable routes on their property (septic tanks, drainage tile, etc.). Any earth fill added to bring the cable route to final grade prior to the underground construction shall not contain large rocks, debris, or rubbish. In the event of future changes in grade levels by the customer that would materially change the depth of cover over underground conductors or affect transformer locations, the landowner shall notify the utility in advance of any grading, and shall pay the utility all costs of moving or replacing its equipment to accommodate the change of grade. Such charges shall also be made for changes in building, foundations, walls, or other obstructions. The customer shall be responsible for the restoration of the property after the utility has completed the installation of the service and/or any distribution facilities.

The customer contribution for relocating and rebuilding existing distribution facilities, or replacing an overhead drop with an underground lateral, shall be equal to the costs of installing the new facilities plus the costs of removing the old facilities, less credit for accrued depreciation and net salvage of the facilities to be removed. The customer contribution for an overhead service drop upgraded to an underground service lateral shall be equal to the cost of the underground service lateral less the cost of an equivalent overhead service drop.

---

Signature

---

Date



2/18/13

**RATE FILE**

Sheet No. 5 of 10  
Schedule No. X-1  
Amendment No. 26

**Public Service Commission of Wisconsin**

**Stoughton Water Utility**

**Water Utility Operating Rules**

Installation of Meters

Meters will be owned, furnished, and installed by the water utility or a utility-approved contractor and are not to be disconnected or tampered with by the customer. All meters shall be so located that they shall be protected from obstructions and permit ready access for reading, inspection, and servicing, such location to be designated or approved by the water utility. All piping within the building must be supplied by the owner. Where additional meters are desired by the owner, the owner shall pay for all piping. Where applicable, see Schedule Am-1 for rates.

Repairs to Meters

Meters will be repaired by the water utility, and the cost of such repairs caused by ordinary wear and tear will be borne by the water utility.

Repair of any damage to a meter resulting from the carelessness of the owner of the premises, owner's agent, or tenant, or from the negligence of any one of them to properly secure and protect same, including any damage that may result from allowing a water meter to become frozen or to be damaged from the presence of hot water or steam in the meter, shall be paid for by the customer or the owner of the premises.

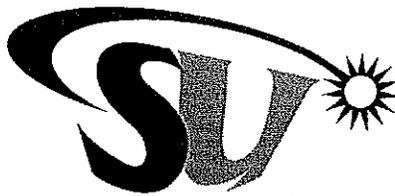
Service Piping for Meter Settings

Where the original service piping is installed for a new metered customer, where existing service piping is changed for the customer's convenience, or where a new meter is installed for an existing unmetered customer, the owner of the premises at his/her expense shall provide a suitable location and the proper connections for the meter. The meter setting and associated plumbing shall comply with the water utility's standards. The water utility should be consulted as to the type and size of the meter setting.

\* Turning on Water

The water may only be turned on for a customer by an authorized employee of the water utility. Plumbers may turn the water on to test their work, but upon completion must leave the water turned off.





**Stoughton Utilities**

600 South Fourth Street  
P.O. Box 383  
Stoughton, WI 53589-0383

*Serving Electric, Water & Wastewater Since 1886*

**Date:** November 1, 2013

**To:** General and Plumbing Contractors Working Within the City of Stoughton

**From:** Robert P. Kardasz, P.E.  
Stoughton Utilities Director

**Subject:** Use Of Public Water During Construction.

- No temporary or permanent water service is available without a written application for service on file with Stoughton Utilities (SU). There are no exceptions.
- The use of cheater pipes in lieu of a water meter is prohibited and all water theft shall be prosecuted as theft in the Stoughton Municipal Court.
- Curb stops and system valves are only operated by SU operators. The operation by others is prohibited.
- Please contact us at (608) 873-3370 between 8:00 a. m and 4:00 p.m. at least three working days prior to needing us to come out to operate a curb stop or valve, or for you to pick up a water meter for you to install.
- The protection of our water meters is the sole responsibility of the contractor.
- Any damage to curb stops shall be corrected by SU at your cost.
- Fire hydrants are never used for construction purposes.
- Soaking construction sites shall only occur upon prior written approval from SU.

Your failure or that of your employees, to comply with these requirements shall require forfeitures from you and deposits for your future work.



# Stoughton Utilities Service Requirements

**Upon the receipt of the following information, an estimate of your customer contribution in aid of construction will be provided within approximately five business days.**

## **Electric Service Requirements:**

- Completed application forms for each service request.
- Anticipated connected load for three-phase services.
- A certified survey map (CSM) or site plane on a minimum of an 8.5x11 sheet of standard stock clean white paper to scale.
- The CSM or site plan shall delineate the following information: existing and proposed building envelope, electric meter location, gas meter location, existing utility poles, existing underground pedestals, concrete patios, wood deck, retaining walls, fences, easements, pool, water and sewer laterals, private well, septic system, future building locations and areas of shallow bedrock.
- Contact Sean Grady with questions at (608) 877-7416 or at [sogrady@stoughtonutilities.com](mailto:sogrady@stoughtonutilities.com).

## **Wastewater Service Requirements:**

- No application is necessary.
- Completed Street Opening Permit for any lateral connection to our sanitary sewer mains. Permits can be obtained at the Street Department located at 2439 County Hwy A.
- A nominal fee of \$250.00 is required for inspection observation and is due with your Street Opening Permit for any lateral installation.
- All unused sanitary sewer laterals serving your property shall be properly disconnected and abandoned at the property line if the lateral integrity is maintained.
- A Street Opening Permit is required for sanitary sewer lateral abandonment. Permits can be obtained at the Street Department located at 2439 County Hwy A.
- Contact Brian Erickson with questions at (608) 877-7421 or at [berickson@stoughtonutilities.com](mailto:berickson@stoughtonutilities.com).

## **Water Service Requirements:**

- Completed application forms for each service request.
- Completed Street Opening Permit for any lateral tapping at our water mains. Permits can be obtained at the Street Department located at 2439 County Hwy A.
- A nominal fee of \$250.00 is required for inspection observation and is due with your Street Opening Permit for any main tapping.
- All unused water laterals shall be properly disconnect and turned off at the corporation valve located at the water main. A Street Opening Permit is required for this effort.
- Contact Kent Thompson with questions at (608) 877-7422 or at [kthompson@stoughtonutilities.com](mailto:kthompson@stoughtonutilities.com).





**WISCONSIN POWER AND LIGHT COMPANY (the "Company")  
RESIDENTIAL ELECTRIC AND NATURAL GAS  
SERVICE APPLICATION AND AGREEMENT**

FOR OFFICE USE ONLY				
Date Received	Electric WR No.	Gas WR No.	NUB Customer Account ID	NUB SA ID
Customer Account ID	Premise ID	Electric SP ID	Gas SP ID	
Company Representative		Work Phone No. ( ) ( ) ( )	Map Location	

CUSTOMER AND SITE INFORMATION				
Customer Name (Last/First/MI) (hereinafter the "Customer")			Last Four Digits of Social Security No. <b>XXX-XX-</b>	
New Service Address / Fire No.	Street	City	State	Zip
Existing Mailing Address / Fire No.	Street	City	State	Zip
Home Phone No. ( ) ( ) ( )	Cell Phone No. ( ) ( ) ( )	Work Phone No. ( ) ( ) ( )	Fax No. ( ) ( ) ( )	E-mail Address
City / Town / Village (check one and enter name) <input type="checkbox"/> City <input type="checkbox"/> Town <input type="checkbox"/> Village (Name) _____		Subdivision Name		Lot No.
County	Square Footage of Dwelling	Dwelling Type <input type="checkbox"/> Single Family <input type="checkbox"/> Multi-Unit (Number of Units) _____		

BILLING INFORMATION			
Who should be billed for electric/gas installation? <input type="checkbox"/> Builder <input type="checkbox"/> Customer		Who should be billed for electric/gas usage during construction? <input type="checkbox"/> Builder <input type="checkbox"/> Customer	

CONTRACTOR INFORMATION				
Builder/Contractor Name		Contact Person Name		Federal Tax I.D. No.
Address / Fire No.	Street	City	State	Zip
Home Phone No. ( ) ( ) ( )	Cell Phone No. ( ) ( ) ( )	Work Phone No. ( ) ( ) ( )	Fax No. ( ) ( ) ( )	E-mail Address
Electrical Contractor		Work Phone No. ( ) ( ) ( )	Cell Phone No. ( ) ( ) ( )	
Heating Contractor		Work Phone No. ( ) ( ) ( )	Cell Phone No. ( ) ( ) ( )	

ELECTRIC SERVICE REQUIREMENTS			
Date Permanent Electric Service Needed (MM/DD/YY): ____ / ____ / ____		Date Temporary Electric Service Needed (MM/DD/YY): ____ / ____ / ____	
Service Amps <input type="checkbox"/> # <input type="checkbox"/> 200 <input type="checkbox"/> 300 <input type="checkbox"/> Other _____		Service Type <input type="checkbox"/> Overhead <input type="checkbox"/> Underground	
Voltage <input type="checkbox"/> 120/240 <input type="checkbox"/> Other _____		Electric Equipment <input type="checkbox"/> Electric Heat _____ Watts <input type="checkbox"/> Water Heater _____ Quantity <input type="checkbox"/> Central A/C _____ Tons <input type="checkbox"/> Ground Source Heat Pump _____	
		Locked Rotor Amps (LRA) <input type="checkbox"/> Other (Hot Tubs, etc.) _____	

GAS SERVICE REQUIREMENTS			
Estimated Date Permanent Gas Service Will Be Needed (MM/DD/YY): ____ / ____ / ____		Delivery Pressure Needed <input type="checkbox"/> 1/4 psi / 7" water column (wc) <input type="checkbox"/> 2 lbs. per square inch (psi)	
Natural Gas Equipment			
<input type="checkbox"/> Heating _____ Quantity _____ BTU's	<input type="checkbox"/> Water Heater _____ Quantity _____ BTU's		
<input type="checkbox"/> Range _____ Quantity _____ BTU's	<input type="checkbox"/> Dryer _____ Quantity _____ BTU's		
<input type="checkbox"/> Instantaneous Water Heater _____ Quantity _____ BTU's	<input type="checkbox"/> Other (Generator, Pool Heater, etc.) _____ Quantity _____ BTU's		

BUILDING SITE SKETCH AND METER LOCATION REQUIREMENTS
<p><b>Customer must include a building site sketch with this application and mark the following information on the map:</b></p> <ol style="list-style-type: none"> <li>1. Mark a "G" for your proposed gas meter location with a measurement from the nearest corner of the dwelling</li> <li>2. Mark an "E" for your proposed electric meter socket/pedestal location with a measurement from the nearest corner of the dwelling</li> <li>3. Show all decks, pools, wells, septic, underground tanks/fuel lines, drain tiles/downspouts, Customer-owned wires, sprinkler systems, yard lighting, sewer lateral, etc.</li> </ol>

ITEMS COMPANY WILL NEED PRIOR TO SERVICE INSTALLATION/CONNECTION		
Type an "X" in the following boxes to ensure the steps have been completed. If they do not apply to your installation, type "N/A" in the box.		
<input type="checkbox"/> 1) Application filled out completely and signed	<input type="checkbox"/> 2) Sketch of Customer-owned facilities included with application	<input type="checkbox"/> 3) Payment of construction charges, if applicable
<input type="checkbox"/> 4) Electric/gas route within 6 inches of final grade and clear of all obstructions (e.g., lumber, machinery, etc.)	<input type="checkbox"/> 5) Recorded copy of certified survey map or platted lot and lot corners staked	<input type="checkbox"/> 6) Appropriate inspection form or statement turned into Company for gas and electric utilities
<input type="checkbox"/> 7) Expose or locate (with staking, flagging and/or other durable marking) the physical location of any Customer-owned underground facilities, e.g., wells, septic, underground tanks/fuel lines, drain tiles/downspouts, Customer-owned wires, sprinkler systems, and yard lighting	<input type="checkbox"/> 8) Other: _____	
<p><b>NOTE:</b> Company and/or its agent will not be held responsible for damage occurring to Customer-owned underground facilities that are not properly located and marked before the installation of electric and/or natural gas service.</p>		



**WISCONSIN POWER AND LIGHT COMPANY (the "Company")  
RESIDENTIAL ELECTRIC AND NATURAL GAS  
SERVICE APPLICATION AND AGREEMENT**

1. The Company agrees to furnish and the Customer agrees to take and pay for utility service in accordance with provisions and rates approved by the State Regulatory Authority; subject to all applicable rules of the Company on file with the State Regulatory Authority including, but not limited to, terms and conditions on this page hereof; until such time as the Customer discontinues service or elects to make a written application for service under a different schedule. Such election, however, may not be exercised within a one-year period from the date of this application.
2. INDEMNIFICATION: The Customer or Customers individually and jointly agree to indemnify and hold harmless the Company for any damage to persons or property arising out of the use upon the Customer's site of the electric service or gas service furnished to it by the Company.
3. Easement: Right of Access
  - a. The Customer, if also the landowner, grants to the Company the right to clear for construction, installation, reconstruction, operation and maintenance of its overhead and/or underground electric line or gas piping and to use any necessary equipment in, on and across the above described lands along highways and along fence lines thereon, and to extend such lines along or near property lines of such premises as may reasonably be necessary to extend service to future applicants for such service, and to permit the attachment of communication lines and equipment owned by others. If Customer is not the landowner, the Customer is responsible for obtaining such agreement in writing from the landowner and providing same to the Company at no expense to the Company.
  - b. The Customer, jointly with other applicants on the same extension, shall, without cost to the Company, maintain a right-of-way, which the Company has the right to clear, adequate for the extension and along a route approved by the Company.
  - c. If requested by the Company, the Customer and/or landowner shall grant to the Company an easement in recordable form conveying the rights and privileges in (a) and (b) above. If Customer is not the landowner, Customer is responsible for obtaining the easement in writing from the landowner and to provide the same to the Company at no expense to the Company.
4. The Customer understands and agrees that prior to installation of underground electric lines or gas piping, the landowner shall have established the final grade of the route and that after installation of the line the grade shall not be increased or decreased more than 6 inches without the prior written approval of the Company. If Customer is not the landowner, Customer is responsible for obtaining such agreement in writing from the landowner and providing same to the Company at no expense to the Company.
5. The Customer is responsible for notifying the Company of contaminated media (e.g., soil, groundwater, etc.) that may be present on the site prior to Company commencing installation or extension of service. The Company reserves the right to consider alternate service routes, if necessary, to avoid contaminated media. The Customer may be held liable for additional costs incurred by the Company if contaminated media is encountered during the installation of service.
6. If contaminated media is encountered during the installation or extension of service, the Company shall terminate the installation or extension of service and notify the customer. The Customer is responsible for reporting the discovery of contamination to the appropriate agencies. The Customer, or landowner, is responsible for management of any contaminated media encountered during the installation of service.
7. If Customer requests a gas pressure change (e.g., 7" wc to 2 psig) or if Customer needs to increase meter size (e.g., 250 to a 425), Customer will be charged the cost for Company personnel to make the change.
8. The Company agrees to return any deposit, with interest, according to the rules and regulations of the applicable State Regulatory Authority, 12 months from the date of this application unless 1) the Customer's service has been disconnected within that time or, 2) the Company determines that the information in the initial application was inaccurate or incomplete.
9. The Customer acknowledges the right to make written request to the Company that the County Department of Health and Social Services be notified at least 5 calendar days prior to a scheduled disconnection of service for rule violation or non-payment.
10. The Residential Service Customer Charge on file with the State Regulatory Authority may be billed to the Customer beginning on the date the meter is installed.
11. Failure to Consume Natural Gas
  - a. The Customer agrees to begin consuming natural gas within 6 months of installation of the service lateral. If the Customer is not consuming gas by that time, the Customer agrees to pay each month the Residential Service Customer Charge on file with the State Regulatory Authority.
  - b. If the Customer does not begin consuming gas within ten years of the installation of the service lateral, the Customer shall be liable for service pipe removal costs.
  - c. After the service lateral has been installed, the Customer may not avoid obligations under these agreements by requesting discontinuance of service or by requesting service under a different rate schedule.
  - d. This agreement obligates the Customer's heirs, successors and assignees. This agreement may not be assigned to a tenant or future purchaser of the premise.
12. This agreement shall become effective when acceptance of the application has been signed on behalf of the Company.

**TRENCH MARKING AGREEMENT**

The Customer agrees that the Company may dig, trench, plow or bore on the Customer's property located at the address written above for the installation of utility service. Utility rates are based on rough grade construction meaning the Company will backfill and smooth over any excavations that the Company performs. **Final restoration, grass seeding, watering and mowing are the Customer's responsibilities.**

Prior to digging, trenching, or boring, the Company will identify the route of the proposed excavation. The Company will notify other utility owners to facilitate the marking of existing underground utilities, including electric telephone and cable TV.

The Customer agrees to physically mark the location of any and all Customer-owned obstacles that lie underground within ten feet of proposed excavation. Such obstacles include, but are not limited to, septic and sewer systems, buried wires for out-buildings or decorative lighting, and LP gas lines. The Customer shall mark the location of all of these obstacles with stakes or flags or by painting the ground. The Customer hereby accepts any and all responsibility for damage to, or damage done by striking, any such underground obstacle the Customer fails to mark or marks incorrectly.

<b>APPROVAL AND ACCEPTANCE (I have read and understand the terms and conditions above)</b>		
Customer Signature	Customer Printed Name	Date

<b>ACCEPTED BY COMPANY</b>		
Company Representative Signature	Company Representative Printed Name	Date

Retain per Functional Retention Schedule category FN-18

**ROUTING: Return to Company or email [CustomerCare@alliantenergy.com](mailto:CustomerCare@alliantenergy.com)**

## Attachment to the Wisconsin Uniform Building Permit

### Application

Dated April 17, 2014

- Erosion control and breaker rock for the driveway is to be installed before construction begins.
- Truss plans on job site for the rough construction inspection.
- Make up air is required for HVAC system (23.045 (8) (c) )
- Drain tile with sump pump to be installed as per code.
- City sidewalks are to be installed as per city ordinance. ( no defects )
- Lot drainage as per final plat.
- Maintain erosion control until lawn is established.
- House numbers are required at the time of occupancy.
- Occupancy permit will not be issued without a water meter installed as per Stoughton Utility letter from Roger Thorsen dated Dec. 21, 2001.
- As of 1/1/05 spindle spacing is 4" max.
- Finish grade shall slope away from the dwelling at a rate of at least 1/2 " per foot for a minimum distance of 10 feet or to the lot line.

#### The plan needs to show:

1. Heating distribution system layout.
2. Electrical system layout.
3. The location and construction details of the braced wall lines.
4. Grading Plan that shows the preconstruction ground surface slope and direction and a final grading plan. Show any easements.
5. Erosion Control Plan shall show width, depth and length of access drive with type and size of material to be used.
6. Manufacturer and model number of doors and windows shall be shown on the plan to confirm Heat Loss Calculations.



(a) *Minimum soil-bearing values.* If the soil located directly under a footing or foundation overlies a layer of soil having a smaller allowable bearing value, the smaller soil-bearing value shall be used.

(b) *Unprepared fill material, organic material.* No footing or foundation shall be placed upon unprepared fill material, organic soil, alluvial soil or mud unless the load will be supported. When requested, soil data shall be provided.

Note: The decomposition of organic material in landfill sites established for the disposal of organic wastes may produce odorous, toxic and explosive concentrations of gas which may seep into buildings through storm sewers and similar underground utilities unless provisions are taken to release the gases to the atmosphere.

History: Cr. Register, November, 1979, No. 287, eff. 6-1-80; am. (1) (a), Register, January, 1989, No. 397, eff. 2-1-89; cr. (1) (f), Register, March, 1992, No. 435, eff. 4-1-92; am. (1) (c), Register, November, 1995, No. 479, eff. 12-1-95.

**Comm 21.16 Frost penetration.** (1) **GENERAL.** Footings and foundations, including those for ramps and stoops, shall be placed below the frost penetration level, but in no case less than 48 inches below grade measured adjacent to the footing or foundation. Footings shall not be placed over frozen material.

(2) **EXCEPTIONS.** (a) Floating slabs constructed on grade need not be installed below the minimum frost penetration line provided measures have been taken to prevent frost forces from damaging the structure.

(b) Grade beams need not be installed to the minimum frost penetration line provided measures are taken to prevent frost forces from damaging the structure.

(c) Stoops or ramps need not be installed below the minimum frost penetration level provided measures are taken to prevent frost forces from damaging the structure.

(d) Footings or foundations may bear directly on rock located less than 48 inches below grade. Prior to placement, the rock shall be cleaned of all earth. All clay in the crevices of the rock shall be removed to the level of frost penetration or  $1\frac{1}{2}$  times the width of the rock crevice. Provisions shall be taken at grade to prevent rain water from collecting along the foundation wall of the building.

(e) Portions of footings or foundations which are located directly below window areaways which are required to be installed in accordance with s. Comm 21.03 (6m), are exempt from the requirements of sub. (1).

History: Cr. Register, November, 1979, No. 287, eff. 6-1-80; am. (intro.), Register, February, 1985, No. 350, eff. 3-1-85; renum. (intro.) and (1) to be (1) and (2) and am. (2) (d), cr. (2) (e), Register, January, 1989, No. 397, eff. 2-1-89; am. (1), Register, November, 1995, No. 479, eff. 12-1-95.

**Comm 21.17 Drain tiles.** (1) **DETERMINATION OF NEED.**

(a) *New construction.* 1. Except as provided under sub. (2), a complete drain tile or pipe system shall be installed around the foundation of dwellings under construction where groundwater occurs above the bottom of the footing.

2. For the purposes of this section, a complete drain tile or pipe system includes the drain tile or pipe installed inside and outside the foundation at the footing level, bleeders connecting the inside tile or pipe to the outside tile or pipe, the sump pit, the discharge piping, and a pump or means of discharging water to natural grade.

(b) *Optional systems.* 1. If a complete drain tile or pipe system is not required by natural conditions under par. (a) or by a municipality exercising jurisdiction under sub. (2) (a), a partial drain tile or pipe system may be installed.

2. For the purposes of this section, a partial drain tile or pipe system may include any of the elements under par. (a) 2.

(2) **MUNICIPALITIES EXERCISING JURISDICTION.** (a) *New construction.* 1. For new dwelling construction, a municipality exercising jurisdiction under this code may determine the soil types and natural or seasonal groundwater levels for which a complete drain tile or pipe system is required.

2. For new dwelling construction, a municipality may not enact requirements for other than complete drain tile or pipe systems.

(b) *Alterations to an existing dwelling.* For an alteration to an existing dwelling covered by this code, a municipality may not require a complete drain tile or pipe system.

(c) *Partial systems.* Municipalities may allow partial drain tile or pipe systems for new dwellings under construction or existing dwellings.

(3) **MATERIAL AND INSTALLATION REQUIREMENTS FOR REQUIRED SYSTEMS.** (a) *General.* Complete drain tile or pipe systems required by natural conditions under sub. (1) (a) or by a municipality exercising jurisdiction under sub. (2) (a) shall comply with the requirements of this subsection.

(b) *Basement floor slabs.* The basement slab shall be placed on at least 4 inches of clean graded sand, gravel or crushed stone.

(c) *Manufactured drainage systems.* Manufactured drainage systems not meeting the requirements of this section shall be submitted to the department for review and approval prior to installation.

(d) *Drain tile or pipe installation.* Drain tile or pipe used for foundation drainage shall comply with the following requirements:

1. Drain tile or pipe shall have an inside diameter of at least 3 inches.

2. Drain tile or pipe shall have open seams, joints or perforations to allow water to enter.

3. Where individual tiles are used, they shall be laid with 1/8 inch open joints. Joints between tiles shall be covered with a strip of asphalt or tar impregnated felt.

4. The tile or pipe shall be placed upon at least 2 inches of washed rock and shall be covered on the top and the side facing away from the dwelling with at least 12 inches of washed rock that meets all of the following criteria:

a. 90-100% of the rock shall pass a 3/4 inch sieve.

b. 20-25% of the rock shall pass a 3/8 inch sieve.

5. Bleeder tiles or pipes shall be provided at no more than 8-foot intervals to connect the exterior drain tile or pipe to the interior drain tile or pipe.

6. The drain tiles or pipe that lead from the footing tiles to the sump pit shall be laid at a grade of at least 1/8 inch per foot leading to the sump pit. The remaining drain tiles or pipe shall be level or graded downward to the line leading to the sump pit.

(e) *Drain tile or pipe discharge.* 1. Drain tiles or pipe shall be connected to the sump pit.

2. The sump pit shall discharge to natural grade or be equipped with a pump.

3. All other aspects of drain tile discharge shall be in accordance with the uniform plumbing code, chs. Comm 82 to 87.

Note: The following is a reprint of the pertinent sections of the plumbing code: **Comm 82.36 (1) SUMPS AND PUMPS.** (a) *Sumps.* 2. Construction and installation. The sump shall have a rim extending at least one inch above the floor immediately adjacent to the sump, except where the sump is installed in an exterior meter pit. The sump shall have a removable cover of sufficient strength for anticipated loads. The sump shall have a solid bottom.

3. *Location.* All sumps installed for the purpose of receiving clear water, basement or foundation drainage water shall be located at least 15 feet from any water well.

4. *Size.* The size of each clear water sump shall be as recommended by the sump pump manufacturer, but may not be smaller than 16 inches in diameter at the top, 14 inches in diameter at the bottom, and 22 inches in depth.

5. *Removable covers.* Penetrations through the top of removable sump covers shall be limited to those for the electrical supply, the vent piping and the discharge piping for the pump or pumps.

(b) *Sump pump systems.* 1. Pump size. The pump shall have a capacity appropriate for anticipated use.

2. Discharge piping. Where a sump discharges into a storm building drain or sewer, a free flow check valve shall be installed.

**Comm 82.36 (3) DISPOSAL.** (a) *Storm sewer.* Storm water, surface water, groundwater and clear water wastes shall be discharged to a storm sewer system or a combined sanitary-storm sewer system where available. Combined public sani-

tary-storm sewer systems shall be approved by the department of natural resources. Combined private sanitary-storm sewer systems shall be approved by the department.

(b) *Other disposal methods.* 1. Where no storm sewer system or combined sanitary-storm sewer system is available or adequate to receive the anticipated load, the final disposal of the storm water, surface water, groundwater or clear water wastes shall be discharged in accordance with local governmental requirements. If the final disposal of such waters or wastes is by means of subsurface discharge, documentation shall be submitted to this department to determine whether the method of disposal is acceptable.

2. Where approved by the local governmental authority, storm water, surface water, groundwater and clear water wastes of the properties of one- and two-family dwellings may be discharged onto flat areas, such as streets or lawns, so long as the water flows away from the buildings and does not create a nuisance.

3. a. The clear water wastes from a drinking fountain, water heater relief valve, storage tank relief valve or water softener shall be discharged to either a sanitary drain system or a storm drain system.

b. The clear water wastes from equipment other than those listed in subpar. a. may be discharged to a sanitary drain system if not more than 20 gallons of clear water wastes per day per building are discharged.

(c) *Segregation of wastes.* 1. a. Except as provided in subpar. b., where a sanitary sewer system and a storm sewer system are available the drain piping for storm water or clear water wastes may not connect to any part of the sanitary drain system.

b. Where a combined sanitary-storm sewer system is available storm water wastes, clear water wastes and sanitary wastes may not be combined until discharging to the building sewer.

2. Storm water wastes and clear water wastes shall not be combined until discharging into the storm building drain.

**History:** Cr. Register, November, 1979, No. 287, eff. 6-1-80; r. and recr. Register, February, 1985, No. 350, eff. 3-1-85; r. and recr. (3) (a) 3. and (4), Register, May, 1988, No. 389, eff. 6-1-88; am. (2) (f), Register, January, 1989, No. 397, eff. 2-1-89; r. and recr. (4) (c) 3., Register, August, 1991, No. 428, eff. 9-1-91; cr. (5), Register, March, 1992, No. 435, eff. 4-1-92; r. and recr., Register, January, 1999, No. 517, eff. 2-1-99.

### Subchapter V — Foundations

**Comm 21.18 Foundations.** (1) **GENERAL.** (a) *Design.* Foundation walls shall be designed and constructed to support the vertical loads of the dwelling, lateral soil pressure, and other loads without exceeding the allowable stresses of the materials of which the foundations are constructed.

(b) *Lateral support.* 1. Lateral support such as floor slabs or framing shall be provided at the base of foundation walls.

2. Lateral support shall be provided at the top of foundation walls by one of the following:

a. Ledger blocks at the perimeter of the floor consisting of 2 by 4 inch nominal lumber attached with two 16 penny nails at each joist.

b. System design through structural analysis.

c. Structural steel anchor bolts, a minimum of 1/2 inch in diameter, embedded at least 7 inches into concrete or grouted masonry. The bolts shall be located within 18 inches of wall corners and shall have a maximum spacing of 72 inches.

d. Mechanical fasteners used in accordance with the manufacturer's instructions.

(2) **CONCRETE FOUNDATION WALLS.** (a) Except as provided in par. (b), unless designed through structural analysis, the minimum thickness of concrete foundation walls shall be determined from Table 21.18-A, but in no case shall the thickness of the foundation wall be less than the thickness of the wall it supports.

(b) A 6-inch nominal wall thickness may be used provided the fill on one side of the wall is within 12 inches vertically of the fill on the other side of the wall.

TABLE 21.18-A  
CONCRETE WALL THICKNESSES

Type of Concrete	Nominal Thickness (inches)	Maximum Height of Unbalanced Fill <sup>1</sup> for Material of Wall Being Supported (Wood frame — feet)
3000 psi Unreinforced concrete	8	8
	10	9
	12 <sup>2</sup>	10
	14	11.5

<sup>1</sup>Unbalanced fill is the difference in elevation between the outside grade and the basement floor.

<sup>2</sup>The maximum height of unbalanced fill for a 12-inch thick plain concrete wall may be increased to 12 feet provided the wall is constructed of concrete with a minimum compressive value of 6,000 psi at 28 days.

(3) **MASONRY FOUNDATION WALLS.** Unless designed through structural analysis, the masonry foundation walls shall be constructed in accordance with the following requirements:

(a) *Unreinforced masonry wall; thickness.* The minimum thickness of unreinforced masonry foundation walls shall be determined by Table 21.18-B, but in no case shall the thickness be less than the thickness of the wall it supports.

(b) *Reinforced masonry wall; thickness.* Reinforced masonry walls shall be reinforced in accordance with the requirements of Tables 21.18-C or 21.18-D. In partially reinforced masonry walls, vertical reinforcement shall be provided on each side of any opening and at intervals indicated in Table 21.18-D.

(c) *Wall design.* The depth below grade, wall height, and pilaster or reinforcement spacing may exceed the maximum values indicated in Tables 21.18-B, -C or -D if the design is based on engineering analysis.

(d) *Subsurface drainage.* Subsurface drainage shall be provided if required by s. Comm 21.17.

TABLE 21.18-B  
MAXIMUM DEPTH BELOW GRADE\* (HEIGHT OF FILL) AND THICKNESSES FOR VARIOUS CONCRETE MASONRY FOUNDATION WALLS WITHOUT PILASTERS

Wall Construction Nominal Thickness, in., and Type of Unit	Maximum Depth Below Grade, feet, when Walls Support:	
	Frame Construction	Masonry, or Masonry Veneer Construction
Hollow Load-Bearing:		
8"	5' (6')	6'
10"	6' (7')	7'
12"	7'	7'
Solid Load-Bearing:		
8"	5' (7')	7'
10"	6' (7')	7'
12"	7'	7'

\*In well drained sand and gravel soils, the height of the unbalanced fill may be increased to the values shown in parentheses.

EFF. 9-20-01

S. Katterson

O - 23 - 01

AN ORDINANCE TO AMEND SECTION 16.17 OF THE STOUGHTON MUNICIPAL CODE

The Common Council of the City of Stoughton, Dane County, Wisconsin, do ordain as follows:

- 1. Section 16.17 of the Stoughton Municipal Code is hereby amended to read as follows:

16.17 DRAIN FOR EACH BUILDING.

Whenever practicable the sewerage and drainage system of every house or building in the City shall be separately and independently connected with the street and sewer except where a building stands in the rear of another on the same lot the house drain from the building may be extended to the rear building, private garage, or barn, and the whole will be considered as one house drain.

No connection of a building drain shall be made to any sanitary sewer unless it is protected with a backwater valve as specified in Wisconsin Administrative Code Comm 82.30(11)(b) 2.

- 2. This ordinance shall take effect upon its passage and publication.

The above and foregoing Ordinance was duly adopted by the Common Council of the City of Stoughton at a regular meeting held on the 13th day of September, 2001.

VOTE:

APPROVED:

Ayes: 11

Robert E. Barnett, Jr.
Robert E. Barnett, Jr., Mayor

Noes: 0

ATTEST:

Adopted: 9-13-01

Judy A. Kinning
Judy A. Kinning, City Clerk

Published: 9-20-01



# UDC ONE AND TWO FAMILY HVAC BALANCING STATEMENT

PERMIT # \_\_\_\_\_

ADDRESS \_\_\_\_\_

LOT # \_\_\_\_\_

OWNER \_\_\_\_\_

BUILDER CONTRACTOR \_\_\_\_\_

HVAC CONTRACTOR \_\_\_\_\_

In accordance to Comm. 23.18 (2) Final Test Required, the installer shall test and balance every heating and air conditioning system.

As per 23.18 (2) and as the licensed HVAC contractor for the above mentioned dwelling, I certify that the HVAC system has been tested and balanced as per code.

Please sign \_\_\_\_\_  
HVAC CONTRACTOR

Date \_\_\_\_\_

