Chapter 296-876 WAC
LADDERS, PORTABLE AND FIXED

WAC
296-876-100 Scope. This chapter applies to portable and fixed ladders, including job-made wooden ladders.

Exemption: This chapter does not apply to:

• Portable ladders used by the fire services for fire combat that are covered by Safety standards for firefighters, chapter 296-305 WAC;

296-876-150 Training—Section contents.

Your responsibility:
To train employees who use ladders.
Training.
WAC 296-876-15005 Training.

You must:

• Train employees to recognize ladder hazards and the procedures to minimize these hazards.
• Have a competent person train employees that use ladders in at least the following topics:
  – The proper construction, use, placement, and care in handling ladders.
  – The maximum intended load capacities of ladders that are used.
  – The requirements of this chapter.
• Retrain employees as necessary to make sure they know and understand the content of the original training.

296-876-200 Design and construction—Section contents.

Your responsibility:
To make sure portable ladders meet design and construction requirements.
Design and construction.
WAC 296-876-20005 Design and construction.

IMPORTANT:
Design and construction requirements of this section do not apply to special purpose ladders.
Definition:
A special purpose ladder is a portable ladder that is made by modifying or combining design or construction features of the general-purpose types of ladders in order to adapt the ladder to special or specific uses.
You must:

• Make sure portable ladders and job-made wooden ladders manufactured on or after January 1, 2006, meet the design and construction requirements and specifications of Agriculture activities covered by Safety standards for agriculture, chapter 296-307 WAC.

DISPOSITION OF SECTIONS FORMERLY CODIFIED IN THIS CHAPTER
296-876-50005 Training. [Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. WSR 05-20-068, § 296-876-50005, filed 10/4/05, effective 1/1/06.] Repealed by WSR 06-16-020, filed 7/24/06, effective 12/1/06.

WAC 296-876-100 Scope. This chapter applies to portable and fixed ladders, including job-made wooden ladders.

Exemption: This chapter does not apply to:

• Portable ladders used by the fire services for fire combat that are covered by Safety standards for firefighters, chapter 296-305 WAC;

(10/24/06)

[Ch. 296-876 WAC p. 1]
the appropriate American National Standards Institute (ANSI) standard:
• Make sure portable ladders manufactured before January 1, 2006, meet the design and construction requirements and specifications of the appropriate ANSI standard in effect on the date of manufacture:

Note: A commercially manufactured portable ladder should have a label indicating it meets the requirements of the ANSI standard. If in doubt, check with the manufacturer.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. WSR 05-20-668, § 296-876-20005, filed 10/4/05, effective 1/1/06.]

WAC 296-876-300 Ladder care—Section contents.
Your responsibility:
To make sure portable ladders are inspected, maintained, stored and transported properly.
Condition and inspection
WAC 296-876-30005.
Repair
WAC 296-876-30010.
Storage
WAC 296-876-30015.
Transport
WAC 296-876-30020.

Note: Ladders subjected to certain acids or alkali materials may experience chemical corrosion and a reduction in strength. Consult the manufacturer or a qualified person prior to use.

Table 1
Ladder Inspection Criteria

<table>
<thead>
<tr>
<th>When the ladder is:</th>
<th>Do the following:</th>
</tr>
</thead>
<tbody>
<tr>
<td>First placed into service and periodically while in service</td>
<td>• Inspect the ladder for visible defects, including, but not limited to:</td>
</tr>
<tr>
<td></td>
<td>– Working parts;</td>
</tr>
<tr>
<td></td>
<td>– Rung or step connections to the side rails.</td>
</tr>
<tr>
<td>Damaged by impact or tips over</td>
<td>• Visually inspect the ladder for:</td>
</tr>
<tr>
<td></td>
<td>– Dents, bends, cracks or splits</td>
</tr>
<tr>
<td></td>
<td>– Check:</td>
</tr>
<tr>
<td></td>
<td>– Rung or step connections to the side rails.</td>
</tr>
<tr>
<td></td>
<td>– Hardware connections.</td>
</tr>
<tr>
<td></td>
<td>– Rivets for shear damage.</td>
</tr>
<tr>
<td></td>
<td>– All other components.</td>
</tr>
<tr>
<td>Exposed to excessive heat such as a fire</td>
<td>• Visually inspect the ladder for damage.</td>
</tr>
<tr>
<td></td>
<td>• Test for deflection and strength characteristics using the “in-service use tests” contained in the appropriate ANSI.</td>
</tr>
<tr>
<td></td>
<td><strong>Exemption:</strong> Job-made wooden ladders are not to be subjected to load or impact tests. Those tests may weaken lumber components or fasteners, causing hidden damage that could result in sudden failure during use.</td>
</tr>
</tbody>
</table>

[Ch. 296-876 WAC p. 2]
Ladders, Portable and Fixed

WAC 296-876-30010 Repair.
You must:
• Make sure repairs restore the ladder to a condition meeting its original design criteria.
• Prohibit repairs to a defective side rail.

Note: A commercially manufactured ladder with a defective side rail cannot be repaired by the user. Side rail repair can only be done by the manufacturer.

WAC 296-876-30015 Storage.
You must:
• Make sure material is not put on ladders in storage.

Note: 
• Store portable ladders on racks designed to protect them when not in use. The racks should have enough supporting points to prevent the ladder from sagging.
• Do not store wood ladders near sources of heat, moisture, or dampness.

WAC 296-876-30020 Transport.
You must:
• Properly support ladders while transporting them on vehicles.
• Make sure ladders transported in a truck rack are positively secured in a fixed position that prevents chafing or abrasion.

Note: Securing the ladder to each support point will greatly reduce damage due to road shock.

WAC 296-876-40005 Designed use.
You must:
• Use ladders only for their intended purpose.

Note: Unless specifically recommended by the manufacturer, do not use a ladder as a:
• Brace.
• Skid.
• Lever.
• Guy or gin pole.
• Gangway.
• Platform.
• Scaffold plank.
• Material hoist.

You must:
• Make sure not to overload ladders. Do not exceed either the:
  – Maximum intended load;
  OR
  – Manufacturer's rated capacity.

Definitions:
– The maximum intended load is the total load of all persons, equipment, tools, materials, transmitted loads, and other loads reasonably anticipated to be applied to a ladder or ladder component at any one time.
– Ladder type. The designation that identifies the maximum intended load (working load) of the ladder. Ladder types are as follows:

<table>
<thead>
<tr>
<th>Duty Rating</th>
<th>Ladder Type</th>
<th>Use</th>
<th>Maximum Intended Load (Pounds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extra Heavy-Duty</td>
<td>IA</td>
<td>Industry, utilities, contractors</td>
<td>300</td>
</tr>
<tr>
<td>Heavy-Duty</td>
<td>I</td>
<td>Industry, utilities, contractors</td>
<td>250</td>
</tr>
<tr>
<td>Medium-Duty</td>
<td>II</td>
<td>Painters, offices, light maintain-</td>
<td>225</td>
</tr>
<tr>
<td>Light-Duty</td>
<td>III</td>
<td>General household use</td>
<td>200</td>
</tr>
</tbody>
</table>

WAC 296-876-40010 Workplace activities or traffic.
You must:
• Protect ladders that are set-up in a location where they could be displaced by workplace activities or traffic by either:
  – Securing the ladder to prevent accidental displacement;
  OR
  – Using a barricade to keep the activities or traffic away from the ladder.

(10/24/06)
• Protect ladders that are set-up in front of doors that open towards the ladder by doing at least one of the following:
  – Block the door open.
  – Lock the door.
  – Guard the door to keep it from opening into the ladder.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. WSR 05-20-068, § 296-876-40010, filed 10/4/05, effective 1/1/06.]

WAC 296-876-40015 Support.
You must:
• Place the ladder either:
  – With a secure footing on a firm, level support surface;
  OR
  – Secure the ladder to prevent accidental displacement.
• Make sure a ladder is not placed on ice, snow, or other slippery surface unless the ladder is prevented from accidental displacement by either:
  – Securing it;
  OR
  – Providing the ladder with slip-resistant feet.

Note: Slip-resistant feet are not a substitute for care in placing, lashing, or holding a ladder that is used on a slippery surface.

You must:
• Make sure ladders are not placed on boxes, barrels, or other unstable bases to obtain additional height.
• Place a straight ladder so the side rails are equally supported by the top support, unless the ladder is equipped with a single support attachment.
• Make sure the top support of the ladder is reasonably rigid and able to support the load.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. WSR 05-20-068, § 296-876-40015, filed 10/4/05, effective 1/1/06.]

WAC 296-876-40020 Set-up.
You must:
• Set up nonself-supporting ladders at a safe angle. The ladder is set at the proper angle when the horizontal distance from the top support to the foot of the ladder is approximately one-quarter the working length of the ladder.
• Set up job-made ladders with spliced side rails so that the horizontal distance from the top support to the foot of the ladder is not greater than one-eighth the working length of the ladder.

Definition:
The working length of a nonself-supporting ladder is the length, measured along the rails, from the base support point of the ladder to the point of bearing at the top.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. WSR 05-20-068, § 296-876-40020, filed 10/4/05, effective 1/1/06.]

WAC 296-876-40025 Climbing and descending.
You must:
• Have both hands free to hold on to the ladder.
• Face the ladder when climbing or descending.
• Keep ladders free of oil, grease, or other slippery materials.
• Keep the area around the top and bottom of ladders clear.
• Make sure single-rail ladders are not used.

Definition:
A single-rail ladder is a portable ladder with crosspieces mounted on a single rail.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. WSR 05-20-068, § 296-876-40025, filed 10/4/05, effective 1/1/06.]

WAC 296-876-40030 Getting on and off ladders at upper levels.
You must:
• Make sure a ladder used to access an upper level has the side rails extended at least three feet (.9 m) above the landing surface if the ladder length permits.
• Do the following if a ladder used to access an upper level is not long enough to obtain a three-foot side rail extension above the landing surface:
  – Secure the ladder at the top to a rigid support that will not deflect.
  – Provide a grasping device, such as a grabrail, to assist in mounting and dismounting the ladder.
  – Make sure the ladder deflection under a load would not, by itself, cause it to slip off its support.
• Make sure, if two or more separate ladders are used to reach an elevated work area, that the ladders are offset with a platform or landing between them.

Exemption: A platform or landing is not required when a portable ladder is used to reach a fixed ladder on structures such as utility towers and billboards where the bottom of the fixed ladder is elevated to limit access.
WAC 296-876-40035 Exposed electrical hazards.
You must:
• Use ladders with nonconductive side rails where the ladder could contact uninsulated, energized electric lines or equipment.
  – Metal ladders or other ladders specifically designed to permit grounding or dissipation of static electricity may be used around high static electrical fields if all of the following are met:
  • Using nonconductive ladders would present a greater hazard than using conductive ladders.
  • Ladders are prominently marked and identified as being conductive.
  • Ladders are grounded when used near energized lines or equipment.

Note: Examples of ladders with conductive side rails are metal ladders, and wood or reinforced plastic ladders with metal side rail reinforcement.

WAC 296-876-40040 Persons on ladders.
You must:
• Make sure a ladder is not moved, shifted, or adjusted while anyone is on it.
• Secure the ladder at the top and bottom when working from it.
• Use a safety belt with a lanyard that is secured to the ladder when doing any work that:
  – Requires the use of both hands;
  AND
  – Is done from a ladder more than twenty-five feet above the ground or floor.
• Prohibit work being done from a ladder more than twenty-five feet above the ground or floor if the work requires wearing eye protection or a respirator.

WAC 296-876-40045 Multisection ladders.
You must:
• Make sure not to tie or fasten ladder sections together to make longer ladders unless:
  – The ladder manufacturer endorses this type of use;
  AND
  – You have hardware fittings specifically designed for this purpose.
• Make sure each section of a multisection ladder, when fully extended and locked in position to be used, overlaps the adjacent section as indicated in Table 2, Minimum Required Overlap for Extension Ladders.

<table>
<thead>
<tr>
<th>If the ladder size (feet) is:</th>
<th>Minimum required overlap for a two-section ladder is (feet):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to and including 36</td>
<td>3</td>
</tr>
<tr>
<td>Over 36 up to and including 48</td>
<td>4</td>
</tr>
<tr>
<td>Over 48 up to and including 60</td>
<td>5</td>
</tr>
</tbody>
</table>

WAC 296-876-50050 Self-supporting ladders.
You must:
• Make sure self-supporting ladders are not used as single ladders or in the partially closed position.
• Make sure stepladders are fully opened with the spreaders locked.
• Make sure not to climb on the rear braces of a self-supporting ladder unless they are designed and recommended for that purpose by the manufacturer.
  • Prohibit standing or stepping on the:
    – Top cap and top step of a step or trestle ladder.
    – Bucket or pail shelf of a self-supporting ladder.

Exemption: The restriction against using the top step is not applicable if it is eighteen inches or more below the top cap.

WAC 296-876-500 Fixed ladder design and construction—Section contents.
Your responsibility:
To make sure fixed ladders installed on or after December 1, 2006, meet design and construction requirements.

Design and construction—Fixed ladders installed on or after December 1, 2006.
WAC 296-876-50010

WAC 296-876-50010 Design and construction—Fixed ladders installed on or after December 1, 2006.
You must:
• Make sure fixed ladders installed on or after December 1, 2006, meet the design and construction requirements of ANSI A14.3-2002, American National Standard for Ladders—Fixed-Safety Requirements.

Note: Ladders will be considered to have met the requirements of this section if they meet the design and construction requirements of ANSI A14.3, American National Standard for Ladders—Fixed-Safety Requirements, in effect at the time they are installed.
WAC 296-876-600 Fixed ladder design and construction—Section contents.

Your responsibility:
To make sure fixed ladders installed before December 1, 2006, meet design and construction requirements.

Design and construction—Fixed ladders installed before December 1, 2006.
WAC 296-876-60005 Design loads.
WAC 296-876-60010 Pitch.
WAC 296-876-60015 Welding.
WAC 296-876-60020 Ladder surfaces.
WAC 296-876-60025 Rungs, cleats and steps.
WAC 296-876-60030 Side rails.
WAC 296-876-60035 Clearances.
WAC 296-876-60040 Step-across distance.
WAC 296-876-60045 Extensions and grab bars.
WAC 296-876-60050 Hatches.
WAC 296-876-60055 Platforms.
WAC 296-876-60060 Protective structures and equipment.
WAC 296-876-60065 Cages.
WAC 296-876-60070 Wells.
WAC 296-876-60075 Ladder safety devices.
WAC 296-876-60080

WAC 296-876-60005 Design and construction—Fixed ladders installed before December 1, 2006. You must:

• Make sure fixed ladders installed before December 1, 2006, meet the requirements of WAC 296-876-60010 through 296-876-60080.

Note: Ladders will be considered to have met the requirements of this section if they meet the design and construction requirements of ANSI A14.3, American National Standard for Ladders—Fixed-Safety Requirements, in effect at the time they are installed.

WAC 296-876-60010 Design loads. You must:

• Make sure each ladder is able to support, without failure, the total of the following loads:

• At least two loads of two hundred and fifty pounds each, concentrated between any two consecutive attachments.

• Any additional concentrated loads of two hundred and fifty pounds each determined from the anticipated use of the ladder.

• Anticipated loads caused by all of the following that apply:
  ■ Ice buildup.
  ■ Winds.
  ■ Rigging attached to the ladder, including the load to be lifted.
  ■ Impact loads resulting from the use of ladder safety devices.

• Make sure the design of rails, supports, and fastenings includes:
  ■ Live loads to be supported by the ladder and the weight of the ladder and everything attached to it.
  ■ Consider all live loads to be concentrated at the point or points that will cause the maximum stress on the ladder or structural member.

• Make sure each step or rung is capable of supporting a single concentrated load of at least two hundred fifty pounds applied in the middle of the step or rung.

• Make sure the design stresses for wood components of ladders meet the requirements and specifications of ANSI A14.1, American National Standard for Ladders—Portable Wood-Safety Requirements, in effect when the ladder was installed.

• Make sure fastenings are designed to meet the ladder load requirements.

Note:
• The preferred pitch of fixed ladders is within the range of seventy-five to ninety degrees from the horizontal. Ladders with a pitch range of sixty to seventy-five degrees from the horizontal are considered substandard and are only permitted if necessary to meet the installation requirements.

• Fixed stairs are an alternative for installations where a pitch angle of less than sixty degrees is necessary. See Fixed industrial stairs, WAC 296-24-765, in the General Safety and Health Standards, chapter 296-24 WAC.

WAC 296-876-60020 Welding. You must:

• Make sure welding meets the requirements of the ANSI A14.3, American National Standard for Ladders—Fixed-Safety Requirements, in effect at the time the ladder was installed.

WAC 296-876-60025 Ladder surfaces. You must:
Ladders, Portable and Fixed

WAC 296-876-60030  Rungs, cleats and steps.
You must:
• Make sure rungs have a minimum diameter as follows:
  – Rungs of wood ladders are at least one and one-eighth inches.
  – Rungs of metal ladders subject to unusually corrosive exposures, such as individual metal rungs imbedded in concrete which serve as access to pits and to other areas under floors, are at least one inch.
  – Rungs of all other metal ladders are at least three-quarters inch.
• Make sure rungs, cleats, and steps are all of the following:
  – Parallel.
  – Level.
  – Uniformly spaced throughout the length of the ladder.
  – Spaced so the distance from the centerline of one rung to the centerline of the next rung does not exceed twelve inches.

Exception: The vertical distance from the ground, floor, or roof at the access level to the first rung may be adjusted within a range of fourteen inches.

You must:
• Make sure the minimum inside clear width of the stepping surface of rungs, steps, or cleats is sixteen inches.
• Make sure individual rung or step-type ladders have rungs or steps that are shaped so that a person's foot cannot slide off the end.

WAC 296-876-60035  Side rails.
You must:
• Make sure the shape of the side rail:
  – Provides an adequate gripping surface
  – Is uniform throughout the length of climb.
• Make sure a side rail that has been spliced to obtain a longer length is at least equivalent in strength to a one-piece side rail made of the same material.

WAC 296-876-60040  Clearances.
You must:
• Make sure ladders without wells or cages are at least thirty inches from the nearest permanent object on the climbing side, measured perpendicular to the ladder from the centerline of the rungs, cleats, or steps.

You must:
• Make sure ladders without wells or cages have a clear width from the nearest permanent object on each side of the ladder of at least fifteen inches, measured from the center of the rungs, cleats, or steps.
• Make sure the distance from the centerline of the rungs, cleats, or steps to the nearest permanent object in back of the ladder is at least seven inches.

Exemption: When unavoidable obstructions are encountered, the minimum perpendicular clearance between the centerline of the rungs, cleats, or steps and an obstruction on the climbing side may be reduced to twenty-four inches if a deflection device is installed to guide persons around the obstruction.

WAC 296-876-60045  Step-across distance.
You must:
• Make sure a through ladder at the point of access or egress has a step-across distance, measured from the centerline of the steps or rungs to the nearest edge of the landing area, that is:
  – Not less than seven inches
  – Greater than twelve inches.
• Make sure a side-step ladder at the point of access or egress has a step-across distance, measured from the side rail of the ladder to the nearest edge of the landing area, that is:
  – Not less than seven inches
  – Greater than twelve inches.

WAC 296-876-60050  Extensions and grab bars.
You must:
• Make sure the side rails of through or side-step ladders extend forty-two inches above the top of the access level or landing platform.

Note: For a parapet ladder, the access level is:
  – The roof if the parapet is cut to permit passage through it
  – The top of the parapet if it is continuous and uncut.

You must:
• Make sure the extension of a through ladder above the access level or landing platform has:
  – Steps or rungs omitted from the extension
  – Clearance between the side rails that is:
    ■ Not less than twenty-four inches
    ■ Greater than thirty inches.

Exemption: The maximum clearance between side rails of the extension may be increased to thirty-six inches if the ladder has a ladder safety device.
Ladders, Portable and Fixed

WAC 296-876-60055 Hatches.
You must:
• Make sure counterbalanced hatch covers open at least seventy degrees from the horizontal.
• Make sure the inside clear width of the hatch is a nominal thirty inches.
• Make sure the distance from the centerline of the rungs or cleats to the edge of the hatch opening on the climbing side, measured perpendicular to the ladder, is:
  – Not less than twenty-four inches
  or
  – Greater than thirty inches.
• Make sure hatch covers have clearance on the climbing side of the ladder that is between twenty-four and twenty-seven inches are fitted with a deflector plate mounted at an angle of sixty degrees from the horizontal.

Note: The springs or other counterbalance mechanisms for the hatch may project into the hatch opening provided they do not reduce clearance to less than twenty-four inches and a deflector plate is installed to guide persons around the obstruction.

Exemption: A platform or landing is not required when a portable ladder is used to reach a fixed ladder on structures such as utility towers and billboards where the bottom of the fixed ladder is elevated to limit access.

Reference: Requirements for standard railings and toeboards are in Railing, toeboards, and cover specifications, WAC 296-24-75011, the General Safety and Health Standards, chapter 296-24 WAC.

WAC 296-876-60060 Platforms.
You must:
• Make sure the side rails of through or side-step ladders extend forty-two inches above the top of the access level or landing platform.
• Make sure side-step ladders have the steps or rungs and the side rails continuous in the extension.
• Make sure individual rung-step ladders are extended at least forty-two inches above the access level or landing platform by:
  – Continuing the rung spacings as horizontal grab bars or
  – Providing vertical grab bars that have the same lateral spacing as the vertical legs of the rungs.

Exemption: Extensions are not required for individual rung-step ladders with access openings through a manhole or hatch.

WAC 296-876-60065 Protective structures and equipment.
You must:
• Make sure a cage, well, or ladder safety system is provided if:
  – The length of climb is less than twenty-four feet and
  – The top of the ladder is more than twenty-four feet above the ground, floor, or roof.
• Make sure a ladder with a single length of climb that is equal to or greater than twenty-four feet is either:
  – Equipped with a ladder safety device or
  – Uses multiple ladder sections and meets all of the following:
    ■ Each section is provided with a cage or well.
    ■ The length of climb of any ladder section is not greater than fifty feet.
    ■ Each ladder section is offset from adjacent sections.
    ■ Landing platforms are provided at maximum intervals of fifty feet.

Exemption: During construction activities, a self-retracting lifeline with landing platforms provided at maximum intervals of one hundred and fifty feet may be used instead of a ladder safety device or multiple ladder sections.

Reference: Requirements for standard railings and toeboards are in Railing, toeboards, and cover specifications, WAC 296-24-75011, the General Safety and Health Standards, chapter 296-24 WAC.

WAC 296-876-60070 Cages.
You must:
• Make sure the cage meets all of the following:
  – Extends at least forty-two inches above the top of the platform or above the point of access and egress at the top of the ladder.
  – Has provisions for accessing and egressing the platform or the point of access or egress of the ladder.
  – There is at least twenty-seven inches, but not more than thirty inches, from the cage to the centerline of the step or rung at all points except where the cage flares at the bottom of the ladder.
– The cage is at least twenty-seven inches wide.
– There are no projections inside the cage.
• Make sure the bottom of the cage is:
  – At least seven feet but not more than eight feet above
    the point of access to the bottom of the ladder
  and
  – Flared at least four inches all around within the dis-
    tance between the bottom horizontal band and the next
    higher band.
• Make sure vertical bars are:
  – Spaced at intervals of nine and one-half inches or less
    on center around the circumference of the cage
  and
  – Fastened to the inside of the horizontal bands.
• Make sure the horizontal bands meet all of the follow-
  ing:
  – The vertical intervals between horizontal bands is not
    more than four feet on center.
  – The horizontal bands of ladders with side rails are fas-
    tened to the side rails.
  – The horizontal bands of individual-rung ladders are
    fastened directly to the structure, building, or equipment.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. WSR 06-16-020, § 296-876-60070, filed 7/24/06, effective 12/1/06.]

WAC 296-876-60075 Wells.
You must:
• Make sure there is at least twenty-seven inches, but not
  more than thirty inches, from the centerline of the step or
  rung to the inside face of the well on the climbing side of the
  ladder.
• Make sure the inside clear width is at least thirty inches.
• Make sure the well:
  – Completely encircles the ladder
  and
  – Is free of projections.
• Make sure the bottom of the wall on the access side is
  at least seven feet, but not more than eight feet, above the
  point of access to the bottom of the ladder.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. WSR 06-16-020, § 296-876-60075, filed 7/24/06, effective 12/1/06.]

WAC 296-876-60080 Ladder safety devices.
You must:
• Make sure ladder safety devices and related support
  systems meet all of the following:
  – Are capable of withstanding, without failure, the test
drop of a five hundred pound weight for a free-fall distance of
  eighteen inches.
  – The device does not require a person to continually
    hold, push, or pull any part of the device and allows them to
  have both hands free to grip the ladder.
  – In the event of a fall, the device:
    ■ Is activated within two feet
  and
  ■ Limits the fall velocity to seven feet per second or less.
  – Uses a connection between the carrier or lifeline and
    the point of attachment on the full body harness that is not
  longer than nine inches.
• Make sure ladder safety devices with rigid carriers have
  mountings that:
  – Are attached at each end of the carrier
  and
  – Have intermediate mountings that are all of the follow-
    ing:
    ■ Spaced along the entire length of the carrier in accor-
      dance with the manufacturer's recommendations.
    ■ Installed within one foot below each splice on the car-
      rier.
    ■ Have a maximum distance between mountings that is
      twenty-five feet or less.
  • Make sure ladder safety devices with flexible carriers
    have:
    – Mountings that are attached at each end of the carrier
    and
    – Cable guides that are spaced at least twenty-five feet,
      but no further than forty feet, apart along the entire length of
      the carrier.
  • Make sure the design and installation of mountings and
    cable guides does not reduce the design strength of the lad-
    der.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. WSR 06-16-020, § 296-876-60080, filed 7/24/06, effective 12/1/06.]

WAC 296-876-70005 Protection against corrosion
and deterioration.
You must:
• Paint or otherwise treat metal ladders or metal parts to
  resist rust and corrosion if they are:
  – Exposed to the elements
  or
  – Located where rust or corrosion could be expected.
• Treat wood ladders used in conditions where decay
  may occur with a nonirritating preservative.
• Make sure wood ladders are not coated with an opaque
  covering except for the minimum amount necessary for iden-
  tification and warning information which may be placed on
  one face only of a side rail.
• Treat the interface between different materials or use
  other means to prevent:
  – One material from damaging or having a harmful
effect on another material
  and
  – Electrolytic action between dissimilar metals.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. WSR 06-16-020, § 296-876-70005, filed 7/24/06, effective 12/1/06.]
WAC 296-876-70010 Inspection and repair.
You must:
• Keep ladders in safe condition.
• Have a competent person inspect a ladder for visual defects:
  – Periodically
  and
  – After any occurrence that could affect safe use.
• Make sure any ladder with structural damage or other hazardous defect is immediately removed from service.

Note:
• Structural damage includes, but is not limited to, any of the following:
  – Broken or missing rungs, cleats, or steps.
  – Broken or split rails.
  – Corroded components.
  – Bolts and welds missing or not secure.
• A ladder is considered to be removed from service if any of the following are done:
  – It is marked to identify it as defective.
  – It is tagged with "do not use" or similar language.
  – It is blocked so that it cannot be used, for example, by using a plywood attachment that spans several rungs.

You must:
• Make sure repairs restore the ladder to a condition meeting its original design criteria.

WAC 296-876-800 Fixed ladder use—Section contents.
Your responsibility:
To use fixed ladders safely.

Design load.
WAC 296-876-80005
Climbing and descending.
WAC 296-876-80010

WAC 296-876-80005 Designed load.
You must:
• Make sure not to overload ladders. Do not exceed either the:
  – Maximum intended load
  or
  – Manufacturer's rated capacity.

Definition:
The maximum intended load is the total load of all persons, equipment, tools, materials, transmitted loads, and other loads reasonably anticipated to be applied to a ladder or ladder component at any one time.

WAC 296-876-80010 Climbing and descending.
You must:
• Have both hands free to hold on to the ladder.
• Face the ladder when climbing or descending.
• Keep ladders free of oil, grease, or other slippery materials.

WAC 296-876-900 Definitions.
Cage. An enclosure that encircles the climbing space of a fixed ladder. It is fastened to the ladder side rails or to the structure and may also be called a cage or basket guard.
Cleat. A ladder crosspiece used in climbing or descending. Also called a step or rung.
Equivalent. Alternative design, material or method to protect against a hazard. You have to demonstrate it provides an equal or greater degree of safety for employees than the method, material or design specified in the rule.
Extension ladder. A nonself-supporting portable ladder consisting of two or more sections. The sections travel in guides or brackets that allow the length of the ladder to be changed. The size is designated by the sum of the lengths of each section, measured along the side rails.
Failure. The ladder or ladder component loses the ability to carry the load, breaks, or separates into component parts.
Fastenings. A fastening is a device to attach a ladder to a structure, building, or equipment.
Fixed ladder. A ladder permanently attached to a structure, building, or equipment.
Grab bars. Handholds placed adjacent to or as an extension above ladders for the purpose of providing access beyond the limits of the ladder.
Job-made ladder. A ladder that is made, not commercially manufactured, to fit a specific job situation. They are for temporary use until a particular phase of construction is completed or until permanent stairways or fixed ladders are ready to use.
Individual-rung/step ladder. A fixed ladder consisting of individual steps or rungs mounted directly to the side or wall of the structure, building, or equipment.
Ladder. A device having steps, rungs, or cleats that can be used to climb or descend.
Ladder safety device. Any device, other than a cage or well, designed to arrest the fall of a person using a fixed ladder.
Ladder type. The designation that identifies the maximum intended load (working load) of the ladder. Ladder types are as follows:

<table>
<thead>
<tr>
<th>Duty Rating</th>
<th>Ladder Type</th>
<th>Use</th>
<th>Maximum Intended Load (Pounds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extra Heavy-Duty</td>
<td>IA</td>
<td>Industry, utilities, contractors</td>
<td>300</td>
</tr>
<tr>
<td>Heavy-Duty</td>
<td>I</td>
<td>Industry, utilities, contractors</td>
<td>250</td>
</tr>
<tr>
<td>Medium-Duty</td>
<td>II</td>
<td>Painters, offices, light</td>
<td>225</td>
</tr>
<tr>
<td></td>
<td></td>
<td>maintenance</td>
<td></td>
</tr>
<tr>
<td>Light-Duty</td>
<td>III</td>
<td>General household use</td>
<td>200</td>
</tr>
</tbody>
</table>

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. WSR 06-16-020, § 296-876-80010, filed 7/24/06, effective 12/1/06.]
Landing. Any area such as the ground, roof, or platform that provides access or egress to a ladder.

Maximum intended load. The total load of all persons, equipment, tools, materials, transmitted loads, and other loads reasonably anticipated to be applied to a ladder or ladder component at any one time. Sometimes referred to as working load.

Pitch. The included angle between the horizontal and the ladder, measured on the opposite side of the ladder from the climbing side.

Portable ladder. A ladder that can be readily moved or carried.

Reinforced plastic. A plastic that has high-strength fillers embedded in the base resin to increase strength.

Reinforced plastic ladder. A ladder whose side rails are reinforced plastic. The crosspieces, hardware, and fasteners may be made of metal or other suitable material.

Rung. A ladder crosspiece used in climbing or descending. Also called a cleat or step.

Side-step ladder. A fixed ladder that requires a person to step to the side of the ladder side rails to reach the landing.

Single ladder. A nonself-supporting portable ladder, nonadjustable in length, consisting of one section. The size is designated by the overall length of the side rail.


Special-purpose ladder. A portable ladder that is made by modifying or combining design or construction features of the general-purpose types of ladders in order to adapt the ladder to special or specific uses.

Step. A ladder crosspiece used in climbing or descending. Also called a cleat or rung.

Stepladder. A self-supporting portable ladder, nonadjustable in length, with flat steps and hinged at the top. The size is designated by the overall length of the ladder measured along the front edge of the side rails.

Through ladder. A fixed ladder that requires a person to step between the side rails of the ladder to reach the landing.

Trestle ladder. A self-supporting portable ladder, nonadjustable in length, consisting of two sections hinged at the top to form equal angles with the base. The size is designated by the length of the side rails measured along the front edge.

Well. A walled enclosure around a fixed ladder that provides a person climbing the ladder with the same protection as a cage.

Working length. The length of a nonself-supporting ladder, measured along the rails, from the base support point of the ladder to the point of bearing at the top.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. WSR 06-16-020, § 296-876-900, filed 7/24/06, effective 12/1/06.]