



DEMOLITION BEST PRACTICES

A PRACTICAL GUIDE FOR DEMOLITION SITES IN THE CITY OF EUGENE

This guide has been created for those engaged in structural demolition in the City of Eugene to ensure safe site management practices that comply with all related legislation and regulations and support the public's safety as well as community livability.



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Construction activities are fundamental to the creation, maintenance and revitalization of our community. It is also understood that these activities can be unsafe if not properly managed and potentially disruptive to neighboring residents and businesses. This Guide has been created to help ensure those engaged in demolition activities understand not only the roles, responsibilities, and legal requirements for local demolition projects, but also the best practices in meeting those obligations and supporting the livability of our community.

REGULATORY AGENCIES

Who to Contact

Key agencies charged with ensuring safe demolition practices include:

- **Lane Regional Air Protection Agency (LRAPA)**
 - Protection and enhancement of regional air quality
ph 541-736-1056 www.lrapa.org
- **City of Eugene**
 - Demolition permits and inspections
ph 541-682-5505 www.eugene-or.gov
- **Department of Environmental Quality (DEQ)**
 - Protection of Oregon's land, air and water quality
ph 503-229-5696 www.oregon.gov/deq
- **Occupational Safety and Health Administration (OSHA)**
 - Enforcement of workplace safety & health rules
ph 503-378-3272 www.orosha.org
- **Construction Contractors Board (CCB)**
 - Contractor licensing
ph 503-378-4621 www.oregon.gov/ccb

FIND MORE ONLINE

**WWW.EUGENE-
OR.GOV/DEMOLITION**

Visit the City of Eugene's website to learn more about getting a demolition permit, apply for a permit online, or view a list of demolition permits that have been issued recently.

DEMOLITION PLANNING

Safe and efficient building demolition requires careful planning. This Guide reviews several important considerations for any demolition project.

Asbestos

Asbestos is a mineral fiber that occurs in rock and soil. Because of its fiber strength and heat resistance asbestos has been used in a variety of building construction materials such as insulation, fire protection, roofing, flooring and ceiling tiles, and cement products.

Asbestos fibers can be released into the air by the disturbance of asbestos-containing material during demolition work. In general, exposure may occur only when the asbestos-containing material is disturbed or damaged in some way to release particles and fibers into the air.

Exposure to asbestos increases the risk of developing lung disease. The greater the exposure to asbestos, the greater the chance of developing harmful health effects. Disease symptoms may take many years to develop following exposure.

[The National Emission Standards for Hazardous Air Pollutants \(NESHAP\)](#) regulations under the Clean Air Act specify work practices for asbestos to be followed during demolitions and renovations of buildings. The regulations require the owner of the building or the operator to notify the appropriate state agency (in Eugene LRAPA is the authorized agency) before any demolition of a building that could contain a certain threshold amount of asbestos or asbestos-containing material.

A certified inspector is required to survey the project prior to starting work, to identify any asbestos-containing materials that will be disturbed or removed. A copy of the survey report is required to be onsite during the demolition. Asbestos-containing materials must be removed prior to beginning the demolition. Written notice of demolition and notice of asbestos abatement must be provided to Lane Regional Air Protection Agency (LRAPA)

Call LRAPA for information: 541-736-1056, or visit www.lrapa.org

Lead

Lead is a naturally occurring element found in small amounts in the earth's crust. While it has some beneficial uses, it can be toxic to humans and animals causing health effects. Lead exposure comes from human activities including the use of fossil fuels including past

COMMON DEMOLITION NUISANCE FACTORS

Controlling nuisance factors associated with almost all demolition is an important aspect of demolition planning.

Dust. Dust is one of the most frequent problems caused by any demolition project. New technology has made it possible for equipment to control fugitive dust more effectively, preventing it from becoming a nuisance to neighbors and workers. Dust emissions can also be reduced by modifying demolition methods.

Noise. Noise levels on any construction project can be mitigated by using properly equipped sound suppression devices on heavy equipment and by scheduling noisy work activities to avoid, or at least reduce, noise levels during evening hours or special events.

Vibration. Vibration from demolition activities can be annoying to neighbors and, in some cases, can damage nearby structures. Work methods and scheduling can be effective means of controlling vibration-related problems.

use of leaded gasoline, some types of industrial facilities, and past use of lead-based paint in buildings. Lead and lead compounds have been used in a wide variety of products including paint, ceramics, pipes and plumbing materials.

Lead is particularly dangerous to children because their growing bodies absorb more lead than adults do and their brains and nervous systems are more sensitive to the damaging effects of lead. Babies and young children can also be more highly exposed to lead because they often put their hands and other objects that can have lead from dust or soil on them into their mouths.

The EPA's Lead Renovation, Repair and Painting Rule (RRP Rule) requires that firms performing renovation, repair, and painting projects that disturb lead-based paint in homes, child care facilities and pre-schools built before 1978 have their firm certified by EPA (or an EPA authorized state), use certified renovators who are trained by EPA-approved training providers and follow lead-safe work practices.

To learn more about lead:

- **US Environmental Protection Agency (EPA)**
 - www2.epa.gov/lead
- **Oregon Health Authority**
 - Information for contractors regarding lead including the RRP Rule and Oregon rules <http://public.health.oregon.gov/HealthyEnvironments/HealthyNeighborhoods/LeadPoisoning/ContractorsPainters>
- **Oregon OSHA**
 - Worker safety during demolition work
ph 503-378-3272 www.orosha.org

Key Questions to Answer

Before beginning any demolition project you should consider and be prepared to answer the following questions:

- How will the spread of dust be minimized during demolition and removal?
- How will wind speed be monitored at the site?
- How will neighbors be notified prior to the start of the project?
- How will the site be secured to prevent unauthorized access?
- If there are sidewalks, alleys or other walkways near the project, how will pedestrians be protected?
- If there are adjacent or neighboring structures what means and methods are necessary to protect them from damage?
- How will the public stormwater system and right-of-way be protected from any sediment-laden runoff, track out from construction vehicles, or other materials leaving the site?

Best Practices to Prevent Dust

WATER APPLICATION

- Apply adequate amounts of water throughout the process to reduce the spread of dust during demolition and debris removal.

CAREFUL DEMOLITION

- Use “Picker method” rather than wrecking ball.
- Demolish building in approximately reverse order of construction.
- Don’t drop! Lower debris from upper floors to the ground in receptacles, by elevator or hoists, or in tightly enclosed chutes.
- Remove and safely dispose of components with high amounts of lead prior to demolition of the structure.

FENCING, SCREENING OR SHEILDING

- Use high fencing or barriers around the site to contain wind-blown debris.

COVERED AND DRIP FREE LOADS

- Cover loads on trucks to ensure that debris and dust are contained during removal from the site.
- Ensure trucks with wet loads “tip up” to allow excess water to drain off before leaving the site.

NOTIFYING NEIGHBORS

Written notice must be provided to adjacent properties and properties across the street from the project site, at least **48 hours prior to start of work**. The notice must include the name and phone number of someone who can be contacted with any questions or concerns about the pending demolition work.

GETTING A DEMOLITION PERMIT

A demolition permit is issued when all, or essentially all, of a building is being demolished. The removal of a portion of a building is considered an alteration to that structure, and is usually reviewed and permitted as part of a larger project, not as a stand-alone permit.

Applying for the Permit

The following information must be submitted when applying for a demolition permit. Since every project is unique, there may be some situations where you will be asked to provide additional information.

SITE PLAN

Show the following information on the site plan:

- Scale the site plan to the most appropriate scale, e.g. 1”=10’, or ¼”=1’.
- Property lines
- Dimensions
- Adjacent walkways, streets and any easements
- Location of building to be demolished and remaining buildings on site, with dimensions
- North arrow

DEMOLITION PLAN

Include the following items:

- Anticipated timeframe for the demolition

- Details of pedestrian protection, where required. Refer to Oregon Structural Specialty Code Section 3306.
- Description of how the site will be secured against accessibility by children and other unauthorized persons.
- Description of how wind speed will be monitored at the site during demolition.
 - No demolition or moving of demolition debris may take place when wind speeds exceed 25 m.p.h.
- Description of how demolition operations will be conducted and how debris, objects and materials will be wetted down or otherwise treated to prevent dust or other airborne debris.
- Description of the means and methods for protection of any adjacent or neighboring structures.

Implosion or Explosion

No demolition may occur by implosion or other explosive means except when a special demolition permit has been issued that expressly authorizes use of such means and establishes specific conditions that address health, safety and livability concerns.

Things to Consider

SITE

The site must be restored to a safe condition.

If the building to be demolished has a basement or foundation that will result in replacement fill of 12" or greater, a design for the fill by a qualified licensed design professional will be required. Special inspection will be required for placement and compaction of fill.

PLUMBING

A sewer cap is required if the building to be demolished is connected to a city sewer. If the sanitary system was a septic tank, the tank must be properly decommissioned.

Contact Lane County Public Works, Land Management Division for more information regarding decommissioning existing septic tanks.

EROSION PREVENTION

If the site is located within a sensitive area as defined by Administrative Rule R-6.645, or the area of disturbance is greater than 1 (one) acre, an erosion prevention permit maybe required before any ground disturbing activities begin.

TREE REMOVAL

In certain situations, City regulations require a separate Tree Removal Permit. Whether a permit is required depends on the number and size of trees to be removed, and the site where the trees are located. Tree Removal Permit requirements apply only to "significant trees", which are live trees having a minimum size of 8" d.b.h. (diameter at breast height), which is the diameter of one or more trunks measured at 4.5 feet above the ground. For more information, please contact Lane Use staff at 541-682-8336 or landuseinfo@ci.eugene.or.us. Please contact the Urban Forestry office at 541-682-4800 for removal of a tree located in the public right-of-way.

To Apply

To submit for a demolition permit, apply online at www.eugene-or.gov/ebuild.

Written notice must be provided to adjoining properties and properties across the street(s), at least 48 hours prior to obtaining the permit.

INSPECTIONS

City of Eugene inspectors will verify;

- Pedestrian protection
- Dust prevention measures in place
- Measures in place to restrict the discharge of sediments or other construction related materials into the city's stormwater system
- Proper plugging or capping of the building sewer
- Structural fill
- Site is left in a safe condition at completion of work

After the permit is issued, inspections can be requested online at www.eugene-or.gov/scheduleinspection.

HISTORIC PRESERVATION AND DEMOLITION REQUIREMENTS

Eugene's older neighborhoods, structures and houses are a critical part of our city's history and character. Eugene's Historic Preservation Program works to increase public awareness of this history and character and to facilitate preservation, restoration and rehabilitation of historic structures.

To determine if a structure has a historic designation visit <http://pdd.eugene-or.gov/Maps/HistoricMap>

The City's Planning staff and Historic Review Board (HRB) oversee the main components of Eugene's historic preservation program, including formal public process and land use approvals necessary for demolition of historic structures. The board reviews and makes determinations on landmark designations, and any appeals of historic alteration and demolition permits.

If a structure being considered for demolition has a historic designation you should contact Planning staff at the **Permit and Information Center, phone (541) 682-5377**, 99 West 10th Avenue, Eugene, 97401. Staff can help determine appropriate next steps and if a historic property demolition application is required.

A number of federal and state laws also protect archaeological sites and cultural resources on public and private property in Oregon. Prior to excavation or development on a property, contact **Archeological Services at the Oregon Parks and Recreation Department** to ensure compliance with all applicable laws.

- Protects Oregon's archaeological sites and provides education on cultural heritage
ph 503-986-0690 <https://www.oregon.gov/oprd/OH/Pages/archaeology.aspx>

RECYCLING DEMOLITION MATERIALS

Reducing and recycling construction and demolition materials conserves landfill space, reduces the environmental impact of producing new materials, creates jobs, and can reduce overall building project expenses through avoided purchase/disposal costs. The City of Eugene actively supports and encourages the identification of demolition materials as commodities that can be reused or recycled and utilized in new building projects.

Materials can be recycled by separating them onsite and taking them to recycling facilities or commingling them and hauling them to a materials recovery facility.

The City has created a web tool for locating facilities that accept demolition materials. You can find it at <http://pdd.eugene-or.gov/GreenBuilding/MaterialsRecyclingLocator>.

If you have questions or would like to offer feedback, please contact the Waste Prevention and Green Building program at wasteprevention@ci.eugene.or.us or 541-682-5652.