



Bureau of Planning and Sustainability

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MEMO

DATE: March 21, 2018

TO: Portland City Council

FROM: Steve Kountz, Barry Manning, Marty Stockton

CC: Eric Engstrom, Joe Zehnder, Susan Anderson

SUBJECT: Residential-buffering code amendments and Buffer Overlay map amendments

The purpose of this memo is to summarize the combined approach taken in the Code Reconciliation Project and Map Refinement Project concerning code amendments on Residential buffering and Buffer Overlay map amendments. An overview explanation is provided on the following topics:

- Overview of draft map and code changes
- Expanded map area of updated residential buffering standards;
- Summary of development standards in the Buffer overlay zone;
- Proposed setback and outdoor use standards in the I and EG zones abutting R zones; and
- Willamette Heights testimony and issues.

Overview of the draft map and code changes

The draft zoning code and map amendments would update residential buffering standards in the industrial and general employment zones, following the approach and direction recently set for residential buffering in commercial zones. The Mixed-Use Zones project, adopted in December 2016, updated development standards for building setbacks, landscaping, access, and exterior activities adjacent to residential zones and removed the Buffer (b) overlay zones from all commercial base zones. The current proposal is to extend this updated residential buffering approach to the industrial and general employment zones.

Most of the residential buffering requirements in the industrial zones already exceed those in commercial zones. The code changes proposed now would expand minimum building setbacks in industrial and general employment zones to 10 feet adjacent to residentially zoned lots for buildings



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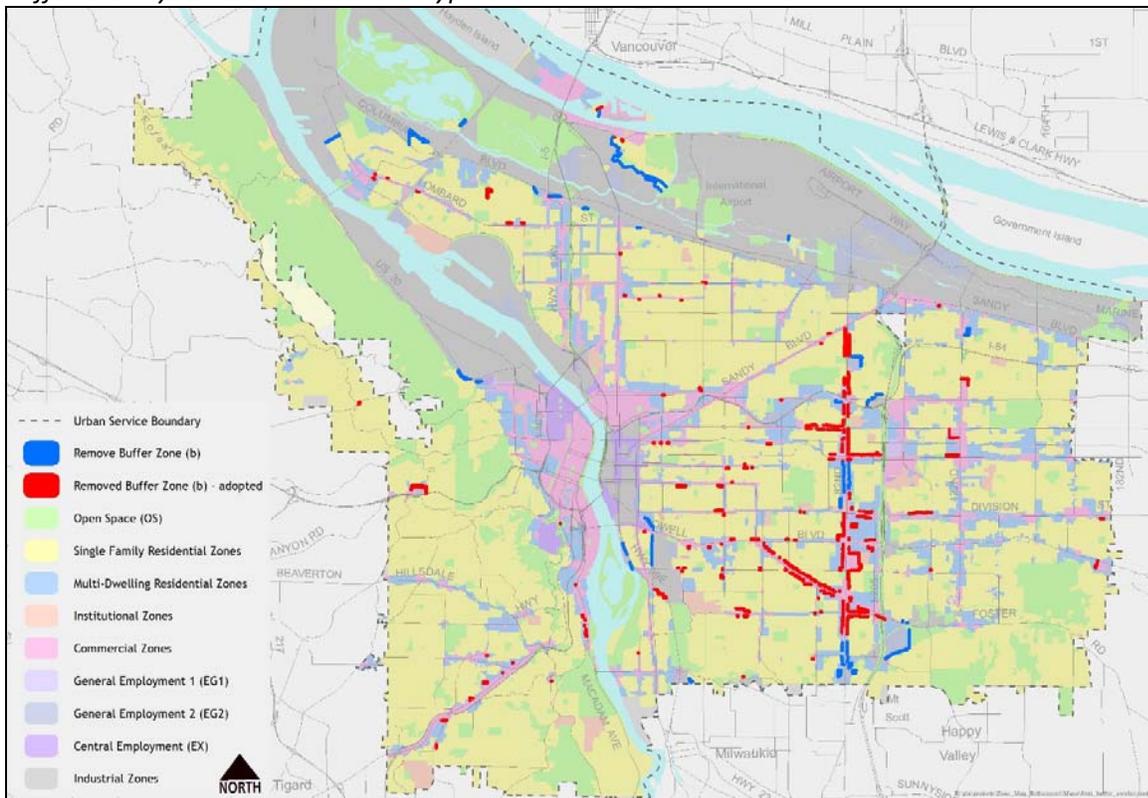
exceeding 15 feet height, and expand landscaped setbacks for exterior work activities to 25 feet, consistent with these updated standards in commercial zones.

The primary intent of these code and map changes is for code consistency and simplification. The b-overlay is sparsely applied; it has inconsistent widths ranging from 25 to over 300 feet; and most of its requirements are now redundant with other sections of the zoning code. In contrast, buffering standards in the base zones have the advantage of a more consistent, citywide approach. The updated standards also tailor objectives for residential buffering to the base zones, accommodating efficient use of land and fitting the expected types of development in different base zones.

Expanded map area of updated residential buffering standards

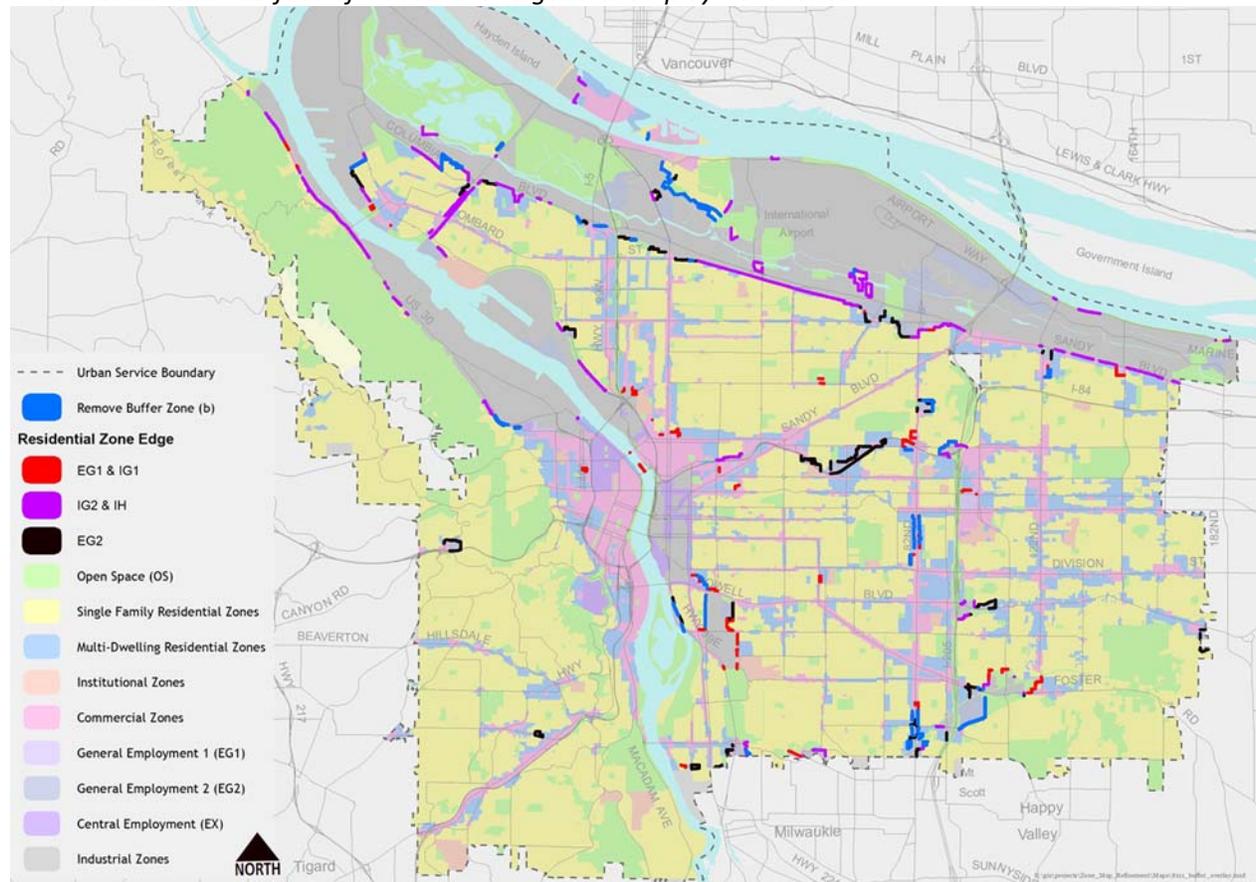
The Mixed Use Zones Project took a citywide approach to residential buffering standards. As shown in the maps below, the former Buffer overlays in commercial zones (shown in red) were sparsely applied, concentrated particularly along 82nd Avenue and SE Foster, while not applied to most of the interface between commercial (pink) and residential (yellow and blue) zones. Similarly, Buffer Overlays are only applied to 24% of the linear interface where residential zones abut industrial or general employment zones.

Buffer overlay zones and base zone types



The residential buffering standards were updated citywide in the commercial base zones, rather than expanding the Buffer overlays to some or all residential-interface areas and creating a need to incrementally amend the Buffer overlay map when base zones change. Approximately 114,300 linear feet of Buffer overlays were removed from the commercial zones in the Mixed Use Zones Project. Similarly, the current proposal would update residential buffering standards citywide in industrial and employment zones and remove the remaining third (56,700 linear feet) of Buffer overlays in industrial and employment zones.

Linear residential interface of industrial and general employment zones



Summary of development standards in the Buffer Overlay zone

The Buffer (b) overlay requires buffering between residential and non-residential zones in five areas, shown in the table below: building setbacks and landscaping; setbacks of exterior display, storage and work activity; restricted driveway access through setbacks; radio frequency transmission facilities; and off-site impacts. The table compares these residential buffering standards among the Buffer (b) overlay, Commercial Employment (CE), General Employment (EG) and Industrial (I) zones. The table also shows the draft amendments to current buffering standards proposed now in the Code Reconciliation Project.



The CE zone buffering standards are generally an apt example for comparison to the changes proposed now in EG and I zones, because CE zones allow medium-scale manufacturing and warehousing uses (up to 40,000 sf per site) in addition to large-scale commercial uses (such as shopping centers or car lots). Also, the existing b-overlay zones are concentrated primarily in the former General Commercial (CG) zone, which has been replaced by the Commercial Employment (CE) zone. Most of the buffering standards in the I and EG base zones already exceed those in the CE zone. For clarification, the landscaping requirements in the setback ([specified here](#)) are shown as L3 and L4. L3 means a 6 feet high vegetative screen (such as a hedge), and L4 means a 6 feet high masonry wall.

Summary comparison of residential buffering standards in the Buffer (b) overlay, Commercial Employment (CE), General Employment (EG), and General Industrial (IG) and Heavy Industrial (IH) zones								
Types of buffering standards applied in the b-overlay		b-overlay	CE	EG1	EG2	IG1	IG2	IH
Minimum building setback (in feet) and landscaping* abutting a Residential (R) zone								
Lot line abutting street	10/L3 in C zones, 20'/L3 or 10'/L4 in E and I zones	local streets: 10'/L1; non-local: 0'	5'	25'	0'	25'	5'	
Other lot line with building wall 15' high or less		0'	5'/L3 on side, 0' on rear	15' setback, 10' of L3	5'/L3 on side, 0' on rear	15' setback, 10' of L3	15' setback, 10' of L3	
Other lot line with building wall 16' or higher		10'/L3	8'-14' 10' setback, 5' of L3	15'/10'@L3	8'-14' 10' setback, 5' of L3	15'/10'@L3	15'/10'@L3	
Minimum setback (in feet) and landscaping* for exterior display, storage, and work activity abutting a Residential (R) zone								
Exterior display	Prohibited in bldg. setback (10'-20')	5'/L1	5'/L3	10'/L3	5'/L3	10'/L3	10'/L3	
Exterior storage		10'/L3	5'/L4 or 10'/L3	10'/L4 or 25'/L3	5'/L4 or 10'/L3	10'/L4 or 25'/L3	10'/L4 or 25'/L3	
Exterior work activity	Prohibited in overlay (width varies)	25' setback from R zone	Prohibited	Prohibited	5'/L4 or 10'/L3	10'/L4 or 25'/L3	10'/L4 or 25'/L3	
Minimum setback and landscaping for parking and driveway access abutting or across the street from a Residential (R) zone								
Parking & driveway access abutting R zone	Prohibited in bldg. setback (10'-20')	5'/L2	5'/L3	10'/L3	5'/L3	10'/L3	5'/L3	
Access through setback across street from R zone		Allowed if only street frontage	Allowed	Allowed	Allowed	Allowed	Allowed	
Radio Frequency Transmission Facilities								
Use allowance**	Prohibited in overlay	L/CU	L/CU	L/CU	L/CU	L/CU	L/CU	
Off-Site Impacts								
Comply with 33.262	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
* Landscaping requirements in the setback are shown as L1, L3, and L4. L1 means general landscaping (groundcover, shrubs and trees). L3 means a 6' high vegetative screen (such as a hedge). And L4 means a 6' high masonry wall and general landscaping.								
** L means the use is allowed with special limitations. CU means that conditional use review is required for specified uses.								

A variety of other residential buffering tools also apply in the industrial and employment zones. In Portland, perimeter buffering of entire industrial districts substantially reduces residential interface and compatibility impacts. Unlike many large cities in the Midwest and East Coast with several small industrial districts surrounded by neighborhoods, over 90% of Portland's industrial land is in one contiguous river plateau area, where residential zones are generally separated by high, wooded slopes (harbor districts) or wide arterial roads and railroads (Columbia Corridor). Industrial zones are also commonly buffered from residential zones by transitional employment (EG) zones that anticipate



smaller-scale facilities and limit outdoor activities. Additionally, Portland’s industrial zones have not allowed residential uses since the 1950s, although a few small, preexisting residential areas are located in industrial districts, particularly along the Columbia Slough.

Air quality and safety impacts are also moderated by evolving technology and management approaches. The common smokestacks and contaminated dumping areas of industrial areas in the early- and mid-20th Century are mostly gone or now specifically managed. Federal environmental and worker protection regulations, cleaner and safer technologies, and internalized health and safety procedures have substantially reduced off-site impacts in industrial districts. Heavy equipment and hazardous materials are still handled on a large scale in industrial districts, but health and safety impacts are regulated and managed.

Objectionable off-site impacts of industrial facilities from noise, odor, trucks, appearance, and other causes are primarily associated with outdoor activity. Buildings substantially contain off-site impacts. Portland’s industrial and general employment zones require setbacks and landscaped screening of outdoor storage, display and work activity adjacent to residential zones. In the EG zones that are more commonly applied in a residential context outside of industrial districts, outdoor work activity is not allowed, and outdoor storage and display is limited in the small-site EG1 zones to match the commercial standards in CE zones. Off-site nuisance impacts are also specifically limited in the Zoning Code across all zones.

Proposed setback and outdoor use standards in I and EG zones abutting R zones

The Code Reconciliation Project proposes amendments to two types of residential buffering standards in the industrial and general employment zones:

- In the EG1 and IG1 zones, the current minimum building setback abutting residentially zoned lots varies by building height from 8 to 14 feet for buildings higher than 16 feet. The proposed setback would be simplified to a consistent standard of 10 feet, matching the approach adopted in the commercial zones.
- In the IG2 and IH zones, the proposed draft would require a 25-foot setback and L3 landscaping (vertical screen) for exterior work activities abutting residential zoned lots, deleting the current option for a 10-foot setback and L4 landscaping (6-foot high masonry wall). This change also matches the approach recently adopted in the commercial zones.

These code changes are intended to improve residential compatibility in the industrial and general employment zones, applying the recently updated standards applied in the commercial zones. In particular, the 25-foot landscaped setback for exterior work activity is expected to provide a significant residential benefit, applying the standard used in commercial zones.

The code amendments also provide a balanced approach to residential buffering that is not expected to reduce the relatively tight 20-year land supply for forecast job growth in the industrial and general employment zones. Industrial area job growth moderates the diverging wage distribution of most job growth in commercial zones. The draft 10-foot building setback in EG1 and IGI zones (replacing the current 8-14 foot sliding standard based on building height) could provide a slight gain in developable

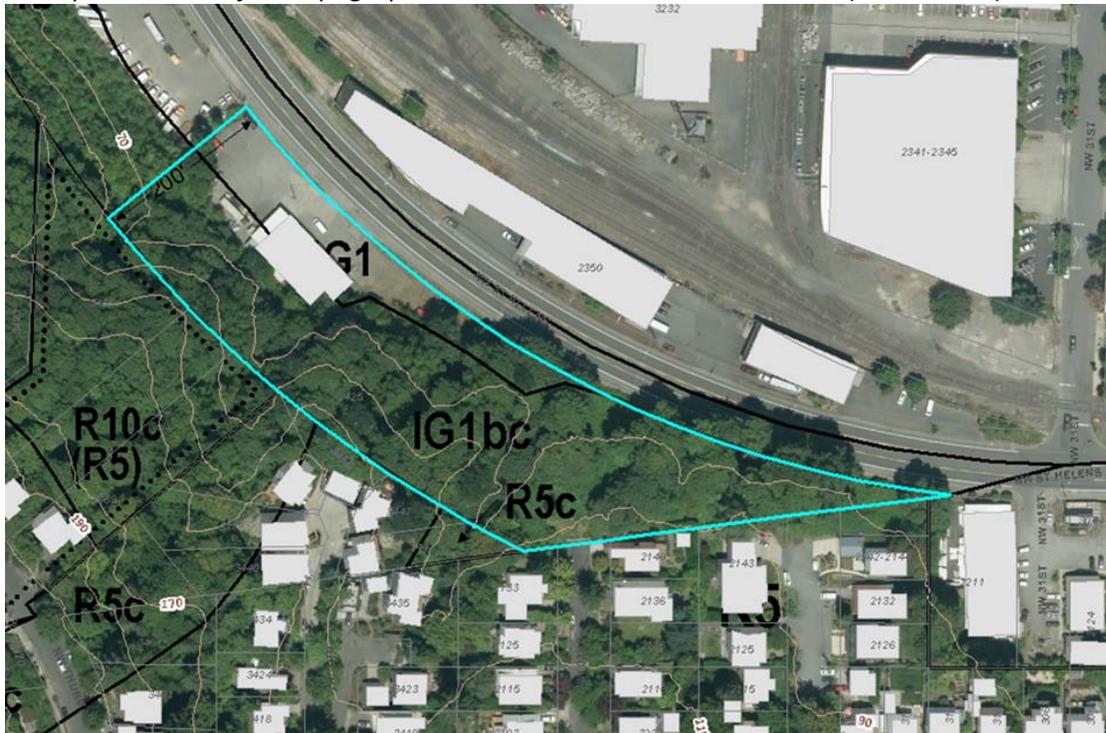


area for property owners who choose to maximize building height, although one-story buildings are the market standard for industrial development. The proposed 25-foot setback for exterior work activity would not affect allowable building density nor overall development capacity. In IG2 zones, the setback of outdoor work area can typically be met within the required 15% landscaped area of the site. In IH zones, no existing lots were found to abut residentially zoned lots.

Willamette Heights testimony and issues

The Planning and Sustainability Commission and City Council received testimony from several residential neighbors in Willamette Heights objecting to removal of the Buffer overlay zone at 2425 NW St. Helens Road. Most of this site, occupied by a small metals manufacturer, is a very steep, forested slope abutting a residential neighborhood above it, as shown on the first map below. Neighborhood testimony and concerns cited that the trees on this slope provide a valued ecological buffer that screens noise and air pollution, stabilizes the hillside, and protects three underground streams that cross the site. They also pointed out that the Buffer overlay was applied and zoning was changed from Heavy Industrial (IH) to General Industrial 1 for small lots (IG1) in 1991, in response to neighborhood objections to a proposed truck stop. An Environmental Conservation (c) overlay zone was also applied in 1993, overlapping the b-overlay, as shown on the second map below.

Aerial photo and 20-foot topographical contours at 2425 NW St. Helens (blue outline) and vicinity

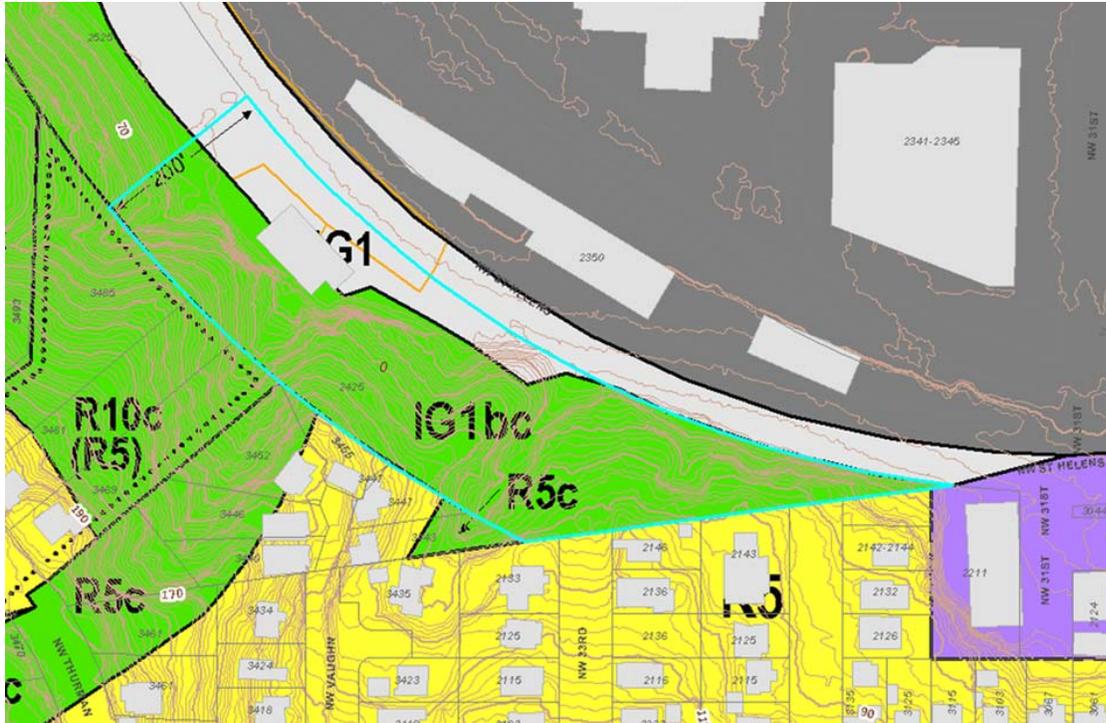


While a b-overlay on a forested slope may create an impression or expectation that it protects the underlying area as open space, it does not. The b-overlay, which is approximately 100 feet wide behind the existing building at the site, sets a 10-20-foot building setback from the back of the site (10-20% of



the b-overlay width behind the building), and it does not limit grading or removal of trees. In contrast, the overlapping c-overlay generally does address the ecological buffer role of the steep slope. The c-overlay requires environmental review for development, grading or removal of native trees outside of a transition zone (potentially 25 feet wide), implementing discretionary criteria to avoid, minimize and mitigate impacts on natural resources. The c-overlay is widely applied on the steep, residentially or industrially zoned slopes in this area. A primary limiting effect of b-overlay width on this site is in not allowing exterior work activities, but the underlying c-overlay also does not allow exterior work activities.

Base zones, c-overlay (green), and b-overlay at 2425 NW St. Helens (blue outline) and vicinity



Generally, sites exceeding a gentle 6% slope are considered undevelopable for industrial facilities, because steeper slopes impede truck access and efficient freight movement. In contrast, most of the b-overlay portion of this site has about 40% slopes and a 50-60-foot rise. Thus, the market potential for industrial development on the very steep slopes of this site is unlikely.

After reviewing these site maps and zoning context, the Planning and Sustainability Commission recommended approval of the staff recommendation to remove the b-overlay citywide, including this site. Last month, BPS staff requested a meeting attended by about 10 residents from Willamette Heights neighborhood to explain and answer questions about this context of existing and proposed zoning requirements, including handouts on zoning requirements and these site maps.

