



Portland Analysis

CASE STUDIES RECOMMENDATIONS REPORT

Submitted to:
Nicholas Starin
City of Portland
Bureau of Planning and Sustainability

Prepared By:
Otak, Inc.
808 SW Third Avenue, Ste 800
Portland, Oregon 97204

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Introduction

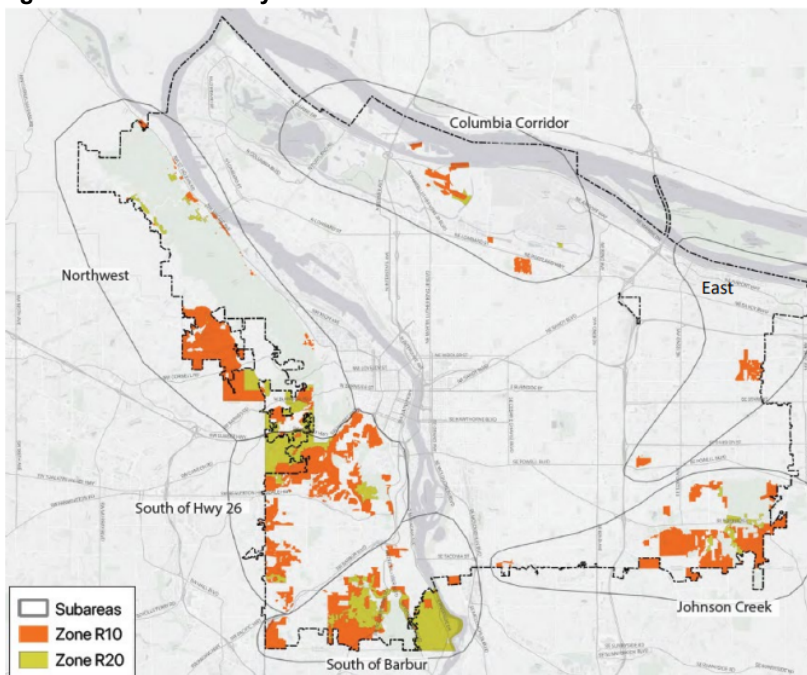
The City of Portland is exploring options for implementing House Bill 2001 (HB2001) through the Residential Infill Project Phase 2 (RIP2), which would allow a greater variety of housing types in the City's R10 and R20 zones. The R10 and R20 zones are low-density zones primarily applied at the edges of the City limits adjacent to farms and forested areas. These areas tend to be constrained from a development perspective; there are infrastructure deficiencies, protected environmental resources and identified hazards (wildfire, landslide and steep slope areas). Generally speaking, there are not capital improvement projects (CIPs) planned or funded to address the infrastructure deficiencies in these areas. The City is considering the most appropriate approach to diversifying housing options in these areas while acknowledging the existing constraints.

To better understand possible development scenarios and implications in these areas, the City conducted case studies in six areas (outlined in Figure 1 below). The case studies were intended to highlight issues that might arise if a site within a constrained area was proposed for development with a higher-intensity housing type (replacing a single detached home with a triplex, for example). The case studies identified a hypothetical site within each constrained area, along with a development scenario, and reviewed development requirements and review processes with various City bureaus. The findings from the case studies were then extrapolated out to the larger area to assess possible approaches to infill housing. Generally, four approaches were considered:

- IBTER option – apply for an infrastructure-based time extension request for areas with deficient infrastructure
- Goal resources exemption – apply the available exemption to HB2001 implementation for areas within an identified Statewide Goal resource area
- Development standards option – implement new development standards in these areas to offset potential impacts from new housing types
- Full implementation option – allow new housing types in these areas and address development constraints on a case-by-case basis

Each approach is discussed in more detail in the Preliminary Recommendations section of this report. The detailed case studies are available as Appendix A to this report.

Figure 1. R10/R20 Study Areas



Source: Residential Infill Project 2 - PSC Briefing Presentation, March 9, 2021

Case Studies Summary

Area 1 – Far Southwest Portland

Area 1 is located in the outer southwest corner of Portland, at the edge of the City limits. It is south of SW Barbur Boulevard and east of I-5.

Zoning:	Mostly R10
Identified infrastructure constraints:	Lacking sidewalks Substandard water pipes No public stormwater facilities
Goal 5 areas:	“p” and “c” overlays
Goal 7 areas:	Wildfire hazard areas Steep slope areas
Development scenario:	0.50-acre flag lot Redevelop with a stacked quadplex
Development requirements:	Upgrade substandard water lines, significant cost to developer Manage and fully infiltrate stormwater on-site Construct sidewalks or pay fee-in-lieu if eligible for LTIC ¹ Fire suppression elements: sprinklers, non-combustible siding, Class A roofing

Figure 2a. Area 1 Vicinity



¹ Local Transportation Infrastructure Charge (LTIC) Eligibility Map:
<https://www.arcgis.com/apps/webappviewer/index.html?id=329f3a5a155f410f8e6832977b1bb037>

Figure 2b. Area 1 Goal 5 Resources



FIGURE 1
IBTER ANALYSIS: GOAL 5
CASE STUDY AREA #1
 IBTER | PROJECT #17837C
 PORTLAND, OR

Portland City Limits
 Proposed C Zones
 Proposed P Zones

Data Source: City of Portland, Oregon, OMA, Inc.
 Date: 6/15/2021
 Disclaimer: This data is not a survey, accuracy not guaranteed for planning purposes only.
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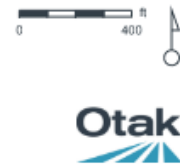


Figure 2c. Area 1 Goal 7 Resources



FIGURE 2
IBTER ANALYSIS: GOAL 7
CASE STUDY AREA #1
 IBTER | PROJECT #17837C
 PORTLAND, OR

Portland City Limits
● Blocked Street
 Dead End
 No Outlet
 BiOp Modified 1996 Flood Extent
 Deep Landslide Susceptibility
 Potential Rapid-Moving Landslide
 Steep Slopes (20%)
 Wildfire Hazard Area
 FEMA 100-Year Floodplain

Data Source: City of Portland, Oregon, OMA, Inc.
 Date: 6/15/2021
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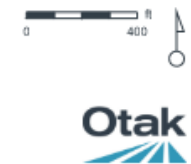


Figure 3b. Area 2 Goal 5 Resources



FIGURE 1
IBTER ANALYSIS: GOAL 5
CASE STUDY AREA #2
 IBTER | PROJECT #17837C
 PORTLAND, OR

- Portland City Limits
- Proposed C Zones
- Proposed P Zones



Data Source: City of Portland, Otak, Inc.
 Date: 10/1/2021
 Disclaimer: This data is not to survey accuracy and is provided for planning purposes only.
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Figure 3c. Area 2 Goal 7 Resources



FIGURE 2
IBTER ANALYSIS: GOAL 7
CASE STUDY AREA #2
 IBTER | PROJECT #17837C
 PORTLAND, OR

- Portland City Limits
- Blocked Street
- Dead End
- No Outlet
- BiOp Modified 1996 Flood Extent
- Deep Landslide Susceptibility
- Potential Rapid-Moving Landslide
- Steep Slopes (20%)
- Wildfire Hazard Area
- FEMA 100-Year Floodplain



Data Source: City of Portland, Otak, Inc.
 Date: 10/1/2021
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Figure 4b. Area 3 Goal 5 Resources

Figure 4c. Area 3 Goal 7 Resources

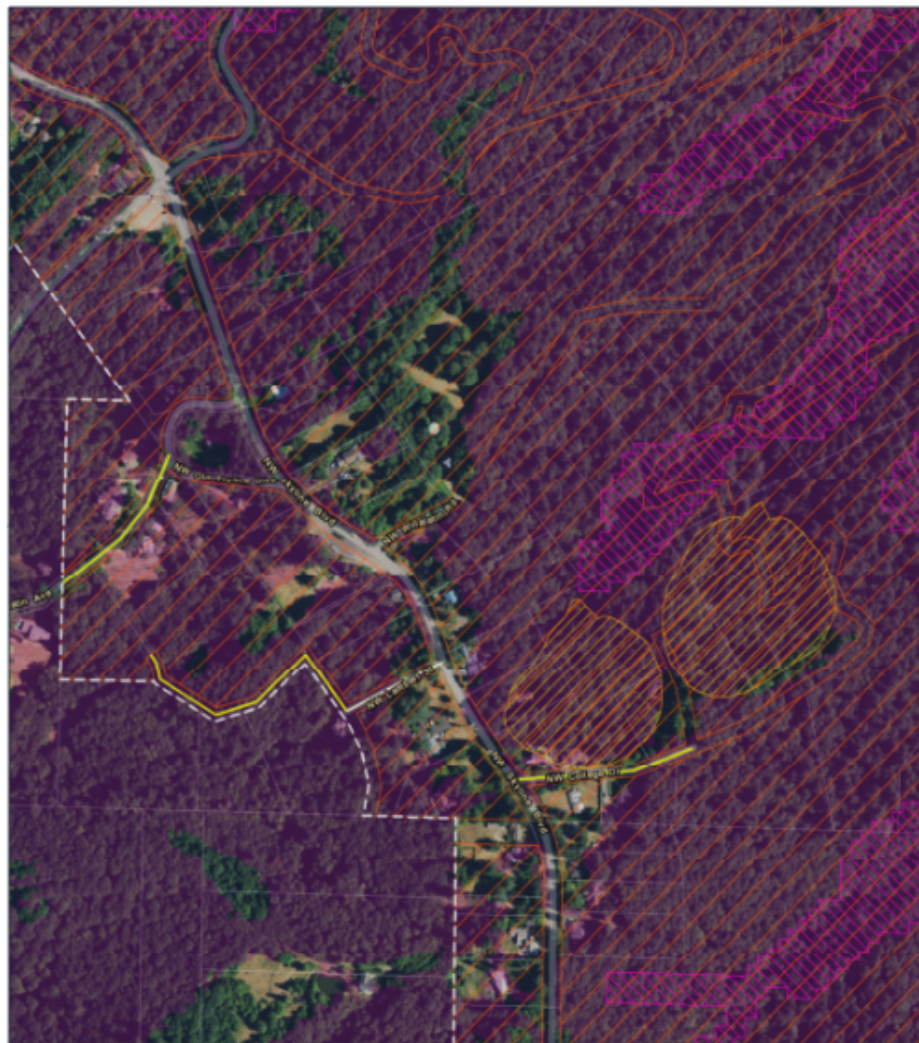
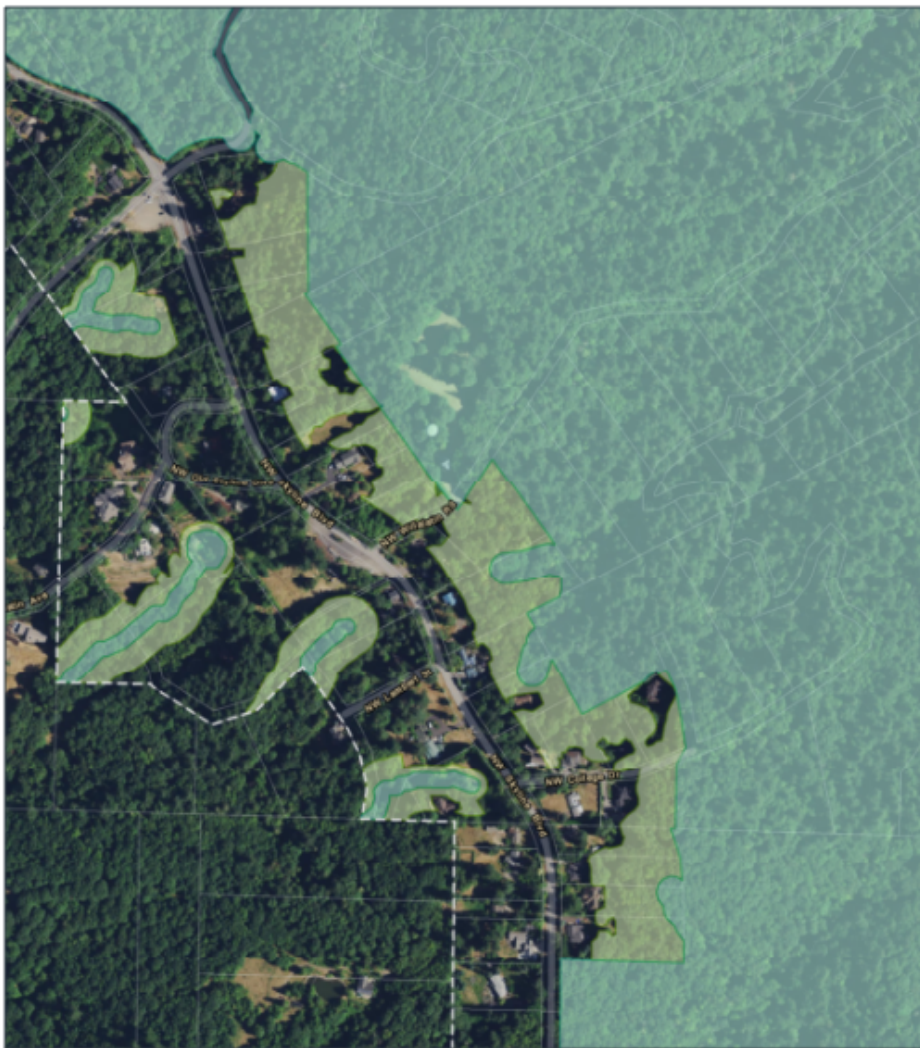


FIGURE 1
IBTER ANALYSIS: GOAL 5
CASE STUDY AREA #3

IBTER | PROJECT #17837C
 PORTLAND, OR

- Portland City Limits
- Proposed C Zones
- Proposed P Zones



Data Sources: City of Portland, Skanska, Otak, Inc.
 Date: 6/16/2021
 Disclaimer: This data is not to survey accuracy and is provided for planning purposes only.
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FIGURE 2
IBTER ANALYSIS: GOAL 7
CASE STUDY AREA #3

IBTER | PROJECT #17837C
 PORTLAND, OR

- Portland City Limits
- Steep Slopes (20%)
- Wildfire Hazard Areas
- FEMA 100-Year Floodplain
- Blocked Street
- Dead End
- No Outlet
- BiOp Modified 1996 Flood Extent
- Deep Landslide Susceptibility
- Potential Rapid-Moving Landslide



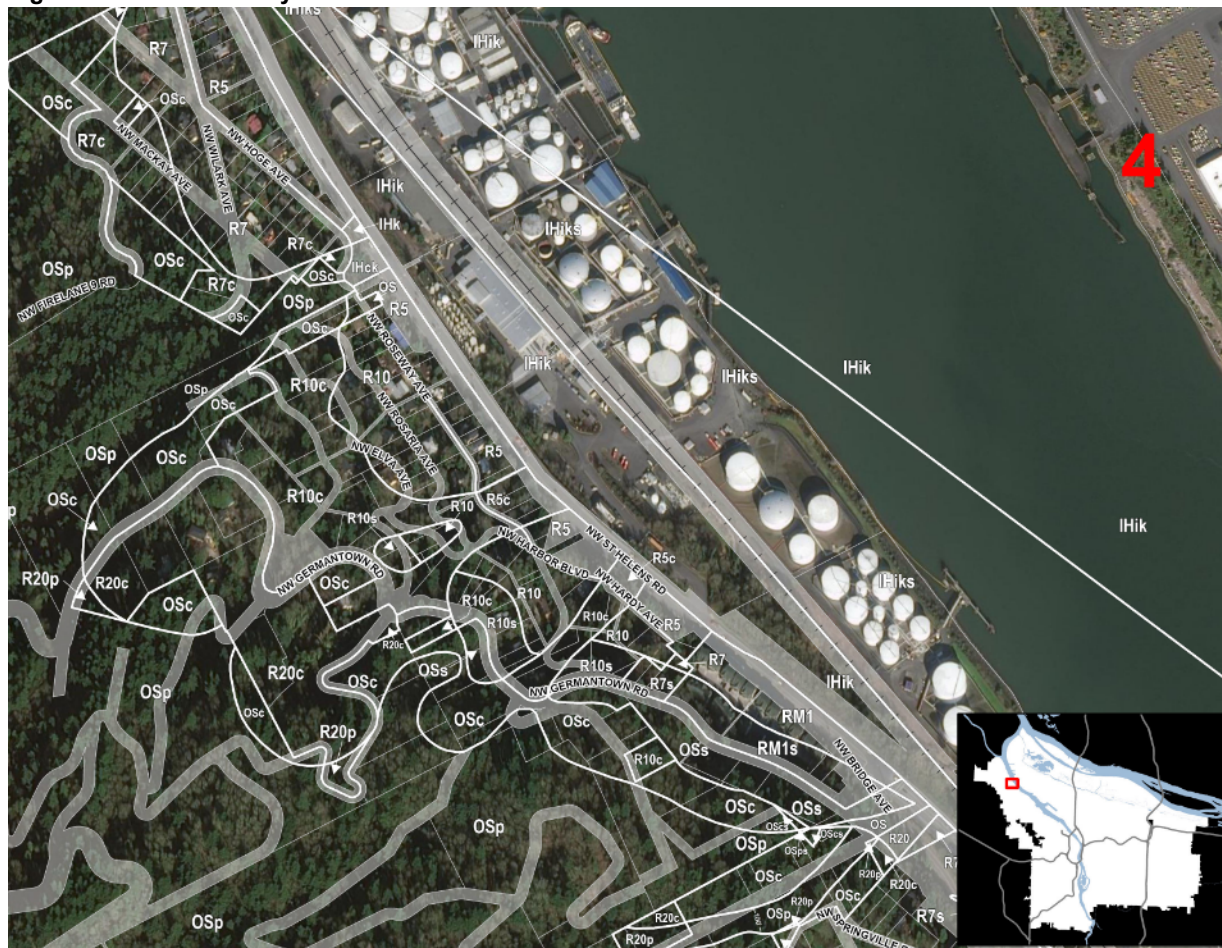
Data Sources: City of Portland, Skanska, Otak, Inc.
 Date: 6/16/2021
 Disclaimer: This data is not to survey accuracy and is provided for planning purposes only.
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Area 4 – Outer Northwest Portland

This area is in the outer northwest part of Portland, east of the Columbia River and above the Northwest Industrial Area.

Zoning:	Mostly R10
Identified infrastructure constraints:	Narrow, dead-end streets Lack of paving and sidewalks PBOT area of concern (Highway 30 new St. Johns Bridge) Low water pressure, lack of hydrants
Goal 5 areas:	“p” and “c” overlays
Goal 7 areas:	Wildfire hazard areas Steep slope areas Landslide areas
Development scenario:	0.5-acre lot Redevelop with a stacked quadplex
Development requirements:	Install additional fire hydrants where needed Install commercial fire suppression ² , possibly a pump (significant cost to developer), non-combustible siding, and Class A roofing Extend public storm facilities Possible ROW dedication and half-street improvements, some areas eligible for LTIC

Figure 5a. Area 4 Vicinity



² Triplexes and quadplexes are considered commercial structures for fire suppression requirements.

Area 5 – Outer Southeast Portland

This area is in outer southeast Portland, south of Foster Road at the edge of the City limits.

Zoning:	Mostly R10
Identified infrastructure constraints:	Lack of public sanitary sewer infrastructure Lack of public stormwater infrastructure Dead-end streets and cul-de-sacs
Goal 5 areas:	“p” and “c” overlays in the vicinity, but not on the hypothetical development site
Goal 7 areas:	Goal 7 areas in the vicinity, but not on the hypothetical development site
Development scenario:	0.25-acre lot Redevelop with a duplex
Development requirements:	Extension of sanitary sewer line to connect to existing service On-site storm facilities for infiltration ROW dedication and/or half-street improvements may be required, some local streets eligible for LTIC

Figure 6a. Area 5 Vicinity



Figure 6b. Area 5 Goal 5 Resources



FIGURE 1
IBTER ANALYSIS: GOAL 5
CASE STUDY AREA #5

IBTER | PROJECT #17837C
 PORTLAND, OR

Data Source: City of Portland, Otak, Inc.
 Date: 8/18/2021
 Disclaimer: This data is not to be used as a substitute for engineering or other professional services.
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- Portland City Limits
- Proposed C Zones
- Proposed P Zones



Figure 6c. Area 5 Goal 7 Resources



FIGURE 2
IBTER ANALYSIS: GOAL 7
CASE STUDY AREA #5

IBTER | PROJECT #17837C
 PORTLAND, OR

Data Source: City of Portland, Otak, Inc.
 Date: 8/18/2021
 Disclaimer: This data is not to be used as a substitute for engineering or other professional services.
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- Portland City Limits
- Blocked Street
- Dead End
- No Outlet
- BiOp Modified 1996 Flood Extent
- Deep Landslide Susceptibility
- Potential Rapid-Moving Landslide
- Steep Slopes (20%)
- Wildfire Hazard Areas
- FEMA 100-Year Floodplain



Area 6 – Outer Southeast Portland

This area is in outer southeast Portland, in the Pleasant Valley neighborhood adjacent to the Buttes Natural Area.

Zoning:	Mostly R20
Identified infrastructure constraints:	Dead-end streets, steep and narrow streets, lacking sidewalks Substandard public stormwater facilities Lacking water infrastructure, some private wells
Goal 5 areas:	“p” and “c” overlays
Goal 7 areas:	Wildfire hazard area Steep slopes
Development scenario:	1.1-acre lot Redevelop with townhomes
Development requirements:	Possible extension of water line to serve new development Private wells could be used, would require fire pump and reservoir Possible need for fire pump Connection to existing storm facilities (open drainage and culvert system), may require Environmental review if located within “p” overlay Fire truck turn-around if developing on a dead-end street ROW dedication and/or frontage improvements, some local streets eligible for LTIC Fire suppression elements: sprinklers, non-combustible siding, Class A roofing

Figure 7a. Area 6 Vicinity

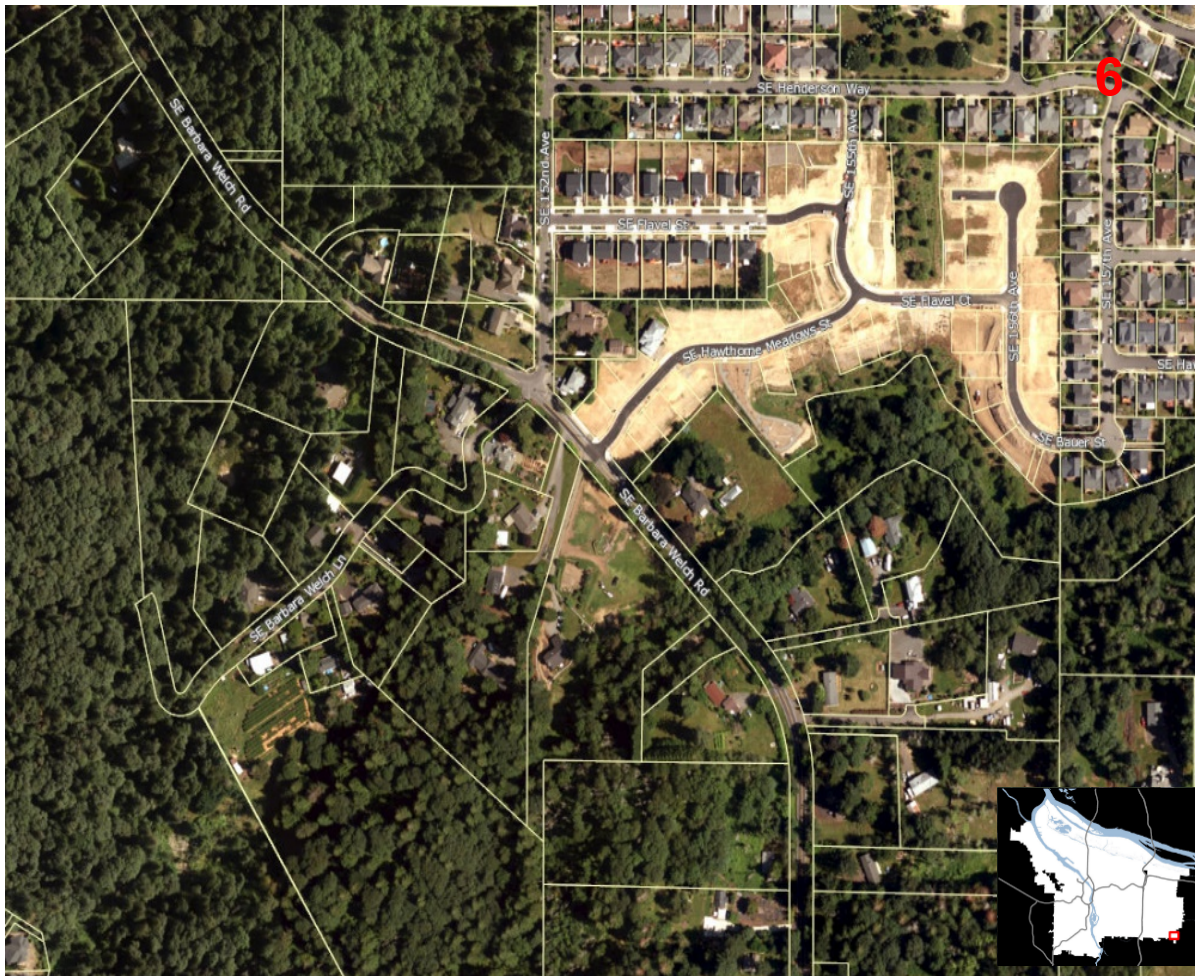


Figure 7b. Area 6 Goal 5 Resources



FIGURE 1
IBTER ANALYSIS: GOAL 5
CASE STUDY AREA #6
 IBTER | PROJECT #17837C
 PORTLAND, OR

- Portland City Limits
- Proposed C Zones
- Proposed P Zones



Data Source: City of Portland, Otak, Inc.
 Date: 1/14/2021
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Figure 7c. Area 6 Goal 7 Resources



FIGURE 2
IBTER ANALYSIS: GOAL 7
CASE STUDY AREA #6
 IBTER | PROJECT #17837C
 PORTLAND, OR

- Portland City Limits
- Blocked Street
- Dead End
- No Outlet
- BICp Modified 1996 Flood Extent
- Deep Landslide Susceptibility
- Potential Rapid-Moving Landslide
- Steep Slopes (20%)
- Wildfire Hazard Area
- FEMA 100-Year Floodplain



Data Source: City of Portland, Otak, Inc.
 Date: 1/14/2021
 Disclaimer: This data is made publicly available only for informational purposes.
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Case Study Constraints Matrix

The following matrix provides a high-level summary of the six case study areas and the constraints that are common to each.

Case Study	Water Constraints	Sewer Constraints	Stormwater Constraints	Transportation Constraints	Goal 5 Env. Resources	Goal 7 Hazards
Area 1	X		X	X	X	X
Area 2		X	X	X	X	X
Area 3		X	X		X	X
Area 4	X			X	X	X
Area 5		X	X	X		
Area 6	X		X	X	X	X

Overall, these areas tend to have multiple overlapping constraints related to infrastructure deficiencies and proximity to natural resource and hazard areas. In many cases, the identified infrastructure deficiencies can be addressed as new development occurs; however, the cost incurred by the developer will vary. In some areas, the cost of required improvements could become prohibitive to new development and serve as a barrier to implementing middle housing and meeting the City’s affordable housing goals.

The amount of mapped natural resource and hazard lands in these areas add another level of complexity. As a policy, does the City want to encourage more intense levels of development in these sensitive and potentially hazardous areas?

In the next section of this report, several approaches to implementing new housing options in these areas are discussed, along with preliminary recommendations for consideration.

Recommendations

IBTER Option

The implementing rules for HB2001 (Division 46, ORS 660-046) include provisions for an infrastructure-based time extension request (IBTER). If a local government feels that public infrastructure (water, sanitary sewer, stormwater or transportation) is not sufficient to serve the increased demand resulting from middle housing development, it can apply for an IBTER to delay middle housing implementation in those infrastructure-deficient areas. Several important parameters are outlined in the Division 46 rules:

- An infrastructure deficiency is not considered significant if it can be addressed with improvements required as part of new development.
- A city-wide infrastructure deficiency is not eligible for an IBTER. Deficiencies must be localized and the area impacted by the deficiency must be identified.
- If a local government intends to continue permitting single family detached development in the impacted area while deferring middle housing development, it must demonstrate that the incremental increase in demand from middle housing development will cause an unacceptable service level of the infrastructure.
- To estimate incremental increase in demand, a local government can only assume a one to three percent increase in housing production due to middle housing allowances (one percent for infill scenarios, three percent for undeveloped areas).

The IBTER rules specify thresholds for each infrastructure type, which are summarized here:

- *Transportation*
 - *Areas where the supporting roadways, intersections, or both are operating or anticipated to operate over capacity, not meet currently acceptable service levels, or have existing geometric/safety limitations.*
 - *Areas that lack adequate emergency vehicle access per current adopted Fire Code standards, and for which mitigation in conjunction with development is not feasible.*
- *Stormwater*
 - *Lack of stormwater infrastructure, or adequately-sized stormwater infrastructure, that results in not meeting an acceptable service level.*
 - *A downstream stormwater conveyance system deficiency, resulting in localized ponding or flooding and storm pipe back-ups*
- *Water and sewer*
 - *A significant infrastructure deficiency in localized (not citywide) water or sanitary sewer service that results in unacceptable service levels for water or sewer services.*
 - *A localized (not citywide) combined sewer/stormwater system that will exceed capacity as a result of new middle housing units.*

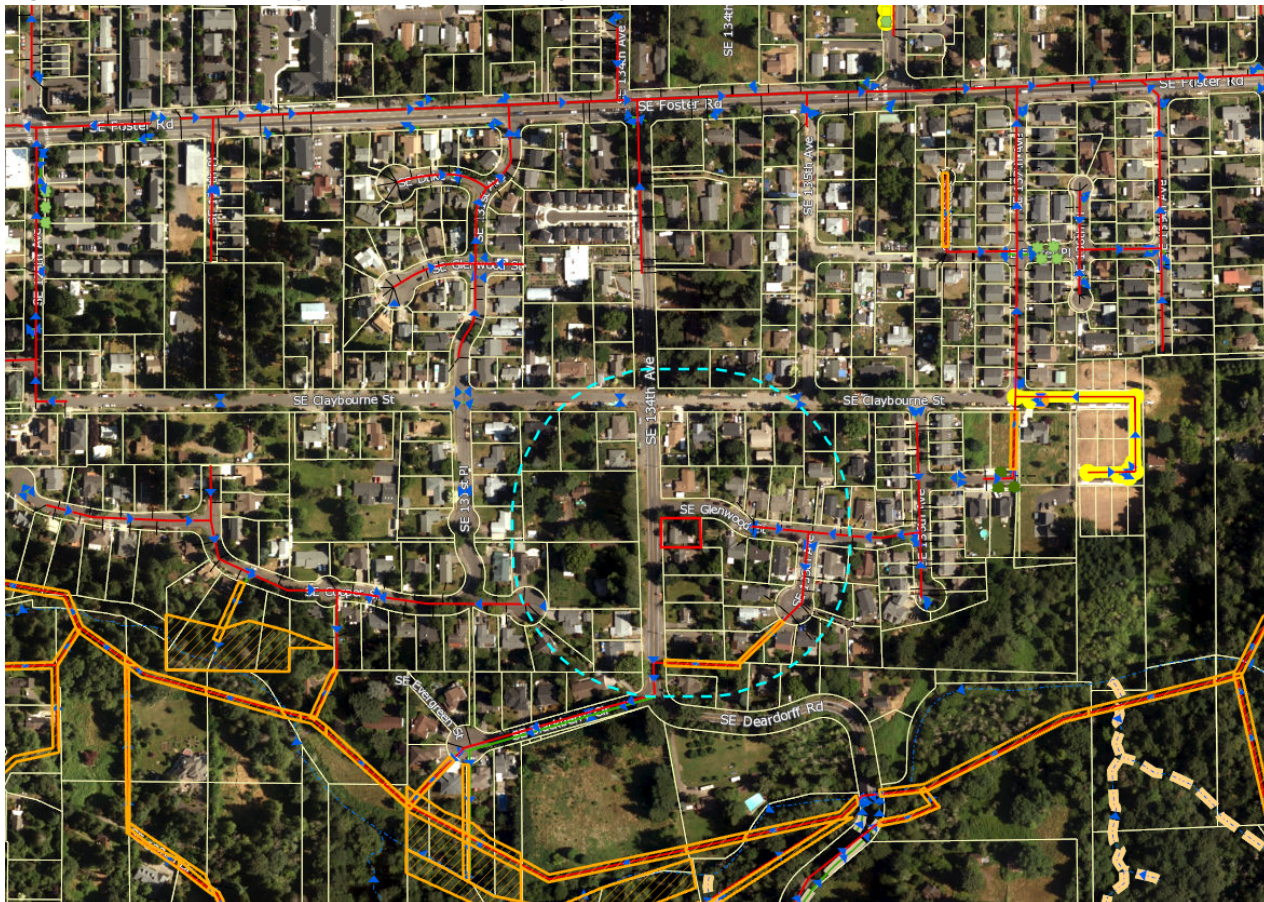
If a city determines an infrastructure deficiency that meets the above parameters and thresholds, it must submit an IBTER application to the Oregon Department of Land Conservation and Development that identifies and describes the deficiency; maps the areas impacted by the deficiency; demonstrates the anticipated impact of middle housing; and describes how the deficiency will be mitigated so that middle housing can ultimately be allowed in those areas. The mitigation plan must include a description of the improvement project, potential funding sources, and a timeline for construction. IBTER applications must be submitted to DLCD by the end of June 2021.

Based on the information extrapolated through the case study analysis, an IBTER is likely not the most appropriate approach for these areas, for the following reasons:

- In many situations, identified infrastructure constraints can be addressed through developer-required improvements. The improvements may (and likely will) be costly for the developer, but they can be required, which means the deficiency does not meet the parameters for an IBTER.

- Generally, the City does not plan to identify capital improvement projects in the foreseeable future to mitigate the infrastructure deficiencies that are known in these areas. Therefore, in order to apply for an IBTER, improvement projects would need to be developed and evaluated and funding sources would need to be identified.
 - One possible exception to this is the sanitary sewer constraint in Case Study Area 5; BES has recently completed sewer extension work in this area and plans to do additional extensions in the future. The timing of that work is not known at this point, but improvements are planned. However, the pockets of sewer infrastructure deficiencies are relatively small and may not warrant the effort involved in an IBTER application. As an example, Figure 8 below shows existing sewer assets in this area, along with a random site selected to demonstrate the 300-foot radius. The 300-foot radius is used as a general parameter for when to permit septic systems (if public sewer is physically and legally available within that radius, then connection to the public system is required). As shown, many of the lots within this area that don't currently have adjacent sewer infrastructure are likely within 300 feet of a sewer line. Therefore, the pockets of "true" deficiencies (those that can't be addressed through development requirements) are even smaller. The level of analysis and demonstration required for an IBTER are generally not proportionate to the areas that would be impacted by the IBTER.

Figure 8. Sewer Deficiency Example – Case Study Area 5



Source: Portlandmaps.com

Goal Exemptions Option

The Division 46 rules allow cities to exempt certain areas from middle housing implementation if they are identified and regulated consistent with statewide planning goals. Specific to the case study areas, those goals are:

- Goal 5 natural resources: Cities may limit the development of middle housing (other than duplexes) in significant resource sites identified and protected pursuant to Goal 5. In Portland, Goal 5 natural resources are primarily identified and regulated through the Environmental Conservation and Protection overlay zones (“c” and “p” zones). Therefore, the City must allow duplexes in those areas, but can limit other types of middle housing development if it so chooses.
- Goal 7 hazard areas: Cities may limit development of all middle housing (including duplexes) in identified hazard areas where it is determined that middle housing development would present a greater risk to life or property than development of a single detached dwelling. Greater risk includes:
 - Increasing the number of people exposed to a hazard
 - Increasing risk of damage to property, built, or natural infrastructure
 - Exacerbating the risk by altering the natural landscape, hydraulics, or hydrology

Goal 7 hazards include landslide areas, steep slopes (greater than 20%), wildfire hazard areas, and 100-year floodplain. Portland does not have an overlay zone associated with Goal 7 hazard areas, but they are mapped and regulated, which means those areas could be exempted from HB2001.

The rules also allow for exemptions for identified Goal 6 resources (air, water and land resources). The City implements Goal 6 primarily through its airport noise overlay zone, which is not present in any of the six case study areas.

Exhibits A and B show the city-wide amounts of Goal 5 and 7 mapping as they intersect with the R10 and R20 zones. Table 1 below shows the relative acreages of R10 and R20 zoning that are overlaid with Goal 5 and Goal 7 resources. Note that fire hazard and possibly other Goal 7 data for unincorporated Multnomah County pockets within Portland’s urban services boundary may be lacking or incomplete. The City may need to update this data as part of RIP2.

Table 1. City-Wide R10/R20 Zoning with Goal 5 & 7 Areas

Zone	Zone Acres	Goal 5 Acres	Goal 5 Percent of Zone	Goal 7 Acres	Goal 7 Percent of Zone
R10	12,235	3,231	26%	8,780	72%
R20	5,488	1,802	33%	4,181	76%

Because Goal 5 and Goal 7 resource areas often overlap, Table 2 shows the number of acres remaining for each zone once Goal 5 and Goal 7 resource areas are removed. That number (Zone Acres Less Goal 5 and Goal 7 Acres) represents the area where middle housing could be implemented if the City opted to take the available Goal exemptions. Exhibit C provides a map of those areas.

Table 2. R10/R20 Acres After Goal Exemption

Zone	Zone Acres	Zone Acres Less Goal 5 & 7 Acres
R10	12,235	3,258
R20	5,488	1,169

Overall, there are 17,723 acres of R10 and R20 zoning in the City; Goal 5 resources cover 28 percent of those combined zones and Goal 7 resources cover 73 percent. It is clear from these numbers that exempting Goal 5

and Goal 7 resource areas from middle housing implementation would impact a significant portion of the City's R10 and R20 zoning.

The following preliminary recommendations could be considered:

Allow duplexes (as required by ORS) but restrict development of other middle housing types within the “p” and “c” overlay zones (Goal 5 resources). The standards and requirements for single detached development in those overlay zones could be applied to duplexes as well. This would allow some flexibility for additional housing options in these areas while preserving the intent of Goal 5, which is to protect natural resources from development impacts. It's important to note that if the City opts to exempt Goal 7 resources from middle housing implementation, then a significant portion of the Goal 5 resource areas would also be exempted by default since they tend to overlap. Approximately 193 acres of Goal 5 area would be left in the R10 zone and 137 acres of Goal 5 area would be left in the R20 zone after removal of the Goal 7 areas. Exhibit D provides a map of those areas. Regardless of the size of the area, the portion of Goal 5 areas outside the Goal 7 areas should be amended to allow duplexes per the HB2001 rules.

- **Limit development of all middle housing types within the mapped Goal 7 hazard areas.** Of the six areas studied for this report, five of them had significant amounts of (often overlapping) wildfire hazard areas, steep slopes and landslide susceptibility areas. These hazards, coupled with (often overlapping) infrastructure deficiencies like narrow, dead-end streets and lack of adequate water pressure, make a compelling case for using the Goal 7 exemption. Allowing increased numbers of people and buildings in these areas means increased risk; this is counter to the purpose Goal 7 which is to protect people and property from natural hazards.

There are likely some implications to applying the Goal 7 exemption.

- As noted previously, Goal 7 resource areas cover a significant portion of the R10 and R20 zones; an exemption would leave roughly 27 percent of those zones available for middle housing implementation. Further, due to the overlap between Goal 5 and Goal 7 resource areas, a Goal 7 exemption would also mean exempting a large portion of Goal 5 areas (in other words, duplexes that would otherwise be allowed in the Goal 5 areas would no longer be permitted because the Goal 7 exemption covers all middle housing types). New opportunities for duplex development in the City would be greatly reduced.
- Some property owners may want the ability to intensify development on their R10 and R20 properties in order to maximize economic opportunity. Exempting the Goal 7 resource areas will remove that possibility from those properties, while allowing it in the R10 and R20 zones that are outside the resource area.
- There could be some perceived inequities to using the Goal 7 exemption. The R10 and R20 zones tend to be located near natural and recreational areas (Forest Park, for example); they have larger lots and scenic views; they are often desirable neighborhoods. Using the Goal 7 exemption means that those neighborhoods essentially get to stay the way they are, while other neighborhoods may be subject to more intense development. In other words, the exemption reduces the ability to evenly distribute middle housing opportunities throughout the City. However, this may be balanced by the fact that these areas are also located far from services, have limited access to transit, and generally require the use of a car to meet daily needs.

Development Standards Option

Rather than take the available exemptions for Goal 5 and 7 resource areas, the City could consider allowing middle housing types and implementing special development standards to regulate potential impacts. The Division 46 rules state that “Cities may limit the development of Middle Housing other than Duplexes in significant resource sites identified and protected pursuant to Goal 5.” This means standards could be applied to middle housing in these areas that don't apply to single detached development.

Development standards/requirements could include:

- Limits to density/total number of units. For example, for a triplex, the City could require a minimum lot size of 30,000 SF, which is three times the lot size requirement for a single detached dwelling in the R10 zone.
- Require a minimum amount of on-site vehicle parking for middle housing types. Many of these areas are not close to transit and have narrow streets that might not safely accommodate on-street parking.
- Limits to total amount of impervious surface created on a site
- Requirements for specific building materials or other methods of providing additional fire protection (other than those already required)
- Require a land use review for middle housing projects in these areas so that Portland bureaus have an opportunity to review and comment on the project before it goes to building permit

This option is not recommended for Goal 7 since it would still effectively allow for increasing amounts of people and property in high risk areas. However, this option could be considered for the Goal 5 resource areas (where they don't overlap with Goal 7 areas). It would allow more housing options while implementing some additional development standards to ensure a certain level of environmental protection. It's important to note that allowing middle housing types (beyond duplexes) in the R10 and R20 Goal 5 areas would not be consistent with the City's approach in the R7, R5 and R2.5 zones; in those zones, middle housing units (other than duplexes) are not permitted in the Goal 5 areas.

Full Implementation Option

It's important to note that the City could opt to allow middle housing development in the R10 and R20 zones with no exemptions, limitations or special development standards. In this scenario, applicants for new development would ultimately work with the bureaus to understand the level of improvements that would be required of them on a case-by-case basis. There are several reasons why this option is not recommended:

- Development of middle housing projects does not typically require a land use review unless an Environmental Review is triggered, or a land division is involved. As such, many projects could get to the building permit stage without any prior review by the bureaus. Given the scale of infrastructure constraints and mitigation requirements in these areas, it's likely that bureau review during building permit will result in requirements that were not anticipated by the applicant. This can result in project delays, increased project costs and frustration on the part of the applicant (and the reviewers). If middle housing development is allowed to occur in these areas, it warrants earlier and closer review of proposed projects before they go to building permit so that applicants understand upfront what may be required of them.
- There could be some political tension as a result of this option as well. The significant requirements associated with middle housing development in these areas could result in developer complaints and increased pressure on elected officials to either waive the requirements or implement public projects to construct infrastructure. Not having a strong and clear policy on middle housing development in these situations may lead to a complicated dynamic among decision-makers, City bureaus and developers.
- It's clear from the case studies that development of middle housing in these R10 and R20 areas is likely to require significant infrastructure improvements; the bulk of those improvements would be the responsibility of the developer, causing substantial cost increases. Unless some of those costs were offset somehow, the resulting housing would be less likely to be affordable, which is contrary to one of the City's primary goals for middle housing implementation. This is an item that may require additional discussion at the City to determine if programs could or should be implemented to mitigate developer costs in this type of situation to support affordable housing goals.
- Implementation of new housing types in these low-density zones requires careful consideration and has community implications, particularly as it intersects with the Goal protected areas; a full implementation approach may send the wrong message about the City's commitment and level of scrutiny around this effort.
- As discussed previously, allowing middle housing to be developed in the Goal 7 hazard areas means potentially increasing the population (and built environment) in areas where natural disasters are a higher probability. Increasing risk to people and property is in direct conflict with the purpose of Goal 7.

Conclusions

Several preliminary recommendations are highlighted in this report:

- An IBTER does not appear to be an appropriate solution due to the difficulty of meeting the parameters, thresholds and requirements established in the Division 46 rules.
- The City should utilize the available exemption from middle housing implementation for the Goal 7 hazard areas. Despite the possible implications discussed previously, the implications of allowing more people and more development in high risk areas are far more serious.
- For the remaining Goal 5 resource areas (those that don't overlap with Goal 7), the City must allow duplex development but can choose to limit other types of middle housing. The City could consider allowing certain other types of middle housing in those areas and apply some additional development standards to mitigate potential impacts. However, the amount of Goal 5 land left after Goal 7 areas are removed is minimal; it may not be worth the effort of creating new standards for such a small area. Further, this approach is not consistent with current City practice in other zones.