



# Elk Rock Estates

at 12205-12225 SE 19<sup>th</sup> Ave

Natural Resource Review, Willamette  
Greenway Review, Variances

Master File #NR-2018-005

(with WG-2018-001, VR-2018-014, VR-2018-015, LC-2018-001)

Planning Commission

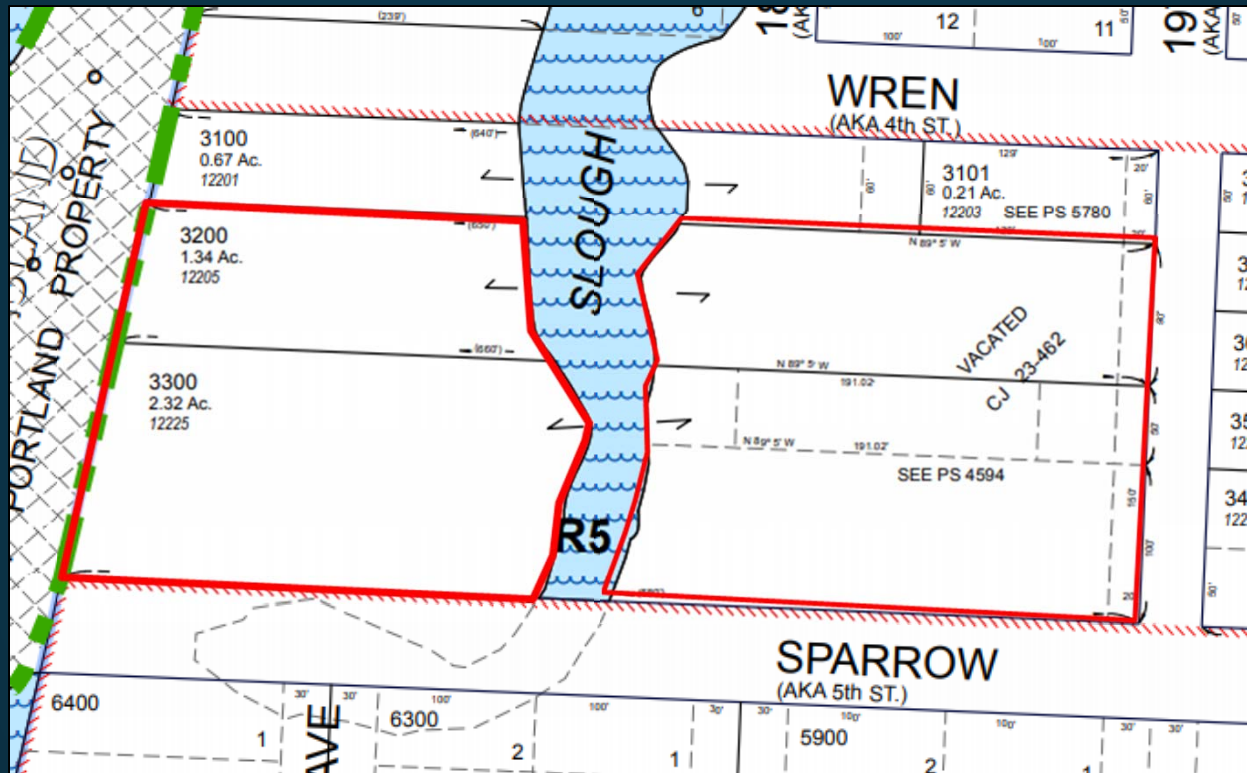
July 23, 2019

Presentation by Vera Kolas, Associate Planner

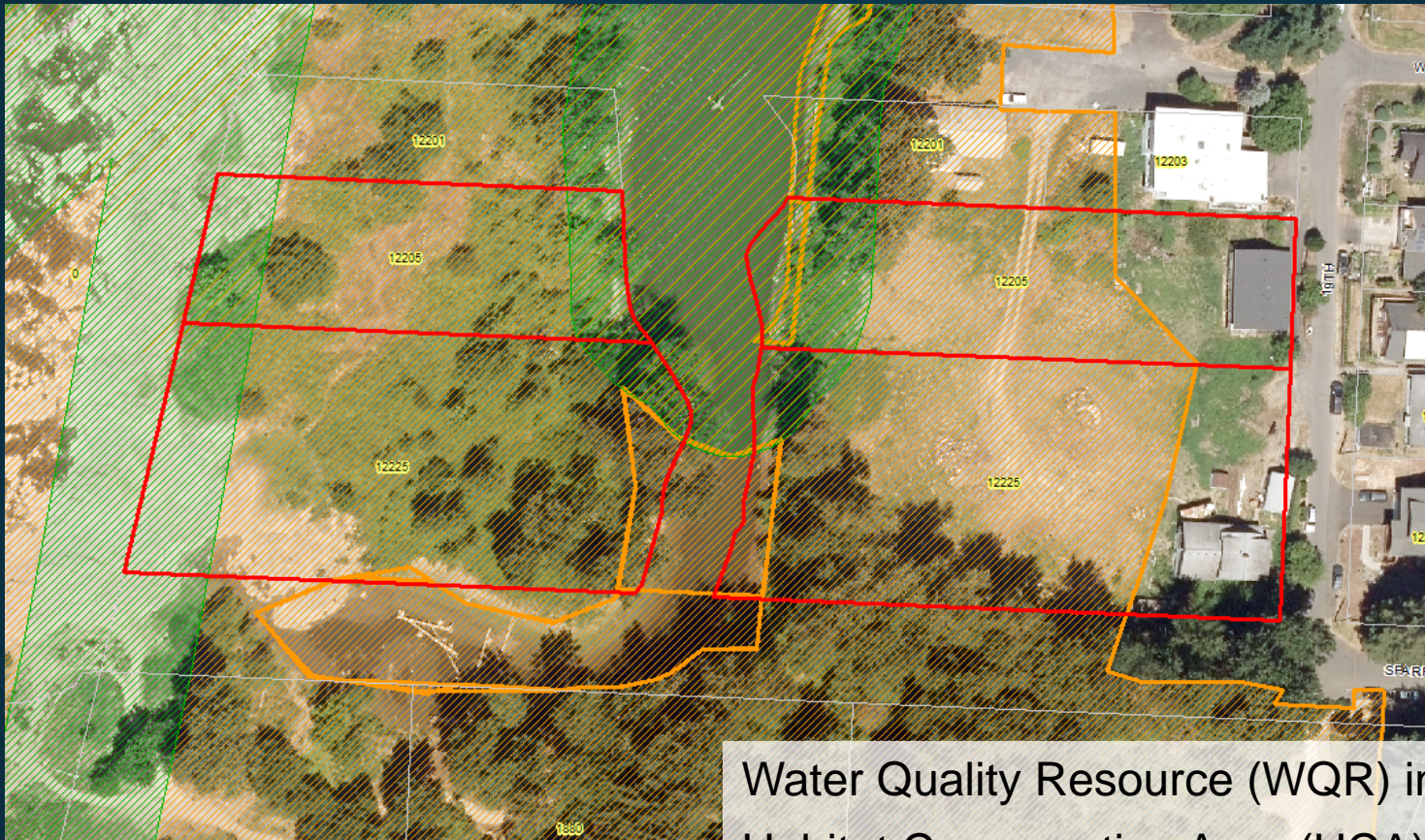
# Project Location & Vicinity



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# Natural Resources (from NR Map)

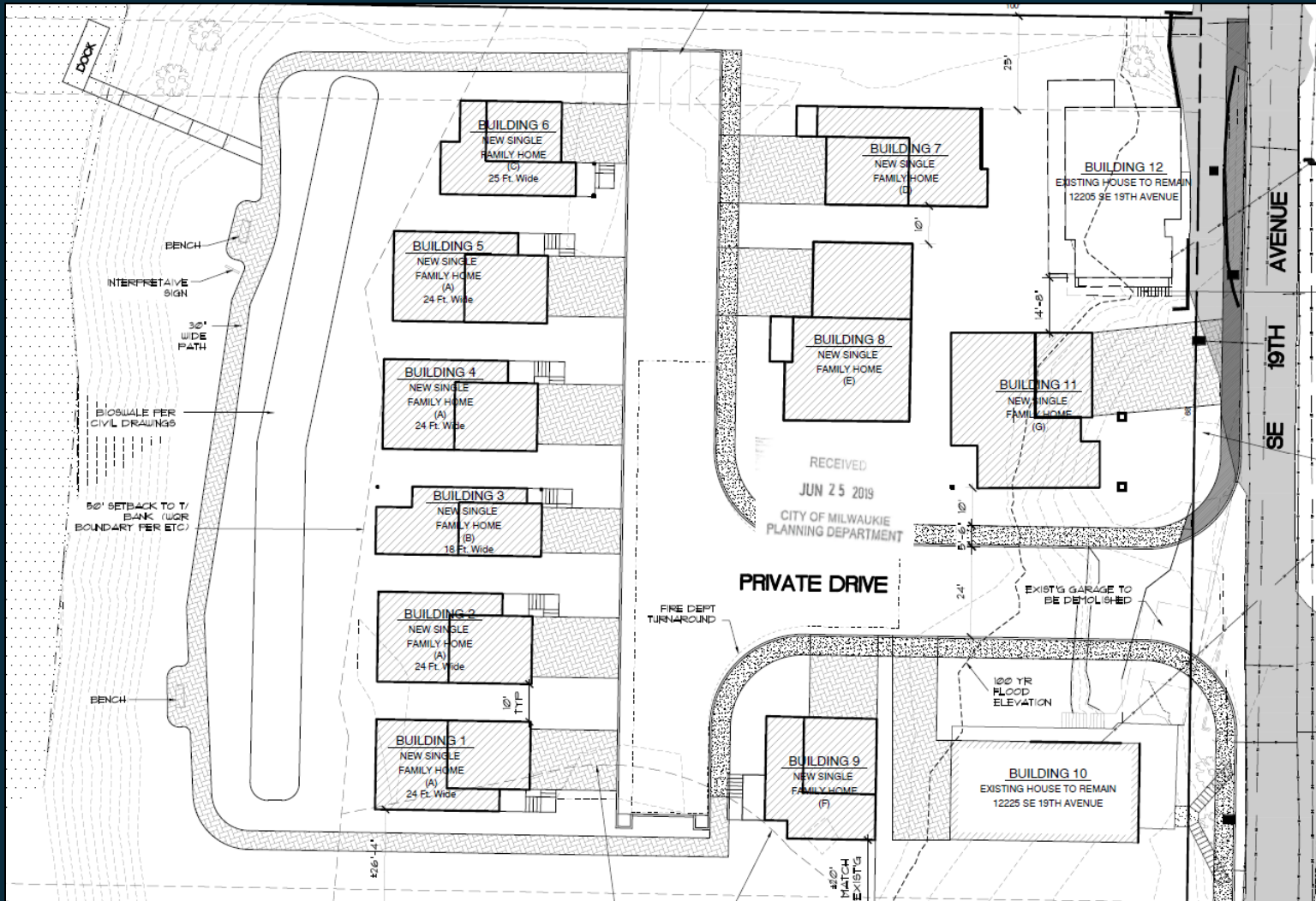


Water Quality Resource (WQR) in green  
Habitat Conservation Area (HCA) in orange

## Primary Project Elements

- 10 new single-family homes and 2 remodeled existing homes.
- A new pedestrian path and repair of an existing dock extending into the slough.
- Enhancements of natural resources to the west of the slough.

# Site Plan



# Applications

- **Natural Resources:** Cluster Development
- **Willamette Greenway review**
- **Variances**
  1. Building height (3 stories)
  2. Side yard setback (20 ft rather than 25 ft)
  3. Width of garage doors (exceed 50% of façade width)
  4. Number of access points in close proximity\*

# Key Issues

1. Floodplain impacts
2. Natural Resource impacts
3. Willamette Greenway
4. Variances



# Floodplain Impacts

1. New homes and renovations
2. Private street
3. Common Space
4. Grading
5. Stormwater facility

# Title 18 Flood Hazard Regulations

1. Flood Management Areas (18.04.040)
  - FEMA 100yr floodplain and floodway
  - Metro 1996 areas of inundation
2. Interpretation of this chapter shall be:
  - Considered as minimum requirements
  - Liberally construed in favor of the City (18.04.080)

# Title 18 Flood Hazard Regulations

## 1. FEMA

- “Flood Insurance Rate Map (FIRM)” means the official map on which the Federal Insurance Administration has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

## 2. Metro

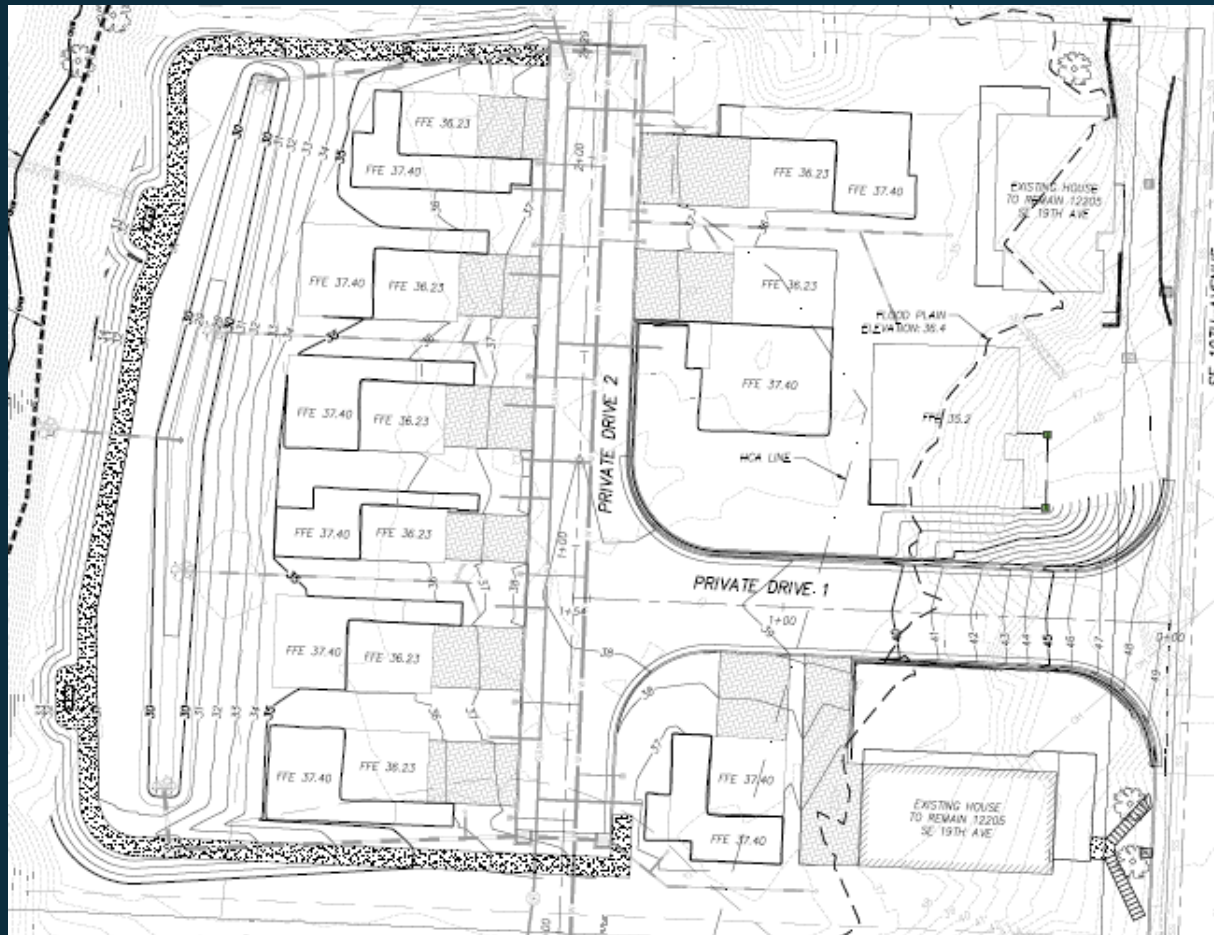
- “Area of February 1996 inundation” means the areas along the Willamette River and its backwaters of Johnson and Kellogg Creeks that were flooded to elevation 34.5 (NGVD) in February of 1996.

# Title 18 Flood Hazard Regulations

1. General Standards (18.04.150)
  - Balanced Cut and Fill
  - Crawlspace Construction
2. Specific Standards (18.04.160)
  - New residential construction and substantial improvement shall have lowest floor elevated 1 foot above flood elevation

# General Standards (18.04.150)

- **Balanced Cut and Fill**
  - No net fill in any floodplain
  - Excavation below bankful stage shall not count toward compensating for fill
  - Excavation and fill for detention shall be designed to reduce or mitigate flood impacts and improve water quality.
- **Crawlspace Construction**
  - Requires professional design in areas with flood velocities greater than 5 fps
  - For velocities in excess of five (5) feet per second, other foundation types should be used.



## Proposed:

- Cut: 1853.42 Cubic Yd
- Fill: 1763.06 Cubic Yd
- Net: 90.36 Cubic Yd
- Crawlspace and below BFE Garages
- 220' L 55' W 6' D depression with stormwater facility
- Identified FEMA 100yr, OHW, and floodway

# FEMA Floodplain Map

## National Flood Hazard Layer FIRMette



### Legend

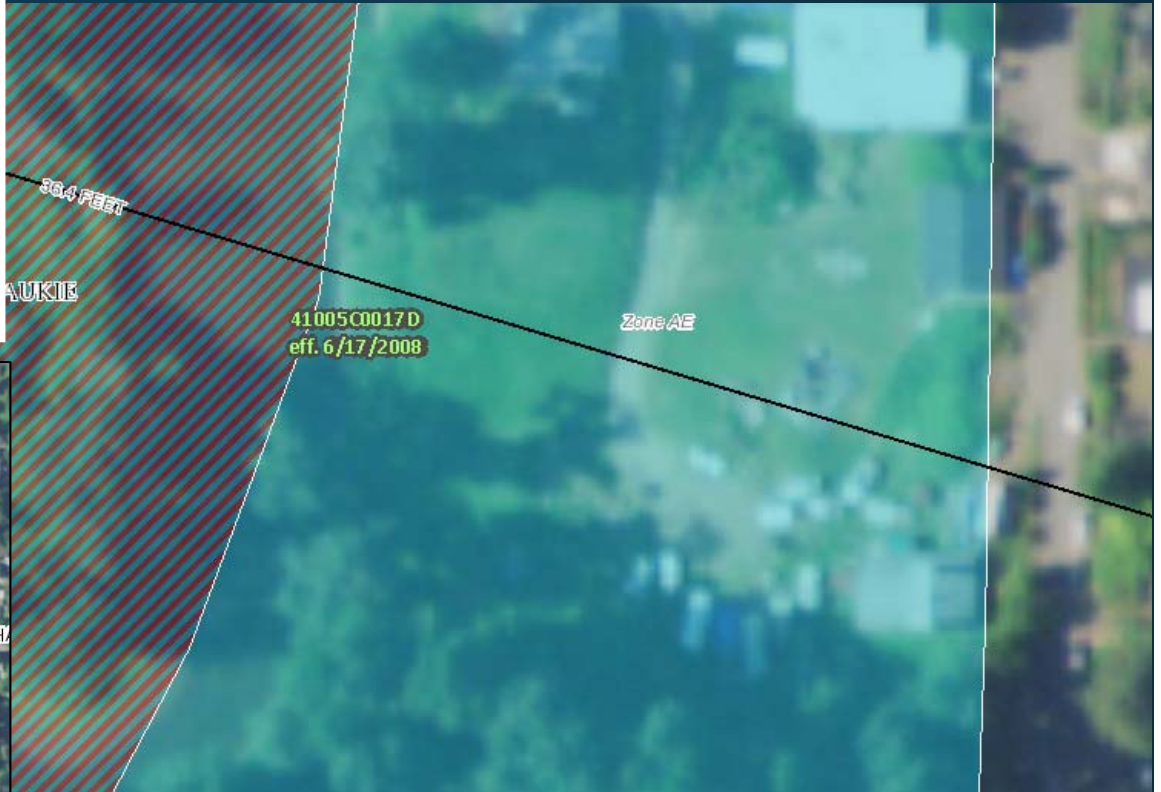
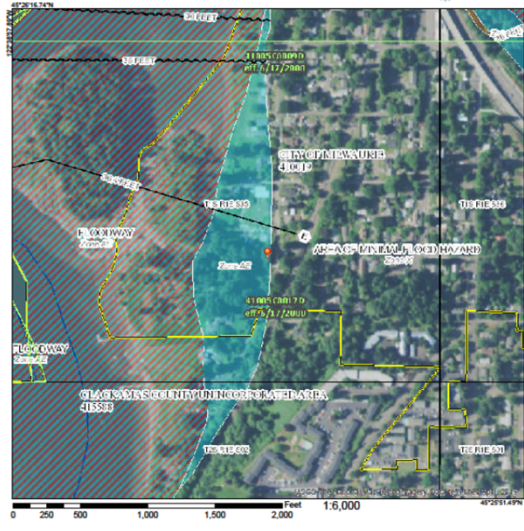
SEE THE REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LEGEND

- SPECIAL FLOOD HAZARD AREAS**
  - Without Base Flood Elevation (BFE) (Zone AE)
  - With BFE or Depth (Zone AE, AH, AO, VE, VE1)
  - Regulatory Features
- OTHER AREAS OF FLOOD HAZARD**
  - 0.2% Annual Chance Flood Hazard, Areas of 1% Annual Chance Flood with average depth less than one foot or with drainage areas of less than one square mile (Zone X)
  - Future Conditions, 1% Annual Chance Flood Hazard (Zone X)
  - Area with Reduced Flood Risk due to Levees, Sea Walls, etc. (Zone X)
  - Area with Flood Risk due to Levees (Zone X)
- OTHER AREAS**
  - Area of Minimal Flood Hazard (Zone X)
  - Effective Limits
  - Area of Unincorporated Flood Hazard (Zone X)
- GENERAL STRUCTURES**
  - Channel, Canal, or Storm Sewer
  - Levee, Dam, or Floodwall
  - Cross Sections with 1% Annual Chance Water Surface Elevation
  - Coastal Trench
  - Base Flood Elevation Line (BFE)
  - Limit of Study
  - Jurisdiction Boundary
  - Coastal Trench Baseline
  - Profile Baseline
  - Hydrographic Features
- OTHER FEATURES**
  - Digital Data Available
  - No Digital Data Available
  - Unmapped
- MAP PANELS**
  - The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps. If it is not used as described below, the licensee assumes compliance with FEMA's best practice accuracy standards.

The flood hazard information is derived directly from the authoritative NFHL, with services provided by FEMA. This map was reported on 02/22/2016 at 14:32:02. It will show and reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is valid if the one or more of the following map elements do not appear: boundary changes, flood zone labels, NFHL panel number, and FEMA effective date. Map images for unincorporated and commercial areas cannot be used for regulatory purposes.



# Floodplain issues

1. Cut and fill analyses not provided for Metro 1996 flood area
2. Bankful stage not identified
3. Non FEMA reviewed study to allow nonstandard use of crawlspace and enclosed areas below base flood elevation
4. Drainage impacts on neighboring properties
5. Design of detention area to avoid fish being trapped during high flow events



## Response to Design Flood Height

The applicant is comparing the FEMA NAVD flood elevation to the 1996 NGVD flood elevation without making the appropriate datum conversion.

The FEMA Base Flood Elevation (BFE) is 36.4' NAVD 88

The 1996 Flood Elevation in Milwaukie City Code is 37.978' NAVD 88 (which comes from the referenced elevation in the code 34.5' NGVD 29 converted to NAVD 88 using NOAA VERTCON).

Therefore, the design flood height should be the 1996 flood elevation = 38.0' NAVD 88.

# Natural Resources: Approval Criteria

## Natural Resource Review

Discretionary Review (MMC Subsection 19.402.12)

1. Provide an Impact Evaluation & Alternatives Analysis
2. Demonstrate how the activity does the following:
  - **Avoids** impacts
  - **Minimizes** impacts
  - **Mitigates** for impacts

# Approval Criteria - Natural Resource Review

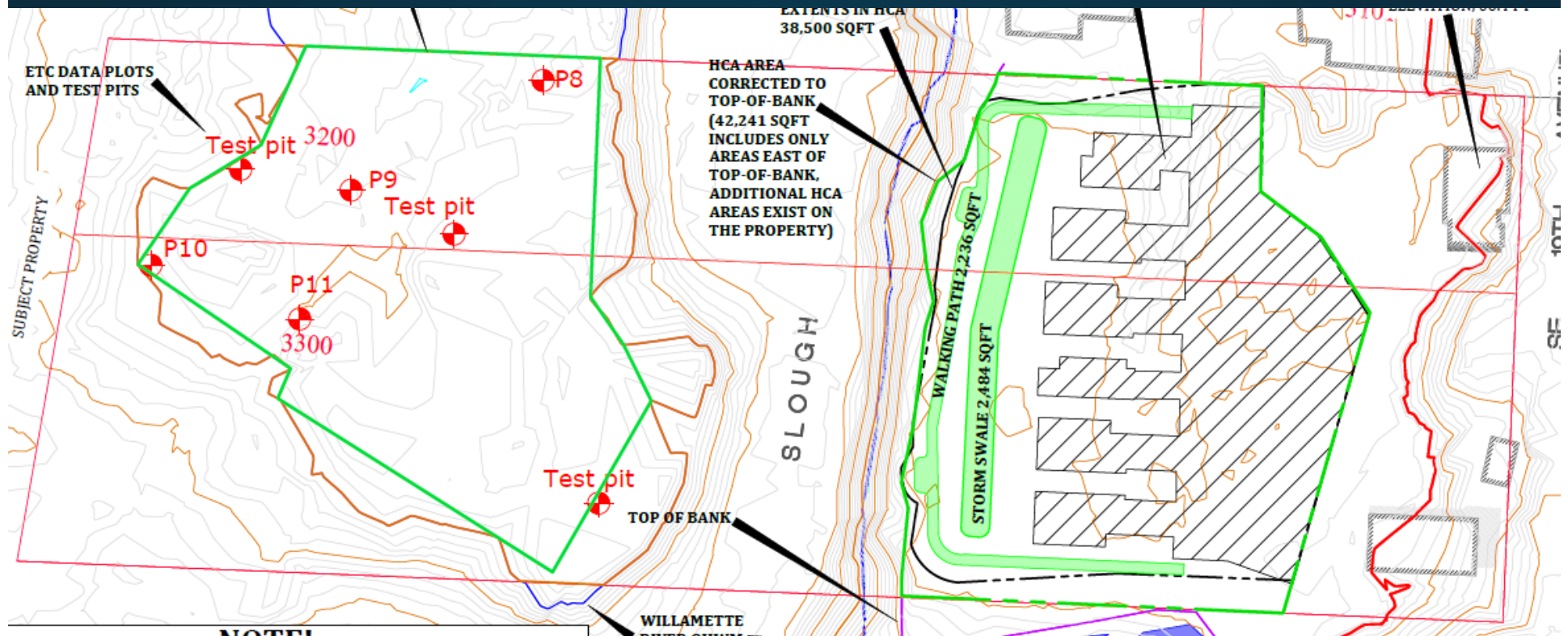
Alternative	WQR/HCA impacts (combined)	Wetland fill	Below OHWM of the Willamette River
Preferred – 12 units	38,500 sq ft	0	Repair to existing dock, no new structure
#2 – 23 units	57,213 sq ft	3,363 sq ft	Proposed Dock, plus possible additional fill
#3 – 16 units	>38,500 sq ft <sup>1</sup>	0	Proposed Dock
#4 – 18 units	>38,500 sq ft	0	Proposed Dock
#5 – 16 units <sup>2</sup>	Unknown – includes units on the “island” west of the slough and an access bridge	unknown	Proposed Dock

# Approval Criteria – Alternatives Analysis



Would fewer units, such as 9 units clustered at the street as shown in Alternative #2, be a viable project?

# Natural Resource Impacts



HCA and WQR permanent impacts = 38,500 sq ft.  
= 385 trees & 1,925 shrubs

# Proposed Mitigation Area



# Proposed Mitigation Area



# Summary of Issues

1. Is there an alternative that provides 12 units that are built closer to 19th Ave, that provides parking from below, and that are clustered as much as possible away from the HCA and the floodplain?
2. Is the proposed mitigation area appropriate given its propensity to flood and its current natural state?



# Willamette Greenway Review



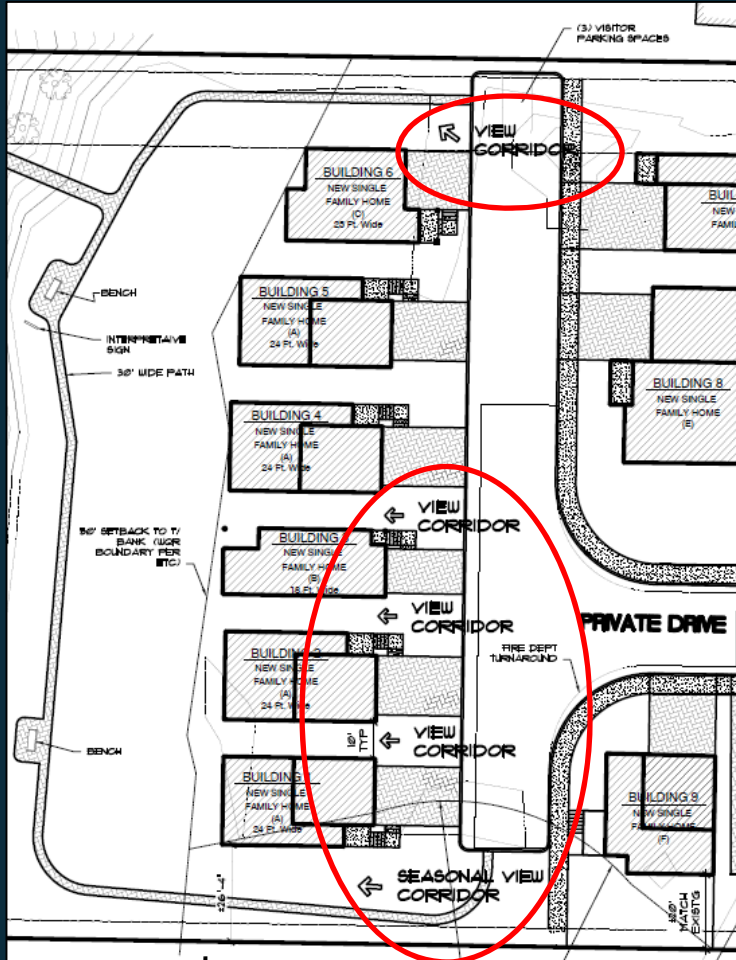
# Approval Criteria - Willamette Greenway

- Compatibility with the character of the river
- Protection of views
- Landscaping, aesthetic enhancement, open space, and vegetation
- Public access to and along the river
- Emphasis on water-oriented and recreational uses
- Protection of the natural environment
- Conformance to applicable Comprehensive Plan policies

# Key Approval Criteria – Conditional Use

1. Are the characteristics of the lot suitable for the proposed use considering size, shape, location, topography, existing improvements, and natural features?
2. Will the operating and physical characteristics of the proposed use be reasonably compatible with, and have minimal impact on, nearby uses?
3. Will all identified impacts be mitigated to the extent practicable?

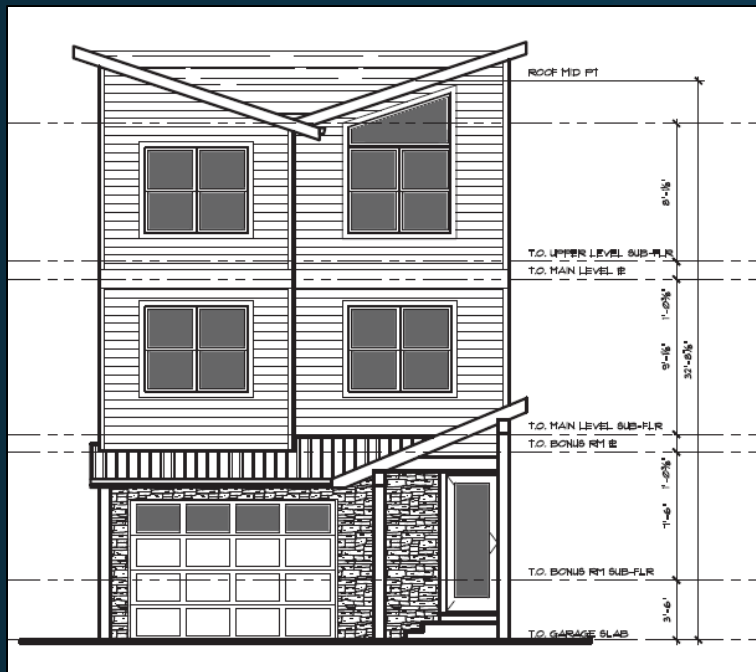
# Greenway views



# Summary of Issues

1. Do the characteristics of the lot make it suitable for the proposed use given its location in the 100-year floodplain?
2. Mitigation on the island: will it be adequate given its location in the 100-year floodplain?
3. Consideration of landscape, aesthetic enhancement, open space, and vegetation between the development and the slough.

# Variance to building height



Request to allow 3-story homes rather than 2.5 stories. Will comply with measured height standard of max. 35 ft.

# Variations

1. Allow reduced side yard setback
2. Allow garages wider than 50% of the front façade
3. Allow more than one access point in close proximity onto the site (*applicant states he will comply with this code requirement*).

# Approval Criteria

## Variance Requests

Type III Variances (MMC Subsection 19.911.4.B)

1. Alternatives analysis of impacts and benefits
2. Variance is both reasonable & appropriate and meets one or more of the following criteria:
  - a) Avoids or minimizes impacts
  - b) Has desirable public benefits
  - c) Responds to existing environment in creative & sensitive manner
3. Mitigates impacts to the extent practicable



## Staff Recommendation

Close the public hearing, but keep the record open for written testimony, unless additional time to address the identified issues is needed for more than just written testimony. Continue the hearing to ~~August 27~~, September 24, 2019 for deliberation.

# Staff Recommendation

- Written testimony:
  - August 6: for anyone to submit argument and evidence;
  - 13: for anyone to rebut the first open record period submittals; and
  - August 20: for applicant only to submit final written argument without new evidence
- The Planning Commission deliberates to a tentative decision on ~~August 27~~, September 24 allowing the Commission to review all written testimony.
- The Planning Commission makes a final decision on ~~September 10~~.  
October 8.

Questions?