



### LAND USE APPLICATION FORM

**Type I (OCMC 17.50.030.A)**

- Compatibility Review
- Lot Line Adjustment
- Non-Conforming Use Review
- Natural Resource (NROD) Verification
- Site Plan and Design Review

**Type II (OCMC 17.50.030.B)**

- Extension
- Detailed Development Review
- Geotechnical Hazards
- Minor Partition (<4 lots)
- Minor Site Plan & Design Review
- Non-Conforming Use Review
- Site Plan and Design Review
- Subdivision (4+ lots)
- Minor Variance
- Natural Resource (NROD) Review

**Type III / IV (OCMC 17.50.030.C)**

- Annexation
- Code Interpretation / Similar Use
- Concept Development Plan
- Conditional Use
- Comprehensive Plan Amendment (Text/Map)
- Detailed Development Plan
- Historic Review
- Municipal Code Amendment
- Variance
- Zone Change

File Number(s): GEO 18-01

Proposed Land Use or Activity: New SFR

Project Name: Green residence Number of Lots Proposed (If Applicable): 1 JUL16 3:23PM

Physical Address of Site: \_\_\_\_\_

Clackamas County Map and Tax Lot Number(s): 7303 & 7300 Map 25-1E-36DD

**Applicant(s):**

Applicant(s) Signature: Robert D Green

Applicant(s) Name Printed: Robert D Green Date: 7-16-18

Mailing Address: 7537 SE 116th Ave

Phone: 503-805-1774 Fax: \_\_\_\_\_ Email: rdgreencontractor@yahoo.com

**Property Owner(s):**

Property Owner(s) Signature: Sue

Property Owner(s) Name Printed: \_\_\_\_\_ Date: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ Email: \_\_\_\_\_

**Representative(s):**

Representative(s) Signature: \_\_\_\_\_

Representative (s) Name Printed: \_\_\_\_\_ Date: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ Email: \_\_\_\_\_

*All signatures represented must have the full legal capacity and hereby authorize the filing of this application and certify that the information and exhibits herewith are correct and indicate the parties willingness to comply with all code requirements.*



**July 16, 2018**

Robert D. Green  
7537 SE 116th AVE  
Portland, OR 97266

**Project:**

US 17-11: Geologic Hazards Review for New Single-Family Residence

**Address / APN**

NO ADDRESS ASSIGNED YET - Canemah, Oregon City, OR 97045

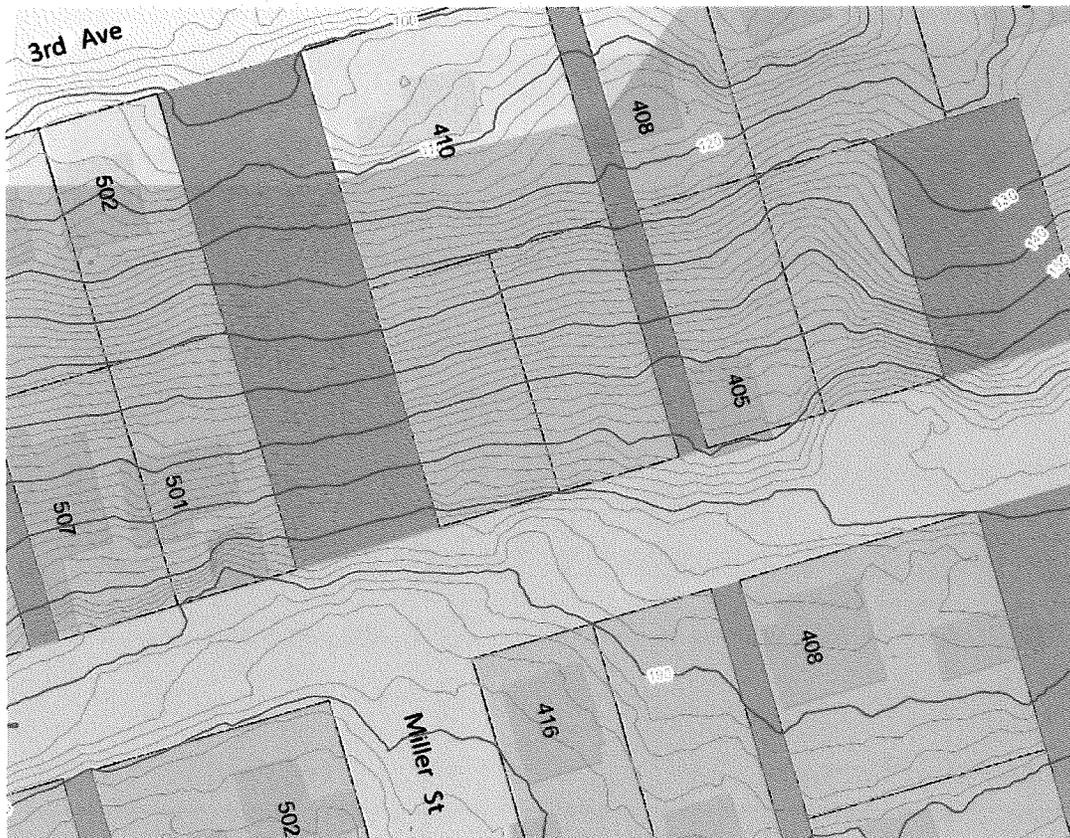
Clackamas County Map 2-1E-36DD, Tax Lots 07300 and 07303

**REQUIREMENTS TO DEVELOP PROPERTY AT THE ABOVE REFERENCED SITE**

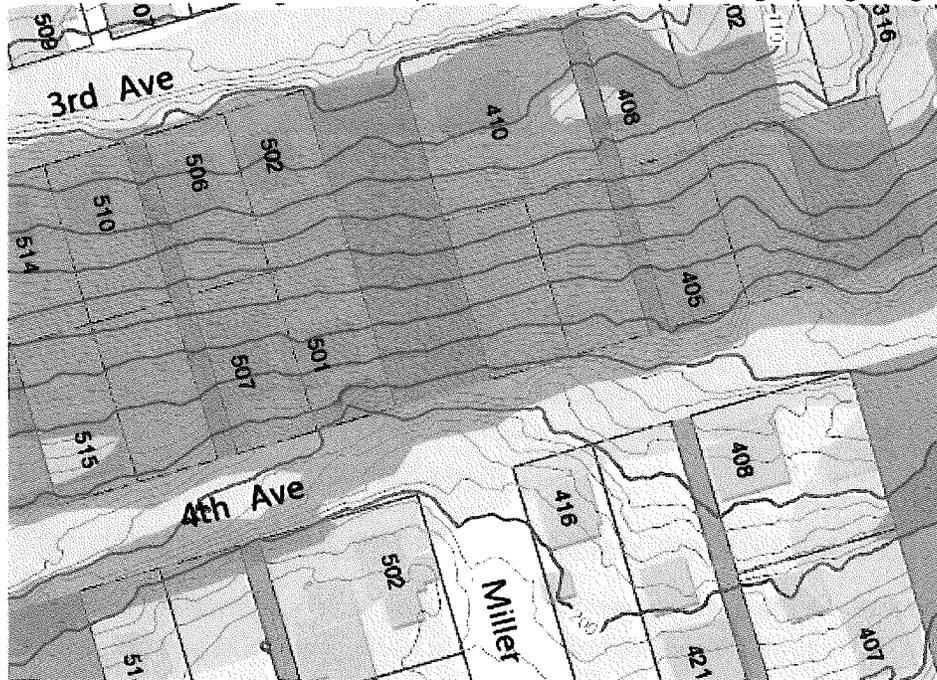
Based on a review of the site itself, conversations with those previously involved, and review of previous correspondence, the following is required (from a public works geologic hazard standpoint) to develop the above referenced property :

The site is located near 4<sup>th</sup> and Miller in a Geologic Hazard Area

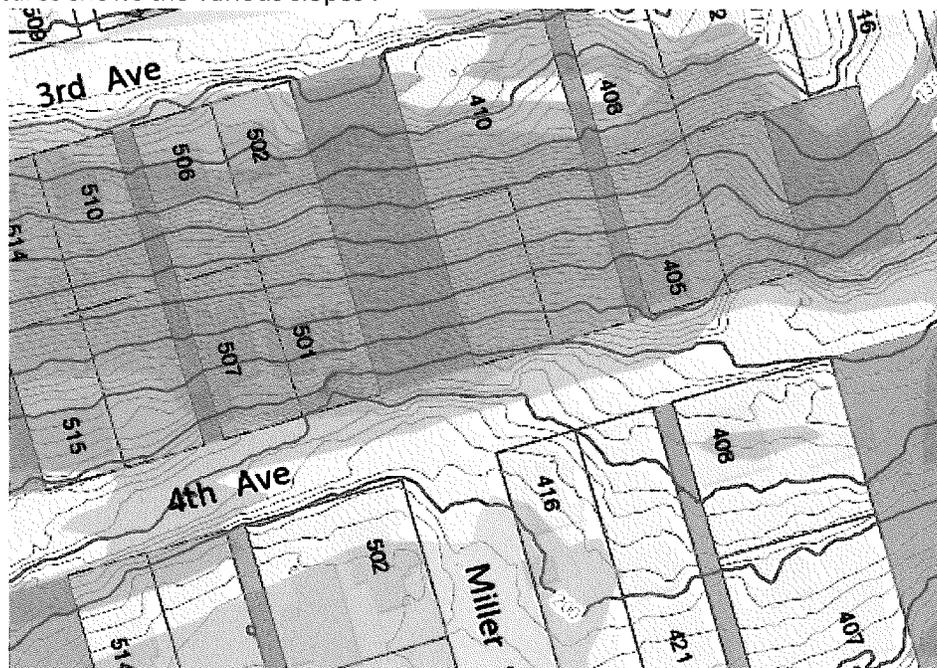
The following shows that the 2 lots are located in a historic landslide area :



The next picture shows that the lots are entirely within the steep slope category of geologic hazards :



The next pictures shows the various slopes :



Red = >35%, Orange = 25-35%, Yellow = 10-25%, Green = 0-10% - the percentages represent slope steepness.

The following identifies materials needed for completeness of the application regarding the Chapter 17.44 – Geohazards :

The general requirements are :

- A Geotechnical Report that fully shows that the proposed development is buildable and sustainable with little to no risk of future problems
- A preliminary engineering grading and utility plan that shows minimal disturbance to the land. If minimal disturbance is not shown, the geotechnical report must in detail explain why this is not a risk to the development. Minimal disturbance is defined as very little cut and fill should occur. All development shall match the existing slope by stepping foundations, building on stilts or other methods that minimize disturbance to the land.
- Retaining walls shall be provided with a preliminary design to show where they will be used and how they will minimally disturb the land. Full design can occur at time of construction plan submittal.

The following are the requirements listed in a more detailed way addressing each section of City Code :

*Section 17.44.50 A*

- The Geologic Hazards report should specifically address the mapped landslide and the effect of the landslide on the development and the potential effect of the development on the mapped landslide and local slope stability. The review of published geologic mapping and geologic hazard literature must include an explanation of any discrepancies between the published materials and the site investigation and a discussion and conclusion regarding the effect of geologic conditions on the proposed development. For projects in Canemah, the City through its geotechnical consultant recommends showing the relationship of the proposed project to the underlying geology with a cross-section and geologic profile extending from South End Road to Highway 99. Show the author's interpretation of the landslide extent and an explanation for the interpretation.
- Provide information regarding existing local drainage, impacts of the proposed permit activity on local drainage, and recommendations for mitigation to address adverse impacts.
- Provide geotechnical recommendations that address the specific foundation and retaining wall conditions for this site, including the slopes adjacent to the proposed foundations.
- General retaining wall recommendations are provided in the Geological and Geotechnical Evaluation Report; however, extensive retaining walls on steep slopes are proposed for the site. Provide recommendations and construction considerations for the specific site conditions for proposed retaining walls; including global stability analysis, and constructability within the property boundaries.
- Provide a calculation of the total volume of earthwork in cubic yards and volume to be removed or imported to the site.
- Provide approximate volume of all excavations and fills on cross-section diagrams, and documentation of the geotechnical engineer's review of the cross-section diagrams.

Advisory Comments:

The following is a list of advisory comments with reference to the City's OCMC Chapter 17.44 – US Geologic Hazards development code and other applicable codes as applied to this proposed development. The intent of these comments are to guide your consultants in how to address the code.

NOTE : Requirements of this chapter are in addition to other provisions of the Oregon City Municipal Code. Where provision of this chapter conflict with other provision of the Oregon City Municipal Code, the provisions that are more restrictive of regulated development activity shall govern.

*Section 17.44.060.A*

- Minimizing disturbance to the natural topography is a high priority. The previous proposal for Taxlots 7300 and 7303 does not meet the intent of the code. The extensive fill upslope of the house does not meet the intent of minimizing disturbance to the natural topography. Accommodate the existing natural topography with minimal driveway areas, and cuts and fills minimized to the maximum extent practicable. The homes at 502 4<sup>th</sup> Ave. provide an example of the code intent.

*Section 17.44.060.C*

- Minimizing disturbance to the natural topography is high priority. The previous proposal for Taxlots 7300 and 7303 does not meet the intent of the code. House foundation elevations may need to be modified to accommodate the existing natural topography without the extensive cut and fill shown in the proposal. Cuts and fills must be minimized to the maximum extent practicable.

*Section 17.44.060.D*

- Cuts shall not remove the toe of any slope that contains a known landslide or a slope greater than twenty-five percent. Slopes are greater than 25% and within an area of a mapped landslide. Therefore, all cut slopes must be retained per the recommendations of the geotechnical engineer.

*Section 17.44.060.F*

- Retaining walls shall be constructed in accordance with the Oregon Structural Specialty Code adopted by the State of Oregon. This includes structural walls and free-standing walls including rockery walls. In addition to structural calculations, provide calculations for sliding, overturning, bearing capacity, and global stability. Include slopes and adjacent walls in the calculations.

NOTE : The planning department has standards concerning the type of walls allowed in this historical neighborhood.

*Private Facilities and Public Right-of-Way*

- The submitted plan shows private facilities in the 4th Avenue public right-of-way, such as private parking, retaining walls, and a private sidewalk. These private facilities need to be placed on the property and not in the public right-of-way. In the event the proposal has no ability to place all of these facilities on private property due to the geologic constraints, the City may, at its discretion, allow a permanent obstruction in the right-of-way which requires a permit, fee, staff recommendation, and city commission approval.

The process of developing the property is the following :

- Pre-Application
- Submittal of Application (with appropriate materials)
- Determination of Completeness of Application
- Preparation of Staff Report
- Land Use Decision
- The City recommends a Pre-Design meeting with the Civil Engineer and Geotechnical Consultant prior to the preparation of construction plans
- Submittal of Construction Plans
  - o Site Engineering by a Civil Engineer is provided to Public Works, Development Services
    - Items needed to begin a site engineering review are :
      - Plan Review Fee
      - Preliminary Cost Estimate
      - Civil Engineering Plans
      - Stormwater Report
      - Geotechnical Report
      - Retaining Wall Designs
  - o Architectural plans for the actual building is provided to the Building Division
  - o Retaining Walls may be reviewed by both divisions depending on where they are located on the project
- Attendance by the Contractor and Engineer for site improvements at a pre-construction meeting
  - Items needed to obtain a site permit prior to the pre-construction meeting :
    - Inspection Fee
    - Final Cost Estimate
    - Approved Civil Engineering Plans
    - Approved Stormwater Report
    - Approved Geotechnical Report
    - Approved Retaining Wall Designs
    - Indemnity Agreement
- Construction Period
- Closeout Period where any final documentation is gathered
  - Items required are :
    - 15% Maintenance Fee for any public improvements
    - Stormwater maintenance covenant
- Maintenance Period – any public improvement must be maintained for a 2-year period.

For questions on Development Services items, please contact Sang Pau, Development Engineer, at 503-974-5503 or [spau@orc.org](mailto:spau@orc.org). Additionally, the applicant's Geotechnical Engineer can contact the City's Geotechnical Consultant, Tim Pfeiffer, P.E., G.E., at 503-643-1541 or [tjp@foundationengr.com](mailto:tjp@foundationengr.com)

Beyond the geologic hazard concerns, the following are general requirements provided at a previous pre-application meeting :

## **GENERAL COMMENTS**

1. The Applicant is responsible for this project's compliance with all Engineering Standards.
2. The Applicant may be required to sign a Non-Remonstrance Agreement for the purpose of making sanitary sewer, storm sewer, water or street improvements in the future that benefit the Property and assessing the cost to benefited properties.
3. The Applicant shall provide an Erosion Prevention and Sedimentation Control Plan to the City for approval.
4. All applicable System Development Charges (SDC) shall be due and payable upon building permit issuance. Applicant will need to complete a SDC request form, found on the City's website, for an estimate of fees.

## **ENGINEERING - UTILITIES**

### **Streets**

1. The proposed development includes frontage on 4<sup>th</sup> Avenue, which is functionally classified as a Local Street (Residential). For a residential local street, the code requirements include: 54-foot-wide Right-of-Way (ROW), 32-foot-wide pavement, 5.5-foot-wide planter strip, 5.0-foot-wide sidewalk, and 0.5-foot-wide public access strips. Additional requirements include curb, gutter, street trees, and street lights.
2. 4<sup>th</sup> Avenue along the frontage of the proposed development currently has  $\pm 54$  feet of ROW. There is currently  $\pm 16$  feet of existing pavement. There are currently no improvements on either side of 4<sup>th</sup> Avenue.
3. Because of the steep topography in the Canemah area, especially along the 4<sup>th</sup> Avenue frontage of the subject tax lots, widening of the existing 4<sup>th</sup> Avenue road section and construction of other public improvements does not appear to be feasible at this time. The applicant may be required to construct improvements up to and including a full half street (as discussed under item 1), or more feasibly, pay a fee-in-lieu of construction of these improvements.
4. The driveway approach shall be asphalt and connect to 4<sup>th</sup> Avenue per City Standards.
5. Reduction to the standard improvements and right-of-way dedication may be requested through the modification process outlined in Oregon City Municipal Code (OCMC) Section 12.04.007. This modification request can be made as part of the land use application submittal.

## Stormwater

1. The proposed development shall adhere to the requirements of the Stormwater and Grading Design Standards. The Standards can be found online here:

[http://www.orcity.org/sites/default/files/final\\_manual\\_0.pdf](http://www.orcity.org/sites/default/files/final_manual_0.pdf)

2. The General Threshold for Applicability of the Stormwater and Grading Design Standards:
  - a. *Development activities that result in 5,000 square feet of new or replaced impervious surface, cumulative over a 5-year period, are subject to the requirements of these standards.*
3. If the General Threshold above is met, the Applicant will need to submit a preliminary Stormwater Management Plan as required by the Stormwater and Grading Design Standards (Section 1.4.2) as part of the land use application. Submittal of the final Stormwater Management Plan will be required prior to issuance of Public Works permits.
4. As part of the Stormwater Management Plan, a written downstream analysis must be generated to demonstrate adequate conveyance capacity of the natural or constructed drainage system downstream of the proposed development.
5. There is an existing 12-inch stormwater main within the unimproved Miller Street right-of-way to the west of the proposed development. Discharge to this 12-inch stormwater main may be required, either by the Stormwater and Grading Design Standards or as conditioned by the Geologic Hazard Land Use Application required as part of this project.

## Water

1. There is an existing 8-inch (or 6-inch) cast iron water main within 4<sup>th</sup> Avenue. The proposed development is to be served domestic water off of this existing water main.
2. There is an existing fire hydrant at the southwest corner of Miller Street and 4<sup>th</sup> Avenue. Any additional fire hydrants shall be located per the requirements and direction of Clackamas Fire District No. 1.

## Sanitary Sewer

1. There is an existing 8-inch PVC gravity sanitary sewer main within 4<sup>th</sup> Avenue directly in front of the proposed development. The depth of this 8-inch sanitary sewer main (to the invert elevation) along the proposed development's frontage on 4<sup>th</sup> Avenue varies from ±7.7 feet deep (at the existing manhole at the western property line) to ±5.4 feet (at the eastern property line).
2. There is an existing sanitary sewer manhole (separate from the above sanitary sewer system) within the intersection of Miller Street and 4<sup>th</sup> Avenue. The depth of this existing sanitary sewer manhole is ±6.3 feet deep.
3. There is an existing 8-inch sanitary sewer main within 3<sup>rd</sup> Avenue, east of Miller Street, downhill of the proposed development. Along the eastern property line of the proposed

development, there is a 12-foot-wide section of unimproved right-of-way. The existing single family residence at 408 3<sup>rd</sup> Avenue appears to be partially constructed within this unimproved right-of-way.

4. Based on the existing sanitary sewer system and the proposed development's elevation difference from this system, there is a high potential that pumping of sanitary sewer flows from the proposed single family residence will be required up to the sanitary sewer system within 4<sup>th</sup> Avenue.

**Other**

1. The proposed development does not reside within the Natural Resource Overlay District (NROD) or the High Water Table area.
2. The proposed development does reside within the Geologic Hazard zone (both landslide and steep slopes) and will be subject to the requirements in Oregon City Municipal Code Chapter 17.44

This memo ONLY provides what is required from the Development Services Division of the Oregon City Public Works Department. The Oregon City Community Services Department which includes Planning and Building should be consulted for any requirements they may have.

CC:

Sang Pau, Oregon City Development Engineering Associate

Tim Pfeiffer, Foundation Engineering

# CANEMAH RESIDENCE



SYMONS ENGINEERING  
CONSULTANTS, INC.

12805 s.e. foster road  
portland, oregon 97236  
phone 503 760 1353  
facsimile 503 762 1962

## SITE DATA

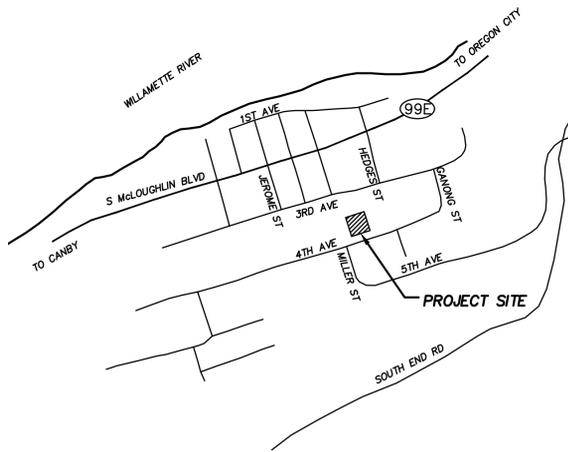
ZONING: SINGLE FAMILY DWELLING (R6)  
LEGAL DESCRIPTION: 21E36DD07300 + 07303  
TAX LOT: 7300 AND 7303  
SITE AREA: 10,415 SF / 0.239 ACRES

## DRAWING INDEX

- T TITLE SHEET
- C1 PRELIMINARY SITE PLAN
- C2 PRELIMINARY GRADING & EROSION CONTROL PLAN
- C3 PRELIMINARY UTILITY & DRAINAGE PLAN
- C4 PRELIMINARY DETAILS
- L1 PRELIMINARY TREE PROTECTION PLAN

## CIVIL LEGEND

---	EXISTING PROPERTY LINE
---	OFFSITE PROPERTY LINE
---	EXISTING CONTOUR
---	NEW CONTOUR
---	NEW EASEMENT LINE
---	EXISTING EASEMENT LINE
- x - - - - x - - - - x	EXISTING FENCE LINE
- - - - G - - - -	EXISTING GAS LINE
- - - - G - - - -	NEW GAS LINE
- - - - E/T - - - -	EXISTING ELECTRICAL/TELEPHONE LINE
- - - - O/H - - - -	EXISTING OVERHEAD LINE
- - - - E - - - -	NEW ELECTRICAL LINE
- - - - E/T - - - -	NEW ELECTRICAL/TELEPHONE LINE
- - - - SS - - - -	EXISTING SANITARY SEWER LINE
- - - - SS - - - -	NEW SANITARY SEWER LINE
- - - - ST - - - -	EXISTING STORM SEWER LINE
- - - - ST - - - -	NEW STORM SEWER LINE
- - - - W - - - -	EXISTING WATER LINE
- - - - W - - - -	NEW WATER LINE
~ ~ ~ ~ ~	EXISTING UTILITY TO BE REMOVED
---	EROSION CONTROL
---	STREET CENTERLINE
---	SAWCUT
---	EXISTING ASPHALT EDGE
---	NEW ASPHALT EDGE
---	EXISTING CURB
---	NEW CURB
---	EXISTING EDGE OF GRAVEL
---	NEW EDGE OF GRAVEL
---	EXISTING CONCRETE SURFACE
---	NEW CONCRETE SURFACE
---	PROPOSED AC
XXX.XX	EXISTING SPOT ELEVATION
XXX.XX	NEW SPOT ELEVATION
○	EXISTING SIGN
○	EXISTING MANHOLE
○	NEW MANHOLE
○	EXISTING INLET
○	NEW INLET
⊞	EXISTING WATER METER
⊞	NEW WATER METER
⊞	EXISTING CAP/PLUG
⊞	NEW CAP/PLUG
○	EXISTING CLEANOUT
○	NEW CLEANOUT
○	EXISTING POWER POLE
○	EXISTING POWER POLE W/ GUY



### VICINITY MAP

NO SCALE

## CALL BEFORE YOU DIG

PORTLAND METRO AREA CLARK COUNTY AREA  
(503) 246-6699 (503) 696-4848



ALL OTHER AREAS (800) 332-2344

**ATTENTION:** OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH 952-001-0090. YOU MAY OBTAIN COPIES OF THESE RULES BY CALLING THE CENTER YOU MUST NOTIFY THE CENTER AT LEAST (2) BUSINESS DAYS, BUT NOT MORE THAN (10) BUSINESS DAYS, BEFORE COMMENCING AN EXCAVATION.  
CALL (503) 246-6699 / (800) 332-2344.  
**NOTE:** THE BUSINESS TELEPHONE NUMBER FOR THE OREGON UTILITY NOTIFICATION CENTER IS (503) 232-1987

## GENERAL NOTES

THESE DESIGN DRAWINGS PRESENT THE CIVIL CONCEPTS OF THIS PROJECT AND ARE NOT INTENDED TO SERVE AS CONTRACTOR'S SHOP DRAWINGS. CERTAIN ITEMS MAY NOT BE COMPLETELY DETAILED ON THESE DRAWINGS. SUCH ITEMS SHALL BE CONSTRUCTED TO THE CODES AND STANDARDS AS INDICATED. WHEN IN DOUBT, MAKE A DETAILED SUBMITTAL TO THE ENGINEER INCLUDING LAYOUT, FAB AND INSTALL DETAILS AND CATALOGUE CUTS FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.

THE INTENTION OF THE DRAWINGS IS THAT ITEMS TO BE FIXED IN POSITION SHALL BE BOLTED, SCREWED, RIVETED, WELDED OR LOCKED INTO PLACE SUFFICIENTLY TO PROPERLY SECURE THE ITEM CONSIDERED. FLASHING, CAULKING, PAINTING AND WEATHERSTRIPPING SHALL BE APPLIED TO RENDER STRUCTURE WEATHERPROOF AND PROTECTED AGAINST THE ELEMENTS. ALL OF THE ABOVE SHALL BE CONSIDERED A NECESSARY REQUIREMENT FOR FUNCTIONALITY REGARDLESS OF ANY OMISSION TO SHOW OR MENTION THE NEED FOR SUCH MEASURES.

CONTRACTOR SHALL PROTECT AND MAINTAIN OPERATION OF ALL EXISTING UTILITIES WITHIN THE CONSTRUCTION AREA THROUGHOUT THE CONSTRUCTION PROCESS AND SHALL BE RESPONSIBLE FOR REPLACEMENT OF ALL EXISTING UTILITIES WHICH ARE DISTURBED "IN KIND" AS PART OF THE CONTRACT. CONTRACTOR SHALL COORDINATE ALL WORK ON UTILITIES WITH THE VARIOUS OWNERS THEREOF.

LOCATIONS OF PROPERTY LINES AND EXISTING STRUCTURES, SITE FEATURES, AND UNDERGROUND UTILITIES ARE DRAWN FROM BEST AVAILABLE AS-BUILT DATA. THIS DOES NOT GUARANTEE LOCATIONS, ELEVATIONS ARE EXACT OR COMPLETE.

CONTRACTOR SHALL VERIFY LOCATION AND INVERT ELEVATIONS OF ALL EXISTING UTILITIES AND FEATURES IN THE AREA AFFECTED BY PROJECT WORK. NOTIFY ENGINEER IF LOCATION OR ELEVATION IS OTHER THAN INDICATED ON PLANS **PRIOR TO COMMENCEMENT OF WORK.**

CONTRACTOR SHALL REQUEST LOCATES OF ALL UTILITIES AT LEAST **48 HOURS** IN ADVANCE PRIOR TO COMMENCING EXCAVATION AND COMPLY WITH O.A.R. 952-001-0010 THROUGH O.A.R. 952-001-0090.

DOWNTIME FOR UTILITIES SHALL BE HELD TO A MINIMUM AND TEMPORARY BYPASSES SHALL BE PROVIDED WHERE REQUIRED TO MAINTAIN PROPER SERVICE.

ALL EXISTING UTILITY FEATURES (VAULTS, BOXES, RIMS, CLEANOUTS, ETC.) IN CONFLICT WITH PROPOSED GRADING PLAN SHOULD BE RAISED OR LOWERED ACCORDINGLY, WHETHER INDICATED ON PLANS OR NOT.

CONTRACTOR SHALL MAINTAIN APPROVED DRAWINGS/PERMITS ON-SITE AT ALL TIMES.

INSTALL ALL UTILITIES **PRIOR** TO PAVING/GRAVELING.

WORK SCHEDULE SHALL BE COORDINATED WITH THE PROPERTY OWNER, LOCAL ORDINANCES, AND BUSINESSES WHEREVER APPLICABLE.

THE SUPERINTENDENT SHALL SECURE ANY EXCAVATIONS AND TRAFFIC CONTROL AT ALL TIMES. ON-DUTY AND OFF-DUTY CONTACTS AND PHONE NUMBERS FOR THE CONTRACTOR SHALL BE FURNISHED TO THE PROPERTY OWNER PRIOR TO COMMENCEMENT OF CONSTRUCTION.

ANY EXISTING IMPROVEMENTS FOUND DAMAGED SHALL BE REPLACED TO THE SATISFACTION OF THE DIRECTOR OF PUBLIC WORKS.

SITE CONSTRUCTION PRACTICES SHALL BE IN ACCORDANCE WITH OSHA REGULATIONS. CONTRACTOR SHALL MAINTAIN ON-SITE, LEGIBLE MATERIAL SAFETY DATA SHEETS FOR ALL HAZARDOUS MATERIALS USED ON-SITE.

THE CONTRACTOR SHALL GIVE THE APPROPRIATE INSPECTION AGENCY **TWO (2) WORKING DAYS** ADVANCE NOTICE WHEN REQUESTING INSPECTIONS, STREET IMPROVEMENT PERMITS INSPECTION-(503) 823-7012.

ANY REVISIONS MADE TO APPROVED PLANS REQUIRE APPROVAL BY THE APPROPRIATE AGENCY AND THE ENGINEER-OF-RECORD IN WRITING PRIOR TO IMPLEMENTATION.

RECYCLE WASTE BUILDING MATERIALS WHEREVER POSSIBLE.

DUST SHALL BE CONTROLLED AT ALL TIMES BY WATERING. DIRT DEBRIS, TRASH OR OTHER CONSTRUCTION MATERIAL SHALL BE CONTAINED WITHIN CONSTRUCTION BOUNDARIES AT ALL TIMES AND SHALL BE CLEANED AND REMOVED DAILY AS NECESSARY. CONTRACTOR SHALL PREVENT CONSTRUCTION DIRT/DEBRIS FROM ENTERING EXISTING STORM DRAIN BY POSITIVE MEANS INFERRED WITHIN THE EROSION CONTROL PLAN.

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE OF OREGON WATER MASTER AT (503) 681-7018 TO APPROVE THE FILLING OF ANY SEPTIC TANKS & REMOVAL OF ANY EXISTING WELLS ENCOUNTERED.

CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF SUB-TRADES AND THEIR RESPECTIVE PERMITS INCLUDING ELECTRICAL, MECHANICAL, PLUMBING OR SPRINKLERS AS DICTATED BY PROJECT REQUIREMENTS. DISCREPANCIES FOUND AMONG ARCHITECTURAL, STRUCTURAL, CIVIL OR SUB-TRADE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER-OF-RECORD FOR WRITTEN CLARIFICATION PRIOR TO CONSTRUCTION.

### CODES AND STANDARDS

IN CASE OF OVERLAPPING SPECIFICATIONS, CONTRACTOR SHALL ASSUME MOST STRINGENT APPLIES UNLESS NOTED OTHERWISE. REFER TO ENGINEER FOR WRITTEN DETERMINATION.

AMERICAN CONCRETE INSTITUTE ACI 318, CURRENT EDITION  
AMERICAN WATER WORKS ASSOCIATION STD. SPECIFICATIONS, CURRENT EDITIONS  
THE ASPHALT INSTITUTE MANUAL SERIES, CURRENT EDITIONS  
EROSION & SEDIMENTATION CONTROL TECHNICAL GUIDANCE HANDBOOK  
MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION  
NATIONAL ELECTRIC CODE, CURRENT EDITION  
OREGON D.O.T. STANDARD SPECIFICATIONS, CURRENT EDITION  
OREGON STATE PLUMBING SPECIALTY CODE, CURRENT EDITION  
OREGON STATE STRUCTURAL SPECIALTY CODE, CURRENT EDITION  
OREGON STATE ELECTRICAL CODE, CURRENT EDITION  
OREGON STATE MECHANICAL CODE, CURRENT EDITION  
OREGON STATE FIRE CODE, CURRENT EDITION  
OREGON CITY PUBLIC WORKS STANDARDS

## CLIENT

DAVE GREEN  
7537 SE 116TH AVE  
PORTLAND, OR 97266  
503-805-1774

## PROJECT

CANEMAH  
RESIDENCE  
GEOLOGIC HAZARD

## SITE ADDRESS

LOTS 5 AND 6, BLOCK 9  
OREGON CITY, OR 97045

## SHEET NAME

TITLE SHEET

## REVISION

△	12/19/17	ISSUED FOR GHR
△	6/22/18	GENERAL REVISIONS
△		
△		
△		
△		

ISSUE DATE **JUNE 22, 2018**

DRAWING FILE **17-34T.DWG**

PROJECT NUMBER **17-34**

SHEET 1

OF 6 SHEETS

NOT FOR CONSTRUCTION



SYMONS ENGINEERING  
CONSULTANTS, INC.

12805 s.e. foster road  
portland, oregon 97236  
phone 503 760 1353  
facsimile 503 762 1962

CLIENT

DAVE GREEN  
7537 SE 116TH AVE  
PORTLAND, OR 97266  
503-805-1774

PROJECT

# CANEMAH RESIDENCE GEOLOGIC HAZARD

SITE ADDRESS

LOTS 5 AND 6, BLOCK 9  
OREGON CITY, OR 97045

SHEET NAME  
PRELIMINARY  
SITE PLAN

REVISION

- △ 11/10/17 ISSUED FOR OWNER REVIEW
- ① 11/17/17 REVISED PER OWNER REVIEW
- ② 12/11/17 ADDED RPZ'S
- ③ 12/19/17 ISSUED FOR GHR
- ④ 6/22/18 GENERAL REVISIONS
- △

ISSUE DATE **JUNE 22, 2018**

DRAWING FILE **17-34c.DWG**

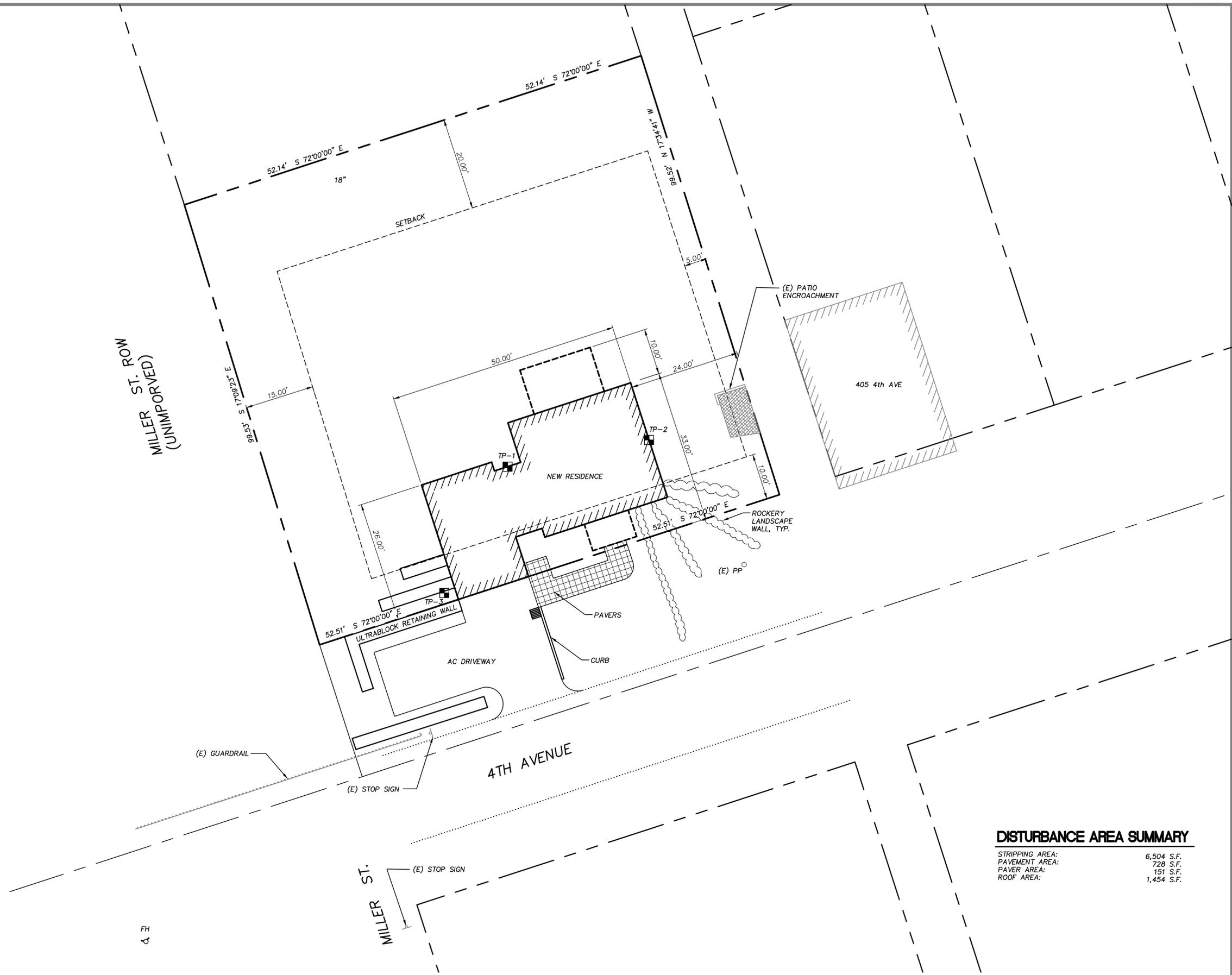
PROJECT NUMBER **17-34**

SHEET 2

OF 6 SHEETS

# C1

NOT FOR CONSTRUCTION



### DISTURBANCE AREA SUMMARY

STRIPPING AREA:	6,504 S.F.
PAVEMENT AREA:	728 S.F.
PAVER AREA:	151 S.F.
ROOF AREA:	1,454 S.F.

### PRELIMINARY SITE PLAN

SCALE: 1" = 10'  
0 2.5 5 10 20





SYMONS ENGINEERING  
CONSULTANTS, INC.

12805 s.e. foster road  
portland, oregon 97236  
phone 503 760 1353  
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CLIENT

DAVE GREEN  
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PROJECT

CANEMAH  
RESIDENCE  
GEOLOGIC HAZARD

SITE ADDRESS

LOTS 5 AND 6, BLOCK 9  
OREGON CITY, OR 97045

SHEET NAME  
PRELIMINARY  
GRADING &  
EROSION CONTROL  
PLAN

REVISION

- △ 11/10/17 ISSUED FOR OWNER REVIEW
- ① 11/17/17 REVISED PER OWNER REVIEW
- ② 12/19/17 ISSUED FOR GHR
- ③ 6/22/18 GENERAL REVISIONS
- △
- △

ISSUE DATE **JUNE 22, 2018**

DRAWING FILE **17-34c.DWG**

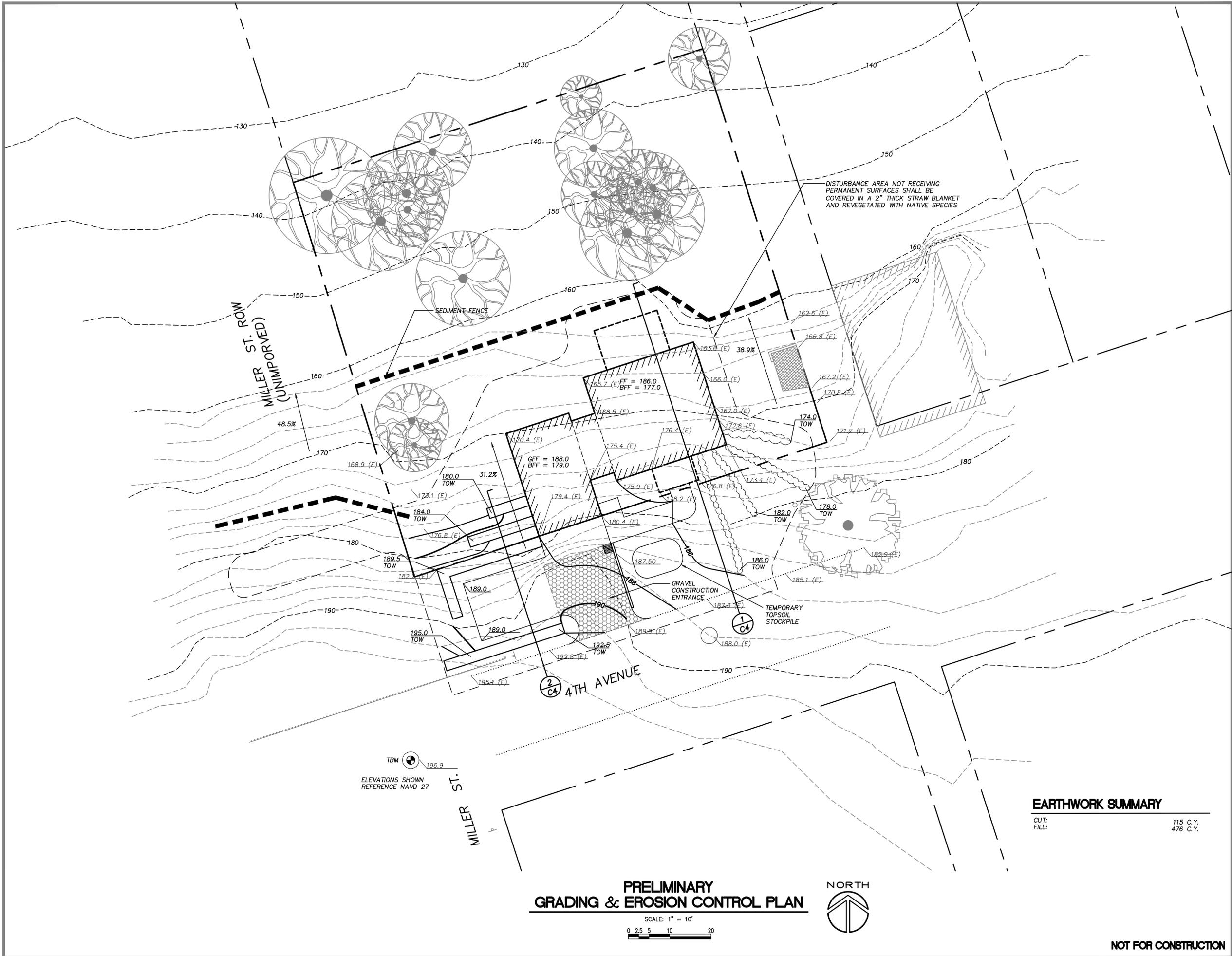
PROJECT NUMBER **17-34**

SHEET 3

OF 6 SHEETS

C2

NOT FOR CONSTRUCTION



PRELIMINARY  
GRADING & EROSION CONTROL PLAN

SCALE: 1" = 10'  
0 2.5 5 10 20





SYMONS ENGINEERING  
CONSULTANTS, INC.

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portland, oregon 97236  
phone 503 760 1353  
facsimile 503 762 1962

CLIENT

DAVE GREEN  
7537 SE 116TH AVE  
PORTLAND, OR 97266  
503-805-1774

PROJECT

**CANEMAH  
RESIDENCE  
GEOLOGIC HAZARD**

SITE ADDRESS

LOTS 5 AND 6, BLOCK 9  
OREGON CITY, OR 97045

SHEET NAME

**PRELIMINARY  
UTILITY &  
DRAINAGE PLAN**

REVISION

- △ 11/10/17 ISSUED FOR OWNER REVIEW
- ① 11/17/17 REVISED PER OWNER REVIEW
- ② 12/11/17 ADDED RPZ's, REVISE STS
- ③ 12/19/17 ISSUED FOR GHR
- ④ 6/22/18 GENERAL REVISIONS

ISSUE DATE **JUNE 22, 2018**

DRAWING FILE **17-34c.DWG**

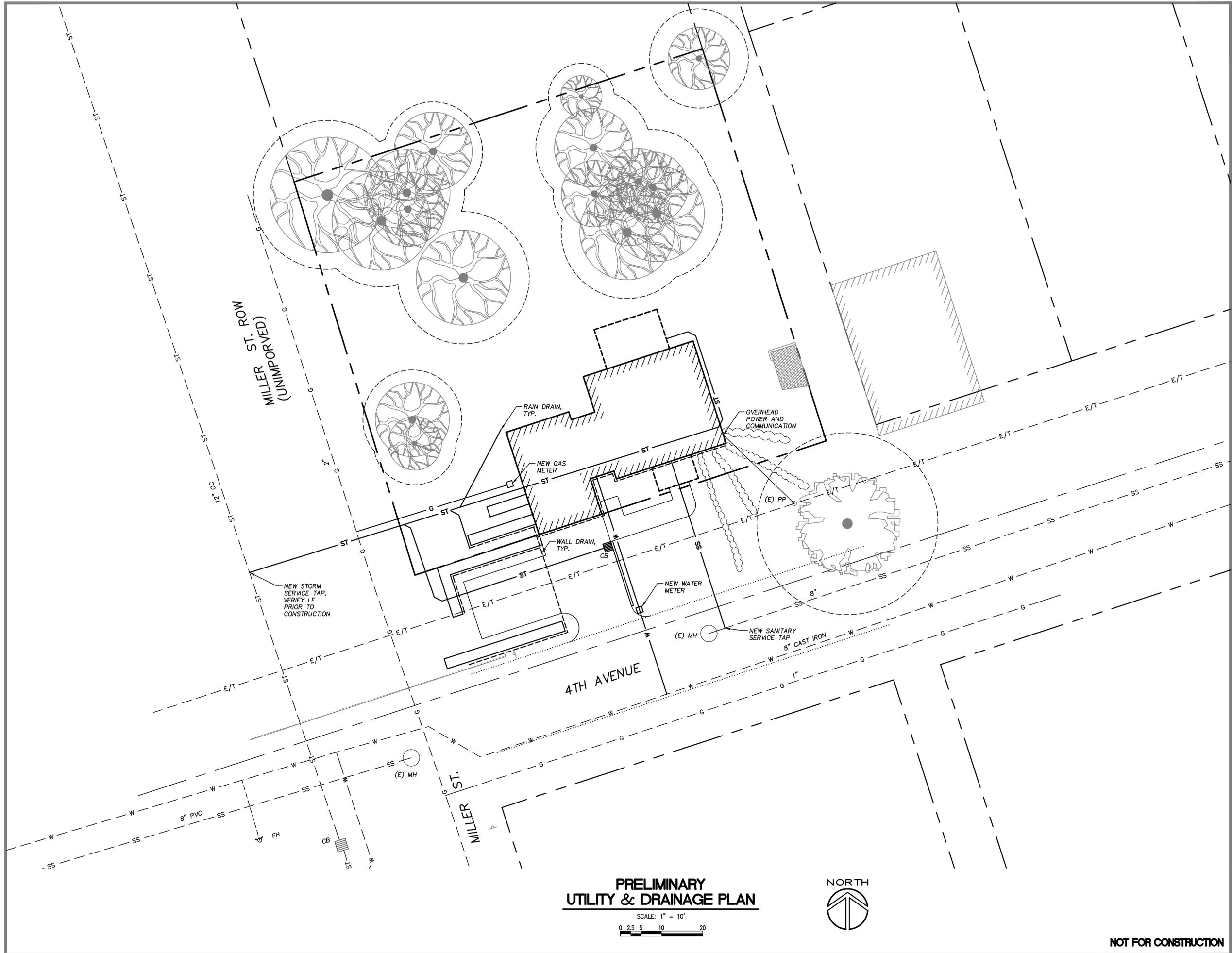
PROJECT NUMBER **17-34**

**SHEET 4**

OF 6 SHEETS

**C3**

NOT FOR CONSTRUCTION



**PRELIMINARY  
UTILITY & DRAINAGE PLAN**

SCALE: 1" = 10'  
0 2.5 5 10 20





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CONSULTANTS, INC.**

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CLIENT

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503-805-1774

PROJECT

**CANEMAH  
RESIDENCE  
GEOLOGIC HAZARD**

SITE ADDRESS

**LOTS 5 AND 6, BLOCK 9  
OREGON CITY, OR 97045**

SHEET NAME  
**PRELIMINARY  
DETAILS**

REVISION

- △ 11/10/17 ISSUED FOR OWNER REVIEW
- ① 11/17/17 REVISED PER OWNER REVIEW
- ② 12/19/17 ISSUED FOR GHR
- ③ 6/22/18 REVISED FOR GHR
- △
- △

ISSUE DATE **JUNE 22, 2018**

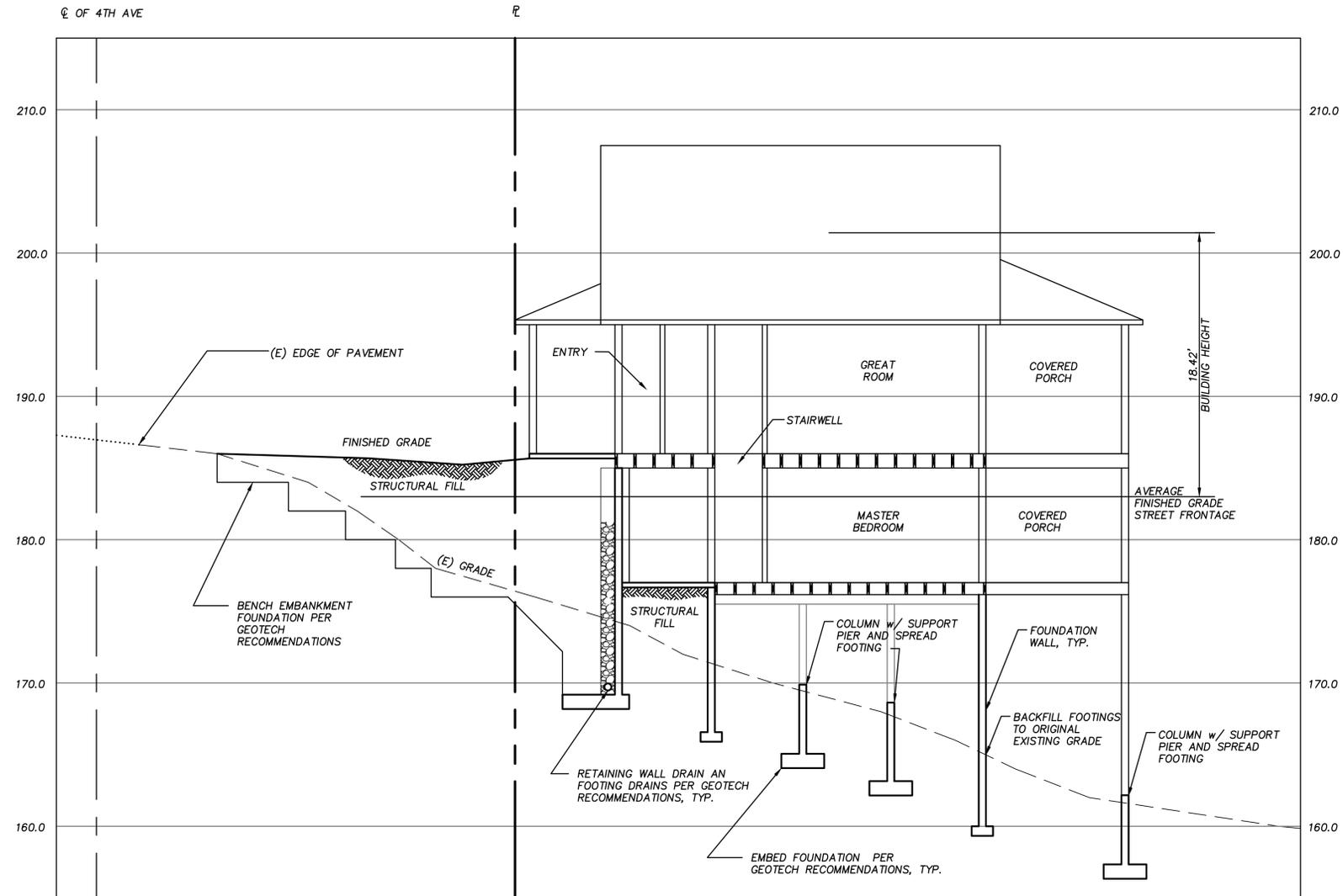
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PROJECT NUMBER **17-34**

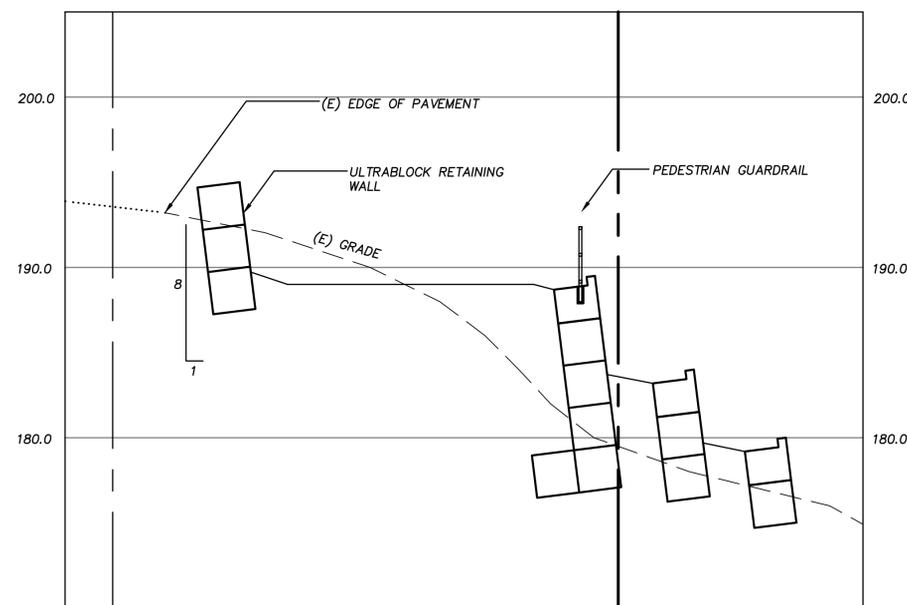
**SHEET 5**

OF 6 SHEETS

**C4**

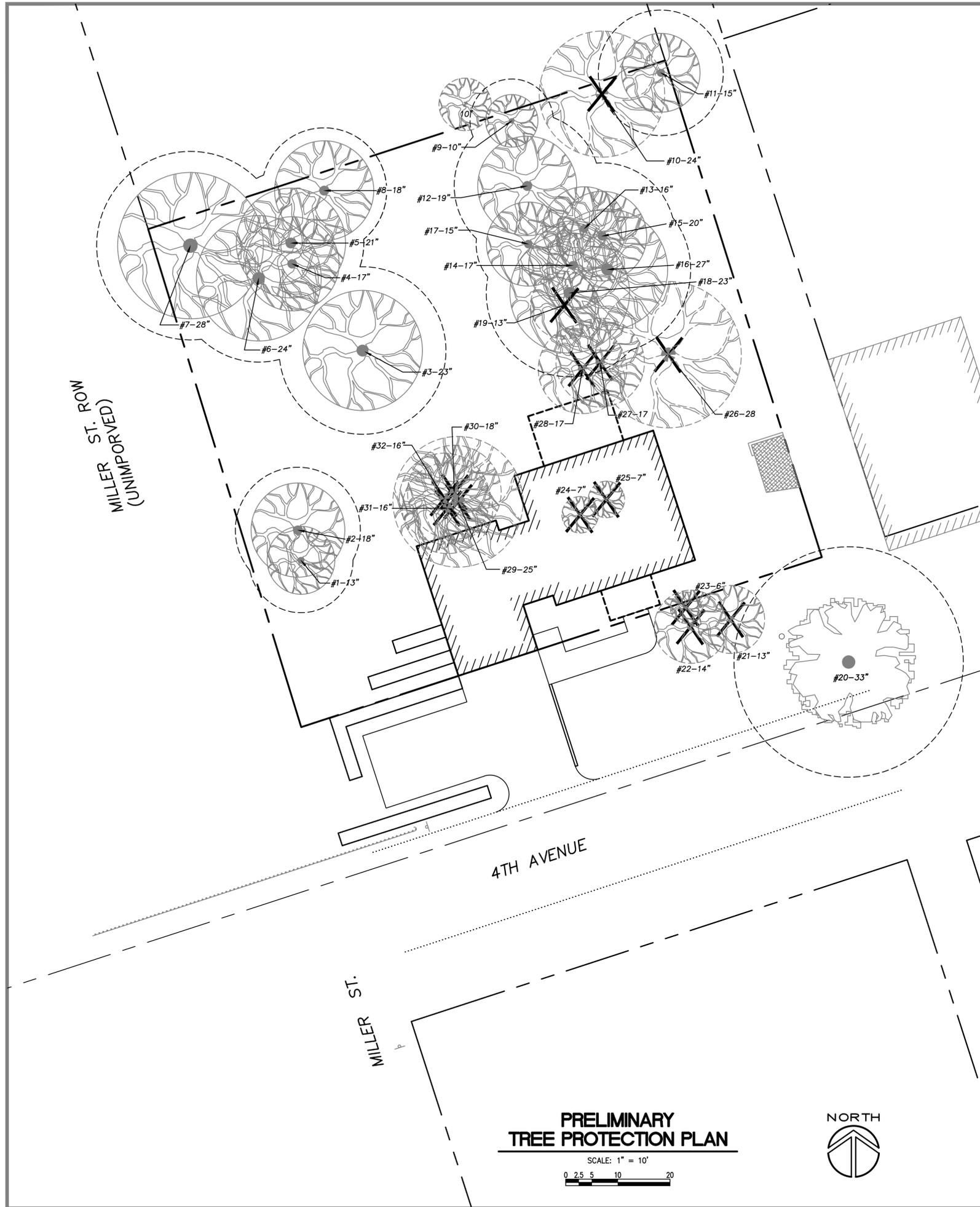


**1 SITE SECTION**  
SCALE: 1" = 5'



**2 SITE SECTION**  
SCALE: 1" = 5'

NOT FOR CONSTRUCTION



Lots 5 and 6 Block 9  
Oregon City

Tree Table

5/29/2018

Tag	Species	DBH1	DBH2	radius	Remarks	Action	RPZ	Remove	Location
1	bigleaf maple	13	13	8	viable	protect	10	0	1
2	bigleaf maple	18	18	10	viable; dead branches	protect	12	0	1
3	bigleaf maple	23	23	12	viable	protect	16	0	1
4	bigleaf maple	17	17	9	viable; low live crown ratio	protect	12	0	1
5	bigleaf maple	21	21	12	viable; large tension root	protect	14	0	1
6	bigleaf maple	24	24	12	codominant stems @ 20'; one stem is broken	protect	16	0	1
7	bigleaf maple	28	28	14	viable; codominant stems @ 4'	protect	18	0	1
8	bigleaf maple	18	18	9	over house; excessive endweight	protect	12	0	1
9	bigleaf maple	10	10	8	viable	protect	8	0	1
10	bigleaf maple	24	0	12	basal decay; stump suckers; hazardous houses	remove	0	0	1
11	bigleaf maple	15	15	8	cavity; over-extended stem	protect	12	0	1
12	bigleaf maple	19	19	8	viable	protect	14	0	1
13	bigleaf maple	16	16	8	over-extended	protect	10	0	1
14	bigleaf maple	17	17	8	viable; ivy	protect	12	0	1
15	bigleaf maple	20	20	12	ivy	protect	14	0	1
16	bigleaf maple	27	27	16	multiple stems from base	protect	16	0	1
17	bigleaf maple	15	15	12	viable; ivy	protect	10	0	1
18	bigleaf maple	25	25	16	viable; ivy	protect	16	0	1
19	bigleaf maple	13	0	8	trunk decay; ivy; hazardous to proposed house	remove	0	0	1
20	western redcedar	33	33	18	right-of-way; topped for power	protect	22	0	2
21	English holly	13	0	8	nuisance species; right-of-way	remove	0	0	2
22	bigleaf maple	14	0	10	topped for power; terminal decline	remove	0	0	2
23	filbert	6	0	6	stump suckers	remove	0	0	2
24	tree of heaven	7	0	8	nuisance species	remove	0	0	1
25	tree of heaven	7	0	8	nuisance species	remove	0	0	1
26	bigleaf maple	28	28	14	viable; ivy	remove	0	28	1
27	bigleaf maple	17	17	9	viable; ivy	remove	0	17	1
28	bigleaf maple	17	0	10	multiple stems; broken stem; overextended	remove	0	0	1
29	bigleaf maple	25	25	12	viable; ivy; codominant from base	remove	0	25	1
30	bigleaf maple	18	18	10	viable; ivy; codominant from base	remove	0	18	1
31	bigleaf maple	16	16	8	viable; ivy	remove	0	16	1
32	bigleaf maple	16	16	8	viable; ivy	remove	0	16	1

Portland Tree Consulting

Field work done 3/14 and 5/16/2018 by Ryan Neumann, PN-5539A



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CLIENT

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PORTLAND, OR 97266  
503-805-1774

PROJECT

CANEMAH  
RESIDENCE  
GEOLOGIC HAZARD

SITE ADDRESS

LOTS 5 AND 6, BLOCK 9  
OREGON CITY, OR 97045

SHEET NAME

PRELIMINARY  
TREE PROTECTION PLAN

REVISION

- △ 6/22/18 SHEET ADDED
- △
- △
- △
- △
- △

ISSUE DATE

JUNE 22, 2018

DRAWING FILE

17-34c.DWG

PROJECT NUMBER

17-34

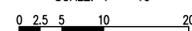
SHEET 6

L1

OF 6 SHEETS

PRELIMINARY  
TREE PROTECTION PLAN

SCALE: 1" = 10'



NORTH



NOT FOR CONSTRUCTION



**SEC**  
**Symons Engineering Consultants, Inc.**

12805 S.E. Foster Road  
Portland, OR 97236  
**(503) 760-1353**

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**GEOLOGIC HAZARDS REVIEW NARRATIVE**  
**for**  
**CANEMAH RESIDENCE**  
**OREGON CITY, OREGON**

Project No. 17-34

Prepared For:  
Dave Green

December 19, 2017

Site Location:  
TL's 7300 and 7303, Map 2S-1E-36DD  
Oregon City, OR 97045

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## **0.0 PROJECT INFORMATION**

### **0.1 OWNER:**

Dave Green  
Robert D. Green, General Contractor  
7537 SE 116th Ave  
Portland, OR 97266  
503.805.1774

### **0.2 REVIEWING AGENCY:**

City of Oregon City  
625 Center Street  
Oregon City, OR 97045  
503.657.0891

### **0.3 PROJECT ENGINEER:**

Dan Symons, P.E.  
Symons Engineering Consultants, Inc.  
12805 SE Foster Rd  
Portland, OR 97236  
503.760.1353

### **0.4 ENGINEERING GEOLOGIST:**

J. Douglas Gless, MSc, RG, CEG, LHG  
H.G. Schlicker & Associates, Inc.  
607 Main Street, Suite 200  
Oregon City, OR 97045  
503.655.8173

## **1.0 PROJECT OVERVIEW AND DESCRIPTION**

### **1.1 PROJECT DESCRIPTION**

Single Family Residence

### **1.2 SITE LOCATION AND GENERAL DESCRIPTION**

North side of 4<sup>th</sup> Avenue immediately east of Miller Street Right-of-Way (ROW), Canemah District. For a detailed site description see H.G. Schlicker & Associates Geologic Hazards and Geotechnical Investigation Report dated June 5, 2017.

## **2.0 NARRATIVE RESPONSE**

### **2.1 EXISTING SITE CONDITIONS**

Steeply sloping to the north with 4<sup>th</sup> Avenue gently sloping to the east, heavily vegetated and undeveloped. 4<sup>th</sup> Avenue roadbed shifted tight to the south ROW line due to topography. For a detailed geologic site description see H.G. Schlicker & Associates Geologic Hazards and Geotechnical Investigation Report dated June 5, 2017.

### **2.2 EXISTING BUILDINGS**

None. The existing building on the adjacent lot to the east is at the ROW line

### **2.3 EXISTING PUBLIC FACILITIES AND SERVICES**

4<sup>th</sup> Avenue is a partially improved public street, Miller Street ROW is undeveloped due to topography. Public water and sewer exist in 4<sup>th</sup> Avenue, public storm sewer is available in the Miller Street ROW. Private utilities are available in 4<sup>th</sup> Avenue, gas is available in both frontages.

### **2.4 WETLANDS CONDITIONS**

None known to exist.

### **2.5 STEEP SLOPE CONDITIONS**

Steep slope conditions are present. The site averages approximately 43% slope from south to north.

### **2.6 LANDSLIDES**

The site is mapped in an area of very high landslide susceptibility. For a detailed description regarding slope stability see H.G. Schlicker & Associates Geologic Hazards and Geotechnical Investigation Report dated June 5, 2017.

### **2.7 NATURAL FEATURES**

No significant natural features pertaining to this site exist other than some large diameter trees at the north end of the site to remain, and another near the southeast end of the site in the ROW, also to remain.

### 3.0 CODE RESPONSE

Written Response for each of the OCMC 17.44 Code Sections is Required. Written response should completely address each section of Chapter 17.44 with particular attention to sub sections:

Code citations are in *italics*, responses are in this font.

#### 3.1 INTENT AND PURPOSE

**(OCMC 17.44.010)**

*The intent and purpose of the provisions of this chapter are:*

*A. To ensure that activities in geologic hazard areas are designed based on detailed knowledge of site conditions in order to reduce the risk of private and public losses;*

The owner has acquired detailed knowledge of the geologic hazards associated with building in the area.

*B. To establish standards and requirements for the use of lands within geologic hazard areas;*

*C. To provide safeguards to prevent undue hazards to property, the environment, and public health, welfare, and safety in connection with use of lands within geologic hazard areas;*

The owner is following the recommendation of the engineering geologist to safeguard against undue hazards.

*D. To mitigate risk associated with geologic hazard areas, not to act as a guarantee that the hazard risk will be eliminated, nor as a guarantee that there is a higher hazard risk at any location. Unless otherwise provided, the geologic hazards regulations are in addition to generally applicable standards provided elsewhere in the Oregon City Municipal Code.*

The owner understands that this review does not guarantee that risks hazards will be eliminated.

#### 3.2 PERMIT AND APPROVAL REQUIREMENTS

**(OCMC 17.44.025)**

*No person shall engage in any of the following regulated activities within the adopted Oregon City Geologic Hazards Overlay Zone as defined in section 17.04.515 of the Oregon City Municipal Code without first obtaining permits or approvals as required by this chapter:*

*A. Installation or construction of an accessory structure greater than 500 square feet in area;*

*B. Development of land, construction, reconstruction, structural alteration, relocation or enlargement of any building or structure for which permission is required pursuant to the Oregon City Municipal Code;*

*C. Tree removal on slopes greater than 25 percent where canopy area removal exceeds 25 percent of the lot.*

*D. Excavation which exceeds two feet in depth, or which involves twenty-five or more cubic yards of volume;*

The owner proposes most all of the listed activities and seeks approval for these activities in the Geologic Hazards Overlay Zone.

*The requirements of this chapter are in addition to other provisions of the Oregon City Municipal Code. Where the provisions of this chapter conflict with other provisions of the Oregon City Municipal Code, the provisions that are the more restrictive of regulated development activity shall govern.*

### **3.3 PROCEDURES**

**(OCMC 17.44.030)**

*No building or site development permit or other authorization for development shall be issued until the plans and other documents required by this chapter have been reviewed and found by the review authority to comply with the requirements of this chapter.*

*A. Where the development is part of a land use permit application, review shall occur in the manner established in Chapter 17.50 for review of land use decisions.*

*B. Where the development is part of a limited land use permit application, review shall occur in the manner established in Chapter 17.50 for review of limited land use decisions.*

*C. Where the development is solely part of a grading permit or building permit, the city engineer may allow review to occur in the manner established in [Title 15](#), Chapters [15.04](#) and [15.48](#) if the application meets [Section 17.44.060](#) development standards.*

*D. For any other proposed development not otherwise subject to review as a land use or limited land use permit application, review shall occur in the manner established in Chapter 17.50 for limited land use decisions.*

The owner proposes to follow the review procedure for a land use decision with the goal of obtaining a building permit.

### **3.4 EXEMPTIONS**

**(OCMC 17.44.035)**

*The following activities, and persons engaging in same, are EXEMPT from the provisions of this chapter.*

*A. An excavation which is less than two feet in depth, or which involves less than twenty-five cubic yards of volume;*

*B. A fill which does not exceed two feet in depth or twenty-five cubic yards of volume;*

*C. Structural alteration of any structure of less than five hundred square feet that does not involve grading as defined in this chapter;*

*D. Installation, construction, reconstruction, or replacement of utility lines in city right-of-way, or public easement, not including electric substations;*

*E. The removal or control of noxious vegetation;*

*F. Emergency actions which must be undertaken immediately to prevent an imminent threat to public health or safety, or prevent imminent danger to public or private property. The person undertaking emergency action shall notify the building official on all regulated activities associated with any building permit or city engineer/public works director on all others within one working day following the commencement of the emergency activity. If the city engineer/public works director or building official*

determine that the action or part of the action taken is beyond the scope of allowed emergency action, enforcement action may be taken.

The proposed activities do not qualify for the above exemptions.

### **3.5 APPLICATION REQUIREMENTS**

**(OCMC 17.44.050)**

*Except as provided by subsection B. of this section, the following requirements apply to all development proposals subject to this chapter:*

- A. A geological assessment and geotechnical report that specifically includes, but is not limited to:
1. Comprehensive information and data regarding the nature and distribution of underlying geology, the physical and chemical properties of existing soils and groundwater; an opinion of site geologic stability, and conclusions regarding the effect of geologic conditions on the proposed development. In addition to any field reconnaissance or subsurface investigation performed for the site, the following resources, as a minimum, shall be reviewed to obtain this information and data:
    - a. The State of Oregon Department of Geology and Mineral Industries (DOGAMI) in Bulletin 99, *Geology and Geological Hazards of North Clackamas County, Oregon (1979)*, or in any subsequent DOGAMI mapping for the Oregon City area;
    - b. Portland State University study entitled "Environmental Assessment of Newell Creek Canyon, Oregon City, Oregon" (1992);
    - c. Portland State University study, "Landslides in the Portland, Oregon, Metropolitan Area Resulting from the Storm of February 1996: Inventory Map, Database and Evaluation" (Burns and others, 1998);
    - d. DOGAMI Open File Report O-06-27, "Map of Landslide Geomorphology of Oregon City, Oregon, and Vicinity Interpreted from LIDAR Imagery and Aerial Photographs" (Madin and Burns, 2006);
    - e. "Preliminary Geologic Map of the Oregon City Quadrangle, Clackamas County, Oregon" (Madin, in press);

For a detailed geologic assessment and geotechnical report see H.G. Schlicker & Associates Geologic Hazards and Geotechnical Investigation Report dated June 5, 2017.

2. Information and recommendations regarding existing local drainage, proposed permit activity impacts on local drainage, and mitigation to address adverse impacts;

Local drainage is uncontrolled as some runoff from the paved public street enters the property unmitigated. The projects intends to collect runoff from the new driveway which will inherently collect some runoff from the public street, pre-treat it with a trapped catch basin, and deliver it in closed conduit to the public storm sewer.

3. Comprehensive information about site topography;

See SEC Sheet C2 for detailed site topography.

4. Opinion as to the adequacy of the proposed development from an engineering standpoint;
5. Opinion as to the extent that instability on adjacent properties may adversely affect the project;
6. Description of the field investigation and findings, including logs of subsurface conditions and laboratory testing results;
7. Conclusions regarding the effect of geologic conditions on the proposed development, tree removal, or grading activity;

8. *Specific requirements and recommendations for plan modification, corrective grading, and special techniques and systems to facilitate a safe and stable site;*
9. *Recommendations and types of considerations as appropriate for the type of proposed development:*
  - a. *General earthwork considerations, including recommendations for temporary and permanent cut and fill slopes and placement of structural fill;*
  - b. *Location of residence on lot;*
  - c. *Building setbacks from slopes;*
  - d. *Erosion control techniques applicable to the site;*
  - e. *Surface drainage control to mitigate existing and potential geologic hazards;*
  - f. *Subdrainage and/or management of groundwater seepage;*
  - g. *Foundations;*
  - h. *Embedded/retaining walls;*
  - i. *Management of surface water and irrigation water; and*
  - j. *Impact of the development on the slope stability of the lot and the adjacent properties.*

For a detailed description of site adequacy and development recommendations see H.G. Schlicker & Associates Geologic Hazards and Geotechnical Investigation Report dated June 5, 2017.

10. *Scaled drawings that describe topography and proposed site work, including:*
  - a. *Natural physical features, topography at two or ten-foot contour intervals locations of all test excavations or borings, watercourses both perennial and intermittent, ravines and all existing and manmade structures or features all fully dimensioned, trees six-inch caliper or greater measured four feet from ground level, rock outcroppings and drainage facilities;*
  - b. *All of the features and detail required for the site plan above, but reflecting preliminary finished grades and indicating in cubic yards whether and to what extent there will be a net increase or loss of soil.*
  - c. *A cross-section diagram, indicating depth, extent and approximate volume of all excavation and fills.*

[11.] *For properties greater than one acre, a preliminary hydrology report, prepared by a suitably qualified and experienced hydrology expert, addressing the effect upon the watershed in which the proposed development is located; the effect upon the immediate area's stormwater drainage pattern of flow, the impact of the proposed development upon downstream areas and upon wetlands and water resources; and the effect upon the groundwater supply.*

See SEC drawings C1-Prelim Site Plan, C2-Prelim Grading and Erosion Control Plan, and C3-Prelim Utility & Drainage Plan, and C4-Prelim Site Sections dated December 19, 2017 for the above requirements. The property is less than one acre, no hydrology report is deemed necessary.

*B. Review procedures and approvals require the following:*

*1. Examination to ensure that:*

- a. *Required application requirements are completed;*
- b. *Geologic assessment and geotechnical report procedures and assumptions are generally accepted; and*
- c. *All conclusions and recommendations are supported and reasonable.*

*2. Conclusions and recommendations stated in an approved assessment or report shall then be directly incorporated as permit conditions or provide the basis for conditions of approval for the regulated activity.*

*3. All geologic assessments and geotechnical reports shall be reviewed by an engineer certified for expertise in geology or geologic engineering and geotechnical engineering, respectively, as determined*

by the city. The city will prepare a list of prequalified consultants for this purpose. The cost of review by independent review shall be paid by the applicant.

C. The city engineer may waive one or more requirements of subsections A and B of this section if the city engineer determines that site conditions, size or type or development of grading requirements do not warrant such detailed information. If one or more requirements are waived, the city engineer shall, in the staff report or decision, identify the waived provision(s), explain the reasons for the waiver, and state that the waiver may be challenged on appeal and may be denied by a subsequent review authority.

Review procedures duly noted.

### **3.6 DEVELOPMENT STANDARDS**

**(OCMC 17.44.060)**

*Notwithstanding any contrary dimensional or density requirements of the underlying zone, the following standards shall apply to the review of any development proposal subject to this chapter. Requirements of this chapter are in addition to other provision of the Oregon City Municipal Code. Where provision of this chapter conflict with other provision of the Oregon City Municipal Code, the provisions that are more restrictive of regulated development activity shall govern.*

*A. All developments shall be designed to avoid unnecessary disturbance of natural topography, vegetation and soils. To the maximum extent practicable as determined by the review authority, tree and ground cover removal and fill and grading for residential development on individual lots shall be confined to building footprints and driveways, to areas required for utility easements and for slope easements for road construction, and to areas of geotechnical remediation.*

The owner has sited the proposed residence at a zero front setback to minimize disturbance of natural topography which coincides with minimized tree removal. All of the trees over 14" DBH will remain. Only trees affected by construction, or their immediate proximity to the building, are proposed to be removed. Fill and grading and ground cover removal is limited to the footprint of the building, driveway, utility, and terraced retaining wall placement.

*B. All grading, drainage improvements, or other land disturbances shall only occur from May 1 to October 31. Erosion control measures shall be installed and functional prior to any disturbances. The city engineer may allow grading, drainage improvements or other land disturbances to begin before May 1 (but no earlier than March 16) and end after October 31 (but no later than November 30), based upon weather conditions and in consultation with the project geotechnical engineer. The modification of dates shall be the minimum necessary, based upon the evidence provided by the applicant, to accomplish the necessary project goals. Temporary protective fencing shall be established around all trees and vegetation designed for protection prior to the commencement of grading or other soil disturbance.*

All land disturbances are proposed for between May 1st and October 31<sup>st</sup>, 2018

*C. Designs shall minimize the number and size of cuts and fills.*

The zero front setback as proposed helps minimize cuts and fills as does the relative shallow depth proposed front to back of the proposed structure.

*D. Cut and fill slopes, such as those for a street, driveway accesses, or yard area, greater than seven feet in height (as measured vertically) shall be terraced. Faces on a terraced section shall not exceed five feet. Terrace widths shall be a minimum of three feet and shall be vegetated. Total cut and fill slopes shall not exceed a vertical height of fifteen feet. Except in connection with geotechnical remediation plans approved in accordance with the chapter, cuts shall not remove the toe of any slope that contains a known landslide or is greater than twenty-five percent slope. The top of cut or fill slopes*

*not utilizing structural retaining walls shall be located a minimum of one-half the height of the cut slope from the nearest property line.*

Fills are terraced such that wall heights are less than 7' as measured vertically and terraced faces are limited to 5'. Terrace widths are kept near the 3' minimum to reduce the amount of fill.

*E. Any structural fill shall be designed by a suitably qualified and experienced civil or geotechnical engineer licensed in Oregon in accordance with standard engineering practice. The applicant's engineer shall certify that the fill has been constructed as designed in accordance with the provisions of this chapter.*

*F. Retaining walls shall be constructed in accordance with the Oregon Structural Specialty Code adopted by the State of Oregon.*

Fills and retaining walls will be specified and designed in accordance with the recommendations of the engineering geologist and the Oregon Structural Specialty Code.

*G. Roads shall be the minimum width necessary to provide safe vehicle and emergency access, minimize cut and fill and provide positive drainage control. The review authority may grant a variance from the city's required road standards upon findings that the variance would provide safe vehicle and emergency access and is necessary to comply with the purpose and policy of this chapter.*

No roads are proposed.

*H. Density shall be determined as follows:*

- 1. For those areas with slopes less than twenty-five percent between grade breaks, the allowed density shall be that permitted by the underlying zoning district;*
- 2. For those areas with slopes of twenty-five to thirty-five percent between grade breaks, the density shall not exceed two dwelling units per acre except as otherwise provided in subsection I of this section;*
- 3. For those areas with slopes over thirty-five percent between grade breaks, development shall be prohibited except as otherwise provided in subsection I.4. of this section.*

Existing slopes on this site exceed 35%, density shall comply with subsection I.4 below.

*I. For properties with slopes of twenty-five to thirty-five percent between grade breaks:*

- 1. For those portions of the property with slopes of twenty-five to thirty-five percent, the maximum residential density shall be limited to two dwelling units per acre; provided, however, that where the entire site is less than one-half acre in size, a single dwelling shall be allowed on a lot or parcel existing as of January 1, 1994 and meeting the minimum lot size requirements of the underlying zone;*
- 2. An individual lot or parcel with slopes between twenty-five and thirty-five percent shall have no more than fifty percent or four thousand square feet of the surface area, whichever is smaller, graded or stripped of vegetation or covered with structures or impermeable surfaces.*
- 3. No cut into a slope of twenty-five to thirty-five percent for the placement of a housing unit shall exceed a maximum vertical height of fifteen feet for the individual lot or parcel.*
- 4. For those portions of the property with slopes over thirty-five percent between grade breaks:*
  - a. Notwithstanding any other city land use regulation, development other than roads, utilities, public facilities and geotechnical remediation shall be prohibited; provided, however, that the review authority may allow development upon such portions of land upon demonstration by an applicant that failure to permit development would deprive the property owner of all economically beneficial use of the property. This determination shall be made considering the entire parcel in question and contiguous parcels in common ownership on or after January 1, 1994, not just the portion where development is otherwise prohibited by this chapter. Where this showing can be made on residentially zoned land, development shall be allowed and limited to one single-family residence. Any development approved under this*

*chapter shall be subject to compliance with all other applicable city requirements as well as any applicable state, federal or other requirements;*

One single-family residence is proposed for the two parcels, failure to permit development would deprive the property owner of any economically beneficial use.

*b. To the maximum extent practicable as determined by the review authority, the applicant shall avoid locating roads, utilities, and public facilities on or across slopes exceeding thirty-five percent.*

No public roads, utilities, or facilities are proposed.

*J. The geotechnical engineer of record shall review final grading, drainage, and foundation plans and specifications and confirm in writing that they are in conformance with the recommendations provided in their report.*

Douglas Gless of H.G. Schlicker & Associates has reviewed the Prelim Site, Grading, Utility Plan and Sections and affirms the project approach as proposed in this application.

*K. At the city's discretion, peer review shall be required for the geotechnical evaluation/investigation report submitted for the development and/or lot plans. The peer reviewer shall be selected by the city. The applicant's geotechnical engineer shall respond to written comments provided by the city's peer reviewer prior to issuance of building permit.*

*L. The review authority shall determine whether the proposed methods of rendering a known or potential hazard site safe for construction, including proposed geotechnical remediation methods, are feasible and adequate to prevent landslides or damage to property and safety. The review authority shall consult with the city's geotechnical engineer in making this determination. Costs for such consultation shall be paid by the applicant. The review authority may allow development in a known or potential hazard area as provided in this chapter if specific findings are made that the specific provisions in the design of the proposed development will prevent landslides or damage. The review authority may impose any conditions, including limits on type or intensity of land use, which it determines are necessary to assure that landslides or property damage will not occur.*

H.G. Schlicker & Associates will respond to all questions or comments raised by the review authority.

### **3.7 ACCESS TO PROPERTY**

**(OCMC 17.44.070)**

*A. Shared private driveways may be required if the city engineer or principal planner determines that their use will result in safer location of the driveway and lesser amounts of land coverage than would result if separate private driveways are used.*

Shared private driveway is infeasible for this project.

*B. Innovations in driveway design and road construction shall be permitted in order to keep grading and cuts or fills to a minimum and to achieve the purpose and policy of this chapter.*

No roads or driveway length is proposed for this project, the proposed driveway is a simple connection on retained fill from the existing edge of pavement line to the garage at zero setback.

*C. Points of access to arterials and collectors shall be minimized.*

Only one point of access is proposed and that is to a local street.

D. The city engineer or principal planner shall verify that adequate emergency services can be provided to the site.

Duly noted.

### **3.8 UTILITIES**

**(OCMC 17.44.080)**

*All new service utilities, both on-site and off-site, shall be placed underground and under roadbeds where practicable. Every effort shall be made to minimize the impact of utility construction. Underground utilities require the geologic hazards permitting and review prescribed herein.*

Proposed utilities are shown on SEC Sheet C3. Existing power and communication utilities are overhead as will be the new services since the existing power pole is less than 23' from the corner of the proposed structure. Topography dictates a new storm service lateral to the Miller Street ROW, the gas service tap is proposed to be made at the same location to minimize site disturbance. Rain drains are proposed to be held high and plumbed under the structure to avoid the root protection zone (RPZ) of trees to remain. The understructure plumbing can serve as discharge point for the crawl space low point drain sump pump. It is recommended that this sump include a gravity overflow to daylight.

### **3.9 STORMWATER DRAINAGE**

**(OCMC 17.44.090)**

*The applicant shall submit a permanent and complete stormwater control plan. The program shall include, but not be limited to the following items as appropriate: curbs, gutters, inlets, catch basins, detention facilities and stabilized outfalls. Detention facilities shall be designed to city standards as set out in the city's drainage master plan and design standards. The review authority may impose conditions to ensure that waters are drained from the development so as to limit degradation of water quality consistent with Oregon City's Title III section of the Oregon City Municipal Code Chapter 17.49 and the Oregon City Public Works Stormwater Management Design Manual and Standards Plan or other adopted standards subsequently adopted by the city commission. Drainage design shall be approved by the city engineer before construction, including grading or other soil disturbance, has begun.*

See Sheet C3 Preliminary Utility & Drainage Plan for proposed drainage which includes collecting driveway and some street runoff, roof rain drains, retaining wall drains, and foundation and low point drains (not shown). It is the applicant's understanding that detention is not required in this location due to proximity to the Willamette River.

### **3.10 CONSTRUCTION STANDARDS**

**(OCMC 17.44.100)**

*During construction on land subject to this chapter, the following standards shall be implemented by the developer:*

*A. All development activity shall minimize vegetation removal and soil disturbance and shall provide positive erosion prevention measures in conformance with OCMC Chapter 17.47—Erosion and Sediment Control.*

See SEC Sheet C2 for Prelim Erosion Control measures which are typical for single family residential construction, the limited work window in this location also helps to minimize erosion potential.

*B. No grading, clearing or excavation of any land shall be initiated prior to approval of the grading plan, except that the city engineer shall authorize the site access, brush to be cleared and the location of the test pit digging prior to approval of such plan to the extent needed to complete preliminary and final engineering and surveying. The grading plan shall be approved by the city engineer as part of the city's review under this chapter. The developer shall be responsible for the proper execution of the approved grading plan.*

No site disturbance has occurred to date except that for surveying and geotechnical exploration. The applicant assumes responsibility for executed an approved Grading Plan.

*C. Measures shall be taken to protect against landslides, mudflows, soil slump and erosion. Such measures shall include sediment fences, straw bales, erosion blankets, temporary sedimentation ponds, interceptor dikes and swales, undisturbed buffers, grooving and stair stepping, check dams, etc. The applicant shall comply with the measures described in the Oregon City Public Works Standards for Erosion and Sedimentation Control (Ordinance 99-1013).*

*D. All disturbed vegetation shall be replanted with suitable vegetation upon completion of the grading of the steep slope area.*

*E. Existing vegetative cover shall be maintained to the maximum extent practicable. No grading, compaction or change in ground elevation, soil hydrology and/or site drainage shall be permitted within the drip line of trees designated for protection, unless approved by the city.*

See SEC Sheet C2 for Prelim Erosion Control measures which are typical for single family residential construction, the limited work window in this location also helps to minimize erosion potential. The project is neatly nestled between the RPZ's of the trees to remain. The only encroachment to any RPZ is some rockery work at the southeast corner (minor fill), and rear deck footing placement on the outer fringe of one RPZ.

*F. Existing perennial and intermittent watercourses shall not be disturbed unless specifically authorized by the review authority. This includes physical impacts to the stream course as well as siltation and erosion impacts.*

No watercourses known to exist onsite.

*G. All soil erosion and sediment control measures shall be maintained during construction and for one year after development is completed, or until soils are stabilized by revegetation or other measures to the satisfaction of the city engineer. Such maintenance shall be the responsibility of the developer. If erosion or sediment control measures are not being properly maintained or are not functioning properly due to faulty installation or neglect, the City may order work to be stopped. (Ord. 03-1014, Att. B3 (part), 2003: Ord. 94-1001 §2(part), 1994)*

Erosion control measures shall remain in place until hard finishes are complete and re-vegetation is well established.

*H. All newly created lots, either by subdivision or partition, shall contain building envelopes with a slope of thirty-five percent or less.*

Not applicable, no new lots are proposed to be created.

*I. The applicant's geotechnical engineer shall provide special inspection during construction to confirm that the subsurface conditions and assumptions made as part of their geotechnical evaluation/investigation are appropriate. This will allow for timely design changes if site conditions are encountered that are different from those anticipated.*

H. G. Schlicker in their geotechnical report requests the opportunity for site observation during construction. This is expected as a Condition of Approval.

*J. Prior to issuing an occupancy permit, the geotechnical engineer shall prepare a summary letter stating that the soils- and foundation-related project elements were accomplished in substantial conformance with their recommendations.*

H. G. Schlicker shall provide a summary letter of substantial conformance. This is expected as a Condition of Approval.

**3.11 APPROVAL OF DEVELOPMENT**

**(OCMC 17.44.110)**

*The city engineer shall review the application and verify, based on the applicant's materials and the land use record, whether the proposed development constitutes a hazard to life, property, natural resources or public facilities. If, in the city engineer's opinion, a particular development poses such a hazard, the city engineer shall recommend to the review authority permit conditions designed to reduce or eliminate the hazard. These conditions may include, but are not limited to, prohibitions on construction activities between November 1st and March 31st.*

**3.12 LIABILITY**

**(OCMC 17.44.120)**

*Approval of an application for development on land subject to this chapter shall not imply any liability on the part of the city for any subsequent damage due to earth slides. Prior to the issuance of a building permit, a waiver of damages and an indemnity and hold harmless agreement shall be required which releases the city from all liability for any damages resulting from the development approved by the city's decision.*

**3.13 COMPLIANCE**

**(OCMC 17.44.130)**

*Nothing contained in this chapter shall relieve the developer of the duty to comply with any other provision of law. In the case of a conflict, the more restrictive regulation shall apply.*

**3.14 APPEAL**

**(OCMC 17.44.140)**

*The review authority's decision may be appealed in the manner set forth in Chapter 17.50*

Sections 3.11 to 3.14 duly noted.

**TYPE II GEOLOGIC HAZARDS APPLICATION**  
**Applicant's Submittal**  
June 26 , 2018

**APPLICANT:** Robert D. Green  
7536 SE 116<sup>th</sup> Avenue  
Portland, OR 97266

**OWNER:** Robert D. Green  
Same

**REQUEST:** Geologic Hazards Review Approval for Single Family Residence

**LOCATION:** TL's 7300 and 7303, Map 2S-1E-36DD

**I. BACKGROUND:**

1. **Existing Conditions:** Steeply sloping to the north with 4<sup>th</sup> Avenue gently sloping to the east, heavily vegetated and undeveloped. 4<sup>th</sup> Avenue roadbed shifted tight to the south ROW line due to topography. For a detailed geologic site description see H.G. Schlicker & Associates Geologic Hazards and Geotechnical Investigation Report dated June 5, 2017.
2. **Project Description:** Single Family Residence

**II. RESPONSES TO THE OREGON CITY MUNICIPAL CODE:**

**GEOLOGIC HAZARDS – CHAPTER 17.44**

**17.44.035 - Exemptions.**

*The following activities, and persons engaging in same, are EXEMPT from the provisions of this chapter.*

- A. An excavation which is less than two feet in depth, or which involves less than twenty-five cubic yards of volume;*
- B. A fill which does not exceed two feet in depth or twenty-five cubic yards of volume;*
- C. Structural alteration of any structure of less than five hundred square feet that does not involve grading as defined in this chapter;*
- D. Installation, construction, reconstruction, or replacement of utility lines in city right-of-way, or public easement, not including electric substations;*
- E. The removal or control of noxious vegetation;*
- F. Emergency actions which must be undertaken immediately to prevent an imminent threat to public health or safety, or prevent imminent danger to public or private property. The person undertaking emergency action shall notify the building official on all regulated activities associated with any building permit or city engineer/public works director on all others within one working day following the commencement of the emergency activity. If the city engineer/public works director or building official determine that the action or part of the action taken is beyond the scope of allowed emergency action, enforcement action may be taken.*

**Applicant's Response:** Single Family Residence will involve excavation depths and quantities that will exceed the threshold for exemption, Geologic Hazards Review is required.

**17.44.050 Development - Application Requirements and Review Procedures and Approvals.**

*Except as provided by subsection B of this section, the following requirements apply to all development proposals subject to this chapter:*

A. *A geological assessment and geotechnical report that specifically includes, but is not limited to:*

1) *Comprehensive information and data regarding the nature and distribution of underlying geology, the physical and chemical properties of existing soils and groundwater; an opinion of site geologic stability, and conclusions regarding the effect of geologic conditions on the proposed development. In addition to any field reconnaissance or subsurface investigation performed for the site, the following resources, as a minimum, shall be reviewed to obtain this information and data:*

a) *The State of Oregon Department of Geology and Mineral Industries (DOGAMI) in Bulletin 99, Geology and Geological Hazards of North Clackamas County, Oregon (1979), or in any subsequent DOGAMI mapping for the Oregon City area;*

b) *Portland State University study entitled "Environmental Assessment of Newell Creek Canyon, Oregon City, Oregon" (1992);*

c) *Portland State University study, "Landslides in the Portland, Oregon, Metropolitan Area Resulting from the Storm of February 1996: Inventory Map, Database and Evaluation" (Burns and others, 1998);*

d) *DOGAMI Open File Report O-06-27, "Map of Landslide Geomorphology of Oregon City, Oregon, and Vicinity Interpreted from LIDAR Imagery and Aerial Photographs" (Madin and Burns, 2006);*

e) *"Preliminary Geologic Map of the Oregon City Quadrangle, Clackamas County, Oregon" (Madin, in press);*

**Applicant's Response:** Single Family Residence The applicant has procured the services of an engineering geologist to address the geotechnical and geological aspects of the project. Please refer to H.G. Schlicker & Associates Geologic Hazards and Geotechnical Investigation Report dated June 5, 2017, their December 21, 2017 review letter, and their May 9, 2018 memo.

2) *Information and recommendations regarding existing local drainage, proposed permit activity impacts on local drainage, and mitigation to address adverse impacts;*

**Applicant's Response:** Local drainage is uncontrolled as some runoff from the paved public street enters the property unmitigated. The projects intends to collect runoff from the new driveway which will inherently collect some runoff from the public street, pre-treat it with a trapped catch basin, and deliver it in closed conduit to the public storm sewer consisting of a steep 12" pipe running down the unimproved R-O-W serving Miller and a small portion of 5<sup>th</sup> Avenue above. The project intends to make a new connection to this pipe which at this slope has tremendous capacity. The 12" pipe continues to 3<sup>rd</sup> Avenue as part of 1994 sewer separation project. At 3<sup>rd</sup> Avenue it picks up some local inlets and turns east as a 15" pipe. The 15" hits a manhole midblock toward Hedges Street that also connects a basin to the east to a 36" pipe that discharges directly towards the Willamette River. Project detention is normally not required when located this close to the discharge at the river and none is proposed as part of this project. It is anticipated that the sewer separation project reduced flows to the 36" pipe and that Thomas Wright calculated for infill development when preparing the plans for that project. No mitigation is recommended as the project poses no negative impacts to local drainage.

*3) Comprehensive information about site topography;*

**Applicant's Response:** Site is steeply sloping to the north with 4<sup>th</sup> Avenue gently sloping to the east, heavily vegetated and undeveloped. 4<sup>th</sup> Avenue roadbed shifted tight to the south ROW line due to topography. For a detailed geologic site description see 2.0 Site Description in H.G. Schlicker & Associates Geologic Hazards and Geotechnical Investigation Report dated June 5, 2017. See SEC Sheet C2 for detailed site topography.

*4) Opinion as to the adequacy of the proposed development from an engineering standpoint;*

**Applicant's Response:** For a detailed description of site adequacy and development recommendations see 7.0 Conclusions and Recommendations in the H.G. Schlicker & Associates Geologic Hazards and Geotechnical Investigation Report dated June 5, 2017.

*5) Opinion as to the extent that instability on adjacent properties may adversely affect the project;*

**Applicant's Response:** The entire neighborhood is located in landslide terrain. No unusual instability was identified on adjacent properties that would adversely affect the project. See 7.0 Conclusions and Recommendations in the H.G. Schlicker & Associates Geologic Hazards and Geotechnical Investigation Report dated June 5, 2017.

*6) Description of the field investigation and findings, including logs of subsurface conditions and laboratory testing results;*

**Applicant's Response:** For a detailed description of field investigation and findings including logs of subsurface conditions please see H.G. Schlicker & Associates Geologic Hazards and Geotechnical Investigation Report dated June 5, 2017.

*7) Conclusions regarding the effect of geologic conditions on the proposed development, tree removal, or grading activity;*

**Applicant's Response:** Tree removal and grading has been minimized by the selected location of the proposed home as approved by the Historical Review process. The topography has as much of an effect on the project as the separate, but intimately related, geologic conditions. Foundations are required to be embedded and stepped up the hillside, or bear on deep foundations. See 7.0 Conclusions and Recommendations in the H.G. Schlicker & Associates Geologic Hazards and Geotechnical Investigation Report dated June 5, 2017. See SEC drawings C1-Prelim Site Plan, C2-Prelim Grading and Erosion Control Plan, and C3-Prelim Utility & Drainage Plan dated December 19, 2017, and C4-Prelim Site Sections dated May 14, 2018.

*8) Specific requirements and recommendations for plan modification, corrective grading, and special techniques and systems to facilitate a safe and stable site;*

**Applicant's Response:** No corrective grading, modification, or special techniques are proposed to facilitate a safe and stable site beyond what is recommended in 7.1 Site Preparation of the H.G. Schlicker & Associates Geologic Hazards and Geotechnical Investigation Report dated June 5, 2017. See SEC drawings C1-Prelim Site Plan, C2-Prelim Grading and Erosion Control Plan, and C3-Prelim Utility & Drainage Plan dated December 19, 2017, and C4-Prelim Site Sections dated May 14, 2018.

*9) Recommendations and types of considerations as appropriate for the type of proposed development:*

- a. General earthwork considerations, including recommendations for temporary and permanent cut and fill slopes and placement of structural fill,*
- b. Location of residence on lot,*

- c. Building setbacks from slopes,
- d. Erosion control techniques applicable to the site,
- e. Surface drainage control to mitigate existing and potential geologic hazards,
- f. Subdrainage and/or management of groundwater seepage,
- g. Foundations,
- h. Embedded/retaining walls,
- i. Management of surface water and irrigation water, and
- j. Impact of the development on the slope stability of the lot and the adjacent properties.

**Applicant's Response:**

- a. No permanent cuts or fills are proposed that won't be retained by engineered retaining walls. Temporary cuts will be made per the recommendations in 7.9 Cut and Fill Slopes of the H.G. Schlicker & Associates Geologic Hazards and Geotechnical Investigation Report dated June 5, 2017. Exceeding the specified limits shall only be done under the direction of the project geotechnical engineer.
- b. Location on lot is previously addressed above.
- c. Setbacks from slope are not feasible on this parcel.
- d. Erosion control shall be accomplished per the recommendations in 7.8 Erosion Control of the H.G. Schlicker & Associates Geologic Hazards and Geotechnical Investigation Report dated June 5, 2017. See Sheet C2-Prelim Grading and Erosion Control.
- e. Some surface drainage from 4<sup>th</sup> Avenue that is presently uncontrolled and possibly affecting soil saturation onsite will be collected along with runoff from proposed impervious surfaces and piped to the existing public storm sewer and in compliance with 7.10 Drainage of the H.G. Schlicker & Associates Geologic Hazards and Geotechnical Investigation Report dated June 5, 2017.
- f. Subsurface drainage will be managed around the proposed structure with the installation of footing drains and retaining wall drains in compliance with 7.10 Drainage and 7.6 Retaining Walls of the H.G. Schlicker & Associates Geologic Hazards and Geotechnical Investigation Report dated June 5, 2017.
- g. Foundations shall either be deep foundations, or bearing 4'-6' deep to get below the organics layer. Sheet C4-Prelim Site sections illustrates the latter.
- h. Retaining walls shall have their foundations embedded per 7.1 Site Preparation of the H.G. Schlicker & Associates Geologic Hazards and Geotechnical Investigation Report dated June 5, 2017.

10) *Scaled drawings that describe topography and proposed site work, including:*

- a. *Natural physical features, topography at two or ten-foot contour intervals locations of all test excavations or borings, watercourses both perennial and intermittent, ravines and all existing and manmade structures or features all fully dimensioned, trees six- inch caliper or greater measured four feet from ground level, rock outcroppings and drainage facilities;*
- b. *All of the features and detail required for the site plan above, but reflecting preliminary finished grades and indicating in cubic yards whether and to what extent there will be a net increase or loss of soil.*
- c. *A cross-section diagram, indicating depth, extent and approximate volume of all excavation and fills.*

**Applicant's Response:** See SEC drawings C1-Prelim Site Plan, C2-Prelim Grading and Erosion Control Plan, and C3-Prelim Utility & Drainage Plan dated December 19, 2017, and C4-Prelim Site Sections dated May 14, 2018.

11) *For properties greater than 1 acre, a preliminary hydrology report, prepared by a suitably qualified and experienced hydrology expert, addressing the effect upon the watershed in which the proposed development is located; the effect upon the immediate area's stormwater drainage pattern of flow, the impact of the*

*proposed development upon downstream areas and upon wetlands and water resources; and the effect upon the groundwater supply.*

**Applicant's Response:** Not applicable, the site is less than 1 acre.

**17.44.050.B.** *Review Procedures and Approvals require the following:*

- 1) *Examination to ensure that:*
  - a) *Required application requirements are completed;*
  - b) *Geologic assessment and geotechnical report procedures and assumptions are generally accepted; and*
  - c) *All conclusions and recommendations are supported and reasonable.*

**Applicant's Response:** The owner proposes to follow the review procedure for a land use decision with the goal of obtaining a building permit.

**17.44.050.B.2** *Conclusions and recommendations stated in an approved assessment or report shall then be directly incorporated as permit conditions or provide the basis for conditions of approval for the regulated activity.*

**Applicant's Response:** Duly noted.

**17.44.050.B.3** *All geologic assessments and geotechnical reports shall be reviewed by an engineer certified for expertise in geology or geologic engineering and geotechnical engineering, respectively, as determined by the City. The City will prepare a list of prequalified consultants for this purpose. The cost of review by independent review shall be paid by the applicant.*

**Applicant's Response:** The choice of peer reviewer was not given to the applicant. The applicant will appreciate swift efficiency on the part of the City's peer reviewer for the remainder of the project.

**17.44.050.C.** *The city engineer may waive one or more requirements of subsections A and B of this section if the city engineer determines that site conditions, size or type or development of grading requirements do not warrant such detailed information. If one or more requirements are waived, the city engineer shall, in the staff report or decision, identify the waived provision(s), explain the reasons for the waiver, and state that the waiver may be challenged on appeal and may be denied by a subsequent review authority.*

**Applicant's Response:** Duly noted.

**17.44.060** *Development Standards.*

*Notwithstanding any contrary dimensional or density requirements of the underlying zone, the following standards shall apply to the review of any development proposal subject to this chapter. Requirements of this chapter are in addition to other provision of the Oregon City Municipal Code. Where provision of this chapter conflict with other provision of the Oregon City Municipal Code, the provisions that are more restrictive of regulated development activity shall govern.*

**17.44.060.A** *All developments shall be designed to avoid unnecessary disturbance of natural topography, vegetation and soils. To the maximum extent practicable as determined by the review authority, tree and ground cover removal and fill and grading for residential development on individual lots shall be confined to building footprints and driveways, to areas required for utility easements and for slope easements for road construction, and to areas of geotechnical remediation.*

**Applicant's Response:** The applicant has sited the proposed residence at a zero front setback to minimize disturbance of natural topography which coincides with minimized tree removal. All of the trees over 14" DBH will remain. Only trees affected by construction, or their immediate proximity to the building, are proposed to be removed. Fill and grading and ground cover removal is limited to the footprint of the building, driveway, utility, and terraced retaining wall placement.

**17.44.060B** All grading, drainage improvements, or other land disturbances shall only occur from May 1 to October 31. Erosion control measures shall be installed and functional prior to any disturbances. The City Engineer may allow grading, drainage improvements or other land disturbances to begin before May 1 (but no earlier than March 16) and end after October 31 (but no later than November 30), based upon weather conditions and in consultation with the project geotechnical engineer. The modification of dates shall be the minimum necessary, based upon the evidence provided by the applicant, to accomplish the necessary project goals. Temporary protective fencing shall be established around all trees and vegetation designed for protection prior to the commencement of grading or other soil disturbance.

**Applicant's Response:** All land disturbances are proposed for between May 1st and October 31<sup>st</sup>, 2018. It is hoped that a swift approval can be obtained to salvage the 2018 building season.

**17.44.060.C** Designs shall minimize the number and size of cuts and fills.

**Applicant's Response:** The zero front setback as proposed helps minimize cuts and fills as does the relative shallow depth proposed front to back of the proposed structure.

**17.44.060.D** Cut and fill slopes, such as those for a street, driveway accesses, or yard area, greater than seven feet in height (as measured vertically) shall be terraced. Faces on a terraced section shall not exceed five feet. Terrace widths shall be a minimum of three feet and shall be vegetated. Total cut and fill slopes shall not exceed a vertical height of fifteen feet. Except in connection with geotechnical remediation plans approved in accordance with the chapter, cuts shall not remove the toe of any slope that contains a known landslide or is greater than twenty-five percent slope. The top of cut or fill slopes not utilizing structural retaining walls shall be located a minimum of one-half the height of the cut slope from the nearest property line.

**Applicant's Response:** Fills are terraced such that wall heights are less than 7' as measured vertically and terraced faces are limited to 5'. Terrace widths are kept near the 3' minimum to reduce the amount of fill.

**17.44.060.E** Any structural fill shall be designed by a suitably qualified and experienced civil or geotechnical engineer licensed in Oregon in accordance with standard engineering practice. The applicant's engineer shall certify that the fill has been constructed as designed in accordance with the provisions of this chapter.

**Applicant's Response:** Structural fills will be specified and designed in accordance with 7.7 Structural Fills of the H.G. Schlicker & Associates Geologic Hazards and Geotechnical Investigation Report dated June 5, 2017 and the Oregon Structural Specialty Code as part of the building permit process.

**17.44.060.F** Retaining walls shall be constructed in accordance with the Oregon Structural Specialty Code adopted by the State of Oregon.

**Applicant's Response:** Retaining walls will be specified and designed in accordance with 7.6 Retaining Walls of the H.G. Schlicker & Associates Geologic Hazards and Geotechnical Investigation Report dated June 5, 2017 and the Oregon Structural Specialty Code as part of the building permit process.

**17.44.060.G** Roads shall be the minimum width necessary to provide safe vehicle and emergency access, minimize cut and fill and provide positive drainage control. The review authority may grant a variance from the City's required road standards upon findings that the variance would provide safe vehicle and emergency access and is necessary to comply with the purpose and policy of this chapter.

**Applicant's Response:** Not applicable, no roads are proposed.

**17.44.060.H** *Density shall be determined as follows*

- 1) *For those areas with slopes less than twenty-five percent between grade breaks, the allowed density shall be that permitted by the underlying zoning district;*
- 2) *For those areas with slopes of twenty-five to thirty-five percent between grade breaks, the density shall not exceed two dwelling units per acre except as otherwise provided in subsection I of this section;*
- 3) *For those areas with slopes over thirty-five percent between grade breaks, development shall be prohibited except as otherwise provided in subsection I 4 of this section.*

**Applicant's Response:** Existing slopes on this site exceed 35%, density shall comply with subsection I.4 below.

**17.44.060.I** *For properties with slopes of twenty-five to thirty-five percent between grade breaks:*

- 1) *For those portions of the property with slopes of twenty-five to thirty-five percent, the maximum residential density shall be limited to two dwelling units per acre; provided, however, that where the entire site is less than one-half acre in size, a single dwelling shall be allowed on a lot or parcel existing as of January 1, 1994 and meeting the minimum lot size requirements of the underlying zone;*
- 2) *An individual lot or parcel with slopes between twenty-five and thirty-five percent shall have no more than fifty percent or four thousand square feet of the surface area, whichever is smaller, graded or stripped of vegetation or covered with structures or impermeable surfaces.*
- 3) *No cut into a slope of twenty-five to thirty-five percent for the placement of a housing unit shall exceed a maximum vertical height of 15 feet for the individual lot or parcel.*
- 4) *For those portions of the property with slopes over thirty-five percent between grade breaks:*
  - a. *Notwithstanding any other City land use regulation, development other than roads, utilities, public facilities and geotechnical remediation shall be prohibited; provided, however, that the review authority may allow development upon such portions of land upon demonstration by an applicant that failure to permit development would deprive the property owner of all economically beneficial use of the property. This determination shall be made considering the entire parcel in question and contiguous parcels in common ownership on or after January 1, 1994, not just the portion where development is otherwise prohibited by this chapter. Where this showing can be made on residentially zoned land, development shall be allowed and limited to one single-family residence. Any development approved under this chapter shall be subject to compliance with all other applicable City requirements as well as any applicable State, Federal or other requirements;*
  - b. *To the maximum extent practicable as determined by the review authority, the applicant shall avoid locating roads, utilities, and public facilities on or across slopes exceeding thirty-five percent.*

**Applicant's Response:** One single-family residence is proposed for the two parcels, failure to permit development would deprive the property owner of any economically beneficial use.

**17.44.060.J** *The geotechnical engineer of record shall review final grading, drainage, and foundation plans and specifications and confirm in writing that they are in conformance with the recommendations provided in their report.*

**Applicant's Response:** Douglas Gless of H.G. Schlicker & Associates has reviewed the Prelim Site, Grading, Utility Plan and Sections and affirms the project approach as proposed in this application. See their review memo dated December 21, 2017. He will also review Final Plans and Specifications as part of the building permit process.

**17.44.060.K** *At the City's discretion, peer review shall be required for the geotechnical evaluation/investigation report submitted for the development and/or lot plans. The peer reviewer shall be selected by the City. The applicant's geotechnical engineer shall respond to written comments provided by the City's peer reviewer prior to issuance of building permit.*

**Applicant's Response:** It is understood that this level of peer review will occur at the time of building permit review, otherwise the requirements of this section would apparently conflict with **17.44.050.B.3**

**17.44.060.L** *The review authority shall determine whether the proposed methods of rendering a known or potential hazard site safe for construction, including proposed geotechnical remediation methods, are feasible and adequate to prevent landslides or damage to property and safety. The review authority shall consult with the City's geotechnical engineer in making this determination. Costs for such consultation shall be paid by the applicant. The review authority may allow development in a known or potential hazard area as provided in this chapter if specific findings are made that the specific provisions in the design of the proposed development will prevent landslides or damage. The review authority may impose any conditions, including limits on type or intensity of land use, which it determines are necessary to assure that landslides or property damage will not occur.*

**Applicant's Response:** Duly noted.

**17.44.070** *Access to Property.*

- A. *Shared private driveways may be required if the city engineer or principal planner determines that their use will result in safer location of the driveway and lesser amounts of land coverage than would result if separate private driveways are used.*
- B. *Innovations in driveway design and road construction shall be permitted in order to keep grading and cuts or fills to a minimum and to achieve the purpose and policy of this chapter.*
- C. *Points of access to arterials and collectors shall be minimized.*
- D. *The city engineer or principal planner shall verify that adequate emergency services can be provided to the site.*

**Applicant's Response:**

- a. No shared driveways are proposed.
- b. No road construction is proposed. The driveway as designed allows for turned movements to occur before entering the paved roadway.
- c. Not applicable, 4<sup>th</sup> Avenue is neither an arterial or collector street.
- d. It is assumed 4<sup>th</sup> Avenue currently has adequate emergency access.

**17.44.080** *Utilities.*

*All new service utilities, both on-site and off-site, shall be placed underground and under roadbeds where practicable. Every effort shall be made to minimize the impact of utility construction. Underground utilities require the geologic hazards permitting and review prescribed herein.*

**Applicant's Response:** Power and communication services currently existing overhead and this project assumes overhead connections as well to minimize disturbance to the root zone of a large tree in the right-of-way, all other utilities will be underground.

**17.44.090** *Stormwater Drainage.*

*The applicant shall submit a permanent and complete stormwater control plan. The program shall include, but not be limited to the following items as appropriate: curbs, gutters, inlets, catch basins, detention facilities and stabilized outfalls. Detention facilities shall be designed to City standards as set out in the City's drainage master plan and design standards. The review authority may impose conditions to ensure that waters are drained from the development so as to limit degradation of water quality consistent with Oregon City's Title III section of the Oregon City Municipal Code Chapter 17.49 and the Oregon City Public Works Stormwater Management Design Manual and Standards Plan or other adopted standards subsequently adopted by the City Commission. Drainage design shall be approved by the city engineer before construction, including grading or other soil disturbance, has begun.*

**Applicant's Response:** Not applicable, no roads are proposed. The drainage plan is simple, see Sheet C3-Prelim Utility & Drainage Plan.

**17.44.100. Construction Standards.**

*During construction on land subject to this chapter, the following standards shall be implemented by the developer:*

**17.44.100.A** *All development activity shall minimize vegetation removal and soil disturbance and shall provide positive erosion prevention measures in conformance with OCMC Chapter 17.47 – Erosion and Sediment Control.*

**Applicant's Response:** See SEC Sheet C2 for Prelim Erosion Control measures which are typical for single family residential construction, the limited work window in this location also helps to minimize erosion potential.

**17.44.100.B** *No grading, clearing or excavation of any land shall be initiated prior to approval of the grading plan, except that the city engineer shall authorize the site access, brush to be cleared and the location of the test pit digging prior to approval of such plan to the extent needed to complete preliminary and final engineering and surveying. The grading plan shall be approved by the city engineer as part of the city's review under this chapter. The developer shall be responsible for the proper execution of the approved grading plan.*

**Applicant's Response:** No site disturbance has occurred to date except that for surveying and geotechnical exploration. The applicant assumes responsibility for executed an approved Grading Plan..

**17.44.100.C** *Measures shall be taken to protect against landslides, mudflows, soil slump and erosion. Such measures shall include sediment fences, straw bales, erosion blankets, temporary sedimentation ponds, interceptor dikes and swales, undisturbed buffers, grooving and stair stepping, check dams, etc. The applicant shall comply with the measures described in the Oregon City Public Works Standards for Erosion and Sedimentation Control (Ordinance 99-1013).*

**Applicant's Response:** See SEC Sheet C2 for Prelim Erosion Control measures which are typical for single family residential construction, the limited work window in this location also helps to minimize erosion potential.

**17.44.100.D** *All disturbed vegetation shall be replanted with suitable vegetation upon completion of the grading of the steep slope area.*

**Applicant's Response:** Duly noted. See Sheet C2-Prelim Grading & Erosion Control Plan for coverage of disturbed areas. Specifications for suitable vegetation will be provided on the Final Grading & Erosion Control Plan.

**17.44.100.E** *Existing vegetative cover shall be maintained to the maximum extent practicable. No grading, compaction or change in ground elevation, soil hydrology and/or site drainage shall be permitted within the drip line of trees designated for protection, unless approved by the City.*

**Applicant's Response**The project is neatly nestled between the Root Protection Zones (RPZ) of the trees to remain. The only encroachment to any RPZ is some rockery work at the southeast corner (minor fill), and rear deck footing placement on the outer fringe of one RPZ.

**17.44.100.F** *Existing perennial and intermittent watercourses shall not be disturbed unless specifically authorized by the review authority. This includes physical impacts to the stream course as well as siltation and erosion impacts.*

**Applicant's Response:** No watercourses known to exist onsite.

**17.44.100.G** *All soil erosion and sediment control measures shall be maintained during construction and for one year after development is completed, or until soils are stabilized by revegetation or other measures to the satisfaction of the city engineer. Such maintenance shall be the responsibility of the developer. If erosion or sediment control measures are not being properly maintained or are not functioning properly due to faulty installation or neglect, the City may order work to be stopped.*

**Applicant's Response:** Erosion control measures shall remain in place until hard finishes are complete and re-vegetation is well established.

**17.44.100.H** All newly created lots, either by subdivision or partition, shall contain building envelopes with a slope of 35% or less.

**Applicant's Response:** Not applicable, no new lots are proposed to be created

**17.44.100.I** The applicant's geotechnical engineer shall provide special inspection during construction to confirm that the subsurface conditions and assumptions made as part of their geotechnical evaluation/investigation are appropriate. This will allow for timely design changes if site conditions are encountered that are different from those anticipated.

**Applicant's Response:** H. G. Schlicker in their geotechnical report requests the opportunity for site observation during construction. This is expected as a Condition of Approval.

**17.44.100.J** Prior to issuing an occupancy permit, the geotechnical engineer shall prepare a summary letter stating that the soils- and foundation-related project elements were accomplished in substantial conformance with their recommendations.

**Applicant's Response:** H. G. Schlicker shall provide a summary letter of substantial conformance. This is expected as a Condition of Approval.

## **CHAPTER 17.50 - ADMINISTRATION AND PROCEDURES**

### *17.50.050 Preapplication Conference*

*A. Preapplication Conference. Prior to submitting an application for any form of permit, the applicant shall schedule and attend a preapplication conference with City staff to discuss the proposal. To schedule a preapplication conference, the applicant shall contact the Planning Division, submit the required materials, and pay the appropriate conference fee. At a minimum, an applicant should submit a short narrative describing the proposal and a proposed site plan, drawn to a scale acceptable to the City, which identifies the proposed land uses, traffic circulation, and public rights-of-way and all other required plans. The purpose of the preapplication conference is to provide an opportunity for staff to provide the applicant with information on the likely impacts, limitations, requirements, approval standards, fees and other information that may affect the proposal. The Planning Division shall provide the applicant(s) with the identity and contact persons for all affected neighborhood associations as well as a written summary of the preapplication conference. Notwithstanding any representations by City staff at a preapplication conference, staff is not authorized to waive any requirements of this code, and any omission or failure by staff to recite to an applicant all relevant applicable land use requirements shall not constitute a waiver by the City of any standard or requirement.*

*B. A preapplication conference shall be valid for a period of six months from the date it is held. If no application is filed within six months of the conference or meeting, the applicant must schedule and attend another conference before the city will accept a permit application. The community development director may waive the preapplication requirement if, in the Director's opinion, the development does not warrant this step. In no case shall a preapplication conference be valid for more than one year.*

**Applicant's Response:** No comment.

### *17.50.055 Neighborhood Association Meeting*

*The purpose of the meeting with the recognized neighborhood association is to inform the affected neighborhood association about the proposed development and to receive the preliminary responses and suggestions from the neighborhood association and the member residents.*

*1. Applicants applying for annexations, zone change, comprehensive plan amendments, conditional use, planning commission variances, subdivision, or site plan and design review (excluding minor site plan and design review), general development master plans or detailed development plans applications shall schedule and attend a meeting with the city-recognized neighborhood association in whose territory the application is proposed. Although not*

required for other projects than those identified above, a meeting with the neighborhood association is highly recommended.

2. The applicant shall send, by certified mail, return receipt requested letter to the chairperson of the neighborhood association and the citizen involvement committee describing the proposed project. Other communication methods may be used if approved by the neighborhood association.

3. A meeting shall be scheduled within thirty days of the notice. A meeting may be scheduled later than thirty days if by mutual agreement of the applicant and the neighborhood association. If the neighborhood association does not want to, or cannot meet within thirty days, the applicant shall hold their own meeting after six p.m. or on the weekend, with notice to the neighborhood association, citizen involvement committee, and all property owners within three hundred feet. If the applicant holds their own meeting, a copy of the certified letter requesting a neighborhood association meeting shall be required for a complete application. The meeting held by the applicant shall be held within the boundaries of the neighborhood association or in a city facility.

4. If the neighborhood association is not currently recognized by the city, is inactive, or does not exist, the applicant shall request a meeting with the citizen involvement committee.

5. To show compliance with this section, the applicant shall submit a sign-in sheet of meeting attendees, a summary of issues discussed, and letter from the neighborhood association or citizen involvement committee indicating that a neighborhood meeting was held. If the applicant held a separately noticed meeting, the applicant shall submit a copy of the meeting flyer, a sign in sheet of attendees and a summary of issues discussed.

**Applicant's Response:** Not applicable, Applicant has previously submitted evidence of Neighborhood Association involvement.

#### **CHAPTER 17.54.100 – FENCES, HEDGES AND WALLS**

**Applicant's Response:** A vegetative screen element North of the main portion of the structure consisting of wire fencing to guide growth of native vine plantings is reflected in the architectural plans to minimize visual massing and is a condition of approval of HR 16-02.

#### **CHAPTER 13.12 - STORMWATER MANAGEMENT**

13.12.050 - Applicability and exemptions.

*This chapter establishes performance standards for stormwater conveyance, quantity and quality.*

*Additional performance standards for erosion prevention and sediment control are established in OCMC 17.47.*

*A. Stormwater Conveyance. The stormwater conveyance requirements of this chapter shall apply to all stormwater systems constructed with any development activity, except as follows:*

- 1. The conveyance facilities are located entirely on one privately owned parcel;*
  - 2. The conveyance facilities are privately maintained; and*
  - 3. The conveyance facilities receive no stormwater runoff from outside the parcel's property limits.*
- Those facilities exempted from the stormwater conveyance requirements by the above subsection will remain subject to the requirements of the Oregon Uniform Plumbing Code. Those exempted facilities shall be reviewed by the building official.*

**Finding:** <Note – “Findings” are typically the responsibility of the reviewing body>

*B. Water Quality and Flow Control. The water quality and flow control requirements of this chapter shall apply to the following proposed uses or developments, unless exempted under subsection C:*

- 1. Activities located wholly or partially within water quality resource areas pursuant to Chapter 17.49 that will result in the creation of more than five hundred square feet of impervious surface within the WQRA or will disturb more than one thousand square feet of existing impervious surface within the WQRA as part of a commercial or industrial redevelopment project. These square footage measurements will be considered cumulative for any given five-year period; or*

2. Activities that create or replace more than five thousand square feet of impervious surface per parcel or lot, cumulated over any given five-year period.

**Finding:** <Note – “Findings” are typically the responsibility of the reviewing body>

*C. Exemptions. The following exemptions to subsection B of this section apply:*

1. An exemption to the flow control requirements of this chapter will be granted when the development site discharges to the Willamette River, Clackamas River or Abernethy Creek; and either lies within the one hundred-year floodplain or is up to ten feet above the design flood elevation as defined in Chapter 17.42, provided that the following conditions are met:

a. The project site is drained by a conveyance system that is comprised entirely of manmade elements (e.g. pipes, ditches, culverts outfalls, outfall protection, etc.) and extends to the ordinary high water line of the exempt receiving water; and

b. The conveyance system between the project site and the exempt receiving water has sufficient hydraulic capacity and erosion stabilization measures to convey discharges from the proposed conditions of the project site and the existing conditions from non-project areas from which runoff is collected.

2. Projects in the following categories are generally exempt from the water quality and flow control requirements:

a. Stream enhancement or restoration projects approved by the city.

b. Farming practices as defined by ORS 30.960 and farm use as defined in ORS 214.000; except that buildings associated with farm practices and farm use are subject to the requirements of this chapter.

c. Actions by a public utility or any other governmental agency to remove or alleviate an emergency condition.

d. Road and parking area preservation/maintenance projects such as pothole and square cut patching, surface sealing, replacing or overlaying of existing asphalt or concrete pavement, provided the preservation/maintenance activity does not expand the existing area of impervious coverage above the thresholds in subsection B of this section.

e. Pedestrian and bicycle improvements (sidewalks, trails, pathways, and bicycle paths/lands) where no other impervious surfaces are created or replaced, built to direct stormwater runoff to adjacent vegetated areas.

f. Underground utility projects that replace the ground surface with in-kind material or materials with similar runoff characteristics.

g. Maintenance or repair of existing utilities.

**Finding:** <Note – “Findings” are typically the responsibility of the reviewing body>

*D. Uses Requiring Additional Management Practices. In addition to any other applicable requirements of this chapter, the following uses are subject to additional management practices, as defined in the Public Works Stormwater and Grading Design Standards:*

1. Bulk petroleum storage facilities;

2. Above ground storage of liquid materials;

3. Solid waste storage areas, containers, and trash compactors for commercial, industrial, or multi-family uses;

4. Exterior storage of bulk construction materials;

5. Material transfer areas and loading docks;

6. Equipment and/or vehicle washing facilities;

7. Development on land with suspected or known contamination;

8. Covered vehicle parking for commercial or industrial uses;

9. Industrial or commercial uses locating in high traffic areas, defined as average daily count trip of two thousand five hundred or more trips per day; and

10. Land uses subject to DEQ 1200-Z Industrial Stormwater Permit Requirements.

**Finding: <Note – “Findings” are typically the responsibility of the reviewing body>**

13.12.080 - Submittal requirements.

A. Applications subject to stormwater conveyance, water quality, and/or flow control requirements of this chapter shall prepare engineered drainage plans, drainage reports, and design flow calculation reports in compliance with the submittal requirements of the Public Works Stormwater and Grading Design Standards.

B. Each project site, which may be composed of one or more contiguous parcels of land, shall have a separate valid city approved plan and report before proceeding with construction.

**Finding: <Note – “Findings” are typically the responsibility of the reviewing body>**

13.12.090 - Approval criteria for engineered drainage plans and drainage report.

An engineered drainage plan and/or drainage report shall be approved only upon making the following findings:

A. The plan and report demonstrate how the proposed development and stormwater facilities will accomplish the purpose statements of this chapter.

B. The plan and report meet the requirements of the Public Works Stormwater and Grading Design Standards adopted by resolution under Section 13.12.020.

C. The storm drainage design within the proposed development includes provisions to adequately control runoff from all public and private streets and roof, footing, and area drains and ensures future extension of the current drainage system.

D. Streambank erosion protection is provided where stormwater, directly or indirectly, discharges to open channels or streams.

E. Specific operation and maintenance measures are proposed that ensure that the proposed stormwater quantity control facilities will be properly operated and maintained.

**Finding: <Note – “Findings” are typically the responsibility of the reviewing body>**

13.12.100 - Alternative materials, alternative design and methods of construction.

The provisions of this chapter are not intended to prevent the use of any material, alternate design or method of construction not specifically prescribed by this chapter or the Public Works Stormwater and Grading Design Standards, provided any alternate has been approved and its use authorized by the city engineer. The city engineer may approve any such alternate, provided that the city engineer finds that the proposed design is satisfactory and complies with the intent of this chapter and that the material, method, or work offered is, for the purpose intended, at least the equivalent of that prescribed by this chapter in effectiveness, suitability, strength, durability and safety. The city engineer shall require that sufficient evidence or proof be submitted to substantiate any claims that may be made regarding its use. The details of any action granting approval of an alternate shall be recorded and entered in the city files.

**Finding: <Note – “Findings” are typically the responsibility of the reviewing body>**

13.12.120 - Standard construction specifications.

The workmanship and materials shall be in accordance with the edition of the "Standard Specifications for Public Works Construction," as prepared by the Oregon Chapter of American Public Works Association (APWA) and as modified and adopted by the city, in effect at the time of application. The exception to this requirement is where this chapter and the Public Works Stormwater and Grading

*Design Standards provide other design details, in which case the requirements of this chapter and the Public Works Stormwater and Grading Design Standards shall be complied with.*

**Finding:** <Note – “Findings” are typically the responsibility of the reviewing body>di

#### **CHAPTER 17.47 - EROSION AND SEDIMENT CONTROL**

*17.47.070 Erosion and sediment control plans.*

*A. An application for an erosion and sediment control permit shall include an erosion and sediment control plan, which contains methods and interim measures to be used during and following construction to prevent or control erosion prepared in compliance with City of Oregon City public works standards for erosion and sediment control. These standards are incorporated herein and made a part of this title and are on file in the office of the city recorder.*

**Applicant’s Response:** It is anticipated that Final Plans and Specifications incorporating any Conditions of Approval will be submitted for an erosion control permit if required as part of the building permit application.

#### **CHAPTER 15.48 - GRADING, FILLING AND EXCAVATING**

*15.48.030 Applicability—Grading permit required.*

*A. A city-issued grading permit shall be required before the commencement of any of the following filling or grading activities:*

- 1. Grading activities in excess of ten cubic yards of earth;*
- 2. Grading activities which may result in the diversion of existing drainage courses, both natural and man-made, from their natural point of entry or exit from the grading site;*
- 3. Grading and paving activities resulting in the creation of impervious surfaces greater than two thousand square feet or more in area;*
- 4. Any excavation beyond the limits of a basement or footing excavation, having an unsupported soil height greater than five feet after the completion of such a structure; or*
- 5. Grading activities involving the clearing or disturbance of one-half acres (twenty-one thousand seven hundred eighty square feet) or more of land.*

**Applicant’s Response:** It is anticipated that Final Plans and Specifications incorporating any Conditions of Approval will be submitted for a grading permit if required as part of the building permit application.

*15.48.090 Submittal requirements.*

*An engineered grading plan or an abbreviated grading plan shall be prepared in compliance with the submittal requirements of the Public Works Stormwater and Grading Design Standards whenever a city approved grading permit is required. In addition, a geotechnical engineering report and/or residential lot grading plan may be required pursuant to the criteria listed below.*

*A. Abbreviated Grading Plan. The city shall allow the applicant to submit an abbreviated grading plan in compliance with the submittal requirements of the Public Works Stormwater and Grading Design Standards if the following criteria are met:*

- 1. No portion of the proposed site is within the flood management area overlay district pursuant to Chapter 17.42, the unstable soils and hillside constraints overlay district pursuant to Chapter 17.44, or a water quality resource area pursuant to Chapter 17.49; and*
- 2. The proposed filling or grading activity does not involve more than fifty cubic yards of earth.*

*B. Engineered Grading Plan. The city shall require an engineered grading plan in compliance with the submittal requirements of the Public Works Stormwater and Grading Design Standards to be prepared by a professional engineer if the proposed activities do not qualify for abbreviated grading plan.*

*C. Geotechnical Engineering Report. The city shall require a geotechnical engineering report in compliance with the minimum report requirements of the Public Works Stormwater and Grading Design Standards to be prepared by a*

professional engineer who specializes in geotechnical work when any of the following site conditions may exist in the development area:

1. When any publicly maintained facility (structure, street, pond, utility, park, etc.) will be supported by an engineered fill;
2. When an embankment for a stormwater pond is created by the placement of fill;
3. When, by excavation, the soils remaining in place are greater than three feet high and less than twenty feet wide.

D. Residential Lot Grading Plan. The city shall require a residential lot grading plan in compliance with the minimum report requirements of the Public Works Stormwater and Grading Design Standards to be prepared by a professional engineer for all land divisions creating new residential building lots or where a public improvement project is required to provide access to an existing residential lot.

**Applicant's Response:** It is anticipated that Final Plans and Specifications incorporating any Conditions of Approval will be submitted for a grading permit if required as part of the building permit application.

### **WILLAMETTE RIVER GREENWAY – CHAPTER 17.48**

#### **17.48.080 Development standards--General considerations.**

The following considerations shall be applicable to all Willamette River Greenway permits.

- A. Access. Adequate public access to the Willamette River shall be considered and provided for.
- B. Protection and Safety. Maintenance of public safety and protection of public and private property, especially from vandalism and trespass, shall be provided for to the maximum extent practicable.
- C. Vegetative Fringe. The natural vegetative fringe along the Willamette River shall be protected and enhanced to the maximum extent practicable.
- D. Directing Development Away from the River. Development shall be directed away from the Willamette River to the greatest possible degree, provided that lands committed to urban uses within the Greenway may continue as urban uses, subject to the nonconforming use provisions of Chapter 17.58 of this title.
- E. A Greenway Setback. In each application, the approving officer or body shall establish a setback to keep structures separated from the Willamette River in order to protect, maintain, preserve and enhance the natural scenic, historic and recreational qualities of the Willamette River Greenway, as set forth in the city comprehensive plan; provided, however, that the requirement to establish such setbacks shall not apply to water-related or water-dependent uses.
- F. Other Applicable Standards. The Oregon Department of Transportation Greenway Plan, the Greenway portions of the city comprehensive plan, the Willamette River Greenway statutes and the provisions of Statewide Planning Goal 15, shall also be considered in actions involving Willamette River Greenway permits.

**Applicant's Response:** Not applicable, the subject parcel does not front the Willamette River.

#### **17.48.100 Compatibility review.**

- A. In all areas within one hundred fifty feet of the ordinary low-water line of the Willamette River, hereinafter referred to as the "compatibility boundary," the provisions of this subsection shall be applicable to all developments and changes or intensification of uses, so as to ensure their compatibility with Oregon's Greenway statutes, and to assure that the best possible appearance, landscaping and public access be provided.
- B. All development or changes or intensifications of uses in the compatibility area shall be approved only if the following findings be made by the planning commission.

1. That to the greatest extent possible, the development or change or intensification of use provides for the maximum possible landscaped area, open space or vegetation between the activity and the river.
  2. That to the greatest degree possible, necessary public access is provided to and along the Willamette River by appropriate legal means.
- C. Procedure for action on compatibility review shall be as set forth in Section 17.48.060 and shall include application of the relevant use management considerations and requirements provided in Sections 17.48.070 and 17.48.080. The planning commission, after notice and public hearing held pursuant to Chapter 17.50 shall approve issuance, approve issuance with conditions or disapprove issuance of the Willamette River Greenway conditional use permit. The application shall be accompanied by the fee listed in Chapter 17.52 to defray the costs of publication, investigation and processing.

**Applicant's Response:** Not applicable, the subject parcel is not within 150' of the Willamette River.

**17.48.110 Prohibited activities.**

The following are prohibited within the Willamette River Greenway:

- A. Any main or accessory residential structure exceeding a height of thirty-five feet;
- B. Structural bank protection, except rip rap or a channelization used as an emergency measure only to protect existing structures. Any such rip rap or channelization to stabilize undeveloped sites shall be prohibited as well;
- C. Subsurface sewage disposal drainfields within one hundred feet of the ordinary mean low-water line of the Willamette River.

**Applicant's Response:** Not applicable, the subject parcel is not within 150' of the Willamette River.

**CHAPTER 17.12 - "R-6" SINGLE-FAMILY DWELLING DISTRICT**

*17.12.040.A. Minimum lot area, six thousand square feet;*

**Applicant's Response:** The subject parcel 10,414 +/- s.f. with the two tax lots combined. This criteria is met.

*17.12.040.B. Minimum lot width, fifty feet;*

**Applicant's Response:** The subject parcel is in excess of 104' wide with the two tax lots combined. This criteria is met.

*17.12.040.C. Minimum lot depth, seventy feet;*

**Applicant's Response:** The subject parcel is in excess of 99.5' deep. This criteria is met.

*17.12.040.D. Maximum building height: two and one-half stories, not to exceed thirty-five feet. If an existing structure is being retained.*

**Applicant's Response:** The proposed structure is less than 18.5' high as measured by City definitions. This criteria is met.

*17.12.040.E Setbacks*

1. *Front yard: ten feet minimum depth.*

**Applicant's Response:** The front yard setback has been reduced to 7' to minimize disturbance area and fill volumes.

2. *Front porch, five feet minimum setback,*

**Applicant's Response:** The front porch setback has been reduced to 1' to minimize disturbance area and fill volumes.

3. *Attached and detached garage, twenty feet minimum setback from the public right-of-way where access is taken, except for alleys. Detached garages on an alley shall be setback a minimum of five feet in residential areas.*

**Applicant's Response:** The garage setback has been reduced to zero to minimize disturbance area and fill volumes.

4. *Interior side yard, nine feet minimum setback for at least one side yard; five feet minimum setback for the other side yard,*

**Applicant's Response:** The side yard setbacks exceed 24'. This criteria is met.

5. *Corner side yard, fifteen feet minimum setback,*

**Applicant's Response:** The side yard setbacks exceed 24'. This criteria is met.

6. *Rear yard, twenty-foot minimum setback*

**Applicant's Response:** The rear yard setback exceeds 66'. This criteria is met.

7. *Rear porch, fifteen-foot minimum setback.*

**Applicant's Response:** The rear porch setback exceeds 56'. This criteria is met.

17.12.040.G. *Maximum lot coverage: The footprint of all structures two hundred square feet or greater shall cover a maximum of forty percent of the lot area. If an existing structure is being retained.*

**Applicant's Response:** The lot coverage ratio does not exceed 14%. This criteria is met.

#### **CHAPTER 17.41 - TREE PROTECTION STANDARDS**

17.41.020 - *Tree protection—Applicability.*

1. *Applications for development subject to Chapters 16.08 or 16.12 (Subdivision or Minor Partition) or Chapter 17.62 (Site Plan and Design Review) shall demonstrate compliance with these standards as part of the review proceedings for those developments.*

2. *For public capital improvement projects, the city engineer shall demonstrate compliance with these standards pursuant to a Type II process.*

3. *Tree canopy removal greater than twenty-five percent on sites greater than twenty-five percent slope, unless exempted under Section 17.41.040, shall be subject to these standards.*

4. *A heritage tree or grove which has been designated pursuant to the procedures of Chapter 12.08.050 shall be subject to the standards of this section.*

17.41.030 - *Tree protection—Conflicting code provisions.*

*Except as otherwise specified in this section, where these standards conflict with adopted city development codes or policies, the provision which provides the greater protection for regulated trees or groves, as defined in Section 17.04, shall govern.*

**Applicant's Response:** Applicant is removing 20% of the Tree Canopy on Site.

17.41.040 - *Same—Exemptions.*

These regulations are not intended to regulate normal cutting, pruning and maintenance of trees on private property except where trees are located on lots that are undergoing development review or are otherwise protected within the Natural Resource Overlay District (NROD) of [section 17.49](#). These standards are not intended to regulate farm and forest practices as those practices are defined under ORS 30.930. Farm or forest resources. An applicant for development may claim exemption from compliance with these standards if the development site containing the regulated grove or trees was a designated farm or forest use, tree farm, Christmas tree plantation, or other approved timber use within one year prior to development application. "Forest practices" and "forestlands" as used in this subsection shall have the meaning as set out in ORS 30.930. The community development director has the authority to modify or waive compliance in this case.

**Applicant's Response:** N/A

*17.41.050 - Same—Compliance options.*

*Applicants for review shall comply with these requirements through one or a combination of the following procedures:*

*A. Option 1—Mitigation. Retention and removal of trees, with subsequent mitigation by replanting pursuant to Sections [17.41.060](#) or [17.41.070](#). All replanted and saved trees shall be protected by a permanent restrictive covenant or easement approved in form by the city.*

*B. Option 2—Dedicated Tract. Protection of trees or groves by placement in a tract within a new subdivision or partition plat pursuant to Sections [17.41.080](#)—[17.41.100](#); or*

*C. Option 3—Restrictive Covenant. Protection of trees or groves by recordation of a permanent restrictive covenant pursuant to Sections [17.41.110](#)—[17.41.120](#); or*

*D. Option 4—Cash-in-lieu of planting pursuant to [Section 17.41.130](#).*

*A regulated tree that has been designated for protection pursuant to this section must be retained or permanently protected unless it has been determined by a certified arborist to be diseased or hazardous, pursuant to the following applicable provisions.*

*The community development director, pursuant to a Type II procedure, may allow a property owner to cut a specific number of trees within a regulated grove if preserving those trees would:*

*1. Preclude achieving eighty percent of minimum density with reduction of lot size; or*

*2. Preclude meeting minimum connectivity requirements for subdivisions.*

**Applicant's Response:** No Mitigation is Required as less than 25% of Tree Canopy is Being Removed and the Site is Sloped Between 25 & 35 Degrees

*17.41.060 - Tree removal and replanting—Mitigation (Option 1).*

*A. Applicants for development who select this option shall ensure that all healthy trees shall be preserved outside the construction area as defined in [Chapter 17.04](#) to the extent practicable. Compliance with these standards shall be demonstrated in a tree mitigation plan report prepared by a certified arborist, horticulturalist or forester or other environmental professional with experience and academic credentials in forestry or arboriculture. At the applicant's expense, the city may require the report to be reviewed by a consulting arborist. The number of replacement trees required on a development site shall be calculated separately from, and in addition to, any public or street trees in the public right-of-way required under [section 12.08](#)—Community Forest and Street Trees.*

*B. The applicant shall determine the number of trees to be mitigated on the site by counting all of the trees six inch DBH (minimum four and one-half feet from the ground) or larger on the entire site and either:*

*1. Trees that are removed outside of the construction area, shall be replanted with the number of trees specified in Column 1 of Table 17.41.060-1. Trees that are removed within the construction area shall be replanted with the number of replacement trees required in Column 2; or*

*2. Diseased or hazardous trees, when the condition is verified by a certified arborist to be consistent with the definition in [Section 17.04.1360](#), may be removed from the tree replacement calculation. Regulated healthy trees that are removed outside of the construction area, shall be replanted with the number of trees specified in Column 1 of Table 17.41.060-1. Regulated healthy trees that are removed within the construction area shall be replanted with the number of replacement trees required in Column 2.*

Table 17.41.060-1

*Tree Replacement Requirements*

*All replacement trees shall be either:*

*Two-inch caliper deciduous, or*

*Six-foot high conifer*

<i>Size of tree removed (DBH)</i>	<i>Column 1 Number of trees to be planted. (If removed Outside of construction area)</i>	<i>Column 2 Number of trees to be planted. (If removed Within the construction area)</i>
<i>6 to 12"</i>	<i>3</i>	<i>1</i>
<i>13 to 18"</i>	<i>6</i>	<i>2</i>
<i>19 to 24"</i>	<i>9</i>	<i>3</i>
<i>25 to 30"</i>	<i>12</i>	<i>4</i>
<i>31 and over"</i>	<i>15</i>	<i>5</i>

*Steps for calculating the number of replacement trees:*

- 1. Count all trees measuring six inches DBH (minimum four and one-half feet from the ground) or larger on the entire development site.*
- 2. Designate (in certified arborists report) the condition and size (DBH) of all trees pursuant to accepted industry standards.*
- 3. Document any trees that are currently diseased or hazardous.*
- 4. Subtract the number of diseased or hazardous trees in step 3. from the total number of trees on the development site in step 1. The remaining number is the number of healthy trees on the site. Use this number to determine the number of replacement trees in steps 5. through 8.*
- 5. Define the construction area (as defined in [Chapter 17.04](#)).*
- 6. Determine the number and diameter of trees to be removed within the construction area. Based on the size of each tree, use Column 2 to determine the number of replacement trees required.*
- 7. Determine the number and diameter of trees to be removed outside of the construction area. Based on the size of each tree, use Column 1 to determine the number of replacement trees required.*
- 8. Determine the total number of replacement trees from steps 6. and 7.*

**Applicant's Response:** No Replacement Trees are Being Planted

*17.41.070 - Planting area priority for mitigation (Option 1).*

*Development applications which opt for removal of trees with subsequent replanting pursuant to section 17.41.050A. shall be required to mitigate for tree cutting by complying with the following priority for replanting standards below:*

*A. First Priority. Replanting on the development site.*

*B. Second Priority. Off-site replacement tree planting locations. If the community development director determines that it is not practicable to plant the total number of replacement trees on-site, a suitable off-site planting location for the remainder of the trees may be approved that will reasonably satisfy the objectives of this section. Such locations may include either publicly owned or private land and must be approved by the community development director.*

**Applicant's Response:** N/A

*17.41.075 - Alternative mitigation plan.*

The community development director may, subject to a Type II procedure, approve an alternative mitigation plan that adequately protects habitat pursuant to the standards for the natural resource overlay district alternative mitigation plan, [Section 17.49.190](#).

**Applicant's Response:** N/A

17.41.080 - Tree preservation within subdivisions and partitions—Dedicated tract (Option 2).

A. Applicants for new subdivision and partition plats may delineate and show the regulated trees or groves as either a separate tract or part of a larger tract that meets the requirements of subsection D. of this section.

B. The standards for land divisions subject to this section shall apply in addition to the requirements of the city land division ordinance and zoning ordinance, provided that the minimum lot area, minimum average lot width, and minimum average lot depth standards of the base zone may be superseded in order to allow for a reduction of dimensional standards pursuant to Section 17.41100 below.

C. Prior to preliminary plat approval, the regulated tree or grove area shall be shown either as a separate tract or part of a larger tract that meets the requirements of subsection D. of this section, which shall not be a part of any parcel used for construction of a structure. The size of the tract shall be the minimum necessary as recommended by a consulting arborist to adequately encompass the dripline of the tree, protect the critical root zone and ensure long term survival of the tree or grove.

D. Prior to final plat approval, ownership of the regulated tree or grove tract shall be identified to distinguish it from lots intended for sale. The tract may be identified as any one of the following:

1. Private open space held by the owner or a homeowners association; or
2. For residential land divisions, private open space subject to an easement conveying stormwater and surface water management rights to the city and preventing the owner of the tract from activities and uses inconsistent with the purpose of this document; or
3. At the owners option, public open space where the tract has been dedicated to the city or other governmental unit; or
4. Any other ownership proposed by the owner and approved by the community development director.

**Applicant's Response:** N/A

17.41.090 - Density transfers incentive for tree protection tracts (Option 2).

A. The purpose of this section is to allow dimensional adjustments within a regulated tree protection tract to be transferred outside said tract to the remainder of the site. This provision applies on-site and density shall not be transferred beyond the boundaries of the development site.

B. Development applications for subdivisions and minor partitions that request a density transfer shall:

1. Provide a map showing the net buildable area of the tree protection tract;
2. Provide calculations justifying the requested dimensional adjustments;
3. Demonstrate that the minimum lot size requirements can be met based on an average of all lots created, including the tree protection tract created pursuant to [Section 17.41.080](#);
4. Demonstrate that, with the exception of the tree protection tract created pursuant to [Section 17.41.080](#), no parcels have been created which would be unbuildable in terms of minimum yard setbacks;
5. Meet all other standards of the base zone except as modified in [section 17.41.100](#).

C. The area of land contained in a tree protection tract may be excluded from the calculations for determining compliance with minimum density requirements of the zoning code.

**Applicant's Response:** N/A

17.41.100 - Permitted modifications to dimensional standards (Option 2 only).

A. An applicant proposing to protect trees in a dedicated tract pursuant to [section 17.41.080](#) may request, and the community development director, pursuant to a Type II procedure, may grant a reduction to, the lot size, width, depth, and setbacks of the underlying zone district in approving a subdivision or partition if necessary to retain a regulated tree or grove in a tract, as long as the calculation of average lot size, including tree protection tracts, meet the minimum lot size for the zone. The applicant may choose to make the adjustments over as many lots as

required. For example, the lot reduction could be spread across all the remaining lots in the proposed subdivision or partition or could be applied to only those needed to incorporate the area of the tree tract.

**Table 17.41.100 A**  
**Lot Size Reduction**

<i>ZONE</i>	<i>Min. Lot Size [sq. feet]</i>	<i>Min. Lot Width</i>	<i>Min. Lot Depth</i>
<i>R-10</i>	<i>5,000 sq. feet</i>	<i>50'</i>	<i>65'</i>
<i>R-8</i>	<i>4,000 sq. feet</i>	<i>45'</i>	<i>60'</i>
<i>R-6</i>	<i>3,500 sq. feet</i>	<i>35'</i>	<i>55'</i>
<i>R-5</i>	<i>3,000 sq. feet</i>	<i>30'</i>	<i>50'</i>
<i>R-3.5</i>	<i>1,800 sq. feet</i>	<i>20'</i>	<i>45'</i>

**Table 17.41.100 B**  
**Reduced Dimensional Standards for Detached Single-Family Residential Units**

<i>Size of Reduced Lot</i>	<i>Front Yard Setback</i>	<i>Rear Yard Setback</i>	<i>Side yard Setback</i>	<i>Corner Side</i>	<i>Lot Coverage</i>
<i>8,000—9,999 square feet</i>	<i>15 feet</i>	<i>20 feet</i>	<i>7/9 feet</i>	<i>15 feet</i>	<i>40%</i>
<i>6,000—7,999 square feet</i>	<i>10 feet</i>	<i>15 feet</i>	<i>5/7 feet</i>	<i>15 feet</i>	<i>40%</i>
<i>4,000—5,999 square feet</i>	<i>10 feet</i>	<i>15 feet</i>	<i>5/5 feet</i>	<i>10 feet</i>	<i>40%</i>
<i>1,800—3,999 square feet</i>	<i>5 feet</i>	<i>15 feet</i>	<i>5/5 feet</i>	<i>10 feet</i>	<i>55%</i>

**Table 17.41.100 C**  
**Reduced Dimensional Standards for Single-Family Attached or Two-Family Residential Units**

<i>Size of Reduced Lot</i>	<i>Front Yard Setback</i>	<i>Rear Yard Setback</i>	<i>Side yard Setback</i>	<i>Corner Side</i>	<i>Lot Coverage</i>
<i>3,500—7,000 square feet</i>	<i>10 feet</i>	<i>15 feet</i>	<i>5/0* feet</i>	<i>10 feet</i>	<i>40%</i>
<i>1,800—3,499 square feet</i>	<i>5 feet</i>	<i>15 feet</i>	<i>5/0* feet</i>	<i>10 feet</i>	<i>55%</i>

*\*0 foot setback is only allowed on single-family attached units*

**Applicant's Response:** N/A, dimensional standards have already been modified during Historical Review.

17.41.110 - Tree protection by restrictive covenant (Option 3).

Any regulated tree or grove which cannot be protected in a tract pursuant to [Section 17.41.080](#) above shall be protected with a restrictive covenant in a format to be approved by the community development director. Such covenant shall be recorded against the property deed and shall contain provisions to permanently protect the regulated tree or grove unless such tree or grove, as determined by a certified arborist and approved by the community development director, are determined to be diseased or hazardous.

**Applicant's Response:** N/A

17.41.120 - Permitted adjustments (Option 3 Only).

A. The community development director, pursuant to a Type II procedure, may grant an adjustment to the side, front and rear yard setback standards by up to 50 percent if necessary to retain a Regulated Tree or Grove through a restrictive covenant pursuant to this section. In no case may the side yard setback be reduced less than three feet. The adjustment shall be the minimum necessary to accomplish preservation of trees on the lot and shall not conflict with other conditions imposed on the property.

B. The community development director, pursuant to a Type II procedure, may grant an adjustment to street standards, pursuant to adopted public works standards, in order to preserve a tree. This may include flexibility to redesign sidewalk and planter strip sizes and locations and allow placement of sidewalks and planter strips in an easement within private lots.

C. The community development director, pursuant to a Type II procedure, may allow other adjustments in order to preserve any healthy tree that cannot be moved due to its size, but will contribute to the landscape character of the area and will not present a foreseeable hazard if retained.

**Applicant's Response:** N/A

17.41.1[25] - Cash-in-lieu of planting (tree bank/fund) (Option 4).

The applicant may choose this option in-lieu-of or in addition to Compliance Options 1 through 3. In this case, the community development director may approve the payment of cash-in-lieu into a dedicated fund for the remainder of trees that cannot be replanted in the manner described above.

A. The cash-in-lieu payment per tree shall be as listed on the adopted fee schedule and shall be adjusted annually based on the Consumer Price Index (Index). The price shall include the cost of materials, transportation and planting.

B. The amount of the cash-in-lieu payment into the tree bank shall be calculated as the difference between the value of the total number of trees an applicant is required to plant, including cost of installation and adjusted for Consumer Price Index, minus the value of the trees actually planted. The value of the trees shall be based on the adopted fee schedule.

**Applicant's Response:** N/A

17.41.130 - Regulated tree protection procedures during construction.

A. No permit for any grading or construction of public or private improvements may be released prior to verification by the community development director that regulated trees designated for protection or conservation have been protected according to the following standards. No trees designated for removal shall be removed without prior written approval from the community development director.

**Applicant's Response:** Trees Scheduled to be Removed are Listed on the Tree Table

B. Tree protection shall be as recommended by a qualified arborist or, as a minimum, to include the following protective measures:

1. Except as otherwise determined by the community development director, all required tree protection measures set forth in this section shall be instituted prior to any development activities, including, but not limited to clearing, grading, excavation or demolition work, and such measures shall be removed only after completion of all construction activity, including necessary landscaping and irrigation installation, and any required plat, tract, conservation easement or restrictive covenant has been recorded.

2. *Approved construction fencing, a minimum of four feet tall with steel posts placed no farther than ten feet apart, shall be installed at the edge of the tree protection zone or dripline, whichever is greater. An alternative may be used with the approval of the community development director.*
3. *Approved signs shall be attached to the fencing stating that inside the fencing is a tree protection zone, not to be disturbed unless prior approval has been obtained from the community development director.*
4. *No construction activity shall occur within the tree protection zone, including, but not limited to; dumping or storage of materials such as building supplies, soil, waste items; nor passage or parking of vehicles or equipment.*
5. *The tree protection zone shall remain free of chemically injurious materials and liquids such as paints, thinners, cleaning solutions, petroleum products, and concrete or dry wall excess, construction debris, or run-off.*
6. *No excavation, trenching, grading, root pruning or other activity shall occur within the tree protection zone unless directed by an arborist present on site and approved by the community development director.*
7. *No machinery repair or cleaning shall be performed within ten feet of the dripline of any trees identified for protection.*
8. *Digging a trench for placement of public or private utilities or other structure within the critical root zone of a tree to be protected is prohibited. Boring under or through the tree protection zone may be permitted if approved by the community development director and pursuant to the approved written recommendations and on-site guidance and supervision of a certified arborist.*
9. *The city may require that a certified arborist be present during any construction or grading activities that may affect the dripline of trees to be protected.*
10. *The community development director may impose conditions to avoid disturbance to tree roots from grading activities and to protect trees and other significant vegetation identified for retention from harm. Such conditions may include, if necessary, the advisory expertise of a qualified consulting arborist or horticulturist both during and after site preparation, and a special maintenance/management program to provide protection to the resource as recommended by the arborist or horticulturist.*

**Applicant's Response:** See Tree Table & Tree Plan for Tree Protection Measures

*C. Changes in soil hydrology due to soil compaction and site drainage within tree protection areas shall be avoided. Drainage and grading plans shall include provision to ensure that drainage of the site does not conflict with the standards of this section. Excessive site run-off shall be directed to appropriate storm drainage facilities and away from trees designated for conservation or protection.*

**Applicant's Response:** Applicant will Comply with Above



**MEMO**

**TO:** Sang Pau **DATE:** June 22, 2018  
**FIRM:** City of Oregon City  
**FROM:** Dan Symons  
**PROJECT:** Green Canemah GHR US 17-11 **PROJECT No:** 17.34

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Thank you for your Revised Incompleteness Letter dated 4/4/18, we offer the following in response:

Development Services/Geotechnical Engineering

- 17-44.50.A See HGSA memo dated 5/9/18 attached for additional subject matter on the mapped landslide area.
- Local drainage consists of a steep 12" pipe running down the unimproved R-O-W serving Miller and a small portion of 5<sup>th</sup> Avenue above, the project intends to make a connection to this pipe which at this slope has tremendous capacity. The 12" pipe continues to 3<sup>rd</sup> Avenue as part of 1994 sewer separation project. At 3<sup>rd</sup> Avenue it picks up some local inlets and turns east as a 15" pipe. The 15" hits a manhole midblock toward Hedges Street that also connects a basin to the east to a 36" pipe that discharges directly towards the Willamette River. Project detention is normally not required when located this close to the discharge at the river and none is proposed as part of this project. It is anticipated that the sewer separation project reduced flows to the 36" pipe and that Thomas Wright calculated for infill development when preparing the plans for that project. No mitigation is recommended as the project poses no negative impacts to local drainage.
- Site specific recommendations for foundation and retaining wall conditions are contained in the 6/7/17 report prepared by HGSA.
- See HGSL memo dated 5/9/18 attached related to proposed retaining walls and their effects on global stability.
- Total earthwork cuts and fills were list on SEC Sheet C2 – Preliminary Grading and Erosion Control Plan dated 12/19/17. A 3D volume listed on 2D cross-sections would imply certain assumptions by the reviewer that may not be appropriate. The

geotechnical engineer's review of the cross-sections was furnished in the HGSA Memo dated 12/21/17.

### Advisory Comments

- Most restrictive provisions noted.
- The applicant respectfully disagrees with the statement the proposal does not meet the intent of OCMC Chapter 17.44, we will address these advisory comments below to demonstrate why.
- 17.44.060.A The reference to the project at 502 4<sup>th</sup> Avenue is not directly relatable, that parcel is upslope from the street and not nearly as constrained by topography. The placement of the structure at the R-O-W line with zero setback as approved by the HRB 16-02 assures the minimum amount of disturbance. To not fill between the street and the structure would leave significant drop-offs from the street and the entry of the home to the existing grade. Only enough fill is proposed to transition street grades to driveway and turnaround area.
- 17.44.060.C Cuts and fills have been minimized to the maximum extent practical without elevating all structures onto piles. The "pile supported" concept would violate the preservation standards of the HRB. The house foundations shown on the sections are shown at the depth of embedment as required by the project geotechnical engineer as indicated by the horizontal lines at each footing on Sheet C4 dated 12/19/17. These foundations in the crawl space will be backfilled to the existing grade line shown. Additional notation is provided on Sheet C4 dated 5/14/18 to further describe the intent.
- 17.44.060.D Other than benching for embankment foundation no permanent cuts are proposed, only a small cut of approximately 2' +/- is proposed at the vehicle turnaround area. See HGSA memo dated 5/9/18 attached regarding global stability.
- 17.44.060.F It is anticipated that a building permit will not be issued until retaining wall designs are in compliance with the Oregon Residential Specialty Code and the Oregon Structural Specialty Code for sliding, overturning and bearing capacity as they relate to this site's conditions. Additionally, global stability is addressed in the memo by HGSA dated 5/9/18 attached.
- Due to steep topography and the related narrow roadway improvements, private facilities in R-O-W and reduced setbacks are common in the Canemah neighborhood. Proposed site plan as submitted was approved per HR 16-02 with reduced front setbacks justified by way of preservation incentives. This placement reduces overall disturbance and further minimizes cuts and fills on the slope.
- The Revised Code Response Template was the first time the applicant was made aware of the need to address 17.41 Tree Protection Standards. This has required the addition of a project arborist and resulted in additional delay due to the backlog of the design community..

## Planning

- A. It has come to the applicant's attention that new material is being addressed in the 4/4/18 version of the Incompleteness Letter that was not included in the 1/19/18 version so it doesn't appear that the City has met the 30 day timeline.
  
- B. The applicant is providing a complete response with revised plans to show additional information, a revised narrative to include things not on the GHR submittal checklist, a revised narrative, and most importantly additional analysis from the geotechnical engineer confirming that the proposal presents no issues regarding global stability. In exchange for the violation of the 30 day rule regarding completeness review, the applicant requests that staff commit to a significant abbreviation of normal review period, as a minimum the 73 days lost between the 1<sup>st</sup> and 2<sup>nd</sup> Incompleteness Letters. We ask that the application be deemed complete and that if any discussion is needed to clarify the materials presented or address items through conditions of approval we will be happy to discuss over the phone or in person.

CC: Laura Terway  
Dave Green